

**THE FUNSTRUCTION SET.** Bill Harrison came across a set and generously sent it across as a gift. It is an Outfit that was marketed by Radio Shack (Tandy) in the U.S. for a short time around 1979; it contained MERKUR parts but the packing was done in America. The box it came in was huge for its content,  $21\frac{1}{2} \times 13\frac{1}{2} \times 2\frac{1}{4}$ ", and on the lid was 'Catalog No.60-2323', 'motorized funstruction', 'OVER 150 PARTS', and 'PRINTED & PACKAGED IN U.S.A. MADE IN CZECHOSLOVAKIA'. Also in a large yellow panel, 4 models that could be made from the Set, and, in full colour, a boy working a Big Wheel with 3x5 hole Flanged Plates in it which weren't in the Set. Inside the parts were in shaped transparent bubble packs on a light green card packing board, which meant there was no where to put the parts once they had been unpacked. But most of the opened bubbles remain so it does allow one to guess at some of the parts which are missing but which might have been included.

Before pursuing that consider the 52 page Manual: there is no Set Contents but the models indicate that the Set is basically a #4 MERKUR (see MCS MERKUR (C) p6). The models, 135 of them, are identical to those for Sets 1-4 in the MERKUR Manual Ref A, described in OSN 9. All the illustrations, though rearranged to fit onto a slightly smaller page size (189x139mm deep), are the MERKUR ones, and the Introduction is identical except for the omission of the Czech name. The only 'new' pages are the front cover and, on the two sides of the back cover, notes on using the Motor/Gear unit (it is not shown in any of the models), and a Price List for Extra Parts. MCS includes all those pages and also those showing the parts, except the one with the two Flanged Plate, #35,36. About 15 of these parts are not used in the set, nor were they available as Extras.

As found, making allowance for a few parts no doubt lost, the only variations from a #4 are (a) a Cargo Hook #96 as well as a #97; (b) about 30 extra N&B, and this would mean that, counting a N&B as one part, as MERKUR did in their Lists, the part count would be that many over the 154 for a Set 4, against the 'over 150' on the box; and (c) there is a space for the flat Screwdriver #80 and not the #81, Screwdriver with Handle, called for. On the lid is shown a small Screwdriver with a yellow translucent handle and there was a similar one in the box, but there was no place that I could see for it in the packaging.

The Motorized Gear Train is a small 3v motor (with JOHNSON HK No.120 on its plastic end), driving 3 stages of fine toothed gears to the final gear pressed onto a standard size shaft. Was it ever a standard MERKUR item or was it just in this Set? It is referred to as #100 (with #101 and 102 as parts of the Battery Holder), possible MERKUR PNs but 101 and 102 were probably used later for the Brackets which are numbered #1101 and 1102 in the 'new' scheme. The Battery Holder is made of thin red plastic, it holds 2 C cells and is 5.8" long.

The parts are finished in recognisable MERKUR colours, bright orange Strips and A/Gs, light blue Plates, green Pulleys and Trunnions, light yellow Bush Wheel, black Hook #96, and nickel brackets, DAS and 3-hole Strips. Collars and the  $\frac{1}{2}$ " Pulley are aluminium, bosses too except nickel ones on the Bush Wheel and 62mm Pulleys. All this nearly corresponds to the parts in a #7 Set that came with the large size Manual Ref B (in the MERKUR article), and so since FUNSTRUCTION with its models from the smaller Ref A Manual, was sold around 1979, this gives an indication of dates for these MERKUR Sets and Manuals. But the 'nearly' above: the FUN N&B, Reversed Angle Brackets, and 70mm Axles are a BZP finish, and this was not seen on parts in a MERKUR Set until the N&B in the Set with the Ref C Manual, and that had the darker orange Strips, and the date 1987 on its underside.

So still a few loose ends, but an afternoon and evening full of FUN, thank you Bill: I shall go to bed and dream beautiful MERKUR-like dreams.

