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OSN 38

APRIL 2008

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EDITORIAL Talking to a confirmed Meccanoman recently, we got on to the subject of how to get youngsters interested in MECCANO, or the like, and he felt strongly that remotely controlled Robots, preferably with a computer interface, were the way forward. A major player in this field is VEX, who promote competitive events, including a 'world championship'. Some notes on VEX were given in 34/1006 and since then a \$200, simplified, 'almost ready to run' kit called Revell Vex Vexplorer has been introduced. I can see that such Robots could well have appeal and any constructional 'toy' that creates interest among the young, and not so young, is to be welcomed. Many would of course soon lose interest but that doesn't matter, it's the very few who get hooked, or return to the hobby in later years, who count. I would be interested to hear from any reader who has first hand knowledge of any of the VEX products, or of similar types of robotic kits.

Shorter NOTES, with thanks to all contributors.

1. Jeannot Butex wrote that Constructorama had found a 'new' French system called **JEU FAIT TOUT**. It dates from around 1935.

JEU FAIT TOUT: S1

[38/1132]

2. **Snippet. 'New' Belgian System: BAYOT** The photo below was taken from German Ebay but the set's maker was given as a company called Bayot of Brussels, and this is borne out by the label in the picture. It was also said that the parts are aluminium and that the box measures 28.5*29.5* 2cm. By scaling the pitch of the holes in the parts is between 22 & 23mm. To the left of the open box is what seems to be part of the lid, overlaid at the bottom by the manual. It's rather strange though that the name label in the lid's top right corner looks to slightly overlap its edge. Looking at the Aeroplane model, the cross pieces on top of the fuselage at the tail and half way along could be the shortest of the Braced Girders, the wings the long Plates, and the propeller just possibly the two spoon-shaped parts in the box. But there doesn't seem to be any parts that could be used for the fuselage longerons.



BAYOT: S1

[38/1132]

3. **Snippet. 'New' System: CONSTRUCTUS** This Austrian system was made by a toy firm called Stomo Spiele. The Ebay ad spoke of Patent Angemeldet (Patent Pending) and the first word under the name on the lid is Patent. Several, perhaps



most, of the bright parts look to be A/Gs, and some at least with a 1*2h section. Of the latter the bend angle seems far from 90° in some cases but perhaps that is a trick of the light. Though without some unusual parts one wonders what basis there would have been for the patent application.

CONSTRUCTUS: S1

[38/1132]

4. **STOKYS** The company has changed hands again. A new web site, <http://www.stokys.ch/index.html>, says that it has been bought by 3 business men and is now Stokys Systems AG, at Widen 7, 8494 Bauma. Production of parts and sets was scheduled to restart last January and a new web site/shop was to be online in mid-March. New products are promised in due course.

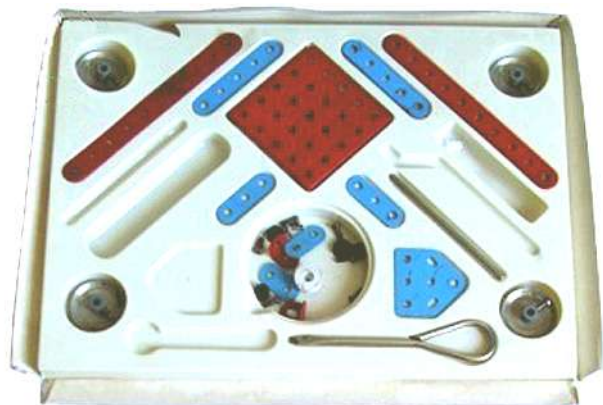
Another site about STOKYS is http://homepage.bluewin.ch/kurtaebischer//Kurts_Stokys_Geschichte.htm where Urs Flammer gives a history of the system. It's in German but a Google translation isn't bad and worth a look. I was interested to see that as originally conceived in 1941, the hole pitch was to have been 10mm. It was changed to 1/2" before production began, but perhaps that is why the Strips are 10mm wide (although if I've understood correctly this difference was claimed as a virtue in the 1947 Max Stockmann Patent No.255449). Originally the Strips and Plates were a zinc alloy, with steel & aluminium and brass for these parts came in 1945-46.

STOKYS: S2

[38/1132]

THIS NEWSLETTER IS SUPPLIED ON THE UNDERSTANDING THAT IT IS
FOR THE PERSONAL USE OF THE RECIPIENT FOR RESEARCH PURPOSES ONLY

5. **Snippet. 'New' System: TIBI** This Hungarian system, was said to be from the 1970s, and it looks as if it may have been inspired by MERKUR. FÉMÉPÍTŐ on the cover of the manual probably means Metal Builder and mintafüzet, model book.



The main similarities to MERKUR are: • The 10h Strips, 5*5h Flanged Plate, and the Flat Trunnion look identical. • All the parts in a 1960s MERKUR No.1 set would fit into the tray. The empty recesses would take a DAS & Crank Handle on the right, and an Axle, Flat Trunnion, & Spanner on the left. There is nothing obvious to go in the deep, long oval recess on the lefthand side though. Perhaps only the N&B were in the circular recess and the other small parts & the Cord were in the oval.

The differences are: • The colours - at the time MERKUR Flanged Plates were blue, 10h Strips orange or brown, 3 & 5h Strips nickel, Trunnions & Pulleys green. • Although the red A/B in the circular recess has a slotted hole and could be MERKUR pattern, the blue parts look to be 2h Strips and not the Flat Brackets that might be expected. • The Screwdriver in the MERKUR No.1 was the flat type - sets above No.3 had wire ones. • The white circular part in the circular recess - it might be a Loose Pulley but the MERKUR part was metal and was only included in Set 3 and upwards.

TIBI: S1

[38/1133]

6. **Snippet. A Small MEKNEX Set** MEKNEX sets (see 36/1078) have been less common on the Argentinian Ebay recently but the set right was seen late last year. With 71 parts to make the Avioneta on the lid it is smaller than the other known outfits. The box was said to be 16*9cm and on the back is 'Articulo: K10', so perhaps there was a series of these smaller kits. If the model on the lid is to be believed the parts in the Set are all the same colour, and at least one of them, the 5h A/G used for the undercarriage skid, was not in the OSN 36 set.



MEKNEX: S2

[38/1133]

7. **Snippet. Another LIL'N-GINEER Maker** A model sheet giving the Chris Mfg. Co. as maker, and the Novelty Mfg. Co as representative, was shown in 27/782, and since then a box lid with these names in the bottom right corner has been seen. Otherwise it is identical to the Eagle lid in OSN 27. Another set, said to be from the 1950s has the same lid with Novelty again as the representative, but the maker's name is Seveness Co. A line under the name, the address no doubt, is illegible.

LIL'N-GINEER S3

[38/1133]

8. **Snippet. A JR ENGINEER Midget Set** Notes on the commonest (No.4½) JR set, and a Special set, smaller but with a C/W Motor and a different range of parts, were given in 33/975 & 976. Since then a jumble of parts plus manual, said to be from a Midget set, was offered on Ebay. The parts included several of those peculiar to the Special outfit and none of those peculiar to the '4½'. The main parts of the Special set that couldn't be seen are the Motor, the Disc, the DAS, & one or two of the 3 larger types of Brackets. However it's not certain that all the parts that could be seen were from the Midget because among them were 6 of the black Road Wheels, and one would not expect so many in what was presumably a small outfit. Probably the lot contained parts from more than one outfit.

The manual is printed on the same fawn paper as the Special, but only one corner of it could be seen and the simple model there was too blurry to be recognisable, except that it isn't one of the Special models. The models in the manual were given as: Table; Wheelbarrow; Picnic Bench; See Saw; Tank; Airplane; Railroad Engine; Ship; Lumber Wagon; Anti-Aircraft Gun; Railroad Crossing Gate; Cart, Crane, Truck. 7 of those names are used for models in the Special manual and if they were to be the same, all the different main parts in the Special would be needed except the Motor, the 16h Strip, the Disc, & the Road Wheel.

JR ENGINEER S3

[38/1133]

OSN Subscription Rates The price per Issue, including postage, at Printed Paper Rate where available, is £5.50 for UK; £6 by air to Europe & surface anywhere; £6.50 by air outside Europe. **Back Issues** For the zones above : OSN 1: £1/£1.30/£1.50; OSN 2,3: £2.30/£2.70/£2.90 each; OSN 4-27: £3.60/£4.10/£4.50 each; OSN 28 on (in colour): £6/£6.50/£7. (All colour & some B&W issues are on loose sheets.)

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 (at £1=€1.50=\$2). Payments from overseas may also be made using PayPal (in Sterling please).

Small Ads Short ads are free to subscribers; insertion guaranteed in OSN 39 if received by the end of July (but repeats may not always be possible, please ask).

OSN – Your Credit Balance:

was	after OSN 37
was	after your remittance of
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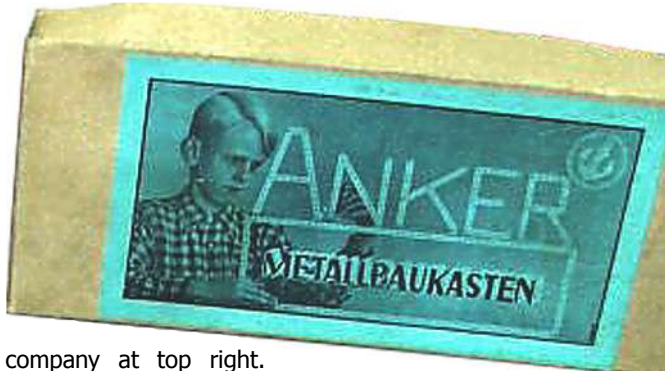
Please send at least £ _____ if you wish to receive the next Issue.

9. **Snippet. A T&H Co. KONSTRUKTIONSSPIELE and an ANKER Set in a mixed Ebay Lot** Besides these little known outfits the lot included a German MERKUR set (see 36/1094) and a German INGENIO set (mentioned in 17/477). All the box lids were shown plus a heap of parts. KONSTRUKTIONSSPIELE is mentioned in Baukästen as a product of T. & H. Co., and the



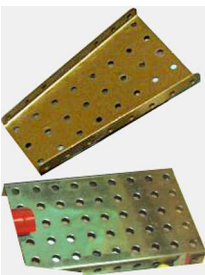
company's logo given there is on the box lid above (the '&' and 'H' are the tiny letters either side of the 'C', with a small 'o' inside it, under the Strip). The date given is '1920s(?)', though the boy looks rather later than that to me. It is also said that there were 10 sets.

The ANKER lid below has an anchor logo used by the Richter



company at top right.

An ANKER Modellbau set is included in MCS and is also listed in Baukästen but its logo, left, is not a Richter one and the set was made in East Germany by VEB Ankerwerk, Schmalkalden - the date in MCS is the 1930s but that wouldn't tally with a VEB-type company and Baukästen has 1956. ANKER was used by Richter as an alternative name for IMPERATOR (see 17/486 & 25/735) but normal Perforated Strips can be seen on the box lid.



Some of the parts in the photo can be identified as MERKUR & INGENIO and of the others only the 2 left ('cut' out of the Ebay photo) are at all distinctive, a 5*9 Flanged Plate and an 8h long Flanged Sector Plate. Both have all round holes, and they could possibly be parts used in the KONSTRUKTIONSSPIELE Signal Bridge. If anyone can help I'd be glad to have more details of either of these systems.

KONSTRUKTIONSSPIELE: S1; ANKER [2]: S1 [38/1134]

10. **Snippets. ANDERS Update**



The **Gnom Nr.113** set was described in 31/932 and since then several of these sets have been offered on Ebay. A few parts can be seen in them which were not obvious in the photo of the box in OSN 31. • Left (in part of a box), a Span'driver, 2 Axles, & a Crank Handle with a hooked end, are clipped to a backing card, along with the Wheels,

Pulley, & Strips. • The long blue A/Gs run along 90% of the full length of the back of the box. • The pierced Cab Side Panels are red. • The Jib Frame is blue and is a single part (like the one in the OSN 31 Fahrbarer Drehkran set). • There is red Cord in one set. • The parts & partitioning of another set are as in OSN 31, but the lid differs with the Railway Crane moved to the bottom left corner and the set designation is Gnom Nr.113G. The leaflet with this set is the one described in OSN 31.

The **Liliput** outfit below has not been noted before, and since it is Nr.1 perhaps there were other Liliput sets. 10 models are claimed on the lid and most of the parts that can be seen in the box would be needed for the featured model. The Pulley & Span'driver are no doubt the same as the parts in the Nr.113 set, and if so the black Flanged Plate scales at about 80% of the length of the blue one in the Nr.113 (see OSN 31). A leaflet with the Set was headed Liliput Nr.1, with '10 Modelle' underneath; Gnom & Gigant sets were mentioned in a line along the bottom of the sheet.



ANDERS: S3

[38/1134]

11. **Snippets. An 'In Between' FERROX Outfit** The Ebay photo below shows a No.2 set which is similar to the No.2 in a rectangular box that was mentioned for Phase 2 in 36/1090, except that the Plates and all the DAS are painted. Also the larger Flanged Disc in the OSN 36 set was the earlier type with the outer holes. (It should have been mentioned in OSN 36 that both the square and rectangular partitioned sets in Ph.2 were single layer sets.) The present manual has the Ph.2 cover and was said to contain models for both Sets 1 & 2.



FERROX: S3

[38/1134]

SMALL AD

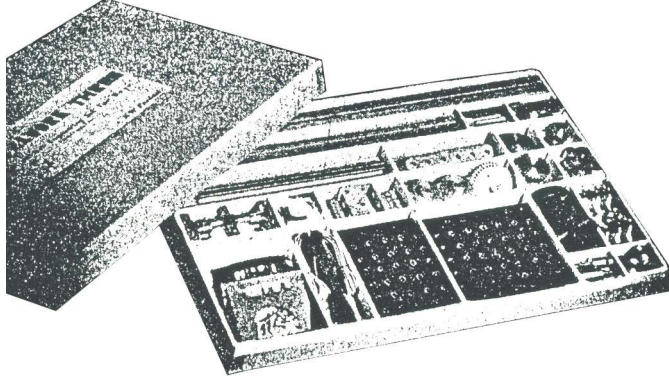
[38/1134]

Wanted Meccano Magazines Feb. to Nov. 1972, volume or loose. D. A. Redmond, St. Catherine St., Kingston, Ontario, K7K 3R9, Canada.

MASTERBUILDER History Some notes on the parts & sets in this early post-WW2 UK system were given in 1/3, 4/73, 6/119, 8/184, & 9/225, but little was known of the history & few definite dates were available. Now David Hobson has sent details of the ads which appeared in Games & Toys, & Geoff Brown has passed to me some recollections by Lloyd Tomlyn of MASTERBUILDER's final days. Some photos of sets from various sources will also help with the details. Thank you to all.

K.W. Products (KWP hereafter) made MASTERBUILDER (MB henceforth) and it still isn't known what the K.W. stands for; but the W may come from Wardlaw W. Waddell, the man who put his name to the Intro in the Model Leaflets, with 'Designer' after it.

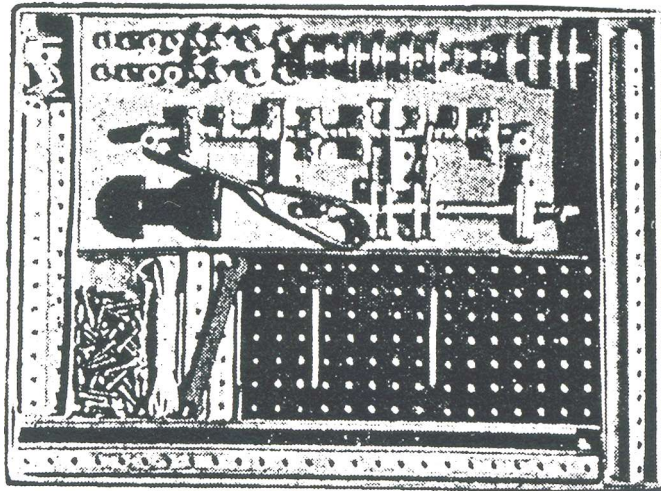
METALWORK THREE The first ad from KWP was in Feb. 1946 for, not MB, but 'Our First Product - METALWORK DESIGN NUMBER THREE' with 'Attractive Plastic Parts' & 'Lightweight Metal Alloys'. The name on the lid of the set in the illustration from the ad, below, is probably METALWORK THREE. The parts



that can be seen look like those in this first MB phase, including Bakelite Plates, Gears, & cast Unions. The reference to Lightweight Alloy though presumably means some parts in aluminium alloy. No METALWORK THREE sets or alloy parts have come to light so far. The address of the company was given as 55a Chaveney Road, Quorn Leicestershire, Tel: Quorn 259, and the Home & Export Agents were Neville B. Bloch Agencies, 23 Coleman Street, London, E.C.2., Tel: MONarch 2502 & 1903. The ad was repeated in the March issue.

THE NICKEL PERIOD In April the first MB ad appeared, headed 'The New Range of Constructional Sets for Boys', and an Excavator was shown, a No.3 model, though this wasn't stated. Lightweight Alloy was mentioned again, but not in any later ads. No KWP address was given but a Leaflet KW1262 was available from Bloch Agencies (the No.1 set of the time was KW1261-1).

The May ad showed the 4 sets, Nos.0-3. All have a single layer & the largest is shown below. The black shape under the Screw-

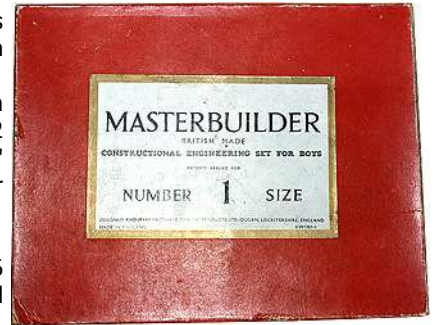


driver is the Bakelite Winding Drum. Both sets known from this period have turned Flanged Wheels and all the metal parts are nicked except the chemically blackened Axles & Screwdriver. Both lids are in the style of the No.1 in the next column, the pattern shown in the ad. The small words above the '1' are PATENT APPLIED FOR, and the Quorn address is along the bottom. The No.1

was mentioned in 8/184 & has a box 10*8". The other set is a No.0 in a box about 8½*6¾".

The June ad, repeated in August, featured the No.2 outfit Oilfield Drilling Rig, 22" high, below, and the Circular Plate can be seen in it.

A note in the Model Engineer for 15 Aug., 1946 gives the Quorn address and



OILFIELD DRILL RIG
BUILT FROM

MASTERBUILDER NUMBER 2

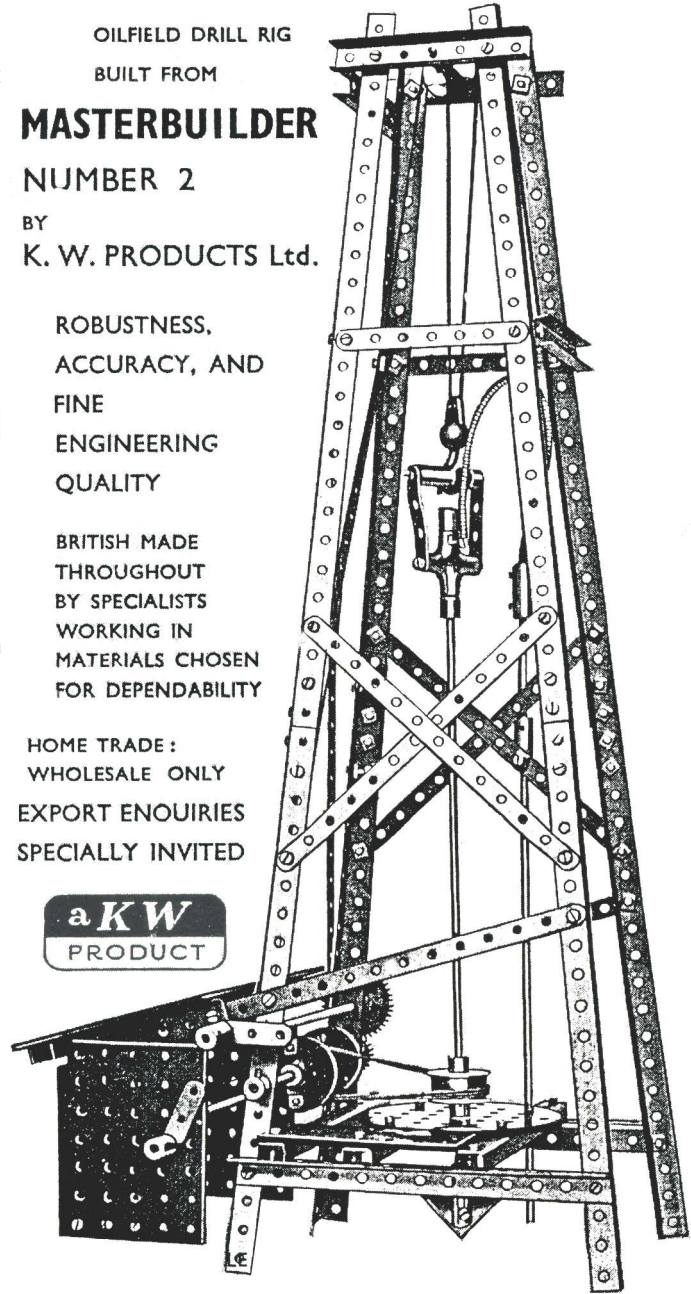
BY
K. W. PRODUCTS Ltd.

ROBUSTNESS,
ACCURACY, AND
FINE
ENGINEERING
QUALITY

BRITISH MADE
THROUGHOUT
BY SPECIALISTS
WORKING IN
MATERIALS CHOSEN
FOR DEPENDABILITY

HOME TRADE :
WHOLESALE ONLY
EXPORT ENQUIRIES
SPECIALLY INVITED

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PRODUCT



says that the smallest set has 48 parts from which 12 different models can be built, and the largest has 156 parts for 25 models.

The heading of the October G&T ad was 'Designed for Export' with the phrase repeated in French & Spanish. Underneath was the No.0 Factory Truck, and under that a display of No.0 boxes.

The next ad in Feb.1947, & repeated in April, was, like all later ones, half page against the full pages previously. It was different in character too and under the illustration of the No.0 set used earlier, simply listed 18 MB features. Among them: turned Wheels & Pulleys; instruction books in 17 languages; plans for future additions to the range; accurate brass drop stampings; contrasting metal finishes.

THE BLACK PERIOD I wondered if the Feb ad above marked

the change from nickel to black parts, and the new packaging which seems to have happened at the same time. But really the only thing that might indicate this is the remark about 'contrasting metal finishes', in that the 'brassware' in the black sets was plain brass or nickel. At any rate sometime between Feb. 1947 and the next ad in Oct. 1949 (over 2 years later, for sets with coloured parts) the change to black parts and the new boxes occurred.

The new No.0 set (KW1265) was single-layer in the same size box as before. The No.1 (KW1266) & No.2 have one layer but also parts attached to fold-over 'wings' giving in effect a second layer. A No.3 in an Ebay photo has two trays, each an inch or so deep and presumably they sit in a deep box, but only its lid can be seen. All have to same type of lid featuring a model from the set in question, and a No.3 is shown below (under the '3' is a line of



text & a red & white strip like the top). The small print still includes 'PATENT APPLIED FOR', and at the bottom, 'DESIGNED AND MANUFACTURED BY K.W. PRODUCTS LTD., EREKTOR WORKS, MOUNTSORREL, LEICESTERSHIRE, ENGLAND.'

