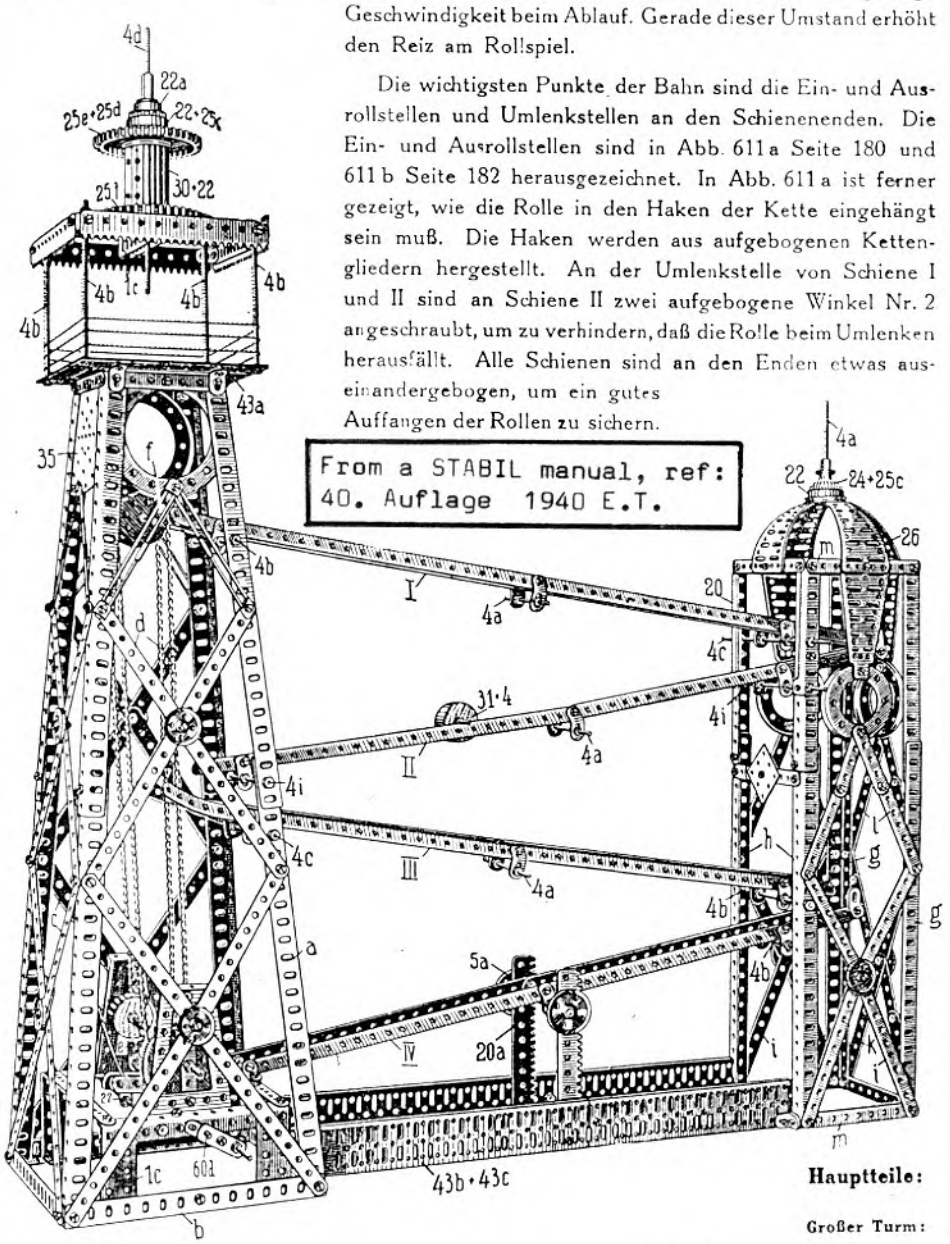
Nr. 611. Rollenspiel

75 cm lang, 90 cm hoch.

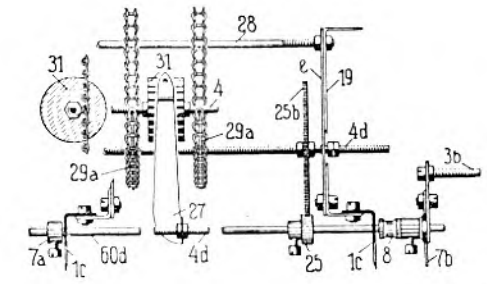
Dieses lustige Unterhaltungsspiel erfordert für seinen Bau eine geschickte Hand. Bieten auch die beiden Türme keine großen Schwierigkeiten, so ist jedoch bei den Schienen ein ganz genaues Arbeiten notwendig. In den Schienen laufen die Rollen. Der Abstand der Schienen voneinander muß darum gerade so groß sein, daß die Rollen nicht klemmen. Es darf aber auch nicht zu viel Spielraum sein, da sonst die Rollen kanten. — Kanten heißt, durch Zickzacklauf an den Kanten der Schienen anschlagen. — Da die Rollen nur mit der dünnen Achse auf den Schienen laufen, erreichen sie trotz großer Umdrehungszahl nur eine geringe Geschwindigkeit beim Ablauf. Gerade dieser Umstand erhöht den Reiz am Rollspiel.

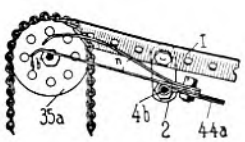
Die wichtigsten Punkte der Bahn sind die Ein- und Ausrollstellen und Umlenkstellen an den Schienenenden. Die Ein- und Ausrollstellen sind in Abb. 611a Seite 180 und 611b Seite 182 herausgezeichnet. In Abb. 611a ist ferner gezeigt, wie die Rolle in den Haken der Kette eingehängt sein muß. Die Haken werden aus aufgebogenen Kettengliedern hergestellt. An der Umlenkstelle von Schiene I und II sind an Schiene II zwei aufgebogene Winkel Nr. 2 angeschraubt, um zu verhindern, daß die Rolle beim Umlenken herausfällt. Alle Schienen sind an den Enden etwas auseinandergebogen, um ein gutes Auffangen der Rollen zu sichern.



181

Abb. 611a gehört zum Modell Nr. 611, Rollenspiel auf Seite 181.





Aufstellung der Einzelteile zum Modell Nr. 611 Rollenspiel auf Seite 181.

Abb. 611b. Ausrollstelle der Bahn.

Modelle Nr. 1—617 gebaut mit Walther's „STABIL"-Baukasten Nr. 54 oder Nr. 53 und 53a

Hauptteile:

Großer Turm:

4 Eckstiele	a	W. E.	47 L. lg.	(25+25)
4 Grundschwellen	b	„	15 „ „	
6 Streben	e	Fl.	23 „ „	(15+11)
6 „	d	„	19 „ „	(11+ 9)
2 Grundböcke		Nr.	1c	
2 Lagerständer		„	19	
2 Lagerbänder	e	Fl.	7 L. lg.	
2 „	f	„	3 „ „	
(oben am Auslauf)				
2 Podestplatten		Nr.	43a	
2 „		Fl. dp.	11 L. lg.	
2 Dachplatten		Nr.	1c	

Kleiner Turm:

2 Eckstiele	g	W. E.	37 L. lg.	(25+15)
2 „	h	„	37 „ „	(25+10+Nr. 20)
4 Streben	i	Fl.	19 „ „	(11+ 9)
2 „	k	„	19 „ „ 2	(7+ 5)
6 „	l	„	11 „ „	(7+ 5)
4 Grund- und Kopfschwellen	m	„	9 „ „	

Sonstige Teile:

2 Laufschienen		I Fl.	49 L. lg.	(25+25)
und Einlauf aus	n 2	Fl.	7 L. lg. +	Nr. 44a
2 Laufschienen		II Fl.	49 L. lg.	(25+25)
2 „		III „	49 „ „	(25+25)
2 „		IV „	53 „ „	(25+25+5)
2 Laufrollen		Nr.	31+4	

Die Winkel, mit denen die Schienen festgeschraubt werden, sind etwas auseinandergebogen, damit die Schienen schräg stehen.

ITEMS FROM LETTERS.

1. Clyde Suttle notes that Temsi which looks much like Meccano uses a different thread. He also kindly offers to allow any OS material which has appeared in his Southern California and Erector Club Newsletter to be reprinted in OSN.

2. Donald Redmond writes that at the Toronto Hobby Show '89 non-Meccano construction systems were represented by sets of Erector, Buildo, American Model Builder, and models or parts from Marklin, The Engineer, Constructo (Merkur) and Temsi. There was also a box of "you-guess-it-and-you-can-have-it" parts and it was fuller at the end than at the beginning despite some delighted recognition and removal.

3. From Peter Page "MCS, pleased that Frank [Beadle] is revising the English issue; hope he is adjusting the NZ metrication and also their fixation with Meccano X - instead of Trix - for 3 row systems. Is square alignment across the 3 rows another unique creation of Mr Hornby?"

