OTHER SYSTEMS NEWSLETTER

OSN 50

FEBRUARY 2015

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

EDITORIAL I'm pleased that OSN has survived 25 years to reach No.50 and that it is still in good heart. Much ground has been covered and much remains to be explored, but for me at least it has been a fascinating journey, and I look forward to producing more Issues. None of this would have been possible without the support of both contributors & subscribers, and I would like to thank them all, not least for their patience now that it takes so much longer to produce each Issue.

Shorter NOTES, with thanks to all contributors.

1. Snippet. TRONICO Dinosaurier Sets. There are 3 of these outfits, all in the same vein. They are Tyrannosaurus



above, with its parts below it; Stegosaurus; & Triceratops. All have 70-80 parts (including 30 or so N&B) and all the models are about 21cm long. It is said that the parts are 'easily bendable' aluminium' and that 'the kits are only bent not screwed together'. So presumably the parts FIG.2 Sumary after having been suitably bent, with the N&B at critical points. I wondered if the parts were ready formed but in an Ebay set they look flat, and the diagonal slot in the corner of the Screwdriver's handle Editor **Tony Knowles** 7 Potters Way Laverstock Salisbury **SP1 1PY** England

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is probably an aid to bending.

These sets are sold (at €9 each) only by the shop attached to the TRONICO website, but sets to make identical models called METAL DINO, as below, have been seen on American Ebay. As can be seen the lids have OWIKIT in small letters in the bottom left corner. A Parts List sheet with one set is headed ROBOTIKITS & below it is 'This aluminum kit includes soft and hard aluminum plates. To give this kit your own



shape, bend the soft plates to a different position and/or angle according to your own ideas.' And the undersides of all the boxes, OWIKIT and TRONICO show the animal in several differ-

ent postures. **TRONICO: S4**

[50/1516]

2. AUTOMAT. Paul Goodman wrote (some time ago I'm sorry to say) that AUTOMAT had changed hands, and since June 2012 its new owner has been Knotech GmbH, Selitstraße 10, D-55234 Erbes-Büdesheim, a town about 50km away from the previous address.

The website //www.compact-technik.de gives details of the current range of sets & parts and I hope one day to update the review of AUTOMAT in 21/604 (that was in 1999) to include an outline of all the changes since then.

AUTOMAT: S2

3. METALLUS. Paul Goodman also mentioned that this German system might be 'running down', and when I checked its website the only sets I could find were 3 of the earlier 7 basic sets, and one theme set, the Ploughing Engine. It was only practical to check on a few parts: all of the 3 categories of common parts I looked at were as before, but in more specialized areas no parts were listed in 2 of 3 of them.

METALLUS: S6

[50/1516]

[50/1516]

[50/1516]

4. The TECO Manual. Jürgen Kahlfeldt wrote that the 8 model pages in the TECO manual described in 34/1027 are identical to 8 of the 13 model pages in the 31st Edition of the STABIL manual for Set 48, although said pages are not in the same order.

sent a reminder by email.

TECO: S4

ersion The price per Issue, including postage surface anywhere; £9 by air outside Europe. SN 1: £1.50/£4/£5; OSN 2,3: £3.50/£5.50/£6.50 SN 28 on: £7/£8.50/£9.50. (All colour & some sheets.) Postage at cost on multiple orders.	SUBS: OSN Printed VersionYour Credit Balance:was £after OSN 49was £after your remittance		
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The No.0 box measures 28*21*2.5cm and its lid & base are shown in Figs.1 & 2. The set's contents (with 25 types of part) are identical to those in the match-

ing Liverpool outfit.

Holes in the parts are 4.2mm Ø at 12.7mm pitch and the Axles are 4mm Ø. Quality is not quite as good as MECCANO. The N&B look very like Meccano's but are solid brass. I can't read the word moulded into the Tyre but it is neither MECCANO nor MODELLO.

The manual has



8 pages 25*19cm with the front in Fig.3. It has 17 models from 0.1 GARDEN SEAT Fig.4 to 0.17 LATHE, and all are from the 29 in the MECCANO No.0 original, but not in the same order. They have the same illustrations, Parts List, & building instructions, and one is shown in Fig.4. The back page has advertisements for Funcraft's Chemistry Set, Little Doctor outfit, & some Conjuring Tricks.

OSN 50/1517

5. Snippet. 'New' System: MI TALLER Mi Taller means My Workshop in Spanish and the No.3 set below was seen on the Argentine Ebay earlier this year, along with Sets 2 & 1. They have respectively 210, 140, 80 parts with 8, 5, 5 Tools. All 8 Tools are shown on the No.3 lid; those for the smaller sets are the Screwdriver, 2 Spanners, Hammer, & Pliers. The parts look more akin to MECCANO than CONSTRUCTION but unusual parts are 7-hole type Trunnions, 5*5h Flanged Plate, & white Flexible Perforated Plates. The No.3 box measures 50*34cm.



MODELLO [2]: S1

6. **SOLID Parts.** Some notes on this small German system were given in 22/647 & 37/1101. One thing missing was details of the parts and now Urs Flammer has sent notes about his.

The parts are made of blackened steel, 1mm thick. Holes are 4mm at 15mm pitch and none are elongated. Strip parts are 10mm wide with largeradius ends, and the corners of the Flanged Plate are square.

The thread is M4. Nuts are square, 7mm A/F; Bolts have tapered cheeseheads. In a set seen on Ebay the



The Wheel Disc is 33mm Ø with holes at 10.5mm radius. The Pulley Disc is 30mm Ø and as can be seen above a pair would form a wheel with a rather 'pointed' tyre.

SOLID: S2

7. BILDAL. MCS has no date for this US clip-together system (see 33/983), only 'Made for about 2 years, probably in the early 1930s'. Now an Ebay item shows a Xmas 1928 ad and while not not saying the system is new, it does have the air of being so, with sets post-free from the factory if your dealer cannot supply. Games & Toys had a UK agents ad for BILDAL in May 1929.

BILDAL: S3 [50/1517]

[50/1517]

[50/1517]

'New' System: DER **KLEINE TECHNIKER**

All that is known of this German system is a manual, and Urs Flammer kindly sent scans of the pages, plus a few notes from Jürgen Kahlfeldt.

The manual has 16 unnumbered A5 pages plus covers and the front is shown right. pp2, 16, & C2-4 are blank. p1 lists the parts & their quantities; p3 shows them (Fig.2) and no doubt #26 & 27 are made of wood. Most can also be seen in the illustration of the set on p4 (Fig.3). A few of the parts resemble STABIL (though notice that the Flanged Plates are 4h wide), as did a few different (5h wide) parts in the DER KLEINE TECHNIKER



described in 37/1101, but in neither case is their size known, and there is no obvious connection between the two systems.

There follows a list of the 43 parts with my English names and quantities in curly brackets. • #1-9 Strips, 2,3,4,5,6,8,10, 14,18h {6,2,6,4,2,4,4,4,4}. • #10 Plate 2*4h {1}. • #11-13 Flanged Plates 4*2,4,8h {1,1,1}. • #14, see #20a. • #15-17 A/Gs 2,5,18h {4,2,4}. • #18 DAS 1*4*1h {2}. • #19 Channel Bearing {4}. • #20 D/B {2}. • #20a A/B (also listed as #14) {10}. • #21 Reversed A/B {2}. • #22 Corner Plate {4}. • #23 Wheel Disc (may be 5h \emptyset but as with all the circular parts sizes vary from illustration to illustration and model to model) {2}. • #24 Hub Plate {1}. • #25 Flanged Disc Pulley (I suppose) {2}. • #26,27 Pulleys {4,2}. • #28 Small Pulley {2}. • #29, & 29a (not illustrated), Rollers {2,1}. • #30 Nut {65}. • #31-33 Bolts M4*8,12, 15mm {45,10,4}. • #34 Rod Connector {2}. • #35-38 Screwed Rods (the Nut is not integral) M4*25,50, 100,150mm {2,4,2,1}. • #39 Wire Hook {1}. • #40 Spanner $\{1\}$. • #41 Screwdriver $\{1\}$.

25 unnamed, unnumbered models are shown on pp5-15, from Man with Dog to Chair-O-Planes (Fig.4), with one drawing of each. They start with simple models, mainly domestic, and larger models include a Railway Crossing Barrier, a Railway Crane, a Windmill, a Biplane, a Drilling Machine, the Crane on the cover, and a small, 10h long, Overhead Inspection Vehicle, the only road vehicle

Fig.3

included. Several have a cord drive Fig.2 but on the whole they are rather average models with some dubious mechanical features, the luffing on the Crane on the lid for instance. Many of the models could probably be improved within the Set's parts, though those with an even number of holes might cause some problems.



DER KLEINE TECHNIKER [3]: S1

OSN 50/1518

More on METEOOR A little

on this Dutch system from Jan Ringnalda appeared in 43/1292 and now he has kindly sent more details, photos of his Set A1, and photos of a selection of the pages from the 'A' manual.

The PARTS are shown far right, from the Manual, & right, the actual parts. All but the threaded parts are made of aluminium. Their holes are 3.05mm Ø at 8.0mm pitch, so slightly farther apart than TRIX but about 1/2mm smaller in diameter. The thread is M2.5 against 3.5mm Ø for TRIX.

Strips are 14.3 to 14.5mm wide, and the Screwed Rods are 56 & 25mm long. Apart from the differences in dimensions all the parts resemble TRIX except METEOOR's wire Hook. The Bolts holding some of the parts in Fig.1 look to be brass.

The BOX lid is covered in brown crocodile (effect?) leather and its label is the same as the manual cover shown in OSN 43, but with 'MET' (= with) in Fig.3 small black letters above 'MODELLENBOEKJE'. Fig.1 shows the parts on the centre column & right half of the back-ing card: the left side matches the right.

Fig.4

Caroussel of 3 doozen A3 en 1 doos A2. is één stuk 23 als verbinding vastgeschroefd. Door het middelste gat daarvan wordt, met tusschen-

voeging van 21, de 12 bevestigd. De zijwanden

den wagen worden van carton voorzien.

No. 26

stuks 1 " 2 " 3 " 4 " 11 " 12 " 13

Gebouwd met 1 doos A1

Onderdeelen

1 stuks 21 2 , 22 5 , 23

METEOOA

Fig.6

Fig.5

24

Electrische tram





Fig.2 No doubt the N&B were in a packet or carton in the empty space at the bottom. Aside from the N&B, the quantities of the parts are the same as those in the two basic TRIX sets, 1 & 1A (called A & B in the UK postwar), but plus one extra Wheel Disc.

The MANUAL has 64 pages 202*145mm. The front cover is as in OSN 43 & Fig.3 shows the title page. All the models seen are in the 9th edition of the pre-WW2 Dutch Band 1 TRIX manual (which can be seen at www.trixmetaal.nl/, a useful site about TRIX worldwide). The METEOOR drawings are identical to their TRIX counterparts, including the TRIX

Hook, as in Fig.5 (though it has been changed in the Basic Constructions section), & the model Instructions are largely based on the TRIX text. The models in the UK 8th Edition to hand are the same except that the arms of the Railway Signals are straight Strips and not the type in Fig.7. Also at least one of the METEOOR models, the Tram in Fig.4, is not included.

The 50 METEOOR models start with those needing just one Set A1 and end with the Roundabout in Fig.6 which needs 11x A1, 1x A2, & 3x A3 outfits (as explained in OSN 43 the

A2 & A3 sets contained the same types of part as the A1 but two and three times as many). Patterns for the cardboard parts needed in some models are shown on one page, superimposed on one another, in the TRIX fashion. Finally the advent of the B sets is heralded by a model of a Railway Breakdown Crane. It Toren-draaikr

15	loren-uraakraan	
1000	Gebouwd met 1 doos A	١.
	Onderdeelen:	

	4	stuks	1	1	stuks	12	2 s	tuks	31
	4		2	4	"	13	4	"	32
	2	"	3	1	"	21	15		41
	4		4	2	,,	22	36		42
	2	"	11	4	"	23	1		43
:									

Het bovenstel zit in één stuk 11 en is met de 11 van het torengeraamte draaibaar volgens G10 verbonden. Tusschen de beide stuks 11 ligt één stuk 23. Slinger wordt aangebracht volgens G6. De kraanarm is in het midden door één stuk 12 versterkt. Koordwiel volgens G4. De geteekende kraanhaak wordt veren door één stuk 23 met één stuk 43 volgens G11.

Toelichting

No. 31 Signaalbrug Gebouwd met 2 doozen A1 of 1 doos A2.

Toelichting:

1 stuks 21 22 23 "

13 72 42 Toelichting: De brug wordt door vier stuks 11 bij elkaar gehouden. Krukconstructie val-gens Gö, waarbij de handgrepen lets meer naar binnen geschroeid worden, zoadat ze meteen als nok dienen bij het stellen. De twee stuks 23 der sig naalarmen zijn met 13 aan 32 bever-tigd. Gekleurd koord dient als het-werk. Op de beide bovenste stuks 11 kan een bodem van cortan gelegd worden. Zie patroon op omslagblads.



METEOOR: S2

is from TRIX Band/Book 2 and needs a B1 set as well as 6 of and except for the Roundabout, include the original parts list & the A1's.