Apart from the black parts, and the plain brass finish on some of the brassware - on all of it in some sets - the only obvious change was to the Flanged Wheels. In the Nickel sets they were turned parts, 1/2" Ø in Sets 0 & 1 and 1" in Sets 2 & 3 (though one No.1 seen has the 1"). But most Black sets of all sizes have the plain steel pressed type shown in 6/119. Some of the bosses & certain turned brassware in some Black sets are 5/16" Ø rather than 3/8" but there is no consistent pattern and even in the next Coloured period 3/8" parts are found occasionally.

As far as is known the contents of the sets did not change but the letter in 8/202 leaves the possibility that they were reduced a little at some point, even though it seems probable that the models in the Model Leaflets stayed the same. Leaflets seen from Black sets are KW1271, 1272 & 1273 for Sets 0, 1 & 2. A Leaflet from a Nickel Set 0 has the same set contents as KW1271 but its reference can't be seen. The No.0 KW1271 lists 49 parts, plus N&B, a Spanner & a Screwdriver, and 6 models are shown. The corresponding figures for Nos.1 & 2 (KW1272,3) are 76 & 110 parts and 6 models each. All these Leaflets are folded to give 4 panels and on one side they contain the Intro on the yellow front, the Set Contents, & 2 models; on the back are 4 more models. An Ebay photo of a No.3 Leaflet shows it with 6 panels and it may contain more models because the side shown has 4 models plus the Intro & Set Contents. If there were 5 on the back side that would account for the 25 in the Model Engineer piece (assuming 6 and not the ME 12 for the No.0, an error possibly).

Models for Sets 0-2 were mostly Cranes and various pieces of machinery & plant. Vehicles were limited because there was no

Road Wheel, but there was a small No.0 Tramcar running on 1/2" Flanged Wheels, & for the No.2, a Diesel Shunting Loco & a Flat Goods Wagon, both running on 1" Wheels. The only No.3 models that can be seen clearly are a Gantry Crane & a Lifting Bridge.

Linking sets are mentioned in the Model Leaflets and one example, the only one I've ever heard of, was listed in an auction recently. It was a No.2A, but no picture unfortunately, and it wasn't possible to tell if it was from the Nickel or Black periods.

THE COLOURED PERIOD The ad in the Oct. 1949 G&T said that MB has stove enamelled coloured parts, that it builds realistic vehicles & stationary models, and that the component & accessory service is unique in completeness. It was also said that over 150,000 sets had been sold & approved retailers were now being appointed. Readers were invited to write to K.W. Products Ltd., Erektor Works, Mountsorrel, Leics, Tel: Rothley 283, for details. Bloch Agencies weren't mentioned. The ad carried a photo of the Carrier set and below a photo of an actual similar set (a Mudguard & one of the two 3/8" Pulleys are missing, & originally all the parts were strung with yellow cord). The red words along the bottom of the lid are 'Ask your dealer for MB realistic accessories and robust spare parts'. The colour scheme varied from set to set, another Carrier set has the same parts but in red, blue & yellow, and a Carfax outfit is in just blue & yellow. The Carrier box is 10*14*1 1/2", & the Carfax is also 10*14" but has no wings - its lid is identical to the Carrier except for the red name, set number, etc.

The next, & final, ad, in November, was identical to October.

8/184 has details of the only 'Coloured' manual known, for the Baronet, Carfax, & Carrier sets, & some of its models are shown there. All 3 sets were quite small (with, excluding Tools and N&B, about 24, 47, & 85 parts respectively) but 7 larger sets were listed in the Manual. Coloured parts not in the 3 small outfits are found



from time to time but it isn't clear if they were from larger sets or simply some of the spare parts that KWP advertised. Probably the latter as no trace of larger sets has been found so far, nor a manual for any of them. A lot of work must have gone into the OSN 8 manual and perhaps KWP



decided to wait to see

if the sales of the small sets justified producing the larger sets & manuals for them.

THE FINAL DAYS Lloyd recalls that MB was made in a 2-storey factory on Leicester Road. It is still there but currently unoccupied. Most of the ground floor was used by a company called Mountsorrel Pressings Ltd & it's very likely that they made many of the MB parts. KWP closed in the early 1950s & the factory was bought by Lloyd's future father-in-law, Reginald Cooper, for other purposes, although Mountsorrel Pressings continued for a few years. The purchase included the remaining MB stock of parts (mostly blue & orange) and these were given to Lloyd and his fiancée who used them in their spare time to fulfil the orders which continued to come in. Eventually, as some of the parts became out of stock, the orders stopped, & Lloyd kept what remained until last year when Geoff acquired them from him.

Early THALE STAHLBAU TECHNIK Parts & Manual

Notes on this post-WW2 East German system appeared in 8/174, 14/419, 24/698 & 27/782. Now an earlier manual, & some parts with it, probably the remains of a No.2 outfit, have come to hand.

The MANUAL. It has 20 pages including covers, 210* 142mm, all pale blue except the covers - the front, with a manual model on it, is shown right. p2 has a list of all the parts in the system; p3 illustrations of the parts in the No.3 outfit, with quantities; p19 lists the contents of the No.1 & 2 sets; and p20 has text about the virtues of the system; the maker, Thaler Blechwarenfabrik Krause & Co., Thale/Harz; and a very long PR which gives no indication of date. An inspection slip found in the manual, no doubt from the original set, has '12357' stamped on it and this probably indicates 12th March 1957 (all later slips seen have this style date code).

The rest of the pages show models for Sets 1-3 with a line drawing of each, brief constructional notes for many of them, and a parts list for all but the No.1 models. The latter have no names and go from Nr.2 (a Trike) on p4 to Nr.10 (a 3-Wheel Truck) on p5. The No.2 models run from Nr.11 Ackerschlepper (Farm Tractor) on p6 to Nr.18 Motodreirad (3-Wheel Delivery Truck) on p9. Also on p9 is the parts list for the model on the cover; it is entitled 'Nr.1 Motorrad' but needs parts from the Nr.2 outfit. The first No.3 model is Nr.19 Windmühle on p10, and the last, Nr.28 on p18, is shown right. Under it is a drawing from p12, the basic chassis used for the Fire Engine and a number of other models. Both drawing are their original size. The steering column is a 44mm Screwed Rod.

The models, apart from a few small ones, 3 agricultural implements, a Windmill, a Bridge with Signals, & a Ferris Wheel, are all vehicles, with 6 based on the Chassis. The later manual (see OSN 24) has a much wider range of models and only some half of those in this manual have been retained, and then with improvements, a complete redesign in many cases.

The **parts** listed in the Manual are given below with English names, and the quantities in Sets 1/2/3 in curly brackets. Also,



in red, the parts/quantities in the later manual (see 24/698), where different. **Strips:** 2h {6/6/10}; 3h {8/8/10}; 4h {2/6/12}; 5h {7/7/7}; 7h {2/2/2}; 9h {2/6,8/12}; 11h {2/2/4}; 17h {-/2/8}; 25h {-/-2}. **DAS:** 1*2* 1h {1/2/2}; 1*3*1h {2/5/9}; 1*5*1h {2/4/6}; 1*7*1h {2/2/13}. **A/G,** 25h {-/-/4}. **L-section A/G:** 3h long {-,2/1,2/3}; 17h long {-/2/4}. **Flanged Plate** 3*5h {2/5/6}. **Perf. Plates:** 2*3h {-/3/5}; 2* 5h {1/2/2}; 2*7h Formed {-/4/4}; 3*5h {2/5/6}; 5*5h {3/3/8}.

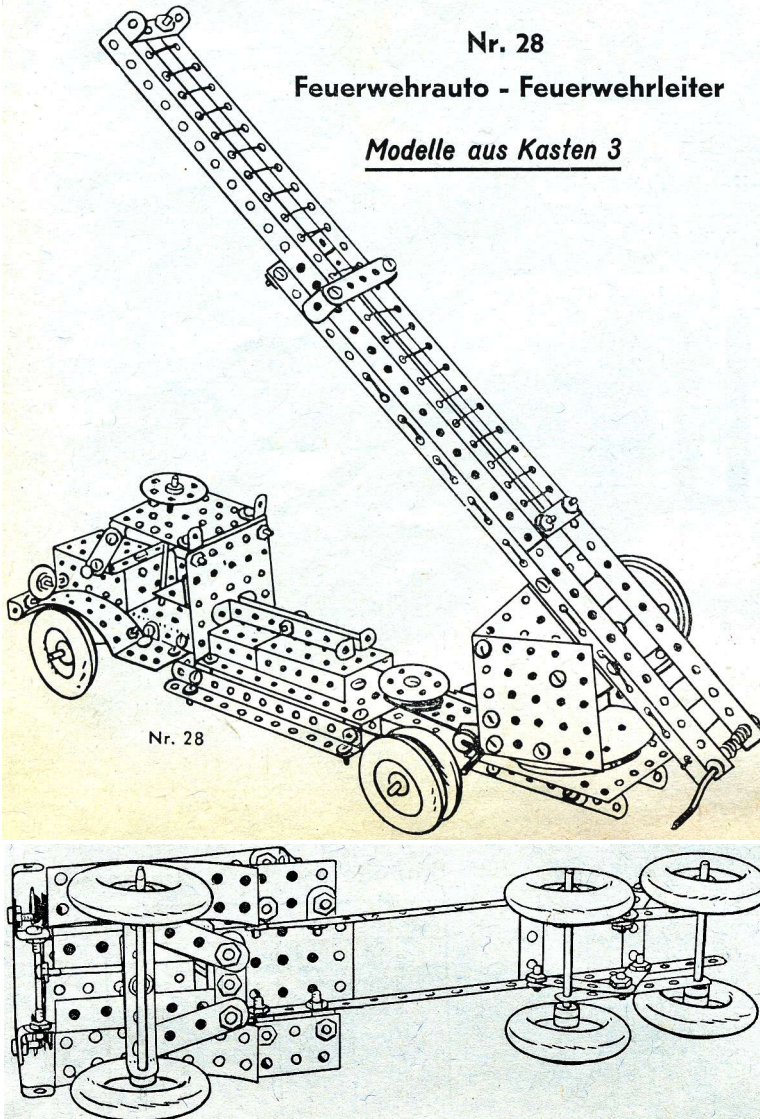
Plates with holes only along the two longer edges: 3*3h {-/1/1}; 3*5h {1/1/2}; 3*7h {-/-2}. **A/B** {8/19/20}. **D/B** {2/6/6}. **Rev. A/B** {-/2/2}. 64mm Ø **Flanged Disc Pulley** {2/2/2}. **Pulley** 28,26mm Ø {4/9,7/11,12}. 50mm Ø **Tyre** {-,4x 37mm Ø/6,6x 43mm Ø/11,11x 46mm Ø}. 6h **Bush Wheel** {1,-/1,2/3}. 6h **Wheel Disc** {1,2/1/1}. 18mm **Formed Disc**, used for headlamps, etc {1,2/2/2}. **Nut** {30/67/126,127} (In the early manual the Nuts for Set 3 are

listed as 50 steel, 65 brass, & 11 Stopmmuttern. The latter may be stiff nuts because there is a note that double the number of ordinary Nuts may be supplied in their place.)

Bolts {34,35/75,78/105,140}. These are totals and include 5 longer Bolts for Set 3 in the early manual, and 2 for each set in the later version. Also in the early one Bolts may be steel or brass. **Washer**, not mentioned at all in the later manual {7,-/14,-/20,-}. **Axles:** 25mm - it looks like a RH rivet with a pointed end & is described as a Kerbstift in the early manual; a number are used as the tines in a Harrow model {-/13,6/15,12}; 45, 55mm - hollow with a small diameter flange on one end {3/4/2,4}; 60,80mm {2/4/4}; 95,110mm {2/2/2}; 120mm Screwed Rod, 130mm **Axle** {-/1/1}.

Crank Handle 105mm {-/1/1} - there were 2 early types, with & without a threaded end, with only the former in the sets; later there was only the without version, but in 2 lengths, 105 & 125mm with {-/1/1} of the latter. **Rubber Axle Stop** 3*

10mm Ø {6,10,13,15/30 (but crossed out in pencil and 20 added),20}. **Hook** {1/2/2} - the early type was wire, replaced by the flat 'loaded' pattern. **Spanner** {1/1/1} - as right with the circular end cranked; the



Nr. 28
Feuerwehrauto - Feuerwehrleiter

Modelle aus Kasten 3

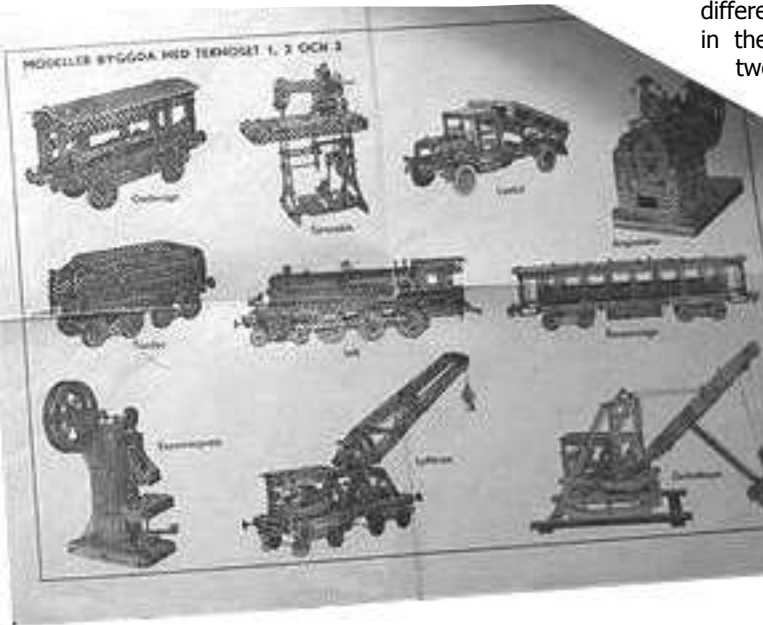
Snippets - TEKNOSET Some more photos of this Swedish TRIX-like system have been seen on Ebay since the piece in 32/944.

First 2 lots, each with **Sets 1, 2, & 3** in boxes like the No.1 below except that the lid aprons are blue for the No.2, and



green for the No.3. Perhaps these sets are earlier than the OSN 32 No.6 type because the polka dot pattern reminds one of prewar TRIX packaging. None of the parts with these Sets are painted and they look to have a bright rather than dull finish. The parts include the Pulley Disc and the large Wheel Disc, neither of which were included in the No.6.

There were 3 model sheets in one of the lots with one side of each shown. All have a centre fold and the first has the front panel shown in OSN 32 to its left, with the 2 models that need 4 each of Sets 1 & 2 on the right side. The other two sheets have models printed across the fold line, one with 14 models for Sets 1+2 as in OSN 32, and the second, below, with models built with Sets 1+2+3. Nothing is said of how many of each would be needed, but clearly one of each would not suffice. No doubt the Sheet had smaller models on the other side. All the models are in prewar TRIX manuals though some details look to have been changed slightly.



Another set seen is a **No.8** with a box which is deeper & red, but otherwise similar to the OSN 32 No.6. The parts include the Pulley Disc & large Wheel Disc, and look to be dark red for the circular parts & dark grey for the others. But if the colours were poorly rendered they could easily be the OSN 32

red/green. The front of the Leaflet right was shown with the set and the heading 'KOMPLITTERINGSLÅDA 3' no doubt indicates a No.3 add-on set. Perhaps it's half of the other side of the '1+2+3' Sheet in the Sets 1-3 lot.

The third set is another KOMPLITTERINGSLÅDA, this time a Gears Set named **SPECIAL** on its beige lid. Said lid has the name top left, the boy from the No.1 set playing with a model bottom right, and a mechanism in each of the other corners - one is a Motor driving a back axle with a differential. The parts that can be seen are mostly bolted to a beige card and the contents probably equate to the TRIX Unit G. The Gears have a brass finish and the Flanged Plate looks nicked.



Finally **three Motors**.

First, the slightly unusual electromagnet Motor right. Its box has an illustration of the permanent magnet type on it, and it matches the one on the OSN 32 box lid except for the different pattern of holes in the base. The other two are permanent magnet Motors which are like the drawing on the box lid. One is in a similar box and has a bright base and green magnet; the other box is also similar except that it is red, and both the Motor's base & magnet are painted red. All three Motors have a pulley, sprocket, & gear outboard of the front bearing, whereas TRIX Motors of the time had a gear, sprocket, pulley, & driving dog.



Postscript Another Ebay **No.8**, said to be from the 1940s, and in a box 58*28*4cm, looks the same as the one already described except that although a few of the Strip parts appear dark grey, most are definitely dark green. The lot also contained a permanent magnet Motor and its box, but it isn't clear if it was part of the original contents (the Set's box would be deep enough to have accommodated it). The Motor box is like the one above while the Motor itself matches the illustration on it and has a red magnet and a plain metal base.

OSN 38/1139

TEKNOSET: S2

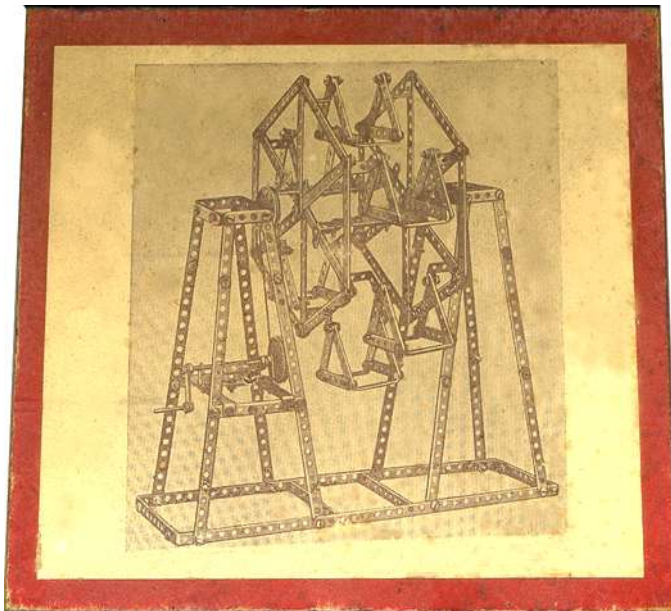
More on KONSTRUKTIONSPIEL These notes on this early post-WW2 Germany system, add to those in 9/224. They are mainly about two sets that came in one lot, similar in most ways but in different colour boxes, one light blue, one red, and the Strips & Brackets are a mix of steel, as in OSN 9, and aluminium. Each box contained some of each but when all were sorted out there were enough of each to make a near

complete 'all-aluminium', and a near complete 'all-steel' set. In both the Pulleys, Span'drivers, & N&B were steel. It is possible though that the sets originally had a mix of parts, another red-boxed set seen on Ebay, looks to have steel 11h Strips but the other Strips & Brackets in aluminium.

The **boxes** are 15*16½*7cm and there is no name or wording anywhere on them. Both have the same lid label, as

OSN 38/1139

KONSTRUKTIONSPIEL: S1



above on the the red lid. The mention of the Big Wheel model being on the inside of the lid in OSN 9 was probably a mistake. In the bottom of each box, along one side, is a light blue box with lid, 15¾*4¾*1¼cm, for some of the parts. Also a Card with the Head, Disc & Scale drawn on it, and folded twice, Z-wise, to run along the bottom and up & over the parts box. The made-up Tram sits in the shallow recess alongside the parts box and it's possible that there were other, similar parts boxes alongside the model, on top of the raised part of the Card. In one Set the N&B were in a light brown envelope, 13¾*7½cm.



The parts Some additional notes follow. Two errors crept into the OSN 9 account: the **hole pitch** is 7.0mm, not 7.5mm (so the 11h Strip is about 3" long), & the **wheels** are Pulleys, not Discs. • The **Strips & Brackets** vary in width from 7.1 to 7.3mm. • The **Pulley**, left, is 27¼mm Ø; 4 are 3½mm wide across the vee & the

other 4 are 4¼mm. The discs are riveted through forming two 2.2mm Ø face holes; the other pair are 3mm, large enough to take any of the Bolts in the Sets.

• The **Span'driver**, right, at ½-scale, is 85mm long o/a.

• Various **N&B**, some M3 and some M2.6 were found, all steel with tapered cheese-headed Bolts and hexagon Nuts. The M2.6 **Bolts** have 4.9mm Ø heads: 47 are 6mm u/h, 63 are 8mm, & 86 are 10mm. The 56 M3 Bolts are 8mm u/h with 5.8mm Ø heads. All the **Nuts**, 220 M2.6 & 72 M3, are pressed and rather poor quality, 4.9-5.2mm A/F, and 1.5-1.9mm thick. The Bolts and some of the Nuts look like bright steel; the other Nuts are a dull darkish grey, like the steel Strip parts. It's not obvious from the quantities found which N&B were from which set, and one can't be sure they were all in the Sets originally. • There was a small hank of thin, brown Cord in one of the sets.

The **Model Sheet** is 254*299mm folded into 4. The front panel is headed KONSTRUKTIONSPIEL, with the Set Contents underneath, and 'N/0875 Made in U.S. Zone - Germany' along the bottom. Also on this side of the sheet are a table of the parts needed for each model, and 2 models, a Crane & a Man with the card Head. On the reverse are 8 models from a Table top left, to the Tram, bottom right (the made-up model). There is a photo of each model and none are named.

A later Set One Ebay lot consists of a mass of parts that look to be a mix of steel & aluminium, 3 flat Cards with the shapes drawn on each, but with the Scale below the Head & Disc, and not over them as on the folded Card in the present Sets. Also a Model Sheet but only the front panel can be seen. It is generally similar to the one above but has 'Made in Germany. Chr. Moser, Nürnberg-W' along the bottom and the Inventory shows a few more parts in the Set including 6 instead of 4 Pulleys, enough therefore for the Tram. The new Contents are, with the old quantities, if different, in brackets: 56,12(10),50x 6,4,11h Strips; 4,8,4(2),20,4x 1*5,4*2,3*3, 2*2,1*3h A/B; 13,14x 1*4*1,2*2*2h DAS; 6(4) Pulleys; 165 (150) Nuts; 150(140) Bolts, assorted; 2 Span'drivers; 1 Cord.

With no reference to the U.S. Zone this set no doubt dates from after 1949, and the improved contents are in line with it being later too. Chr. Moser would presumably have been the printer; nothing is known of KONSTRUKTIONSPIEL's maker.

KONSTRUKTIONSPIEL: S2

OSN 38/1140

Snippet: PFIFFIKUS Since the note on the parts of this small German system in 23/659, more information has come from two sources. First, three sets seen on Ebay, one of which is shown right. Each was described as a No.2, and each was in a similar box, about 24*19cm, with card partitions. The words in tiny black letters along the centre of the name on the lid is probably METALLBAUKASTEN. One of the sets had a manual with it (right), said to contain 8 models. Each set contained a 5*11h Flanged Plate with a centre 3*7h cutout, and round holes in its square cornered flanges. Otherwise the few parts that can be seen clearly do not look to differ from those in OSN 23 except that the set shown here contains an 8h Wheel Disc, a part needed for the Windmill on the front of the manual.