4. Karst Quast sent a photo of the Stabil Rollenspiel shown in OSN 1, he had made it some time ago from Meccano. The photo won't reproduce but he made the "roller" from, in order on an axle rod, a Collar, a Conical Disc, 4 or 5 Wheel Discs and then another Conical Disc and Collar. As it rolled down the Discs tended to rotate with the axle and then at each turning point the Roller paused while the Discs slowed and stopped, before setting off in the new direction.

5. Newell Smith writes "Don't forget the semi-professional and scientific sets, especially Swiss/German".

6. From John Hanby "I have Frank Beadles 'other systems' which is interesting although at times confusing with so many lookalike systems. My only dealings in OS are Trix and Construments, the latter being from the firm that Ellison Hawkes started after leaving Meccano. It is however purely scientific i.e. microscopes, cameras, etc, well constructed but not really in the same category as Trix or Meccano." [An account of the history of Construments and how well the models work would certainly be of interest I think - Ed]

7. Brian Rowe recommends Temsi brass plated sprocket chain which he says is better and cheaper than Meccano. He has kindly send interesting Temsi literature which it is hoped will appear in the next Issue. Brian may be able to supply Temsi sets and parts, his address is 23 Courtenay Park, Newton Abbot. Devon. TQ12 2HB. He also sent the name and address of the UK Temsi agent - Paul J Day, 23 Fallowfield, Ampthill, Bedford. MK45 2TS, although he has not been in touch for some time.

8. So that OSN does not duplicate information that Frank Beadle plans to include in MCS in the near future he has sent the following list of OS which will be in his Part 5 -

METALCRAFT	(USA)	Train Construction Sets
EL TECNICO	(Arg.)	is already in index as name only
BILDAL	(USA)	" " " "
PA-DI-CA-CO	(ENG.)	Gears Sets
MEX	(ENG.)	
EMPIRE EDUCATIONAL KIT The.	(Eng.)	
IOO TOYS IN ONE	(USA)	
MOADOST	(Bul.)	

NEW FACTS - MECHANIKA. The following amplification of the information in MCS is based on a set, nearly complete and with manual. The hole diameter is 3.5mm, and holes are 15mm apart. The parts are made of aluminium alloy and are unpainted. In a different manual for Sets 3,4 and 5 a small 4.5v DC motor is shown as being included in Set 5. The strips are 15mm wide and are plenty strong for small models. All the parts are accurately made and the bosses are double tapped.

Nr. 701. Dampfmaschinen-Anlage

Im **3. Stabil-Stipendium-Wettbewerb 1930** erhielt **Heinz Claus** (13 Jahre), **Dresden** für sein Modell **Zwillings-Dampfmaschine** einen **Geldpreis von RM 150.—**.

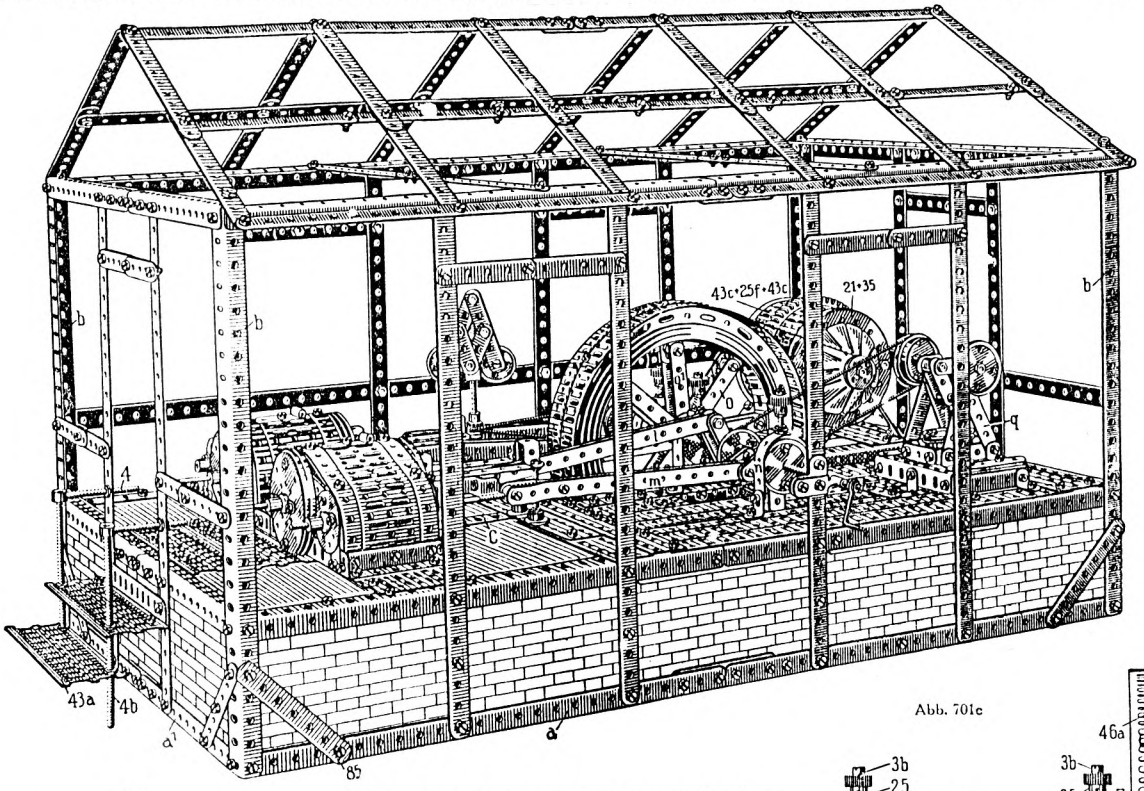


Abb. 701a ist ein Schnitt durch die Dynamomaschine, die zur Erzeugung von elektrischer Kraft dient.

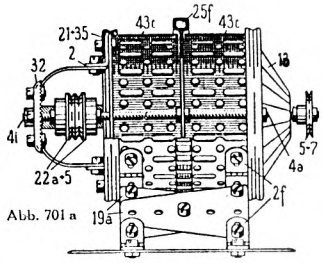


Abb. 701a

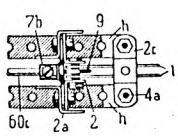
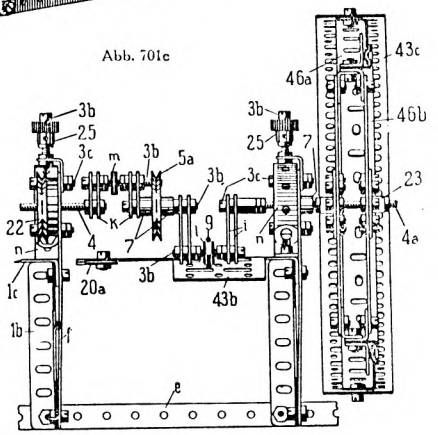


Abb. 701b

Abb. 701b zeigt die Aufsicht auf einen Kreuzkopf. Die oberen Gleitschienen h sind abgebrochen, damit der Kreuzkopf in der Zeichnung nicht verdeckt ist.

Abb. 701c halbe Kurbelwelle mit Schwungrad, die andere Hälfte der Kurbelwelle ist wie die gezeichnete.

Abb. 701c



Teile zum Modell Nr. 701 Seite 194:

Maschinenhaus:

4 Fundamentrahmen	a	W.E. 50 L.lg. (25+25)
4 Querrahmen	a^1	„ 30 „ „ (15+15)
4 Eckstiele	b	„ 25 „ „
2 Grundschwellen	c	„ 50 „ „ (25+25)
2 „	d	„ 10 „ „
2 Querschwellen	e	Fl. 30 „ „ (15+25)
4 Lagerbänder	f	„ 11 „ „
4 Lagerstützen		Nr. 1b
2 Treppenstufen		„ 43a
2 Treppenstützen		„ 4b
2 Geländerstützen		„ 4

Der Boden des Maschinenhauses läßt sich mit Stabilteilen ausfüllen. Er kann aber auch ganz aus Pappe angefertigt werden, so daß nur die Grundschwellen und Lagerstützen aus Stabilteilen bestehen.

