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EDITORIAL First, apologies for the Eitech update items in the last issue which had already been covered in OSN 43. Old age & senility creep on! Otherwise, steady as she goes. I little thought when I typed out, pasted up, & photocopied the first, 8-page OSN, that it would continue for 22 years, and that eventually all the pages would be concocted entirely on a computer and printed at home on a little colour printer. Who knows, we might reach No.50, and I say 'we' advisedly, to include all who help, or have helped down the years, with contributions, comments & support. And thanks too to Ebay for all those interesting Snippets.

Shorter NOTES, with thanks to all contributors.

1. Snippet. 'New' Italian System: **IL MECCANICO 900**.

The photos of the manual below were taken from the Italian Ebay and it was said to contain 24 blue pages, and to date



FIG.1

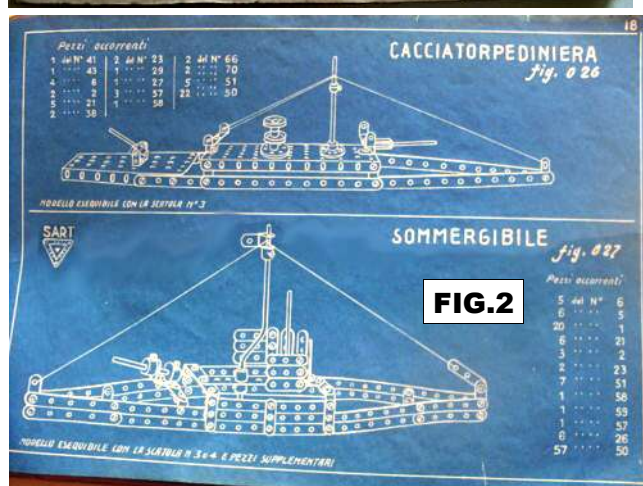


FIG.2

from the 1940s. Also that the maker was SART of Torino (Turin), a name that can be seen above the triangular logo on the cover & the model page above. At first I thought the '900' might refer to a set size but along the bottom of the cover it says that the system comprises 5 sets, Nos.0-4. The 2 models shown, Nos.26 & 27, are on p18 and are for Set 3. The parts look conventional and a 5*11h Flanged Plate & an 8h long Flanged Sector Plate can be seen in the Destroyer. The highest PN in the lists of parts is #70.

IL MECCANICO 900: S1

[45/1356]

2. **The History of German TRIX.** Werner Sticht has written a really comprehensive account – go to www.trix-metaal.nl & click on the link 'Eine Geschichte des Trix-Metallbaukastens'. It is all in German of course but a Google translation works well and there are numerous images and links to others.

TRIX: S6

[45/1356]

3. **'New' Czech System: POPULAR.** The set below is shown on Merkur's website with a date of 1932. It is said to have



been introduced in 1930 and may have included some new parts. It was produced alongside the MERKUR sets but it isn't clear if it was intended for export or as a cheap addition to the regular range. The lid's appearance is radically different to the MERKUR designs of the time and the Set was not mentioned in 1932 & 1933 Czech ads for MERKUR & METROPOL. If the 5*3h Flanged Plates in the box are original they may have been a new part, which was never, as far as is known, used in other sets until the M1 motorisation set in 1970, and then in the 201/202 sets introduced in the 1980s.

POPULAR: S1

[45/1356]

4. **'New' System: JEULIN** From Jean-Pierre Guibert, a new page from his Encyclopédie (see 43/1292, & 44/1324 for J-P's correct email address). Jeulin was an established educational supply house which specialised in scientific and technical material, and produced a series of sets aimed at schools & colleges from 1963 to 1970. The parts were mainly bought-in from Meccano in the standard blue/gold/dark red colours of the period and included Elektrikit items as appropriate. Special parts included Hooks & Weights for use in balances etc, and zinc electrodes in the electrical set.

[Cont. >>]

SMALL AD

[45/1356]

Wanted Anything relating to **CHARPENTO**, and I would welcome contact/correspondence with others about it. Please ring Gary Maslin on 01635 200460 or write to 'Carlisle' Curridge Road, Curridge, Thatcham, Berks, RG18 9DH

The latter, 'machines électriques', is shown below and



'éléments MECCANO' can be seen under the JEULIN name.

The other sets, all shown on the Encyclopédie page, were: 'initiations-nous à la mécanique' including Gears; 'études leviers et balances'; and 'construisons circuits électriques'. All have the same style of packaging, and lids with a photo of a boy & a girl, but set on different background colours. An electric motor could be made from the Machines Électriques outfit, but otherwise nothing is known of the scope of the sets or whether they included a manual or instruction sheets.

JEULIN: S1

[45/1357]

5. WIFRA & EBERT MERKUR Sets. These were mentioned in 40/1196 and were small sets with parts for the model(s) on the lid, and probably others in a model leaflet – almost certainly all were existing MERKUR models.

The Merkur website shows photos of 6 WIFRA sets, each labelled with a date of 1988. The sets, with the model(s) on the lid in brackets are: Flugzeug (Shoulder Wing Monoplane); Gärtner mit Zwei Karren, see OSN 40 (Gardener with Two Barrows); Gelände-Rennwagen (Off-road Racer); Güterwagon mit Schranken, right (Goods Wagon with Level Crossing Barrier); Hubschrauber (Helicopter); Windmühle (Windmill).



Only one EBERT set is shown and it is dated 1992. Apart from the name the lid it is identical to the WIFRA Flugzeug, and since the EBERT Hubschrauber lid in OSN 40 is the same as the WIFRA one, it is quite likely that there were other EBERT sets matching the WIFRA ones.

The sides of the EBERT boxes carry the KOMEB logo, right, which was shown



on a set containing a MERKUR Motor etc in 26/760. Said set is actually shown on the Merkur site and is dated 1992. Broumov under the logo is a town some 10km from Police nad Metuji, and together they are MERKUR's home towns. The WIFRA box sides have the logo right with Kovopodnik above it (the company's name while it was nationalised) & Broumov underneath.

MERKUR: S9

[45/1357]

6. Snippet. Another 1913 TOY BUILDER Outfit. This Ebay set below has a wider selection of parts than the Sears 10 cent



FIG.1

one described in 28/833, and would have been capable of building more elaborate models, but unfortunately there was no model sheet with it. The box's lid was used only in 1913, and there is a much better photo of it in OSN 28. It was said to measure approximately 10*5", about the size of the 10c set. Some of the parts such as the Girders with flanged rather than formed edges, and pulleys made from 2 Pulley Discs & a steel Tyre held together by a threaded brass Hub, confirm the 1913 date – all these parts were changed for 1914.

The Set Contents label below was stuck inside the lid, and



FIG.2

interestingly it is headed 'CONTENTS OF ERECTOR NO. 0.' Greenberg lists a No.0 for 1913 but gives no details beyond saying that its box was 11*7*3/4", that it cost 50c, and built 13 different models. I wonder about the 13 models, 69 were claimed for a later No.0 with a very similar inventory to the Ebay set, and when TOY BUILDER sets were next sold in 1915 the smallest had 47 parts for '100 Toys'.

TOY BUILDER: S2

[45/1357]

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Payments Please make cheques etc payable to P.A.Knowles. Remittances must be in Pounds Sterling (GBP) or, as cash, in Euros or US Dollars (£1=€1.10=\$1.50). Payments from overseas may also be made using PayPal (in Sterling please).

Small Ads Short ads are free to subscribers; insertion guaranteed in OSN 46 if received by mid-February (but repeats may not always be possible, please ask).

OSN – Your Credit Balance:

was £	after OSN 44
was £	after your remittance of £
is £	after this Issue
Please send at least £ if you wish to receive the next Issue.	

Snippet. More on the DUX Auto Set

Since the notes in 43/1309 an identical set, but with better photos, has been seen on Ebay. It was said to be complete except for the paper Number Plates, and to date from 1935. The box measures 52½*37*5cm & has the label right. Far right the corner of the box which was hidden in the OSN 43 photo.

FIG.1



FIG.2

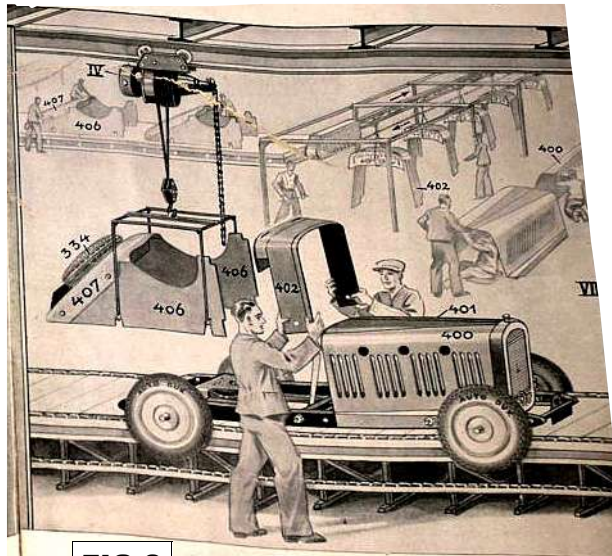


Under it the Spring Motor add-on outfit, as in the OSN 43 set, with its name in 7 languages. The Wery name in the corner was a toyshop in Strasbourg.

The instructions are in French and are on a long sheet folded concertina-fashion into 6 panels.

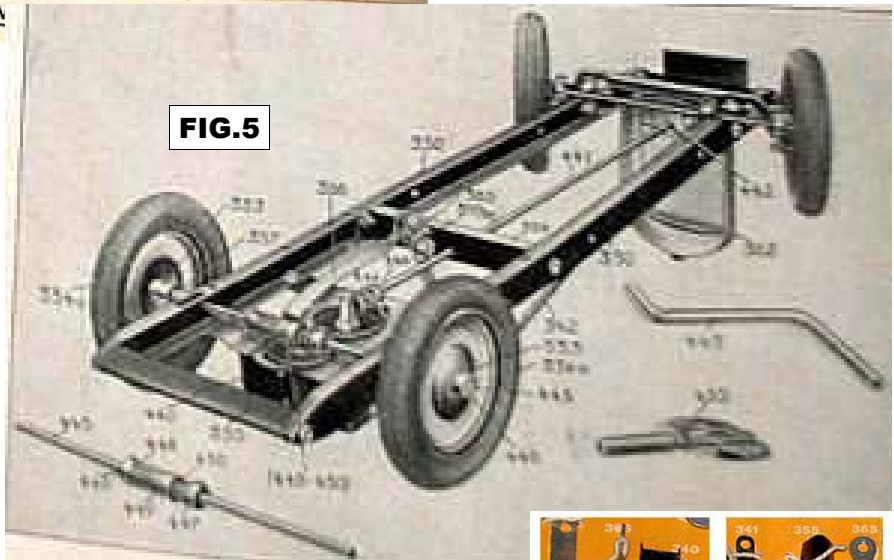
One side shows the car being assembled on a 'production line', with 6 stages from 'Montage du chassis' to 'Achèvement du montage' (Completion of assembly). All the parts are labelled with their PN's. The 4th stage, the start of adding the bodywork, is shown above (Fig.3).

FIG.3



The other side has an introduction on the two centre panels and written instructions for the 6 stages on the other four. The parts needed for each are listed & various photos illustrate the main features. Fig 5 right, is the one showing the installation of the Motor.

FIG.5



There follows some points of interest from the various illustrations and what I've been able to read of the text.

- The Motor set includes a Key plus a (large, black) Winding Handle, and the Motor can be wound on its underside with the Key or, from the front of the Car, by the Winding Handle. The latter turns a central Rod which runs along the chassis and a pinion at its other end engages with a contrate on the Motor's winding shaft.
- A contrate on the Motor's output shaft drives a pinion on the Back Axle. Only one of the Rear Wheels is driven.
- The Back Axle also includes a freewheel device to allow the Car to be pushed/pulled along, or run on after the Motor has run down.
- The Hand Brake Lever (Fig.6B) is mounted on a chassis cross member and it seems to carry a hooked Brake Arm (Fig.6A). It looks as if the hook may be around the Motor shaft and lock it in some way when the brake is applied – it is to be used when winding the Motor.
- Many of the parts must slide or click together: very few Bolts are listed and no Nuts, but some of the latter are certainly needed.
- The instructions are for the Sports Car model but at the end

of the written sections it is explained that a Racing Car can be built by omitting the Mudguards & various other 'trim' items.

Full details of incorporating the Motor set parts are given but there is only a brief mention of the remote steering, with nothing to indicate how it works. A

photo shows a fairly thick cable emerging from the back of the model with a controller at the other end. The latter is held by a boy and possibly he is steering the Car by turning a 'steering wheel'. I wonder if a Bowden cable was used or perhaps there were 2 cords to give left & right steering.

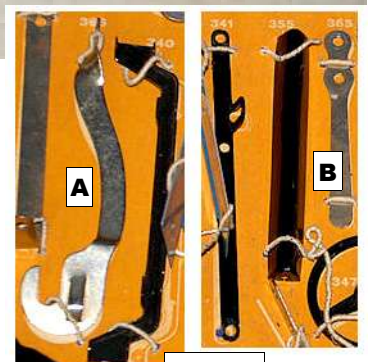


FIG.6

Snippets. More TECHNOFIX Various Ebay photos show some variations in the outfit described in 39/1173, and 2 other, rather different sets. The only date is the 1926 on the manual with the OSN 39 set and the other sets are no doubt later.

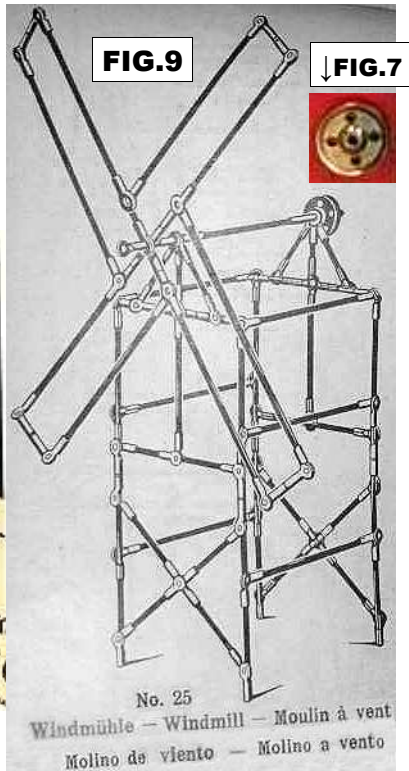
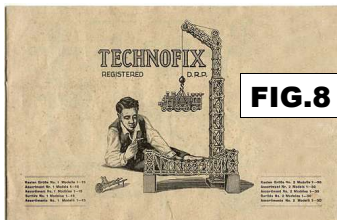
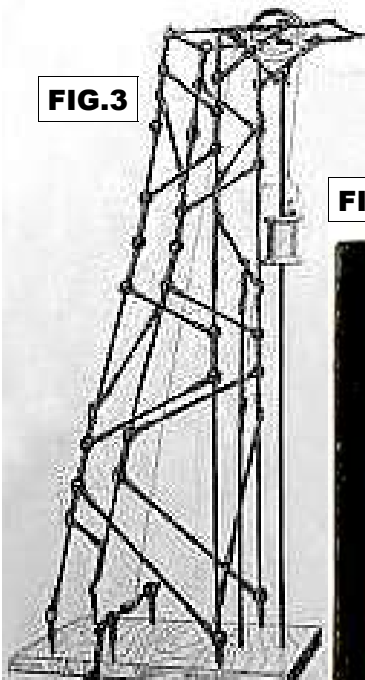
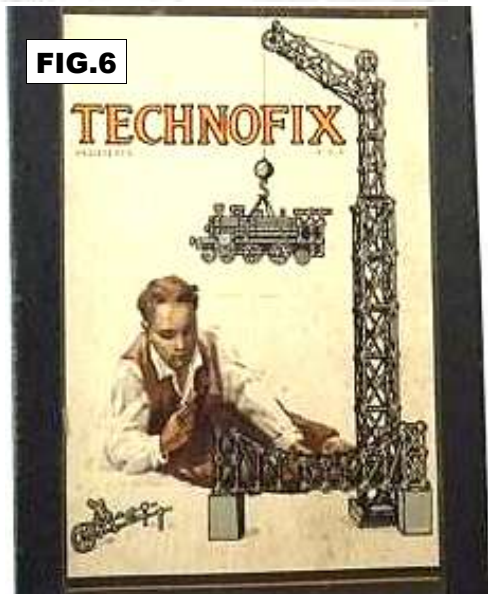
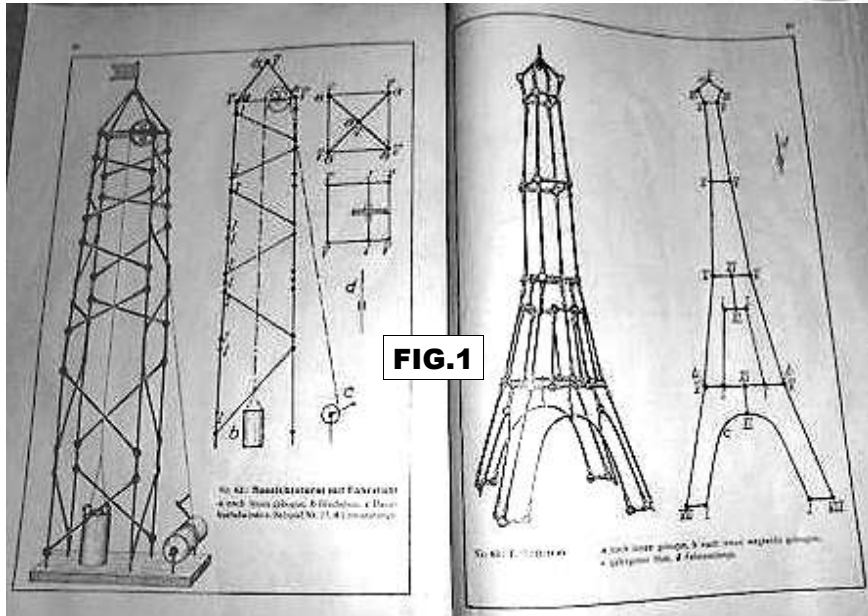
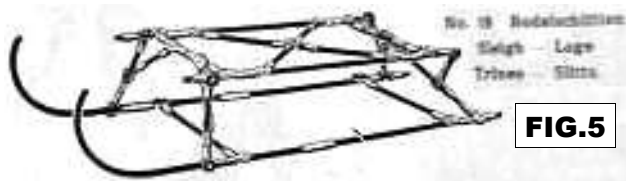
One set is virtually identical to the OSN 39 outfit and its manual has the same cover and was said, as in OSN 39, to have 44 diagrams & 83 models. 4 models from it were shown, a Roundabout with no means of driving it, a Big Wheel with a driving Pulley on its Axle, & the two models in Fig.1. The lefthand model has, unlike the OSN 39 Crane, a crank to lift the 'load' and perhaps the explanatory notes would make clear what was to be used for the winding drum & the load. Note also what I suppose are curved Rods in the base of the 'Eiffel' Tower – none of the sets seen include any such part.

A second set is again virtually identical to the OSN 39 outfit except that its box has 2 extra bays. One (Fig.2), in the Pulley compartment, has a Hook & a Ball Weight in it; the other, in one of the Rod bays, has small parts that might be Washers &/or Spacers but they are too blurry to be sure. The box size was given as 35*25*3cm, slightly larger than the OSN 39 set. The manual cover is again identical and the model that was shown (Fig.3) has a built-up crank handle, though how the Connectors grip the Rods I'm not sure.

The next set again has a similar box but with several extra small bays, but how many isn't sure because some of the

partitioning is missing. Again the manual has the same cover and 44 diagrams/83 models. The big difference is the lid, see Fig.4 (with a part of the manual over one corner). Was longish hair and a bow fashionable wear for boys in 1920s Germany? Or is the child a girl? Or an attempt at a unisex figure?

Finally a completely different set, a Nr.1, 15½*33cm, in a black box as before, with the label in Fig.6 along the lid's length. It is red inside, and divided into 7 bays. The most obvious difference from the other sets is that it doesn't contain the Base Board and has small Pulleys (Fig.7), about 1" Ø, instead of the 2" type. That there was also a Nr.2 set is shown by the manual cover (Fig.8) which lists the number of models for each set in the bottom corners (in 5 languages), possibly 15 or 18 for the Nr.1 & 30 for the Nr.2. As far as is known none of the sets described earlier had a set number, and it isn't known if the Nr.2 matched them in content, or if its packaging matched the Nr.1. None of the 5 models seen, a small Crane; 2 small Barrows; the Sleigh below (with curved front runners); & the larger Windmill in Fig.9, certainly a Nr.2 model, uses the larger Pulley, though it is in the models on the lid label & manual cover.



Eitech Update The 2011 range of sets has changed considerably with 6 additions & 12 deletions since 2010 (see 44/1330). The main new set is a R/C F1 Racing Car (Fig.1), the main losses, the slightly skeletal Loco No.31, & the No.30 Fuel Cell outfit. The add-on accessory sets remain unchanged.

The new range of sets are (with the additions asterisked) 05,08,09,11*,15*,17,19,20,21,23,25,28*,34,35,45,47*,55,56,57,58*,61,62,67,68*,72,73,74,75,80,83,84,92. The deletions: 03,24,30,31,46,53,54,82,87,91.

The New Sets **No.11** has 320 parts to make a small tracked Excavator with one piece Cab Sides (as in Fig.2), or 2 other models. The featured model is an improved version of the one from the superseded Set 87. **No.15** has 270 parts to make the model in Fig.3 or 2 others. The Spoked Wheels may be a new part. One of the other models can just be seen on the part of the box lid in the background, and also the featured model's (Double Bent Strip) centre stand in the down position. **No.47** is a simplicity-plus Helicopter with a 7h diameter rotor. **No.28**, the F1 set, has over 300 parts including a 9V battery & 6V pack with charger. The radio is 27/40 MHz, 2-channel for the usual steering & forward/reverse. **No.58** is the Lorry in Fig.2, with the one piece Cab Sides. **No.68** is a small outfit for either a Tipping Lorry or Excavator, and again both have the new (?) Cab Sides.

The Deleted Sets with, in brackets, the Issue in which they were described. **No.03**, a 390 part set for a Tractor & Trailer (37/1107). **No.24**, a R/C set for utility vehicles (40/1224). **No.30**, the Fuel Cell set (30/885). **No.31**, the large Loco (27/795). **No.33**, The Eiffel Tower with no lights (41/1231). **No.46**, a simplicity Rocking Horse (44/1330). **No.53**, a small Lorry (35/1062). **No.54**, a



FIG.1

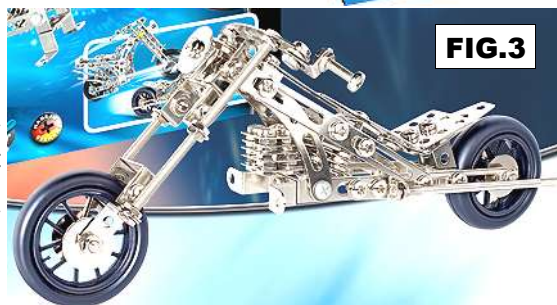


FIG.3

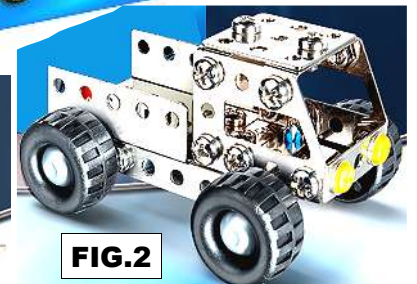


FIG.2

small Loco (35/1062). **No.82**, 3 simple Racers (37/1107). **No.87**, a set for a Digger & 2 other tracked models (31/910). **No.91**, a small 'interesting' Loco or 2 other models (41/1231).

CONSTRUCTION[12]: S12

OSN 45/1360

Snippet. 'New' Italian System: IL CARPENTIERE MODERNO

The set shown here was sold on the Australian Ebay and all that was said of it was that it dates from the 1950s or before, that the box measures 15.5*7.5", and that it is heavy. The lid includes the 'AFM' logo right, the maker presumably. (The 'M' could possibly stand for Milan, the printer's city as explained later).