I expect many readers will be familiar with prewar TRIX models and when I looked at them again after some years I noted anew how much could be achieved with relatively few different parts (plus a little cardboard), only 15 parts in the case of METEOOR. The models in Figs.4-7 have been chosen as good examples to illustrate the various points of interest made above, and as good examples of models for the number of sets needed. They are about two-thirds their original size,

instructions, though rearranged.

It is said on the Hong website (see 48/1471) that because of the spelling in it, the 'A' manual might date from the 1930s. I would be surprised though if Trix would have agreed or tolerated the use of their material in the 1930s, more likely METEOOR appeared soon after WW2, before Trix was in a position to object.

METEOOR: S3

AMMELMAPPE

lodelle

Fig.1

OSN 50/1520

The German MECANIC/MEKANIK Nearly all the MEKANIK sets same throughout with red rigid Plates, Trunnions, seen have a dark red lid with the label shown for the 'Z' set in Fig.2 of 43/1295, but a few have an entirely different box, with the parts in a foam insert instead of being strung. Before giving more details an outline of the system's history to tidy up the oddments from OSN 17 and earlier.

The original name was MECANIC and it was made, starting in 1948, by

Dörken & Mankel KG of Ennepetal-Voerde i.W. And except for the different name the sets had the 'normal' OSN 43 label. It is said that there were Nos.1-3 with linking sets 1a & 2a: I've no evidence to hand of Sets 2a & 3 but have an Ebay photo of a Set 0. Manuals had the cover shown right, 301/4*191/2cm, and the pages inside were loose, held with paper clips between an inwardly folded spine.

The MECANIC name continued into 1949 but at some point before it changed to MEKANIK the set numbering was changed to 20-23 with linking 'a' sets. A manual to hand shows that Sets 21 & 22 were developments of the previous Sets 1 & 2 but with some 'new' parts and a few more of some already in the Set. One can't be sure that the 'new' parts were newly introduced because they could have already been used in Set 3. But some probably were new, the 4 sizes of plastic Flexible Plates for example. Likewise the No.23 had a number of other 'new' parts. The manuals with these sets were A4 with normally stapled pages and covers identical to the picture on the lid (as in Fig.3, a manual on top of Fig.3 the later box lid).

By 1950 the name had been changed. Ultimately the range of sets was increased to 18-24 but whether all at once or in stages isn't clear. Sets 20-23 were unchanged except that Set Screws were included in the Set Contents, though they had probably been in the sets all along but not listed separately (they aren't listed as a separate part in any of the Illustrated Parts to hand). Set 24 had 1230 parts against 980 for No.23 including 36 new parts. Set 18 had 104 parts against 254 in No.20 with only 2 wheels: 27mm Pulleys with Tyres. It was the only set which didn't include the pair of coarse pitch, green, plastic Gears.

Packaging remained the same except that though the linking sets from 20a upwards had the usual lid, all the 18a & 19a seen, 6 in all, have the simpler lid in Fig.2, and in some photos it looks dark brown

rather than dark red. The manual covers also stayed the same but the manual for Sets 18 & 19 was a single sheet folded to give 4 A4 sides, with no covers.

From 1959 MEKANIK was made by Adrian & Rode GmbH of Velbert (between Essen & Wupertal, 20km west of Ennepetal) and continued until at least 1963. Or possibly until 1967 when the firm went out of business.

Now the new packaging. Fig.4 is the lid of Set 22, with Fig.3 above it to show its top (with its manual lying on it). Right, the parts snug in their foam block. The Set has a single layer of parts against two in the previous strung version. Set 21 in the same style has been seen but whether the change extended to other outfits isn't known. It seems likely but isn't certain that these changes occurred with the change of ownership, or soon afterwards. The manual with the No.22 was unchanged with the same models and it still showed sets with the earlier packaging the model on the lid is from Set 23.

With one minor exception the colours of the parts stayed the



CANIC EKAN H

ones, & I have an orange pair.





Snippet. Another GLUCK Set This is about a manual which was sold on Ebay. It was said to have 8 pages of which 4 were shown: the cover, right; the illustrated parts of the Plane (Fig.2) & the Zep (Fig.4); and a page of models, but very blurry. The cover presumably means that there was a set with enough parts to make a Zeppelin and an Aeroplane. Possibly this manual would have been with the BUILD-

A-ZEP AND BUILD-A-PLANE CONSTRUCTION SET, whose lid was shown in 45/1374.

The Plane Some of the parts (Fig.2), the Tail for example, look the same as those in the Ten-in-One set illustrated in 45/1374 but the main parts, the Fuselage & Wing, are clearly different, and the

model has a low instead of a parasol wing, with no supporting struts. The model page shows 8 Planes, Nos.13-20, all look very similar and probably differ only in the 'blobs' added here & there, often on the tips of the Wing, as in No.17 above (Fig.3).

The Zep From Fig.4 this looks very similar to the model shown in 47/1434. As shown in the centre panel of Fig.4, the Links #2-4 seems to be used to reinforce or stiffen the joints between the Sections #5, 7, & the Fins #8, but a note has been rubber stamped onto the bottom right corner: 'LINKS 2, 3, & 4 ELIMINATED TO SIMPLIFY ASSEMBLY'. So then the Sections

etc would simply b joined by the Links # in the small as METALCRAFT Zeps (th last wasn't certain 24/690 but has sin been confirmed). Ques ions arising. Why are Links #1 needed? Wh are 2 versions of Section #5 shown, or is th righthand one the # 'missing' from the list parts? What size are the 3 Propellers #13 ar where are they attack ed? What are the lugs the bottom of the Cab #9 used for? .Perha the Bombs #22 could b bolted onto them? Or a Axle with Wheels run them, as in many of th non-constructional zeps of the period, be there are no Wheels the Set, not even tho on the lower Fin of t OSN 47 model. What the Handle #12 use for?

Footnote Guibert's *Encyclopédie* shows the Instruction Leaflet for a Zep set. It is a single sheet folded in two and the front is in the same style as Fig.1 but the set



is BUILD-A-ZEP No. 10Z. 10 different models are claimed and these are shown on the back page, all basically the same but with minor variations of trim, one for example with the Cabin on top of the body, and another with a Propeller on the nose. The Propeller looks to be slightly larger than the diameter of the body and if, as is likely, it is the standard PLANE part, the body diameter scales at 4 to 5". The lefthand centre page has the Illustrated Parts as in Fig.4 but without the rubber stamping in the bottom right corner; the righthand page has some building instructions.

Fig.4	ZEPPE CONTENT	HN CONSTRUCTIO 'S OF OUTFIT No.	n 125	Figs. 2-4 have been changed to B&W for better clarity.
	and the second state of th			
	an 2000	NO.23 100000 0000		
		11111111111111111111111111111111111111	No. 1 I	Link—sixteen pieces
Col a	a commu	10000000 No 18 Y	No. 2 I	Link-four pieces
No.	2 NO.10 8 9	She She	No. 3]	.ink-four pieces
NO.13 DIAGRA	NO. 200	NO 16	No. 4]	Link—four pieces
			No. 5 8	Section—four pieces
612		STATION B	No. 7 \$	Section—eight pieces
O LOO	1) SECTION 5 SECTION De		No. 8 1	Fin—four pieces
No.14	LINK NO.3 C LINK N	0.2 00 NO.22	No. 9	Cabin—one piece
	e la e la		No. 10	Nose—one piece
	No. 100 NO.1 No.1		No. 11	Girder—one piece
NO.24. NO.20	-Eg		No. 12	Handle—one piece
	«պատան	NO. 6."	No. 13	Propellor—three pieces
	Pasitio		No. 14	Ferrule—one piece
OPERAT POSITION	ON NO.3. SHOWING OF LINK OF HOLES NO.E. AND BOL	No.IL T No.I9.	No. 15	Motor—
	60000	_ /////	No. 16	Woodturning-one piece
			No. 17	Bolt—
6 3	B NO.9		No. 18	Bolt-
No.7	(No.4		No. 19	Bolt—
P	P P	N0.8.	No. 20	Nut-
			No. 21	Nut—
			No. 22	Bomb-two pieces
· · · · · · · · · · · · · · · · · · ·			No. 23	Bolt-
6 6	6 6 8	OE H	No. 24	Washer-two pieces
OA	800¢	0 _G <u>DO</u>	110. 21	in L
NO.2	<u><u>soof</u> (0)</u>	No.3	LINI	16-2-31



GLUCK: S3

Snippet. 'New' System: ATLETA The set shown here was offered on German Ebay and was said to have been made by Fa. Atleta, probably around 1930. But no name can be seen in any of the photos, and a web search found nothing relevant.



The box, left, 47*36¹/₂*7cm, has Flanged Plates, A/Gs, brassware, etc in the bottom (below), & a tray (Fig.3) with Strips, Rods, and Wheels. The A/Gs, 2 Spanners & the brassware can be seen more clearly in Figs.2a & 2b, the Wheels in Fig.3a. Scaling gives the holes as 41/4 mm Ø at 20mm pitch.

One end of a Strip (Fig.2c, in B&W) looks to have been stamped with some letters. ETA" can be seen, and the previous letter could be L but the one before that doesn't look like T. A" can be seen on one of the other Strips.

Some of the holes in the Strips are out of line and there are a few small variations in the hole pitch. So, could the set consist of homemade structural parts with proprietary Wheels etc? If so, some care has been taken over the packaging.



ATLETA: S1

OSN 50/1522

Snippet. 'New' System: DER KLEINE TECHNIKER This is the third system that is known to bear this name – the others were

described in 37/1101 & on p1518 of this Issue. The blurry Ebay photos right are some-

thing of a puzzle because while the parts in the box look more or less conventional those on the lid look distinctly electrical. So there has to be a question mark as to whether all, or some of the parts are not original.

The only part on the lid that might be in the box is the blueish looking circular part, an Insulated Bush Wheel conceivably: it is about central on the pale backing board on the lid, and in box's bottom row. Otherwise the only slightly unusual parts in the box are the 4*4h & 8*8h Plates – their edge holes are at the same pitch as the other parts (said to be 10mm in the Ebay ad) and the holes around the centre hole of the larger Plate are at 15mm radius. Likewise the radii of the face holes of the wheels (Pulleys fitted with thin Tyres of



Fig.1 Rubber Rings I suppose). None of **Fig.2** which proves anything but if the wheels & unusual Plates were to turn up as ly parts in some other system they should be easy to spot.

Since writing the above I've noticed a system in Guibert's *Encyclopédie* with parts which include the 8*8h Plate & the Pulleys with thin Rubber Rings. It is listed as METALL-BAUKASTEN(3) and its lid is black & dull yellow with 'METALL Baukasten' & a Hammerhead Crane on it.

DER KLEINE TECHNIKER [2]: S1

'New' System: DER KLEINE KONSTRUKTER This is yet another German system with this name, but it may be the first because it is said to date from before WW2, and possibly from the 1920s. As a small system it has limited scope but its one or two special or unusual parts allow some worthwhile models. Thank you to Urs Flammer and Jürgen Kahlfeldt for sending details.

Nothing is known of the maker and there is nothing to indicate that there was ever more than one set. Its box (Figs.1 & 2) measures 1934*231/2*4cm and the 23 different parts found, and thought genuine, are shown in Figs.2-4. They are listed below with my PNs & names for convenience, and the quantities found in curly bracket, though no doubt some parts are missing.

The PARTS • Holes are 4.0mm, with a few 4.1, at 11.9mm pitch. Axles etc are 4.0mm \emptyset . Threads: The N&B are M3 but M4 Nuts are used on the Screw-ended Axle. Tapped holes are M3.

• **#1 Flanged Plate** <u>5</u>*5h, the outer holes across are at 63.9mm centres. {1}

• #2 Flanged Sector Plate. {2}

• **#3 A/G**, 13h, 10*10mm section. {8}

• **#4 U-Girder**, 6h, 9.0*3.8mm. The 2 holes at one end are at 16.5mm pitch. {2}

- **#5** A/B, 13*13mm, the slotted hole 3.6*6mm. {14}
- **#6 Strip**, 11h, with a joggled tongue pressed out at

one end. 7mm wide. See also Fig.6a. {12}

• **#7 Strip**, 11h, 6.7mm wide. {10}

• **#8 Fairground Seat**, 59mm long, 39mm wide. {6}

• **#9 Z-Strip**, 9.8mm wide and the end holes span 7 holes. {4}

• **#10 Strut**, 7.0mm wide, 143mm long if flattened. {6} • **#11 Post** (SAS), 11.2mm wide. {2}

• **#12 Bush Wheel**, 36mm Ø with 6h at 13mm radius. The boss, tapped M3, is shown more clearly right. {1}

• **#13 Wheel Disc**, 36mm Ø, 8h at 14mm radius. {1}

• #14 Crank Handle, 74mm long o/a. {1} Fig.3 #15 Screw-ended Axle, 65mm, M4 thread. {2}

• #16 Axle, 180mm long. {1}

- #17 Collar, 9mm Ø, 6.8mm long, tapped M3. {2}
- **#18 Pulley**, 35mm Ø, with boss tapped M3. {2}
- #19 Nut, square, M4, 6.2mm A/F, for #15. {16}
- #20 Nut, hexagonal, M3, 6.2mm A/F. {3}

#21, 22 Bolts, cheeseheaded, M3, 6, 8mm u/h. {27,3}
#23 Wire Hanger, 1.5mm Ø, for #8, though Strips are used in the manual models, as in the Big Wheel on the lid (Fig.5) for example. {9}

Material/Finish All the parts are made of steel except #6, 7, & 13 which are aluminium, and #19 brass. #14-23 are plain metal; #1, #2, #9, #18, & 4 of #8 are painted brown; the other parts are chemically blackened except that #10-12, & 2 of #8 are painted black.