2 Dampfzylinder (Abb. 701f Seite 195):

1 Kolbenstange		Nr. 60c
1 Schieberstange		„ 28
2 Zylinderdeckel		„ 21a+35b
2 Schieberlager		„ 35a
2 Stopfbüchsen		„ 7b
1 Zylindermantel		Nr. 43b
2 Manteleisen	g	Fl. 15 L. lg.
4 Gleitschienen	h	„ 7 „ „
1 Kreuzkopf (Abb. 701b)		Nr. 2+2a+7b
2 Gleitschienenstützen		„ 4a

Kurbelwelle (Abb. 701c):

Die Welle ist zusammengesetzt aus Nr. 4+3b+3b+3b+3c+4a+3c+3b+3b+3b+4b

4 Kurbelarme	i	2 Fl. 3 L. lg.
4 „	k	2 „ 2 „ „
2 Pleuelstangen	l	2 „ 15 „ „
2 Schieberstangen	m	2 „ 15 „ „
4 Lagerbügel	n	„ 9 „ „
1 Lager		Nr. 17a
4 Lager		„ 22
4 Öler		„ 3b+25
2 Antriebsräder		„ 5a

Schwungrad (Abb. 701c):

1 Nabe		Nr. 23
1 Radkranz		„ 43c+46a+46b
6 Speichen	o	2 Fl. 5 L. lg.
1 Doppelspeiche	o^1	2 „ 11 „ „

Regulator (Abb. 701f Seite 195):

1 Regulatorspindel		Nr. 28a
2 Lager		„ 2a
2 Gewichte	2	„ 5
2 Regulatorarme	p	2 Fl. 5 L. lg.
2 „	p^1	2 „ 3 „ „

Pumpe (Abb. 701d und e):

1 Sockel		Nr. 1b
4 Stützen	q	Fl. 5 L. lg.
2 Kurbelarme	r	„ 3 „ „
2 „	s	„ 2 „ „
1 Zylinder	2	Nr. 22+30
2 Zylinderbolzen		„ 4b
1 Kolbenstange		„ 4a
1 Kurbelwelle		„ 3b+4g+3b
2 Räder		„ 22

Dynamo (Abb. 701a):

4 Füße		Nr. 2f
2 Stützplatten	2	„ 19a
2 Dynamodeckel		„ 21+35
1 Mantel		„ 43c+25f+43c
1 Welle		„ 4i
1 Lager		„ 32
1 Kollektor	2	„ 22a+5
2 Spannbolzen		„ 4a

Abb. 701d Schnitt durch die Wasserpumpe.

Abb. 701e Seitenansicht der Pumpe.

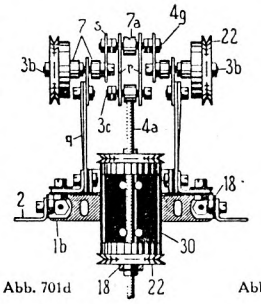


Abb. 701d

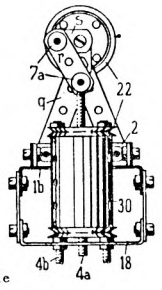
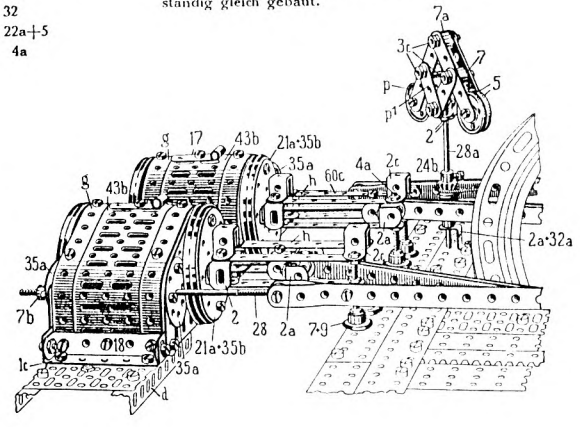


Abb. 701e

Abb. 701f. Ansicht der beiden Dampfzylinder und des Regulators. Die Zylinder sind vollständig gleich gebaut.



Beschreibung zum Modell Nr. 701 Dampfmaschinen-Anlage auf S. 194:

Diese Dampfmaschinen-Anlage besteht aus einem Maschinenhaus, zwei liegenden Dampfzylindern, einem Schwungrad und vierfach gekröpften Kurbelwelle, einem Regulator, einer Pumpe und einer Dynamo. Beim Bau des Modells gehe man folgendermaßen vor:

Die verschiedenen Teile der Anlage werden zuerst einzeln zusammengebaut. Dabei ist zu beachten, daß die beiden Dampfzylinder auf 4 Grundschwellen d. W. E. 10 L. lg. und 2 Grundplatten Nr. 1c liegen. Über den Zusammenbau der Zylinder selbst gibt die Abb. 701f gute Aufklärung. Für die Ausfüllung der Maschinenhausseiten verwendet man am besten eine Ziegelsteinpappe und für den Bodenbelag der Halle eine einfarbige Pappe. Diese Pappen gehören nicht zum Inhalt des Baukastens, sind aber als Stabil-Einzelteile überall zu haben. Siehe Seite 8 des Vorlageheftes 49 – 52 unter Nr. 48a—d. Selbstverständlich können auch andere Pappen für das Modell verwendet werden.

Reduced from manual ref: 40. Auflage 1940 E.T.

ITEMS FROM LETTERS.

1. Erwin Wyss sent the following note on the history of MATADOR, the wooden system mentioned briefly in OSN 3/44, which he obtained from a fellow member of AMS, Norwin Rietsch: "In 1900 Johann Korbuly (Vienna 1860-1919) invented MATADOR as a toy for his 3 sons. He started production of it at Pfaffstätten in Lower Austria, and he opened MATADOR-Haus (1070 Vienna, Mariahilferstrasse 62) where his products were marketed and sold. In 1978 the company was sold to Kurt Falk, former editor of the 'Kronenzeitung', and today editor of 'Täglich Alles'. After that MATADOR-Haus was modernised with considerable investment, but as with many similar systems, sales fell and production stopped some time ago. There may also have been legal troubles with LEGO. Considerable stocks of parts were available and are still sold in so called 'Schüttelkasten' (Shuttle-sets) for a price of öS 590 [about £35 -Ed]. These sets contain a bit of everything, worth about öS 1000. Should sales increase, which regretably I personally doubt, production could be started again."

2. From Keith Cameron in answer to a query about FISCHERTECHNIK: "fischertechnik (small f) is a most engaging medium. The aim of its manufacturer is to promote it to build prototypes for commercial systems such as production lines and other complex machinery, and large showrooms are set up for this purpose. Its many hi-tech parts include computer interfaces, are what attracted me. (It does have have many parts suitable for small-scale toys). When assembled correctly, it is reasonably rigid within the accepted limits. Rigid light alloy long parts are available. One can build a 4-axis robot in f/t in a couple of hours. I doubt that the same could be said of Meccano! I have a small/medium amount of f/t and I admire its ingenuity and the high quality of the parts, far surpassing most systems. However, its owners can make far more money out of commercial customers and the educational establishment, so tend to neglect hobbyists. This is understandable but irritating."

3. From Don Redmond, " • The new MW 16 DP Worm is of identical pitch to the 'old' (Mysto and early Gilbert) Erector, and the early coarse-pitch Erector Worms fit perfectly with the Meccano GRB and Large-Tooth Quadrants - and when found may be a lot cheaper! • The toyshop firm in Ottawa and Toronto which carried BRAL is out of business and I've not learned of any other Canadian BRAL stockist, though I haven't pursued the matter."

In a later letter he noted the many anomalies in a STRUCTOMODE manual. Many of the models are MECCANO inspired and so double railway buffers are shown whereas North American practice is a single, central stop. Two models appear to show slotted holes rather than the normal round ones, in the flanges of the 11x5 hole Flanged Plate; in a few others the illustration looks more like a Flat Plate with 11 hole A/Gs bolted to it, even though neither part was included in any of the sets. An unusual part is the 3/4" loose Pulley as well as those of ½" and 1" dia, though the latter was not in the sets.

Don also sent details of a Canadian plastic system called THE GROWING ENGINEER/LE JEUNE INGENIEUR which contains parts made in Hong Kong. They are multicoloured and look somewhat like PLASTIC MECCANO, but the Axles are 12.7mm dia with holes of 13mm; Bolts are 12mm o/d. There were 4 Sets available and the Instruction Sheet shows 71 models that can be made from the different sets. Gears and Braced Girders can be seen but are not included in the #1 Set that Don found. Details from Frank Beadle if anyone would like them, he keeps track of all plastic/wood systems. Don also mentioned a LINCOLN (best known for LINCOLN LOGS, a wooden set) plastic set he had seen, which much resembled Plastic MECCANO in the design of the parts and even the colours.

4. José Moreno sent an amplification of the STOKYS address given in 7/167: Grossmate 7, CH-6014 Littau-Luzern. Tel. 041 574159. Fax. 041 868554. He also sent some literature on PROTO and PIC (Precision & Industrial Components). The PROTO Parts List shows a few differences compared to the details in MCS and I hope to include them in a later issue. PIC is a new name to me and José sent the index from their catalogue, addresses of their agents worldwide, and the Contents List of some of the Kits of Parts that are (were?) available. The company is American and the catalogue of over 400 pages lists a myriad of small mechanical items, bearings, cams, gears, differentials, etc, etc, etc. The 9 Kits, 3 each for shaft diameters of 1/8", 3/16", and 1/4", contain gears, couplings, brackets, mounting boards, and the like, with 657 parts in the largest one. My feeling is that this little lot probably falls outside the OS field but if anyone would like to investigate and perhaps write it up, I will be glad to send them the details I have. The UK agent is The Barden Corp, Western Road, Bracknell. Tel.0344 24511.