FIG.1

The system's name, as might be imagined, means The Modern (or Up-to-date) Carpenter, and since the main parts look to be steel the choice of carpenter is perhaps meant to evoke images of frameworks. The text at the bottom of the lid's side panels claims that the simple & compatible parts allow the achievements of mechanics, carpentry & construction to be imitated perfectly.

It can't be seen whether the long parts are Rods or Tubes, but the latter probably because they scale at about 5½mm Ø. The small parts must include Connectors and as they do not seem to have any means by which they could be tightened, they may simply push onto, or clip over the Tubes. Other small parts probably include Bearings & Axle Stops.

The manual cover is as the centre section of the lid (but its



FIG.2



FIG.3

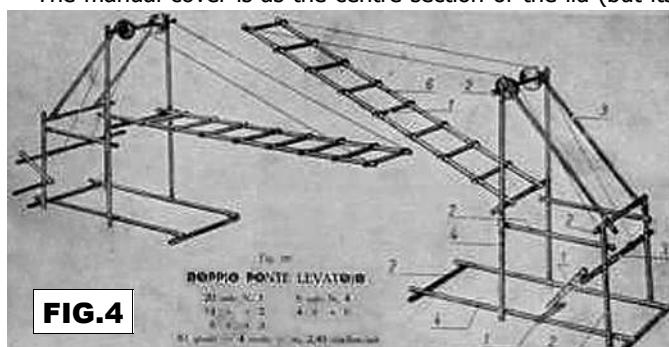


FIG.4

blue isn't faded) & is about the same size. In the model left it can be seen that Bearings are needed for the crank handles. I wonder if the Connectors can hold the Tubes tightly enough for the crank handle to function properly. The other model shown on Ebay was a Suspension Bridge on the page before the Lifting Bridge. Its ends & roadway are similar, but it has suspension 'chains' of Tubes running from the towers down to the centre of the span.

All that is on the back cover is 'S.I.??. - V GOLFIERO - MILANO' across its centre (the second '?' could be an 'I') - probably the name of the printer since the initials don't match the letters in the logo.

IL CARPENTIERE MODERNO: S1

OSN 45/1360

Les Jouets Scientifiques PEUGEOT

by Jacques Pitrat

Two French car manufacturers, Citroën & Peugeot, sold constructional model cars of their own products for a number of years. Contrary to Meccano, Märklin, or Dux, their main goal was not profit, but to advertise their cars. 'Ah! si vous aviez une Peugeot' (Ah, if you had a Peugeot car) was printed along the flaps of Peugeot sets.

The first Peugeot set was for the 201, a car built by Peugeot from 1929 to 1937. It was made in different forms: saloon, family, etc, and the model is of the roadster (cabriolet), see Fig.5. The period of production of this toy probably included that of the real car. Perhaps Peugeot did not make the toy as it was not its normal activity; it could have been subcontracted to a toy manufacturer, to JEP for instance which had extensive experience of producing toy cars (although not car construction sets) or to Mécavion which sold aeroplane construction sets.

Several sets were sold for the 201, at least 3 for the Chassis (one, no doubt the first, unnumbered, and Nos.1 & 2), one for the Bodywork, and possibly one for the complete car.

My unnumbered Châssis set is in a box 51*37*4cm. The model is on the lid (Fig.1) but it is not shown accurately. For example it has a spare wheel, which was not included in the set. The model leaflet is missing but an example seen on Ebay headed 'Châssis 'Peugeot' 1 et 2', has instructions which are entirely applicable to my set. It is one folded sheet & the outer pages are shown right. The instructions (in French) continue on the inside pages.

The parts are clearly shown in the photo of the open box (Fig.3). In 3 cases two identical parts are stacked. Only the Spanner is missing; it is flat, red, with two different ends, one for each kind of Nut. Except for the brass Tie Rods used in the steering, and most of the N&B, the parts are steel. The rubber of the Wheels has become very hard, it looks like wood. Later, the Wheels were entirely metal (as in Figs.4 & 5).

The lid indicates that there are 110 parts plus 80 Nuts & Bolts. Including the missing Spanner there are only 43 parts in all on the insert and to account for the 110 it is necessary to include all the component parts of the assembled Springs (4 Strips & 1 N&B), the Wheels (Tyre, 2 Discs, & 4 N&B), the Engine, & the Fan. The 80 for the N&B seems correct, there remain 29 Bolts & 45 Nuts in the small parts box, & 6 of them may have disappeared with the years. More Nuts than Bolts is correct, some parts are threaded.

Some of the N&B have the MECCANO thread: Bolts are 20mm long with round heads, & 5mm long with cheese heads. The Nut is hexagonal, 7mm A/F & 3.2mm thick. The other thread is 3.0mm diameter: one type, used for the steering, is 13 mm long with a pan head; the other, used to fasten the two parts of the Wheel, is 5mm long with a cheese head. The Nut is again hexagonal, 5.2mm A/F & 3.2 mm thick. The 20mm Bolt is steel; all the other N&B are brass.

The Bodywork set allowed the Car to be completed. It is as in Fig.5 (the Chassis is slightly different, see later). The lids I've seen (Fig.6) have the real car top right, and one boy is saying to a friend: 'Pour devenir bon mécano fais-toi payer jouets Peugeot' (To become a good mechanic, ask for Peugeot toys). It is also mentioned that the set can be used with all the Châssis sets. The parts included the Hood, Fenders, Doors, Spare Wheel, Roof, Seats, etc. There were several colour combinations: yellow/green, blue/red, red/blue, red/cream, entirely red, & possibly others. The length of the finished car is 36 cm.

FIG.3

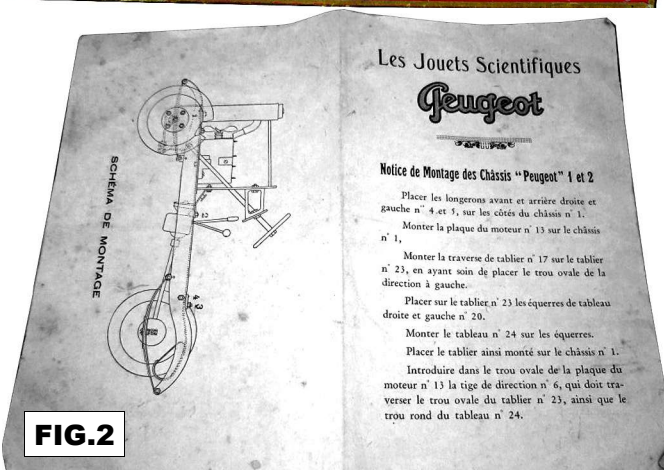
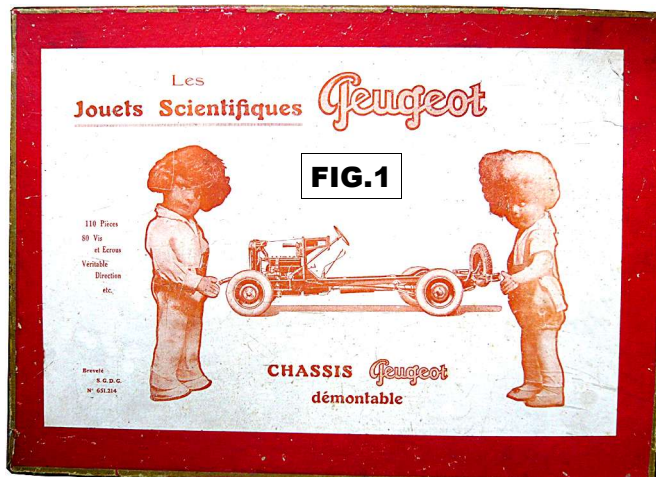
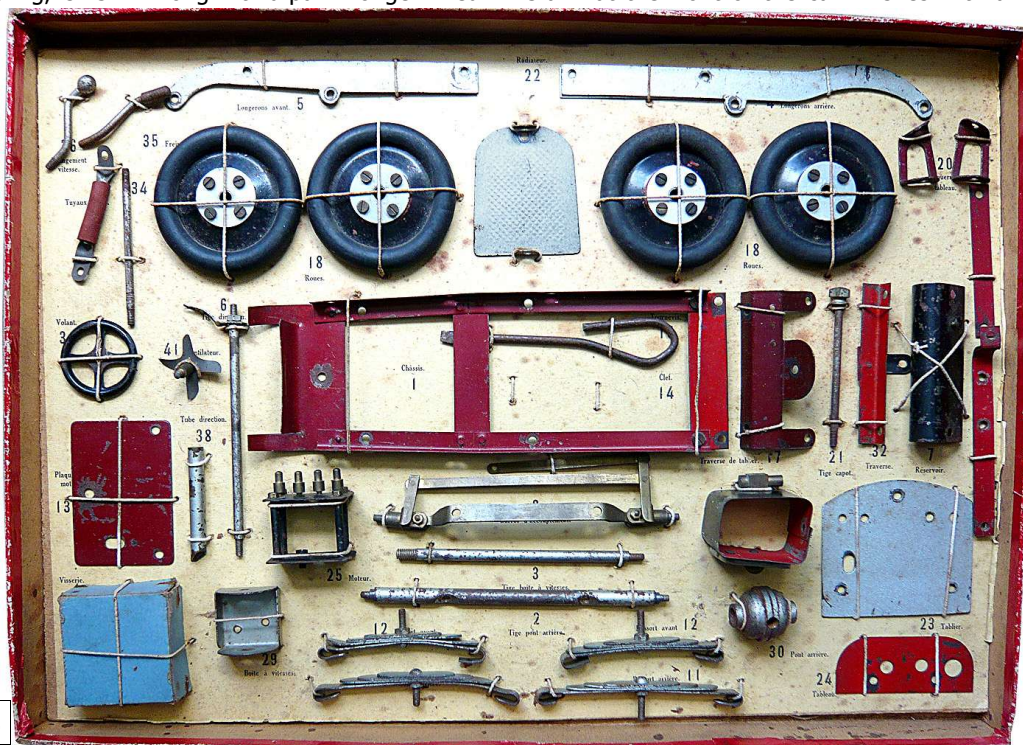
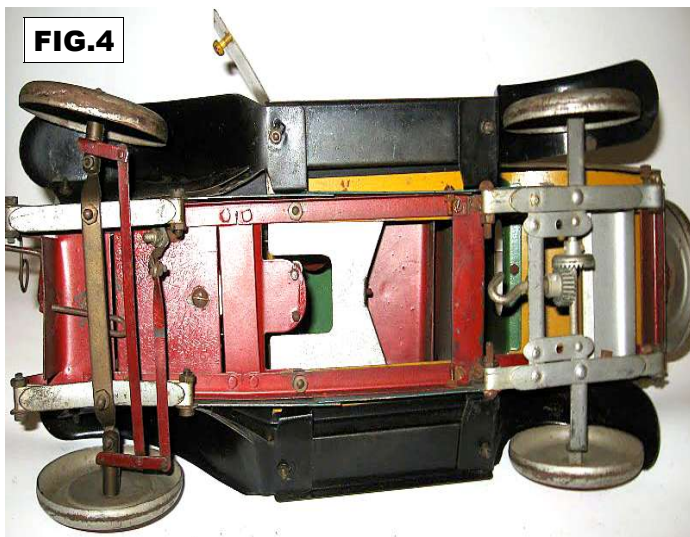


FIG.2

The lid of later Châssis boxes is similar in design to the Body lid but with the model chassis, as in Fig.1, in the top right corner, and still with the Spare Wheel. In an Ebay No.1 Châssis set the Radiator has 'Peugeot 201' on it in white within a shield outline, but otherwise it looks very similar to mine. It isn't known how the No.2 differs but the instructions don't distinguish between the two. One difference could be that the No.2 has the one-piece all-steel Wheels as in Fig.5.

A set was also produced for the Peugeot 301, a car built from 1932 to 1936. The chassis is shown in Fig.4, with the finished model in Fig.5. Again the name is on the Radiator. There is no longer a Differential Casing & the Rear Axle is no longer fixed. A Crank at the front of the car finishes with a





hook & another hook is part of the the Pinion which meshes with a Contrate Wheel on the Axle. A part, missing in this example, links both hooks. Thus turning the Crank 'drives' the Rear Wheels.

The 201 Chassis incorporates steering; Front & Rear Leaf Springs; opening Doors; Engine, Gearbox & Differential Casings; and imitation Brake & Gear Levers. The Rear Axle does not turn, it is bolted to the chassis. The Wheels run on a smaller diameter part of the axle with a threaded end and a Nut to retain the Wheel. By way of comparison the Meccano & Märklin chassis don't have the suspension or most of the other various 'goodies' but, a big plus, they are powered by a decent C/W Motor, and the larger MECCANO chassis has a working rear drum brake on the driven wheel (useful while the Motor was being wound). It does not seem that a clockwork or an electric motor was ever produced for the 201 or 301. With the Rear Axle bolted to the frame it would have been impossible with the 201 Chassis; it was perhaps possible, although not easy, to add one to the 301 version.

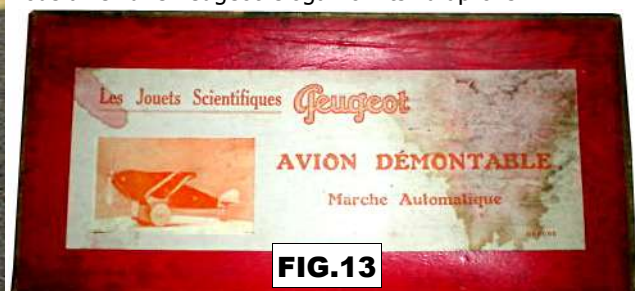
The parts of this system are well made, and the model gives a realistic representation of the 'Peugeot 201/301 cabriolet'.



The Other Jouets Scientifiques Peugeot Jacques also mentioned that there were at least 3 other constructional sets & sent details of the 'Garage Peugeot Démontable' below. N&B fasten its metal parts, with plastic parts for the glass sections of the roof. The box lid was similar to Fig.6 but with the Garage top right & the 201 model halfway out of it.

Ebay snips on the other sets follow. One is the Avion Démontable in Fig.13 below, sadly an empty box. From the Marche Automatique on the lid, perhaps there was a clockwork drive to the Wheels (& possibly to the Prop). A ready-built version of this model was also sold.

The second is the rather unusual Tour Eiffel Pliante left. 'Pliante' means folding and the scissor joints look to be riveted, with the top, platforms, & base bolted on. The lid's centre label (Fig.7) has a drawing of the model flying the Tricolour. The bottom label gives the model's height as 1.5m, & the base is about 40cm square. The box (52*39cm) contained a blue stringing card and, as on the Avion, had 'Ah! si vous aviez une Peugeot' slogan on its lid aprons.



New from MERKUR When I looked at Merkur's website (www.merkurtoys.cz) a year ago nothing had changed since 2008 (see 40/1197), but recently David Hobson alerted me to new sets he'd seen there. Also a new history feature including photos of sets, mainly lids, going back the the early 1930s; some 1930s ads; & photos of 'supermodels'. One change not for the better is that now there seems to be very limited information about many of the sets, especially the new ones, and sometimes the details that are given can only be assessed by going to the Czech rather than the English language option.

The new sets added to the 2008 range are as follows.

- **Machinery Set Basic.** A small outfit with instructions for 10 models. Its lid is similar in style to Fig.1 but landscape and featuring a Lathe. It costs Price 280Kč (the largest 'regular' set, the No.8, costs 3436Kč, and at the moment £1≈26Kč).
- **Machinery Set Complete.** It has the lid in Fig.1 and the parts include Gears & the 2-speed Geared Motor (see 17/485 & 20/583). 80 models are claimed including various mechanical drives: pulleys, with universals, etc. Price 2480Kč.
- **Excavator.** This is a large outfit with 2627 parts with the lid in Fig.2 – it is called a Maxi Set, and as far as can be seen it is to make just the one model. Said model is very similar to the one featured on certain 1980s lids, but it couldn't of course be made with any of the sets at that time. There is nothing to indicate if it is powered but let's hope so. The price is 8820Kč.
- **Spider.** This is one of 3 sets listed as Robotic & Mechatronic Kits, and all are single model sets. The Spider is radio controlled and its 4 channel, 2.4MHz Transmitter is said to be capable of controlling up to 4 models. The lid and the model are shown in Figs.3 & 4. The significance of the 'GAMA' after the name on the lid isn't explained. Price 3200Kč.

- **Robotic Arm.** Figs.5 & 6 show the lid & the model. Again

a manual & programs on a CD. It is said that updates are possible from the internet and that multiple Robots can be synchronised to work together. The set includes a mains to 5v/8A power supply. Its price is 6930Kč.

- **ALFI.** This, the third Robotic set, is not new, it is the Plotter described in 10/265 and is aimed at educational establishments. It costs 3540Kč.

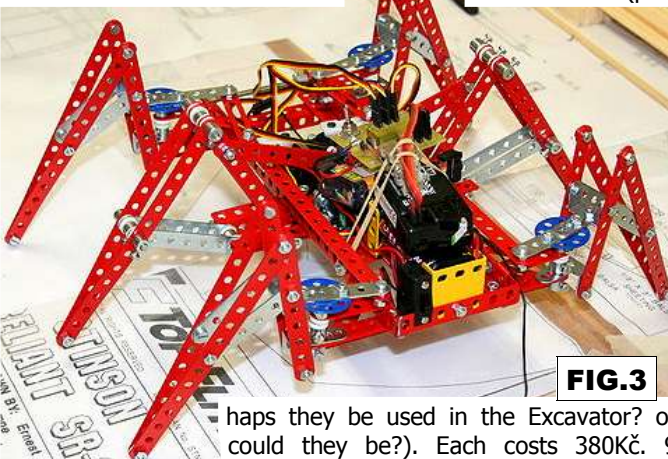
New Parts. Those I noticed were 1*2h A/Gs & 1*2*1 'U' Girders, both 400, 500, & 600mm long. Also a 25h long Braced A/G (Fig.7), & 4 Flanged Plates, 340*250 & 250*170mm in plan, both with 1 & 2h deep flanges. One is shown in Fig.8 but it may not be clear that there are holes in the top flange. I haven't spotted any of these parts in models.

Another part I don't recall is what looks to be a 15h Flanged Plate in the base of the Bandsaw on the Machinery Set's lid – it isn't listed among the website's Spare Parts.

The Spare Parts include 2 Stepper Motors, those in the Robotic Arm no doubt. Also listed are nine 12v Geared Motors with ratios of 390-36:1, giving output speeds of 14-150rpm (their PN's are all 'GM37-' plus digits denoting the speed, eg GM37-14). They are cylindrical with a motor attached to a gear-box, and are probably 17mm Ø by 52mm long o/a excluding the 2mm output shaft at the motor end & the 6mm Ø at the other. Their use isn't stated (per-



the 'beta' on the lid is a mystery. The model has 6 degrees of freedom, is powered by six Servo Motors, and is to be controlled from a PC. The kit includes



haps they be used in the Excavator? or could they be?). Each costs 380Kč. 9 large, sturdy looking Mounting Brackets are shown for them, 7 with one large hole in it, the others with 2 such.



FIG.5

FIG.4



FIG.2



FIG.6

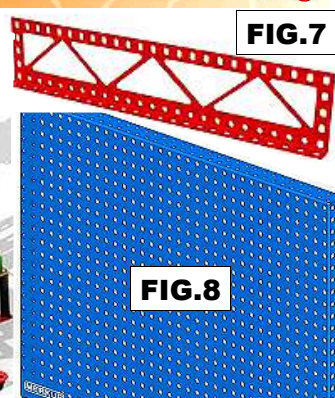


FIG.8

FIG.7

MALY KONSTRUKTOR This Polish system, known from the 1980s, was mentioned in 16/446 and its name translates loosely as Young Builder or Young Designer. Now a set, virtually complete, is to hand, plus various photos of others from the web. MALY's main manual models were clearly inspired by CONSTRUCTION (CNN henceforth); likewise many of the parts, but few of the East German slotted parts were carried across and CNN's Plastic Plates are rigid metal in MALY. Only one size of set is known.



The SET The Box, 45*41¾*3¼cm, has the lid above. The slogan in the yellow diagonal reads Building Equipment, Machinery & Vehicles. The parts fit into recesses in a sturdy orange moulded plastic tray (the box itself is rather flimsy).

The Parts 68 in all and Figs.2-4 show representative parts. The main differences compared with CNN are: • All corners are rounded. • The holes are slightly larger. • The 5 rectangular, flexible Plastic Plates are replaced by rigid, Perforated Plates. • The only long slotted holes are in the Curved Strip, and all the holes in the A/Gs are round.

All the parts will be listed as in the Manual, with translated names, and quantities in curly brackets. But first some generalities. • **Holes** are mainly 4.3mm Ø but many are

4.4mm and a few, particularly in the Brackets, 4.2mm. • The **hole pitch** is 10.0mm except 9.6mm in the 25h Strip – so about 10mm short over the full length. • The only **slotted holes** are in the Flanged Plates (8.3mm long) & the 1*1h A/Bs (8.3 but 8.1 in the single-slot part). • The **thread** is M4. • The **Axles** are 4.0mm Ø, with a few 4.1mm. • The **Road & Ratchet Wheels** are probably meant to be a push fit on the Axles but their grip varies from zero to poor depending on the Axle diameter & the particular part in question. • **Strips parts** are about 10.1mm wide but the 1*1h A/Bs are up to 10½mm. • The **coloured parts**, apart from the Cord, are plastic.

The parts: • #001-010 **Strips**, 2,3,4,5,6,7,9,11,15,25h {3,4,2,18,2,4,5,3,2,4}. • #011 **Curved Strip** {4}. • #021-024 **A/Gs**, 9,15,20,25h, typically 13*13¼mm o/a in section {2,2,2,4}. • #031-038, **Perforated Plates** 2*2h, 3*3,5,6,7,9,12h, 5*9h {5,4,5,2,4,6,4,9}. • #039-040, **Other rigid Plates**: 6*6, 12h as Fig.2 {2,2}. • #041-043 **Triangular Plates**, as Fig.2 {4,3,2}. • #046, 3*3h **Girder Bracket**, the manual shows slotted holes in the foot {6}. • #047-8, **Flanged Plates** 5*5, 11h {2,1}. • #051-3 **A/Bs**: 1h/1 slot; 2 slots; 1*2h {12,10,2 (originally 10 but changed, with other alterations, in blue ink, probably by the factory)}. • #054-5 **D/Bs**: narrow; wide {2,1}. • #056-8 **DAS**: 3h narrow; 3h wide; 5h {5,2,3}. • #059-61 **Brackets**: Double Bent Strip; 2h high D/B; Reversed A/B {2,2,4}. • #071 10mm Ø **Washer** {10}. • **Discs**: 30,50mm {1,2}. • #081-6 **Axles** 25,45,60,90,125,145mm {3,2,1,2,2,2}. • #087 **Screwed Rod**, 45mm {1}. • #091-2 **Road Wheels** 39,59mm Ø, ribbed only on their outside circumference {4,4}. • #093-4 **Loose Pulleys**, 14,20mm Ø, some grip the 4.1mm Axles slightly {3,3}. • #095 **Ratchet Wheel**, 16t, a push fit on the Crank Handle & the cross slots in the boss also engage the nibs on the Crank Handle {2}. • #101 **Hook**, flat, 25mm long o/a, see Fig.4 {1}. • #102 **Crank Handle**, 4.0mm Ø with 2 diametrically opposite nibs on the shaft near the handle {2}. • #103 **Pawl**, the black part next to the Ratchet Wheel in Fig.2 {2}. • #104 **Axle Stop**, 9¾mm Ø, with a radial slit but very, very hard to push onto the Axles {18}. • #105 **Spanner** {2}. • #106 **Nut Carrier** {1}. • #107 **Screwdriver** {1}. • #108 **Cord** {3.2m found, 2.5m claimed}. • #111-2 **Bolts**, M4, 6.8mm Ø roundheaded, 8½,20mm u/h {120,5}. • #114 **Nut**, hexagonal, 6.9mm A/F, 3mm thick {140}.