Model Sheets 5 model sheets are known, all of poor '1950 quality' paper, each 208*147mm, and printed on one side only with a single model. There is no model name or number, nor any reference to a printer, maker, or the name of the system. The models are a Swing Bridge (Fig.8); a Roundabout (Urs' model is shown in Fig.6, with Fig.6a inset showing the use of the tongued end of #6); a Slewing Crane (Fig.7), a Telpher Span, and a Windmill. Another model is the Big Wheel on the lid, shown in Fig.5.

All the known model sheets show working models, generally quite attractive, with their motion provided by a pulley drive, plus the hoisting function of the Crane.



DER KLEINE KONSTRUKTEUR [4]: S1



DER KLEINE KONSTRUKTEUR [4]: S2

OSN 50/1524

Snippet. 'New' System: <u>MECOTEC</u> The two sets shown right were offered on the Argentine Ebay. The logo, top right, looked familiar and India came to mind, but in the event I couldn't trace it, or the 'TOY BOX' brand name (bottom left), but a web search found two sets being offered new on the Indian Ebay, though nothing relevant on TOY BOX. So on balance, and pro tem, Indian.



In case it's not clear the sets seem to be called Silver Finish 1 and Military 1, and the latter was said to include 'real looking soldiers to complete your battle scene'. Both are '1st Level' and claim 5 models with their 88 and 101 parts respectively.

A few of the parts have an Eitech look, **Fig.2** the slotted Curved Strips for example, and the Seats, but most look MECCANO-ish, with a touch of BRAL perhaps in the shape of the ends of the slotted holes in the Flexible Plates. **New System: MOOV** This Dutch system, launched in 2008, is the latest attempt to produce sets for models which kids can ride on. Recall Gilbert's NEW WHEEL TOY & ERECTOR SENIOR from 1919 into the early 1920s (see 45/1385); the German MAFELL (15/415, 19/531) from the early 1930s; the French AUKRI (44/1347), date unknown but between 1930 and the 50s; RIDE-IT ERECTOR, Gilbert's second try in the 1960s (brief notes in 13/360, & 14/394-5); and the Russian FANTAZER (45/1377), date unknown but certainly post-WW1.



Fig.5

ig.2

MOOV is made by Berg of Ede (www.bergtoys.com, plus national sites such as www.berg direct.co.uk, which shows the spare parts available), a company best known for its range of pedal-powered Go-Karts and outdoor children's playthings.

The parts are shown right and models have a spine of red coated steel parts, mostly tubular, with varnished plywood Strips (called Boards) and trim (often plastic) attached by Connectors with a shallow head at one end (they are the 3 labelled '2x 4x 2x' near top centre - the coloured end blobs are identification marks), or the 7 Axles ('2x to 2x' along the bottom). All have grooves along their length, & red Rubber Rings ('123x') are rolled into the grooves to hold the parts together. The black ring (4x) next to the Cables is a Spacer Ring needed to take up slack at some points. An Ebay ad said that the Axles are coated steel. The

Wheels are pneumatic (30 psi) with Tyres and Inner Tubes, and they run on the Axles. I think the elongation of the holes in the Strips is to allow a finger to grip a Ring to remove it. The only dimension given is that the Wheels are 12" Ø and scaling gives the length of the 4-Wheeler right as 40", a little longer than the Wheel Toy's featured model, and the holes as 31/2cm at 15cm pitch. But those figures could be well out.

There are 4 sets: a Starter Kit at £149 with 125+ parts including 2 Wheels for 3 models (not all at the same time they hasten to add); an Advanced Kit at £199 with 150+ parts, 3 Wheels, 7 models; a Street Kit at £249 (Figs.1 & 2), 175+ parts, 4 Wheels, in a box 68*45*28cm for 10 models; and an Education Kit for schools etc, at £349 with 3 manuals and over 200 parts for 10 models.

The Starter models are a 2-wheel Bike; the Crane right; & a Snowscooter with Wheels at the back & skis (bottom right in Fig.2) at the front. The Advanced Kit adds a Helicopter; the Dino Bird far right; a Scooter; & a 3-wheel Chopper. The extra models for the Street set are the Racer in Fig.3; a Trike; & a Carver (a 3-wheeler with a single front Wheel). The step-by-step instructions for all the models can be downloaded from the bergtoys website.

Apart from 'paddling' along with the feet none of the models can be self-propelled. Steering is from handlebars, either centre-pivot and cable operated; or bicycle style with an Axle in a down tube and Strip forks. The 3- & 4-wheel models have a pivoted brake lever which rubs against one of the rear Wheels, as in Fig.3.

res and Inner Tubes, a Ring to remove it, heels are 12" Ø an t right as 40", a litte odel, and the holes as ould be well out.

The 3 non-ride-on models follow ERECTOR SENIOR in widening the scope of the sets. The Helicopter is a simple affair but the other two (Figs.4 & 5) are more interesting. At a glance I hoped a youngster could sit on the Dino Bird and that it would rock. Sadly no, but still an imaginative model. The Crane looks to be some 90cm high and could be played with, though a proper hook would have been preferable to the Spring Clasp. A Cable ties the jib's back end to the chassis.

Fig.4

I wondered what purchasers thought of MOOV and I found a few reviews that looked independent, mainly on Amazon. Most were very enthusiastic though all related to 5-year olds: pricey but very good; good instructions; can build the models with help with the instructions; enjoyed the building & playing. The least favourable comments: brilliant but one drawback, no means of propulsion; wanted to like it, good quality parts, but seat uncomfortable & heavy to push. Berg say MOOV is suitable for the 5-12's and one review said his 5 year old, 44" tall, could just reach the handlebars and so the toy would be usable well into the future. Finally, given the method of assembly, might the models be a bit rickety? No-one mentioned any problems.

Snippet. 'New' German System: KNIRPS Thanks to Urs Flammer for sending the Ebay ad for the present set. The blurb claimed it to be the first after WW2 and that it was made from a scrap ammunition box. That is credible for the main part, a hinged catch (Figs.1 & 1a). And perhaps the other parts were made from the box itself, who knows? The name KNIRPS (meaning little fellow, urchin, etc) brings STABIL to mind but there is nothing to connect this set with the Walther company: the type face is not, as far as I know, one of theirs, and though some of the parts are similar most vary is detail, from a non-STABIL Road Wheel to square rather than hexagonal Nuts.

36 parts are claimed on the front of the model sheet (Fig.1 & 3) and the 24 remaining are shown in Fig.1. No indication was given

of the size of the parts. The Seat (that's to say the catch) was said to be brass and it has the same black finish as the other parts. From the 24 parts, and those used in the models, the parts in the Set could be: 1 Seat; 1 each 3 & 5h Strips; 2 DAS; 1 A/B (though I can't see where it is used); 1 D/B, 2h high; 1 Reversed A/B, 2*1*2h; 2 Wheels; 2 Wheel Discs; 2 Screwed Rods (probably different lengths); 1 Long & 6 Short Bolts; 16 (or perhaps 18) Nuts; 1 Span'driver. But that makes at least 37 parts, even without the Span'driver.

The end of a cardboard box can be seen in Fig.1 and in the original Ebay photo it looks in plan to be little larger than the folded Sheet. The photo shows no printing on its top face and it's not clear if the set was packed in it.

The models are on a single sheet folded in two. Fig.3 shows the front and Fig.2 the reverse side.

KNIRPS [2]: S1

OSN 50/1526

Snippet. Two STRICON sets Notes on STRICON parts and manuals were given in 10/256, 11/275 & 38/1145 but no sets have been seen until now. The two right were seen on the Marktplaats auction site and were said to be a No.1 and a No.2. The parts in both Sets are held to the backing cards by N&B, and there were other Ebay photos showing small fawn envelopes which could have contained small parts & other N&B. Also photos of another similar lid; and manuals with the later cover, as in OSN 38, but the set number couldn't be seen on either the lids or the covers.

There is no reason to doubt that the lower set is a No.2, the parts that can be seen tally with those shown in MCS. The parts in the top set though are those shown in both the old- & new-style No.3 manuals, see OSN 10. (In passing it should have been noted in OSN 38 that compared with the older manual described in OSN 10 the contents of the No.3 in the 'new' manual had been increased from 2 to 4x 13h Strips. The earlier quantity was an error because several of the earlier manual models needed 4 of the 13h Strips.)

The top of the lid can't be seen in the photo right but apart from its blurry set number, it matches the one shown in OSN 11.

The invaluable HONGS website (www.hongs.nl) has photos of 2 sets almost identical to the present

ones. The one that matches the lower set right is referred to as a No.2; the top one right is again called a No.1, and its lid and manual both have No.1 on them. Both HONGS boxes measure 30*21cm and if as is likely, all the boxes from Sets No.1-3 were the same size, I suppose it's possible that at some stage a No.3 backing card with parts got put into a No.1 box. It would though seem to be a coincidence too far for the Marktplaats set to have suffered the same misadventure - unless of course the Marktplaats set was actually the HONGS set.

Two ads for STRICON were shown in HONGS. One from February 1947 marked it as available but unlike the other items advertised, no price was given. So it seems likely that this would have been soon after STRICON was launched. The second was from December 1948 and gave the price as F 2.70 without mentioning a set number. Both the no doubt later HONGS sets were priced at F 4.35.





KINEMA This account, based on 2 sets to hand and the Ebay photos of 20 others, seeks to amplify the short note in 12/306 on this unusual German system. Its main parts are Tubes joined by Unions, held together by Split Pins. PINIT (25/744) is the only other system to use Spilt Pins, and then in a different way.

Sets with three different lid labels have been seen and an example of each is shown in Figs.1 (with a manual on top

of it), 2 & 3. Their chronological order is not entirely clear but though there are a few anomalies it seems that Type (A) came first. Dates & the set structure are also unclear. *MCS* speaks of Sets 0, 1, 2, plus a supplementary outfit, in the period c1946-1950; *Baukästen* of Sets 00 & 0 from around 1946 to 1950, but also shows a photo of a Set 1.

The PARTS

Fig.4 shows them as in the (B) Illustrated Parts (except #140-148 are reduced by 50%). Some actual parts can be seen in Figs.5-

8, 10 & 11. Holes to take Tubes are 6.6mm Ø; the attachment holes are 1.5mm. Most parts to hand are steel but aluminium Tubes & Unions are known and may be quite common in all periods. Below, my names for the parts, with the items not seen asterisked, & notes where appropriate.

#1-11,12*,13 Tubes, rolled, 15-300mm long, 5.9mm Ø & 4.9mm i.d., with 4 rows of 1.5mm holes at 10.0mm pitch, but one opposite pair is staggered by 5mm relative to the other. **#16 Tube Coupler**, a rod 25mm long, a very tight push fit in the Tubes. **#17 Split Pin**, about 1.2mm nominal dia-

OSN 50/1527







meter and 15mm plus head long. Some to hand are much harder steel than others, and some have equal length legs. In both cases this makes using the part much more difficult, but one can't be sure that these Pins were original. **#18* Threaded Pin. #20* Nut. #22* Collar. #24 Pulley**, 55¾mm Ø, 8¼mm wide, with a 6.1mm bore, & a 4½mm long tubular boss, drilled for a Pin. **#26 Tyre** 72mm o.d & 9¼mm wide

when fitted to #24. KINEMA BALLON is moulded into both sidewalls. **#28* Rubber Ring** to fit Pulley #34. **#30 Hand Wheel** 38½mm Ø with boss as #24. **#32 Headlamp** 22mm Ø & 13mm deep – its back is flat rather than pointed and it was shown thus in the (A) manual. **#34* Flanged Disc Pulley**, which scales at 90mm Ø.

Unions etc (those seen are shown below): #36, 90°. #38*, Angled 'T'. #40, 'T'. #42, Bearing Bracket. #44*, Pivoted Bearing Bkt. #46, Pivoted Unions, the parts are held together with a rivet. #48, End Bearing. #50, End Union. #52, 4-Way. #54*, Link. #56*, 58*, 180°-, 90°-Attachment Brackets.