5. On TECC Brian Rowe wrote: "I have since bought a No.6 Set and it is a comprehensive one with no less than four trays packed with parts - including Braced Girders which are not in any of the Spares Packs. The gears though do not always mesh properly but reaming out the holes to get rid of the paint sometimes helps. I understand that the smaller TECC Sets 1-4 (made by the CONSTRUCTION people) are no longer available."

6. MECCANO's first serious competitor was almost certainly STABIL made in Berlin by Walther & Co. Tobias Haffter wrote that a lady, Emma Walther filed a patent application in 1904. In a 1924 manual,

the earliest I have, the Introduction is signed by Franz Walther. I hope to include more details in a later Issue. Later Tobias sent copies of a number of other patents to which I shall also return: they include two German 'DIY' systems called MECO and MEWEKA. He also kindly sent a 60 page booklet (in German) on building and constructional sets, issued by a Lucerne museum in connection with an exhibition held there earlier in the year. It has sections on wood, stone, metal and plastic systems, and under metal, BANGAROO and TECHNOFIX are mentioned, but only by name - more details when/if they become available.

7. Dave Taylor remembers that sometime in the mid to late 1950s Woolworths sold a set containing red and green parts, and the corners of the Strips were angled like VOGUE. He is 99% sure that it was called MECANO and asks if anyone else can recall it.

CONSTRUCTO V-8 AND V-12 SETS These Canadian Sets, made up from MERKUR parts, were briefly discussed in 4/60. Ed Furness has now kindly sent a copy of the manual which covers both Sets. The models in it are identical to those in the MERKUR manual for Sets 201/202 described on p213, and the Illustrated Parts and their PNs, and the two pages showing Standard Constructions, are the same too, apart from being in English rather than Czech of course. The CONSTRUCTO manual has much smaller pages, about 215x140mm, and the illustrations of the models are reduced accordingly; other differences are that none of the parts in the models are identified by PNs and in two cases pairs of models have changed pages and Model Nos. None of the models have the larger tyres shown fitted to models on the box lid.

The CONSTRUCTO Manual, marked as being Printed in Canada by the way, contains no Set Contents; on the back cover is a list of parts available from Paramount Industries and this contains all the parts shown in the Ill Parts and virtually all the other MERKUR parts then available. It also lists two manuals as well as this V-8/12 one; a 'Junior 1-4' and an 'Advanced 5-6'. These Numbers are presumably references to other sets, perhaps to the then current standard MERKUR Sets, #1 to 7. Some of the models in the V-8/12 Manual are marked as needing a Set 4, 5, 6 or 7 as well as a 'V' set. A copy of a CONSTRUCTO manual from Keith Cameron, it seems to be the one used for MCS, contains a selection of the models for Sets #1-4 from the MERKUR 1-7 manual discussed on p212, redrawn rather crudely, plus some other models which are not in any known MERKUR manual. So perhaps this is the Junior above, and if so was there a larger 'Advanced' CONSTRUCTO Set, as well as the V-8 and 12?

All this calls for some changes to MCS, but there's no more room so these will be included in OSN 10.

EXTRA MCS SHEETS. The Sheets listed below are available at 15p per Sheet plus postage.

BRAL(M): X1.1,7. [1 Sheet]
CRUSON: X1.3a,5a. [1 Sheet]
ERECTOR SENIOR: X1.1,7. [1 Sheet]
HUSTLER ACTION TOY BUILDER: X1.1,2,4,5,6/7. [3 Sheets]
INVICTA: X1.2a,4. [1 Sheet]
KONSTRUKTIONSPIEL: X1.1,2/3/6,5. [2 Sheets]
MERKUR(B): X1.3d/4d/6a,5a. [1 Sheet]
MERKUR(B1): X1.1,2,3/6,4-a,5. [3 Sheets]
META BUILD: X2.3/6,4a. [1 Sheet]
METALMEC OPSET: X1.1,4-a,4b/6,5a. [3 Sheets]
RHOCANO: X1.1,2/5,3/6,4. [2 Sheets]

ACCOUNTS. Dear Subscriber,
Your remittance of received with thanks.
Your credit balance after deduction for this Issue and
is Please renew your subscription if you wish to receive the next Issue.

SUBSCRIPTION RATES. For 1994 (OSN 10 and 11), including postage, at Printed Paper Rate where appropriate: UK £6; airmail to Europe and surface mail anywhere, £7; airmail outside Europe, £8. Dollar rates for those sending through Ed Barclay (see below): $15 ($12 US).

BACK NUMBERS. For the zones above: OSN 1: £1/£1.30/£1.50; OSN 2,3: £2.30/£2.70/£2.90 each; OSN 4-8: £3.60/£4.10/£4.50 each.

ADVERTISEMENTS. 10 lines free each Issue for each subscriber, above that prorata to £6 per side. Insertion guaranteed if ads reach Ed by end January/July.

PAYMENT. Please make cheques etc payable to P.A.Knowles. Remittances in other than Pounds Sterling will be cashed locally and the resulting Sterling credited.

• North Americans can pay at the dollar rate (see above) by remitting to Ed Barclay, 2681 Third Avenue East, Owen Sound, Ontario, N4K 2M5. Canada.

• Overseas subscribers can pay by VISA, ACCESS or MASTER cards: send Card No, Expiry Date and Name and Address of Card Holder. Debits appear under the name 'SIMPLY COMPUTERS'.

• Overseas subscribers need not send sums of less than £5 for Back Numbers, ads, purchases from the Editor, etc, until it is time for subscription renewal.

CONTRIBUTIONS. If possible please type these, single spaced, on one side of the page only, within a width of $6\frac{1}{2}$" (165mm). If available please use letter spacing of 15cpi.

From my manual for the K2 you can see that it is nearly identical to the STABIL Nr.46. The only difference is that 4 Auto Tyres, Nr.84b, were included in the 46. The K2 contained: 3x3h, 4x5h, 2x11h Strips; 4 Angle Brackets; 2 Flat Brackets; 12 Bolts; 20 Nuts; 1x50mm and 2x90mm Screwed Rods; 4 26mm Pulleys without Boss, 5c; 1 Spanner, 10b; and 2 each of 5 and 3-hole DAS. It says in the manual that 'the parts are nickeled as the parts of the STABIL outfit are', and that the flat strips may also be used as screwdrivers. The special parts introduced for the K2 set were the pulley 5c, the spanner 10b, and the 3h DAS, 18b:

• There are no holes in the face of the pulley 5c and its two halves are only rivetted at the centre hole. This gives the disadvantage that they wobble when used as loose pulleys, but when locked between nuts on a rod or bolt, they take up less space than the normal pulleys with a bulge at the centre. The pulley 5c was included in outfits 46KM, 47KM, 48M and 49M instead of Pulley Nr.5.

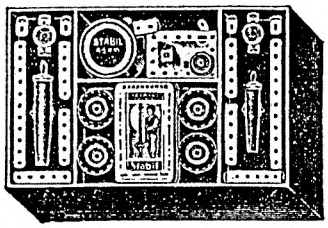
• The spanner 10b may have been included in the K1 set too.

• The 3-hole DAS 18b was also included in the 47KM, 48M, 49M, and 50M sets. It was not added to the standard STABIL outfits.

There was never a Knirps outfit which included the motor but for some years there was a conversion set, K1a, to upgrade the K1 to the K2. All of the Knirps parts fit standard STABIL parts.

The manual for the K2 is a special one for this and the 46 outfit, and it contains 150 models for these sets (see Fig A). It is of poor quality and the covers are dark blue with the look of the covers of an old school exercise book. The page size is 13.3x20mm long.

Other Small Outfits The Nr.46 has already been described; the sets with suffix M contained the Knirps motor in addition to the normal parts with, in some cases, one or two other minor changes such as the use of the different pulleys Nr.5c already mentioned. The Nr.46KM was called the 'Kanonenbaukasten', and over and above the Nr.46 outfit a Knirps motor, a seat for the driver, two little gun barrels of different lengths (suffix K for Kanonen), two pulleys 5c, and some collars, Nr.7, were added. The seat was a rather complicated part with the bottom of the bracket formed into a hook, see Models 14 and 15 below. There was also a 47KM set but I've no details of it.



STABIL Nr. 46 KM
KANONENBAUKASTEN

I have seen two conversion sets listed: in 1936 a 46a which would make either a 46 or a 47 up to a 48; and in 1939 a 'K2-46a', to convert the K2, 46 or 47 into the 48.

The Nr.48 was the smallest outfit after WW2 and it included a 5x11h flanged plate and two 9cm threaded rods; also a special manual for that set alone which contained 205 models.