Also 2 parts crossed out in blue. • #115 **Weight** {1}. This could be the counterweight at the back of the cab in Fig.8. The layout of the parts in the Tray is shown in the Manual and a rectangular recess 3*9*2cm deep is provided for the Weight, but with its PN crossed through in blue. • #113 **Wkręt** M4 x 6 {2}. Wkręt & #111 Śruba both translate as screw – perhaps #113 is a self-tapper to hold the Weight.

Quality/Finish Apart from the Screwed Rod which has a distorted, unusable thread, the problems over the fit of the plastic parts, and the 25h Strips, the parts are accurately made with only a little burr or distortion here & there. The metal parts have a dullish silvery finish, some are probably nickel plated, some zinc. Over-

FIG.2

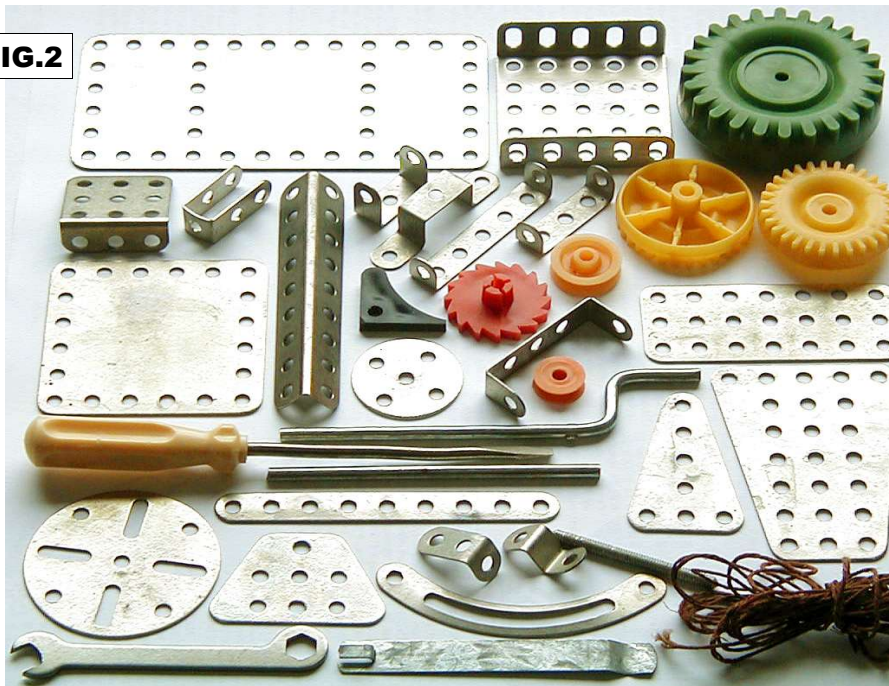


FIG.4



FIG.3

all quite pleasant looking apart from a little patchiness and discolouration.

REMARKS The MALY outfit is broadly comparable to the largest CNN set of the time, No.120, plus the add-on set with the Plastic Plates, No.300. MALY has in fact a few more Strips & A/Gs, and appreciably more Plates, DAS, & Brackets (106 altogether against 81). The downside is 10 fewer Nuts, 6 against 11 Pulleys with no fast ones at all, 1 against 6 Screwed Rods, and only 2 Ratchet Wheels against CNN's 8 Gears. It also lacks the Rod Coupling & the 2 Hinges in the East German outfit. Another distinct lack is a Bush Wheel – CNN doesn't have one either but the Face Plate can often be used instead, or failing that the 30mm Disc can sometimes be nipped to a suitable length of Screwed Rod.

The **MANUAL** has 16 unnumbered pages, 295*205mm, including covers. Below the front cover, p2 is blank, & p3 has



FIG.5

an Introduction with details of 2 companies (see later). p4 has the Illustrated Parts & p5 the Set Contents. The 4 models are on the next 9 pages, and then p15 shows the layout of the parts in the Tray. p16 has just the name of the printer & a PR of Z.330/84.

The models are a Lorry-mounted Crane, a Tipping Lorry, the Excavator in Fig.8, and a Tractor. The Tipper & Tractor are the models on the manual cover, and the Tractor was shown in OSN 16. The Crane, and the other 3 models, are on the earlier lid in Fig.6. There is one photo on each page with views of each model from either side and an extra underneath view for the Tractor. The photos are large but rather dark and this makes some details hard to work out. But the PL provided for each model would help and the models are fairly simple mechanically – the only features are the Pawl & Ratchet where appropriate and centre-pivot steering operated by moving the tip of a #042 Triangular Plate which sticks out under the front of the model. Fig.8 is the clearest view of the Excavator (at 80% full-size), plus the PL and cordage diagrams rearranged.

Although the models were clearly CNN inspired they differ considerably. This would in any case be necessary because of the different make up of the MALY set, especially the lack of Gears, but also arises because the MALY models vary a little in concept. The Tractor for instance has a blade at the front which adds to its interest (but could easily be omitted if desired). Less favourably the Excavator's bucket has no hinged panel. And the CNN steering is linked to a steering wheel.

HISTORY The '84' in the Manual's PR is the only indication of a date. Two firms are mentioned in the manual & on the box lid. One is under the heading of Opracowanie (Development) is: Ośrodek Badawczo-Rozwojowy (Centre for Research & Development), Artykułów Przemysłowych Powszechnego Użytku (Industrial & Consumer Goods), 42-200 Częstochowa (a town 200km SW of Warsaw), Al. (Avenue) Zawadzkiego 64. The other, under Producent (Manufacturer), is Polski Związek Głuchych (Polish Association of the Deaf), Zakład Szkoleniowo-

Produkcyjny MEPAR (Training & Production Facility MEPAR). It is in the same town but with two addresses: ul. (Street) Sobieskiego 54 in the Manual, and ul. Łódzka 8/12 on the lid.

Sets believed to be earlier have the lid right. The maker is the same though the street name can't be deciphered. For one set the box size was given as 41.5*40.5*3.5cm.

These sets have manuals with the Fig.5 front cover edition and its 4 models are shown on the lid.

The parts in these sets are in the same tray but its colour varies, near white in some, light yellow in others. The parts themselves look identical except that the colours of the plastic parts vary. In what could be the earliest sets they are all black. Then in a small way the black gives way to colour with for example the small plastic parts red in one outfit. Moving on to the sets with the present lid & colour scheme variations include black Small Road Wheels in one, and black large ones in a second.

It is perhaps surprising that the Manual has no models other than vehicles & no smaller, simpler ones. In one Ebay photo the leaflet right sits alongside the present manual and shows an interesting Crane as well as the Excavator. In Eisenzeit Tafel 80 it is shown opened out and its 4 sides include several rather smaller models as well as the present manual models. The set it is with has the later lid and its date is given as 1985. So possibly this Leaflet replaced the present manual.



FIG.6



FIG.7

USING THE PARTS I made the Excavator in Fig.9 from the parts in the Set plus some extra N&B. The PL was helpful in deciding on some of the constructional details which were not clear from the photos, and there were enough parts left over to find solutions to points which remained in doubt. Nevertheless it wasn't a model for a beginner to tackle. One unexpected difficulty was that the Crank Handles were not long enough to pass right through the machinery house and thus an inner bearing was needed. The PL didn't seem to provide for this but there were plenty of possibilities from the 'spare' parts.

Among a few 'improvements' was a hinged panel for the bucket with the Hinges used in the CNN model replaced by a Bolt shank in one lug of an A/B at each side. It was operated by a cord from a lever, a Curved Strip, at the side of the cab, the CNN method. A non-MALY steel counterbalance weight of 300g was housed in a compartment at the back of the machinery house and such a weight would fit easily into the unused 'Weight' recess in the box tray. From the PL the most likely slew bearing was a Screwed Rod holding a Small Road Wheel between the chassis and superstructure. The Wheel's boss protrudes beyond the 'tyre' and this allowed rather too

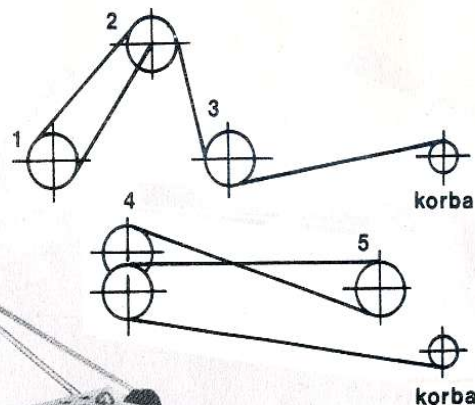
Zestawienie elementów

002-4 szt. 051-6 szt.
 003-2 szt. 053-2 szt.
 004-18 szt. 054-1 szt.
 006-2 szt. 055-2 szt.
 007-5 szt. 056-1 szt.
 008-3 szt. 057-3 szt.
 009-1 szt. 058-1 szt.
 010-4 szt. 059-1 szt.
 021-2 szt. 081-3 szt.
 022-2 szt. 082-2 szt.
 023-2 szt. 085-1 szt.
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 037-2 szt.
 038-4 szt.
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 047-2 szt.

KOPARKA

FIG.8

086- 2 szt.
 087-1 szt.
 091-1 szt.
 092- 4 szt.
 093-3 szt.
 094-3 szt.
 095- 2 szt.
 102- 2 szt.
 103- 2 szt.
 104-18 szt.
 111-118 szt.
 112- 5 szt.
 113- 2 szt.
 114-135 szt.



much tilting as the jib & bucket moved fore and aft. So the Road Wheel was replaced by 2 Axle Stops, one on top of the other, with 4 extra pairs of Axle Stops equispaced on a 4cm pcd, acting as 'supporting pillows'. Each pair was held by a Bolt through suitable holes in a Perforated Plate in the chassis, and it tightened securely in the bores (fortuitously undersized) of the Axle Stops. Not good engineering practice no doubt but it answered well enough.

Finally some smaller points. The Bolts were over long and their shanks interfered with one another in corners. The Pawl was much easier to use than the 1980s CNN version. The variety and quantity of Perforated Plates was a real blessing. The lack of slotted holes in the A/G didn't matter in this model but would certainly be a problem in others.

FIG.9

ENGINEERIT It is said in MCS that ENGINEERIT was an American system from the 1920s, but the very few sets that are known were in Australia, sold there by an agent.

ENGINEERIT had a small range of more or less conventional parts except that slotted Clips held in place by flat Wedges were used to hold the parts together instead of N&B. This method was also used in the first version of the Australian EZY-BILT (see 22/636) and in the German PHANTASIE (see 15/417).

This account is based on some parts to hand and photocopies of two model leaflets that were with them. It is thought that the latter were the basis for the MCS entry. One leaflet, no doubt the later of the two, is headed New Series and shows different models with some slight differences in the parts, notably the shape of the Clip, as explained later.

The PARTS All to hand except the Axles & Crank Handle, are shown in Fig.3, with inset a clearer photo of the Clip & Wedge. A few traces of the original bright tin finish remain. All **holes** are round and are 4.3mm Ø at 12.7mm pitch. **Strip parts** are 12.5mm wide. **Axles** are 3.7mm Ø, 1½ & 3½" long, with sheared ends. The **Crank Handle** is similar with a shaft 3.9" long, and a .9" handle offset by .8". The **Wheel & Pulley** are 35 & 18¼mm Ø with discs held together by a nickelled eyelet. The Pulley is 2½mm wide at the rim. The Wheel is loose on the Axles; the Pulley very slightly tight. The **Clip** is 11mm Ø with a 9½mm long tongue. The **Wedge** is 15mm long. A **bifurcated paper clip** 1" long, is also included in Fig.3 – there were a number of these among the parts and perhaps they were used to hold the parts to a backing card.

The parts are generally accurately made except for the registration error between the 3rd & 4th rows of cross holes in the large Flanged Plate.

The FIRST LEAFLET is a single sheet printed on both sides. An introduction is headed by an illustration very similar to the label on an Ebay lid (Fig.1), but in B&W with the agent's details instead of the set number. It mentions tinned steel parts with holes at ½" pitch, and ends with some building tips.

6 cards of 'Extra Parts' at 1/- each were advertised with the contents of each listed, plus a 5½*2½" Base Plate at 4d.

Also 2 Motors, with the illustration in Fig.2, 'designed to be driven by Dry Cells or Storage Batteries': a 4 volt at 15/- and a 6 volt at 25/-, with a Driving Pulley available at 6d. An Illustrated Parts lists the following (with my names). • #1,2 Flanged Plates 5½*2½", and 2½*2½".



FIG.1

- #5,7,10 Strips 11,5,2h, 5½, 2½,1". • #16,19,20,21 DAS 11,5,4,3h, 5½,2½,2,1½".
- #22 A/B. • #25, Clip, Wedge, & Washer (the Clip square, it was shown in OSN 22 and can be seen in Fig.4).
- #30,31 Axles 3½,1½".
- #36 Crank Handle. • #40,45 Wheel (called a Tractor Wheel) 1½" Ø. Pulley ½" Ø (not illustrated, but see Fig.2).
- #50 A/G 11h, 5½". • #53-55 Perforated Plates 5½*1", 5½*2½", 2½*2½". • Rubber

Axle Stop (no PN). • All the structural parts are shown with square ends/corners. Under the Strips & DAS it is said that longer and intermediate sizes will be available as extra parts.

27 models are shown with a line drawing of each, 24 for Set 1 (though one is said, probably wrongly, to need Extra Parts), and 3 for Set 2, mixed up in the others. The No.2 models are a very rudimentary Aeroplane, plus the Motor Truck & Chassis in Fig.4; those for set 1 include 2 Cranes plus a selection of the usual small Trucks, Barrows, furniture & domestic items – Fig.4 shows one of the Cranes and a Bedstead.

As far as can be seen from the models, Set 1, apart from strip parts, includes a 5*11h Flanged Plate, 4 Wheels, & a Pulley. Notable additions in Set 2 are a 5*5h & a 3*5h Flanged Plate, 4x 3h Strips, & 4x 1*3*1h DAS. But no A/Gs. The 3h Strip & 3*5h Flanged Plate are not in the Illustrated Parts. Nor is the Hook used in the Cranes. In 3 of the models the Wheel is shown with 2 or 3 face holes.

The LATER LEAFLET It is again a single sheet but printed on only one side and headed 'ENGINEERIT MODELS NEW SERIES'. Underneath is a list of 21 models and a numbered line drawing of each. All are different to the earlier models. Models 1, 7, 11, 13 & 21 are for Set 1, the rest for Set 2. Though simple as before, they include a Machine Gun and a few of a mechanical nature – a Lathe, and the Ore Crusher in 22/637 for example. 3 of the No.2 models are shown in Fig.5.

The parts in the models look like the ones to hand except that though some of the Strips have large-radius ends, many are square with rounded corners. (Possibly an intermediate stage – the strip parts in the Ebay set all have large-radius ends except that the 3h's are the square with rounded corners type.)

Judging by the parts used in the models the composition of the sets had changed. The No.1 has no Pulley or Wheels and fewer Strips; the No.2 definitely has 2 A/Gs but no 3h DAS. The only unusual parts are 2x 14h Strips formed to provide the back frame, arm rests, & front legs of a Verandah Seat.

USING THE PARTS I made a small Lifting Bridge and the parts went together easily enough. The Clips looked very neat on the outside of the model and held the parts firmly enough unless a significant out-of line force was applied. The Wedges though needed

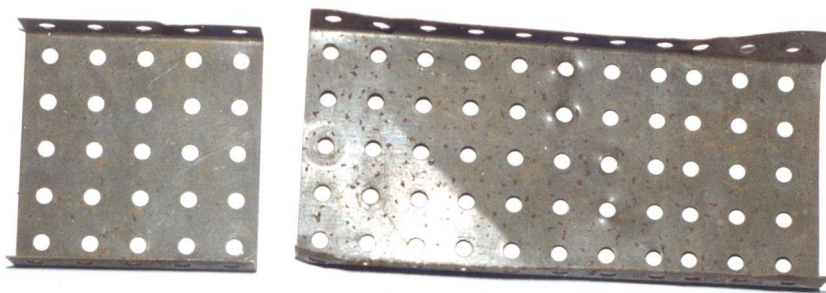


FIG.2

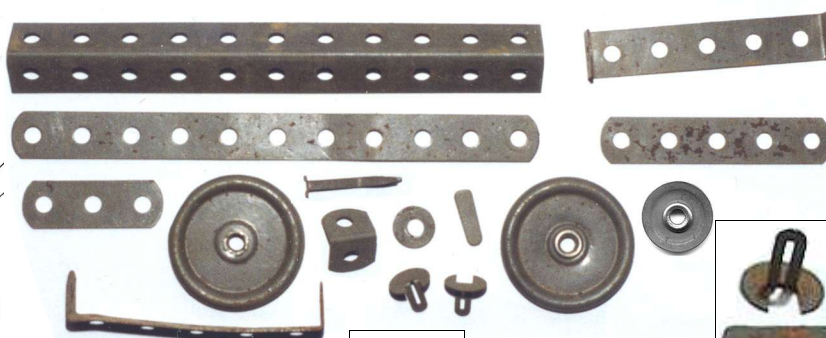
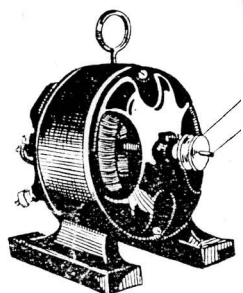


FIG.3

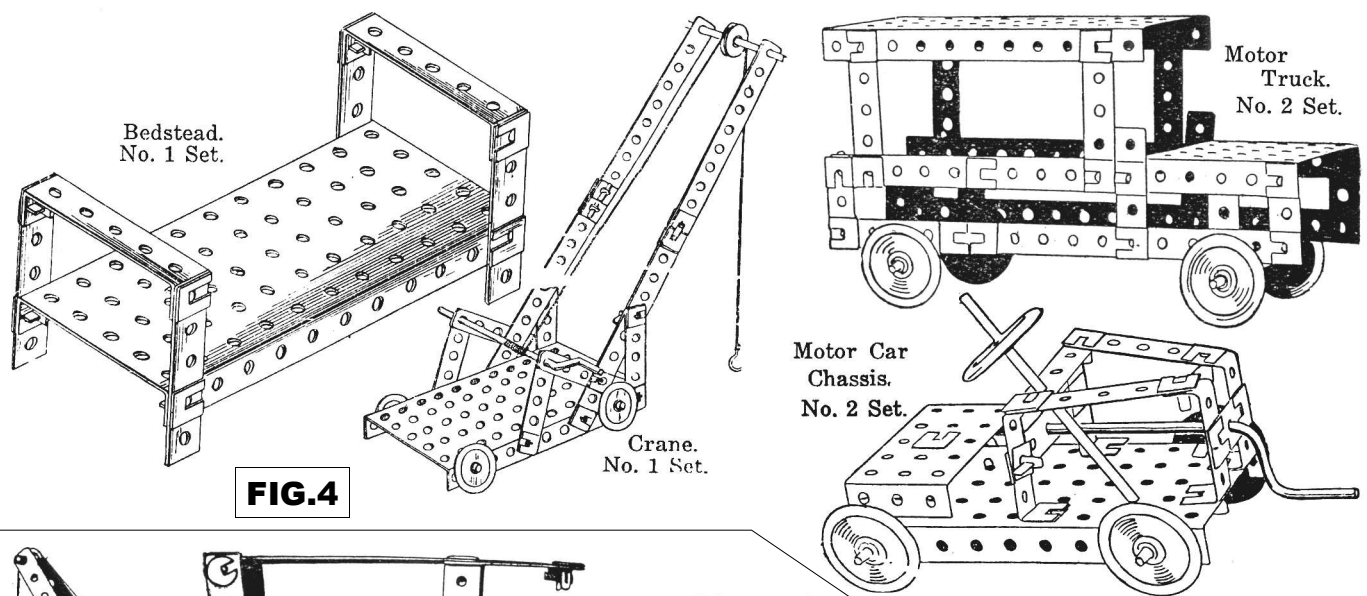


FIG.4

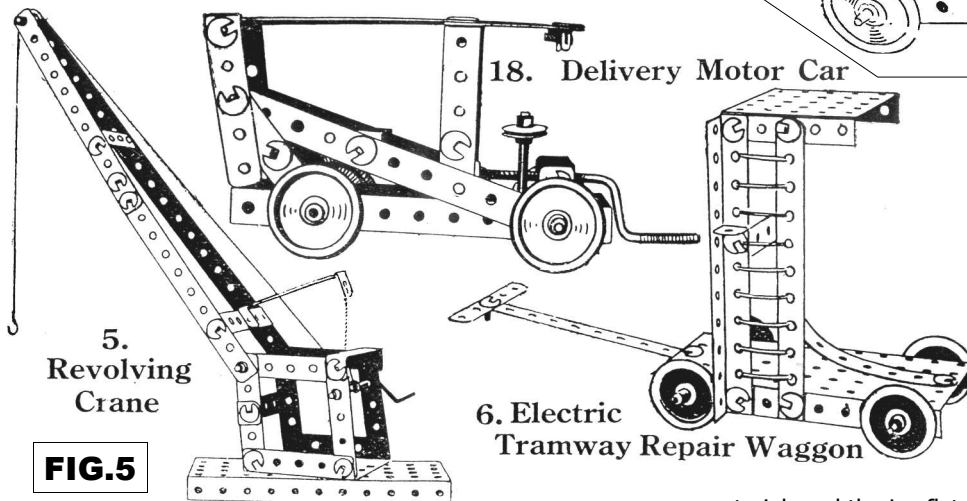


FIG.5

to be pushed in really hard and pliers were sometimes a help – it was then equally hard to remove them. It was also necessary, as stressed in the Instructions, to use the correct number of Washers to ensure the Wedge would grip, and at .012" thick they are thin enough to allow this. On the whole I doubt if the Patent's claim of speed of assembly & disassembly compared with N&B was really justified. The Wedge couldn't be used to hold a Clip in place when it was being used as a to allow two parts to pivot but the tongue is 4.3mm wide and my substitute Axle Stops could be pushed onto it. The movement was a little lumpy and the tubular type of Clip in the patent (see 22/636) would have been better.

HISTORY The 'Sole Agent For Australia & New Zealand'

given in the first leaflet was P V Morris, 7 Elizabeth St., Melbourne. But was ENGINEERIT American? Having an agent could well point to a foreign product but certainly doesn't preclude an Australian manufacturer. The case for America: tin plated parts were common there in the early days, as were Motors similar to the ENGINEERIT one, and there is no claim anywhere of Australian manufacture. For Australia: home to the only known ENGINEERIT

material, and the Leaflets contain no Americanisms.

Now patents. The lid, but not the Leaflet, has 'Patent Applied For' on it, though it doesn't say where. But if in Australia was it the application which led to the successful 1923 patent by James Perrott (see 22/636)? It covers both the square & round types of Clip and the model shown in the patent (Fig.1 in 22/636) is not dissimilar to the Bedstead in Fig.4 from the first Leaflet. If the Perrott patent was independent of ENGINEERIT it seems unlikely that it would have been granted if ENGINEERIT was on the market at the time. In which case ENGINEERIT must have appeared after 1923 and presumably with Perrott's agreement. And presumably it had disappeared before EZY-BILT was launched in the early 1930s (see 34/1030) using the circular Clip?