**AMENDMENTS TO MCS** HOLE DIAMETER: 3.9mm. COLOUR: Change 'Red' to 'Orange.'

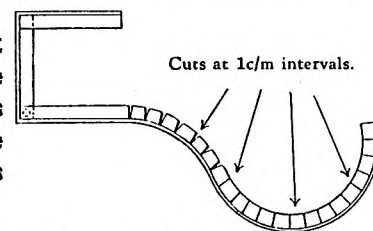
**N-G-NEERO and a French Connection.** First about N-G-NEERO, Geoff Wright kindly sent some details of a set he'd seen and Roger Baker let me admire, examine and take photos of a set he owns. This DIY system is well covered in MCS so just a few extra details on the parts and related matters:

- Most rotating parts are stamped N-G-NEERO MADE IN ENGLAND, and there is a narrow groove around the outside at the outer end of all the bosses seen except for Pinions and the Worm. Its width varies a little from part to part but typically it looks about .02", with a slightly greater depth.
- The Motor Car Wheel, N133, and the Railway Carriage Wheel, N138, have no bosses; the former can be driven by an Engaging Boss, N194, engaging in a slot provided in the outside face of the Wheel.
- All gears are made of brass, also all pulleys except the 70mm which is two steel halves spot welded together in four places, with the standard brass boss. Although it looks wide in MCS the V groove is only about 4mm across. It is painted dark red, the Car Wheel has the centre on the outside in the same colour, with the 'tyre' and rear face, dark grey; the Railway Wheel is painted a glossy black. No example of the Cart Wheel, N135, has been seen.
- Bosses are single tapped 1/8"BSW and are .314" dia with a bore of 3.40mm.
- Cranks, N123, come in a range of lengths up to, the longest seen, 9.7" overall. The handle portion

of all of them measures 1.2".

- In the Instruction Booklet it is stated that the Strips are 1cm wide and .8mm thick; Angle Bars are 1x1cm and .7mm thick - both are enamelled steel. The Rod is said to be 3.5mm dia but if so it wouldn't go through the bosses. N&B are 'brass 3mm dia with 6-sided Nuts'. From a photocopy of the N&B in a set the diameter of the Bolt looks about 1/8" and so the thread may be 1/8"BSW; the hexagonal Nut is 6mm A/F; and the Bolt has a cheesehead 5mm dia - in the Booklet it is shown roundheaded. The Eyelets, used as rivets, are brass too and, incidentally, the Tool supplied for removing them cuts off their formed heads and so they can't be used again.

- In the Instructions it is explained that to bend an Angle Bar it must first have one flange cut at 1cm intervals in the special slot in the Shearing Machine (see right). As far as I can see no material is removed during this operation and if this is the case where does the 'excess' material go when the cuts are on the inside of the curve? Has anyone tried this manoeuvre?



**FORGEACIER.** This is the French connection, as any assiduous student of MCS will have noticed: the Tools, Accessories, and even Models all look identical and have the same PNs, apart from some different prefixes. But the parts aren't quite the same, based on one Roue de Barillet FA130 (Bush Wheel, called Plate Wheel in N-G-NEERO), that was odd man out in a MECCANO lot. It is stamped FORGEACIER JEP FRANCE (JEP = Jouet de Paris, the maker) and the main difference is that the boss, still with the end groove, is larger in diameter at .336" (8.53mm), and is tapped M3.5. The bore is 3.45mm, slightly larger than the N-G-NEERO version but still not big enough to take a 3.5mm Rod. The o.d. of the disc is the same for both parts but the 6 holes in the English one are slightly larger than in the French. So this bears out the statement in the French literature, 100% Français, and in the English, 100% British Made. One further point on threads: with the N-G-NEERO parts I have are what I'm fairly sure is an N186 Winch Handle and an N187 Pillar Bearing, and the shanks of each are threaded 4BA, very near to the probable M3.5 of the French equivalent. The bore of the N187 (like a MECCANO #136) is again very slightly less than 3.5mm. N186 may look like a Threaded Pin but is .155" dia so it's a one purpose part, a Winch Handle like they say.

So which Set came first? Most of the indications point to FORGEACIER, for example, the basic dimensions are metric, and are described at one point in the English Instructions as French Measurements; again the Gantry Crane (MCS/FB p5) has a motor which has the same unusual shape as the FORGEACIER ones, and there is no mention at all of motors in the English literature. The only contra-indication I can find is that (English) Patent Nos are quoted in the N-G-NEERO Booklet but I haven't seen any such mention in the (limited) FORGEACIER material I've seen. Both Companies claim to have been awarded Gold Medals - 'Gold Medal - Paris Fair' - 'Médailles d'Or'.