Don Redmond kindly sent the other information, details of some parts found in lot of STABIL. They included a 1*8h SAS but otherwise



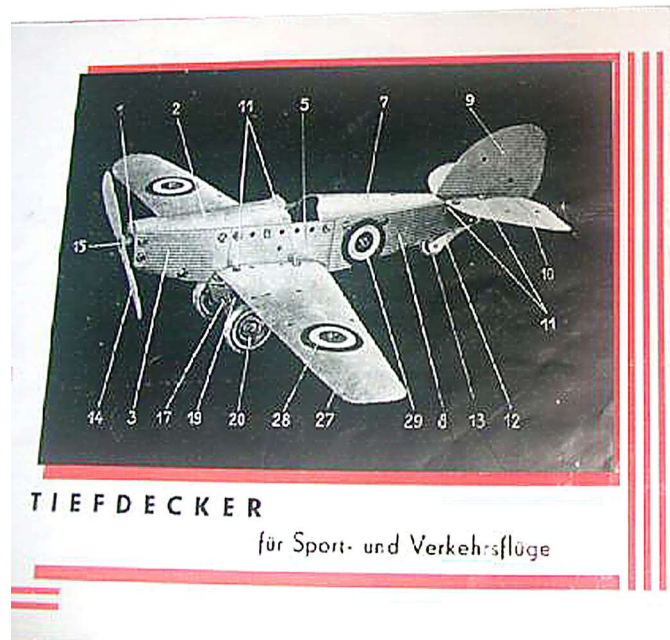
all the OSN 23 parts were present except the Spanner. (The latter was in a photo in Baukästen, and in passing it is said there that the parts date from the 1930s and that the box they are in is not the original.) Don's parts have a hole pitch of 12.4mm rather than 12.5mm and the Strips are 11.0±.1mm wide. The holes in the 3*7h Perforated Plate are severely burred. Also among the parts a 34mm Ø 4h Wheel Disc - about the diameter of the 8h one in the Set above, and a flat Spanner about 95mm long o/a, with a single, angled end whose hexagon jaws are 7.5mm across.

PFIFFIKUS: S1

OSN 38/1140

Snippet. 'New' System: VERKEHRS FLUGZEUGE

Verkehre Flugzeuge means Airliners and the set shown here was sold on Ebay from Austria. It was made by a company called Artus Spiele, and was said to date from around 1940. Most likely Artus Spiele was an Austrian firm but I've not been



able to find confirmation of that, and as will be seen the Roundels in the Set are a bit of a puzzle.

The **box** is red, 44*30*3cm with the lid label above, about 35*23cm. The 3 models on it can be made with the Set and the dog logo top right includes the words Artus Spiele. The top two words bottom right say 'all aluminium' and those underneath speak of 'education, realism, & ease of assembly'.

Most of the main **parts** can be seen in the open box, right; the model and a scrap view from the manual, above & below the box; and the models on the lid. Said models are in typical 1930s Aero style with fuselage sides made of 3 Panels, joined by the Front & Rear Top sections, and the Nose Underside. There is no indication of any handed parts and so the Wings etc are probably flat. The Centre Wing in the compartment below the red N&B box is used between the Wings for the Biplane model. The Fuselage Nose Side Panels are probably the parts under the U/C Struts in the compartment under the Tapered Wing. The detailed view right shows: the Wing attached with A/Bs #11; DAS #6 used as a cross-brace and to journal the Propeller Shaft #15 (the cross-brace is shown without a centre hole); and the drive from the Axle #17 to the Prop Shaft by the Band #16 on Pulleys #18. Probably the Axle has threaded ends and the Wheels are nuted to it. #26 is a Diagonal Strut and it can be seen in the Biplane on the lid, bracing the lower wing from the fuselage. The Tail Wheel #13 is held in what looks like a forked Carrier #12 which is bolted to the fuselage under the Fin. In all 29 parts, other than N&B, can be identified.

By scaling, the holes along the Wing root & in the Undercarriage Frame are at a pitch of around 1/2" — between 12.5 & 13mm say. The Axle comes out at 3-3/4mm Ø, but that figure could easily be in error.



All that is known of the **manual** is the 4 pages that were shown with the Set. One is p1, and has the detailed view (right) plus some building instructions. The others are a page each for the models on the lid. The Biplane is on p4 and it's possible that there are only 4 pages with the Tiefdecker above on p3 the third lid model on p2.

The **Austrian national colours** are red & white but the red/white/red pattern of the Roundel in the Set does not seem to have been used by Austria — it is actually listed for the Peruvian & Turkish air forces. Austria used a black cross in one form or another during WW1, and also from 1938 to 1945. The Austrian air force adopted a roundel consisting of a white triangle in a red circle when it was reformed in 1936 and again from 1955. Perhaps the Set was destined to be exported to Peru or Turkey but it seems much more likely that Artus Spiele simply invented the design using the Austrian national colours. And if so, it may well have been at a time, before 1936 or from 1945 to 1955, when there was no Austrian air force.



'New' System: REBO These notes are based on a No.1 set which David Hobson kindly lent me, and help from Kendrick Bisset in comparing some of the parts with X-ACTO TRIX. REBO was made by the Rebo Manufacturing Corp., 25 Vale Street, Roxbury 19 (part of Boston), Massachusetts and has TRIX-like parts made of aluminium. The Set's Model Leaflet mentions a Set 1A.

The box, 22*24½*2cm, has the lid below and stamped on



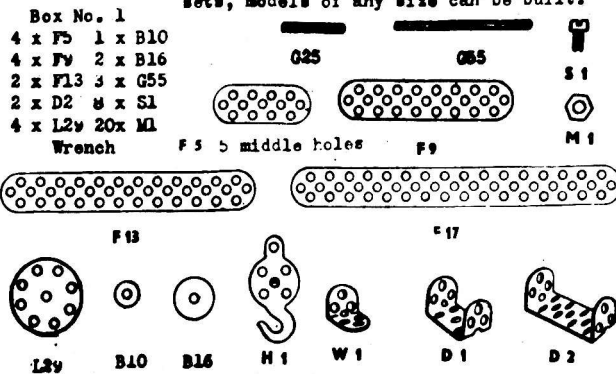
its underside is 'For auxiliary material you can use wooden match boxes, string or thread, and carboard [sic]'. The parts & set contents from the Model Sheet are shown (rearranged) below. The contents of Set 1 are the same as the TRIX No.1 or

REBO MANUFACTURING CORP.

25 VALE STREET

ROXBURY 19, MASSACHUSETTS

BOX CONTENT When using several REBO construction sets, models of any size can be built.



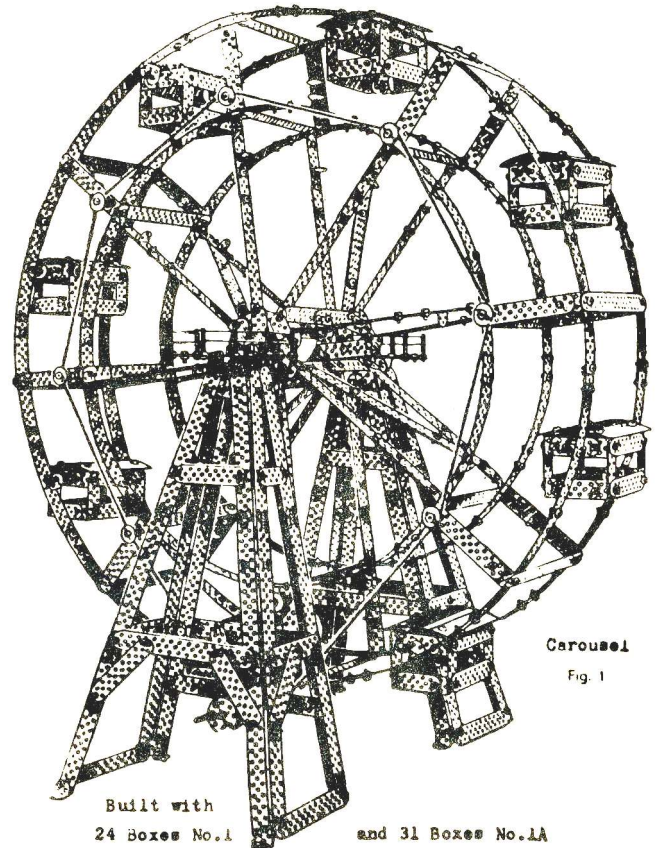
Unit A. The parts not in the No.1 would be in the No.1A, and again they are those in the TRIX 1A or Unit B.

The parts in the Set are symmetrical left-right on a flanged card and the righthand side is shown right. The small parts are in the envelope at the top which was originally stapled to the card. They include the 3 Screwed Rods shown at the bottom, on the righthand side of the space which would have been for the 2x 13h Strips missing from the Set. The other small parts are shown left. Most of the parts are identical to the UK TRIX parts to hand and small differences are mentioned in the notes below. The **holes** are 3.6mm Ø (3.7mm for TRIX, despite the 3.6 in the Database). The **threaded parts** are steel and the thread 6-32. The **Bolt** is nicked with a pan head 7.3mm Ø, & is 6mm u/h. The **Nut** is 6.3mm A/F & 2.5mm thick. It and the Screwed Rods have a slightly light green look, and are probably cadmium plated. At 9.6, 16.0, & 27.9mm diameter, the **Washers & Wheel Disc** are slightly smaller than TRIX (10.1,



16.3, 28.8mm), and also smaller than X-ACTO TRIX.

The **Model Sheet** is 38*24½cm but folded in half. 'p1' has a short introduction, the Parts/Contents panel, and 20 'Basic Forms'. p2 has 26 Set 1 models from Sail boat to Clown, and p3 another 20 from Two Wheel enclosed barrow, to Circular saw. p4 has 2 models for Sets 1+1A: Electricity generator operated by wind, & Signal Bridge; a Railroad signal bridge which needs 2 each of Sets 1 & 1A; and the Ferris Wheel (called a Carousel) below.



I found all the Basic Forms and all the models save the 'Carousel' in a prewar TRIX Book 1. In all cases the illustrations were identical except that the originals were larger. But many of the names had been changed. In fact the REBO models may have been taken from a German Book 1 because the letter codes for the parts are the German ones, and some of the REBO names are inappropriate, due perhaps to mistranslation.

I couldn't find the Carousel as a manual model, only in TRIX publicity material.



History There is nothing to indicate when REBO was made, but most likely it was produced soon after WW2 when steel was scarce & Trix was not in a position to assert its copyright over the Book 1 models — even if it knew of REBO's existence. Given that the circular parts are smaller than both TRIX and X-ACTO TRIX, it is unlikely that they were supplied from either of those sources.

A.W.S. Since the short piece on this German system with aluminium parts in 11/294, an example of the basic set has come to hand. Also, some details of a smaller set, and the new manual & C/W Motor mentioned in 16/458.

The BASIC SET The box is 37½*24½*2½cm, and the lid is like the one shown in the next column except that it is light & dark silver instead of silver & blue. The inside of the base is grey-green and has partitions which, for the Plates, fit around them. The contents are listed below with comments on the actual parts where they add to the notes in OSN 11. **Holes** are 4.2mm Ø at 12.0mm pitch. The **thread** is M4.

- 1x #1 **Screwdriver**, nicked wire, 108mm long o/a.
- 1x #2 **Spanner**, not seen but in Ebay sets it looks similar to the MÄRKLIN part.
- 4x #3 **Windmill Sail**.
- 8x #4 **'Roof' Sector Plate**, flat, to be curved as required.
- 4x #5 **'Base' Sector Plate**.
- 2x #6 **Flanged Plate**, 5*7h with 7mm slots in the flanges.
- 24x #7 **A/B**, with a 7mm slot in one arm.
- 15x #8 **Collar**, 9mm Ø, s/t, 7½-8½mm long.
- 4 each #9,10 **Pulleys**, 35,50mm Ø, turned with flat sides and integral s/t boss which has slight taper to 10mm Ø. #10 has 8 face holes on a 35mm pcd.
- 2x #11 **Crank Handle**, 145mm o/a with a 95mm shank & 29mm handle offset 16mm.
- 2,4,1x #12a,12b,12c **Axes**, 50,100,280mm long. #11-14 are aluminium, 3.92mm Ø with square ends.
- 35,65x #13a,13b **Bolts**, 9,6mm u/h with a 7.0mm Ø tapered cheesehead.
- 100x #14 **Nut**, hexagonal, 8.1mm A/F.
- 23x #15 **Set Screw** 3.5mm long, the actual part is 5mm u/h and has a 4.9mm Ø cheesehead. Like the N&B it is aluminium.
- 22,12,16,12x #16a,16b,16c,16d **Strips**, 5,7,9,11h long.

The NEW MANUAL has the same silver cover as the OSN 11 one but at 210*144mm, is very slightly larger, and the 'Bauanleitung' on it is replaced with 'Erweiterte Bauanleitung' (Enlarged Manual) on a red band. The other covers are plain. Inside is an Introduction which mentions the C/W Motor, then a blank page, then pp1-63 with 69 models plus 2 more from the 69 but driven by the Motor, then 3 blank pages except 'Druck: Buchdruckerei J. R. Kugler, Singen', the printer, on the last one.

The models run from 1. Warntafel (Warning Sign) to 69. Hochsee-Dampfer (High Seas Steamship), and then the 'C/W' models, unnumbered & without a Parts List: Hobelmaschine (Planing Machine) & Bandsäge (Bandsaw). As before there is a line drawing & Parts List for each, with an additional view in five cases. A few of the designs are a slight improvement on the OSN 11 version, and the rest are generally somewhat more

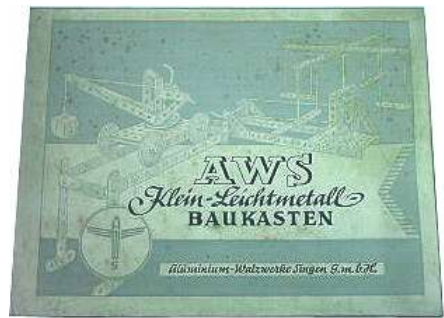
interesting than before, with a wider selection of models including a number of simple Machine Tools & Vehicles. One model is shown below, full-size, and two, reduced to fit in, on the next page. The unusual Plates, particularly the Windmill Sail, are used in a handful of the models, usually to advantage.

OTHER BASIC SETS Some sets in Ebay photos, presumably later ones, have the lid below and the inside of the



base is red. One set with this base has what appears to be a gold & silver lid, but possibly this was due to fading and the ambient lighting. Several have the red Erweiterte Bauanleitung band across one corner of the lid and these have black Tyres for both the 35 & 50mm Pulleys. One of the these sets had both manuals with it.

The KLEIN SET Klein means small and the box is said to be 33*25cm in one of the 5 Ebay ads seen. All the lids are the same design as the one in the next column but in one the background colour looks grey. The models on it are a Gantry Crane & a Chair-O-Planes. All the sets have an orange partitioned base. The

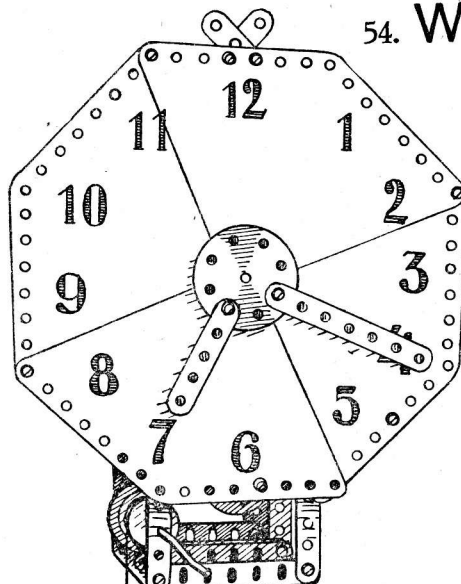
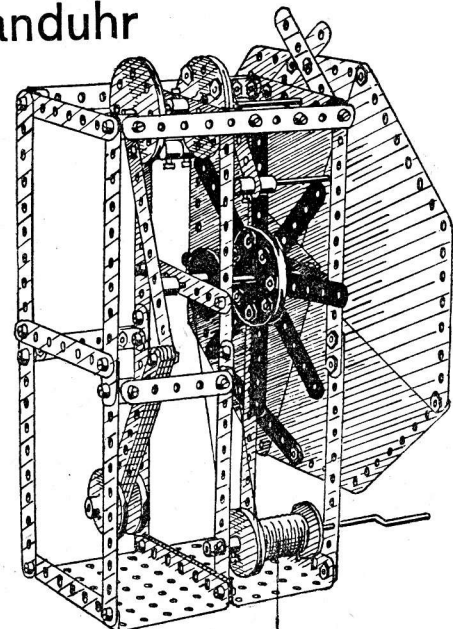


main parts in this set are probably all the different Strips, 1 Flanged Plate, 4x 35 & 1x 50mm Pulleys. One of the sets shows the 35mm Pulleys fitted with Tyres, and this outfit has one 5*3h Perforated Plate not seen in any of the other sets.

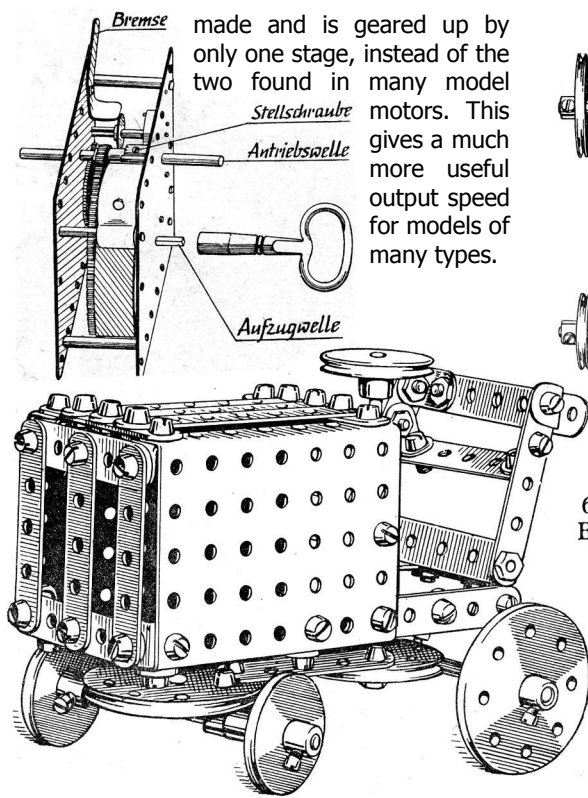
The Klein manual cover looks like the one in OSN 11 but with 'KLEIN-' before 'BAUKASTEN'. One page seen has the same two models as a page in the Enlarged Manual, Sackkarren & Rolltisch, (Sack Barrow & Table on Wheels) but they are Nos.11 & 12 on p7 instead of 9 & 10 on p5. And another page has 21 Eisenbahnübergang mit Signal (Railway Bridge with Signal), another 'Enlarged' model but No.28 there.

The Motor has no markings anywhere. It is 22mm wide and the 7*5h size side-plates are nicked. Each has a centre hole at each end but the 'holes' on either side of it are omitted. There is a brake but no reverse. The drawing on the next page is from the Instruction Leaflet, a sheet 298* 91mm folded into four. The 2 models shown in it are those in the Enlarged Manual. The Motor seems well

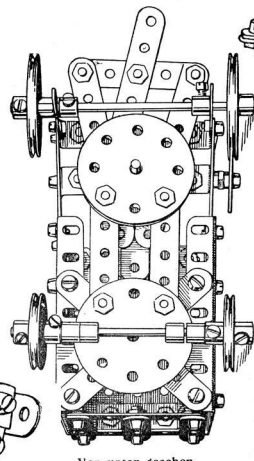
54. Wanduhr

Erforderliche Bauteile			
Nr.	5	=	4 Stück
"	6	=	2 "
"	7	=	10 "
"	8	=	9 "
"	9	=	4 "
"	10	=	4 "
"	11	=	1 "
"	12a	=	2 "
"	12b	=	2 Stück
"	13	=	66 "
"	14	=	68 "
"	15	=	17 "
"	16a	=	17 "
"	16b	=	7 "
"	16c	=	9 "
"	16d	=	12 "



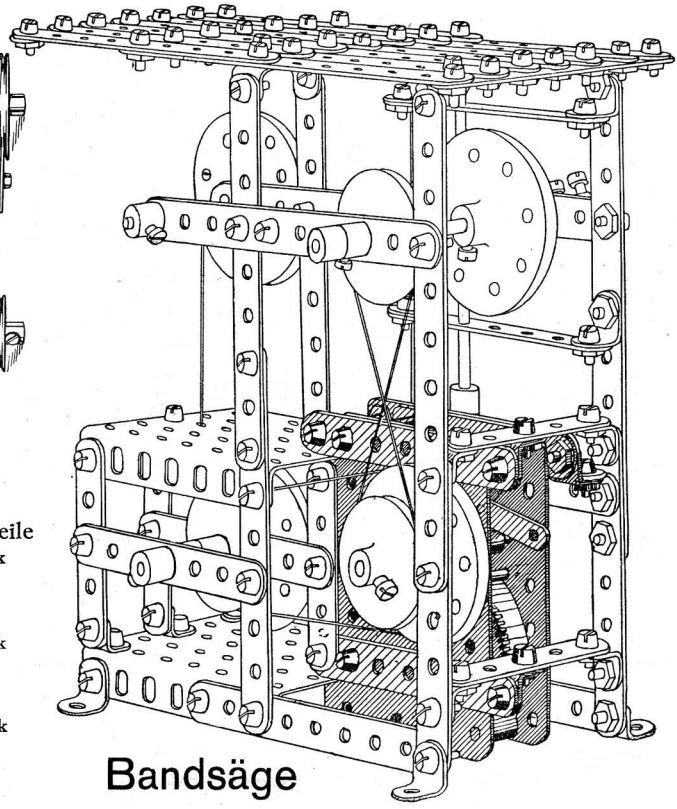
made and is geared up by only one stage, instead of the two found in many model motors. This gives a much more useful output speed for models of many types.



Von unten gesehen

62. Traktor
Erforderliche Bauteile

- Nr. 6 = 2 Stück
- „ 7 = 14 „
- „ 8 = 9 „
- „ 9 = 3 „
- Nr. 10 = 4 Stück
- „ 12b = 3 „
- „ 13a = 14 „
- „ 13b = 46 „
- Nr. 14 = 61 Stück
- „ 15 = 12 „
- „ 16a = 21 „
- „ 16b = 9 „



Bandsäge

A.W.S.: S2

OSN 38/1144

Snippet. 'New' System: POLYKO East Germany produced a number of simple sets which were intended for use in schools, and 4 examples of the P1 outfit described here were offered on Ebay last year. It is unusual in that the wooden box right, 39½*27½*9cm, actually contains 16 of the small wooden trays shown under the box, 18*6*3½cm, in 2 layers. Each has the same parts and can be used to make the Scooter on the lid for example. The words after 'P1' on the portion of the sliding lid below

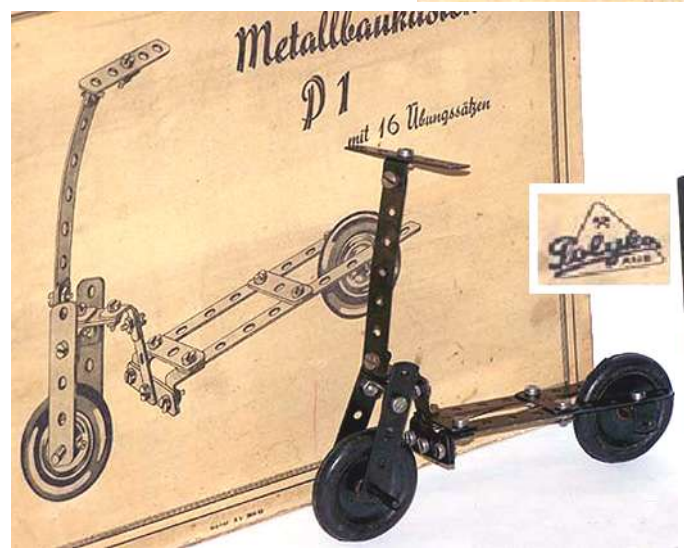


Aue (Sachs)'. A technical school or organisation called A.S.Makarenko perhaps - Makarenko was a respected Soviet educationalist. The reference at the bottom is: III-2-7-51 K b 3648 62, and perhaps 51 or 62 indicates a year. The lid label on the other 3 sets is white and the end of the reference on one is: K b 1601 63.