ENGINEERIT: S2

OSN 45/1368

Snippets. PFIFFIKUS A few points of interest about this small German, 12.5mm pitch system, since the last note in 38/1140. • The Ebay photos of 3 sets have same lids & partitioned boxes as in OSN 38. • In 2 sets the Flanged Plate has stiffening grooves across each end as below, and the

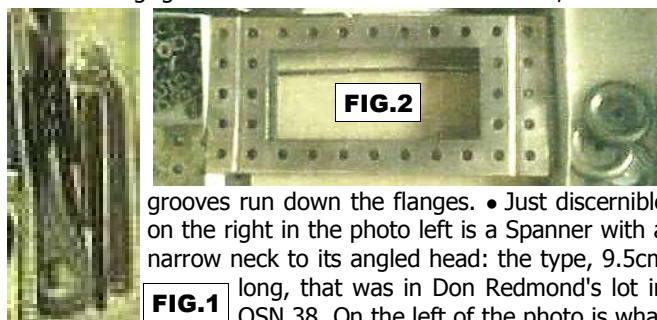


FIG.2

grooves run down the flanges. • Just discernible on the right in the photo left is a Spanner with a narrow neck to its angled head: the type, 9.5cm long, that was in Don Redmond's lot in OSN 38. On the left of the photo is what

FIG.1

looks like a flat Screwdriver with a pierced handle but no such part has been seen in other sets. • Other parts seen are a Stabil-style wire Crank Handle, as in the Trip Hammer below; the 1*8h SAS which was also in Don's parts; a 1*2h A/B (or possibly it's 2*2h); 3 & 6cm long Screwed Rods, and possibly a longer one; a wire Hook; and hexagonal Nuts. • The manual is actually a single sheet folded in two with 2 models on each page. The front was shown in OSN 38, and the models on the other pages (very blurry) are: a See-saw and a crank-driven machine of some sort; a Crane and a Side-Tipping Truck; a Swing and the Trip Hammer. None of them are the models on the lid.

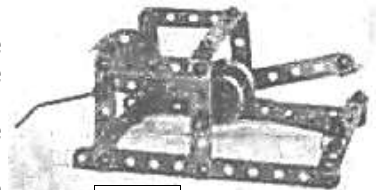


FIG.3

PFIFFIKUS: S2

OSN 45/1368

Another METALLO

by Jacques Pitrat

This account is based on a No.1 outfit, complete and still strung in its box. Neither the box nor the manual includes any indication of date, or the maker, but as the manual is written in both French and Dutch, it is probably a Belgium system. A Belgium METALLO system, using Rods & Couplings, is described in MCS, but it does not seem that there is a link between the two: the principles of construction are completely different, and the quality of the MCS system is much better. Moreover, neither manual mentions the existence of another METALLO system by the same maker.

On the date, the poor quality of some parts and the small size of the sets indicates that it was made at a time of limited resources, so just after WW2 seems likely.

The SETS The manual mentions 5 sets numbered from 1 to 5, but it includes only models for Sets 1, 2, & 3. Set 3 does not look very much larger than Set 1: the maximum number of Bolts used in the models for these sets is 12, 16, & 20. Thus, even the No.3 is still a very small set.

The present set's box is lightish brown with a slight pattern and it measures 30*24*3cm. A label nearly covers the lid and it is the same as the manual cover (Fig.1) except that the text in the box top right reads 'Boîte 1 // MARQUE DÉPOSÉE'.

The PARTS The 18 parts in the system are listed below with 'Meccano' names, and those in Set 1 can be seen in the box below. For each its abbreviation (as in the manual's Parts List) is given followed by the number of parts in my No.1 set. The metal parts are steel except that the Nuts & Bolts, and the Wheel bosses, are brass. The diameter of the holes is 3.3 mm and the pitch is 10.0 mm. The bosses are double-tapped.

- Flat Plate (P - 2) 13*5h. One is blue and the other red. These plates are thicker than MECCANO Flexible Plates. In some models they are bent, even into a U-section. It is certainly not easy to bend them in that way, and still more difficult to restore them.
- Green 13h Strip (L.13 - 4).
- 9h Strip (L.9 - 0).
- Two are in Set 2.
- Yellow 5h Strip (L.5 - 4).
- Yellow 1*5*1h DAS (E.7 - 2).
- Double Bracket (E.3 - 0).

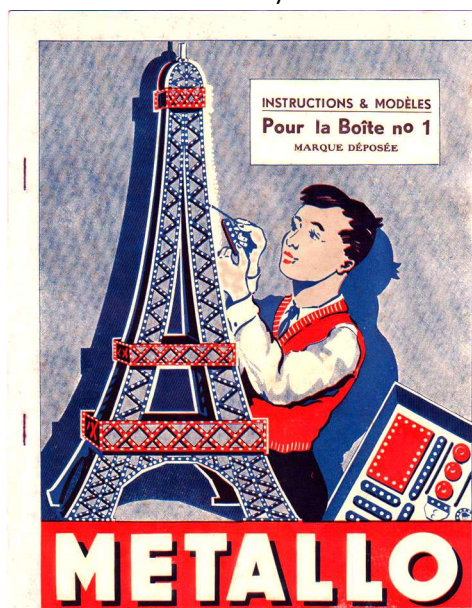


FIG.1

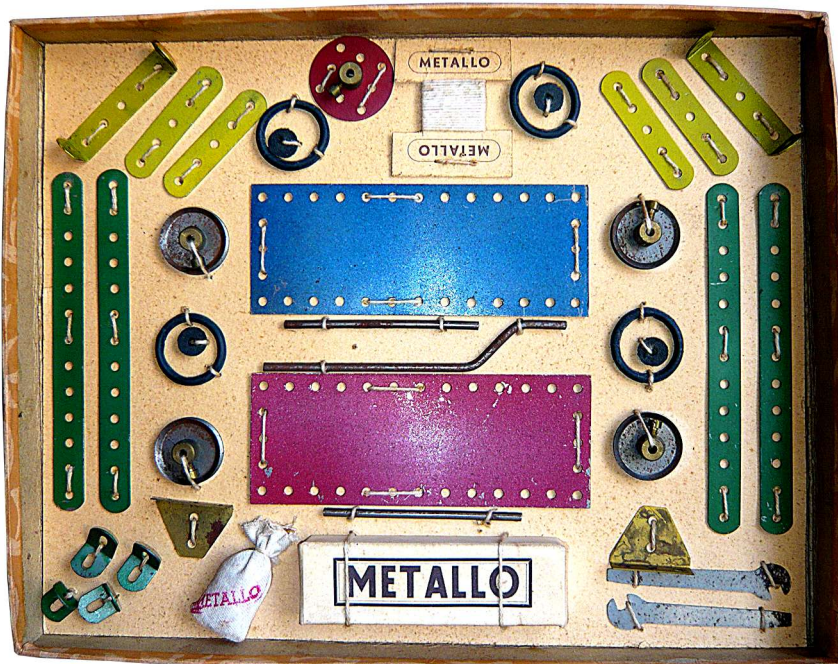
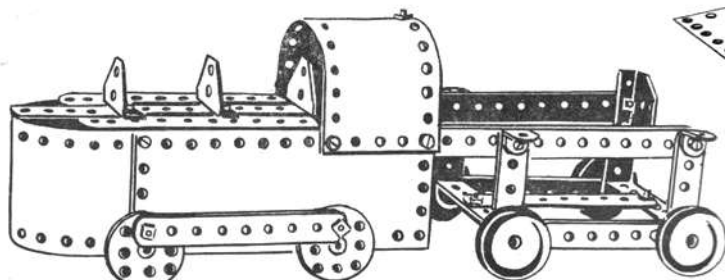
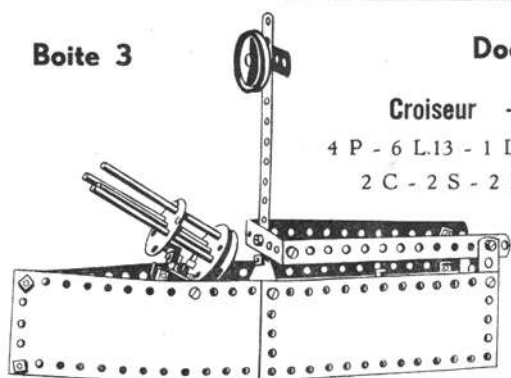


FIG.2



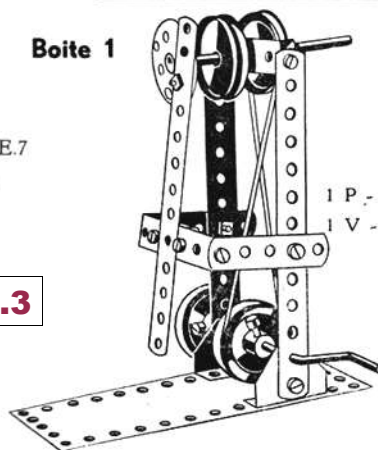
Locomotive et tender — Locomotief en kolenwagen
4 P - 5 L.13 - 4 L.9 - 1 L.5 - 4 E.7 - 4 C - 4 S - 6 R - 2 V 4 A - 20 BL

Doos 3

Croiseur — Kruiser

4 P - 6 L.13 - 1 L.9 - 3 L.5 - 4 E.7
2 C - 2 S - 2 R - 1 V - 3 A

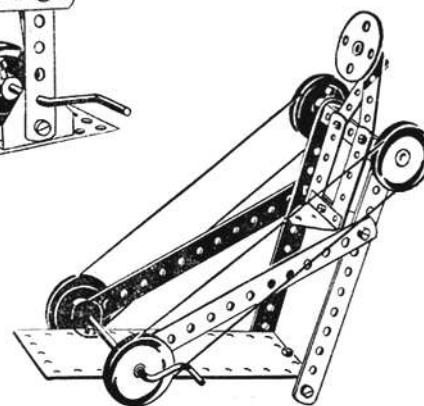
Boîte 1



Doos 1

Scie - Zaag

1 P - 3 L.13 - 2 L.5 - 2 E.7 - 2 C - 4 R
1 V - 2 S - 1 A - 1 M - 10 BL - 1 JC



Trapéziste - Sleentouw

2 P - 4 L.13 - 4 L.5 - 2 E.7 - 2 C - 3 R
1 V - 2 S - 1 A - 1 M - 10 BL - 1 JC

FIG.3

One is used in the Set 3 models. • Green Angle Bracket (C – 4). Both holes are oval. • Nickelled Pulley Wheel with boss (R – 4), diameter 1". • Red Bush Wheel (V – 1), diameter 32.5mm, with a 'square' of 8 face holes but with the middle side holes slightly inboard of a line joining the corner holes. None of the holes are at 10mm radius but by design, or chance, the corner holes are at a pitch of 20mm from either of the remote middle holes. All rather strange. • 75mm nickelled Axle (A – 2). Diameter 3.2mm. • 80 mm nickelled Crank Handle (M – 1). • Nickelled Span'driver (C.T – 2). Yellow Trunnion (S – 2) with a 3 hole base & 2 vertical holes. • Nuts & Bolts (B.L – 12) • Rubber Collar (J.C – 4). • Rubber Ring (P – 4) for the Pulley Wheel. • A Card of White Cord, printed METALLO. • A Loaded Sack, printed METALLO in red.

The quality is not very good, and there is some rust on the nickelled parts. However, excepting the Trunnions, the painted and rubber parts are still in good condition.

The **MANUAL** has 8 sheets 21*27cm, stapled along one side. Everything is printed in both French & Dutch, except the cover (Fig.1), which is only in French. The latter indicates that it is for Set 1 but models for Sets 2 & 3 are also included. 3 pages explain the system's qualities, and one has the Parts List (without mention of the Cord or Sack). Another page announces a model-building competition but unfortunately without a date or the maker's address: models could only be left at stockists.

8 models are shown for Set 1, 6 for Set 2, and 6 for Set 3. All are very simple, but it would be difficult to make better models for such small sets. For each model, the manual gives its name and the necessary parts. No instructions were needed for such simple models. 2 Set 1 models and 2 for Set 3 are shown in Fig.3 at about 70% full-size, with the text rearranged. They are in B&W – the manual's inside pages are actually pale brown.

METALLO [3]: S2

OSN 45/1370

LINX/LYNX: an early Price List LINX was the name used for home repair outfits with parts that morphed into the LYNX constructional system, see 43/1321.

A recent Ebay lot consisted of a Size 7 LINX Complete Home Outfit, and with it 2 printed sheets, one a Model Leaflet and the other the Price List below. The List is the main item of

ALL STEEL PRODUCTS DECEMBER, 1945.
THE DAY MANUFACTURING CO., 15 VICTORIA STREET, MORECAMBE, ENGLAND.
have pleasure in furnishing details of Goods now available for Home or Export.

OFFICIAL PRICE LIST

"LINX" CONSTRUCTIONAL TOYS

No. 1 OUTFIT	- - -	6/1 (5/- plus Tax 1/1)
No. 2 OUTFIT	- - -	12/2 (10/- plus Tax 2/2)
No. 3 OUTFIT	- - -	18/3 (15/- plus Tax 3/3)
No. 4 OUTFIT	- - -	24/4 (20/- plus Tax 4/4)

CARRIAGE PAID ORDERS 6.00Z. LOST

LATEST ADDITIONS:
RUBEROID AERO WHEELS 50 per
RED OR BLUE ENAMELLED STRIPLINX 10 per packet of 4

MODEL TANK MODEL TRAILER

"LINX" MODEL INSTRUCTIONAL FOLDER (M.B.2) PRICE 3/-

10 SIMPLE TO USEFUL TWO EXAMPLES

SIMPLIFIES TOYMAKING

CORNERLINX

Fitted Glass Tops Cafe Tables ETC.

The "Linx" Repair & Constructional Plates (Carriage Paid Orders - 1 Gross)

No. 1 REPAIR OUTFIT	7/- each
No. 2 REPAIR OUTFIT	2/9 each
No. 3 REPAIR OUTFIT	3/9 each
No. 4 REPAIR OUTFIT	5/- each
No. 7 REPAIR OUTFIT (Complete)	15/6 each

HOW TO MAKE IT: Series of Instructional Patterns, Price 3/-

The "Linx" Refill Packets (Carriage Paid Orders - 1 Gross)

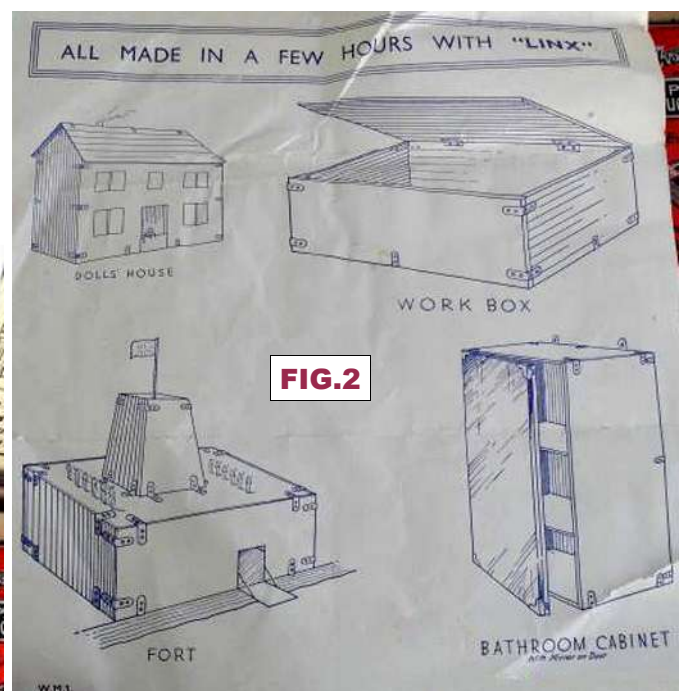
Diamondlinx (Nickel-plated)	7/- d. per pkt. of 4
Angelinx (Nickel-plated)	10/- d. per pkt. of 4
Striplinx (Nickel-plated)	10/- d. per pkt. of 4
Bracketlinx (Nickel-plated)	1/- per pkt. of 4
Cornerlinx (Nickel-plated)	1/- per pkt. of 4
Edgelinx (Nickel-plated)	9/- d. per pkt. of 4
Washers (Nickel-plated)	9/- d. per pkt. of 4
Wood Screws (Nickel-plated)	6/- d. per pkt. of 24
1" x 5 B.A. Nuts & Bolts N.P.	1/- per pkt. of 12
1" x 5 B.A. Nuts & Bolts N.P.	1/- per pkt. of 12

TOOLS (Hardened Spring Steel)

Screwdrivers	6/- d. each
Bradawls	8/- d. each
Spanners	3/- d. each

CLOTHES HORSE

FIG.1 interest because it is dated (top right) DECEMBER, 1945, and is thus the earliest known reference to LINX/LYNX. The address along the top is 15 Victoria Street, Morecambe. The PR along the bottom is blurry but could be P.L.2. As can be seen LYNX sets are listed as well as LINX and that is a surprise because until now the earliest known reference to these was in Nov. 1946. Two new parts were advertised between the models, a 'Ruberoid [sic] Aero Wheel',



which was no doubt the part later called the Rubber Model Wheel, and Strips enamelled in red or green. Listed under these parts is the 'LYNX Model Instructional Folder M.B.2', see OSN 43, Fig.7.

The LINX sets and parts are in the main as might be expected, except that the Cornerlinx is a part not noted before, or ever seen as far as I know – it is shown being used to hold the glass onto the table top in the Leaflet's bottom left corner. Also I still wonder why the gap between Sets 4 and 7. A Set 6 was noted in OSN 43 but seemed to be from 1946.

The LINX Model Leaflet, W.M.1, is shown above, and Cornerlinx are again used to hold the mirror on the Bathroom Cabinet.

Turning to the Set itself, its lid was identical to the one in Fig.4 of OSN 43 except that the lettering was blue and the background purple on pink. Again the box has Packets in 10 compartments, 17 in all and 3 deep in some of them – and in this set they include a Diamond Linx.

The Set was said to be from 1947 but unfortunately with nothing to justify that date. It would be before the Sept.1947 Price List in OSN 43 because the prices of the Packets are slightly lower (as they were in the OSN 43 outfit), and it could be earlier in as much as the prices match those in the 1945 List.

LYNX: S5

OSN 45/1370

METALCRAFT Aero Sets These notes add to those in 24/688. In the main they draw on a large number of Ebay photos but even so gaps & uncertainties remain. The Table right shows the range of Spirit of St. Louis sets and their contents. The red ones are 'deductions' based on manual models and photos of sets; the remainder have been taken from manuals. Illustrations of the different parts were shown in OSN 24 – in some cases their shapes may not be obvious but should be clear from the models shown there and in this article. The names of the parts sometimes vary a little from set to set but the PNs remain the same. Many of the main parts in the '800' sets were changed for the '900' series except that most of the No.950 outfits seen contained only parts from the original range.

Phase 1, Sets with the Original Parts

These appeared late in 1927, after Lindbergh's Atlantic flight in May of that year, and they were one of the two most popular toys at Xmas (the 1928 Zeppelin sets were joint favourites a year later). It is not certain that all the 800 sets were available initially.



FIG.1

The lid label on the No.810 set above has its set number, followed by the patent number, in the narrow white panel bottom centre. For the larger 820 & 830 boxes the panel was set on a striped red & white ground (as on the lid aprons above). The backing cards were also striped, with slots & slits to carry the main parts. The smaller ones were in a largish box also let into the card. It usually had a red lid with the set number on it in small figures, but a white lid with red side edges also exists. The 'LYONS' logo on the lid was added after Garvey Lyons became president of the company, probably in 1928. It is not on many of the sets seen, said to be from 1928 or later, but it was probably a stick-on label so may have fallen off.

The label below, in various colours, was used for



FIG.2

the 80, 800, & 950 sets. The set number in in tiny type bottom left. The parts were on a card as in the larger sets but in one of several plain colours. A few of the lids have a LYONS sticker in one of the top corners. Neither the 80 or 800 sets were listed in a 1928 Metalcraft ad for the 3 larger sets, nor were they among the sets mentioned in the ©1928 manual for Set 830. But perhaps the company followed Gilbert in

PART	SET models	PN	80 5	800 15	810 25	820 100	830 250	950 10	New PN	950 10	951 25	952 100	953 250
Body, Left & Right		17	1ea	1ea	1ea	1ea	2ea	1ea	55	1ea	1ea	1ea	2ea
Cabin Front		5	1	1	1	1	2	1	56	1	1	1	2*
Pilot Cabin		32				1	2					1	2
Cabin Front Extension		31				1	2					1	2
Nose (for #17 & 19)		4	5	5	5	9	10	5		5	5	9	10
Body Brace									57	1	1	1	2*
Wing, Upper		13		1	1	1	1						
Wing, Lower		14	1	1	1	1	1	1					
Wing									54	1	2	2	2
Wing Brace		16	2	2	2	2	2	2		2	2	2	2
Wing Tie		20		2	2	4	4				4	4	4
Wing Tie, Long		33				4	4					4	4
Wing Tie, Diagonal		34				4	4					4	4
'N' Strut		35				2	2					2	2
Tie Strap		36				2	2					2	2
Body Bracket		12	2	2	2	2	4	2		2	2	2	4*
Stabilizer		3	1	1	1	1	1	1	53	1	1	1	1?2
Stabilizer, Double		27					1						1
Rudder		2	1	1	1	1	2	1	52	1	1	1	2
Engine (casing)		6	1	3	3	3	4	3		3	3	3	4
Thimble		9	1	3	3	3	4	3		3	3	3	4*
Bushing		7	1	3	3	3	4	3		3	3	3	4*
Black Screw (Cylinder)		8	9	27	27	27	40	27		27	27	27	40?*
Propeller		1	1	3	3	3	4	3	51	3	3	3	4
Hood for Extra Motor, etc		19	2	2	2	2	2	2		2	2	2	2
Landing Gear		11	1	1	1	1	1	1		1	1	1	1
Landing Gear,		38				1	1					1	1
Wheel, Large		10	2	2	2	2	2	2		2	2	2	2
Rear Wheel Brace		18	2	2	2	2	4	2		2	2	2	4*
Wheel, Small		10A	1	1	1	1	6	1		1	1	1	6
Pontoon, Top		28					2						2
Pontoon, Bottom		29					2						2
Pontoon Brace		30					4						4
Pontoon Holder		37					2						2
Bolt ¼"		26	14	?	18	26	30	?		?	18	?	?
Bolt ¾"		21	3	?	4	6	15	?		?		?	?
Bolt ¾"		25	1	?				?		?	3	?	?
Bolt ⅞"								?	39	?	1	?	?
Bolt 1½"		22	1	1	1	5	10	?		?		?	?
Bolt 1⅞"		23	1	1	1	5	10	?		?	1	?	?
Bolt 1⅝"								?	22	?	1	?	?
Bolt 3⅝"		24	2	2	2	2	2	2		2	3	?	?
Nut		---	22	?	26	42	60	?		?	26	?	?
Span'driver		---		?	1	1	1	?		?	1	1	1*

not advertising the small outfits. The 950 set was included in Metalcraft ads, the earliest from 1929.

FIG.3

The No.80 Of the 4 sets seen all have orange lids, 3 have green backing cards & parts boxes, while both are blue in the fourth. The set had a Lower Wing, one engine & Propeller, and, like all the sets, 2 cylindrical Hoods #19 which could be used (with Noses #4 as appropriate) as a bomb, as an extra fuel tank, or as a float for Seaplanes, or, in larger sets with multi-engines, as an engine nacelle. The model leaflet, a single sheet folded in two to about the same size as the 830 manual described in OSN 24, shows 5 models, the first 5 of the 830 models. One is a Low Wing Monoplane, the others are all basically shoulder wing machines which differ only in the position and role of the Hoods. The basic machine is shown right (at actual size) & the Leaflet gave detailed building instructions for it.

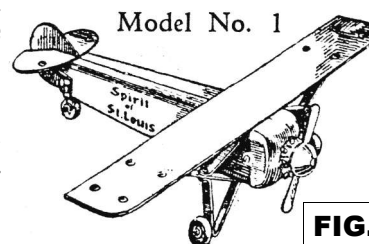


FIG.4

The No.800 The box is said to be about 10*12" (the No.80 looks similar in size). Again 4 sets have been seen, one with a green lid, one a grey, & 2 light green. The backing cards are red, grey, orange, & blue respectively, and the parts boxes are red except that the 'grey' set has a matching box with just 'PARTS' on the lid in white. The model leaflet (a sheet folded into 3) shows the first 15 models in the 830 manual. No inventory is available and the puzzle is that the main parts needed for the models seem to match those in the 810, that's to say the No.80 parts plus an Upper Wing and 2 engines & Propellers. For the 810 that allows the first 25 of the 830 models to be built with one of the extra 10 a model identical to Model 5, and the others differing only in having their biplane wings above the fuselage (as in Fig.5 below). The only possible variation in the parts needed is in the N&B. A price list has the 80, 810, 820 & 830 at \$1, \$1.50, \$3 & \$5 with no mention of the 800 but as it is quite well represented among the sets offered on Ebay it probably sold in some quantity at some stage.