#60*, Hub, with 2 face holes. #62*, 64*, Small, Large Gear/ Sprocket. #66*, Chain. #68, 70* Small, Large Crank. #68 has an

Fig.5

Rohre 16 Steckrohr 17 Splint 18 Stehbolzen Mutter 22
Länge 15 30 50 75 80 90 95 100 120 140 150 200 250 300 Tell-Nr. 0 1 2 3 4 5 6 7 8 9 10 11 12 13 Handrad 32
A 36 33 75 tück Ninkel J 38 T-Stück Raumwinkel Lagerback, fest drehbar Kupplung
$\bigcirc \begin{bmatrix} 60 & \bigcirc & 62 & Iahn- \\ u. Kettenrad I \\ w. Kettenrad I \\ u. Kettenrad$
78 Rebuilde To Control Kurbel I To Scheibe I Scheibe I Scheibe I
100 102
140 43 < 207 mm 142 41 × 207 mm 144 35 - 218 mm
146 Gitterbleche 148 32 · 218 mm 52 · 218 mm 30 · 218

KINEMA: S1

offset of about 20mm; my example at least has no holes in its 'handle' for a Pin which reduces its usefulness. #72*, 74* Discs, probably 20mm o.d. #73* Hook, it looks flat & about 40mm long. #78* Tube Clamp. #80 Front Axle Beam. The top & bottom plates, 122mm long & 15mm wide, have attachment holes plus end & centre holes for Tubes. #82 Steering Arm, handed, see Fig.11. It fits between the end of the Axle Beam with the king pin (a Tube) passing through its upper & lower arms, and the Beam's end holes. The track rod is pinned to the end of the longer arm; the stub axle pushes into the rolled end of the shorter arm. #84* Pierced Plate. #100 Front Mudguard, handed, 20mm wide with the outer edge curled over. It's only two attachment holes are at the front, along the inner edge. #102* Rear Mudguard for 2 wheels, handed. #104*, 106, 108-114* Rect. Plates, 105mm long, 10-90mm wide, with the shorter edges curled over and holes along the sides. #122* Seat. #124 Bonnet. It is in 4 parts, 90mm long: 2 tapering Side Panels as shown (but with holes along their bottom edges) and 2 Top Panels, each 25mm wide. All are hinged together by 3 lengths of 1.1mm springy Wire passing through their crenellated rolled edges. The centre Wire is slightly longer than the others because it engages with holes in the Bulkhead & Radiator Grille. #126 Bulkhead, 105mm wide & 60mm deep with curled outer edges and perforated along all its outer edges. #128 Radiator Grille, 66mm wide with 5 openings, not 4, flanged along its lower edge, and perforated along the top and along the flange. #140-8* Railings with holes along the longer edges. Fig.7

The colours of the parts are as in the various photos here but the Bonnet Sides may be red or blue, and the Railings & Radiator Grille are usually blue but sometimes black.

The SETS

TYPE (A) 3 of the 6 Type (A) sets have plain lids, 2 purple, one red; 3 are patterned as in Fig.1, but the other 2 are reddish in colour. All are No.0, as shown on their labels, & all have the label at the righthand end. All look the same size, one is marked 30*17cm, and all have the partitioning in Fig.6. All



contain Tubes, 4 Pulleys with Tyres, a Hand Wheel, and Unions. In most sets some of the Unions are black, while in one about half are black & half red.

3 sets had a manual with 32 pages 20^*

14½cm, & the cover in Fig.1. **Fig.6** Its introduction mentions Set 0 with the promise of add-on Auto & Eisenbahn sets, plus animals & dolls to the same scale. The Illustrated Parts are on a page '4701 Bl.1' and go to #58. A Patent application is mentioned.

In passing, the Manual gives the maker (as before) as RADAmetallwarenfabrik, Frankfurt/M.-Rödelheim, but also the KINEMA-Konstruktionsbüro (design office) as Maurer und Ehrenberg, Langen/Hessen, and the sales office as KINEMA-Verkauf, Frankfurt/M.-Nied, though this last was crossed out in one of the Manuals.

TYPE (B) My sets are Nos.00 & 0 and they were one lot with the parts mixed up, and no indication on the boxes of the set size. It was possible to sort them out because the contents of the 00 were given in the literature with the sets. All the parts are steel except that some of the 90° Unions are aluminium. Of the steel some are a uniform dull dark grey, and some a lighter grey with patches lighter still, and almost shiny. Probably all the parts were originally shiny. The quantities of dark to lighter steel parts, and steel to aluminium Unions, didn't relate to the contents of the sets.

Set 00 is in a similar box to the (A) No.0 (mine measures 31*17*23 cm overall) with the same partitioning. Its lid is dark red with the Fig.2 label except it has no text in the white edges.

It covers the righthand two-thirds of the lid. The contents are: 1,9,7,4,5,1,1,3,2x #0,1,2,4,5,8,9,10,13; 1x #16; 50x #17; 4x #24; 1x #30; 2x #32; 16x #36; 4x #40; 3x #42; 8x #46; 1x #48; 5x #50; 1x #68; 1x #80; 2x 82; 2x #100; 3x #106; 1x #110; 1x #124; 1x #126; 1x #128. These parts are sufficient to build a 4-wheel Lorry with steering, similar to Fig.10 model.

The literature with the set consisted of 6 sheets 143* 206mm printed on one side only, and a double-sided sheet twice the size folded in two. The first sheet is an introduction (which says that it wasn't possible to include Tyres in the set but they are in Set 0, and that larger models can be built with the two sets); then 2 sheets 4701 Bl.2 & 3, showing basic constructions; and 3 sheets 4702 Bl.1-3 with the Illustrated Parts up to #148. The folded sheet lists the set contents, and shows the model Nr. 01, Lastauto, with 2 halftones & a diagram of its front structure & steering, plus lists the pieces needed for each of 6 parts of the model.

Set 0 My set is in a box, 32*24¹/₄*1³/₄cm, with a purple lid



and the Fig.2 label covers all of it. The partitioning is shown left & the contents look very similar to those of the (A) No.0, though possibly with rather more Tubes & Unions. Of the 7 sets

seen on Ebay, 3 have boxes which look blue rather than purple. One of them has a smaller label like the 00 one.

The model sheets are the same size as in the 00 and there are 32 of them, with Blatt 1-32 in the top right corner. They are housed in a folder with an 00 lid picture printed on the front & an introduction on a label stuck inside it. It claims 236 parts in the set and mentions larger models with add-on sets. The loose pages slide into the turned over edges of the (plain) back cover. Blatt 1-5 are the Illustrated Parts & Basic Constructions as for Set 00. Blatt 6-18 & 21-30 have 31 models from No.1 Fahrrad mit Anhänger (Bicycle with Trailer) to No.31 Schwebekarussel (Fig.14). Most of the models are one to a page with a blurry halftone for each, plus a list of parts, & a few words of building advice for a few models. 2 models are said to need 2 No.1 sets and 4 others need a few extra parts, though it is suggested that simpler versions might be made without them. The models include small domestic items, 3 small model railway accessories, handcarts various, 2 horse-drawn Carts, a Lorry with cord operated steering, a Tip Wagon (Fig.12), 2 Windmills, a Swivel Crane (Fig.9), a simple Gantry Crane, a Stamping Machine, a Trip Hammer (Fig.15), a Monoplane, & a Motorcycle. Cardboard is used to add realism to a few models and would certainly improve many of the others. Blatt 19 & 20 show the Swivel Crane alongside 2 of the other models, a Lorry and a Tricycle Delivery Motorcycle respectively (both fairly basic). Blatt 31 & 32 have photos of 4 models (Figs.16a-d) made using supplementary sets. They are also shown in the lid label (Fig.2).

So phase (B) seems to follow (A) because only Set 0 is known for (A); the corresponding Illustrated Parts (B) page is 4702 Bl.1 with parts up to #64; and no mention of a Patent. Against: the Headlamp's shape, always flat backed but drawn pointed in (B), and, but probably of less concern, one Ebay (A) set gives a date as 1952, and one (B) claims 1947.

Set 1 The 5 Ebay examples seen have 2 layers of parts (as in Fig.8 overleaf) in boxes, 42*31*5cm, with purple or blue lids and the Fig.2 label. The probable parts include 10 Pulleys with Tyres; 2 Flanged Disc Pulleys with Rubber Rings; all the Set 00 parts plus 2 Rear Mudguards, 2 Headlights, & a Seat; at least 3 Hand Wheels; 4 or 6 Hubs; at least 2 of each Crank; 1, perhaps 3 Hooks; some Railings: #142 in 2 sets, 144 in the others; at least 1 Plate #84; & Brackets #56 & 58. I couldn't see any



The 2nd set, 48*35cm, has 2 layers of parts and a hinged lid. The partitioning is almost identical to the (B) No.1, and the parts look to match as far as can be seen. The photos are blurry but the leaflets for 3 of the (B) Set 1 models No.10x can be seen plus some of the (B) folder size.

With no indication of these outfits' number, and given the 'mystery' of the No.2, I wonder if the (C) sets were the equivalent of the (B) 00-1 outfits but in wooden boxes & renumbered 0-2 (to make them look better value, or to justify a price rise).

USING the PARTS

I built the 00 Lorry below, but included the Tyres & a spare wheel from Set 0, and because I couldn't understand the instructions, changes were made to the rear axle supports, the Headlamp mounting & the front bumper. The steering is shown in Fig.11 and it worked well The model was reasonably easy to build but caused sore fingers even if pliers (sometimes essential) were used. A few paking washers, not part of th system, were needed here & there (but there was no need for a serrated washer). Using the No.0 parts to add a crane to the back of the model showed that such changes were not to be undertaken lightly because any modifications to 'Rod/Tube' systems are always tiresome, and in this case there was the difficulty of removing Pins from inaccessible corners, and then straightening them sufficiently to pass through the holes in, quite often, 2 Tubes. But the finished model was neat looking in

Fig.10

was more rigid and

its appearance and more robust than I'd anticipated.

6

Sprockets or Chain.

The Model Leaflets with this set include those for No.00 & probably No.0, plus 4 No.1 models: 101 Feuerwehr+ auto; 102 Schlepper; 103 Kippwagen; 104 Kranwagen. Thumbnails of 102 & 103 are shown in Figs.13a,b; Nos.101 & 104 are simpler version of the Figs.16a & 16c models. These leaflets were folded once or twice to fit into the (B) folder, but in one set they are shown loose together with an (A) manual.

TYPE (C) Two sets have been seen on Ebay, both in wooden boxes with the Fig.3 label (it covers the full depth of the smaller box's lid). This set, 35*20cm, has a sliding lid

(perhaps hardboard) with partitioning which matches the No.00. The parts too match except that there are the following extras: a Front Axle Beam, and 2 each Pulleys & Mudguards parts from a similar set perhaps. The lot included the Leaflet for the 01

Lorry.



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Die Seitenwände werden aus Pappe angefertigt. Der Wagen kann auch ohne Gummireifen auf Schienen laufen.



KINEMA: S4

'New' Indian System: METAL MACANO Thanks to Jan Ringnalda for details of his set, designated 'SENIOR' above the name on the lid right. The parts in the open box in Fig.2 will remind some readers of METAMECH, described in 22/625, and the contents of the two sets are very similar. They are also very like the META BUILD Junior outfit described in 6/126, though its parts are much more muted in colour. These systems are unusual in their parts & their rather strange models. Each of the three had a different maker, and for METAL MACANO it is Star Industries, 26 Baban Mishra Compound, Sonawala Cross Road, Goregaon (E), Bombay-400 063., with marketing by Vishal Marketing, Dadar (W), Bombay-400 028.

The main parts in the Set are: 4 each of the 6, 9 & **Fig.1** 12h Strips, 2 DAS, 4x <u>8*2h</u> & 1x <u>8*8h</u> Flanged Plates, 2x 6*6h Triangular Flanged Plates, 4 Reversed A/Bs, 1 each 38mm & 52.5mm Pulleys, 12 Sleeves (used as axle stops, to join Axles, & bush the Pulleys), 2x 100mm & 6x 55mm Axles, 1 Crank Handle, 1 Weight, 138mm Cord, 20 each M4 5mm u/h, cheesehead Bolts & hexagon Nuts, 1 Spanner, 1 Screwdriver.

Compared with METAMECH the contents are the same except that the Reversed A/Bs, which were in META BUILD, are present. The colours are the same too except that those of the 9 & 12h Strips have been interchanged, and the Sleeves are blue instead of pink. Apart from a few insignificant changes, the parts are also the same, except that at 3.86mm Ø the Axles are slightly smaller.

The models are on a sheet folded into three. The **Fig.2** front pane has the same heading as the lid with a similar photo under it (its sides have been cropped). There is one photo & a name for each of the 17 models shown (from CHURCH to STAGE) and they include all of the 15 in META MECH, though

with small changes to some. The two 'extras' are Windmills, one of which' was the META BUILD model shown in OSN 6. The models are not in their true bright colours (as METAMECH were) but duller as right, quite similar to the META BUILD images. That makes seeing some of the parts more difficult. The new Windmill & one of the Cranes are shown right – notice that the latter still has no hook.

No date is known for METAL MACANO but no doubt it would have been before 1995 when Bombay's name was changed to Mumbai. With

their brighter parts it is reasonable to think that both METATECH & METAL MACANO came after META BUILD (also both have named models whereas META BUILD's weren't

OSN 50/1531

METAL MACANO: S1

GILBERT

TUBULAR TOY

Snippet. A smaller GILBERT

TUBULAR TOY Outfit The only set known at the time, packed in a transparent cannister, was described in 39/1195.

The present set is in a red box

which scales at 32*21cm, and has the small label above, about 12cm wide, in the centre of the lid. The parts can be seen right and compared with the OSN 39 set there are no Pulleys; 4 fewer Tubes; and 10 instead of 12 Connectors, with 2 of them instead of 4 with centre holes.

The Model Sheet is identical to Fig.3 in OSN 39 (and just possibly it is stuck to the inside of the lid). It is Copyright 1937 as before and the PR is M1810.



models are still shown in the gloomy META BUILD style, it

seems most likely that METAL MACANO preceded METATECH.