**DETAILS OF BUCO-INGENIEUR** This is the Swiss system with wooden parts held together by metal brackets, see 6/134 and 7/162. Thanks to the generosity of Peter Kessler I am now the proud owner of the No.2 Set referred to in those articles and hence some more details are available:

- For the wooden parts the holes are at 17.5mm pitch and their diameter is 4.1mm. The Strips are 12mm wide and the both the Strips and the Plates are 4mm thick. All corners are square or nearly so.
- The 3 sizes of Pulley Wheel are 70, 40 and 20mm in diameter and vary in thickness, one size to another, from 8 to 9mm. The 2 larger diameters are perforated with holes to match the Bush Wheel, #16, and in the larger one there are 8 extra outer holes at 27mm radius, in groups of 2, with the holes in each group spaced at 17.5mm.
- The metal parts are made from 24 thou steel; the holes are 4.2mm and the outer holes in #14-18 are 17.5mm apart. Corners have a small radius of between 1 and 2mm.
- Bosses (PNs 16 and 27) are 9.50mm in diameter and have a bore of 4.06mm; the Collars are slightly smaller at 8.97mm dia. Both are brass and double tapped, and the Grub Screws (#45) are about 4mm long despite looking much longer in the Parts List.
- All threads are M4. N&B are brass: the hex Nuts measure 7.0mm A/F and the Bolts' cheeseheads are 6.0mm dia.
- Axles are 3.99mm dia with sheared square ends. The Hook is a zinc die casting and has BUCO cast into one side of its ball; the Cord is red. Parts #36,47-49 have not been seen.

I made a small model to try the parts and the Brackets proved well designed and were easy to use. To my eyes the model, an Invalid Carriage, looked very attractive and as with PRIMUS, the combination of wooden and metal parts was very effective, at least for an old fashioned type of model.

**AMENDMENTS TO MCS** HOLE DIAMETER: 4.1mm in wooden, 4.2 in the metal parts. HOLE SPACING: 17.5mm in wooden parts and between outer holes in Parts 14-18. COLOUR: Wheels red, Strips and Plates red, green, blue and yellow; Brackets have black metallic finish.

**AMENDMENTS TO INDEX IN OSN 6** TYPE: LG. CY: SW. THREAD: M4. SPCE: 17.5. dST: 4.1. DAXL: 3.99.

**EDITORIAL** An Index for OSN 1-30 has been compiled with 20 pages in the same style as before. I'll have photocopies made at the beginning of December & if possible please let me know before that if you would like one. The cost will be £2.30/2.90/3.80 for the usual postal zones. I've also added a page to the OSN web site ([www.osnl.co.uk](http://www.osnl.co.uk)) with the full Index on it, and it can be printed off for free - it's a large file though so may take a while to load with slower connections.

Work on updating the Database is underway and I hope to have it ready before the next Issue. There will be more space than before for additions to the main section, & it's likely to have 56 or 60 pages. At most the cost will be £9.50/10/11, & if you would like a copy it would help if you could let me know before Xmas. I hope to put the main, alphabetically sort on the web site but the total width is about that of a landscape A3 page & I've yet to find a way of persuading my A4 printer to print the right half of such a page from the web page, or a way to download the file in a form that would allow it to be printed.

Another addition to the Site is a page showing the parts of the French AUTO-CYCLE system. This is because I plan to include an article about it in the next Issue and there will not be room to show all the parts there. Of course enough about them will be included in the article to make it understandable but it seems a pity not to make all the details available. In this case they occupy 8 A4 sides and it should be possible to print each of the original sides onto a landscape A4 or US Letter page.

It may be that I will add other material of like nature in the future, and possibly articles for which there is no immediate space in the Newsletter. Another reason for using the web to supplement articles is that copies of MCS are no longer available (except Tim's MECCANO CD of course), and so an increasing number of readers cannot refer to it.

Which brings me to the MCS Extra Sheets that were available with Issues 7-27. A new reader recently asked me if I knew of any for sale and didn't realise that I could still supply them, although now only 2 complete sets are left. A set consists of 598 sheets, most double-sided, and the total price is £100/104/118. Like MCS it seems unlikely that the Extra Sheets will be reprinted in the foreseeable future.

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

1. From Jacques Pitrat. Some more information on the **LITTLE JIM Train Construction Sets**, made by Metalcraft for the J.C.Penney store, see 23/677-8 & 24/691. There were three sets: 100, 200 & 300, and their contents were exactly the same as those of METALCRAFT Sets 980, 981 & 982. The lid of the 300 is as described in OSN 24 except that the 12 Cars that can be made are shown on it. 'Builds 4 at one time' it says on the lid but that does not mean any 4 Cars, for example one cannot build the Coal Car & the Armored Car simultaneously. It is also claimed that the Cars can fit any gauge track, but the two lengths of Axle in the Set allow only O gauge & a wider gauge - and for the latter the Wheels have to be outside the Trucks and look very awkward.