The No.810 The box is about 14*8¼". This is one of the sets most commonly seen and as already mentioned it had Upper & Lower Wings, and 3 'engines' & Props. Also a Leaflet (again one sheet but folded into 3) which shows the first 25 models in the 830 manual. The first 6 after No.1 though are not in the same order, and the Monoplane is called Sperry Miniature instead of Bremen (in the 830 and later manuals). Left an example of a Biplane with the Wings above the fuselage (100% full-size). One set seen

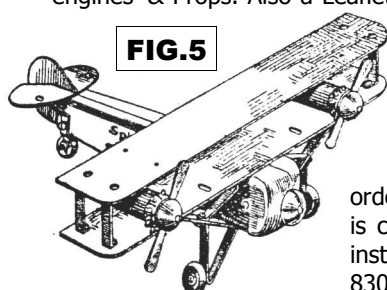


FIG.5

**Model No. 24
SIKORSKY TWIN ENGINE
18 PASSENGER**

Remove the center propeller and engine so that you have a two motor Sikorsky Plane.

FIG.6



looks entirely as expected except that it has 'R' after 810 on the lid, as above. Ideas welcome.

The No.820 The box is 18¼*12¼" and more of the medium sized parts are on the backing card rather than in the small parts box. The main additional parts were various different Struts, a Nose Extension #31, and the Cabin #32 to fit on top of the fuselage. The manual has 24 pages (one Ebayer says 20) and the cover is as in OSN 24, but is orange printed in black. From the pages seen the 100 models are almost certainly the first 100 in the 830 manual. The extra Struts allow the Wing to be mounted on top of the

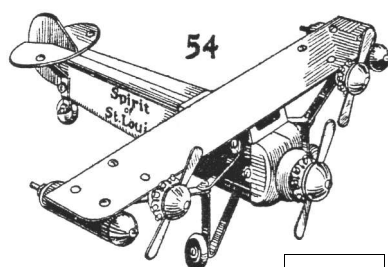


FIG.7

No constructional notes are given for the models after No.50.

The No.830 The box is 13½*17¾" and has 2

layers of parts. All of them, apart from the N&B and a few Struts in the usual red box, were displayed on the backing cards. The main additional parts were a second set of fuselage parts including the Rudder, the Double Stabilizer, a fourth engine & Prop, the pontoon parts, and 5 extra Small Wheels #10A (2 were to be fitted to each Pontoon Bottom). The manual, with a buff & orange cover, was described in OSN 24. Many of the models had twin fuselages and in many others pontoons replaced an undercarriage or were placed outboard as in the model above (120% f-s). Boys were invited to try to build 500 different models from the set but although the possible combinations of Hoods, pontoons, Wing positions, number of engines, and one or two fuselages, are quite considerable, I suspect that some of the 500 would simply involve adding an 'N' Strut #35 to the interplane struts (Wing Ties #20) as in Model 249 in OSN 24.

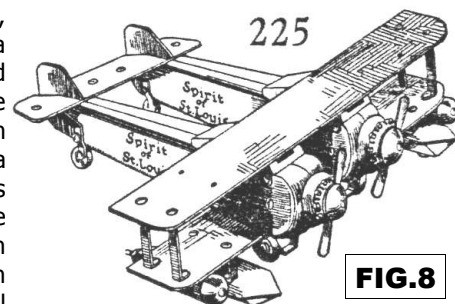


FIG.8

The No.950 Another popular set with a box 12*10¼". 6 examples have been seen, 4 with '800' parts, and 2, to be discussed in Phase 2, with some or all of the revised parts. 3 of the 4 are in red-orange boxes with matching parts boxes – no inventory is available for them but from the photos the main parts were 1 Wing and 3 engines & Props. The 10 models were again on a 3 bay folded Leaflet and 8 of these could have been the first 8 in the 830 manual. The remaining 2 could have been devised without difficulty.

The 4th set is in a grey box and photos were shown of the Illustrated Parts & a sheet describing 10 models – the number claimed on the lid. The parts in the set differ from those in the 'orange' sets in having an Upper & a Lower Wing (with the appropriate #20 Wing Ties), & 2 different types of Wing Brace (instead of 2x #16). These parts are shown in the Illustrated Parts but the text is too blurred to read. (The Illustrated Parts shown for one of the 3 'orange' sets has only one Wing & one type of Brace.) The Wings, like those in some of the other small sets, do not have all the normal perforations. The 2 Braces look the same size & shape but have different PN's – they may be labelled Front & Rear Brace and probably one is like #16 with 4 holes, the other with only the end holes – the rear Brace doesn't need the other holes unless a Hood is to be bolted to it. The PN of the second Brace could be the #15 not used in the OSN 24 parts. It is hard to see where this No.950 set fits into the scheme of things – quite possibly at some stage unnecessary holes in the parts for the small sets were not pierced as an economy measure, but why 2 Wings? And why with 2 Wings were only 10 models claimed? Perhaps the extra Wing was simply a bonus from surplus stock just before the change to the new parts was made, and it wasn't worth bothering to claim/show more models. But I wouldn't put money on it. This set is not included in Fig.3.

Phase 2, Sets with the Modified Parts

The '900' sets were certainly available in 1930, and possibly in time for Xmas 1929. Production has been said to have continued until 1935 or, from another source, 1940, but I've no positive reference to sets being sold after 1932, though no doubt they were.

The modified parts, notably the Wing, fuselage, Rudder & Stabilizer were a distinct improvement in appearance, and they were all a little larger: the wing span increased from 11½" to 14¼" for instance, and the wing area was some 30% larger. This meant that multi-engined models looked a little more realistic. The new parts didn't expand the scope of the system and, for example, the upper wing of a biplane still had to sit directly on top of the fuselage or cabin.

At some

FIG.9



point the fuselage Bodies #17 & the Wing (one pattern now served as both upper & lower) were painted, usually in different colours, but none of the other parts. Not many sets with these parts have been seen.

The 951 set packaging remained the same. The label on the larger sets is shown in Fig.9 with the set number in the yellow strip across the bottom. The red/white stripes were retained on the lid but the backing cards were plain blue, and the layout of the parts changed. Only 3 lids of sets with coloured parts have been seen and all have 'COLORED' stamped in



the set number panel, as above.

The No.950 Two sets have been seen, both with orange lids and both with some unexpected parts. The first has the usual 3-panel Leaflet including the Illustrated Parts page. It shows an old style Wing but new style fuselage Bodies, Rudder, Stabilizer, & Propeller. So perhaps the company still had old Wings to use up. However the actual parts consisted of an old Wing, new Rudder & Stabilizer, and old Bodies with a #5 Front. And the set is probably genuine because there are cutouts in the backing card for the fuselage parts.

The second set is less complete but of the expected new style parts only the Stabilizer is missing. The surprise is that the Wing & Bodies are painted dark red. It is a shade used by the company and although no COLORED stamp can be seen on the lid, there is no other reason to doubt the set's credentials. So it seems possible, perhaps even probable, that colour was added to even the smallest set and that the 950 packaging remained the same into the 'Color' era.

The No.951 In terms of Ebay items this was the most popular set of all. The box was 14½*8¾" and the parts were arranged with the Wings stacked along one long side with the fuselage Bodies side by side along the opposite side. Their noses pointed outwards and their tail ends overlapped. A red parts box was in the centre with a Hood each side of it, or in some sets 2 Hoods on one side and 3 Engines #6 on the other.

Apart from the change to the modified parts the contents were the same as the 810 set except for the N&B and a Body Brace #57, a DAS which joined the 2 Body parts internally and provided a bearing for the propeller shaft (a 3⅜" Bolt #24).

In most of the dozen sets seen the manual is a portrait format booklet 5¼*7⅞", with 8 pages and no covers. The 25 models described are, apart from the new parts, the same as the first 25 in the 830 manual (& Model 25 is identical to Model 5 as before). But unlike the 830 models no construction notes are given for any of the models after No.11. Model 12 below has

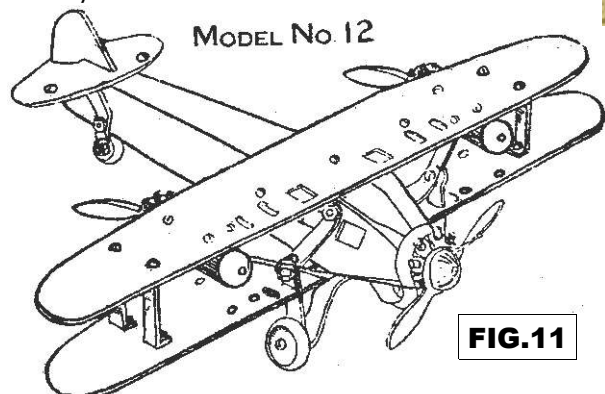


FIG.11

2 pusher engines (150% f-s).

A manual with the cover right was shown with 2 of the sets – both said to be from 1930.

Sets Nos.952 & 953 No inventories are available for these sets but it would be surprising if they were not quite similar to the 820/830' sets, and nothing in the information to hand contradicts that except that in the 951 manual it is said of the 953 'That it will build two monoplanes at a time'. 2 Stabilizers would be needed for that whereas the 830 had only one. Otherwise 2 Monoplanes

FIG.10

could be built with the 830. For both sets one would have to have a wheeled undercarriage, and the other would be a seaplane.

The 952, like the 820, has many of the parts on the backing card. The manual has an orange cover which looks identical to the 820 one.

A photo of a 953 shows a lid as expected and 2 layers of parts. The layout of the parts is similar to the 830 with again few parts in the parts box (it has a white lid printed in blue). The manual has the 44 pages 8¾*5¾" with the cover right.

Notes on the Parts 1) In some sets, perhaps as many as a third of those seen, some of the smaller parts are copper plated instead of having the normal silvery finish. The parts in question are the Hood, the Nose, and less often, the Engine. Also the Rudder in 2 sets. This difference occurs in sets over the whole range of 800- & 900-series outfits, including the 900 sets with painted parts, though it is rather less common in the 800 outfits. To me the copper parts look attractive and make a nice contrast to the 'standard' finish but I've no explanation for why they were in some sets and not in others.

2) On the painted parts it has already been noted that a 950 set has dark red parts. The Bodies/Wings of the other sets seen are: dark green/orange for two 951 sets; yellow/orange for two 952 sets; and orange/yellow for two 953 models, as in the example below.



FIG.14

3) Some of the 900 Wings are just a flat plate, like the 800 parts, but rather more of those seen have, as in the model above, impressed ribs & ailerons. They also have a slight chordwise curvature.

Footnotes 1) A website about toys has it that large METALCRAFT Aero sets contained a wax crayon, with 'Mid-West Crayon Works, St. Louis' printed on its side. Not very likely? But just possible – an Ebay photo of a model from Set 953 has wing tips of a different colour, and roughly done, quite possibly by a crayon.

2) It should have been mentioned that the model leaflets were often folded as necessary to fit into the small parts box.

3) In Fig.3's 953 column the asterisked parts plus one Engine, are not on the backing cards and have been assumed to be in the small parts box.



FIG.12

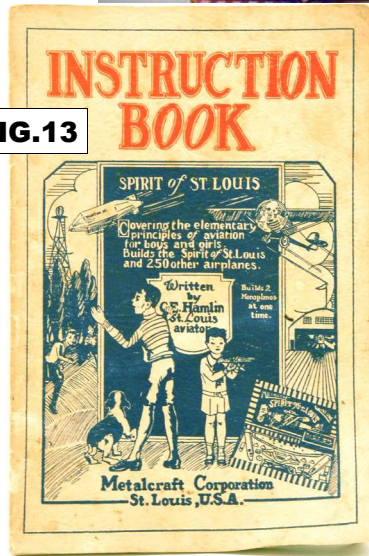


FIG.13

Snippets. GLUCK'S

Aero Sets The Gluck Mfg. Co., of New York City are said to have made these sets in the 1920s. Ebay photos of 3 sets are to hand.

First, the **BUILD-A-ZEP** outfit with the lid right. Nothing else is known except that one, possibly unreliable source, gave the length of the model as 16".

Next, a **BUILD-A-PLANE** No. 300 outfit. Its box is red, 17*14", has the label top right, 14½*10½". Again no details are available except that the parts may be wood & metal with a twisted rubber drive to the Propeller(s).

Finally, the wood & metal **TEN IN ONE** Aeroplane Construction Toy in Fig.3. The parts are shown in the Model Leaflet (as below): most can be seen in the 2 models in Fig.5, and the photos here of a model & the small parts box (Fig.9). The model is said to be over 14" long with a wingspan of 11½". Some of the names used for the parts are rather non-aeronautical & not always very descriptive: for example the dictionary says a Jingle (bell) is a sleigh bell's clapper. Anyway the model seems to have a twisted rubber drive to a Threaded Rod which carries a Propeller on the forward side of the nose (#9 Bell) and Pulleys behind it for rubber band drives to the outboard Propellers & undercarriage Axle. The Wing Strut stamping #18 is formed to provide the undercarriage legs & lugs for Threaded Rods which carry the outboard Propellers. It isn't clear how the rubber drive is held at the tail or how it is attached to the Threaded Rod – could it be the Jingle? The two #15 Runners are obviously the floats; the other #15 Bombs which are held under the wing tips of one model by the Strut attachment Bolts (no bomb release!).

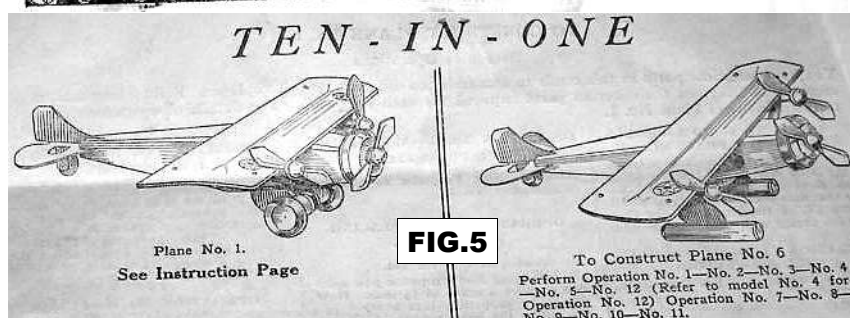
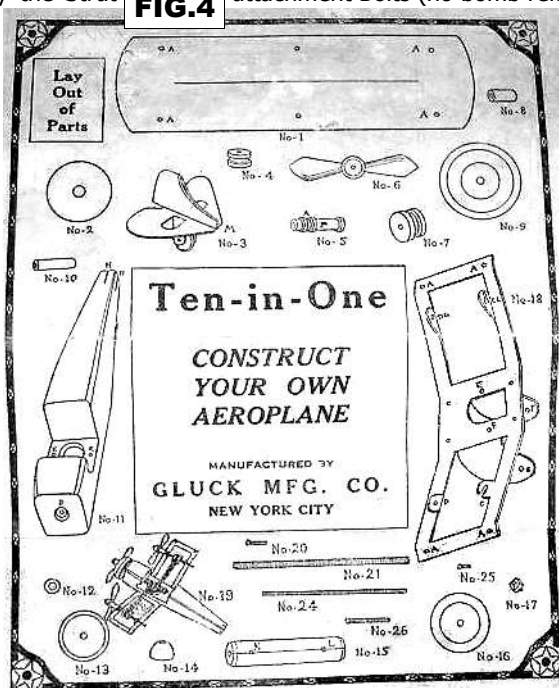


FIG.1



FIG.2



FIG.3



FIG.6

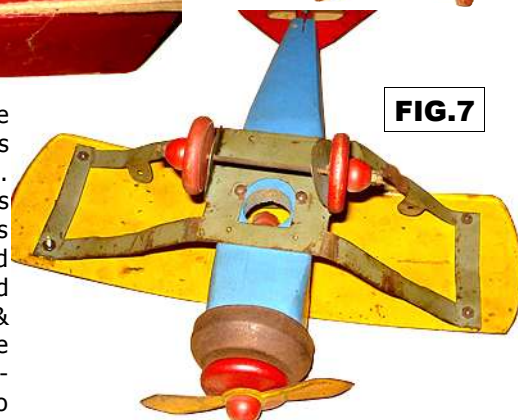


FIG.7



FIG.8



FIG.9

Fig.5 shows the top of the Model Sheet – of the other 8 models some have a single Propeller, one has pusher outer Propellers, & one the wing tip Bombs.

No Set No. can be seen anywhere but a note in the instructions says that there is a Set 150 which allows 30 models to be made. No doubt they would include Biplanes.

One can speculate that the 150 cost \$1.50 & the present set \$1. Those were the prices of the two smallest Metalcraft Aero sets & I wonder if Gluck were competing with them in the late 1920s. Not in the same class perhaps but Gluck's 10 & 30 models outdid Metalcraft's 5 & 25, & their models were 'powered'. Their bright painted parts might have appealed too.

Snippet. 'New' System: LINEOL

PIONIER-BRÜCKE This pre-WW2 bridge system is new to me but would no doubt be known to collectors of Elastolin/Lineol figures (both companies made figures in the same way, see 37/1115, and often had comparable ranges of figures & other models). The Lineol bridge constructional models are of a size to suit their 7.5cm series of figures & accessories.

These notes are mainly about the set most commonly seen – it has enough parts to make the 95cm long Girder Bridge in Fig.5. To hand are photos etc of 5 sets seen on Ebay & other websites, and various other Ebay lots of parts. Also a few pages from catalogues seen on the web.

The PARTS There are just 6 of them: a Slotted Strip for the side frames, a Cross Beam to space them apart, a Washer & a Wedge to hold the two together, and two wooden parts: a Plank to form the roadway, and a Foot.

All can be seen in Figs.4 & 4A. The Strip is about 20cm long and edged with shallow flanges. The Beam looks to be a flat strip about 15cm long with cylindrical end extensions faired back into the strip. The ends pass through the large end holes in the Strips (they scale at 6½mm) & are slotted through to take the Wedges (Fig.4A) which hold the parts together. Washers (bottom left in Fig.4) are used as necessary to allow the Wedges to work effectively. The reason for the small top hole in the Wedge isn't known. The Planks sit on one of the Strip's flanges with the end

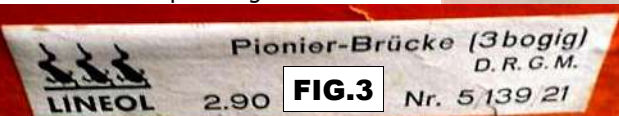


FIG.3

ones in each bay butting against a Cross Beam. In some sets the metal parts look grey rather than blue-grey.

The Sets All the boxes are red, 21*22½*3½cm, though one was said to be 21*21cm. A label on one side



FIG.4

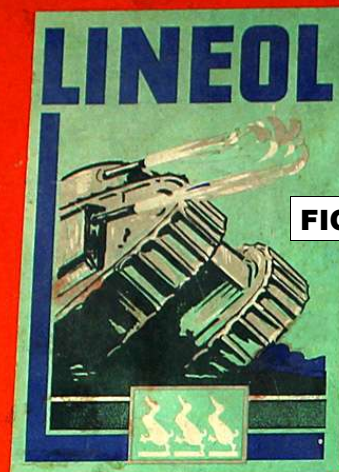


FIG.1



FIG.2

(Fig.3) gives the price, the set number (5/139/21), etc (bogig = bay). 3 of the lids have the Fig.1 label, though in one the back-ground colour is a light pinkish-fawn. The others have the rather less threatening label in Fig.2, an earlier one perhaps. The partitioning is the same in all the sets. The main parts needed for the Girder Bridges are 26 Strips, 9 Beams, 35 Planks, & 4 Feet. Planks are missing from some of the sets seen but a few still have all 35.

The MODELS No manual can be seen in any of the Sets but most have a sheet showing the models in Fig.5 accompanied by an appreciable amount of text. The pontoons in the top Bridge are separate Lineol models, and the illustrations in the two other sheets which were with some of the sets, show the Bridge parts used with other Lineol products, soldiers carrying Strips for example. No other bridges from the Set are shown and, apart from shorter versions, the scope for building different designs looks rather limited.

OTHER SETS • One of the Fig.2 sets has a model sheet in French. It has the same Set No. on its side label as the German boxes but the name is 'Pont en fer, avec arches'.

• In one Ebay ad it is said that the Bridge sets date from 1935-40 and a 1938-39 catalogue lists the 5/139/21 set and a cheaper Nr. 5/139/20 for 2-bay models.

• Elastolin also made bridge sets and a 1939-40 catalogue shows the model in Fig.6. An

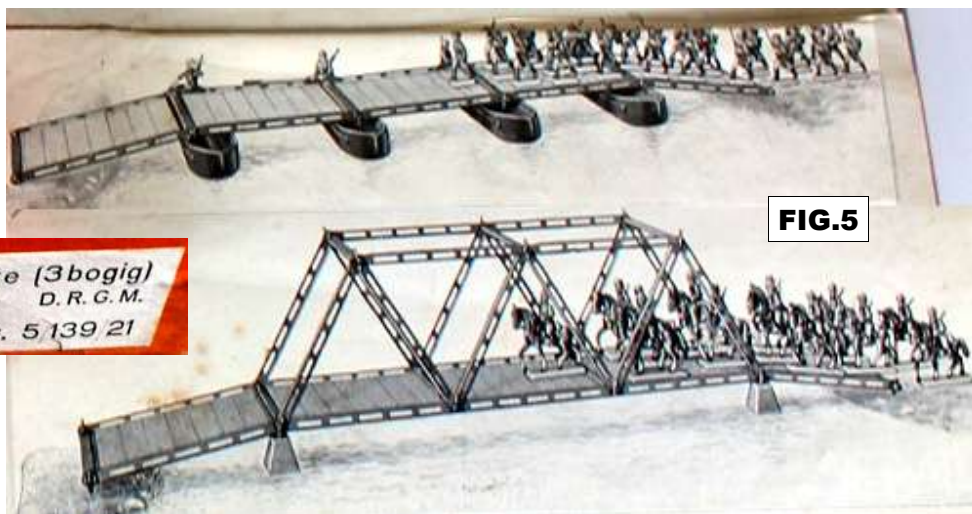


FIG.5



FIG.4A

an auction lot of Elastolin parts is shown in Fig.7 with 18 & 25cm long Bars, Beams, Planks, & Bolts

mentioned. The Bars again have shallow flanges but have an impressed 'V' pattern instead of slots, and the Planks are slotted to fit over them. I can't identify the Beam though conceivably it could be a 'DAS' made from the 18cm Bar.

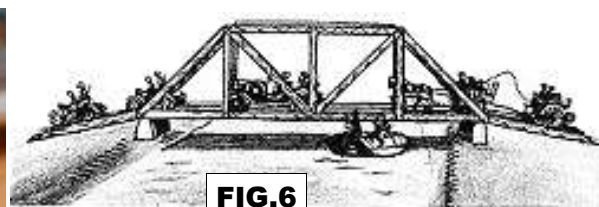


FIG.6



FIG.7

Another INSTRUCTO Outfit Details of a set belonging to Kendrick Bisset were given in 18/494. The present set is basically the same, but is labelled as a No.1. It has no manual or the cardboard Plates but includes some metal fill-in Panels & 'Arches' – pieces which can be seen in the manual models, and which were the waste from stamping some of the main parts.

The Box is exactly as in OSN 18 except that it has a small round stick-on label on the lid's end apron which reads 'No.1 2.50'. Thus it seems that other sizes of sets may have at least been considered. At \$2.50 the set undercut the \$3 of the ERECTOR No.3 at the time (the 1920s), a set with 4 Spoked Wheels and 36 N&B. Fig.1 is the Set's lid, actually Kendrick's.