Nr. 5 Stabilobil

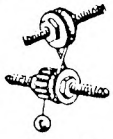
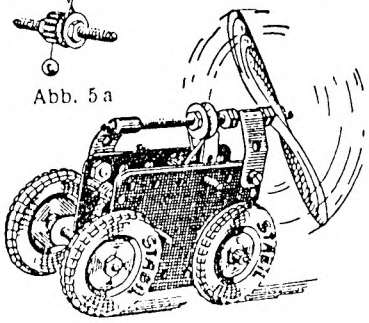


Abb. 5a



Nr. 7 Radschaukel
gebaut aus 2 Knirps Nr. 1
und 1 Knirps Nr. 2

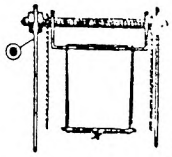
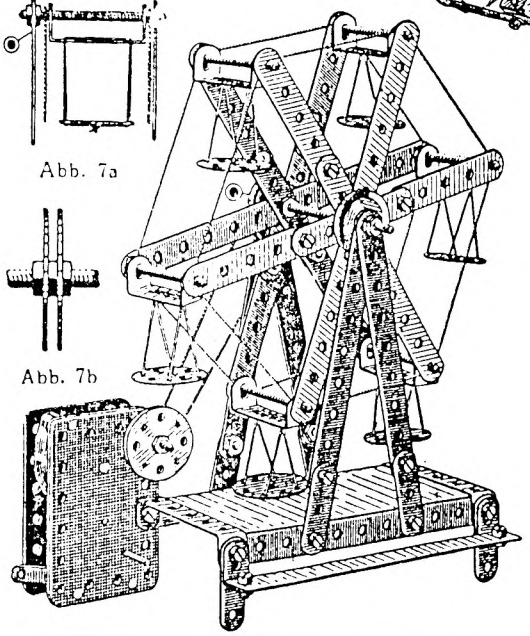
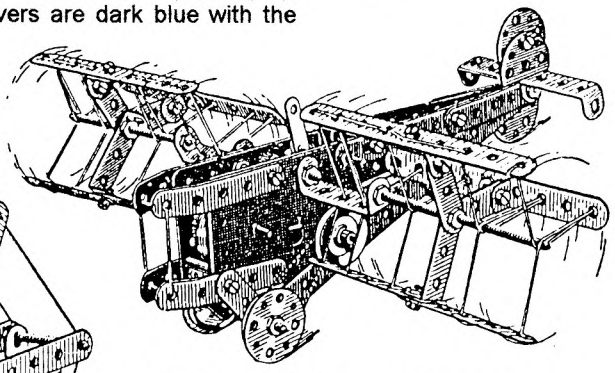


Abb. 7a

Abb. 7b





Nr. 6 Schaufelradflugzeug
gebaut aus 2 Knirps Nr. 1
und 1 Knirps Nr. 2

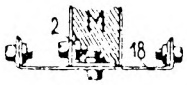
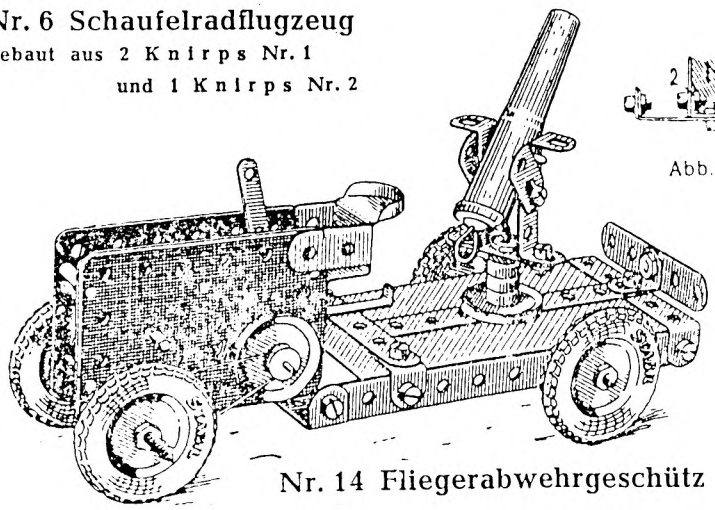
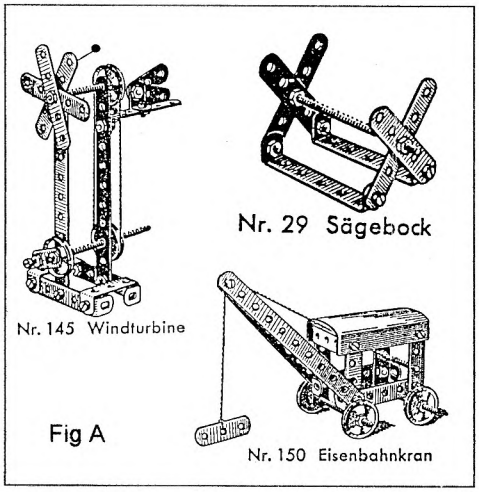


Abb. 14a



Nr. 14 Fliegerabwehrgeschütz



Nr. 145 Windturbine

Nr. 29 Sägebock

Nr. 150 Eisenbahnkran

Fig A

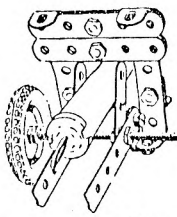
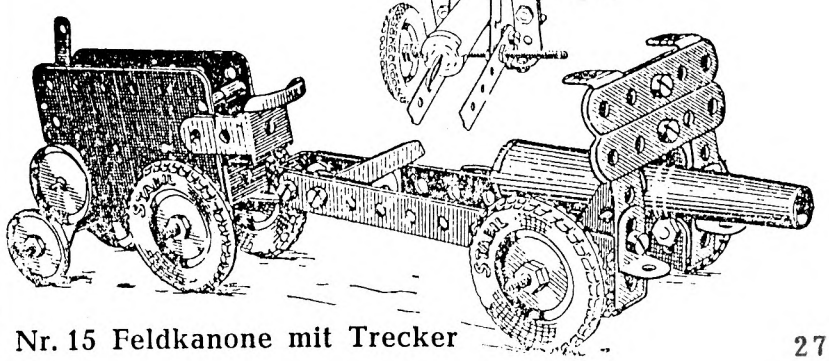


Abb. 15a



Nr. 15 Feldkanone mit Trecker

Some Notes on the History of STABIL

by Werner Sticht

Introduction Leaving aside the ANKER Bridge Construction Set, Walther's metal construction sets were the first in Germany. Their main system, called STABIL, was very popular, and the name 'STABIL-Baukasten' became a synonym for every MCS in Germany. You could even say that STABIL was *the* German MCS, at least for a long period. Looking at STABIL, the influence of MECCANO is evident with very nearly the same size flat strips and hole spacing (12.5mm instead of 12.7), and some parts are direct copies of their MECCANO equivalents.

But there is a fundamental difference in that Walthers used screwed rods as axles, so allowing wheels and gears to be attached to them without the complexity of tapped bosses or (fragile) tongued clips. Other significant Walther developments were their patented gears, powerful clockwork motors, the 'Gewichtsmotor' (motor driven by a weight) which could be constructed with STABIL parts, and the introduction of the first gears in plastic in 1938. Also their 'Erfinderbaukästen' (Inventor's Outfits) which contained large rolled shafts running in ball-bearings, and single teeth to make gearwheels with any number of teeth. These parts were unique to Walther & Co., and they had three patents on them.

Another STABIL feature was that the outfits contained some wooden parts, a feed across from the wooden construction sets which Walthers also made.

The manuals were technically oriented and even more than with Frank Hornby, stress was laid on the use of the correct and exact technical language. STABIL was planned for junior engineers, a characteristic which was not so evident with the other German MCS.

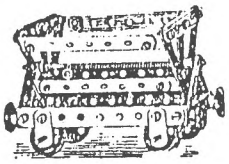
Most of the dates given below have come from the manuals, listed at the end, that I've been able to consult, and may therefore be in error by a year or so in some cases, depending on the gap between one manual and the next. Another important source of material has been two Bank Reports on the company, kindly sent by Ansgar Henze.

The Outfits and their Numbering STABIL outfits were numbered from 46 to 58. Standard outfits were No.49 to the largest, No.55; 56 to 58 were used for the Erfinderbaukästen. These were to intended as additions to the standard sets and the smallest, No.56, was to be used with Outfits 49 to 51; No.57 with 50 to 52; and No.58 with 52 to 55. There were also conversion outfits 46a, 48a to 54a, 56a, and 57a. They converted an existing outfit to the next larger one except that the No.46a converted a No.46 or a No.47 to a No.48.

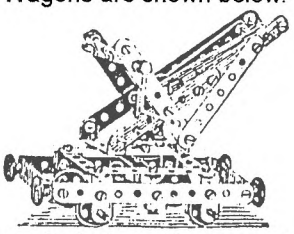
Sets 46 to 48 were introduced in the 1930s as very small outfits and each had a special manual to itself. Nos.46 and 47 have already been discussed in OSN (11/272), so will not be mentioned further. Only No.48 survived WW2 and continued until the end in 1972.