**LITTLE JIM Train Construction Sets: S1** [31/908]

2. Josep Bernal wrote that he has some **C.I.G.E.A.** brass parts and they are threaded M4 (see 27/789).

**C.I.G.E.A: S1** [31/908]

3. Jack Little sent a November 1947 Colton, Palmer & Preston trade ad for **EZY-BILT**. It shows Sets 1-8 in a pile so only the lid of the top box can be seen. It is just like the one in 28/837 with the 2 boys & galleon, except that the ad is in red & black only, so no green bits. This is the earliest sighting of the 1-8 range. The ad shows all the boxes the same size but Jack wrote that while they were all tin, the 1-3 were smaller than the 6-8 - the 4 & 5 have yet to be seen. Also in the ad, the sole agents: 'GEO. WILLS & CO. LTD., in all Capital Cities'.

**EZY-BILT: S2** [31/908]

4. In 10/244 it was noted that the vee of the **N-G-NEERO** MECCANO-type 70mm Pulley is quite narrow and David Hobson pointed out to me that its illustration in MCS, identical to the **FORGEACIER** one (N-G-NEERO was virtually a copy of FORGACIER, presumably made under licence), makes it look much wider. Some FORGEACIER parts came to hand recently and sure enough the 70mm Pulley is wide like the illustration, and that's because it is like a MÄRKLIN Flanged Disc Pulley with a single flanged disc, and not 2 discs riveted together. The pattern of piercing in the faces of the 2 types is the same.

Although most parts in the 2 systems look very similar there are small differences of detail. The most obvious is in the name stamped on most circular parts, with FORGEACIER JEP FRANCE on the French parts instead of N-G-NEERO MADE IN ENGLAND. The punched holes are about 3.6mm and the N&B in the only NGN set examined are the metric M3; the FOR equivalents are referred to as 3mm in the French instructions and are no doubt the same. But the threads used in the other parts differ. FOR/NGN bosses are tapped M3.5/8" BSW, and the threads on other parts like the Threaded Pin & Handrail Support are M3.5/4BA. Axles are about the same size, 3.43mm Ø for the few NGN examples seen and 3.43-3.54 for some FOR parts. (In passing both lots of parts included 3 different lengths of Crank Handle, from 145 to 245mm o/a. I had thought, from the 'per bag, containing:- N123 7 cranks, various lengths' in the NGN Parts List, and a similar entry for FOR, that there were actually 7 different lengths. But 7 does seem a little excessive, especially in a system in which such parts can be cut to any length, and probably the 'various lengths' meant only the 3 seen. Some illustrations of the Accessory Set show what appears to be more than 3 lengths but a FOR example to hand, mostly still strung, has 2 each of the 3 lengths, but arranged so they look to be 6 different lengths - their ends hidden under a card for other parts.)

On dates, David has found the relevant UK patent, No.381348. It is in the name of the Société Industrielle de Ferblanterie, of Boulevard Beaumarchais, Paris, and its application Date was 21/10/31. It has a convention date of 21/10/30, a year earlier, and so there will be a corresponding French patent of that date. The patent describes the workshop-box of tools & materials, and the advantages of the system. There is also a patent of addition from the same company, UK 384215, application date 17/6/32, convention date 15/10/31. This describes the use of the lid of the workshop-box as a baseplate for the cutting & perforating machines, and it also describes the shearing & bending tools. David commented that the use of the lid in this way would seem an important feature to avoid damage to table tops and parent/child relations. In fact the lid was fitted with rubber feet

& the benefit of this in allowing use anywhere, without fear of damage, was pointed out in both the FOR & NGN instructions.

On the end dates, nothing is known of NGN after WW2 but David found FOR listed in a 1954 & 1955 dealer's catalogue, but not in the 1959 edition. He also mentioned that catalogue pages showing FOR, from 1931 to 1951, are in a book called *Le Jouet de Paris JEP 1902-1968*.