The Parts Fig.2 shows all the various parts except the Tubes (but with only the ends of the Panels). The 'standard' parts are: $\frac{1}{4}$ " Ø rolled Tubes, 1, 2, 5, 9" long; 5 types of Connector: 6-Spoke, 8-Spoke, 4-way Square, Straight, & Elbow; an Eye Connector; a Perforated Disc; 2 Pulleys; a Tyre; & a Sleeve. They are identical to those described in OSN 18, and their quantities are also the same.

The waste parts arise from stamping the Square Connectors (Panels 'A' & 'B', 1 of each) and the two Pulleys (Large & Small, Single & Double Arched Pieces, 'C' – 'F', with 1 each of the Single parts, & 10/6 of the Large/Small Doubles). All are of soft, untreated, steel. Panel A is $1\frac{13}{16} \times 14.9$ "; Panel B $\frac{7}{8} \times 13.7$ " with the hole at only one end.

Using the Parts The Tubes are not fully closed up and this gives them a good grip when pushed into the Disc, the centre hole of the Pulleys & Connectors, or onto the 'spokes', the Straight & Elbow Connectors, the 4 outer loops of the Square Connector, & the prong of the Eye Connector. Tubes can run freely in the eye. The Sleeve pushes over a Tube to act as a collar and it reduces a Tube's diameter enough to allow it to turn inside a Connector's centre hole, though not very freely. The waste parts push into a Tube's slot but are too thin to be held firmly unless the Tube has been at least partially close up.

Most of the manual models need more parts than are in the Set, & the remainder are rather dull, a Picture Frame & small Wheel Truck for example. I wanted to use the 2 Panels & the most obvious possibility was some type of aircraft. The manual offering (Fig.3, full-size) was a possibility but was ruled out by its looks (those spiky Connectors, odd tail & short wings). Also it meant cutting the Panels, & I couldn't work out from the rather poor photo how to journal the propeller shaft. Finally I made the Monoplane in Fig.4, with the tail surfaces & prop cut from suitable pieces of cardboard (as in Kendrick's set).

Driving the prop from the landing wheels (as in the manual model) proved impossible, mainly due to friction in the only bearings I could devise. The Panels forming the wings were over-lapped & 'woven' together by chord-wise Arches. It was necessary to hold a few parts together with the Clips, suitably reconfigured, that originally held the parts to the backing card – the fuselage side Tubes at the tail for example.

The main difficulties in building the model were the excessive force needed to push the Tubes into/onto the other parts, & the friction, already mentioned, of Tubes running in Connectors. Also if a Tube needed to be closed up at one point it could not then grip another part near it.



FIG.1

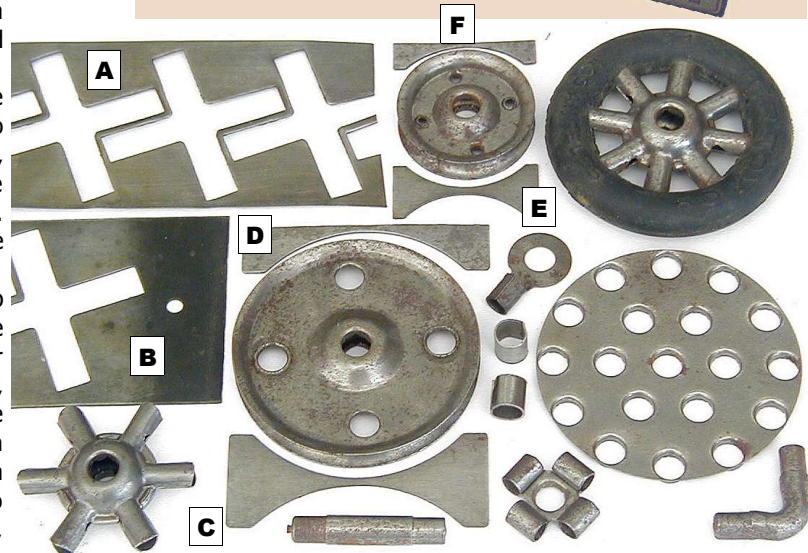


FIG.2

The finished model was reasonably robust.

Betsy Ann Hisle & Billy Lord These 'mystery' children (on the box lid, manual cover, and a whole page of the in OSN 18 but now, thanks to Google, they can be identified as child actors in the 1920s, quite famous in their day it seems.

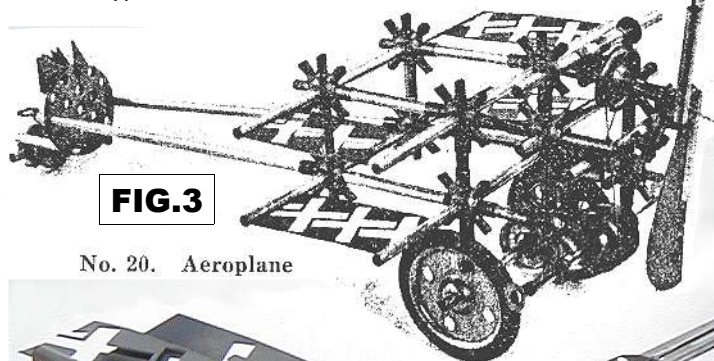


FIG.3

No. 20. Aeroplane

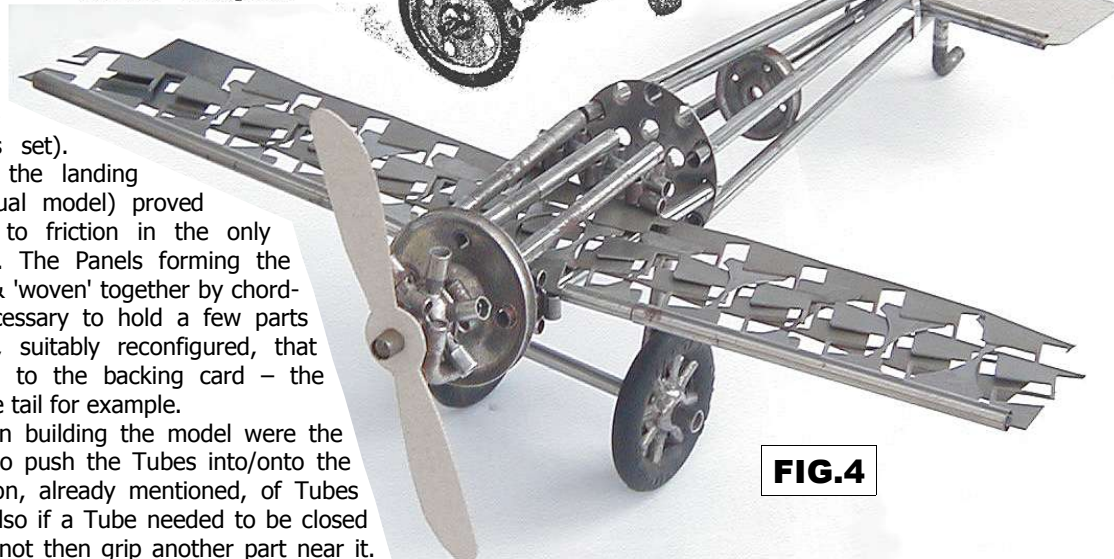


FIG.4

Snippet. 'New' Russian System:

FANTAZER Most Russian systems are small and of limited interest; but not this one – it has parts for child-size wheeled toys comparable to Gilbert's NEW WHEEL TOY for example (see elsewhere in this Issue), or the French AUKRI (see 44/1347). This account is based on a set which was offered on Argentinean Ebay. FANTAZER is the transliteration of ФАНТАЗЕР, its Russian name, as on the manual, right, and the lid below. The dictionary says ФАНТАЗЕР means Dreamer or Visionary. Alongside of the name on the lid is an English version but the end letters can't be seen. The words before the name on the Manual mean Large-scale Construction Outfit, and those below it,

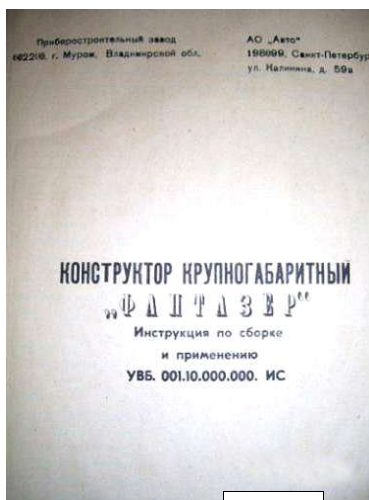


FIG.1

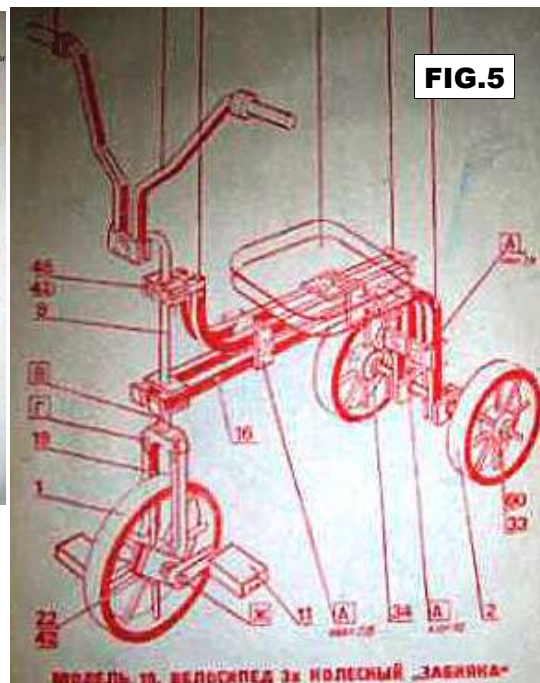


FIG.5



FIG.2



FIG.3

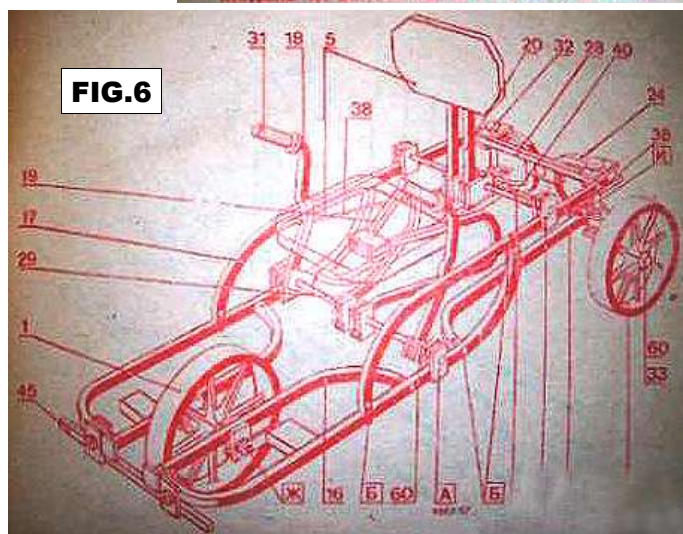


FIG.6

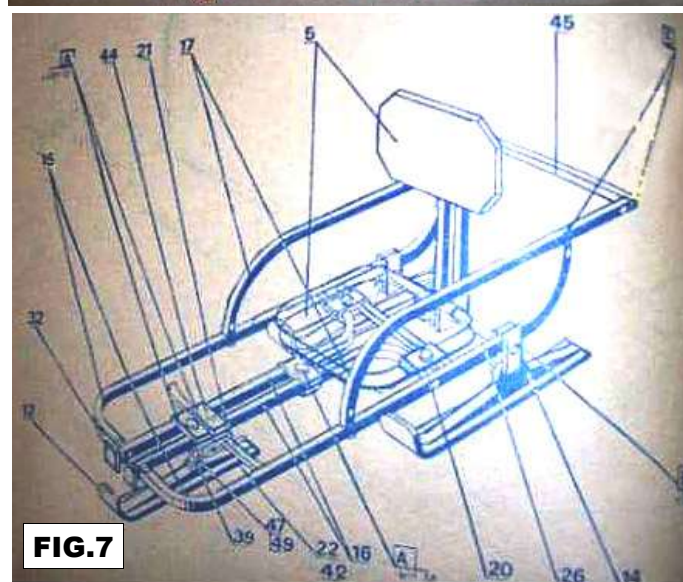


FIG.7



FIG.4

Instructions for Assembly and Use. A company's name and address is given along the top but is too blurred to decipher.

The set was said to measure 50*120*25cm and weigh 30kg. Also that it was unused, with 200 metal parts in 3 layers for 19 models.

The 3 models shown on Ebay (Figs.5-7 above) probably give a good idea of the system's scope. Frameworks are made

from Tubes, with Ski Runners for Sledges and Pedals on the single, large front Wheel to propel wheeled models.

Fig.2 shows the lid and a tray with the Tubes in it; Fig.3 the same tray plus one with the Wheels; and Fig.4 the Wheel tray and the third one for the remainder of the parts. The large Wheel scales at about 40cm Ø, and the 2 large blue parts on the Wheel tray are the Seat & Back Rest. Not much can be gleaned of the other parts. Where the ends of the Tubes can be seen, some look circular and some square. The silver Spanner in the 3rd tray has at least 3 different size openings. I wonder if the long orange parts in this tray are the Ski Runners. And what the long red parts are – just to hold or display the Bolts (or are they Nuts?) perhaps.

The various parts of the models have PNs and the highest that can be seen is '60'. No doubt there was an illustrated parts list in the manual. Each model was accompanied by fairly lengthy building instructions in Russian.

The Tubes in the models' frameworks look to be bolted or

clamped together, with the ends of at least some Tubes tapped or with a suitable end fitting. The Trike looks fairly straight forward except perhaps the reason for the rectangular plates fitted to the centre of the Front Wheel. The Sledge too – I suppose the cross bars where the Front Runner is attached to the frame are simply footrests – or could they turn the Runner to give steering? Steering is the puzzle in the Fig.6 'Cart' as clearly the Front Wheel can't turn. There is a hand lever on the starboard side and I think one on the left too, and no doubt they are linked to the Rear Wheels but just how isn't clear. Unless the rear axle pivots perhaps they brake the two Wheels independently to provide some steering.

At first sight it seems strange that a fairly serious set like this did not include 4 wheels, but perhaps it was thought that a single front wheel with pedals allowed mechanical propulsion in the simplest possible way.

No date was mentioned in the Ebay ad but the plastic packaging would indicate some years after WW2.

FANTAZER: S2

OSN 45/1378

'New' System: PEHL'S TECHNIK All that is known of this small, rather STABIL-like German system is a model leaflet folded to give 8 'sides'. It was discovered by Jürgen Kahlfeldt who sent a copy via Thomas Morzinck. Thank you to both.

Each of the Leaflet's pages has models inside two frames, each headed by the title box shown in Fig.1. There are 15 models altogether from Rungenwagen (Fig.1E) to a (railway) Signal. They are typical small models and apart from the Fig.1 models, a Crane, a Trip Hammer, and various domestic items are included. There is a line drawing and list of parts for each model but no key to the PNs. In its absence Jürgen has compiled the list below of the system's 21 parts from the models themselves, with my English names and the maximum number of parts called up for any of the models in curly brackets.

- #0 Flanged Plate {1}. • #1-6 Strips, 13,11,7,5,3,2h {2,4,4,6,6,4}. • #3a,4a DAS 5,3h long {4,4}. • #6a A/B {4}. • #7,7a Small & Large Loose Pulleys {2,1}. • #8 Wheel Disc, 38mm Ø {4}. • #9,9a,9b Screwed Rods 120,90,50mm {3,2,1}. • #10

- Handle Crank {1}. • #11 Hook {1}. • #12 Bolt {20}. • #13 Nut {40}. • Cord.

The dimensions are approximate assuming the hole pitch is about the same as STABIL's 12.5mm. 2 of the 50mm Screwed Rods look to be needed in two of the models. All the parts can be seen in the models in Fig.1 except the A/B. It is used in only one model, the Table in Fig.1B, to attach each leg to the top, but is hidden from view.

There are two points of interest in the parts shown in the models. • The Wheel Disc is drawn with 8 face holes in one model, but only 6 in others. • The Flanged Plate, unlike the 11h long STABIL part, is shown with 10 more or less equispaced holes lengthways but with an extra centre hole in the flanges. This can be seen clearly in Fig.1B. Perhaps the part is as shown but conceivably 10 instead of 11 holes was the draughtsman's error and the centre hole was added as a way of avoiding considerable redrawing. The 10 holes along the edges of the top face wasn't a problem because none of those holes are used in any of the models.

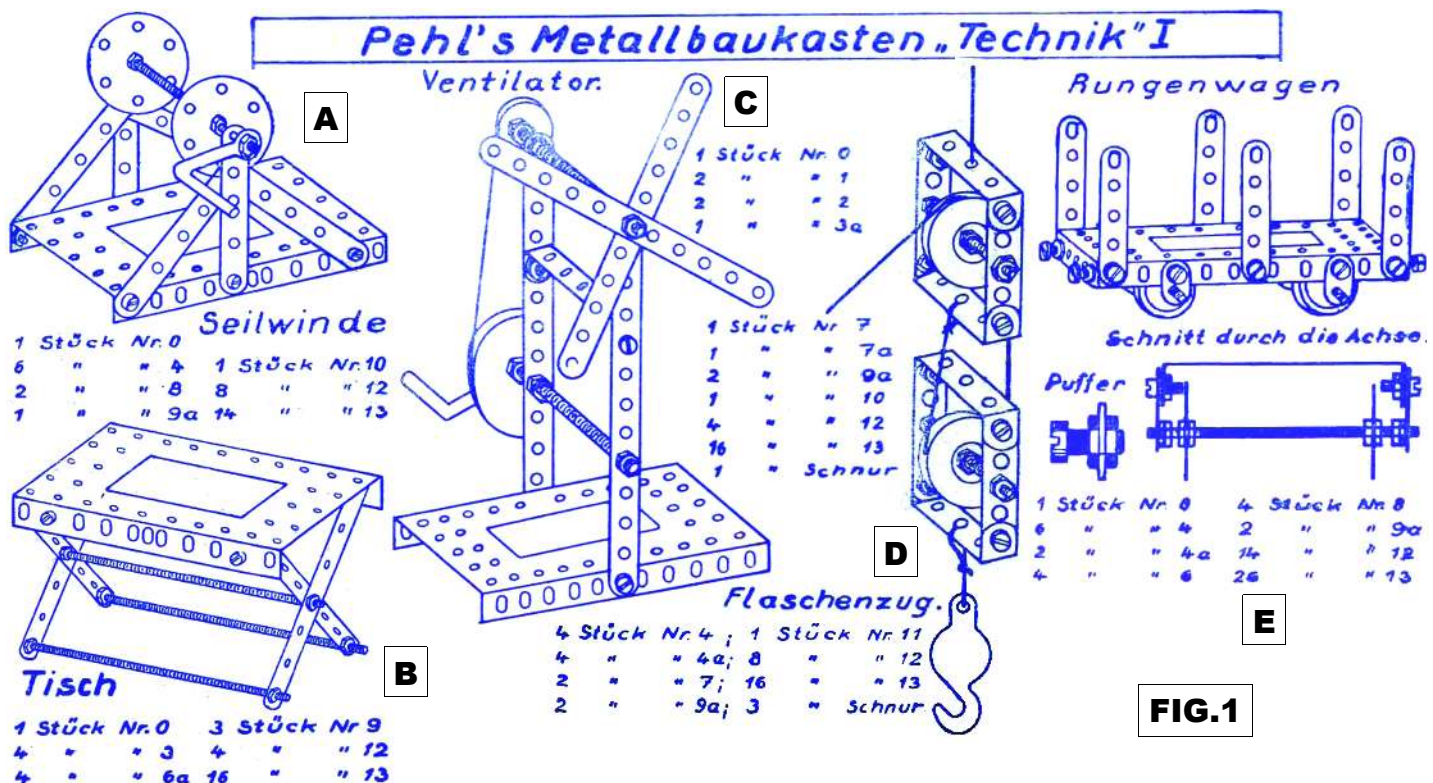


FIG.1

Snippets: KÖSTER Since the notes in 23/678, mainly about the set Nr.80 for various Wagons or an unpowered Electric Loco, some sets seen on Ebay, and at <http://alte-modellbahnen.xobor.de/t11219f27-Koester-Konstruktion-die-unbekannte-Spur-aus-dem-Sauerland.html>, shed a little more light on the sets & parts in the system. It is certain that Set 80 was produced, and most probably Nr.81, the Track Set. Beyond that are Set 82, the electric-motored Electric Loco, and certain other outfits, but it is still possible that some or even all of them were made only as factory prototype outfits, or to display at trade exhibitions. It is said that production started late in 1947 and that the firm became insolvent in the Spring of 1949.

FIG.1

Except where stated all the sets mentioned have the lid shown in 23/768 (though some don't have a set number on them), and manual covers, seen for Sets 80, 81 & 82, are as in 23/679, save their set number.

Set 80 Of the 6 examples seen 4 have nickel parts with a few possibly black in one of them, and in 2 they are coloured (red, green & blue Body Panels, grey Roofs, black Strips) with a few nickelled in one. Fig.1 is the best photo to hand of a set, the lid along the bottom fits over the box's bottom compartment. In another example the parts in the centre compartment are more neatly arranged. All the boxes have the same 3 compartments in the base.

One of the nickel sets has the lid in Fig.2 featuring an elaborate Gantry Crane far removed from the railway models. But it seems to be a Nr.80: the set number is on the lid for the bottom compartment; the parts in the box, though jumbled up, look as would be expected; and the 2 pages shown from inside the manual are pp18-19 of the Nr.80 described in OSN 23.

FIG.2

Set 81 This is the track set and the parts are shown or listed in Fig.4. #51, 52, 53, & 55 are Straight, Curved Outer & Inner, & Centre Rails; #54 is probably a current pick-up to be fitted to the Loco; #56 is a Bracket to hold #57 Isolating Strip; #58 a Fishplate. #59 a Sleeper; #60 the Terminal Connecting Plate; #S17 & 20 a Bolt & Nut; and V2 the Manual.

Of the 2 sets seen one box has 4 lengthways compartments plus 1 crossways, and all the parts are shiny; in the other there are just 4 crossways, and the parts are also shiny but the Centre Rail is brass. The box looks the same size in plan as the Nr.80 but may be rather deeper.

Set 82 Only the set in Fig.3 has been seen, and the Loco made from it was shown in 24/715. The Motor Unit has wheels appreciably larger than those in Set 80. Whether the body in the set was supplied ready assembled isn't known.

Set 80-1 See Fig.5. This seems to be a set with just the parts to make a Loco, almost certainly the unpowered Elektrische Lokomotive 80/12 in OSN 23 – the box wouldn't be deep enough to house the Power Unit.

FIG.3

Other Sets 4 boxes identical in size, and similar in style to the 80-1 above but more rectangular, have been seen. The only one of their names that can be read is (probably) Rungenwagen mit Bremshäuschen, followed by a hyphenated set number. Model 80/10 shown in OSN 23 is Rungenwagen mit Bremshaus and is probably the same model (häuschen = little house).

An empty box the same size in plan as the Nr.80 but 2 of its 5 crossways compartments are partitioned to give an extra 6 compartments (and possibly several more originally).