Only the top half of the Model Sheet can be seen & below the heading it shows the Scooter as on the lid. A sheet with another set has the Barrow right on it with no heading.

The parts are shown below with the A/B & 2h Strip shown twice. One Axle is not included, it is about twice as long as the 5cm one shown. The Wheel is 5cm Ø and has a rubber tyre on a hub with a tapped boss. In one set the hub looks silver. The Strips are said to be 13.5, 11, 8.5, 6, 3.5 & 2.2cm long and this gives a hole pitch of possibly 12.7 but most likely 12.5mm. From the Ebay information the likely content of each 'set', apart from the N&B, is: 4,2,3,8,4,4x 11,9,7,5,3,2h Strips; 8 A/B; 2 each D/B & DAS; 2 each Wheels & 5cm Axles; one each Screwdriver & Spanner; and probably 1 long Axle. Some of



are 'mit 16 Übungssätzen' (with 16 exercise sets) and the word after Polyka in the logo, inset, is 'Aue', a town 30km south of Chemnitz. The heading on a model sheet with one of the other sets looks like 'Polytechnisches Kombinat | A.S.Makarenko |

these parts would not be needed for the Scooter or the Barrow so there may have been models for the Set other than the two seen so far.

POLYKO: S1

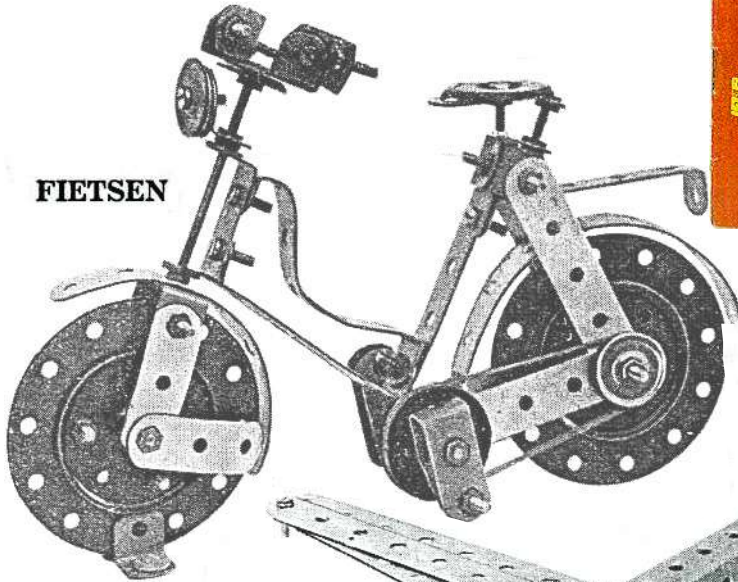
OSN 38/1144

A Different STRICON Manual Harry Mariën kindly sent a photocopy of a No.3 manual for this post-WW2 Dutch system (see 10/256 & 11/275). Compared with the previous No.3 in OSN 10 the contents of the outfit are the same but many new small models have been added, and some of the larger & less attractive ones dropped. One noticeable change is that for improved appearance more of the models use curved Strips & Plates.

The manual has 28 pages plus covers, of the same size as before. The front cover, right, is much more attractive though



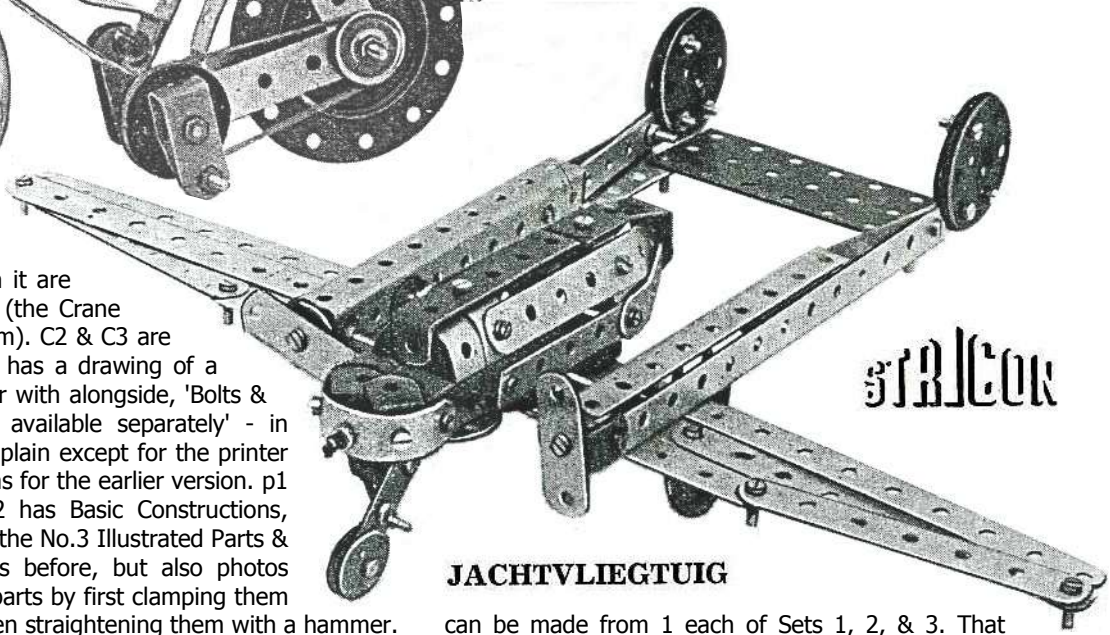
& Bridges. The 5*3h Flanged Plate, not seen in any of the earlier No.3 models, is used in several of the new ones. Only 8 of the models were in the OSN 10 manual, and 18



FIETSEN

none of the models on it are actually in the manual (the Crane is similar to one of them). C2 & C3 are plain except that each has a drawing of a Bolt, Nut, & Span'driver with alongside, 'Bolts & Nuts + 1 Span'driver available separately' - in Dutch of course. C4 is plain except for the printer - Mercur, Hilversum, as for the earlier version. p1 is the title page & p2 has Basic Constructions, both as before. p3 has the No.3 Illustrated Parts & Set Contents, again as before, but also photos showing how to bend parts by first clamping them between Strips, and then straightening them with a hammer.

All the other pages have models, 27 in all, from VERKEERS+VLIEGTUIG (Twin-engined Monoplane) on p4 to LOCOMOTIEF MET TENDER on pp26-28. Their presentation is as in the earlier edition, and in all they are a good selection including Vehicles, Boats, Machine Tools, 3 Bicycles & a Tandem, Cranes



JACHTVLIEGTUIG

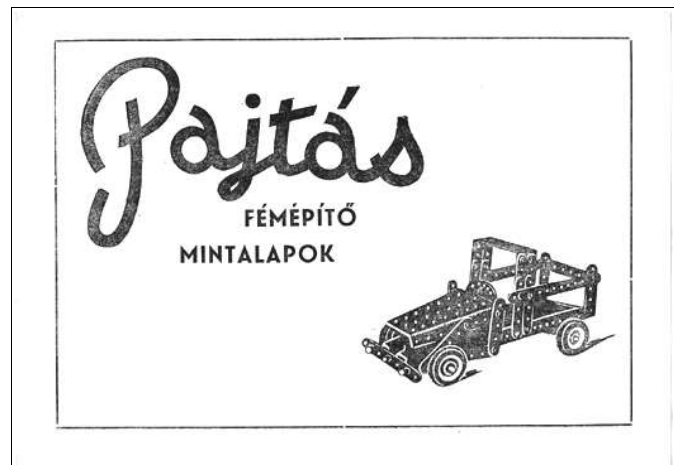
can be made from 1 each of Sets 1, 2, & 3. That compares with 11 out of 19 models before. The only large models retained are a Low Loader (7 sets in all), the Railway Carriage (12 sets), & the Loco with Tender (12 sets). Above two of the new models that took my eye, a Ladies Bicycle & Fighter Plane, both shown at their original size.

OSN 38/1145

STRICON: S1

A PAJTÁS Manual PAJTÁS (= pal or chum) is Hungarian and MCS includes details of an electrical outfit. It is said to date from the early 1960s, and was made in Kecskemét (a town some 75km SW of Budapest) by a company called Finommechanikai-Vallalat. Now to hand, thanks to Jim Gamble, the instructions for a conventional PAJTÁS set, with a PR which includes '66'. That the two sets are connected can be seen from the identical form of the name used for both (as on the manual cover right), from the look of parts common to both, & because the manuals for both were printed in Kecskemét. No company name is given in the present manual though.

The manual is for Sets I & II and consists of 5 loose sheets, 249*174mm, inside folded-over covers. C1: FÉMÉPÍTŐ probably means Metal Builder and MINTALAPOK, Model Sheets. C2: an unsigned Introduction. ppI/1 to I/4 are the 4 sides of the first two sheets and have 26 models from Villa (= Fork) to Szekér (Farm Cart). ppII/1 to II/6 are the remaining 6 sides



and their 37 models go from Fúrógép (Drilling Machine) to

OSN 38/1145

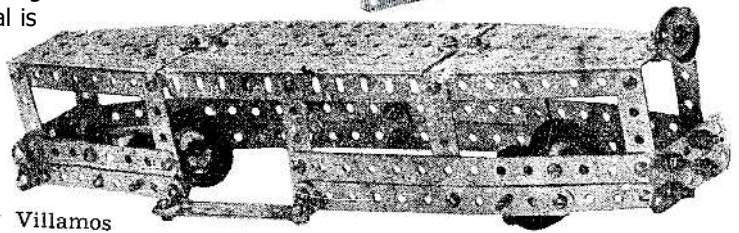
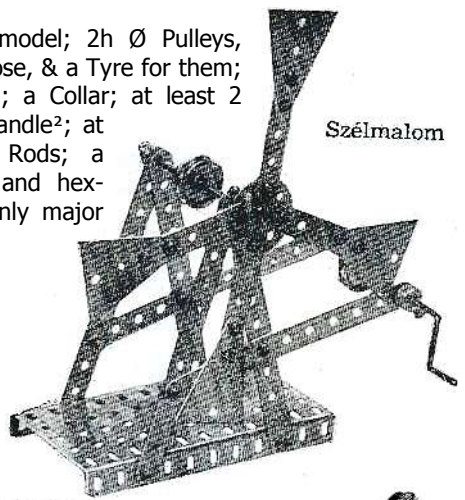
PAJTÁS: S1

Emelőcsőrő (Hoist). C3 has 7 more models from Korlát (Parallel Bars) to Allóhinta (Swing). The set needed for them isn't stated but they could probably be made with Set I except for one which has 'II' after its name. C4 is blank except for the PR: 66. 17 Bács-Kiskun megyei Nyomda V. Kecskemét (Bács-Kiskun megyei = Bács-Kiskun county; Nyomda = printing house). There is a halftone for each model, quite large and clear for the smaller ones but too small and murky to see all the detail in the others. The 2 models opposite are actual size and show about as much detail as the originals. They and the Lorry on the cover are among the more advanced models and some for Set I are very simple.

The parts are conventional and are quite unlike those in the other Hungarian systems that are known from around the 1950s—60s. They are usually aluminium, often with 4 or 8 holes overall (see 20/583), and often include a 6h long Flanged Sector Plate. There is no indication of which metal is used in PAJTÁS. The following parts can be seen in the models (the '2' after some parts indicates that they are only used in Set II models): Strips 2,3,4²,5,7,11h long; 1*3*1h & 1*5*1h long DAS; an A/B; possibly a D/B² & a 1*2h A/B²; a 5*11h MÄRKLIN-style Flanged Plate; an 8h long Flanged Sector Plate² with round holes in the flanges; a 4h high Triangular Plate² as in the Windmill, but it is only

used in this one model; 2h Ø Pulleys, probably Fast & Loose, & a Tyre for them; an 8h Bush Wheel; a Collar; at least 2 Axles & a Crank Handle²; at least 2 Screwed Rods; a roundheaded Bolt and hexagonal Nut. The only major part not in Set I is the Flanged Sector Plate, and in general Set II just has appreciably more of the Set I parts, two of the 5*11h Flanged Plates for example.

Szélmalom



Villamos

PAJTÁS: S2

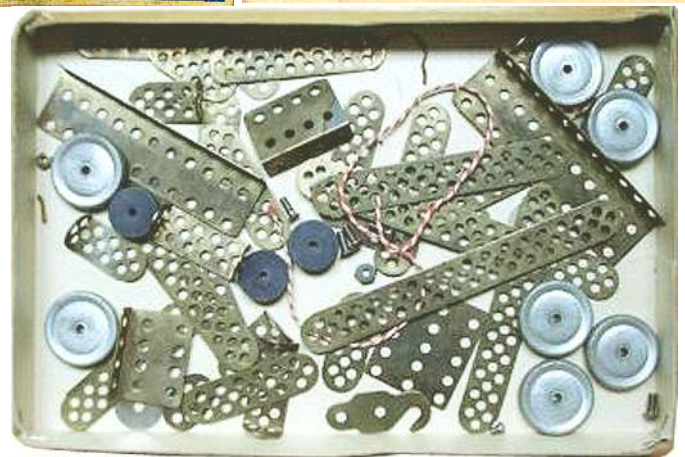
OSN 38/1146

KONSTRUKTÖREN Notes on the parts of this Swedish system shown in some pages from a N:o 10 manual, were given in 20/572, and apart from a few fairly minor changes they looked similar to those in TRIX Units A-C. Now courtesy Staffan Kjellin, and taken from his website, <http://www.vingaker.com/meccano/>, photos of, and notes on, a No.2 set with some unusual non-TRIX style parts.



The lid and the manual cover are shown top right and from Staffan's notes: Sets 1, 2 & 3 are known; the manual was printed in Värnamo (in southern Sweden), possibly in 1944; some parts are identical to TRIX but some are unique, and the Wheel & Pulley are wooden.

The following parts can be identified in the open box right or, asterisked, in another similar No.2 Set seen on Ebay. **Strips** with 5,7,9,13,17 centre line holes. An **A/B**. A 1½*3½h **A/B**. A **DAS** from a 7h Strip with 1½h lugs. A **Plate** 3*5h long with the 3h pitch twice the standard. 1*2h **A/Gs**, 4h & 11h long, made from those lengths of 'Plates'. A silver (or light blue) **Wheel** of about 4h Ø A dark blue **Pulley**. A **Disc** of perhaps 18mm Ø. A possible 4h **Wheel Disc*** but only 2 edge holes of it can be seen. A flat-sided **Hook** with only one centre hole. A roundheaded **Bolt** & hexagonal **Nut**. A **Spanner*** with no holes in its shank. A **Screwed Rod*** about 6cm long. Red & White twisted **Cord**.



The **No.2** seen on Ebay has the same lid & manual cover as Staffan's except that their backgrounds are white. The parts are similar but the Wheels are definitely blue (and it can be seen that their undersides are flat). But I can't spot the DAS or the 1½*3½h A/B, and the Cord is thinner & white.

POSTSCRIPT Since the note above was written a **No.3 Set** has been seen on Ebay. It has a wooden box with the sliding lid right, and the parts fit into recesses cut into the box's quite deep wooden base. In the Ebay photo the lid hides many of the parts but the different types that can be seen, including the Hook, the 3*5h Plate, & the 11h A/G, all match those in the No.2. The Wheels though look black. No Pulleys or 4h A/Gs are visible but there would be room for them in the area hidden by the lid. The manual cover is as the 'white' No.2.



KONSTRUKTÖREN: S1

OSN 38/1146

THE IRON CONSTRUCTOR

by Jacques Pitrat

Some information on this early American system, described in OSN29/854-855, appeared in the manual of its successor, THE PRACTICAL IRON CONSTRUCTOR AND DEMONSTRATOR. Only a 1895 British patent was indicated in OSN, but there was also a U.S. Letters-Patent No.525,221, August 28th, 1894, & a German Gebrauchs-Muster No.30,647, September 11th, 1894.

THE IRON CONSTRUCTOR sets were introduced in October, 1894. Thus it is the second system with metal parts, after the Keller Brothers bridge sets, but before the 1895 Richter bridge set. It was probably the first system with Nuts & Bolts, and the first all-metal construction system since Keller's was a stone system completed with metal parts. [See 26/778 for brief notes on the KELLER system, & 25/730 for RICHTER.]

It seems that there were some defects in the manual and the parts of THE IRON CONSTRUCTOR - it is said in the manual of its successor, written in February 1895: "This toy, the Practical Iron Constructor, is like a young baby; it has only

OSN 38/1147

THE IRON CONSTRUCTOR: S3

THE PRACTICAL IRON CONSTRUCTOR AND DEMONSTRATOR

by Jacques Pitrat

This system replaced THE IRON CONSTRUCTOR and was produced by F. Wm. Rumpf, Architect & Engineer, of Paterson, New Jersey. The name of von Leistner, inventor of the preceding system, does not appear in the manual although the picture on the lid is signed "Rumpf & von Leistner DCL. 1894".

THE SETS The six sets in this system are, with the number of pieces in each in brackets: A (50), B (100), C (200), D (300), E (400), & F (950). The first three sets are in cardboard boxes, the others are in a wooden boxes, with the same box used for sets D & E. In the number of pieces, a Bolt, a Nut, and a Washer count as one.

The wooden box for **Set D** is 358*178*11mm and it has



the sliding lid above. The box, below, has two main compartments with the wooden parts in one and a wooden tray in the other. The latter has a compartment for each of the 7 main metal parts, one for the Nuts & Bolts, and a small one for the Washers. A small label with a letter on it is glued on one side of each compartment to indicate which piece it is meant for. The manual sits under the tray.

An interesting letter from the maker is still in the box. It is written with a pencil on a plain sheet of paper without heading, folded in four. It was addressed to a Mrs Neale,



OSN 38/1147

THE PRACTICAL IRON CONSTRUCTOR AND DEMONSTRATOR: S1

been introduced into the market since October 1894, but in this short time it has already grown up to full childhood, and it comes now forward in improved and more correct form, all mistakes made formerly – and who will not make mistakes – have been remedied wherever they have been discovered, the plates and drawings have been entirely worked over and enlarged, and all structures shown on plates have been actually tried and found correct."

However, it was also said that it was a success: "This toy has not only been bought by parents for their children to play with, it has also been bought by Architects, Engineers, and men in business and practice.....One firm alone, in New-York, has sold more than \$1,000.00 worth of this toy alone in two months...."

I am not sure that the system was so successful since THE PRACTICAL IRON CONSTRUCTOR AND DEMONSTRATOR, a completely redesigned system, was introduced at the beginning of 1895.

without her address; thus, it was delivered by a courier, and probably she was living in the same town as the maker. On the other side, there are the contents of set D and the following text: "We regret very much to inform you that our carpenter had not the time to make you a box for the box D. We send you two boxes instead hoping this proves satisfactory." This is a cottage industry and when there is an order for a large set, one asks the carpenter to make the box! Mrs Neale did not find this solution satisfactory since the set is in its proper wooden box, the carpenter had to find the time. Anyway that explains why two copies of the manual were in the box.

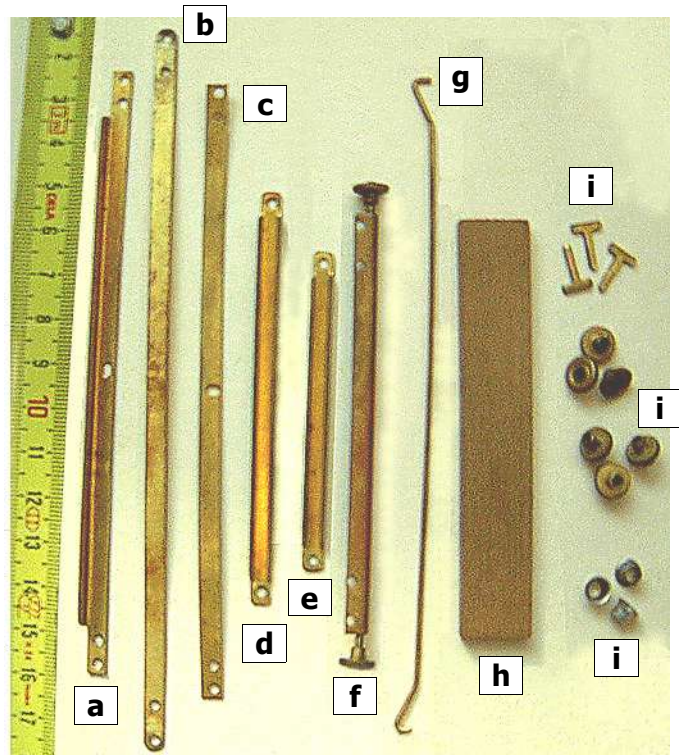
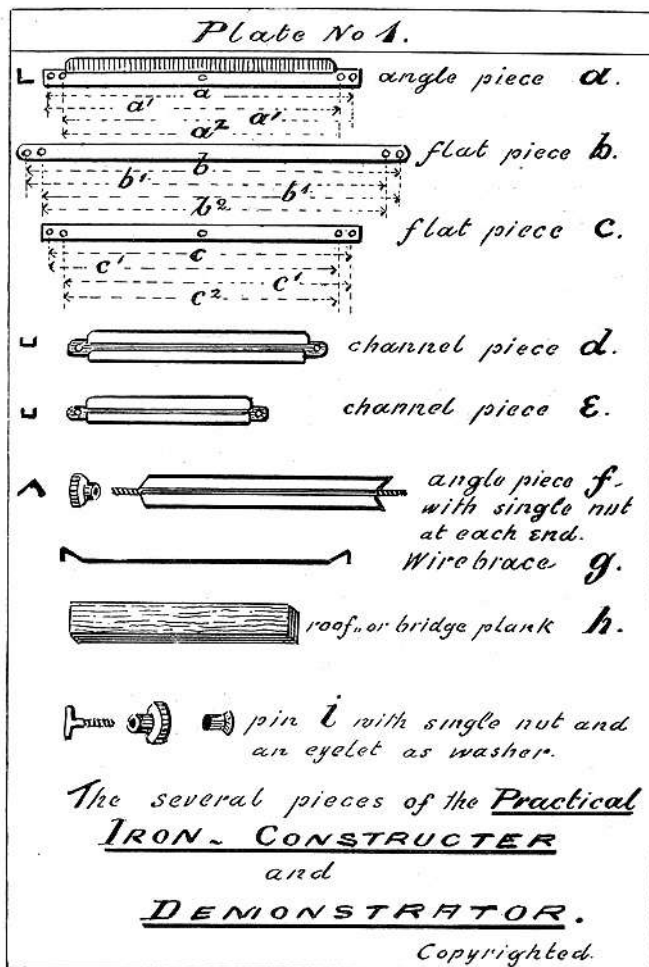
THE PARTS Although the parts of the new system look similar to those of the earlier one, they are all different, the only common characteristic is that the thread is the same. The difference is not only in the size and form of the parts, it is in the underlying design principle. The parts of THE IRON CONSTRUCTOR were often asymmetric: when there were two holes at each end their spacing was not the same; and when there was an intermediate hole, it was not at the middle. These characteristics gave the user a wider scope, but it was more difficult to use the parts. All the parts of the new system are symmetric.