OSN 50/1531

GILBERT TUBULAR TOY: S2

LES JOUETS CITROËN

by Jacques Pitrat

Fernand Migault was the son of the founder of a small toy factory situated at Paris, 166 rue de la Roquette. In 1922, this car enthusiast wanted to extend the range of his products, and he made an accurate model of a Citroën car. In 1919, André Citroën had built a large plant for manufacturing cars, and he was very busy. So it was not easy for Migault to have an appointment with Citroën, but as soon as he saw the model car, he was very excited: Citroën strongly believed in publicity, for ten years he displayed his name on the Eiffel Tower with 250,000 electric bulbs. He immediately understood the value of reproducing his cars as toys: the children would speak of these cars, and later on would buy them. Moreover, if these toys were sold in his sales agencies, when the father accompanied his child to buy a toy car, it would be an excellent opportunity to sell him a real one.

Thus a profitable collaboration began between Migault & Citroën: each year Migault suggested toy prototypes of a real car and he had access to all the plant documents for this car, even if the production had not started. But as the goal was the promotion of existing models, the toy was no longer made as soon as production of the original car stopped. At the beginning, Migault had only one customer, a company belonging to the Citroën group called Les Jouets Citroën. Its address was the same as the Citroën company: Paris, quai de Javel, now quai André Citroën. Migault delivered all the production to this company, which delivered the toys to its own customers: department stores, toy retailers, & naturally Citroën agencies, which were strongly encouraged to open a toy section.

The cars had various scales from 1:3 to 1:43, most of them were at 1:10 scale, and from 1928 constructional sets were added to the range. Sales soared, to 287,000 cars at the 1:10 scale for the year 1932. The small Paris workshop was soon overwhelmed, and a new company was formed, the Compagnie Industrielle du Jouet, or CIJ. A plant, employing more than 200 workers, was built at Briare, a little town on the river Loire. With the success of the cars, Les Jouets Citroën sold other products such as books, cube games, educational toys, etc., all linked with the Citroën cars. Naturally, these new toys were produced by other manufacturers, while CIJ made almost all the metal toy cars.

André Citroën had a high debt ratio and with the crash he had to cede control of his company to Michelin in 1934. CIJ, knowing its customer's difficulties, began to diversify its production. As Michelin was not very interested in selling toys, CIJ concluded a similar agreement with Renault, and Les Jouets Citroën became a mere shadow of its former self. CIJ continued to manufacture toy cars but unfortunately, facing strong competition, sales declined, & it was finally liquidated in 1965.

Most CIJ products were cars, often at the 1:10 scale, with working steering, a clockwork motor, and optional lightning. Although many cars were sold each year, not enough cars in good condition remain for the numerous avid collectors: a good condition car, not too rare, in its original cardboard box may be sold for the price of a #10 Meccano set, much more if it is rare. Several books describe all the Citroën cars made by different toy companies, while some of them specialize in the cars sold by Les Jouets Citroën. Among them, we have the four volumes of the bilingual (French-English), La Saga des Jouets Citroën by Patrick Pierron, and L'Histoire des Jouets Citroën by Paul Weill & Jean-Raoul Chaigné.

We are naturally particularly interested in the constructional sets with metal parts and N&B: the Bébé 14 Chassis; the C6 Chassis; and the Garage. These products were rather successful: the three of them are considered by La Saga as easy to find.

The Bébé 14 Chassis

The name of the corresponding chassis built by Citroën was

factured from 1926 to 1928, and nine kinds of bodies could be fitted to it. In 1928 Les Jouets Citroën started selling а constructional version of it in a 57*34* 4cm box (right). It



was at, very approximately, 1:10 scale and was not motorized. This set was an anomaly in Les Jouets Citroën range: the maker was not CIJ, but another company (I could not find its name). Unlike the CIJ products, it was very basic (Fig.2 above): the representation of the real chassis was not accurate, and the finish was not perfect. Almost all the parts, except the radiator, are flat, bent when necessary, but not pressed. Moreover, there were assembly problems in building the model. It is rather rare to find the box with its parts: as with many one model systems, one often finds it already built, the child has no interest in taking it apart, it can only be built again. It was sold for 140 francs, while the No.2 MECCANO set was sold the same year for 110 francs, & Set 3 for 185 francs.

The 4 page instructions were in French, English, & German. 26 steps, A to Z, were necessary to build the Chassis. Each was described in one paragraph, followed by its translation in English & German, in smaller type. This allowed the drawings to be put in the right place, only once for the 3 languages. All of this manual is shown in L'Histoire des Jouets Citroën.

The second volume of La Saga contains a picture representing the parts as they were displayed on the insert. Surprisingly enough, 90% of them are identical with those of the Chassis sold by Les Jouets Scientifiques Peugeot. The main difference is naturally the radiator, and none of the parts are painted red. Citroën was not very happy with the model, and stopped selling it when the production of the B14 chassis ended. The unknown maker wanted to write off the cost of its investment, so it then bypassed Citroën, selling directly to the Citroën agencies: in La Saga, a letter from the Citroën company to all its agents asks them not to buy directly the Chassis Bébé 14 offered by the commercial travellers of this maker. The reason given was that Citroën was preparing a much better toy, which will have an 'impeccable finish'; an implicit criticism of the Bébé 14. The lid of this 'pirate' set was different, probably because the initial one was made by Citroën. This explains why I have seen at a toy fair a Citroën Bébé 14 set with a lid similar to the first version of the Peugeot chassis (Fig.1 in OSN 45/1361), but with the Citroën name: two boys with voluminous hair either side of a Chassis. It seems that the maker, rejected by Citroën, then offered its model to Peugeot: an approximate Citroën Chassis can be taken as an approximate Peugeot Chassis. The Peugeot car was a Citroën chassis with a Peugeot body! When it began to manufacture for Peugeot the maker kept the picture on the lid of its last version for the Bébé Chassis.

The C6 Chassis



covered with paper showing the part that must be strung at each place. It was sold for 140 francs. It has a suspension and its mechanical features are the steering, and the Cardan Shaft which is free to rotate.

The parts (see Fig.4) are numbered from 1 to 46; as there are 2 or 4 of some, there are 62 main parts in all. Except the rubber Cardan Washers & Michelin Tyres the parts are steel, with several of them pressed. The N&B are in one of the small blue boxes, the Tools in the other.

The diameter of the thread is 3.0mm. The hexagonal Nuts (not





Les Jouets Citroën introduced the first set, 300/1. It has parts to build the Chassis at the 1:10 scale: the length of the finished Car is 48cm. The 615*415*75mm box (Fig.3A) has a cardboard lid & bottom, wooden sides & insert, the latter steel) are 6.0mm A/F & 2.5mm deep. There are also a few Knurled Nuts. The head of the steel Bolts is hexagonal, the same size as the Nuts, with no screwdriver slot. There are 3 lengths: 6mm, 15mm (10mm threaded), & 20mm (5mm threaded). The Tools are a Spanner, a Tube Wrench, & a Pair of Tweezers. As the Bébé 14, the C6 Chassis is often found already built without its box (Fig.5) The 275*149mm

manual (Fig.6) has 12 pages. French instructions are on pages 2 & 3, followed by 2



CITROËN: S2



pages for the English, German, Spanish, & Italian versions. The last page is a fold-out sheet: when opened its drawings can be used with any of the languages. The drawings from it are shown in Fig.7A & B.

The manual indicates that two sets are in preparation: Box No.2 - Electrical motor equipment for propelling the chassis. Box No.3 - Coach-body units for assembly. (These & later quotes from the manual are verbatim from the English text.) **2. Box 300/2. Mouvement. Eclairage. Habillage.** The 615*415*30mm 300/2 box was introduced in 1930 as a complementary set. It included a Motor, and a Dry Cell for the Motor & lighting. However this version did not last long, these sets are very rare. The layout of the parts on the insert is as in the later sets described below (Fig.8) but with the pale blue printed paper slips in the centre & bottom right replacing the with paper, and with the name & drawing of each part. They are numbered 201 to 235, but the Road Wheel was already #46 in the first box. The Motor was #204 & the Dry Cell #235 but as already explained they were replaced by paper slips: the Motor one indicates that the Dry Cell is only for the lighting and that the Motor is in one of 3 new boxes 300/3 (A, B, & C); the Dry Cell slip then says that it is more convenient not to supply the Dry Cell because of

difficulties in stocking them, and hence to use a suitable replacement. There are 32 new parts in this second version of this box, but given the several examples of some, the box has 46 large parts. The small blue boxes contain the N&B & Tools.

The parts are used for seven additions, including their fastening to the chassis: • The headlights. • The spare wheel. • The bonnet. • The mudguards & running boards. • The dashboard, including the switch for the lights. • The dry cell mounting. • The parts connecting the Motor to the Wheels. They include a Contrate Gear, a Pinion, & a Fork Piece longer than the one in Set 1. They are useless without a Motor.

One often finds the Chassis without its box but including these complementary parts (Fig.9).

The 275*175mm manual has a cover in the same style as Fig.6 and again has 12 pages: two for each of five languages,

including the last foldout page with the drawings.

The manual was modified as follows: for each language, the paragraph indicating the electric connections was covered by a paper slip describing



Fig.8B



Motor & Dry Cell respectively, as shown in Fig.8A & B.

2. Box 300/2. Eclairage. Habillage. The 'Mouvement' set above was soon replaced by the most common version, without the Motor & Dry Cell; its price was 92.50 francs. It had been decided that there would be three types of Motor (110v, 220v, & DC) and the necessary bulky power supplies would not fit into the box. The chosen solution was to keep the box without its Motor, and produce three version of a new box, including a Motor & its power supply. Consequently, for all the boxes already made, it was necessary to glue a paper label on the lid (Fig.3B). It has 'BOITE No.2' over the main title and only 'Eclairage . Habillage' under it. The parts are strung to a wooden insert (Fig.8) covered



OSN 50/1534

the new way of connecting only the Light for this direct current set. Bulbs, & another paper was glued on the diagram fold-out. Moreover, for each language an inking-pad was used to indicate that this manual was for Sets 2 & 3. Also at the end of each text, a paragraph announced for the beginning of 1930: 'Box n°3 Removable Coachbodies', had the '3' covered by a red '4'. As many copies of the manual were printed, I am flabbergasted by the waste of human work brought about by this last-minute change: 16 modifications had to be made on each of thousands of copies!

(But everything was not removed; although there is no longer a dry cell Motor, a sentence not covered by a glued paper says: 'Be careful to bring back the lever to the dead point when through using the toy so as to prevent the cell from being discharged uselessly.')

For each language, half a page described how to fix the missing Motor to the Chassis, using the Gears. This was useless for this set, but it is why, as explained below, a change was made to say that the manual was for sets 300/2 and 300/3.

I cannot understand the reason for this change of motor, Les Jouets Citroën had a good experience of dry cell motors: in 1927 and 1929 they had produced two 1:10 cars with one. It was ingenious: when a bumper ran into an obstacle, it reversed the direction of the motor. Why did they decide to disrupt everything drastically for a dubious change: it is easier to play with a dry cell car than with a car tied by a wire to a socket. Perhaps they were motivated by the electric toy trains, supplied by a transformer.

3. Box 300/3. Mouvement et Alimentation Electrique. This 325*260*80mm cardboard box (Figs.3C & 10), was a complementary set for the motorization of the Chassis. The small print on the lid is 'MOUVEMENT ET ALIMENTATION ELECTRIQUE'. The Set was sold for 130 francs. All in all, the price of the three boxes was 362.50 francs, when the price of the #4 MECCANO set was 340 francs in 1930.

There were three versions: 300/1 A (110 volt AC), 300/2 B (220 volt AC), and 300/3 C (direct current). My set (Fig.10) is 300/1.

Boxes 300/3 A and B contain а Transformer, and a Motor placed on a wooden support. Both parts and the Wires are strung to a wooden insert, covered by a paper with the names of the parts. I have never seen an example of set 300/3 C; the manual only mentions a transformer, which could not exist



OSN 50/1535

The Transformer is blue, with a wooden base, and the well known Citroën chevrons on the top. Its height is 65mm, and its diameter 125mm. A 3.10m Wire connects it to the Chassis, while a 1.20m Wire connects it to a mains socket. The Transformer has no speed control, nor even an on-off switch.

The Motor has a speed lever with three positions: forward, neutral, and backward. This new Motor is longer then the dry cell Motor in the initial version. To install the Motor one must first remove the Gearbox, which is no longer used.

The 215*156mm manual, again with a cover in the same style as Fig.6, is simply a sheet folded in three, so that there is one page for each language. It indicates that mounting the Motor is described in the manual for Set 300/2. It contains mainly instructions on the use of the Transformer.

As the 3 parts needed to connect the Motor to the Back Axle are in set 300/2, it would not be possible to fit the Motor to the bare Chassis without it. To allow for this, a small complementary envelope set (Fig.11) was commercialized; it contained the 3 necessary parts that were in set 300/2: the Contrate, the Pinion, and the Fork Piece. The drawings of the three were printed on parts this envelope. There were also the instructions that were included in the 300/2 manual, of how to install the Motor.



4. Box. Carrosserie This bodywork set, whose number would have been 300/4, was announced in two manuals, but it was never commercialized. However, there exists at least one prototype, which was given to a CIJ shareholder.

A picture of this set is given in the third volume of La Saga. This box had also the parts of the other sets, partially assembled into large substructures. Two bodies could be made with this set: a 6-Window Limousine, and a 4-Window Saloon Car.

A Chassis with a saloon car body (Fig.12) was offered on eBay. However, the seller was ambiguous as to the origin of the body: it is possible that the parts of the model were not made by Les Jouets Citroën, but by an enthusiastic collector. Anyway, it gives a good idea of what would have been the appearance of a completed Car.