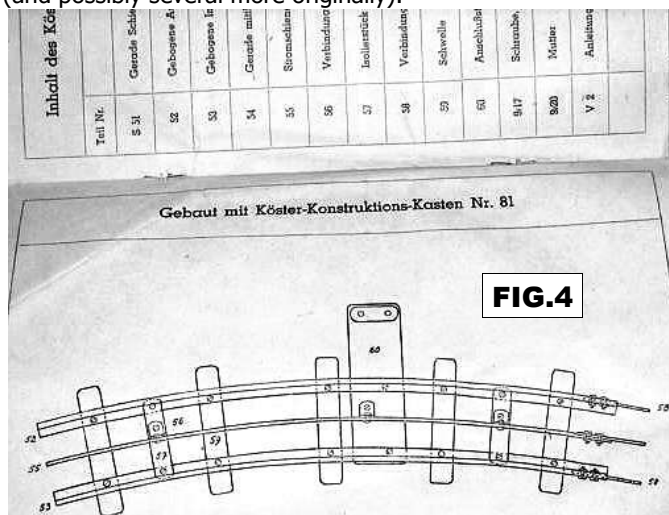


FIG.4

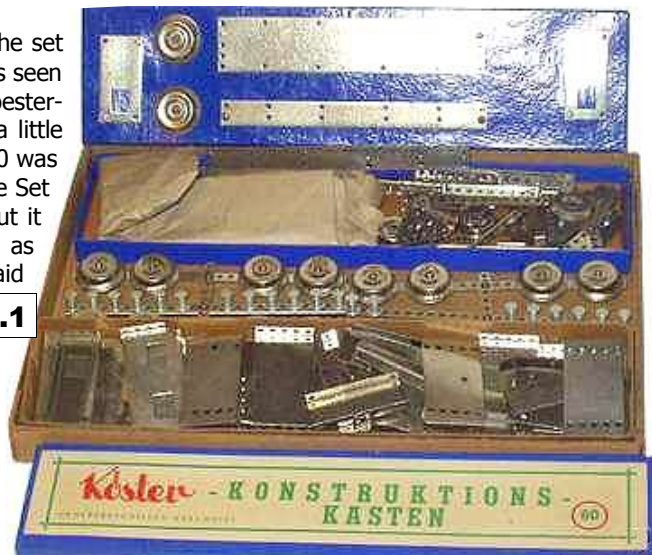
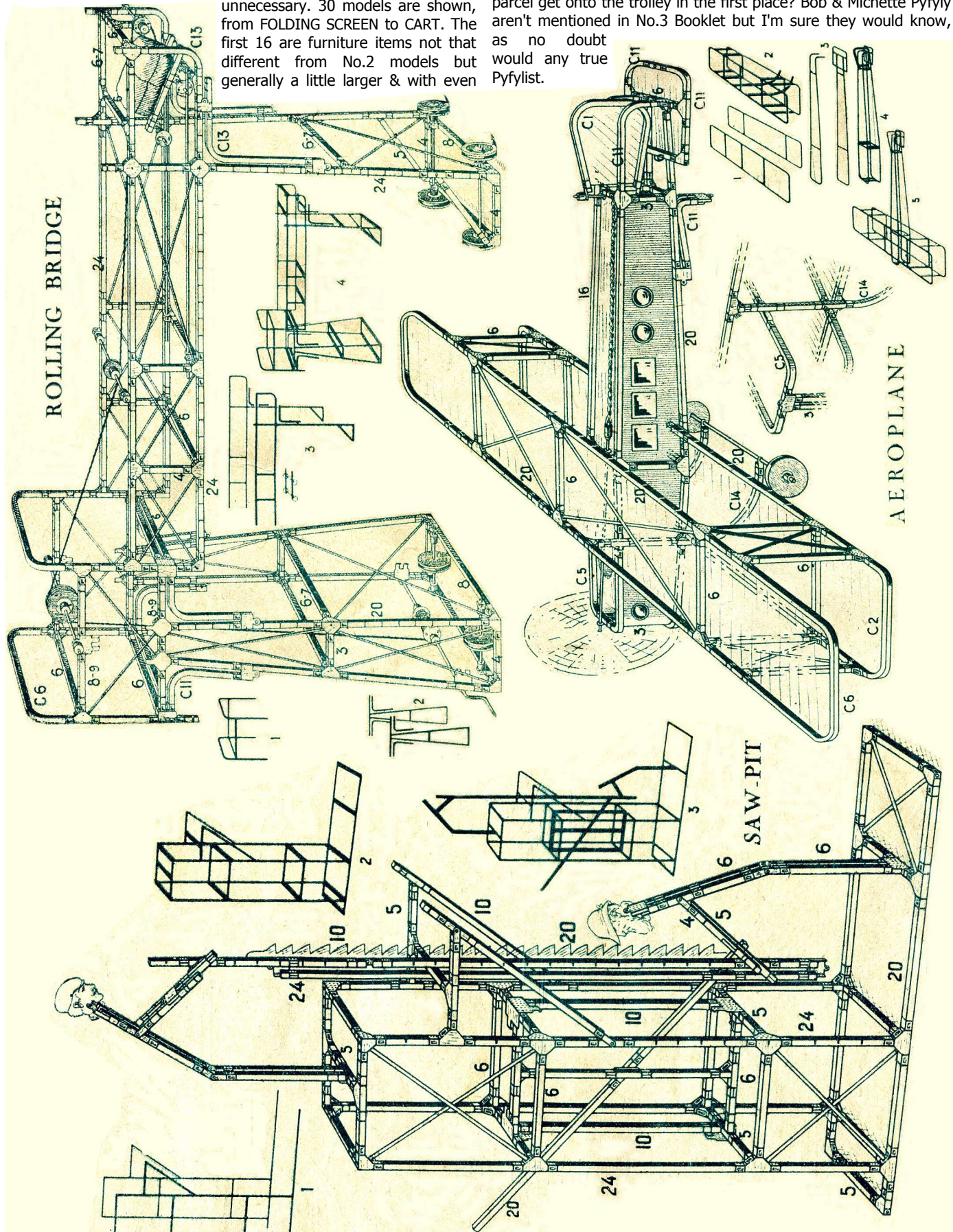


FIG.5

PYFYLY No.3 Set Manual The No.2 manual was described in 28/842 and until recently it was the only manual in the few No.3 sets seen. But a No.3 now to hand has also an 8 page booklet in English headed 'Models constructed with Outfit No.3 containing 670 pieces'. It is the English edition, printed in dark green like the No.2, and has the same page size, but no covers – they may be missing but more likely there were none. In a short introduction it is said that only general views of the No.3 models are given since those 'Pyfylists' who have made the No.1 & 2 models will have sufficient skill to make detailed instructions unnecessary. 30 models are shown, from FOLDING SCREEN to CART. The first 16 are furniture items not that different from No.2 models but generally a little larger & with even

more elaborate decorative panels (not included in the Set). Among the rest are 8 wheeled vehicles – Carts mostly, fair models but not over exciting, though a Hydroslide is unusual – a rubber band driven propeller mounted high above the deck of a boat running on small wheels. Finally some reasonable working models: 2 with a propeller atop a high tower, a Double Swing, & the 3 below (with all the original details, at full scale). They look possible, more or less. In the Rolling Bridge I suppose the trolley with the 'parcel' on it is hauled along the rails to the right end and then tipped to launch the parcel into space. But how did the parcel get onto the trolley in the first place? Bob & Michette Pyfyly aren't mentioned in No.3 Booklet but I'm sure they would know, as no doubt would any true Pyfylyst.



Snippets. Mainly about TITAN's First Phase

Something on Phase 1 was given in 26/760 but little was known at the time of the sets & parts. To recap the parts have a dull grey metallic finish (as opposed to the Phase 2 painted parts) and some were modified or dropped later on (there were many more parts in Phase 2, including a good selection of Gears & Sprockets). Since then Ebay photos have provided more information including the contents of Sets 0, 1 & 2. Except for a small possibility of a larger outfit, these, plus linking sets, were Ph.1 range, and the 5 plus 4 linking sets mentioned in OSN 26 was probably a confusion with the Ph.2 sets.

The PARTS The 55 known parts are listed right (there were over 100 in Ph.2) with my English names in brackets. Many of them are in the photos below – the Flat Trunnion can be seen right in Fig.1 partly hidden by



a Trunnion on top of it. The brass double pulley & the 'bolt' to its left are probably foreigners. It is evident that the number of holes given for the Flanged Plates include those in the flanges. I assumed at first that the 22mm Pulley #1035 (bottom right in Fig.2) was loose but it looks as if there was a radial tapping through the bottom of the 'V', and that would account for the matching quantities of Grub Screws #1038c in the Sets. The Slotted Strip #1070 hasn't been seen but an equivalent part of the same length in Ph.2 had a full length slot with no round holes.

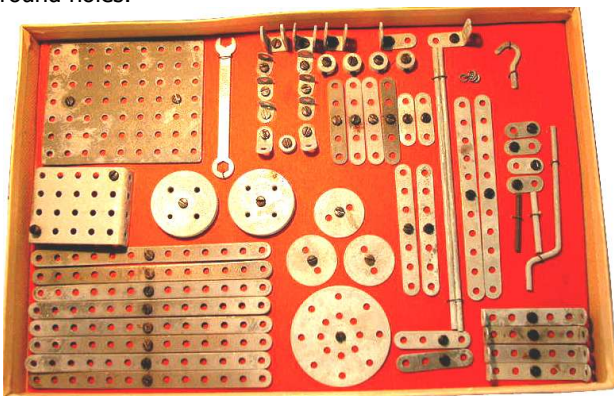


FIG.3

TITAN: contents of early sets

PN	PART (My English name)	SET No.	0	1	2	?
1021	Grundplatte 7x9-loch glatt (Perf. Flat Plate)		1	1	1	
1021a	Grundplatte 7x9-loch gewinkelt (Flgd. Plate)			1	2	
1021b	Grundplatte 4x7-loch gewinkelt (Flgd. Plate)		1	2	2	
1021c	Grundplatte 4x7-loch glatt (Perf. Flat Plate)				2	
1022	13-loch Stab (Strip)			12	22	
1023	11-loch Stab (Strip)		10	4	78	
1024	9-loch Stab (Strip)			2	4	
1025	7-loch Stab (Strip)		2	4	76	
1026	5-loch Stab (Strip)		4	8	12	
1027	4-loch Stab (Strip)		2	4	2	
1028	3-loch Stab (Strip)		2	6	12	
1029	2-loch Stab (Strip)		4	6	12	
1030	2-loch Winkel (A/B) 90°		6	12	24	
1030a	2-loch Winkel (A/B) 135° (earlier #1060)		2	2	4	
1031	4-loch Winkel (A/B)		2	4	2	
1032	5-loch Doppelwinkel (D/B, 2h high)		3	4	2	
1033	7-loch Doppelwinkel (1*5*1h DAS)		4	6	78	
1034	Lochscheibe 50mm (Perf. Disc)		1	2	4	
1035	Lauftrad 22mm (Pulley)			4	74	
1035a	Lauftrad 22mm (Pulley, ?with Tyre)				2	
1036	Spurkranscheibe 26mm (2h Wheel Disc)		3	4	4	
1037	Drehkranscheibe 35mm (Loose Pulley)		2	2	4	
1038	Stellring (Collar)		4	6	12	
1038b	Madenschraube für Stellring (Grub Screw)		4	6	12	
1038c	Madenschraube zu Nr.1035 (Grub Screw)			4	6	
1039	Schnurlaufrolle (small Pulley)		71	2	4	
1040	Achse 30mm (Axle)		1	2	4	
1040a	Achse 65mm (Axle)			2	4	
1040b	Achse 150mm (Axle)		2	2	2	
1041	Gewindestift 30mm (Screwed Rod)		1	2	4	
1041a	Gewindestift 65mm (Screwed Rod)			1	2	
1042	Kurbel (Crank Handle)		1	2	2	
1042a	Kurbel kleinn (ditto, short)				1	
1043	Schrauben 20mm (Bolt)		72	6	78	
1044	Schrauben 10mm (Bolt)		77	20	734	
1045	Schrauben 7mm (Bolt)		747	68	120	
1046	Sechskantmutter (Hex. Nut)		756	100	224	
1047	Schraubenschlüssel (Spanner)		1	2	2	
1048	Schraubenzieher 4mm (Screwdriver)			1	1	
1048a	Schraubenzieher 2mm (Screwdriver; Set 2:2.5mm)			1	1	
1049	Pappkarton (Cardboard Box)		?	1	1	
1050	Vorlageheft (Manual)		1	1	1	
1051	Unterlegscheiben (Washer)		74	4	4	
1057	Gummireifen zu Nr.1035 (Rubber Tyre)			4	4	
1058	Lasthaken (Hook)		1	1	2	
1059	Schrauben 4mm (Bolt)		?	5	712	
1060	3-loch Doppelwinkel (D/B)				2	
1061?	Dreieckslaschen (Flat Trunnion, 2h base*3h)				12	
????	Trunnion from #1061? above.					
1062?	Lagerböckchen (Bearing Block = ? Dble Bent Strip)				4	
1063a	Winkelstabe 25-loch (A/G)				2	
1064	Winkelstabe 19-loch (A/G)				2	
1065	Winkelstabe 13?-loch (A/G)				2	
1066	Winkelstabe 7-loch (A/G)				2	
1070	Langlochstab 50mm (Slotted Strip)				2	

FIG.4

The SETS All the sets seen have the boy with Crane pattern lid shown in OSN 26. The contents of the 3 sizes of set known are listed above with question marks to indicate doubt, and a '2' where a numeral was too blurred to read. No set numbers can be seen in any of the Ebay photos and the existence of Set 1 is known from the Ebay descriptions of several sets plus a Nr.1 contents sheet with 2 of them; Set 2 by a similar contents sheet for Nr.2; and Set 0 by inference from a 0A contents sheet. The contents above are taken from the Contents Sheets for Sets 1 & 2, and from the photo left for Set 0 (only the heading of the 0A contents sheet was legible).

Set 0 The box measures 29½*19¼*2¾cm. In another photo taken obliquely the parts look to be attached individually to the

backing card and the part between the bottom pair of A/Bs is the Small Pulley #1039. Notice also the Hook in the top right corner, not seen elsewhere. No doubt all the N&B are used to attach the parts. The manual has the Loco cover shown in OSN 26.

Set 1 2 sets have the same partitioning as the example in Baukästen (p222) and the box size is given there as 30*21*2.5cm. The manual cover with these is similar to OSN 26 but is whitish, doesn't have the maker's details along the bottom, and the 'Vorlageheft Nr.1' is above the Loco. A third set is in a box of about the same size but possibly a little deeper, and has red topped partitioning to give only 5 compartments. It's just possible that this is a Nr.2 set. Its manual is as OSN 26 but with the bold lettering in red. Finally a set in a bigger box with the parts attached, probably singly, to a yellow card. Its 35mm Pulleys have only 2 face holes, so it might be thought to be an early set but the 50mm Disc #1034 is painted blue and the 7*9h Flat Plate #1021, red. Replacements from Ph. 2 perhaps except that the 50mm Disc in Ph. 2 had a boss. Below, the manual

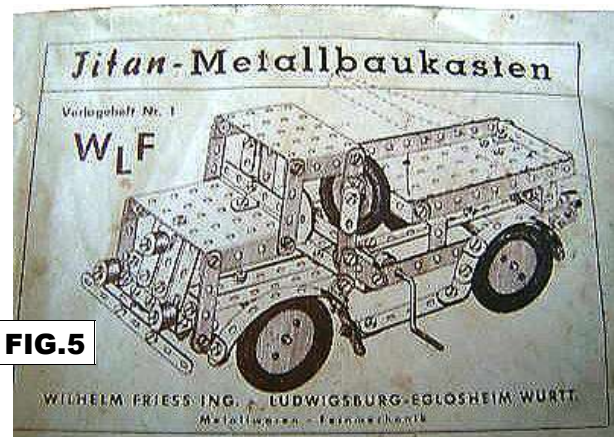


FIG.5

cover, completely different but still marked 'Vorlageheft Nr.1'.

Set 2 Set 2 is only known for sure from the Set Contents sheet.

Linking Sets Given the 0A Contents sheet mentioned above, it's likely that there was a 1A as well.

A Nr.3 Outfit? A parts price list has all the parts listed in Fig.4 except those in colour, and the red ones were needed for Set 2. Thus it seems that the system grew in terms of parts and sets. The part in blue, the Trunnion seen in Fig.1, is certainly not in Set 2 so perhaps there was a Nr.3 which included it, and possibly other, as yet unseen, parts.

Two Phase 2 Items

The Piccolo

Set The photo right looks to be both sides of the Set's packet. The text under the Bicycle speaks of 58 parts and 21 models.



FIG.6

An Electric Motor

The wording on the box includes 'Type 4', and, afterwards, translating, 20V AC/DC. One of the two coils in the Motor can be seen in Fig.8. Presumably the lever on the front panel gives forward & reverse.

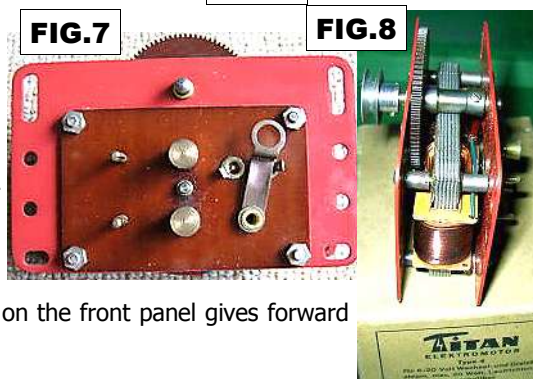


FIG.7

FIG.8

TITAN: S2

OSN 45/1382

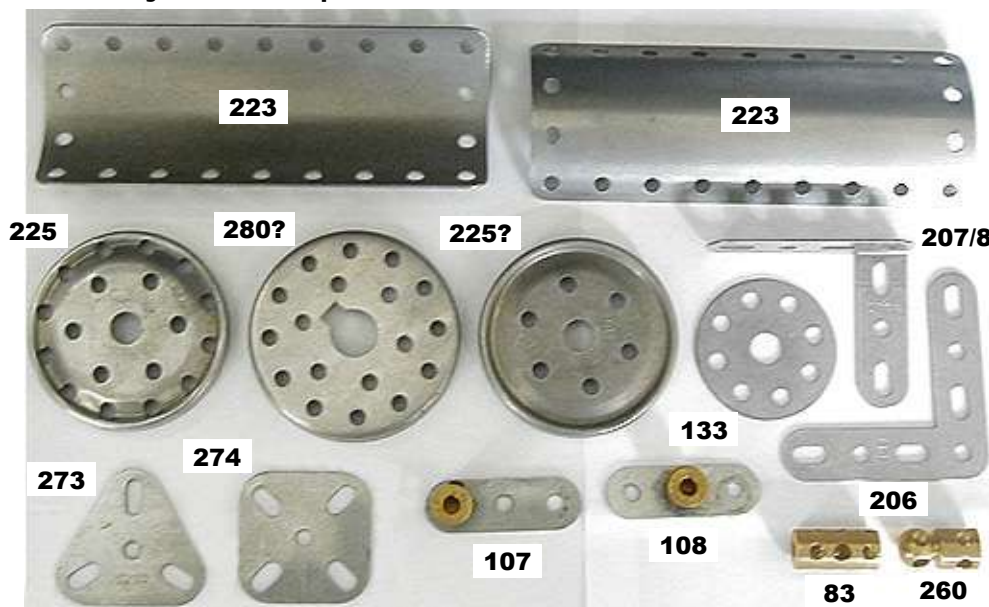
Some C.I.G.E.A. Parts Thanks to Paul Goodman I've been able to see his small collection of C.I.G.E.A. parts, and these notes add to those in 27/789.

All the parts are nicely made with a dull nickel sheen finish, and all are shown below except for a 5h-sided Triangular Plate #131 which is as illustrated in OSN 27. Each piece is labelled with its probably PN, and all are stamped CIGEA, with CIGEA-ITALIA on the end faces of the brass parts.

Holes are at 13.0mm pitch and are mostly 4.3mm Ø, but 4.1mm in the Cranks & 4.5 in the Wheel Disc. **Slots** are 8.4-8.8mm long. All the **brass parts** are 10.0mm Ø with a bore of

4.1mm, and are double-tapped. The **thread** in M4.

Other points of interest: **The circular parts:** their centre hole is about 8mm Ø but near 12mm in #280?. The 3 larger diameter parts have a flange 5-6mm deep. **#83 Coupling.** 21mm long o/a with the end holes at 13.0mm pitch, as they should be. **#107,108 Cranks.** No slotted holes. The strips are 13.1mm wide. **#133 Wheel Disc.** 36½mm o.d. **#206-8 Corner Brackets.** The basic part #206 is formed to give handed parts 207 & 208. **#223 Boiler Plate.** 4 lapped by 1 hole make a cylinder of 50mm Ø which will push into the Boiler End. **#225 & 225? Boiler Ends.** The part with the 2 rings of holes matches the drawing in the Illustrated Parts (see 23/656). Apart from the extra ring both parts are the same with an o.d. of 50½mm. The outer ring is so close to the edge that it would have limited usefulness. **#273 & 274 Small Plates.** Useful looking parts but they were not included in the later numbered sets. **#280? Wheel Flange.** It is 53mm Ø and the only likely part listed is #280 'Contropiastra circol. Ø 53mm'. It could be used with #134 Perforated Circular Plate of 60mm Ø (see 23/656) which looks to have a large centre hole, or with the 60mm Ø Plate with Boss, #154. **#260 Handrail Support.** It has a transverse bore through the ball part and the cylinder.



C.I.G.E.A.: S1

OSN 45/1382

Bergstadt

Metallbaukasten

FIG. 1

FIG.1

UNGS-' above 'Metallbaukasten' and the model is replaced by the one in Fig.4. In each set the small parts are in a blue-grey box, 6¼*4¼*1½cm, as in Fig.3. Otherwise the internal packaging is missing from both boxes but there is no evidence of partitioning and the parts may well have been attached to a card, as in Fig.3 and several of the other Ebay sets.

On the contents of the Sets, although, apart from the Hook, the model on the A lid could be made from the parts found in Set A, the odd number of 5 & 6h Strips looks a little suspicious. And perhaps there would have been a Spanner, as in the Fig.3 outfit, though only one of other Ebay sets has one, and it has the same, unusual, '2-model' type of lid, see later. The Set B lid model (Fig.4) would need an additional 5*11h Flanged Plate in the base, and several of the Ebay B outfits seen do contain one. Also 1*3h A/Bs are shown supporting the lower Crank Handle, though 1*2h would suffice.

The EBAY SETS The background colour of the lid labels is variously the green of Fig.1, yellow, fawn, & a pale grey. Two A sets have a larger, slightly different lid of the pattern in Fig.3, probably a later variant.

[illegible]

FIG.2

The SETS Both the A & B outfits are in similar boxes, 26¼*16¼*2cm, and have similar lids. Left the A; the B has 'ERGÄNZ+

ten' and the model is replaced by the small parts are in a blue-grey in Fig.3. Otherwise the internal both boxes but there is no evidence they may well have been attached to a of the other Ebay sets.

On the contents of the Sets, although, apart from the Hook, the model on the A lid could be made from the parts found in Set A, the odd number of 5 & 6h Strips looks a little suspicious. And perhaps there would have been a Spanner, as in the Fig.3 outfit, though only one of other Ebay sets has one, and it has the same, unusual, '2-model' type of lid, see later. The Set B lid model (Fig.4) would need an additional 5*11h Flanged Plate in the base, and several of the Ebay B outfits seen do contain one. Also 1*3h A/Bs are shown supporting the lower Crank Handle, though 1*2h would suffice.

The EBAY SETS The background colour of the lid labels is variously the green of Fig.1, yellow, fawn, & a pale grey. Two A sets have a larger, slightly different lid of the pattern in Fig.3, probably a later variant.

All the parts in two A sets are aluminium. In the other outfits Pulleys, Gears, & A/Gs are always aluminium, as are most of the Strips, but a few of them are nickel and so are many of the DAS & Brackets. In one set (Fig.3) the Strips are painted. Apart from the all-aluminium sets the Flanged Plates

FIG.3



FIG.4

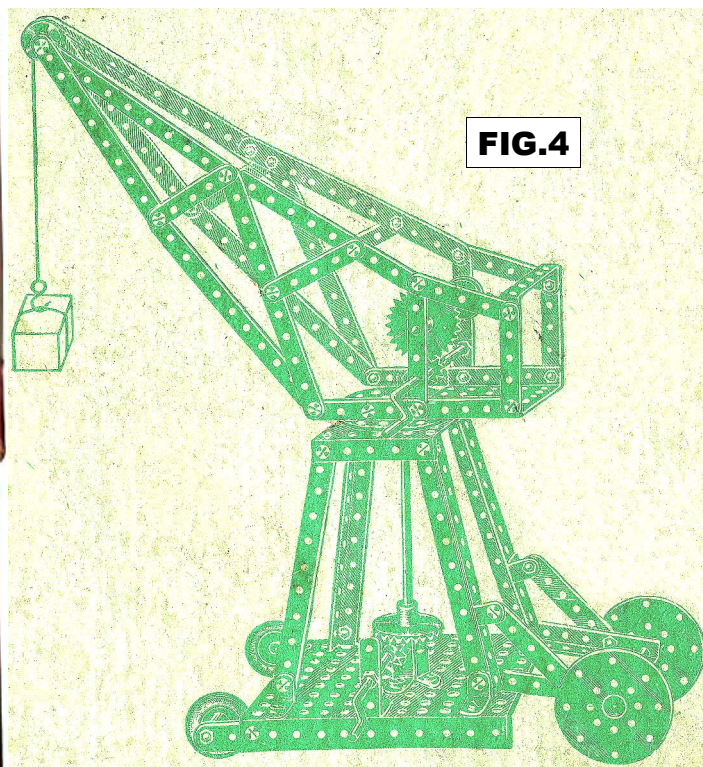


FIG.5



are nickel in one A & two B sets, and painted in 2 of each size. In these the 5*11h are dark red, the 5*5h either blue or dark green. The Face Plates are variously nickel, orange, olive green or dark grey.