The numbering scheme for the outfits is somewhat unusual as explained in OSN 11. It may have arisen from a desire to have numbers for sets and parts that did not confict, but certainly in the early days some numbers were used for both STABIL parts and non-STABIL sets. A 1914 price list shows, in numerical order, and leaving out linking sets and variations due to packaging in card or wooden boxes, the following:

- RECORD Sets 00-4 (all wooden parts).
- INGENIEUR Sets 8-11 (No.11 was described in 7/164, and from this List it is now certain that these sets and STABIL were both made by the same firm.)
- MASCHINEN Sets 30/1 and 30/3 (mostly wooden parts).
- STABIL Sets 49-56 (the largest, No.56, is said to be 'in preparation' and it isn't known whether it ever appeared - it is not of course the smallest of the Erfinderkästen, which were introduced in the 1920s).
- STABIL Railway Wagon Sets 59-63 (Eisenbahnwagenbau. Full details of these 'theme' sets are not available but it appears that (at least in large measure) standard STABIL parts were used. The different outfits allowed from 2 to 9 wagons to be made at the same time and it is stated that instructions were also provided to allow other types of models to be made. Two of the Wagons are shown below.



Kippwagen.



Wagen mit dreh- u. kippbarem Krahn.

- RECORD Sets 200-203 (all wooden parts).

Parts numbered from 1 to at least 35a were listed in an early STABIL manual for sets 50-52, probably dating from well before 1914. (This manual provides most of the available information on the early days, and will be referred to as the 'c1910' manual.)

Before WW1 one ARTS ET MÉTIERS outfit (see 'STABIL in other Countries' later) was numbered 81 and was nearly the same as the INGENIEUR No.11 set.

In 1925 the wooden RECORD wooden outfits were totally revised with sets numbered from 100 to 106.

The History of Walther & Co. and the Development of STABIL This outline in chronological order is based on the facts I've been able to find. More detailed information on the parts and manuals is given later.

1903 This is believed to be the year in which the firm Walther was founded by Franz Walther, who was previously in the wood trade. Other sources give 1905 but the 1903 date was from the Industrie und Handelskammer (Chamber of Industry and Commerce) in Berlin.

A patent No.153854 from 4th June 1903, in the name of Walter Walther of Berlin, describes a wooden constructional toy, with steel brackets, to build houses. Franz's son was called Walter but there is at present nothing to show that the Walter of this patent was connected with the firm Walthers.

1904 On the 16th June 1904, Franz's wife Emma, née Metzel, applied successfully for five 'Gebrauchsmuster' (DRGM for short - a registered design, not a patent), Nos.248934 to 248938. These were the first of the 9 DRGMs mentioned in an advertisement in 1929. The Berlin Patent Office informed me that all details of those old registered designs have been lost and only their titles can be found in the German 'Patentblatt' (a periodical listing of patents, etc.). They covered the following metal parts, using MECCANO names: perforated strips (and probably plates); a double bent strip; a double bracket or double angle strip); a reversed angle bracket; and angle girders. Other relevant DRGMs are No.253288 and 289896 from 1905/1906, but I don't have details yet.

1906 1906 to 1956 are the dates given on the cover of the 50 year jubilee manual. I was told that 1906 was not quite correct when I visited the Walther offices in 1968. In 1929 they had held a jubilee model competition, thus indicating 1904, and in an advertisement at the end of 1930, it was said that they'd had 25 years of experience, and that they had been the first in the field in Germany. My guess is that they began making some wooden constructional outfits or possibly the INGENIEUR in 1904, and STABIL was first marketed in 1906.

1910 The business was not doing too well and ownership was put into Emma's name.

STABIL and INGENIEUR was being sold abroad but the name Walther was apparently not good for sales in some

countries, and so the Walther family decided (before 1910) to register 11 different names, probably in 11 different countries - but this last point is not sure. The only ones known are ARTS ET MÉTIERS for use in France and its colonies, and DEN LILLE INGENIØR for Denmark.

1917 Franz re-entered the business as a partner and on 3rd April 1917, Walther & Co. was first registered as a partnership company in the 'Handelsregister' (commercial register) of the 'Amtsgericht' (district court) in Berlin-Charlottenburg. The founders of the company were named as Franz and Emma Walther from Berlin-Neukölln. The object of the company was the production of toys to keep children fully involved and occupied. The business premises were in Grünauer Straße 8.

1914-21 Brass was in short supply and some parts were changed to zinc die-castings or made up from steel parts. Some steel parts, normally nickelled, were left unplated or chemically darkened.

1921 The name STABIL, together with a slogan, was registered as a trade-mark, see below. The slogan reads, 'Boys' finest toy, is and stays Stabil', and in German it rhymes.

Stabil Des Knaben schönstes Spiel Das ist und bleibt Stabil Stabil-Baukasten

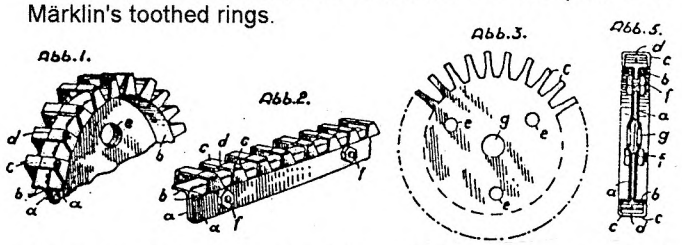
1922 Many important new parts were introduced and the set contents were radically changed to meet the competition from the newly launched MÄRKLIN sets and parts.

1924 Three 1924 patents related to parts used in the Erfinderbaukästen of 1925. Two showed the use of teeth which could be located in suitable slots in special strips and formed rings, to allow gears, contrates, bevels and racks to be made, and the other concerned rolled shafts that could be used as axles, rollers, pillars, supports, and the like, and means of attaching circular parts to them. This opened up the possibility of allowing heavier axles to be used in models, for added realism or to take high loads. Full details will be given in a later issue.

1925 The Erfinderbaukästen Nos.57 and 58 were introduced and included a number of new parts in addition to the patented parts mentioned above. Later a No.56 outfit was added. A new numbering scheme was started for the manual models.

The firm's premises were moved to Zeughofstraße 3.

1926 Patent No.451952 was granted to Franz Walther of Berlin: this was for a method of making the cheap large-toothed gearwheels that were needed to compete with Märklin's toothed rings.



Gear wheels were made of two identical halves, each of which was punched from sheet metal (Abb.3), and then 'half-teeth' were formed and the two halves were rivetted together (Abb.1 and 5). Abb.2 shows a rack strip which was never produced. The equivalent English and French patents are Nos. 279315 and 634285.

1927-33 New parts continued to be introduced including Tyres in 1930-32

In 1928 some 50 people were employed and the turnover was approximately one milliom Marks; by 1930 this had risen to 1.5 million and the workforce had increased to 150 seasonally. In this period the Walthers' son Walter was helping in the business.

In 1930 land at Harzerstraße 60-63 in Berlin SO was purchased and a new factory of 200m² was built there.

1933 Emma and Franz Walther died and Walter became exclusive owner of the company. On the related official papers his profession was given as architect.

The No.48 outfit was introduced between 1931 and 1935, probably in 1933, also STABILA (for girls) and the KNIRPS motor and outfits.

1938 The 1926 patented gears were replaced by similar sized ones moulded in Bakelite. At about this time some other parts were made of aluminium alloy.

1943 On the 22th November Walther's premises were totally destroyed by bombing and orders could no longer be filled.

1950 Outfits 48,48M,49-52,49a-51a were available again and in 1951 outfits 49M,50M,53 and 52a,53a. The Erfinderbaukästen were never reintroduced, nor the large sets Nos.54 and 55, but as well as the complementary set 53a, the No.54a was listed later.

4 sizes of plastic flexible plates were introduced, probably at about this time, perhaps to match Märklin's postwar aluminium ones. As in the prewar years after 1933, there were relatively few new parts postwar.

1956 The manual for outfits 49-52 was revised and a proportion of new models included.

1957 Walther & Co. became a partnership company again, as Torsten Walther entered the business as partner.

1963 Walter Walther died. Ella Walther, née Kristensson, entered the company as partner, although she was not empowered to represent the company legally.

1966 Ella Walther died. Torsten Walther became the exclusive owner.

1970 Production ceased.

1972 The sale of STABIL outfits ceased. Many parts for the smaller sets were on sale in the Berlin flea-markets.

1991 The firm was officially closed.

Post WW2 manuals show the address of Walther & Co. as 'Harzerstraße 60-63'; there was also an address of 'Ermanstraße 5' at this time, which was where production took place. In Harzerstraße there was only a sales office at the end of the 1960's. In the pre-WW2 manuals you can find 'Berlin SO 33' or 'Berlin SO 36', and I suppose that 'SO 33' or 'SO 36' were postal codes at that time.

Dating Outfits by using the Manuals The c1910 manual and a 'Railway Wagon' manual with the same style cover, do not carry any date or edition references.

The next known editions, from after 1920 until June 1925, have the year (sometimes also the month) and the number of the 'Auflage' (edition) printed on the front cover; after that the references are on the back cover. The year given is probably the year the manual was printed. Therefore the manuals are the main tool for dating an outfit or for documenting the state of the STABIL system. But obviously an outfit need not have been sold in the same year as the manual was printed. For instance a No.49 outfit bought in 1957 had a manual with a date of 1955.