**FORGEACIER: S1; N-G-NEERO: S1** [31/908-9]

5. Don Redmond commented that the number of **KONSTRUKTOR** systems, 18 at present, makes it difficult to identify any particular one, and that wherever possible the 'official' name should include any qualifying name on the box, transliterated of course. I'd rather given up doing this because sometimes the name on the set isn't the same as the one on the manual, sometimes the names on sets in the same range differ, and sometimes the names have stylised or cursive letters which makes transliteration difficult or even impossible. However I can see that for anyone prepared to do the necessary transliteration, the extra name would help in the critical case of having a set or manual and wanting to identify which **KONSTRUKTOR** it is in the OSN Index or Database. The transliteration table that I use for normal characters was given in 4/75, and below (thanks to Michael Denny) one for

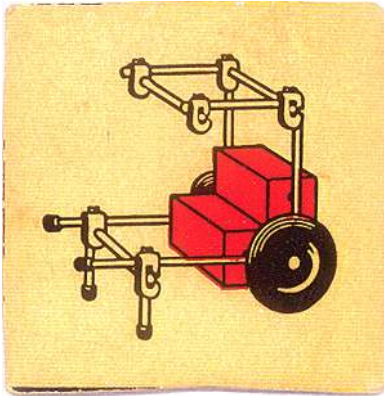
Printed form	Cursive form	П	п	Π	π
А	а	Р	р	Р	р
Б	б	С	с	С	с
В	в	Т	т	Π	т
Г	г	У	у	У	у
Д	д	Ф	ф	Ф	ф
Е	е	Х	х	Х	х
Ё	ё	Ц	ц	Ц	ц
Ж	ж	Ч	ч	Ч	ч
З	з	Ш	ш	Ш	ш
И	и	Щ	щ	Щ	щ
Й	й	Ъ	ъ	Ъ	ъ
К	к	Ы	ы	Ы	ы
Л	л	Ь	ь	Ь	ь
М	м	Э	э	Э	э
Н	н	Ю	ю	Ю	ю
О	о	Я	я	Я	я

their cursive form. In the end though I suspect that the real answer would be an illustrated index with small photos of the logo, lid(s), manual cover(s), etc for each system. Comments on all this would be welcome.

**Cyrillic Names** [31/909]

6. Don also sent some details of John Wapshott's **LIL'N-GINEER** set (see 27/782), or rather a set of parts in a chocolate box, with the name from the original lid pasted on to its lid.

The form of this name, left, differs from the one in OSN 27 (even though there may originally been another word after CONSTRUCTION). There was no model sheet with the set but 6 cards, 5\*5cm, with a model on each.



The model on the one left isn't included in the OSN 27 model sheet; the others are but the drawings differ a little in each case. Some of the parts are not quite the same either, notably the dimensions of the wheels: Don gave the o.d. of their Tires as 27, 30, & 33mm, but it isn't sure which of them are original.

**LIL'N-GINEER: S1** [31/909]

7. News from Paul Goodman that deliveries of the **MÄRKLIN METALL Excavator Set** were stopped until a mistake in the instructions was corrected – they were due to resume around August/September. Paul also sent a better photo and some notes on the model. All the movements are hand operated by Cranks on one side of the cab but there is probably enough room inside to house Motors, etc. The tracks are based on the MetallusTrack Set with nearly 1600 parts. Looking at the photo there are probably special Plates used in the cab & bucket.

**MÄRKLIN: S2** [31/909]

8. Paul also recently visited the **AUTOMAT** factory and kindly sent me a current catalogue. It is identical to the 1993 one described in OSN 21 but there may have been some small changes in the contents of the current sets. With it a leaflet showing 5 Junior Gear Kits not known before. They are #1-5, called Gear Drives; Traction Drives - synchronous; Traction Drives - asynchronous; Gear Drives with crossed Shafts; & Friction Wheel Drives. Each is packed in a plastic box & has a selection of Gears & parts to make frameworks for them, including a clear Plastic Plate unique to the Junior sets. The ready-built **COMPACT** Gear Models are also mentioned, 50 of them though the firm's web site, [www.compact-technik.de](http://www.compact-technik.de), lists 76. This site also has some details of the sets, & illustrations of the parts. A price list for the parts can be downloaded & it shows a few changes from the Catalogue, with some additions and some deletions.

**AUTOMAT:S1** [31/909]

**SMALL AD** [31/909]

**Wanted STOKYS** sets, parts, manuals. Please list & price in first letter. Richard Symonds, Suite 101, 1675 Martin Dr., Surrey, B.C. V4A 6E2, Canada. Tel: 1-604-536-6538.

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