The 11 different parts in the system are shown on the next page, from the manual, and in a photo of the actual parts. The diameter of the holes is 1.8 mm; all the parts are brass except the wooden Plank. In the notes on the parts that follow I often use the terminology of the manual, and quotes from it. In brackets are the number of each part found in set D followed by the price in cents for a dozen of the parts.

Angle Piece #a (50-24c). It is 5*5mm in section and has two holes at each end. That makes three possible distances between them; in the models they are indicated as a, a¹, and a² (a=133mm, a¹= 127.5mm, a²=122 mm). This part is used in compression. The centre hole is used in cases where two or more pieces are joined together to give the structure more strength. "You can form with the a's a channel, a double **T**, or **Z** bar by screwing them together with "i". You can form a hollow square tube by using three pieces a, and screw them together with "i"."

Flat Piece #b (30-18c). It is 5mm wide and also has two holes at each end. These give three possible distances: b, b¹, and b² (b=158, b¹= 150, b²=142mm). This part is usually used as a brace.

Flat Piece #c (25-16c). It is the same width as #b and also has two holes at each end; thus three possible distances: c, c¹, & c². As with #a, there is a centre hole which is again used to join two or more pieces together. c=a, c¹=a¹, & c²=a², so #a & #c parts can be bolted together. It is often used as the base or top member of frames.



sides of the shank. Now they are different but the problem is not solved: there is still thread only on the sides. They are a 10*7mm flat 'T', 1.2mm thick, with the leg 2mm wide. The length of the 'thread' is 5mm, so the threaded area is just 6mm² on each side of the leg. The poor quality of the bolts is certainly a very serious drawback of this system: "Whenever a screw works a little hard, try another one and they will in course of time work very easy. The screws in themselves have been very much improved in their working and make." It seems that 'very much' was not enough. This is curious, 7 years later Hornby had no difficulty in finding a manufacturer who made good quality bolts, they were among the best of the parts in the MME sets.

"You can bend the ends of a, b and c. The metal is very pliable and the ends straighten out again very easily."

Channel Piece #d (30-20c). 5.5*3.5mm high in section and the single holes at the ends are at 87mm pitch. Another part used in compression.

Channel Piece #e (30-18c). Also 5.5*3.5mm in section and used in compression. The end holes are at 65mm pitch.

Angle Piece #f with a Single Nut at each end (30-50c). This piece is a rod with threaded ends soldered to a 5*5mm section angle girder (as #a), and it is used as a cross-tie. The diameter of the rod is 2.0mm, its length 106mm, while the girder is 92mm long. The thread is longer at one end (8mm) than at the other (5mm), and the side with the long thread is to be used when three or four pieces are to be nutted on. The quality of the thread at both ends is good. There are two holes in each arm of the girder at each end but these 8 holes are not shown in the manual illustration. The rod prevents using Nuts & Bolts in these holes, and the ends of Wire Brace #g sit in them. Usually #f parts are used between the sides of a Bridge, joining each end of #a parts, and the resulting rectangle is braced by one or two #g parts.

Wire Brace #g (30-10c). This is used for wind & transverse braces; the length is 146 mm and the diameter 1.2 mm. Both ends are bent as shown and as already mentioned they are inserted into (and are very loose in) the holes of #f.

Roof or Bridge Plank #h (60-5c). It is very different from the large wooden part of the first system, and measures 92*16*4mm.

Bolt (called screw or pin), **Nut & Washer #i** (30-20c). In the manual the Washers are also called eyelets; they were not in the preceding system, and are an improvement - as the manual says: "For using the i to a better advantage and let the screws work more tightly, I have introduced eyelets as a washer, and you will find these washers very useful where only two or three pieces have to be jointed together."

Bolts were a problem with the earlier system, they were very crudely made with a flat head and thread only on the

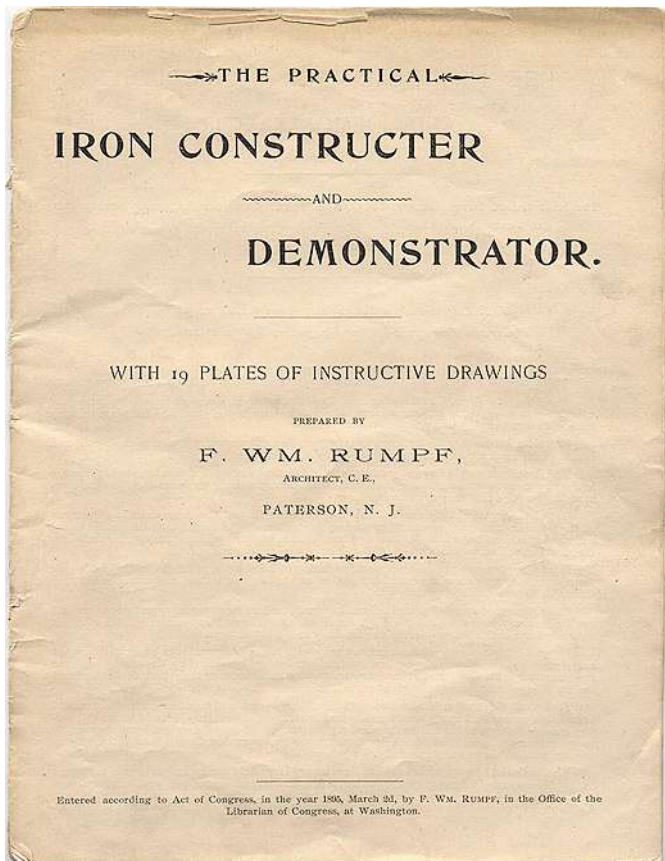
On the contrary, the quality of the **Nuts** is satisfactory, they are almost the same as in the previous system: the small differences enable the user to have a better grip. Among the #i Nuts some are Single and some Double (the Double have the 'boss' with tapped bore on both sides of the serrated centre disc). The quantity of each kind is not given, but of the 29 remaining Nuts in the box, from the 30 initially, there are 5 Single Nuts and 24 Double Nuts; there are also 30 Single Nuts with the 15 #f pieces. Double nuts are useful to assemble two #f parts for Bridges with two or more tracks.

As the Nuts have a serrated edge and the Bolts are flat, no **tools** are necessary.

The manual mentions that there are also 60 **Double Screws** in set F (15c a dozen). However, they are not in the description of the pieces and do not appear in the set F models.

The only parts not in the Set but necessary for some models are the **CORDS** and **WIRE CABLES** for suspension bridges (models 62 & 63 for set F): 'The cords you have in your home (any good double thread will do), and the wire cables you can easily get at nearly every hardware store; only see that it is flexible and not too thick to form a natural curve if hung up at both ends.'

THE MANUAL was written in February, 1895. It was entered, in accordance with the Act of Congress, in the Office of the Librarian of Congress, at Washington on March 2nd 1895. It has 24 pages, 203*153mm, including the covers which are printed on the same paper as the other pages. The front is shown overleaf (all the other manual pages here have been changed to B&W). Four pages present the system, and they are followed by 19 plates. The first of these describes the



This is very surprising: the Keller system is very simple, without Nuts & Bolts, and the piers are made with stone blocks - I cannot see how such a large model could be built with this system and how piers or towers made with stone blocks could support such a large span. Moreover it is curious that both bridges were the same size, and that a German manufacturer built a model of an American bridge when there were many large bridges in Germany. It could be that they created a new system which was never manufactured, but I wonder whether the Kellers had made an agreement with Rumpf for selling his system in Germany. In that case the Leipzig Bridge was the Rumpf Bridge, but in the end his system was not sold by the Keller brothers.

IN CONCLUSION, THE PRACTICAL IRON CONSTRUCTOR AND DEMONSTRATOR was a completely new system with good quality parts which, except the Bolts, were easier to use. The models were well conceived and they adequately used the contents of the various sets; the supermodels displayed in the exhibition are amazing. Unfortunately it was not successful, these sets did not sell well since it is very rare to find them.

Starting from scratch, it was an imposing achievement to create THE IRON CONSTRUCTOR & then, only 5 months later, this greatly improved system. I am dumbfounded that so many events could occur in only 5 months. In this time: some sets of the first system were sold but defects in the parts & manual were discovered; a newcomer found various ways to improve the parts, wrote a manual with many new & intricate models; von Leistner left the management of the company; sets with the new improved parts were produced; and an exhibition with a lot of models, including supermodels, was staged. Building the large Suspension Bridge, using parts as cumbersome as the Bolts, must have required at least one month.

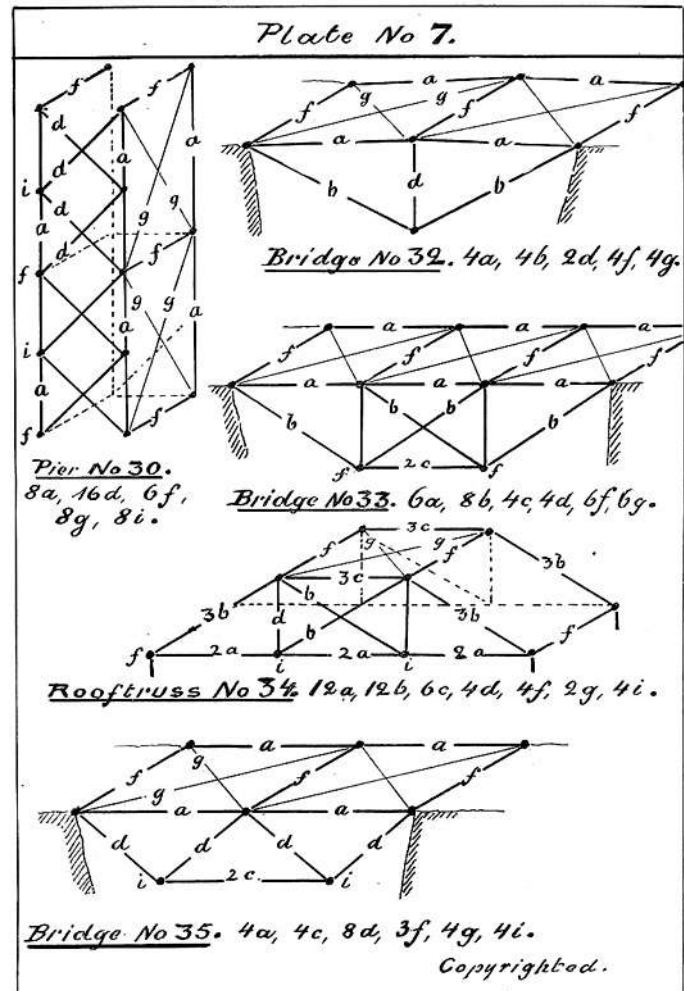
Was the price of the sets a factor in their lack of success? Their selling price isn't known but from the prices of the various parts, it is perhaps possible to have an idea of the cost of Set D. The total for the parts is \$5; it is likely that this was the

parts of the system and the models are in the other plates. The set that can build a model is not given with the model, but the introduction indicates which models can be built by each set. With each model there is the number of parts necessary to build it. The 25 models of plates 2 to 5 are flat constructions made with triangles. The next models, on plates 6 to 19, include some Roof Trusses & Piers but are mainly Bridges. In all there are 63 models, but a Bridge and its piers are often counted as separate models. Curiously enough, the Eiffel Tower, then six years old, is not among the models although it would have been a good application of the system and it can be seen in the lid picture.

One of the plates for Sets A,B,C is shown right; the Girder Bridge on the facing page is from the D,E models and the Arch Bridge needs Set F. A 'language' is used to describe how the parts are put together. '2a²+c²' means that two #a & one #c, are overlaid and bolted together, and that they will be joined to the other elements by their inner holes.

THE EXHIBITION MODELS The box includes a 269*125mm photo: "Every box has also the pamphlet with the full set of drawings and a print taken from a photo of the exhibition at which all the several constructions and more of them, including a large suspension bridge with five roadways, similar to the Brooklyn Bridge, had been put up and exhibited." The photo, on the facing page, shows many models from the manual, and while some of them are quite small, among the larger ones is a model with two spans, each of them the No.62 for set F, so its length is over 2 metres. The most interesting model is the Brooklyn suspension bridge of which over half its length can be seen in the photo. The main span of the model would be around 4 metres and the overall length at least 5 metres. The height of the towers some 1.4 metres. It is impressive, the first supermodel, longer, wider, and higher than the MME Forth Bridge which was made 9 years later. Many years would pass before such a large model made from a metal construction system would be shown at an exhibition.

A KELLER CONNECTION? It is perhaps necessary to correct the last sentence since Baukästen says (p.46) that the brothers Keller presented a 5m model of the Brooklyn bridge at a Leipzig exhibition in 1897 and it earned them a silver medal.



AMI-LAC in 2007 Most of the sets mentioned in 25/727 were still on the Company's web site (www.lacgiocattoli.it) last autumn, but 3 of the larger outfits no longer appeared and some new single-model sets had been added: 3 in the '100' series, and 3 labelled 'New', including one using a Solar Cell.

Basic Sets Nos.6, 7, & 9 of the previous 2-9 range were no longer listed. Those remaining now have reference numbers with '00' before the Set No. The lids of the Sets 2-5 in cardboard boxes have been changed to the style of the new No.3 below. Each has 5 small models, usually ones that were



Solar Cell powered 'Nodding Donkey' Pump (sold by Girders & Gears as No.300), the Sports Car above, and an Articulated Oil Tanker running on 1" Pulleys/Tyres.

Other Recent Outfits A number of used sets, 4 Basic and 3 others, were offered on the Italian Ebay in January 2006. Of the Basics, 3 were as already described, the fourth had the same style of lid but the large model was a **Dragster** with 1" Pulleys+Tyres as wheels.

Now the 3 other outfits. A Solar Nodding Donkey set was in a wooden box which scales at about 12*8", and the label has a picture of the model and the words **SOLAR 1 & DERRICK**.

The lid label below is from a set called **LA BICI** (= The



on the earlier lids, plus a larger one: a Biplane for No.2 and the same Crane for both the No.4 & No.5. The tops of the wooden-boxed set lids, 5L & 8, are not shown.

The current sets seem to have the same parts as before and the same range of finishes is used though the colour of some of the individual parts has changed. A few details are given of the wooden boxed sets. The **No.5L**, like the No.5, has 268 parts in 3 layers, while the **No.8** has 724 in 8 layers. There are photos of these 8 layers on the web site and the main parts that can be seen include 7,2,3,2 of 25,17,11,7h A/Gs; 5x 11h Flat Girders; 2 each of 5,11,25h Braced Girders; 4 each of 3" & 2" Pulleys; 5x 1 1/2" Pulleys with 4 Tyres; 2 each of 65mm Flanged Disc Pulleys, & 95mm Flanged Discs; 4 each of 5*11h & 5*7h Flanged Plates; 6 Flanged Sector Plates; 2x 3*5h, 2x 5*5, & 1x 5*7h Flexible Plates; 2 Boilers with Ends; 3 Sleeve Pieces. The flat parts may of course have others stacked below them. Smaller parts include a selection of Gears, among them a Worm, a Worm Housing, 3 Bevels of different diameters, & probably 2 sizes of Contrates; 3 different types of Pawl (with RH & LH versions of 2 of them); several items of 'brassware'; & a 7h Double Arm Crank.

No manuals are shown on the site for any of the sets. As none of the featured models are included in the 'standard' AMI-LAC manual (see 15/401), they are presumably covered elsewhere, on individual model sheets most likely.

In passing it may be of interest that Girders & Gears have inventories of Sets 3-8 on their web site (www.girdersandgears.com/amilac.html) based on the parts found in actual sets.

The 3 **Multi Kit sets** continue unchanged.

The **extra '100' sets** are No.107-9 for a Delivery Van, a Loco, & an Old Motor Car respectively - all models from the 2000/1 set, see 25/727.

All that is shown under '**New**' are photos of 3 models, a



Bike) on a label inside the lid. It is again in a wooden box, roughly 13*9", and is said to have 358 parts. The yellow frame is made of A/Gs and the wheel rims from 4x 25h Formed Strips. That would give a diameter of around 15", and the chain wheel is a Sprocket which scales at 3 1/2" Ø. The base of each wheel stand is a 5*7h Flanged Plate.

The final set has the lid label below. It is in a similar wooden box and is called **IL CICLISTA** inside the lid. It has 176 parts including 1 1/2 & 3/4" Sprockets for the Chain drive to the 3" Pulley back wheels Perhaps the 3" Pulleys are fitted with narrow black Rings as tyres, and the spherical head is probably another special part.



AMI-LAC HISTORY Anton Calleia wrote about a No.7 set in the 4th Quarter 2003 Southern California Meccano & Erector N/L. He had also been in touch with Dante Alemanni, the current head of the firm, who told him something of the history of the system. The company was founded by Dante's father Leonida in 1908 and in 1954-55 it acquired the AMI (Articoli Metallici Ingegnerosi = Ingenious Metal Items) firm owned by Fratelli Comerio. AMI sets had been made since the early 1930s and after the change of ownership AMI-LAC sets were produced. In LAC, LA stands for Leonida Alemanni, & C for Casalpusterlengo, the name of the town near Milan where the factory is located.

The company is proud that good quality traditional sets are still produced with nearly all the parts metal, and 5/32" BSW N&B. Also, that they were the first in the field to introduce powder-painting in 1980.

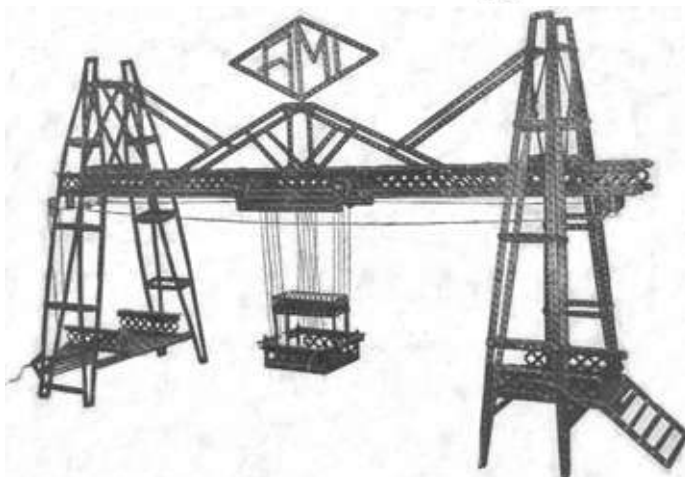
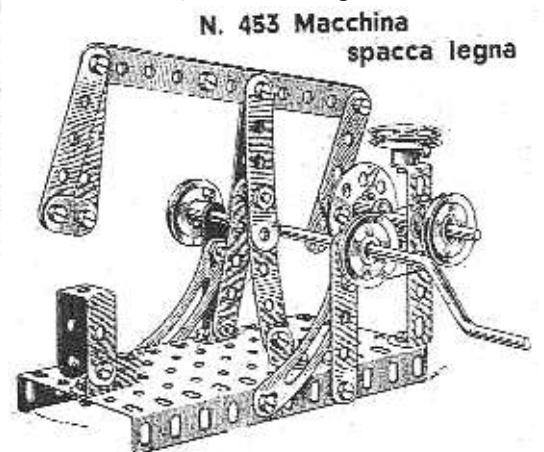
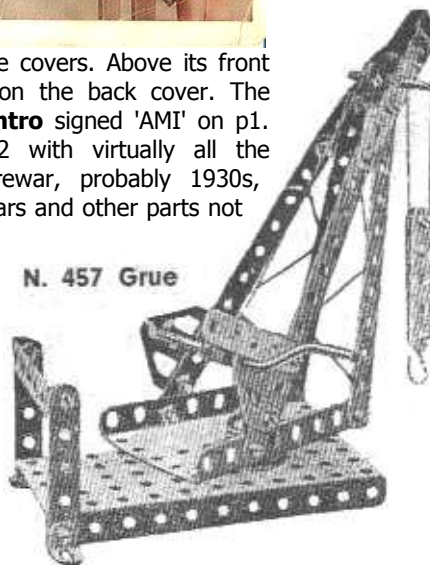
An AMI Manual Writing the above reminded me that Orion DreamDancer once kindly sent me scans of a No.1-2 AMI manual. As will (eventually) appear it is early version. It has 84



pages, 236*171mm, plus the outside covers. Above its front and below the Transporter Bridge on the back cover. The inside pages are as follows. • An **Intro** signed 'AMI' on p1. • **Basic Constructions** on pp2-12 with virtually all the illustrations taken directly from prewar, probably 1930s, MÄRKLIN manuals. Some contain Gears and other parts not in the then AMI range of parts, and most of them were carried forward into the AMI-LAC No.9 manual described in 15/401. • The **Set Contents** for Sets 1-4 & 1a-3a on pp13-14. They are identical to those for AMI-LAC sets in MCS but beware, more about this later on. • The **Illustrated Parts** on pp15-18. Compared with those for AMI-LAC in MCS & the No.9 manual (they are identical except that in MCS the parts

aren't named) the then AMI range was much smaller, 146 parts against 470, but again more on this later. The PNs are the same in AMI & AMI-LAC, so too the illustrations except that the 3" Pulley changes from the first MECCANO 4-spoke pattern to the current type. The only other difference is that the Flanged Disc #67 is described as 90mm Ø in AMI and 95mm in AMI-LAC. It would take too much space to list all the AMI parts but their PNs are: 1-1g,2-7,8-9h,10,11,12,12a,13-14,15,15a,16,16a,17-18b,19,19s,20,21,22,22a,23,24,25,25a,26,27-27b,32,33,33a,34-37c,40,44,44a,45-46,47,47c,52,52a,53,53d-55c,57,57a,59,60/4-60/11,60/4a-60/13a,61,62a,63,65,66,67. The main additional parts in the AMI-LAC range are 37 & 49h Strips & A/Gs; Flat Girders from 2-49h long; many more Brackets; D/Bs with bosses; more Gears including long Pinions, Contrates, Bevels, Helicals, & MÄRKLIN-type Gear Rings; Pinions & a 1" Pulley with dog clutch bosses; Sprockets & Chain, more 'brassware', Cranks, & fittings; Slotted Strips; Screwed Rods, Braced Girders; a Boiler, Sleeve Piece, & Chimney Adaptor; various circular parts up to 15cm Ø; many, many more Perforated & Flanged Plates, and Tyres. However later it will be clear that many of these parts were added to AMI before it became AMI-LAC. The AMI-LAC range often includes both MECCANO & MÄRKLIN versions of basically similar parts and this was the case for AMI Flanged Plates & DAS in the 1-2 manual. Also both a 56t & a 57t Gear are included (#27a/56 & 27a/57), presumably because Märklin hadn't changed to 57t when the AMI Gears were introduced. From the lists to hand Märklin introduced the 56t Gear in 1926 or 1927 and it was replaced by the 57t sometime after 1931 and by 1934 (Meccano changed from 56 to 57t in 1921). • A title page for 'MANUALE N.71a' on p19. • 142 **No.1 models** from N.1 Forchetta on p20 to N.141 Tabella on p37 (the extra model is 75a). • 257 **No.2 models** from N.201 Carriola on p38 to N.457 Grue on p84 (N.376 is misnumbered N.476).

The models are typical of those for small sets in the 1920s, and there is an adequate halftone or shaded line drawing for each, plus a parts list. I suspect that the halftones came directly from MECCANO, & the drawings from MÄRKLIN



manuals, the handful I checked certainly did. One of each type is shown above, full-size. AMI-LAC model illustrations are usually rather larger and are either clear line drawings or, for the larger models, good halftones. Many of them look to be original designs.