Remarks The C6 chassis was very successful: one can find many examples, either boxed or ready built. Its realization is excellent if one considers it as a model, although it was not easy to build. Indeed, several steps, considered as tricky, are in italics in the manual, such as: 'The introduction of small bolts is facilitated by using the small pliers'.

However, we have also to appreciate it as a toy to be played with once it has been completed. As in the American Model Builder motto: 'Half the fun is building the models. The other half is operating them when completed.' Playing with the car was limited when the transformer replaced the dry cell. With the car connected to the transformer it was almost impossible to play outdoors, and difficult to do so indoors. An attractive solution would be to drive it around in circles, as an electric train. But the author of the manual had foreseen that possibility: 'It is recommended not to have the chassis run ground a circle in the same direction for any length of time. This would twist too much the connecting wire and break it'.



Set 325/1 Le Garage Démontable

Since the beginning, several rather basic garages for small scale cars were Fig.14 sold by Les Jouets Citroën. From 1929, Set 325/1 was available, a Garage for 1:10 cars, to be built with Nuts & Bolts. Two different pictures exist for the lid, Fig.13 shows the most frequent. Many of the parts can be seen in Fig.14, and Fig.15 shows the completed model with a non-constructional car partially inside it. This garage looks like the workshops at the Citroën plant. The box is rare, usually one finds the model already built. It is very popular among collectors, who want to display





their cars in this Garage.

plavablemetal

Fig.2

Fig.3

A priori, from its manual (Fig.16), only written in French, building this Garage looks simple. However, it seems that this is not so easy, the author of La Saga writes: 'One cannot imagine the time and the patience.... one has to expend for reaching the final result! All those who realized it will understand me.'

End Word

Les Jouets Citroën, & particularly those manu- was given up remains a mystery;

Fig.1

Fig.4

factured by CIJ, were high quality toys: they were excellent models, and children loved to play with them.

The most interesting of the construction toys are the 3 sets for the C6 Chassis.

CITROËN: S5

Fig.5

The reason why the dry cell

this curious decision restricted the development and the use **Fig.16**

OSN 50/1536

New System: PLAYABLEMETAL This patented system (US: 7967656) with aluminium parts held together by right & lefthand threaded Grub Screws, was designed & is made by Taken Fun & Art Co. Ltd., Taiwan. The American agent is Beyond123 LLC, New York. www.beyond123.com/playablemetal.html gives details.

of this model.

10 sets, called Models, are listed: A Force; C Bot; F Car; G Animal; H Dino; J Zodiac; L Pal; P Pose; R Flux; S Infinity. Fig.1 shows a Model L with silver parts, and Fig.3 all the system's main parts. There are right (+) & left (-) threaded versions of each. Fig.2 shows the Tool in use for a '+' thread. The Grubs include one with right & left threaded ends. The use of +/- threads is a novel & potentially useful idea but has perplexed some (grown-up) purchasers.

The basic cube side & hole pitch is probably 2cm and so the thread s perhaps 6mm Ø.

The Animal left is from the Patent; the Set models are much simpler with the Fencer far left as large & complicated as any. Up to 10 or so models are shown for each set and most are just about recognizable. Some indeed are quite good, though none to my eyes have the charm of many of the 'simplicity' models made from 'conventional' systems. The L set on Amazon costs \$20, the other sets up to \$60.

PLAYABLEMETAL: S1

OSN 50/1536

Snippets. Gégé's EFEL A few more points of interest, mainly about the sets, have been seen in Ebay photos since the review of this French system in 33/1001. It will be recalled that some sets have steel, some aluminium, and some coloured parts (the latter were mentioned in 15/426). All the lids of the sets mentioned below are red, and, with one exception, at Fig.3, have the same label as in 5/91 (or in colour at OSN 4-5 on the OSN website).

SET 0 Rubber Rings. None of the photos to hand of 5 sets show Rubber Rings for the Pulleys and probably the 4 listed in the 33/1002 Table was an error.

A steel set has its (red) Pulleys in the corners of the box, as in the set in Fig.6 in 5/91 (or the OSN website), wrongly called a No.0A there.

Aluminium sets have their 4 (unpainted) Pulleys vertically in-line with 2 either side of the central small parts box.

A coloured set has this second layout but the N&B are in a transparent wrapper instead of a box. Colours are as in Fig.1 except that the Pulleys are red.

SET 1 The 4 more sets seen include 2 with coloured parts & 3h Strips. With a few exceptions all have the same parts layout as the one shown in 33/1001 & the one right.

The aluminium sets. One has 2 of the single-ended Spanners in the OSN 33 set but the other has one each of the the longer Spanners shown in the Manual: one is the single-ended shown among the parts in OSN 33; one is double-ended with one end angled.

The coloured sets. One is shown in Fig.1 and differs from the OSN 33 layout in the number of Screwed Rods & in a 10cm Axle replaced by a Screwdriver (see 33/ 1001 but perhaps it's a Drift). The other set has the Fig.1 Screwed Rods but with the Axle and no Drift.

It isn't known whether the parts are steel or aluminium, and whether they are painted or, in the case of aluminium, anodised. In the photos they look painted and if so they are more likely to be steel because painting aluminium wasn't really satisfactory at the time.

Both have one Spanner with 2 straight ends. Each has the N&B in the same transparent wrapping as the No.0. These sets are the only ones in which white Rubber Rings have been seen.

As in all the No.1 & 2 sets seen, the A/Bs in these sets are made from the long-slotted Flat Brackets. But the equivalent parts to the Flat Brackets in these sets are the blue 3h Strips, slightly longer than the Flat Brackets, with holes at 10mm pitch.

There was the usual style manual with each set and the code on the front of the one with the Fig.1 set was 1148. The code on the other set is blurry but is probably also 1148: its number is certainly longer than the 346 on the manuals seen with all the other EFEL sets.

SET 2 The one set seen, with unpainted parts, and said to be unused, is in a box similar to the No.1 but deeper with 2 layers of parts. The bottom card is identical to the No.1 in OSN 33, the top one (Fig.2), red as usual, looks to have its parts individually strung as follows: 2,2,8,2 A/Gs with 3,2,1,0 slots; 2,2,2,2 Plates, 3,2,1,1 slots; 4 Triang. Brkts; 2,2 Wide Strips, 6,8h; 4 Pulleys, 26½mm with black Rubber Ring; 2 Pulleys, 32½mm; 2 Bush Whls; 2,2 Axles, 10,7cm; 1 Coupling; 2 Collars; 1 Propeller. Additional smaller parts might of course be







in the parts box on the lower card.

Linking Sets No other 'A' sets have been seen but the BOITE COMPLEMENTAIRE left might perhaps be one.

Remarks It is said that EFEL was post-WW2 but with no precise dates. However the codes on the manuals, 346 & 1148, could well be dates and if so the coloured sets came after the aluminium ones. It isn't clear where the steel sets fit in. The relevant facts may be that steel was in short supply for some years after WW2, and the aluminium No.0 has 2 extra A/Gs compared with (the single known) steel set, with one of them needed for a 346 manual No.0

model. Most likely I suppose, the plain steel sets, with their red Pulleys, immediately preceded the coloured sets, and the reduction in the A/Gs was an error, or deliberate with one hopes, the No.0 models in the 1148 manual no longer needing the parts.

Snippet. 'New' System: ELTEX This was a German system of some 50 or 60 parts, a mix of electrical & constructional items. It was produced by Ing. A. Dommer of Bernsdorf, a small town about 40km NNE of Dresden. There is no indication of when it was made but if in the 1950s or 60s, Bernsdorf was in the DDR. This account is taken from one **Fig.1**

The SET is shown in Fig.1, & its lid features 6 models, all of which could probably be made with the Set.

The PARTS that can be seen in the various photos are as follows, with those that are only in the models asterisked.

• Strips, 2,3*,4,5,7,11*,17*h.

• A/B: 1*1; 2*1h*. • D/B: 1

& 2h high*. • Pulley. • Small Pulley, no boss. • Axles, at least 2 lengths. • Crank Handle*. • DAS 1*5*1h. • Double Bent Strip* & Long ditto* (see Fig.8, Abbs.14,17).• Flanged Plates:

ELTEX

5*Zh; 2*4h. • Disc, probably 58mm Ø. • Rod with Screwed Ends. • Spacers: Long, Short. • Ratchet Wheel. • Bolts*: 5, 20mm. • Nut*. • Axle Stop (Fig.7). • Tension Spring*. **Electrical.** • Brown parts: • Strip 5h. • Disc 58mm Ø. • Perf. Plate 5*7h*. • Red parts: • Flanged Plate 5*Zh. • Bridge Strip. • Pointer. • Resistor Strip, the long white 'plate' in 3 layers, wound, widely spaced, with wire (Figs.2-6). • Spring Contact Arm, see Fig.5, top right. • Needle (Fig.4). • Strip with Spring Terminal (Fig.3). • Coil. • Coil Mounting Plate, see Fig.8, Abb.7. • Coil Core (unless it is the Long Spacer). • Coil Pole Pieces (see the Motor on the lid). • Bell. • Bulb.

All holes are round. The only dimensions known are from the manual: the Bolt lengths & the Disc diameter. The latter

Fig.4



Fig.6 Abb. A5 Widerstand

A66. A 24

Fig.7



0150

looks like 68mm to me but this gives a hole pitch of 15mm and, by scaling, a 5½mm hole. Given the M4 N&B the Disc is more likely 58mm Ø, & then the pitch is 12.5mm & the holes a little more than 4mm. Many of the parts are stamped with their PN.

The MANUAL. The small print on the cover reads: 'der elektrotechnische Experimentierkasten', & 'ING. A. DOMMER BERNSDORF O./L.' And the logo has 'ardo' (from the maker' name no doubt) in the circle.

3 pages of explanatory text, numbered 1,3, & 4, were shown on Ebay, plus 5 unnumbered sides with a fair selection of models. Most are electrical 'elements'; the

few 'real models' include the Crane (Fig.7) & a solenoid operated, single-arm Railway Signal not shown here. Several of the lid models aren't on any of the Ebay pages.



Fig.8

The models on the individual pages are: Nos.A1-5; A6-12 & A13-17 (Fig.8); A24 (Fig.7) & A17-23. Some numbers are blurry, hence perhaps the two models A17.

'New' German System: TUBUS As one might expect from its name this system is based on tubes, and it has them in no less than 3 diameters, sized to slide inside one another. This account thanks to Urs Flammer who kindly supplied details of his outfit.

TUBUS was patented (Nr.861371) in December 1952 by Dr. Fritz Steinberg of Düsseldorf-Eller, though the application was made in July 1949. His Düsseldorf address is given in the set's Instructions as Deutzer Straße 77.

The PARTS Fig.A shows those described in the Patent; the actual parts, at about 60% full-size, are shown in Fig.B. The Instructions show the use of various parts and some are shown in Fig.C. The Fig.B parts are listed below with made-up names and with some lettered in green for clarity. The Pulley is aluminium, all the other parts are steel.

Tubes. Seamless with o.d./i.d. of 5.0/4.2, 4.0/3.0, 2.8/1.8mm, and their respective lengths are 300,205,75,30; 200,75,80,30; & 200,75, 60,40mm. In general they are, at least as found, not straight enough to slide readily inside one another.

End (a) **& Angle** (b) **Fittings**. These push onto the Tubes. The End Fitting is in 3 sizes to suit the the 3 Tubes. The sole Angle version is for the largest, 5mm, Tube. Both types have 4.5mm holes in their lugs.

The Patent shows both types with a raised 'key' (6) and alternative gaps (2) & (7), the latter to engage with the key. Keyed parts can be seen in Fig.D with the keys arrowed, engaging with various Fittings. The key of course prevents the parts from turning relative to one another and aligns their lugs precisely.

Clamp Fitting (c). The 2 sizes push onto the 5 & 4mm Tubes, and again the lug holes are 4.5mm.

Plate. 25*76*.5mm. It is suggested that it could be used as a windmill sail and is shown with its long edge clamped between the lips of the lugs of Clamp Fittings ('11' in Fig.C), though the lower Bolt looks to pass through a hole or notch near the edge of the Plate.

Wheel Segment (d). There is a hole in each flange and 4 bolted together through these holes, plus an Angle Fitting, give a wheel

of 40mm Ø, see '13' of Fig.C. **Pulley**. 20mm Ø with a 4.5mm bore.

Hook. But see also Fig.I.

N&B. M4; the Nut is 8mm A/F.

Tools. The 2-ended
 Screwdriver is needed to bolt the Wheel Segments together.
 Link. This part is shown at '15' of Fig.C. Its holes are at 26mm pitch and

one example of its many uses is in the top of tower structure at '14' Fig.C. **The SET**. Only one size is known though there is a reference to add-on sets in the Introduction of the Instructions: Tubes, Fittings, Clamps & Wheels are mentioned.

The box measures 335*245*35mm and the lid is





covered by a label identical to the cover of the Instructions in Fig.F but with an added narrow blue border. The base is at Fig.E above: 2 sets seen on Ebay have the wide lengthwise bay partitioned into 3 by black trays in one and white card in the other, but neither look original.

The INSTRUCTIONS. These are on 4 portrait format pages formed by a sheet 325*232mm folded in two with the Fig.F cover. A lengthy Introduction includes, as



Ø 2 7m





already explained, mention of add-on sets, and there is also a request for ideas for structures etc using the parts.