The different material & finish don't correlate with the changes in the lids' colour & pattern but it's probably fair to say that nickel & paint displaced aluminium as time went on.

The contents of the Fig.3 set correspond to those found in the subject outfit except for the Spanner and possibly it has fewer of 5 & 6h Strips – perhaps some are stacked, though none appear to be in the photo.

The MANUAL 5 of the Ebay sets, 3 A's & 2 B's, had a manual with them, but only the front page, as in Fig.3, was shown. It was the same in each case with a subheading saying that it was for Sets A & B. In one photo it could be seen from the text that it included 8 models for Set A and 1 which would also need Set B – perhaps the one on the lid (Fig.4).

POSTSCRIPT An Ebay photo in a mixed lot is shown above and looks to be half of a sheet which would fold into four (perhaps also the format of the other manuals). The Crane on the left is most probably the one on the B lid. or similar, and, as might be expected from the B between the models, the one on the right would also need Set B parts. So, a different manual from the one noted earlier.

BERGSTADT: S2

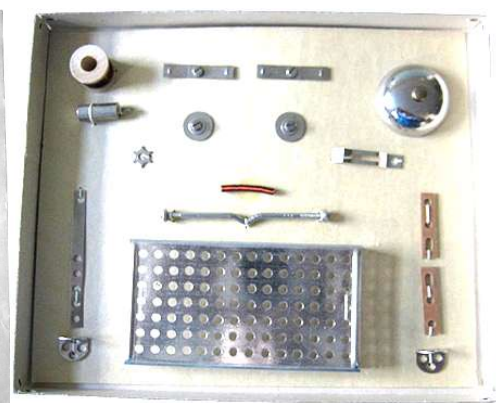
OSN 45/1384

Snippets. More TEKNOSET.

Following on from 38/1139, photos of 3 more items of interest have been spotted.

The first was an empty **No.5** box, blue with a label which covered most of the lid, and identical to the one on the Sets 1–3 in OSN 38, except that it had just '5' in the circle bottom right without the preceding 'No.'

The second, the **Elektro** add-on outfit right. Apart from the name the label is the same as the one for the Special Gears Set described in OSN 38. The parts match those of the TRIX Unit E, except that the Commutator has 6 'teeth' instead of 4; there is no Lamp Holder; and there are 2 each of Large & Small Washers instead of 4 Small ones. The Unit E's N&B are used to attach the top 4 centre items to



the backing card, plus a Nut at each end of the Crank Axle.

Finally, a photo of the front of a Leaflet for the **Special** set. It is in a similar style to the No.3 top right in OSN 38 and shows all the parts that were in the Unit G except the NBW.

TEKNOSET: S3

OSN 45/1384

Snippets. The GILBERT WHEEL TOY and ERECTOR SENIOR

These systems had parts to make full-size wheeled toys for small boys. The first sets, called NEW (or sometimes OUTDOOR) WHEEL TOY included many wooden parts, but in the later ERECTOR SENIOR they were very largely replaced by steel. Some notes on the NEW WHEEL TOY were given in 8/198 (under its French name), and on ERECTOR SENIOR IN 9/219. Since then the parts from a WHEEL TOY set have come to hand as well as numerous Ebay photos of WHEEL TOY outfits, and a few of the SENIOR sets. What follows summarises the earlier notes and adds to them.

HISTORY 3 WHEEL TOY sets were introduced in 1919. The 'models' (Carts, Scooters, etc) had 5½" steel Wheels & frameworks of wooden Beams. The smallest set was #9004, the next, #9006, added the parts needed to make the 'star' Irish Mail model (Figs.2-4) and probably the Plates which formed the sides of load platforms. (Gilbert's name for the Irish Mail was Geared Speedster, and the name used in OSN 8 was Geared Hand Lever Cart). Extra in the largest #9007 set were parts to add up to 4 runners to some models to make them into Sledges. All the sets had wooden boxes with only the Wheel Toy logo on the lid (Fig.1). They were usually called NEW WHEEL TOY, as on the inside of the lid (Fig.5), and on the manual (Figs.7 & 8), but OUTDOOR WHEEL TOY in Greenberg, in a 1920 advertisement, and in most of the 1920-21 UK trade ads.

The WHEEL TOY sets were replaced by two ERECTOR SENIOR outfits, Nos. 15 & 20, in 1922, and they were broadly equivalent to the two smaller WHEEL TOY sets. The wooden Beams & Base/Seat were replaced by steel parts and the Sledges were dropped from the manual in favour of some 'machinery models' (a Crane was shown in OSN 9). The sets were packed in corrugated cardboard boxes and it is said that they included the largest model ready-made. The No.20 box was 32¼*12¼*9½", but I don't think it would that have been large enough to house a fully assembled Irish Mail (Figs.11 & 12). (Built-up models were probably needed because of the difficulty of building some of the models – an extreme example was that in the WHEEL TOY the #21 Stub Axle had to be hammered into the Large Gear Wheel and its end peened over.) The sets' lids (Fig.6) did not carry the Wheel Toy logo though it was on the Seat (as it had been on the wooden part). OUTDOOR WHEEL TOY was used on the manual cover (Fig.9). SENIOR sets were not listed after 1923.

The French version of the WHEEL TOY manual was called NOUVEAU JOUET à ROUES (New Wheel Toy) but sets in the La Samaritaine catalogue were listed as JOUET DÉMONTABLE GILBERT (Gilbert Constructional Toy). An Ebay WHEEL TOY Set from Belgium has the Fig.1 logo on the lid with the Fig.5 label (in English) inside it, & 2 manuals, one in French as in OSN 8, & one, the same size and with a



FIG.1

similar cover, but in Dutch and called NIEUW RADER SPEELGOED (New Wheel Toy).

The NEW WHEEL TOY

The illustrated parts were shown in OSN 8 and are listed in Fig.10. The wooden parts are #5 Base/Seat, 7¼*13*7/8", & the 15/16" square Beams, #1-4, used for frame-

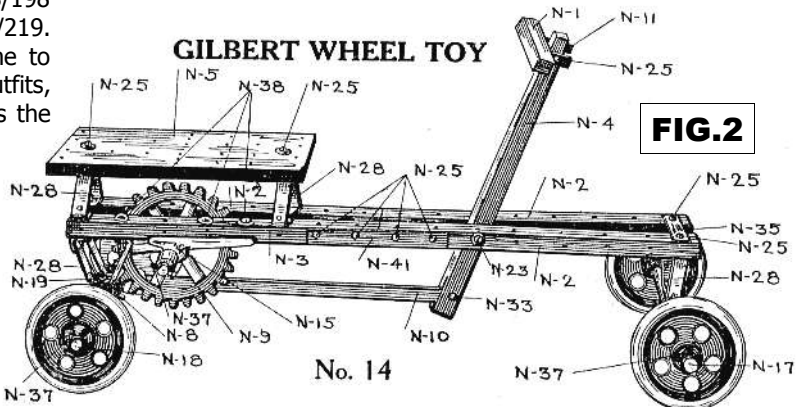


FIG.2

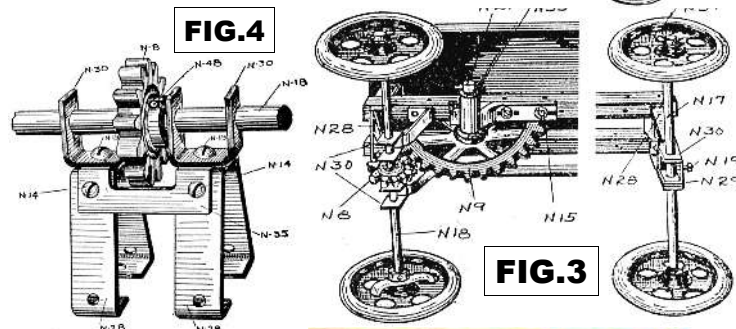


FIG.4

FIG.3

FIG.5



FIG.6



FIG.7

FIG.8

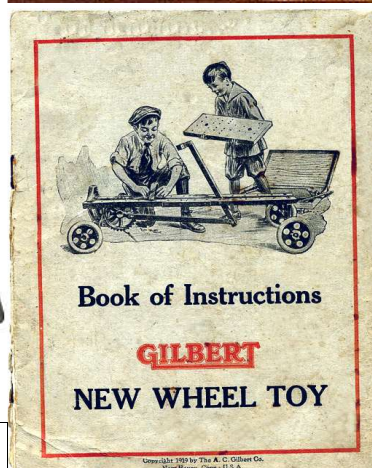


FIG.9

Part No.	Order No.	Name	Price
N 1	2600	Short Wood Piece .....	.05 each
N 2	2601	Long Wood Piece (Regular) .....	.08 "
N 3	2602	Long Wood Piece (Special) .....	.10 "
N 4	2637	Long Wood Piece (Extra Special) .....	.15 "
N 5	2614	Wood Seat .....	.35 "
N 6	2638	Crank Stud .....	.10 "
N 7	2613	Wheels .....	.50 "
N 8	2624	Small Gear .....	.35 "
N 9	2622	Large Gear .....	.75 "
N 10	2626	Connecting Rod .....	.15 "
N 11	2616	Angle Bracket .....	.03 "
N 12	2607	King Pin .....	.03 "
N 13	2634	Nut 14 x 20 .....	.10 doz.
N 14	1407	Screw 8 x 32 x 1/2 .....	.10 "
N 15	2625	Gear Bearing .....	.50 each
N 16	2621	Runner .....	.15 "
N 17	2610	Long Axle .....	.25 "
N 18	2640	Long Axle (Special) .....	.25 "
N 19	1622	Screw 14 x 20 x 3/4 .....	.10 doz.
N 20	2611	Short Axle .....	.05 each
N 21	2623	Gear Axle .....	.10 "
N 22	2617	Pivot Axle .....	.05 "
N 23	2632	Screw 8 x 32 x 3/8 .....	.25 doz.
N 24	2606	Lower Universal Joint .....	.10 each
N 25	25-L	Screw 8 x 32 x 1 3/4 .....	.10 doz.
N 26	2604	Hinge to Universal Joint .....	.05 each
N 27	P-2	Erector Angle .....	.15 doz.
N 28	2603	Universal Bracket .....	.15 each
N 29	2608	Lock Collar .....	.05 "
N 30	2609	Bearing Bracket .....	.05 "
N 31	2605	Upper Universal Joint .....	.10 "
N 32	P-26	Nut 8 x 32 .....	.02 1/2 doz.
N 33	2631	Cotter Pin (Large) .....	.10 "
N 34	2615	Loop Bracket .....	.08 each
N 35	2629	Tie Bar .....	.05 "
N 36	P-29	Washers .....	.10 doz.
N 37	2630	Cotter Pin (Small) .....	.05 "
N 38	2633	Screw 8 x 32 x 2 .....	.20 "
N 39	25-S	Screw 8 x 32 x 1/4 .....	.05 "
N 40	2620	Short Metal Side .....	.10 each
N 41	2612	Splice Strap .....	.05 "
N 42	2627	Lift Piece .....	.10 "
N 43	2636	Headless Set Screw 14 x 20 x 3/8 .....	.25 doz.
N 44	2639	Flat Head Screw 8 x 32 x 1/2 .....	.10 "
N 45	2628	Wheel Lock .....	.20 each
N 46	2619	Corner Piece .....	.05 "
N 47	2618	Long Metal Side .....	.15 "
N 48	2642	Gear Pin (Not Illustrated— Furnished with Special Axle N 18.)	

FIG.10

works. #1 is 8" long, #2-4 are 16", all with holes at 2" pitch. They are joined using steel Strips & Brackets, mostly 1/8" thick & 7/8" wide, Axles are 1/2" Ø (9/16" for the Large Gear). The Wheels are 5 1/2" Ø and do not have the tyres mooted in OSN 8. They run on the Axles between Split Pins and one rear Wheel is driven by a #45 Driving Dog, held to the Axle by a Grub Screw, which engages a face hole in the Wheel. The Gears have 13 & 39 teeth and are 6 DP. The Pinion is held by a Pin (#48) through the Axle (see Fig.4). The Plates are about 1/32" thick and are joined by the 1" wide ERECTOR A/Bs of the time. The Sledge runner assembly (see OSN 8) simply replaces a Wheel on an Axle and is free to pivot on it. Apart from their length the 8-32 N&B are again ERECTOR parts. There is also a #19 14-20 RH Bolt, 7/16" Ø, with a #13 square Nut 7/16" A/F.

The Beams in all the sets are painted black. In my parts and in most of the Ebay sets the Seat & Plates are red; the Wheels & Gears are black, and so are most of the Brackets, with a few red. But in several of the Ebay sets the Wheels are red and the Plates black.

2 types of manuals are known. In 7 of the 11 sets seen it is the English version (Fig.8) of the French edition described in OSN 8, with 16 pages, 132*177mm, plus covers. Apart from the language both are the same except for the ad pages C3 & 4, with the French C3 completely blank.

In the other 4 Ebay sets there is a larger landscape format version (Fig.7). It was said to be Copyright 1919 and to have have 8 pages 10 1/2*7 1/2". The illustrations on the 3 inside pages shown are the same as in the smaller

version. The panel on the cover looks to be the same design as the label inside the lid. This could be the first manual – one set with it was said to have been shipped in Dec. 1919.

ERECTOR SENIOR

No details of the full range of parts that were in the sets is available but some of them can be seen in Figs.11-13. Has anyone the Manual? A major change was to replace the wooden Base/Seat by a sheet steel part flanged on all sides, & the Beams by steel Strips, about 5/8" wide, with 3, 7, 13, & 27 holes at 1" pitch. In the Irish Mail (Fig.11) the main Beams are replaced by pairs of Strips with A/Bs used to form them into angle girders. The only wooden part was a dowel-like Handle Bar (see Fig.11). The 7h Strips in Fig.13 look wider than the longer ones (truncated in the photo) but I've not spotted them in the model. The Gears look as before but their bearings have been improved to provide a proper bearing for the Rear Axle (Fig.12) and to give a fixed distance between the Gears (the previous #15 Bearing for the Large Gear had a slotted tail to allow the mesh to be adjusted (Fig.3)). Another new part is the 8" Rear Wheel (there were 4 of the smaller Wheels in Set 15 but only 2 of each size in Set 20), and as can be seen it has 5 face holes, unlike the Wheel in the ad model in OSN 9. The previous method of using a Dog to lock the Wheel to the Axle was replaced by the method in Fig.12, though what it is exactly isn't clear. No Plates can be seen in any of the Ebay sets and none are shown in the models in the adverts – however the ads do talk of 'High' & 'Low' Trucks. There were some additional standard ERECTOR parts in the sets – the Spoked Wheels in Fig.13 are used in some of the Cranes – but I'm not sure what the black 'Disc' with 6 face holes to their right is.

The Wheels are red and the Strips black in all of the 3 sets seen but the Seat is black in 2 and red in the other.

Nothing is known of the contents of the Manual except that an ad says that for Set 15 it has illustrations of 'windmill, lawn seat, ladder, trolley repairer, stationary crane, wheel derrick, movable hoist and movable crane', as well as a whole range of wheel toys including the 'four-wheel Coaster', the built-up model. As well as the Irish Mail Set 20 offers 'many more wheel toy & machinery models, but no details are given except that it is suggested that all the Set 15 models can be made by replacing 2 of the 5" Wheels by the larger ones as necessary. That would look odd on the Mobile Crane that was shown in OSN 9. The lid in Fig.6 shows a Set 15 Crane riding on it.

The SENIOR sets offered a much wider range of models & the design of the parts & wheel toys had been greatly im-

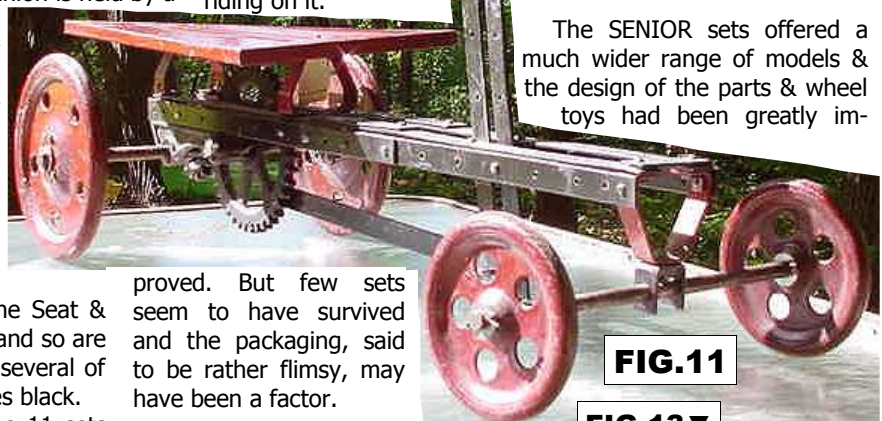


FIG.11



FIG.12



FIG.13▼

Snippet. 'New' German System:

EXACT The Ebay photos here are from a lot of 2 sets, nominally identical, with the lid right. Under the name top left inside the lid (Fig.3) are building instructions for set 'Nr.1', the only visible indication of set size, and that there might be other sets, actual or envisaged. At the bottom, below a photo of the set, is a name, Jircik, or possibly Jiscik, the maker no doubt, with an address in Einhausen (Hessen), a town 15km east of Worms. It was said in the Ebay ad that this outfit was produced c1950 ad by a company which normally made wooden toys. The words under Jircik start with 'Metall- und Holz' (wood) but the next

word is indecipherable.

The parts are shown in the panel at the top of Fig.3 and most can be seen in the open box (Fig.2). They comprise: 3,4,5,7,9,11,21h Strips; 1*1 & 2*2 A/Bs; 1*2,3,5,7*1h DAS; a 3h deep D/B; a flat Hook; a short & a long Bolt; a Nut; 4h & 2h Ø Pulley Discs; 2 Tyres; a Spanner, Screwdriver, & Hank of Cord (red, to the left of the righthand small box). Other possibly parts are a 2h Strip & a D/B. The item under the Spanner in the box might be a pair of pliers.

From the small photo of the set inside the lid there look to be 4 & 6 pairs of 4h & 2h Ø Pulley Discs, with 4 Tyres of each size, but both sets have many extra Tyres in them. The parts between the small parts boxes in Fig.2 should be just the Screwdriver below, and the Cord above, the Spanner.



FIG.1



FIG.2

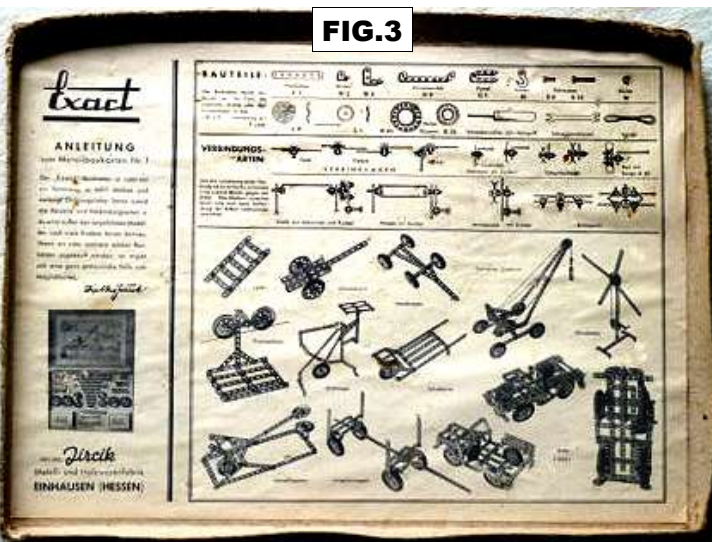


FIG.3

OSN 45/1387

EXACT: S1

Snippet. 'New' System: WESO 2 identical sets were offered on Marktplaats. The photos show one of them & the small pieces from the other. Also parts of a large model leaflet – its depth is about twice that of the lid. The name of the company is across the top of one side: Weso K.G. of Köln. A foundry company of that name, which dates from pre-WW2, still exists, but if it did produce WESO its address has changed, and is now in Gladenbach, a town some 125km east of Köln. Judging by the blatant misuse of the 'MECCANO' name on the lid, WESO was produced soon after WW2. The rubber stamp on the bottom of Fig.4 would be that of the Rotterdam shop which sold the set.



FIG.1

are some Wheels, or more likely Pulleys, & the small parts. Some at least of the the Connectors in Fig.3 have KLIPTIKO style spring ends, and no doubt the parts simply clipped/pushed together. The distribution of



FIG.2

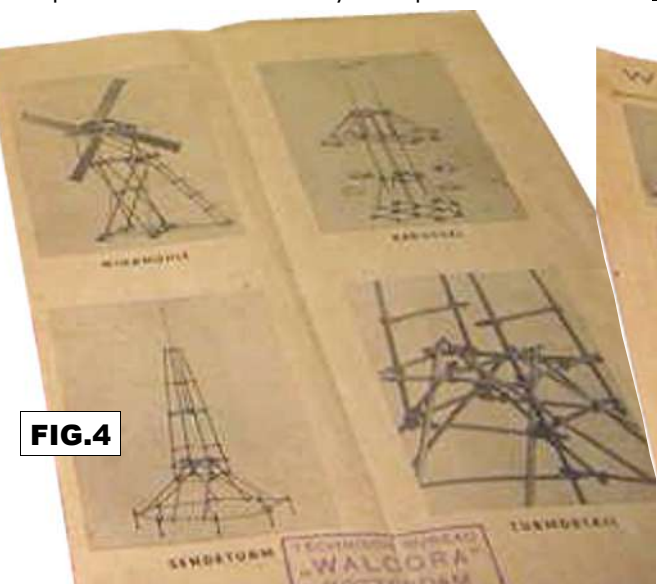


FIG.4

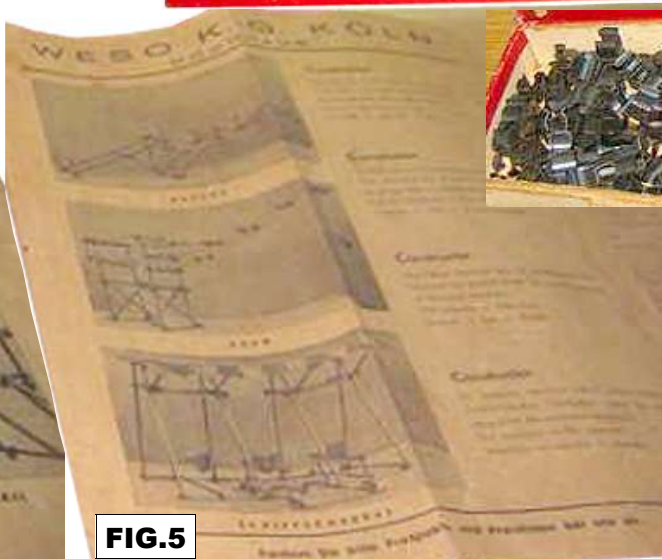


FIG.5



FIG.3

the Tubes between the two sets is uneven with appreciably fewer of the longer parts in the set shown here but no Wheels in the other.

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