There were two manuals for the standard outfits, one for Nos.49 to 52 (50-52 very early on before Set 49 was introduced), and another for Nos.53 to 55. In the 49-52 manual an introduction to the STABIL system was given, signed by Franz Walther, or by Walther & Co. from the mid 30's. The next pages show basic constructions like fixing strips together, joining rods, how to construct bearings, transfer of movement by cord using pulleys or gears, etc.

Next the illustrated parts which were generally kept up to date and sometimes show interesting developments, and changes to the parts which were abandoned later. Sometimes though newly developed parts that were added to the system were not included in the illustrations in the same year.

After that you may find advertisements for motors and explanations of the outfits. In many pre-WW2 manuals the winners of last year's model competition were given.

Next is the table of set contents and these were always

up to date - in 1925, a correction sheet was even pasted over part of the contents to show the correct state of the outfits.

The models for outfits 49 to 52 take up most of the rest of the manual, but at the end were two pages about technical drawing with a slogan 'Durch STABIL zum Ingenieur' which can be translated as 'Become an engineer with STABIL'.

The 53-55 manual was simply a continuation of the 49-52 manual, showing only the models for these larger outfits, with no illustrated parts or set contents. In 1962 a No.52a accessory outfit was given to me which contained a 53-55 manual printed in 1940, and in fact I have never found anyone who knows of a 53-55 manual with a print date later than 1940. It seems that Walther & Co. must have printed such an enormous quantity in 1940 that even in the 1970s lots of them still remained. So this manual is no guide to the STABIL system after 1940.

The 'illustrated parts' in the different manuals allows the age of parts to be found. Only one or two manuals are available from before 1920 but some notes on the parts from this period are given later.

If you only have a manual without covers, you have to do some detective work to date it from the models or the advertisements. Comparisons with other manuals can give a good idea and sometimes there is a date given in relation to the model competitions.

Another clue is the model nos. In 1925 a new, much revised, manual for the 49-52 outfits was issued which used a new numbering scheme for the models: 1 to 199 were dedicated to models for the 49 outfit, 201 to 299 for the No.50, 301 to 399 for 51, and 401 to 499 for the 52 outfit. Not all the numbers were used of course and for example the 52 outfit models went up to 440. Later on the 49-52 manuals for 1928 and 1929 were nearly the same, as were those for 1930 and 1931.

The numbering in the 1925 53-55 manual did not follow on; the 1925 edition was a reprint of the 1924 but with different covers. A pointer for 53-55 models is that the models in manuals from 1924 on were mainly competition winners and were shown as such. This arose from the changes in 1922, which meant that many new models were needed for the new sets, and competitions were held every year for the rest of the 20s.

Many changes were made to the models in the 49-52 manuals after 1930 and the new parts could be seen in many, but not all, of them. But there were few changes to the 53-55 models, and the 1940 Edition is quite similar to that of 1931.

The c1910 manual measured about 210*150mm; later from 1920 or earlier, those for the standard outfits (and for the Erfinderbaukästen) were 230*160mm to 238*163mm in size, depending on the period: all had landscape format.

Some Special Manuals Special manuals were issued for the small outfits, 48 and below. The front cover of the No.48 manual differs totally from the covers of the main manuals. On the inside front cover is the set contents with illustrations of the parts, and on the back cover a picture of the No.49 outfit, and an advertisement for the KNIRPS C/W motor. The only changes that were ever made, even through to the 1970's, were occasional ones to the front cover or the advertisements on the back.

To save money, a shortened version of the 49-52 manual was put in the No.49 outfit showing only the 49 outfit models, plus just a few larger ones to make boys eager to build them with a larger set. The oldest manual of this sort which I have seen was from 1931, and it was still listed in the set contents of a 1966 49-52 manual.

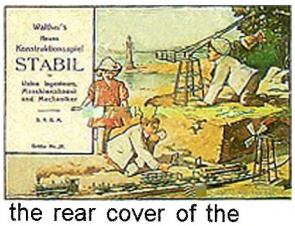
In 1967 Walther & Co. issued a manual for outfits 49 to 51. I saw it once when I visited their Berlin offices in 1968 but I remember little about it.

For the Erfinderbaukästen Nos.56 to 58 an extra manual was issued. It is very rare. The first edition in June 1925 was for sets 57 and 58. The model nos. followed the 1925 49-52 method and were in the range 601 to 750, but actually only 19 models were shown. For the 1926 model competition it was suggested that the use of parts from their Erfinderbaukästen would give the best chance of winning a prize.

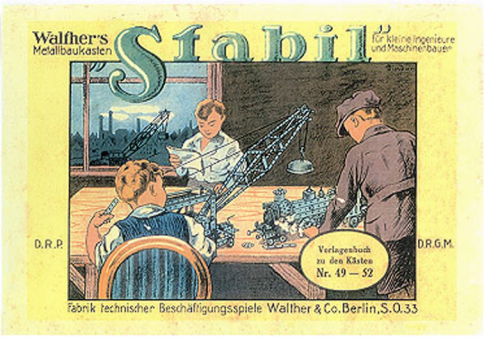
The Manual Covers

The c1910 manual (opposite) had no illustrations on its cover.

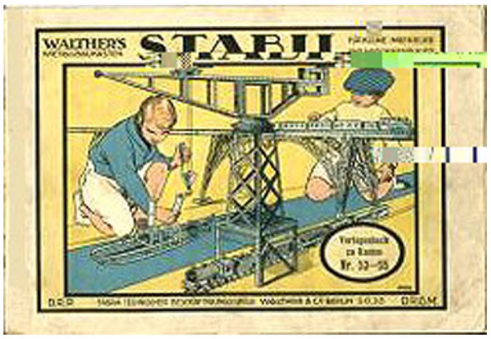
The 1914 Price List shows the illustration below (3 children playing with a Crane, Windmill and other models), on the box lids. Later the manuals and the box lid illustrations were usually similar so perhaps the manuals at that time had such covers.



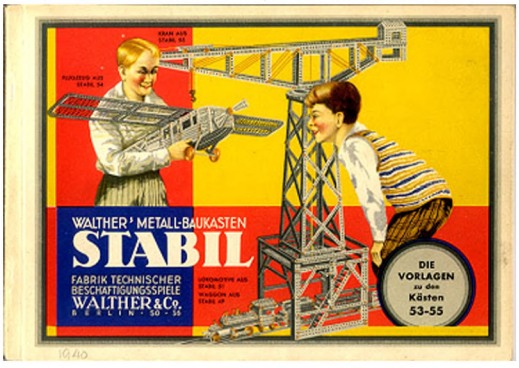
In the 1920s and afterwards the 49-52 manuals, the 53-55 manuals, and the 56-58 manuals all had a colourful picture on the front cover. On the rear cover of the standard manuals was a list of the numbers of models that could be built with the different sets. On the inner covers you can find contemporary advertisements. Until 1924, an elegant, delicately coloured picture on the front cover showed a girl and two boys in sailor suits admiring a STABIL logsaw model. It was illustrated in 7/157. Dieter Müller told me about a Danish manual showing this picture which was printed in 1927. In Germany the colour picture on the front cover of the manuals was changed in 1925 to the one opposite showing 2 boys, a No.55 set model crane, a railway bridge, and a ship on a blue carpet. The ship is constructed with parts of the, at that time, newly introduced Erfinderbaukasten. The background of the picture is yellow.



I have seen the next cover (opposite) on manuals printed in 1929 and 1931. Three boys are around a table with a STABIL loco and crane on it. The border and the models are blue; the wall in the background is brown and the tabletop light yellow.

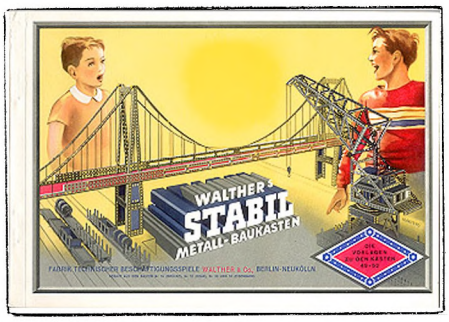


The cover (below) of the manuals in the mid 30's and 40's (and for the 49-52 manuals from 1930) was that shown in STABIL(A) of MCS(FB). It shows 2 boys with a No.55 dockyard crane, a train, and a No.54 aeroplane. There are some variations in background colours. The first version had dark red and black panels and was also used as the box lid label. The second vari-



ant had light red, blue and bright yellow panels and was used from 1936 (or perhaps before) and in the 40's. The third type was like the second except that the face of the left boy was changed to a better looking one.

The last cover (below) showed 2 boys, and models of a large suspension bridge and on the right a floating crane. Below the bridge the text 'Walther's STABIL Metall-baukasten' is written in deeply shadowed letters. The main background colour is light yellow. My oldest cover of this style is from 1955 and it was still in use in 1968. It is shown in MCS(NZ), and in MCS(FB) as STABIL(B). MCS(FB) STABIL(C) shows the same cover with a 50 year jubilee sign above the bridge. This cover was used from 1955 until the mid 60's.