Some AMI Outfits 2 sets have been seen on Ebay, a No.00 and a No.8, almost certainly the smallest and largest ever produced. The **No.00** box is blue, 20*32cm, and the parts are clipped to an orange card. Some may be missing but the main ones are probably present: a 5*11h Flanged Plate, a few 5 & 11h Strips, a DAS, 4x 1" Pulleys, & a Bush Wheel. The latter is brass, the DAS bright, and the other parts a very dark green. The manual cover is for Sets 00-0 but is otherwise exactly as the 1-2, and the lid label is the same design. [->>]

The **No.8** looks unused. It is in an attractive wooden box, 53*34*15cm, with a hinged lid, and a hinged drop-down front giving access to 5 wooden trays. One has a corner cutout to accommodate a Boiler in the tray below. Most of the parts are clipped to orange cards with the small parts in 7 green, round boxes, probably plastic with AMI moulded into the lids. The label inside the lid is similar to the 1-2 manual but the model on it is a Lifting Bridge. There were 3 manuals with the Set, a



1-3, a 3-5 & a 6-8, and all have the type of cover above. In all they were was said to have 550 pages with 150 in each of the two larger ones, and 1500 models for Sets 3-8!

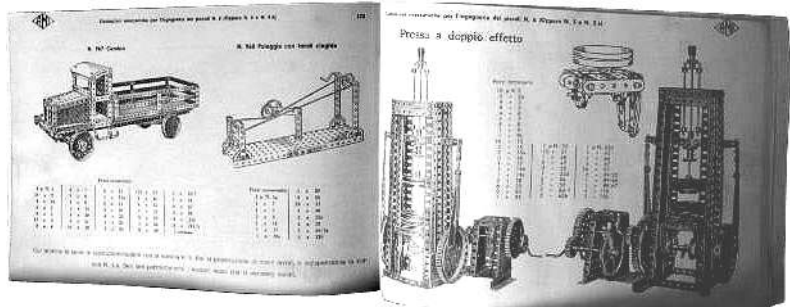
The No.8 is a big set and the Ebay photos show each of the 5 trays. It is obvious that they contain many different parts not in the 1-2 manual, Braced Girders for instance, and Tyres, Contrates, Sprockets, & Gear Rings. Also among the Ebay photos, most of a 6 sided parts leaflet on which can be seen parts which match most of those in the corresponding parts of the AMI-LAC parts list. The two lists are not in quite the same order though and because some of the Leaflet isn't shown, one can't be sure which of the AMI-LAC parts were not in the AMI range. Another item in the AMI leaflet is the sideplate Motor which continued into AMI-LAC.

So it seems that AMI developed both in terms of the range of sets, the range of parts, and perhaps the man-

uals (they had new covers at any rate). Turning to the **set contents**, those for Sets 1-4 & 1a-3a in the 1-2 manual are identical to those for the same AMI-LAC sets in MCS. However although an AMI-LAC manual cover is shown in MCS I suspect that the Set Contents there, for Sets 00-5, is actually for AMI. If so, the AMI range of sets at that stage had increased from 1-4 to 00-5, and sets 6-8 were still to come. There is no Set Contents in the AMI-LAC No.9 manual but the total number of parts in the sets is given and roughly it seems the AMI 00-3 became the AMI-LAC 1-5; while 4 & 5 became 6 & 7 but with fewer parts. The AMI-LAC No.7 had 580 parts, against 651 in the AMI No.5. Possibly the AMI 6 & 7 became the basis for the AMI-LAC 8 & 9 but there is no firm evidence for this. If correct though it may have been that AMI-LAC decided to see how sales of the larger sets went before deciding whether to have a prestigious No.10 based on the AMI No.8 (which was said to weigh 17kg).

Going back to the parts, the **colour scheme** in the No.8 is: light green Strips, DAS, A/Gs, & longer Flat Girders; dark green Flanged Plates, Braced Girders, & some Brackets; medium red Eccentrics, Trunnions, a few Brackets, & circular parts of 6cm Ø & above (the Flanged Disc scales at 9.5cm; the 3" Pulley is the later type and is shown thus in the parts brochure); bright smaller Circular parts but the 28mm Flanged Wheel is brass; light blue Flanged Sector Plates & Windmill Sails; blue Flexible Plates; blue-grey Boiler with dark, perhaps black, ends. A few of the small parts are chemically blackened.

All that is known of the **6-8 manual** are the 2 pages below that were shown on Ebay. The Press on the RH page became a No.8 model in the AMI-LAC manual with identical illustrations but neither of the other two models were included in it.



OSN 38/1153

AMI-LAC: S3

Snippet: 'New' System

Another METALLBAUKASTEN

'Früh übt sich ' on the sliding lid of the set right is the first part of a German proverb which ends '..were ein Meister will'. In English one might say 'Practice early if you want to become a master (craftsman)', and this sentiment is illustrated on the lid by the boy with his Crane and the man with his real crane in the background. The logo in the bottom right corner is made up of the words 'Kühle Spiele Halle' and possibly this could indicate a firm called Kühle making Spiele (= toys etc) in the town of Halle.

The largest town called Halle is some 30km east of Leipzig, and this seems the most likely given that Leipzig was a centre of toy making. If so it would have been in what was East Germany after WW2 but there are no signs of East German officialdom on the lid. So the Set could be from pre-WW2 and this would justify the date of c1930 claimed in the Ebay ad. But immediately postwar could also be possible, before the



apparatchiks got into their stride. And of course it might have been a West German Halle.

The box measures 30*23*3cm and the Ebay ad mentioned 'Nr.301/302', presumably the set designation, and probably the text under the logo on the lid. The Strips & Plates look as if they might be aluminium and scaling from them gives a hole pitch of around 1.5cm. Likewise the wooden Wheels are 2-2½cm diameter.

OSN 38/1153

METALLBAUKASTEN [6]: S1

Snippet. 'New' System: YODER The YODER 'Multi-Model Geometric Construction Set' was made by Yoder Instruments, East Palestine, Ohio. Its 4-page Instruction Leaflet is Copyright 1938 & 1957, and the set (right) cost \$35 in the 1950s. From the web it appears that Yoder was an old firm, witness one Ebay item, a sextant, said to be from the 1900s. The firm lasted until at least 1963 because one reference gives the address with a zip code (44413), and they were introduced in 1963.

The top of the front page of the Leaflet, Fig.1 below, reads: 'Sold to Many Schools in every State of the United States and its Possessions since 1938. HUNDREDS OF THEOREMS, POSTULATES, PROPOSITIONS, AND COROLLARIES OF PLANE AND SOLID GEOMETRY CAN BE ILLUSTRATED WITH THE MULTI-MODEL SET'. And underneath, 5 lines in small letters: 'Designed by the late Herbert H. Hartley [or ?. Hersley], who was Head of Mathematics at London Day Training College,

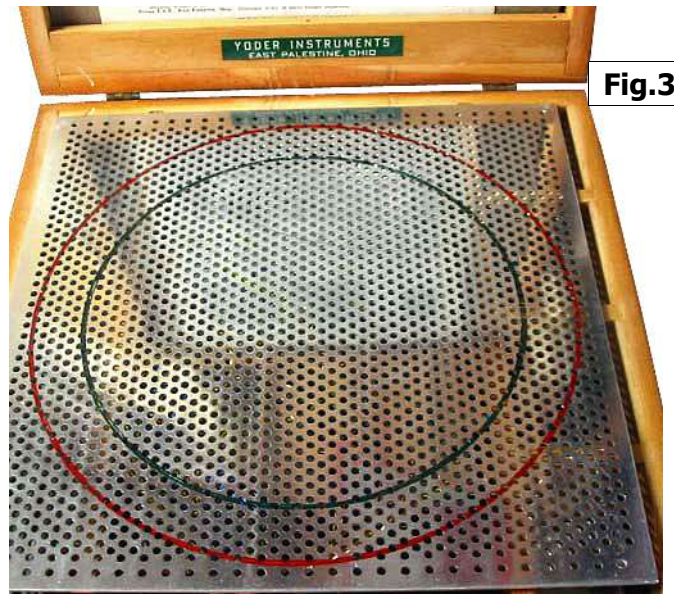


Fig.3

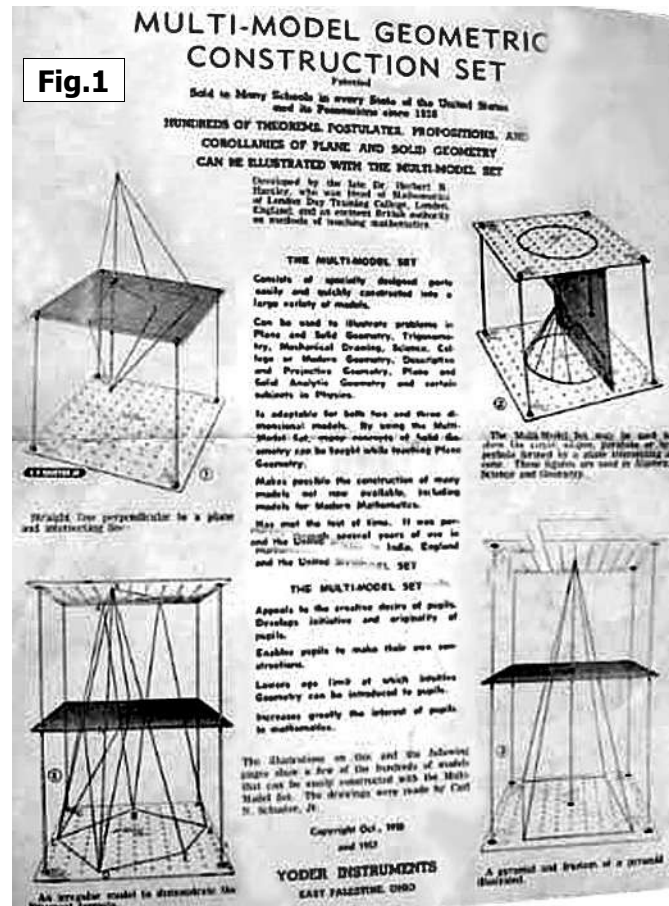


Fig.1

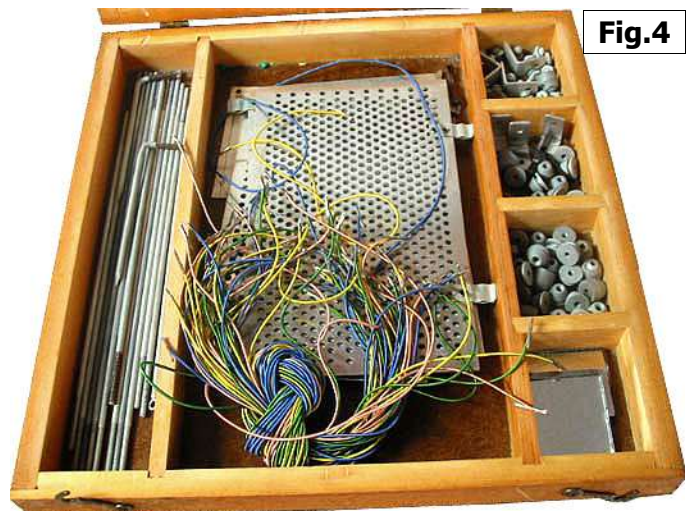


Fig.4

London, England and an eminent [probably] British authority in methods of teaching mathematics.' The London Day Training College was set up in 1902 to provide training for teachers and was known for its work on teaching methods. It became the Institute of Education in 1932 as part of London University. Much of the rest of the page is unreadable but the text seems to be about the scope and virtues of the Set. The centre pages (Fig.2) show various geometrical demonstrations but none of the explanatory text can be read.

The wooden box (Figs.3 & 4) is 12¼*12¼*2¼" and the top of the lid is plain. In

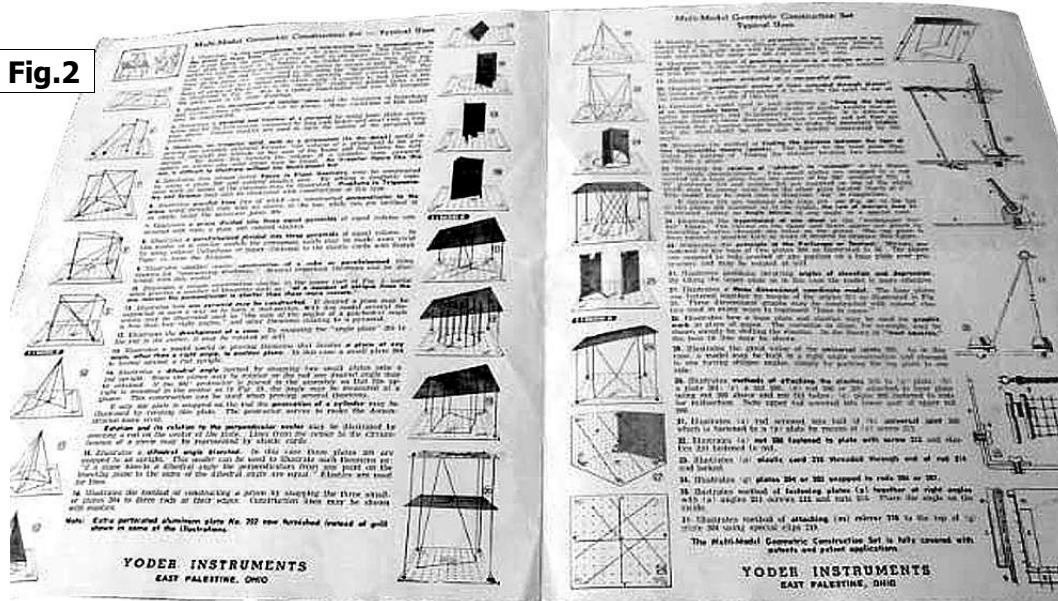
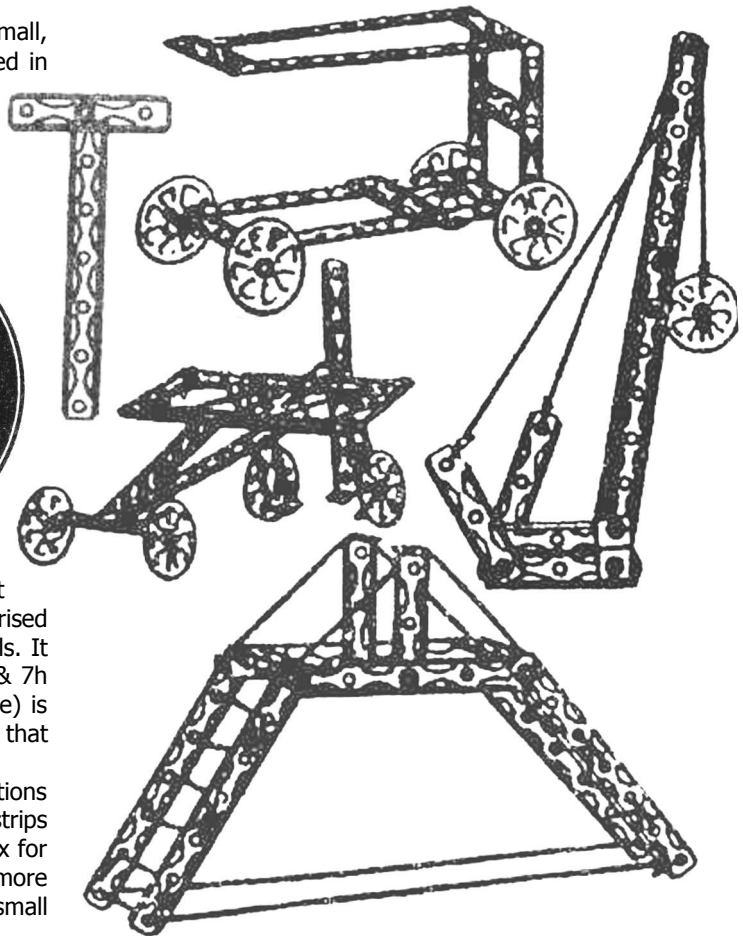


Fig.2

In Fig.3 the Leaflet is shown inside the lid, sitting behind the cross piece which has the firm's green nameplate on it. In the Ebay ad the contents were described as 'Rods, Nuts, Clips, Mirrors, Universal Joints, & Elastic Cords'. The Rods scale at 1/8"Ø and some, perhaps all, may have threaded ends. I can't actually see any Nuts but there are some small parts in the top right compartment (Fig.4). The grey parts in the centre small compartments could be push-on rubber Stops. I wonder how the ends of the Cords are fixed.

The '100-in-1' TOY Some information on this early small, 10¢, U.S. set, contributed by Steve Riddlebaugh, appeared in The Southern California Meccano and Erector Newsletter of April, 1989 (Vol. XIII, No.2). Both sides of the Model Leaflet were shown, plus some details of the parts. I am grateful to Anton Calleia, the present editor of the S. Cal. N/L for permission to reproduce parts of the Leaflet.



The 100-in-1 material was found in an ERECTOR outfit which was thought to be from 1916, and **the parts** comprised 4 each Long Strips, Short Strips, DAS, & embossed Wheels. It can be seen from the models right that the Strips are 3 & 7h long (as in the 'T'), and the DAS (at the top of the Bridge) is 1*3*1h. Steve wrote that their cross-section is similar to that of the New (narrower) Erector Girder.

No **fixings** were found with the parts but the Instructions on the Model Sheet include ' to fasten the strips together press through holes the steel clips used in box for attaching the parts to the card. When building more substantial models use the nuts and screws (found in small envelope) in fastening the parts together.'

The **Model Sheet** as found was folded in half, to a size of 7*5½", perhaps so that it would fit into the original box. It is double-sided with promotional text, including the 'circles' above, on half of the front side, and, underneath, the Letters of the Alphabet, Numbers 0-9, and a few other 2-D models. On the other side are the Instructions with 29 models above and 31 below them. With the 2-D models that makes 101 models in all, each has just one small line drawing. The models shown here are about 3 times their original size.

All this reminded me of the **mystery parts** in 32/960: the Strips found in an ENGINEERO set with illustrations of them, and the matching DAS seen in a lot of AMERICAN MODEL BUILDER parts. Since then more such parts have been seen in another Ebay lot of AMB parts. The 7h Strip and DAS can be

seen in the part of the Ebay photo right, and also a 'spoked' Wheel that looks like the '100-in-1' TOY part. 3h Strips can be seen elsewhere in the lot. Scaling gave the pitch of the Strips as in OSN 32, 1.00" for the 3h, and .76" for the 7h. The value for the DAS came out at .94", so perhaps actually the 1" of the 3h Strip, or perhaps not. The Wheel scaled at about 1¼" Ø.

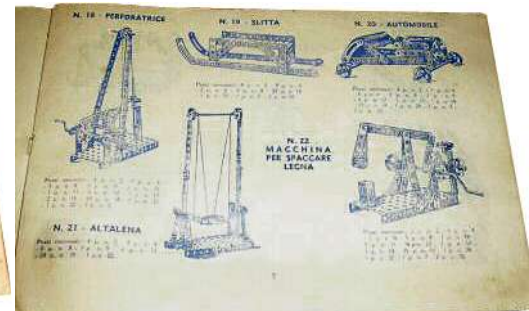


OSN 38/1155

THE 100-IN-1 TOY

Snippet. 'New' System: DISCO LUDENDO

The manual right, from the Italian Ebay, was described as 'Disco Ludendo n.2' with 28 pages, from September 1985. Disco can mean record and so perhaps DISCO LUDENDO was a promotional set, but I've not been able to trace the Ludendo connection. The Babel Fish translation of the words in white on the cover, imparo giocando, is 'I learn playing'. The cover gives no indication of the set's origin but the 5 models on the manual page top right are all No.2 models in the AMI 1-2 manual described on p1152 elsewhere in this Issue. The drawings are identical (one is shown on p1152) and 3 of the names are the same, the others similar. The DISCO manual was said to contain 129 models, probably



numbered from 1-150 because Nos.14,26,39, 50,64,68,71,72, 86,87,93,94,105,111,117,125,129,130,138,141,146 were said not to be used. None of the models are in the later AMI-LAC manuals and one wonders about the 1985 date given that AMI became AMI-LAC in the mid-1950s.

OSN 38/1155

DISCO LUDENDO: S1

Snippet. 'New' System: STRUCTAL-AUTO As will appear STRUCTAL-AUTO was very similar, perhaps identical in many respects, to AUTO-CYCLE (see 32/954), but how it relates to it in terms of date isn't clear. The Ebay photos show a normal AUTO-CYCLE Motorcycle & Sidecar model, as in 32/956, and a fold-up STRUCTAL-AUTO model leaflet. The latter features the Motorcycle & Sidecar, an Auto, and a Monoplane. The last two models both use the Sidecar Body and both differ from those in known AUTO-CYCLE manuals, particularly the Auto. And in all three the Sidecar Body has more pointed ends than in the Model. The Petrol Tank panel in the photos of the Motorcycle model can be seen to be stamped 'AUTO-CYCLE PARIS' in the normal way, and assuming the model was made from a STRUCTAL-AUTO set, it largely proves an AUTO-CYCLE connection.



The Leaflet has 5 panels on each side, and above its front. The words underlined on it mean: Constructional Sets; Built-up Models; Separate Parts. The address of the factory & offices is given towards the bottom as 16 rue d'Aguesseau, Boulogne sur Seine, printed on what might be a stuck-on label. The H.W.PORRET name at the bottom could possibly be the wholesaler. The back of the folded Leaflet is blank except for JOUETS STRUCTAL-AUTO and some small print at the bottom.

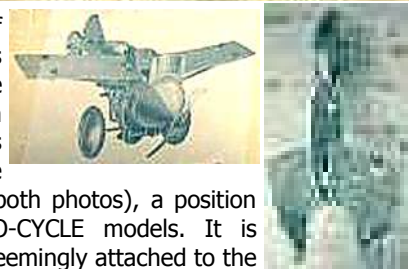
One of the other 8 panels one is covered in text, possibly an introduction and general building instructions. Each model occupies 2 panels with a general view of it, what looks like a list of the parts with their prices, and some auxiliary views with PNs which would allow the model to be built. The presentation of the models is quite unlike that in the AUTO-CYCLE manuals.

The final panel probably shows & lists the parts in the Motor.

In the Auto, right, the Motor drives the front Wheels and the steering wheel is ornamental. It's not clear if the side lever controls the Motor.



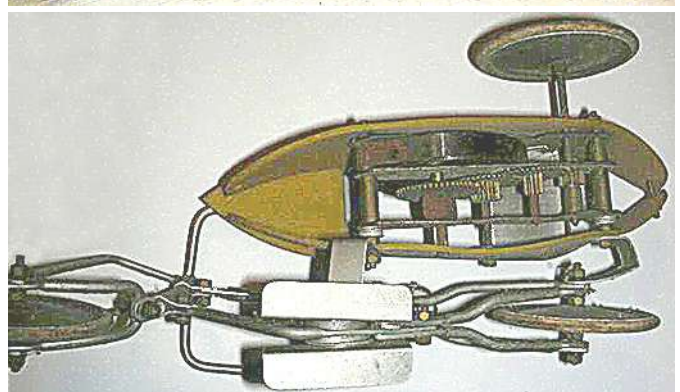
The photos, right, of the Monoplane and its tail subassembly are poor but it can be seen that the tailwheel sits behind the end of the fuselage (at the top in both photos), a position not seen in the AUTO-CYCLE models. It is supported by structure seemingly attached to the Tailplane, and the Tailplane itself with its tapered planform, has a deeper U-cutout than the version in 35/1045.