The Introduction is followed by a Guide to using the parts. It gives Tube lengths which differ from those found: 300,200,75,60,25mm for the 5mm Tubes, and 200,75,60,40mm for the 4mm (& for the 3mm, as found).

The MODELS. The 6 models are on 5 single sided model sheets 210*146mm and they simply show the models with no text at all, not even the name of the model or of the system.

Three models are shown in Figs.G & I. To my eyes the models look the part but they lack mechanical refinements. No means of driving the Roundabout is provided, and it might be difficult to

provide an external drive with the parts in the Set. The Crane's cord run hardly looks satisfactory but at least it would probably obviate the need for a hoisting brake. The Hook shown is quite unlike the one in Urs' set.

The other 3 models are: a worthy but rather dull braced Girder Bridge: it is similar to the one in Fig.F but



without the arched structure between the narrow rectangular 'towers' at each end; a Double Swing Boats, a neat model but again with no means of driving it; and a Gantry Crane, similar to Urs model left but with some slight changes, to the crab for instance, & the substitute Hook (in the TUBUS version it is as on the Crane above).

REMARKS. Urs told me that he had had no problems in building the Gantry Crane and a small Bridge structure. Also that the models were rigid and sturdy.

3 sizes of Tube are perhaps a luxury in a system of this size and some additional parts would be a great advantage: other types of Fitting for instance (even though the ones provided seem well chosen), and parts such as fast Pulleys. But perhaps the add-on sets would have provided them.

TUBUS broke new ground with its three sizes of Tube and neat Fittings. And it obviously had potential for development but, sadly, it seems not to have survived for very long.



TUBUS: S2

Snippets. 'New' System: WITTNER A set was offered recently on Ebay and since then Urs Flammer has been in touch with Horst Wittner, now over 90, who was a member of the firm Wittner GmbH & Co. KG at Lenzkirch/Schwarzwald (a small town 35km ESE of Freiburg) which made this system soon after WW2. The head of the firm at that time was Rudolf Wittner and the firm is still in business making musical instruments. Horst kindly sent photos & details of the manuals, and said that sets were probably produced in the period 1946-48, and certainly not after 1952 when the company moved to Isny im Allgäu.

The SETS 2 were produced: one, No.320/321, with parts to build a Mine Locomotive (320) towing 4 identical Wagons (321); the other, 406/407, a Tram (406) & Trailer (407). Figs.1 & 2 are the models as shown on the lid labels & manual covers; Fig.1a the complete Mine Train.

The boxes were black with lid labels identical to the manual covers, Fig.3 for example. Fig.4 shows the parts in a Loco set but some are missing. From the manuals, the Tram set contained 187 parts + 474 NBW, the Loco outfit 150 + 332.

The PARTS The manuals list 48 different parts that were in the Sets and they are listed below with my names, or where there is doubt, the German name first. Most can be seen in the various photos. • #1/2-25 **Strips**, 2,3,4,5,13,25h. • #2/1 A/B. • #2/3-7 A/G, 3,5,7h. • #3/5-25 Winkel+ stück, 5,7,9,25h (very likely a 2*1h A/G). • #4/1 D/B. • #4/5,7 DAS, 1*5,7*1h. • #5/2 D/B, 2h high. • #6/7, 13,17 Channel, 1*3*1h (with staggered holes in the base), 7,13,17h. • #7/3,7 Curved Strip, 3,7h. • #8/7, 13 Flanged Plate, 7*7,13h. • #9/7x13, 9/5x17h Perf. Plate, 5*13,17h (the 13h can't be seen). • #10 Formed Plate, 3¹/₂cm radius, 7h long. #11 Semi-circular Plate, 7*4h. • #12 Lasche (Fishplate, but can't be seen & more probably the small Triangular Plate on the Loco's nose, which isn't listed otherwise). • #14 Headlight. • #20 Pulley, 21/2cm Ø. • #22 Collar. • #23 Threaded Boss. • #24 Verlängerung (probably the Coupling used in the base of the Tram's pantograph). • #25 Pulley (the Tram's controller, smaller than #20). • #28/25-135 Axles, 25,60,85,135mm. • #29/25-95 Screwed Rods, 25,45,65,95mm. • #33,35 Bolts, 5,13mm u/h. • #37 Washer. • #38 Nut.

Holes are 3.3mm at 10.0mm pitch, the Axles are 3mm \emptyset , & the thread is M3. The only slotted hole that can be seen is in the Triangular Plate.

The MANUALS were a single sheet folded to give 4 A5 size pages. They were in German, English, & French, with an Introduction & Building Instructions on the inside pages. The former stresses that there wouldn't be enough parts in any normal 'universal' set to make either of the featured models. The back page lists separately the parts needed to featured models for the Set.







REMARKS As can be seen the parts in the set were in muted colours; in Fig.5 they are much more colourful, but no 'coloured' sets have been mentioned. In similar vein, Horst's photos include numerous other models, some simple, some complex, and among them are Bridges, various vehicles including a small Racing Car with steering, machine tools & industrial

Fig.3 plant. 3 of the clearest are shown in Figs.6-8. Many of them use parts not in the Sets, the large Flanged Disc Pulley for instance.



OSN 50/1541

WITTNER: S1



<u>الميكانيكي الحديث EL MECHANIKI الميكانيكي الحديث 'New' System'</u> **HDITH** The set to be described was made in Eygpt and the name (written in stylised characters on the box lid label (Fig.1), and on the Manual cover (Fig.3),) means MODEL MECHANIC. It seems to have been unused and, from a note written in Biro inside the lid, it was probably bought in Cairo in 1982. The parts, except for their finish, their slightly smaller holes, and a few other differences, match German Trix. My thanks to a Jordanian friend of my son, who very kindly translated the Arabic text.

Maker: Factory No.10 of the Egyptian Public Association for Army/Industrial Manufacturing, Abu Oyr, near Alexandria.

Date: There is no mention of a date in the manual. It seems

likely though that it was after 1969 when Trix introduced their extra long Strip. And the President Sadat period of 1970-81 is quite likely because he was particularly supportive of new industrial innovations.

The PARTS, see Fig.2. Holes, 3.5mm Ø Fig.5 (just large enough to take the threaded parts) at 7.8mm pitch (11mm radially in the Wheel Disc. TRIX holes are 3.6mm. Thread: M3.5. Material/Finish: Nuts & Screwed Rods are brass; the other parts are Steel, 1mm thick, with a bright finish now often turned to dull grey. **Quality**: slight burr around some holes but otherwise good.

List of Parts As follows with quantities as found and as given in the Manual, in curly brackets.

Strips 25,17,13,9,5h, the longest TRIX Strip has 26 holes {4,4,4,4,4}. A/B {4}. Double Bracket {2}. DAS {6}. Discs 10,16,29mm {2,4,4}. Hook, the German pattern {1}. **Span'driver**, the TRIX part has 9 shank holes and a slimmer head. {2} Screwed Rods 55,25mm, the TRIX part is 27mm, the actual parts 24mm. Bolt, 6.2mm Ø CH; TRIX 6.0 {25}. Nut, 6.5mm A/F; TRIX 6.0 {49}.

The SET The box measures 24¹/₂*1³/₄*3¹/₂cm and the label covers nearly all of the purple lid. The threaded parts were in a small, clear packet tucked into the cutout in the base of the backing card. The only indication that there might be other sets is that in his closing remarks the manual's author mentions renewing acquaintance with the next set.

The contents of the Set don't match any of the TRIX sets. Of the 1969 sets it falls between the 'Element 1' (similar to our Units A+B) & 'Junior 2' sets, but even the latter has only 2 of the long Strips.

The MANUAL 12 pages 232*168mm plus covers. p1 has an Intro with model building tips; p2 the Illustrated Parts including quantities; & p3, 19 Standard Constructions. pp4-11 show line drawings of 30 models from a Ceiling Fan to the Counting Machine top right on the lid. Each page has a side panel listing the parts needed for the models shown on it. The







more 'interesting' and one or two of the latter are shown on the cover & the box lid. Two more from p9 are shown above. Notice-

ably absent were any 4-wheel vehicles, aircraft, or ships, despite the availability of a good selection of attractive models in the TRIX manuals. p12 has text urging the modeller on to use the skills acquired from the manual models to build his own original creations. Covers C2-4 are blank except for the logo on C4 (Fig.5) – the Alexandria Lighthouse.

Many of the models looked familiar but others may be original. Of the former I found some, similar or identical, in prewar Trix literature but all had been redrawn, in some cases introducing the 25h Strips to advantage.

UBILDA UBILDA was a UK brand with sets to make a realistic looking single model. The parts were fastened together with N&B and most probably all the main parts were specific to each model.

The UBILDA sets were launched in 1934 by Burnett Ltd. of 11 Grosvenor Buildings, Steelhouse Lane, Birmingham, and 21/23 Chiswell St. London EC1. The parts for them were made by Barringer, Wallace & Manners & Co. Ltd. of Mansfield, Staffs. 16 sets were shown in Burnett's 1935-6 catalogue plus 5 which included parts to build several of the models. The last mention of Burnetts in Games & Toys was in 1940 and it seems to have ceased trading soon afterwards. Shortly after WW2 (perhaps by late 1945) Chad Valley had acquired the UBILDA name and sold sets with the parts made by Metal Box (who had acquired Barringers, including the UBILDA tooling, in 1939). Sets marked 'By appointment Toy Makers to H. M. The Queen' are known so production must have continued until at least 1952, but it is said that all the tooling had been scrapped by 1955.



The 1935-36 SETS from a catalogue. They were 5 Cars (2 open Sports Cars, 2 Motor Cars (coupés), & a Racing Car); a fine Locomotives with tender, & a tank Locomotive, each in LMS & LNER colours; 3 (slightly strange looking) single-engined biplanes: an Aeroplane, & 2 Air Liners (the same model but one has lights); a Fire Engine; a Mechanical Shovel; 3 Forts (the largest in Fig.1); & a splendid Tower Bridge. Most of the models are either about 10 or 14" long, but the Shovel and one Loco, with its tender, are 18", the largest Fort is 21*12" in plan, and Tower Bridge is 281/4". The number of parts varies from 10 for the Aeroplane to 92 for Tower Bridge, but most are between 30 & 45. It's not clear though what those numbers include: most likely not N&B, and more than one of a part may be excluded, certainly for some models. Apart

from the Bridge & the Forts all the models except the Aeroplane & Shovel are powered by a C/W Motor. None of the vehicles have steering but the Shovel can be operated. All the sets are to make one model except that 'a variety' can be made with the largest Fort outfit. 'Two toys in one', or the like, in some of the catalogue write-ups probably refers to building the model and then playing with it.

The 5 multi-model sets are Nos.1a,1b,2-4, with enough parts for 2,2,3,4,3 models in them. The No.3 contains 2 models not among the sets above, a Crane & a Monoplane.

Many of the 1935 catalogue models can be seen in Google photos.

OTHER MODELS Also seen in the Google models, an open 4-seater Car (Fig.2), and an Army Lorry (Fig.3). Otherwise a web search produced little except some very poor photos of a leaflet, said to be c.1936, which showed 14 models including 3 new ones: a Saloon (car) (Fig.4), a (somewhat more realistic looking) Monoplane, and an interesting looking Crane (Fig.5). No doubt the last two are those in the '35/6 catalogue No.3 set. Missing are the Loco with tender, the Shovel, & the open Sports Cars. Only 4 Multi sets (Nos.1-4) are listed but no details can be deciphered.

There can be little doubt that there were other models and one example is an Ebay offering, a blue, 6" long Delivery Van with ads for other UBILDA sets on its sides. Another is a Fire Engine which was sold by a Dutch grocery store between 1933 & 1938. It looks identical to the '35 catalogue model but there were 2 versions, with & without a C/W motor.

The PARTS to hand are shown in Fig.6, the Motor Unit, Rear Wheel & Axle from the Fire Engine; and a Loco Bogey. The body of the Motor Unit is 2" wide & 21/8" long; it has 2 stages of gearing with 6/24t, and 'lantern' pinions. The Wheels are 381/2mm Ø. The Bogey is 1⁷/₈" long with 22mm Flanged Wheels.

The steel in the Unit is about .5mm thick, and .3mm in the Bogey. All the holes are 4.1mm Ø with those across the Motor Unit at $1\frac{1}{2}$ pitch but those on top of the Bogey at 15%". All the Axles are 2.35mm Ø (probably 13 SWG) and the ends of the Back Axle are threaded, probably 3/32" BSW though some commercial nuts to hand are a very tight fit on it. Its Nuts are steel, 1/4" A/F. A N&B, not shown in Fig.6, is

believed to be original and is just like a brassed MECCANO item, with a square original but were half the size of MECCANO to Nut & the Bolt 1/4" u/h. It is possible though that other N&B were used, it was



MADE IN ENGLAND

1

IE AVR



said of a Fort on Ebay that the Bolts were not suit the holes.

UBILDA: S1



Of the 4 models seen on Ebay which show their Motor Units 3 have similar looking wire springs but the other has a narrow flat spring. 3 have different casings and in one all the shafts run in the sides of the model. All have 2-stage gearing but one has brass pinions with conventional teeth.