The pointed Sidecar Body can be seen clearly in the Auto and the shape of the ends is so pronounced that if it is actually the AUTO-CYCLE part, a considerable degree of artistic licence has been used.

History Boulogne sur Seine was the name of a Paris suburb until 1924 when it was joined with Billancourt as Boulogne-Billancourt. So unless the old name was still being used, the Leaflet is from 1924 or earlier (though the Ebay ad gave a date of c1925-27). A pointer to earlier might be the possible stuck-on address label mentioned earlier, unless of course it was simply to cover a mistake.

Snippet. An AUTO-CYCLE Sicalite Sidecar Below a sidecar made of the Sicalite plastic parts which were mentioned in 32/955. The Side Panels are attached to the Motor by Nuts on the ends of the Screwed Rods which hold the Motor Sideplates together, and then the Top Panels & (aluminium)

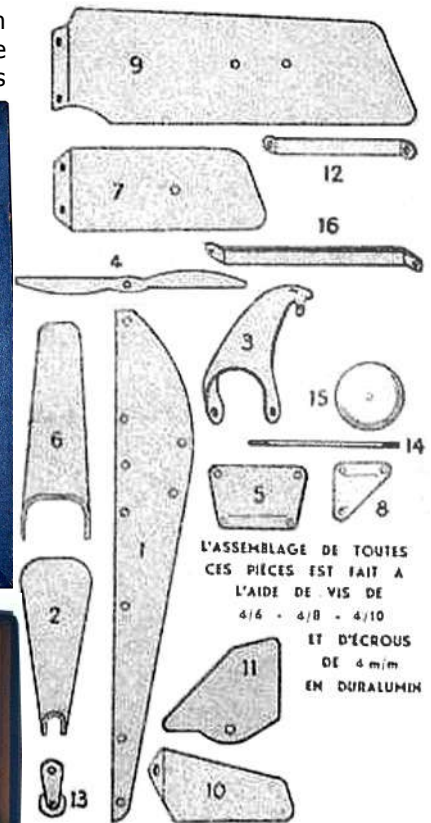
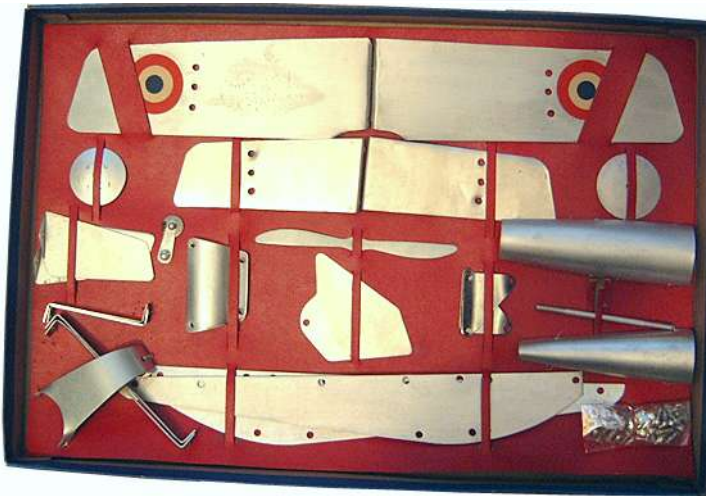


Seat are added (though as can be seen in the lower photo, the Rear Top Panel is missing). Its not clear from the photos how the Top Panels are attached. The ends of the Side Panels are pulled together by shorter Screwed Rods but the front one is missing. No under panels were supplied. The poor appearance of the nose would be much less noticeable if the Side Panels were pulled together and the Top persuaded to fit better. Cheap and nasty though compared to the aluminium version.

'New' French System: AVIATION MODERNE A hole in the top of each French company called 'Constructions RM' produced two Fuselage Side for the completely different Aero sets, both called AVIATION Wing Struts. (The Wings MODERNE.

The First Type of Set

Jacques Pitrat kindly sent details of his, and the lid of its blue 45*30*4cm box is shown right, with the open box below it. Far right the parts as shown in the Instructions with only one of each handed parts (the Wings, Tail, U/C Leg - both hands have the same PNS). The set, with a few minor changes, appear to be identical to the AVIONS-CONSTRUCTION (A-C) outfit described in 35/1050. The box is very nearly the same size with the building instructions again pasted inside the lid. The backing card for the parts is red instead of blue but the pressed through tabs, & many of the stringing holes, are identical. The contents are the same except that there are only 2 Interplane Struts, #12, but 2 Wing Bracing Struts #16, not in the OSN 35 outfit, are included. The wing roundels are paper glued on. Most parts look identical but there is an extra hole between the holes in the Wings for the single Interplane Strut and an extra



in the Instructions do not show the 2 A-C holes for the Interplane Struts but there is an extra hole inboard not in the actual parts: it is probably not needed for the 6 models in the Instructions.)

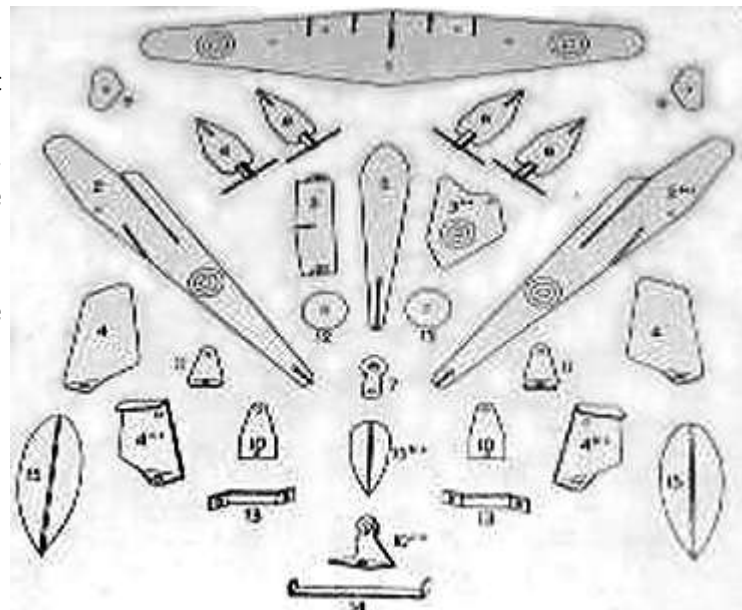
Building instructions are given for the 6 models but without illustrations (one is shown in the lower corners of the lid). 3 are the same or very similar to the 3 A-C models, the others are Monoplanes, one with shoulder & 2 with parasol wings (one of which has the Wing Struts and the other one doesn't).

The Second Type of Set

4 sets have been seen on Ebay and one, said to be complete, is in a red box, 46*37cm. The label is the same as the Type 1 above except that different models are shown in the bottom corners, and 'BREVETE S.G.D.G.', indicating a patent, has been added in tiny letters in the bottom white margin. The Instructions for 6 models inside the lid are also in the same style and the illustrated parts are shown right. Most, perhaps all of them can be seen in the open box top right on the next page. The large Fin & the Tailplanes on either side of the teardrop-shaped Nacelle under it in the box look like the Type 1 parts, and, by scaling, are the same size. The 3 Floats are made of cork. The Fuselage, and nearly all the other parts are flat, and although some are obviously bolted on (see the photo of one of the other Ebay sets top left on the next page), others look as if they just push together. However the note under the Illustrated Parts says that the assembly of all the parts is made using 4mm dural N&B.

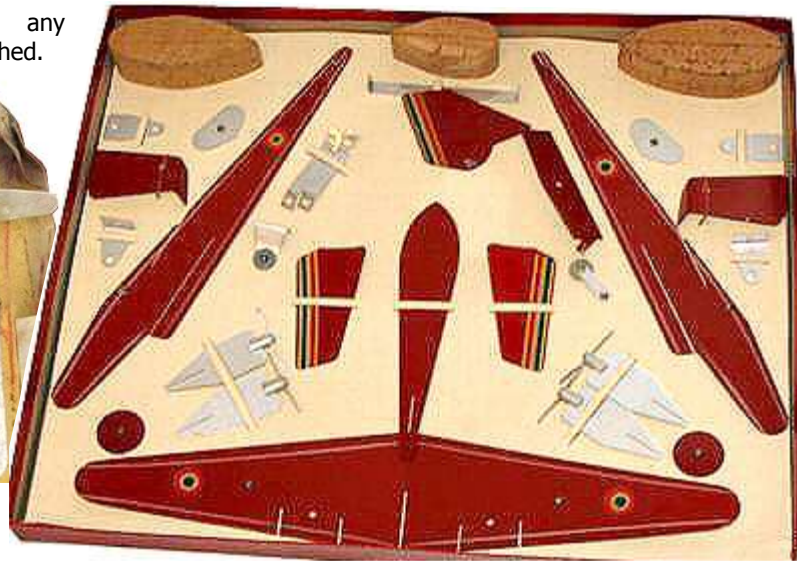
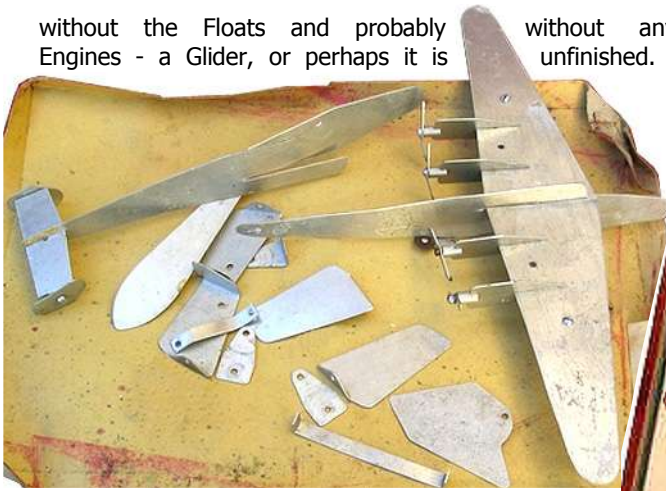
Only the model names can be read in the Instructions.

They are: Forteresse (4-engined probably, per-haps the B 17, or the Constellation on the lid?); Monomoteur; Bi-moteur; Trimoteur; Double Fuselage, Bi-moteur (with presum-



ably the 2 Fuselages as booms and the Nacelle fitted to the centre of the Wing as the fuselage); Hydravion. The model in the bottom right corner of the label is the 4-engined model shown left, the Hydravion no doubt. In the other corner is a similar model but

without the Floats and probably without any Engines - a Glider, or perhaps it is unfinished.



The Other Ebay Sets All have the same lids. One has dark blue parts instead of red, in a box said to be 46*30cm. There are no tricolour flashes on the Fin & Tail. In another the coloured parts look dark grey, and the box is blue not red. Again the only identification marks are the roundels. In the third box, 46*31cm, all the parts are plain aluminium, with no roundels or flashes (the photo above).

labels went from the Constellation type to the A-C pattern). It might be objected that use of the Constellation label was unlikely for the Type 1 set, capable of only 'old-fashioned' models, but RM would not have been alone in gilding an out-of-date lily, one post-WW2 edition of the prewar BRAL Aero set had jets on the lid & others had propeller-driven machines but quite unlike those that could be made with the set. Probably RM were trying to cash in on the publicity which would have surrounded Air France's introduction of the Connie on the Atlantic route in early 1947.

HISTORY It seems most likely that the Type 1 set followed the A-C outfit (because of the extra Strut and the additional models), and the Type 2 came last (the single Fin is just like the A-C/Type 1 parts and it's unlikely that the lid

CONSTRUCTIONS R M: S2

OSN 38/1158

Snippet. 'New' German System: WITHE In the photo below WITHE is the name on the red logo top left on what



looks to be a manual cover. It is presumably the hitherto unknown name of the maker of a set to make the Bridge shown on the cover - 'We build a Bridge' it says on it. There is no indication if just the one Bridge can be made from the Set. Nor is it clear what the picture below the manual is, but it shows the Bridge on the cover more clearly. It could be part of the lid (the wooden box's lid can't be seen but the box looks home-made),

there are several stacked on top of each other. Below them are the 13?h Curved Strips used along the top of the sides, and to the right one of the 2*9h Plates used for the uprights. It's not clear what the other bright parts are for, assuming they are of the Set, but some could be cross members & the Flanged Plates could form the roadway. The red Flanged Plate has its flanges tapered at one end and is probably used for the slanting approach at the ends of the model.

Moving on to the photos of the box, the parts for the side of the model can be identified. The blue Side Frames are in the centre left compartment, and as can be seen in the close-up,

WITHE: S1

OSN 38/1158

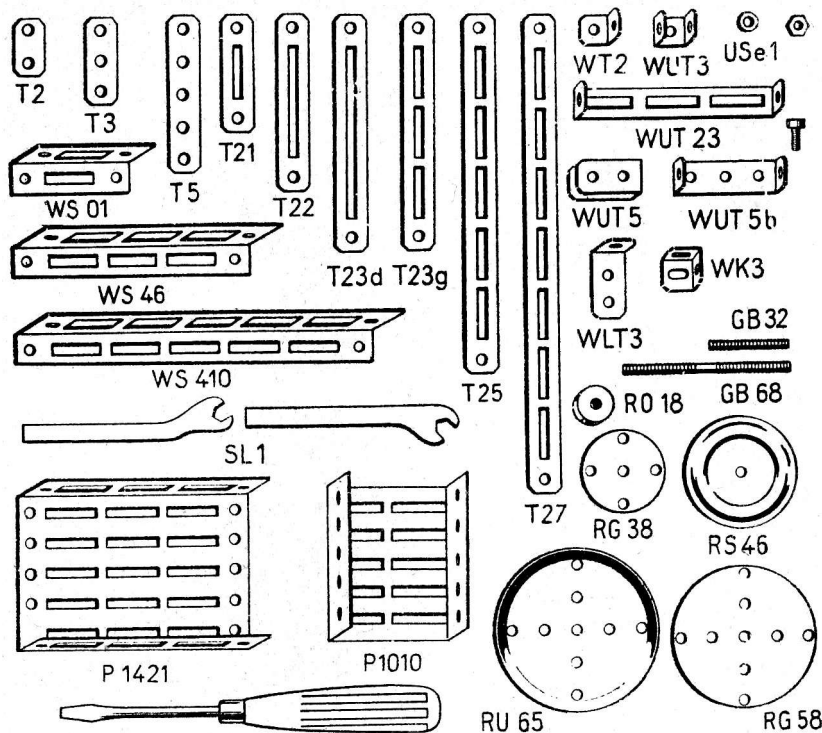
KONSTRUX A few words about this West German system appeared in 15/415, and the names of the 5 sets in the KONSTRUX range were given in 17/476. Holes are 4.1mm at 12mm pitch, and most long slots scale at a little over a 2 'hole' span. KONSTRUX material seems quite rare and since OSN 15 only a manual for the smallest, Mikros, set, and the photos of 3 Ebay sets have been seen. Also 2 sets are shown on p221 of Baukästen.

First **the manual**. It has 40 pages, 206* 144mm, plus covers. The front, right, has the name of the set at the bottom. The EPD in the logo top right are the maker's initials but the significance of the Bergmann hammers on the left isn't known. C2 is the title page, p1 has a Vorwort, dated 'Berlin, im Juli 1947', and p2 has 7 constructional hints. p3 has the names & page numbers of the 66 models in the manual. p4 has the Contents of the set, as right, and p5 the Illustrated Parts below. pp6-8 show the parts needed for each model. The models are on pp9-31, from Abb.1 Sägebock (Saw-horse) to Abb.66 Abraumrutsche (Wheeled Rubble Chute), with the names from p3 and my English ones. There is a line drawing for each, with extra views in 2 cases. pp32-40 have written building instruction for the models. C3 lists the 5 sets in the range and says that linking sets were available, each with the name of the set to be converted plus an 'E'. The manuals for the converted sets were not included in the 'E' sets, but could be bought separately. C4 has the maker's name: E.P.Damaschke, Apparate- und Werkzeugbau, Berlin SW 29, Dieffenbachstrasse 37, and the printer: Schapke & Anders, Berlin SW 29.



Anzahl der Teile	A r t	Bemerkungen
8	2-Loch-Laschen . . .	T 2
4	3- " " . . .	T 3
2	5- " " . . .	T 5
6	1-Schlitz-Traversen . .	T 21
4	2- " " . . .	T 22
4	3- " " . . .	T 23g
2	3- " " . . .	T 23d
3	5- " " . . .	T 25
2	7- " " . . .	T 27
2	1-Doppel-Winkel-Schiene	WS 01
2	3- " " " "	WS 46
2	5- " " " "	WS 410
1	große Grundplatte . . .	P 1421
1	kleine " " . . .	P 1010
2	Radscheiben	RU 65
2	" " " " " " " "	RG 58
4	Räder	RS 46
4	Radscheiben	RG 38
6	Winkel 1×1	WT 2
2	Kubus-Winkel 1×1×1 . .	WK 3
2	U-Winkel	WUT 3
4	U-Winkel 2×1×2 . . .	WUT 5
2	U-Winkel 1×3×1 . . .	WUT 5b
2	L-Winkel 2×1	WLT 3
2	U-Winkel	WUT 23
Drehteile		
4	Schnurrollen 18 mm . . .	RO 18
2	Gewindebolzen M 4×68 . .	GB 68
4	" " M 4×32	GB 32
	Schrauben M 4×8	
	" " M 4×12	
	Muttern M 4×2,5	
50	Unterlegscheiben 7 mm . .	USe 1
2	Schraubenschlüssel	SL 1
1	Schraubenzieher	
1	Karton ca. 16×22 cm . . .	

Einzelteile des KONSTRUX-Mikros



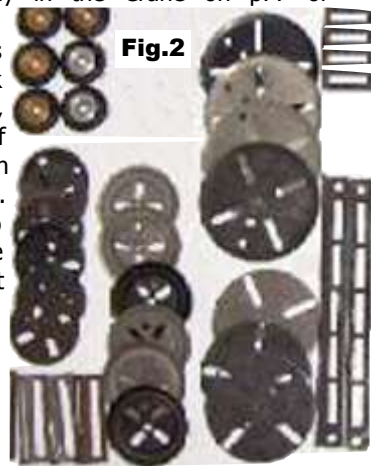
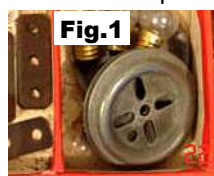
The numerals in the **PNs** give the length of the Screwed Rods, and the diameter of the circular parts, both in millimetres of course. For the other pieces the first digit (or 2 digits) are the number of holes in the part and the next digit(s) the number of slots.

As can be seen from Fig.1 & the Tractor on the next page, the **Wheel RS 46** is formed and two back to back are used as a pulley. The edge of the **Disc RU 65** also looks to be formed, again as in the Tractor, but the pair in the Set are not used together in any of the models. Most of **the parts** seen in the photos of the Sets correspond to the drawings above

Anzahl der Teile	A r t	Bemerkungen
4	Schnurrollen 18 mm . . .	RO 18
2	Gewindebolzen M 4×68 . .	GB 68
4	" " M 4×32	GB 32
	Schrauben M 4×8	
	" " M 4×12	
	Muttern M 4×2,5	
50	Unterlegscheiben 7 mm . .	USe 1
2	Schraubenschlüssel	SL 1
1	Schraubenzieher	
1	Karton ca. 16×22 cm . . .	

but there are differences in the circular parts. All the actual parts seen are as in the photos below with, along the bottom from the left: RS 46 (probably one on top of another); RG 38; RS 46; & RG 58 with RU 65 above. In all cases there are 4 slotted holes and in some parts an additional 1 or 2 round holes. Some of these holes can be seen more clearly in the Crane on p77 of Eisenzeit.

In the photos some parts look grey, others black, and this is true of the main parts in all the Ebay outfits. Those in the two Baukästen sets are all black except that



in one the circular parts are red. Perhaps a late set, or an enthusiast's paint brush. Most of the small **RO 18 Pulleys** in the sets have an aluminium look to them, like 2 of the 6 in the parts (from 2 sets) in Fig.2. The other 4 look to be brass (and all seem to be fitted with Tyres). Some light grey **N&B** can be seen in one set: the roundheaded Bolts are at least 10mm u/h, and the hexagonal Nuts scale at about 8mm A/F, MÄRKLIN size. Some of the **other parts** in the system were mentioned in OSN 15 and others in the Eisenzeit Crane include a Ladder and a Hook.

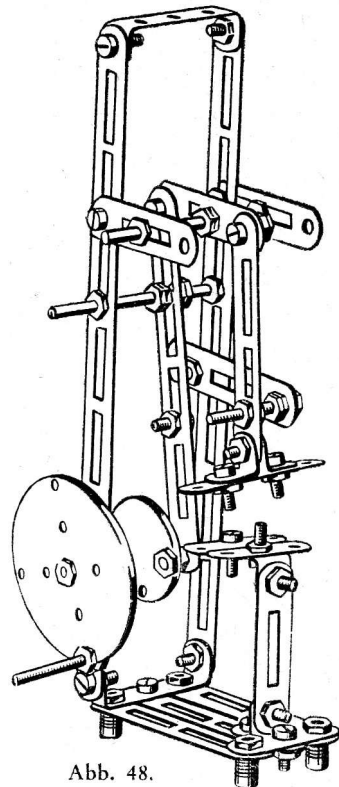


Abb. 48.

Two of the 5 **sets** seen are Mikros in 11 compartment boxes, 28*20cm (larger than 16*22cm in the manual inventory), one brown & one red. The Deuteron set in Baukästen is in a red, 13 compartment box, 36*26cm. One of the other 2 sets has a black/white mottled box which scales at 14*24cm, so it might be a Mikros. The second may be similar but only part of the base can be seen. All the lid labels are like the rectangle in the centre of the manual cover except that the frame is broken to take the name of the set in tiny letters.

Returning to **the Manual**, most of the wide selection of models are quite small and simple, but towards the end there 6 Machine Tools and one of the better ones is shown left (f-s). Then 6 or so larger models, about the size of the Tractor right (f-s). They are mainly simple vehicles and the Tractor is the only one fitted with steering - it looks highly geared though and with excessive free play, but the latter could be reduced using the remaining parts in the Set.

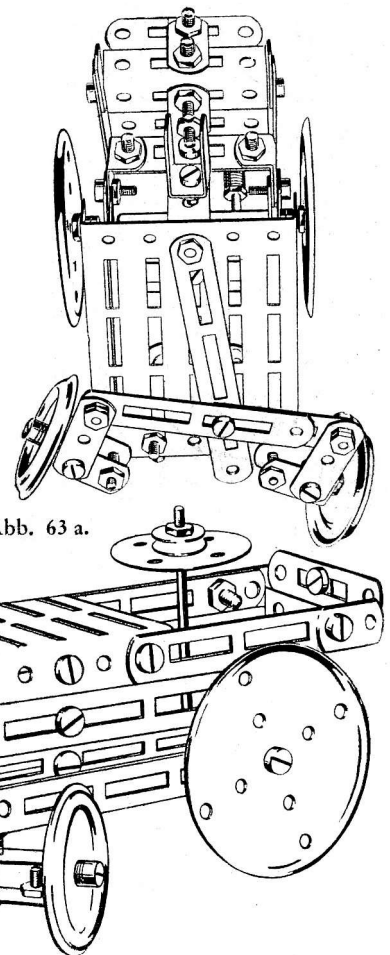


Abb. 63 a.

Abb. 63.