ACKNOWLEDGEMENTS Most of the history came from British Tin Toys by Marguerite Fawdry. And thank you to Jean-Pierre Guibert, David Hobson, & Jan Ringnalda for the model photos, and to Chris Freeman who kindly lent me the parts.

Fig.1



UBILDA: S2

Snippets: MAXITOYS The note on UBILDA above was written in response to a query and it brought to mind other sets in the same vein called MAXITOYS. They were produced by J. Blenken of Amersfoort in The Netherlands, in it is said, the 1960s or 1970s. The subject of all the sets was an early car or commercial vehicle, and the models were about the same length as in UBILDA. Unlike UBILDA none of the models were powered but they did have steering, as in Fig.4a.

The heading on the leaflet with the set below says that it is the instructions for all models, but the parts look to be for an Omnibus (with GENERAL

> along its side) and they don't match any of the 6 models on the front of the Leaflet.

The other 3 models shown here are on the Leaflet, and the box in Fig.2a, patterned with 'MAXITOYS' & the firm's

logo, was with the Fig.2 model (though it is possible that it was for another of the Leaflet

The Van in Fig.3 was said to be 14" long; the Automobiles in Figs.2 and 4, 12" & about 11" respectively.

Fig.2

MAXITOYS: S1

Fig.2a

RUCTION SE models).

11

Fig.4



OSN 50/1544

(ocal a

AT SOCIA FOUNTAL

Update: the Swedish <u>MEKANIK/MECANIC.</u> An account of this 1948-58 system was given in 20/577 and at the time there was reason to be unsure if the MECANIC name was used before it was changed to MEKANIK. Further work by Staffan Kjellin has resolved the matter and he shows photos of lids, manuals, parts lists, etc at www.nzmeccano.com/image-

51169, with explanatory notes. What follows is a summary of the OSN 20 history of the system but taking into account Staffan's information and any other new material to hand.

MEKANIK 1948-49 Staffan has identified 6 versions of the lid label for the standard & linking sets. The Type 1 from 1948-49 is shown in Fig.1 (in the original it can be seen that the boy looks to have an expression of glee as he (no doubt) teases his tearful little sister by hoisting her doll on the Crane). There were Sets 1-5 plus linking Sets 1a-4a, with parts up to #52. So the name was MEKANIK at the outset.

There were 2 manuals in this period with the cover in Fig.2. One was for Sets 1-2 with 12 inside pages, the other for Sets 3-5 with 52 inner pages. There was also a 1-5 dated 1948 with the same number of pages. The 1-2 & 1-5 were described in OSN 20. All these had the same cover. (The 1-2 had many fewer models than those for Sets 1 & 2 in the 1-5 manual: I wonder if only Sets 1 & 2 were produced initially.)

MEKANIK Early 1950s Fig.3 shows the Type 3 label, it was second version of the label used from 1950 Fig. 2

on. The first (that's to say Type 2) was identical except that the name wasn't edged with black & the shades of the colours were slightly different. Sets 5a & 6 were added to the range in 1950, and a Price List thought to be c.1951 includes the 6a & 7. It also lists Sets 8, 9, 7a, 8a, 4S, & 6S, but without prices. The 6a & 7 were certainly available by 1952, they were included in a manual of that date. The No.6 had parts up to #109, the No.7 #112, and by 1952 the remainder

of the full range of parts, up to #133, was available as separate parts. The supplement-

ary sets 1S, 2S, 3S, & 5S had been introduced by 1950 and all were in blue boxes (not the green of those for the standard sets). They had an entirely different label: it was similar for all the sets & the No.2S is described in 20/579, with a colour photo of it on p3 of the 'OSN 20' link on the OSNL website.







Fig.4 MECANI



So though there may be other explanations I suppose the MECANIC manuals were produced as economically as possible and this precluded new printing blocks for the outside of the covers. Only 6 of the inner pages showed the MEKANIK name & it isn't known if they were ever replaced in the MECANIC era.

With the advent of the No.6 the 3-5 manual was replaced by a 3-6 version. Later after Set 7 appeared the manuals were: 1-2, 3-5, & 6-7. However the manuals often found are a 1-5 (56 pages plus covers) & a 6-7 (36 plus covers). Both are described in OSN 20. Their covers were as Fig.2 except that the 6-7 had '6-7' in black in the top right corner; the others may have shown their set numbers.

MECANIC The date of its appearance is uncertain but is thought to have been in the second half of the 1950s. A lid label (Type 4) is as Type 2 but with the name shown in Fig.4. A MECANIC Price List has all the parts & sets listed in the c.1951 List including Sets 8, 9, 7a, 8a, 4S, & 6S. But these were again without prices, and it is thought that they were never marketed.

Fig.5 shows a manual cover from *MCS* which is quite different to the usual one and the inside pages show, under the MECANIC name, all the parts, sets & manuals that were in the preceding MEKANIK range. There were most probably also manuals with covers similar to MEKANIK because as will appear a front cover is known with MEKANIK superimposed over MECANIC.

MEKANIK Again The name MEKANIK was used again after Meccano objected to the use of MECANIC (it had similarly persuaded Jouets de Paris to drop its MÉCANIC brand in the early 1920s). Two labels are known,

Type 5 which has a label (Fig.6) stuck over MECANIC, & Type 6 with MECANIC overprinted in red/silver (Fig.7).

It seems likely that the manuals would be as in the earlier MEKANIK period but a 1-5 to hand is worth mentioning. The name on the front has been overprinted in red & silver, as in Fig.7, plus '1-5' in red top right. Presumably the name was originally MECANIC and this is borne out by the heading 'MECANICdetalier' for the Illustrated Parts on the inside rear cover. But the front & rear outside covers have photos of sets with MEKANIK clearly shown on their lids, and the inside pages all Fig.7 have MEKANIK where appropriate.

OSN 50/1545

DER KLEINE INGENIEUR A photo of an Ebay set and a little about it appeared in 47/1440 but now Urs Flammer has kindly sent details of his set, and two other sets has been seen on Ebay.

Maker: See OSN 47: the name BÖHAG Gera can be seen on the manual cover (Fig.5). Date: Nothing known beyond the earlier, tentative '1940s'.

The PARTS, see Figs.1-3. Fig.1 shows the parts, refurbished, in Urs' outfit; Fig.2, said parts as found; and Fig.3 some of the parts in one of the Ebay sets. Holes, 4.3mm Ø at a pitch of between 13.0 & 13.9mm. The holes in Urs' parts are round but an Ebay set seems to have some parts with slotted holes. Thread: M4. Material/Finish: Nuts aluminium; the rest steel painted silver, but the Gondola parts in some sets are red.

List of Urs' Parts: Strips 13, 5h, 13mm wide. A/G 11h. A/B. Fig.1 Disc 84mm Ø. Loose Pulley, wooden, 22mm Ø. Gondola Side. Gondola End. Hook (in Fig.1 but not Fig.2) bent from a narrow flat strip. Screwed Rod. Crank Handle with threaded end. Bolt, fillister head, 7mm u/h. Nut, hexagonal, 7mm A/F. Screwdriver.

Other Parts One Ebay set has some different parts which, as will appear, could be genuine, as follows. 12h long A/Gs with transverse slotted holes replacing the 11h; extra Strips 12h long with transverse slotted holes; Flat Brackets with one slotted hole; replacement A/Bs made from the Flat Brackets; metal Fast Pulleys painted red instead of wooden ones; 3 black Tyres for the 5 Pulleys in the lot; and both Gondola parts painted red. Fig.3 shows the Pulley, the Flat Bracket, the Gondola Side, & the ends of two 12h Strips. There were also 2 Double Arm Cranks with a hole in only one of their arms, but these look less likely to be genuine. Likewise smaller, square Nuts, & longer, cheesehead Bolts.

The second Ebay set has silver Gondola parts but red Pulleys fitted with Tyres as above. The other parts cannot be seen clearly enough to be sure of them.

The model sheet of the Crane (Fig.7) with Urs's set, offers a choice of using either 290 or 150mm long A/Gs: that would be 21 or 11h.

The SETS Urs' set (Fig.1) measures 230*170* 30mm and as found contained enough parts to make the model in Fig.7.

The Ebay sets have the larger box in Fig.4. If as is likely the same Fig.1 label was used, the lid scales at 33*21cm. (Fig.6 shows its corner.)

For what it is worth the main parts shown for the first Ebay set are: 18,12,23x 13,12,5h Strips; 10x 12h A/Gs; 9 Flat Brackets; 15 A/Bs; 2 Discs; & 16 each of Gondola Sides & Ends.

The MANUALS The model sheet (Fig.7) with Urs' set has already been mentioned.

There was a manual with the first Ebay set with the







DER KLEINE INGENIEUR [4]: S2

Der Kleine Ingenieur 🚍







cover in Fig.5. Two Fig.4 blurry inside pages were shown, one with the Fig.7 Crane, & a simple Windmill with Strips for sails, driven from

a crank handle. This last model appears to have A/Gs with slotted holes, and a 12h can be seen reasonably clearly in the base (Fig.8 left). The other page has a double-arched, Bridge framework, some 75cm long, & a Fig.8 Ship with a hull, 23h long & 5h deep, of Strips, with 2 square section funnels and little else on the deck. All the model were shown on a black ground with a list of parts above or below them.

One manual page (Fig.6) was shown for the second Ebay set, with the Roundabout ride on it. The pylon would be 11 or 12h high with the various arms in the rotating structure about the same length.

TRONICO Update In the 2

years since the last note on this German system in 47/1440, its range of sets has been greatly extended, to a degree that I'd not realised until Urs Flammer kindly sent me a copy of their 2015 catalogue. It now lists some 58 outfits, each with parts to build one model, usually of a particular fullsize machine, often a Tractor or an agricultural implement, though now with a good selection of other models. But the 58 do include many of the same or similar machines at different scales; 12 are an option to have radio or IR control; and 3 an option to add a Trailer. The range is divided into four series: Profil; Junior; Mini; & Micro.

The Profil Series The 27 models include the original 1/16 scale Tractors (see 46/1396), now extended to include New Holland & Case machines, with a R/C option on some. They are about 30cm long with 1000+ parts (700+ with R/C).

Fig.1

Fig.2

Other 1/16 models include a Claas Combine Harvester (53cm long, 2356 parts); a Challenger Tracked Tractor which has rubber tracks with 3h Strips bolted across (36/2080); a Krone 'Chop Forage Harvester' (Fig.3) with a hinged cutter bar

Fig.4

(44/1456); a Challenger Sprayer with 4-wheel steering (35/ 1577); & the Horsch InnoFalcon in Fig.1 (61cm span, 732 parts). Other sets include a 1/25 Liebherr Crawler Excavator (25cm

body, 1283 parts); the 1/100 Liebherr Tower Crane in Fig.4 (60+cm high, 25+cm jib, 1008 parts); a 1/50, 58cm span Ju 52 with 3 Motors driving the 3 Props (908 parts); a 1/32 Helicopter with a Motor driven 33cm Ø rotor, but a fixed tail rotor (757 parts); a 1/23 Submarine (38/606); & a 1/23 Tiger Tank (36/1423).

The parts have 4.15mm square holes at 10mm pitch; the thread is M4. As far as I can see the main parts of models which might be expected to move can usually be hand operated, and the steering, on the Tractors at least, works from the Steering Wheel. (I built a Tractor, a nice model, widely

admired, but sadly I found it impossible to get the steering to work from the Steering Wheel, though finally 'steering' the Wheels by hand did make the Steering Wheel rotate.)

The Junior Series has 8 sets and 6 are for 3 Tractors, with or without R/C. They are similar to their Profi counterparts but of simpler design to make construction easier –

mainly by having the underside of the body open and deleting the steering. There is also a Krone Bailer (42cm, 715); and a Garage set with 805 parts to make 3 different designs suitable to house a Junior or Mini model.

The Mini Series of 14 sets was intended to allow smaller, 1/32-scale, models with fewer parts, to sell at lower prices. Thus the parts are a mix of 8mm wide Strips with a normal row of holes, plus others, wider, with the TRIX pattern. All holes are 3.1mm at 9mm pitch, the thread M3.

The sets are 5 Tractors & Trailer (31/700+); 3 of the Tractors alone (15/350+); the Fig.2 Bulldozer with engine sound & plain rubber Tracks (22/551); 3 Mercedes Sprinter Vans (Police (Fig.5), Fire, Ambulance) with lights & sound (17/508); a 'Chop Forage Harvester' like the Profi one; & a Bailer like the Junior model.

The Micro Series extends the range with 10 sets at 1/64 scale. My thanks to Jan Ringnalda for data on the parts. Holes are 2.2mm Ø at 5mm pitch; the thread M2.

The sets are for the 5 usual makes of tractor, each with the same Trailer, 5 with, & 5 without IR control. Separate sets for the Tractors & Trailer may also be available The IR Tractors have LED head & taillights. Tractors are 8.5mm long, likewise the Trailer; the parts count is around 450 & 570 for the IR & non-IR versions. Fig.6 shows the New Holland IR model (on a typical TRONICO lid).

The Website http://www.modellbau-metallbaukasten.de/index. php/en/ is of interest with lots of information scattered within it and some manuals can be downloaded: the new easier to use ones in colour introduced in 2014. The range of sets doesn't always quite correspond to the catalogue but includes a few of the early 'Polylong' type outfits, and also the Dinosaur sets described on p1516.



Fig.3

Fig.5

OSN 50/1547 (the last page of OSN 50)

TRONICO: S3