KONSTRUX: S2

OSN 38/1160

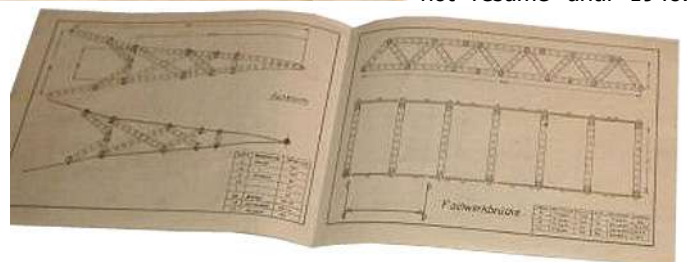
Snippet: 'New' System, STAHL-BAUKASTEN The main parts which can be seen in the Ebay photos of the Set below are a 10*6h Flanged Plate with what seem to be two

the manual below but no details can be seen except that there are 22 different parts.

Among the Ebay photos was part of the front of an old newspaper 'Vorwärts Berliner Zeitung' (published by the SPD - the Social Democratic Party), and a 1945 date for it was implied. However the paper was banned in Germany from 1933 to 1945 and publication did not resume until 1948.



larger holes along one of the long sides; 10h A/Gs; 4, 5, 6, & 10h Strips; Wheels or Discs; and N&B boxes with M3 on their labels. Also some long Bolts and a few Rods (most likely threaded). The contents of the Set are listed on the front of



Also the main story was 'Berlin's biggest black-marketeers to be charged' and that would fit with a 1948 date, or soon afterwards, rather than 1945.

Two other STAHL-BAUKASTENs have been mentioned previously in OSN. The one in 34/1004 (with no hyphen) looks quite different; the second, in 36/1068, could conceivably be a later version of this Set but the artwork looks very different between the two. Also the OSN 36 set was from an East German company and the newspaper, if it was associated with the Set, points to a West Berlin connection.

My thanks to Thomas Morzinck for the information about Vorwärts Berliner Zeitung.

HASSIA These notes add to those in 23/660 about this small German system with parts generally like TRIX, but a little larger, with a hole pitch of 8.0mm.

The main new item, thanks to David Hobson, is the 'A' set right, similar to the one shown in the OSN 23 manual. But in addition 3 Ebay items have photos of a manual not seen before, a No.A set in a box slightly larger than David's, and an add-on No.B set with a full colour lid and, if genuine, coloured parts.

DAVID'S SET Its brown-mottled box above, 185*82*23mm, is partitioned as the set from the manual in OSN 23, and the label is generally the same. On one of the lid's end aprons is a small sticker label showing the price. Originally it had RM (Reichsmark) printed on it with space alongside for a price, but the RM has been blanked out and 'DM 4.-' stamped next to it. The change from RM to DM was made in 1948.

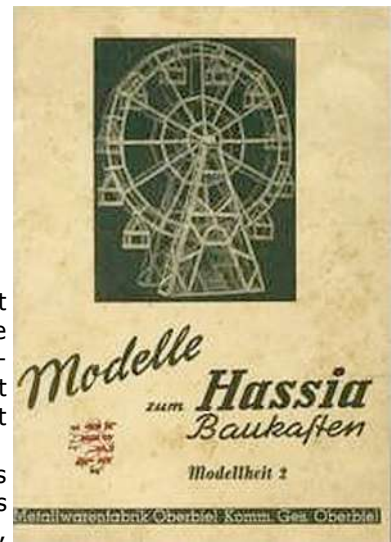
The Parts With a few minor exceptions the parts are as described in OSN 23 except that they are all nicked (or possibly just polished steel) and not painted. The new points are: • **Holes** are 4.1mm Ø. • **Strips** are 15.3mm wide and .7 - .8 mm thick. • The pcd of the holes in the **Wheel Disc** is 21mm. • The **thread** is M4, the machined **Nut** is hexagonal, 8.0mm A/F & 3.2mm thick, and the **Bolt** is 10mm u/h with round heads, 6.9mm Ø. • The **Washer** is 14mm Ø and there are 3 in the Set (omitted in error from the contents given in OSN 23). • The **Span'driver** is 83½mm long o/a, is stamped 'Hassia', but has no holes in its shank. • **Note:** the **Screwed Rods & Hook** were missing from the Set. There should have been 2 long & 2 short, again omitted in error previously.

The Manual with the set has the same cover as the one with the larger boxed 'A' set in OSN 23. It has 16 pages, 160*75mm, including covers, and the front is shown right. p2

has an Introduction in which the manual is referred to as 'Modellheft 1'. p3 has the Set A contents & a photo of the set (both as in the OSN 23 manual). pp4-16 have 22 models from Spaten (Spade) to Motorboot (the model on the lid). A parts list is given for all but the last. The first 17 need one Set A, the others 2 or 3 except 10 for the Motorboot. At least half are recognisable as copies of, or similar to, prewar TRIX models. Among those I didn't spot in TRIX manuals are the 2 models shown here (full-size) though the Crane has a familiar look to it - its Hook has the large centre hole mentioned in OSN 23.

THE EBAY 'A' BOX It is brown with a label of the same design as the one above, but somewhat smaller than the lid. If the label is the same size the box scales at 20½*12cm.

THE EBAY MANUAL The front is shown at the top of the next column. It has the same Oberbiel KG maker on it, and 'Modellheft 2'. It was said to have 23 pages and to date from

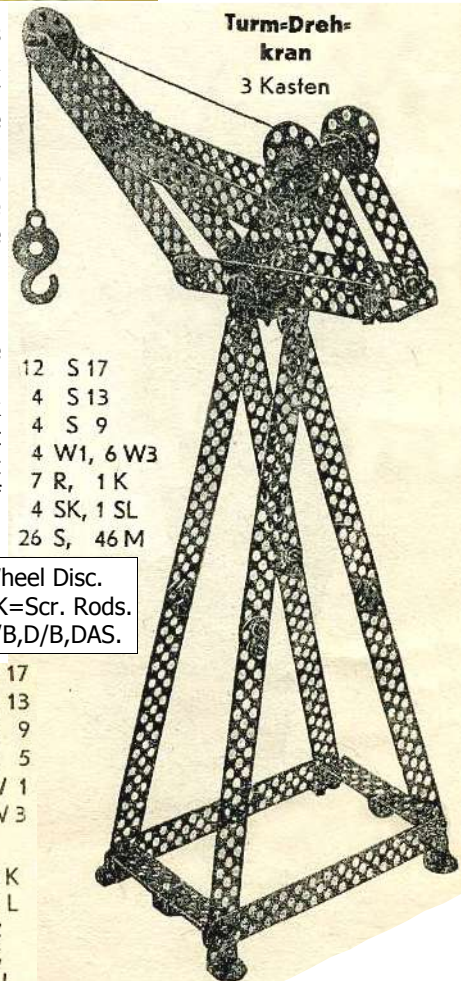


1948. It isn't known if it simply contained more models for Set A, & multiples thereof, or whether it was for another HASSIA set with different parts.

THE EBAY 'B' SET This outfit was described as Zusatzkasten B from c1952, made by the same company as before. 'B' can just be seen above the logo on the lid, below right, and on the white packet the box's base below (only a corner of it is shown). The lid's

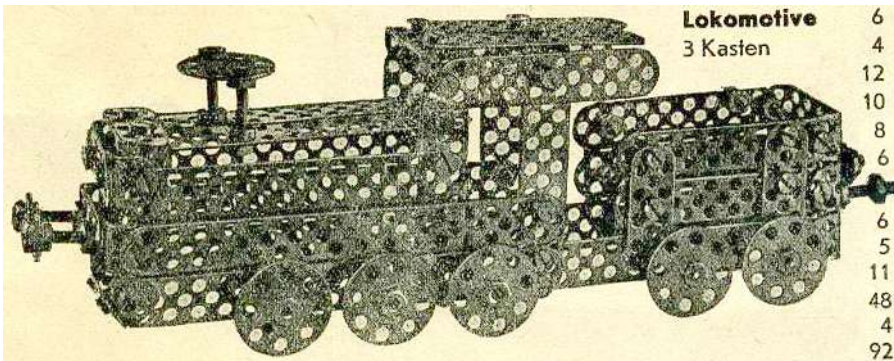


style is the same as that of the large Set A in OSN 23, and by scaling it is the same size. Of the remaining parts the red Strip is probably genuine (the Strips in the large OSN 23 set were red and the hole spacing is about right if the 11h green Strip above it is a MÄRKLIN part). Also perhaps the black Flanged Plate in that its holes look to be at twice the pitch of those in the red Strip.



- 12 S 17
- 4 S 13
- 4 S 9
- 4 W1, 6 W3
- 7 R, 1 K
- 4 SK, 1 SL
- 26 S, 46 M

K=Hook. M=Nut. R=Wheel Disc.
S=Strip & Bolt. SL & SK=Scr. Rods.
U=Washer. W1,2,3=A/B,D/B,DAS.



- Lokomotive** 6 S 17
3 Kasten 4 S 13
12 S 9
10 S 5
8 W 1
6 W 3
6 SK
5 SL
11 R
48 S
4 U
92 M

A JUGA No.1 Outfit This is about an unused JUGA No.1, a smaller set than the one described in 36/1093. The latter had nothing to indicate a size, so for convenience I'll call it Set X. The present box is the same size & design as Set X, and again isn't numbered, but the manual, although the same size and with a cover of identical basic design, has a large '1' in its top right corner. This Set has only one layer of parts, with fewer types but some of them were not in Set X.



Above the right side of the open box. The parts are arranged symmetrically right/left except that a black 1*4*1h DAS replaces the green Span'driver on the left side. The parts, including the box for small pieces, are clipped to the brown backing card by the same steel clips that were used in Set X. The parts in the box are shown at the bottom of the column.

The Parts A list of the parts in the Set follows using the names as in OSN 36. **New parts are in red.** Some details are given but the OSN 36 information is not usually repeated.

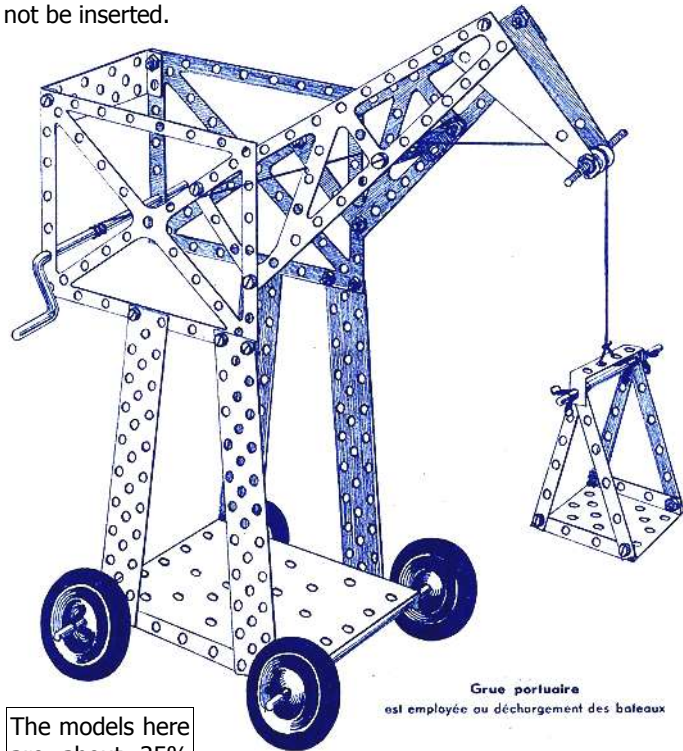
- 2 each **Outer Jib Frames, Inner & Outer.** One of each bolted together make the Set X Outer Jib Frame. The Inner section is pierced unlike the root of the Set X Outer Frame.
- 2 red **Square Frames.** They are not square but 7*8h.
- **Flanged Plates.** • 1 green **10.5*7.5cm** with 8h flanges. It was under the white box in Set X. Not all the holes noted for the part in OSN 36 are actually pierced though they are all shown in some of the models in the Manual. • 1 red **5*5cm** with 4h flanges. • 1 green **7.5* 2.2cm** with 2h flanges. • 2 black **4.7*2.2cm** with 2h flanges.
- 4 green 11h long **Strips**, 15*2.2cm, with TRIX-style holes.
- 4 black 6h long **Narrow Strips**, and 1 black 1*4*1h **DAS** with bends of much larger radius than those in other parts.
- **Triangular Plates.** • 2 green **7.5*2cm** (for the end of the jib). • 2 black **6*3.5cm**. • 2 red **Flanged** (but with 2 not 3 holes in the flange).
- 2 green 2h long **A/Gs**, 11*13mm in section.
- 4 eyeleted, 9½mm wide **Wheels** (rubber Tyres on 30mm Ø nicked 'Pulleys' but I doubt if the Tyres could be removed).
- **Axles:** 2x 11cm; 2x 7cm; 2x 3.5cm. One of the 3.5cm is 4mm Ø; all the rest are 3.8mm.
- 1 **Crank Handle**, 9½cm shank, 12cm long o/a, 3.8mm Ø.
- 2 wooden **Pulleys**, 9½mm o.d.
- 10 **Axle Stops**, rubber, 7-7.5mm o.d.
- 4mm Ø, .75mm pitch **N&B** (the old French standard). 26 steel 7.0mm Ø RH **Bolts**, 8mm u/h. 26



- brass hexagonal machined **Nuts**, 7.0mm A/F & 2.5mm thick.
- 1 black flat **Hook**, 34mm long o/s and .7mm thick.
- 1 green **Span'driver**, 8,5cm long. It has a hexagonal opening on one side, almost big enough to fit the Nuts, and a rounded bottom opening on the other 6.1mm wide.
- The **black parts** are chemically treated.

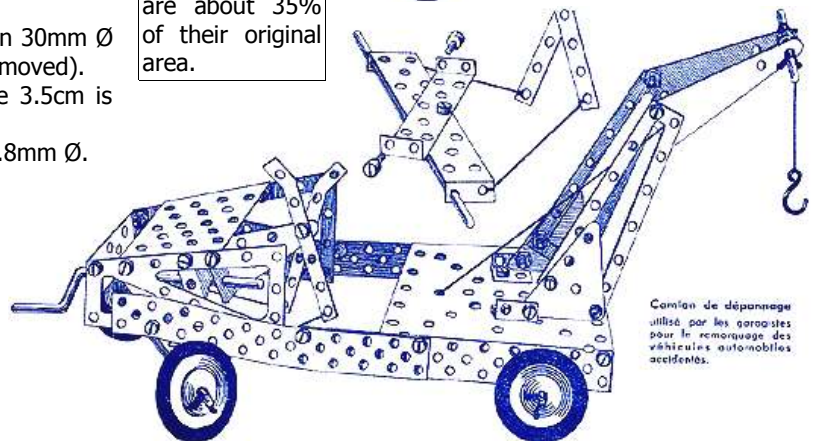
The Manual has 16 unnumbered, cream pages including covers. p2 (=C2) has just a short note that accessory sets would soon be on sale. p16 has just the Juga logo & CRÉATION MULCEY St. ETIENNE in tiny letters (also on the lid label). The other 13 pages are devoted to 15 models from Manège (a High-flyers Roundabout) to Camion de dépannage (Breakdown Lorry). Each has, as in the Set X manual, a large dark blue line drawing and a few lines about the full-size machine.

There is a good range of models including 3 simpler Cranes (cf the one below & the OSN 36 version), a Drop Hammer, a 2-armed Semaphore Signalling Unit, a Letter Balance, a Ballista (though it seems to lack a spring element), a Ship, & the Breakdown Lorry below (with unusual steering — it is the only vehicle model apart from a horse-drawn Cart). Inevitably with the limited number & range of parts, many of them specialised, some of the models are more successful than others, but most are a brave try. There are minor differences in the parts shown in the models & those in the Set, notably Spring Clips instead of Axle Stops, a Wire Hook in some models, and a Screwed Rod, not found in the Set, in others. Also in some cases the 2-part Jib Frame is shown as a single piece. In making the Crane below I found that the holes for the Bolts which held the inner end of the jib did not quite line up and the second Bolt could not be inserted.



Grue portuaire
est employée au déchargement des bateaux

The models here
are about 35%
of their original
area.



Camion de dépannage
utilisé par les garagistes
pour le remorquage des
véhicules automobiles
accidentés.

PERFEKTOR A little on this unusual Austrian system, mainly from a manual, was given in 23/855. This account is based on a No.2 set, largely complete, but with no manual, and a few Ebay photos. As explained in OSN 23 the parts have alternate large & small holes with the latter extended each side by a narrow slot; they are fixed together with flat Keys which go through the large hole, then the slot, & are turned 90° to hold the parts together.

The SET Its box, 35¼*25½*2½cm, has a chequered pattern as on the lid right. The label is 25*17¼cm and 'PERFEKTOR No.2' is printed in white on a red label on each of the lid's end aprons. Inside there is one partition and the small parts are in 2 white card boxes 6¾*4½*2cm, printed in red & black with the logo & maker's name, as on the lid. In another No.2 seen on Ebay, the parts are clipped to, or push into, a green backing card.

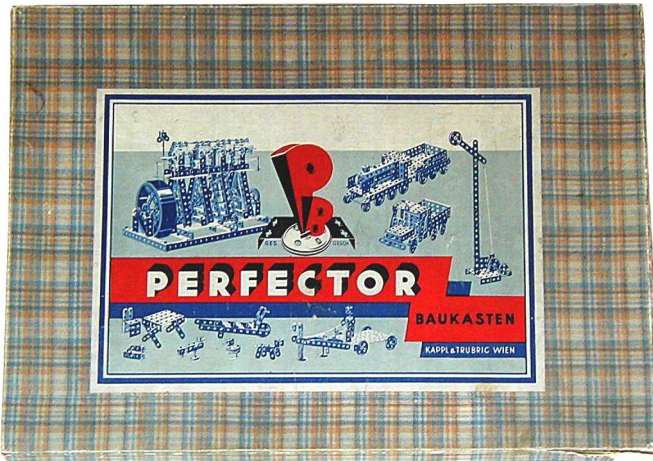
The **PARTS** have names followed, where appropriate, by the total number of holes, and after a slash, by the number of slotted holes. For example, Langband (Strip) 9/4.

The OSN 23 manual gives the contents of the Sets 1 & 2 as follows, with the No.1 in square brackets: **Strips:** 4,3,3,2,2,2, 2,2,2,2,2 [2,2,2,1,1,1,1,1,1,1] of 2/1,3/1,3/2,5/2,5/3,7/3, 7/4,9/4,9/5,11/5,11/6; **Crank Strips:** 2,2 [1,1] of 2/1,2/2 (these parts have bosses instead of slotted holes, so the 2/1 has one large hole & 1 boss, & the 2/2, 2 bosses); **A/B:** 6 [3] of 2/1 (the drawing in the Manual shows an A/B 3/1, a part not in the Set nor in the Manual models); **D/B:** 2,2 [1,1] of 3/1,3/2; **DAS:** 2,2,2,2 [1,1,1,1] of 5/2,5/3,7/3,7/4; **2*2h Single Flanged Plate:** 2 (one of each hand) [1] of 6/3; **5*2h Flanged Plate:** 4 [2] of 14/7; **Pulley:** 4 [2] of 0/0 (the centre hole isn't counted); **Pulley Disc:** 8 [4] of 4/2; **Axles:** 2,2,2,1,2,2 [1,1,1,1,1,1] of 30,48,60,78,108,150mm; **Keys:** 50,10,5 [25,5,3] of Type II,III,IV; 2 [1] **Couplings;** 10 [6] **Axle Stops,** 10 [6] **Driving Dogs;** 10 [6] **Washers;** 1 [1] **Tool;** 1 [1] **Radabzieher** (see OSN 23); 23 [19] **Bifurcated Clips,** used to hold the parts in the box & in some models.

Now a few notes on the parts; those shown below are asterisked. **Holes** are 5.4 & 3.2mm Ø at 15.0mm pitch. **Axles** are 3.07mm Ø. **Bosses,** are rolled tubes riveted down with 2mm, 5.0mm o.d., protruding on one side, and a rectangular notch, 2mm wide & 1mm deep, cut out of its wall for the Driving Dog. The bore is 3.2mm Ø. **Strip & Plate parts** (*: 3h Strip, A/B, Single Flanged Plate) have 3.2mm holes dimpled slightly so that the outside diameter of the dimple is about the same as the larger hole, and can engage with it to locate 2 parts relative to one another when being clipped together. Strips are 14.3mm wide. **Keys*** II, III, & IV, below, (to join



2,3,4 parts) are made of 1mm thick blued steel and are 7.7mm wide. They must enter the convex side of the dimple - if the Clip is put in from the other side it is impossible to turn it. Clips III/IV have a shoulder (barely perceptible for Clip III) to locate the first 1/2 parts to be joined - then the dimple locates part 2/3 as before. The **Pulley***, 22½mm Ø, and **Pulley Disc***, 36mm Ø, are copper plated. The ring of 4 holes in the latter are at 10.75mm pitch. The **Coupling***, (to the left of the Keys, also coppered, is a rolled tube, 4.4mm o.d & 8.3mm long. It is a tight push fit on the Axles. The tiny dog



of the **Driving Dog*** (two are shown to the right of the Keys, one on an Axle) is about 1.2mm wide & 1mm deep; it is at one end of what looks like a blued spring clip, 4mm wide, with short wings parallel to one another. The part has to be pushed onto an Axle - its metal is too thick to allow it to be sprung on. The **Axle Stop** has not been seen but in the manual looks like a short version of the Coupling. The **Washer*** is 8.7mm o.d. The **Tool** shown in OSN 23 was not in the Set; instead the

flattened coppered tube* with cranked ends to turn the Keys, and the flat part*, that looks as if it might be from a clock's escapement serves to push parts along Axles. Both work reasonably well but they may of course be 'DIY' parts. **Finish:** except where stated all parts are nicely nicked.

Over & above the OSN 23 manual inventory, 2 extra Brackets and a pair of **Gears*** were found in the Set. The latter are Mod.1.8 and are made from 2 formed toothed discs riveted together in the manner of the 1926 STABIL parts. They are 18.3 & 47.5mm o.d., with 8 & 24 teeth, and all the holes are fitted with 'notched' bushes. The pair run together quite well at 2h spacing, and just about at right angles. 3m of very thin, coarse brown **String** was also found in the Set.

OTHER SETS 2 No.1 sets seen on Ebay have boxes about 25*18cm without a partition; their lid labels are as on the No.2 and nearly cover the lids. One long lid apron visible is red and has 'PERFEKTOR No.1' on it in white. A No.1a has also been seen and its box lid looks the same as the No.1 except that it has 'PERFEKTOR No.1a' on its red lid apron. The No.2 with the green backing card already mentioned looks otherwise the same as the present No.2. **Manuals** are shown with several of the sets and their front covers are all like the lid label (see 22/650) but printed in shades of blue/grey.

The Gears & extra Brackets in the Set might mean that the No.2's content was upgraded at some point or perhaps the add-on set with Gears, promised in the OSN 23 manual, did become a reality, and (some of) its parts found there way into the Set.

REMARKS By normal standards the parts are accurately made but tiny variations in the metal thickness & the contour of the dimple affect the grip of the Clips and therefore how well the parts are held together. Some half of the Clips could be turned reasonably easily with the Tool and held parts tightly, though movement of them by hand was possible. Otherwise, at one extreme the Keys could be turned by hand and the parts would turn under their own weight, and at the other, Keys could only be turned using pliers and the parts were quite hard to move. The other problem in making models was to use the parts to advantage without ending up unable to join them because pairs of large or slotted holes coincided. 2h Strips with 2 large holes or 2 slotted holes would have been a great help in this respect.