Generally over the years the label on lids of the cardboard boxes showed the same picture as the front cover of the then current manual. However the pre 1924 cover continued to be used on some boxes for several years after 1924.

STABIL in Countries outside Germany I asked Jeannot Buteux (Constructorama) for help, and he gave me much of the information that follows. L'INGENIEUR WALTHER appeared quite early in France, perhaps in 1908, but as explained earlier the name was changed and ARTS ET MÉTIERS was being sold in France from about 1910. But STABIL was on sale in France too, the 'Samaritaine' sold ARTS ET MÉTIERS whereas 'B.H.V.' sold STABIL, both in 1912. Three systems were sold under the name ARTS ET MÉTIERS: STABIL as Série 1; RECORD as Série 2; and WALTHER'S INGENIEUR as Série 3. Série 1 was available in 4 or 6 outfits depending on the outlet; and Séries 2 and 3, in 2 or 3 outfits each. A French collector has a Série 1 manual which is a direct copy of the STABIL manual of the same period. ARTS ET MÉTIERS disappeared with the beginning of WW1.

Jeannot sent me a picture of an ARTS ET MÉTIERS outfit No.81 with a list of contents. It is nearly the same as the No.11 WALTHER'S INGENIEUR set detailed in OSN 7, just a few parts have been added. The label on the box lid shows two boys and a toy train on an ARTS ET MÉTIERS bridge. Opposite is the name panel from it.

STABIL under the name DEN LILLE INGENIØR was sold in Denmark by 'Illum', a large toy outlet. The manual for outfits 49-52 was in Danish but carried no date. Three Danish manuals are detailed in OSN 7/157. First a 53-55 STABIL manual from 1921 in Danish has the contemporary STABIL cover picture (the girl and the two boys). The second with the names 'Illum' and DEN LILLE INGENIØR, is a 49-52 manual which I date as 1922 comparing it with STABIL manuals. Its cover is shown in OSN 7. The third manual with the red cover can't be dated accurately but is from before 1920. Jeannot Buteux told me that only outfits 49 to 53 were sold in Denmark and that there was only a Danish manual for sets 49 to 52 - this was probably true before WW1. I believe that Thorngreen, another large toy merchant in Denmark, sold STABIL in the 1910s and 20s.

A STABIL manual in Dutch, 20th edition from 1924, was at first sight the same as a German one of the same edition and date, except for the different language. But the German version has more models, and more pages, and the advertisements on the inner covers show some differences. There were motors advertised in the Dutch manual that were most probably no longer listed in Germany at that time.

STABIL manuals are also known in English (49-52, 1931), in Spanish (49-52, 20th Edition, 1921), and for the Belgium market from 1932.

Notes on the Parts and Sets

The lifespan of STABIL can be divided into 4 periods. The first was the years up to about 1921 when, until after WW1, there was no serious competition from comparable toys. But after the war Märklin, who had bought all the rights belonging to Meccano from the German government in 1917, provided a serious challenge and this led to the next period, 1922 to 1933, in which considerable changes were made to the sets and many new parts introduced.

The death of Emma and Franz in 1933 was the start of a rather quiet period with relatively few innovations. In particular as far as is known Walthers did not offer any electrical, aeroplane, or vehicle constructional sets when Märklin launched theirs. Also not many new models were added to the manuals. The final phase from 1956 saw few new parts but some new models for the smaller sets, followed by little change until the end in 1972.

The First Period, 1906-21 Much has yet to be discovered about the early years. The oldest reference is the c1910 manual, and the thick wooden base (Sockel) in the Crane shown in A.B.Ibanez's ARTS ET MÉTIERS contribution in MCS, is a part which is listed in this manual but was later dropped. It is similar to the INGENIEUR part shown in OSN 7, but rather larger. In my 1920 manual the base of this crane is made up of two 11*5 hole flanged plates.

The parts shown in MCS Part 5 for DEN LILLE INGENIØR are probably from a little before 1920 but only those for outfits through No.52 are shown. The other information I have came from a lot I got at a flea-market which contained a No.51 outfit with an incomplete 49-52 manual, plus sets 51a, 52a and 53a with two 53-55 manuals. The No.51 outfit was in a wooden box of 355*223*36mm whose sliding lid had the label with the two boys and the girl admiring the logsaw. But there was no date on it, just the price of 100.-, and this extraordinary high price was the only hint I had to date the outfit. After WW1 there was tremendous inflation in Germany which began in 1921, first slowly, but by 1923 it was explosive and a loaf of bread cost billions of Marks. Currency reform stopped the inflation in December 1923. From price lists from the inflation years and from stamp collector's lists, I concluded that the No.51 outfit was sold between October and December 1921. The 49-52 manual has no covers but I think that it is most probably from 1920. The first remaining page is the set contents, and it was totally different from the later ones I had seen.

The 53-55 manuals were from 1924 and 1925 and their inner pages are identical, only the covers are different. But to my surprise the models in these manuals could not be constructed with the contents of the outfits listed in the 49-52 manual from the wooden box.

I counted all the parts and I came to the conclusion that the outfits No.51 and No.51a were in accordance with to the contents of the '1920' manual, whereas the outfits No.52a and No.53a corresponded to the later ones.

Comparisons with other manuals led me to the conclusion that the change in the system probably took place in 1922. The 53-55 manual from 1924 shows prize models from a competition which incorporate parts from the later period, and a 1921 53-55 manual shows only models that could be made with the earlier outfits.

The changes made to the STABIL system in 1922 were enormous. Many new parts were introduced, and the sets

changed totally. As an example take a No.52 outfit. Before 1922 it contained no 25-hole strips and no angle girders; after the change there were 8 25-hole strips, 2 10-hole, and 8 25-hole angle girders.

I see some similarities between the early STABIL system and the present MECCANO outfits. There were many small outfits and the models of the larger ones were only a little larger and a bit more detailed. The models of the No.50 outfits were rudimentary, the No.51 outfit allowed more detailed models with a typical height or width of 11 holes. For the No.52 outfit that became 15 holes, and only with the No.53 outfit was a length of 25 holes reached. The existence of the 15-hole strip and a remarkable quantity of 7-hole strips in STABIL outfits allowed good and detailed models to be made with the medium size sets, though of smaller dimensions. The use of shorter strips also kept the price of the sets down.

In the first period only threaded rods were used as axles and this gave some advantages. You can fasten any part to a threaded rod, no crank or collar are necessary, and the wheels need no tapped bosses or MME-style clips. Disadvantages are the poor running of threaded rods in strips and wear under heavy loads. Another disadvantage is the time it takes to roll all the necessary nuts along a rod particularly if there are several parts on it. But STABIL boys quickly invented techniques to at least partially overcome this problem, e.g. rolling the nut on the rod over the floor like a wheel. The problem of wear was solved by the introduction of a long bearing (PN 17) for the Gewichtsmotor.

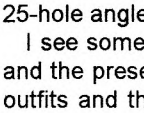
In what follows you will find a short description of the different STABIL parts. If not otherwise mentioned they remained available, unchanged, through the 1960s. I'll use MECCANO-like words for naming the parts: word by word translation of the original German names would sound a bit odd, a perforated strip is called a 'Flacheisen' which is flat-iron in English, a threaded rod is a 'wave', etc. Some notes on early parts are given at the end of this section.

The **strips** (2 to 25 holes long) were 12,3mm wide and 0.9mm thick. There were also **double strips** two holes wide (24.6mm), and unlike Meccano, they had no elongated holes. In this period they were 10 and 25 holes long. The **angle girders** were similar to Meccano but with less rounded corners. They were only available in lengths of 25, 15, and 10 holes. The STABIL **angle bracket** was merely a 1-hole long angle girder, not the normal smaller type. 5*11 and 5*7 hole **flanged plates** had their centres punched out, giving square cornered 3*7 and 3*3 **perforated plates.** This allowed more flexibility in making models and gave them a more interesting look.

The **nuts and bolts** had the MECCANO $^{5}/_{32}$" thread and the bolts were probably domeheaded in this period. Their total lengths (i.e. shaft plus head) were 10,12,15,20,30mm, but only the 20 and 30 mm were listed as separate parts. Nuts were hexagonal with a distance across flats of about 7.6mm (Märklin used 8mm). The **threaded rods** were made from bare steel and they were in lengths of 25,50,90,120,150,175,250mm. Later they had pyramid shaped, conical, or normal square ends, but I am not sure about the first period. Later on rods of different lengths in one set could have different shaped ends.

The **26mm pulley**, No.5, had 4 hollow rivets joining the two sides. Their centres were bulged out and there was no boss.

Parts No.6 to 16 look as if they have come from WALTHER'S INGENIEUR. No.6, the bent **wire crank** is made from very hard steel. No.7 is a brass (untapped) **roller**, like a washer but about 5mm wide. In this period, No.8 was simply a little **cylinder** of 12mm length with a groove in the middle. Wobbling was impossible and longitudinal forces could be applied to the groove. It was used in a heavy duty bearing with a ring made from strips rolling over four of them. This was the usual practice before the large STABIL ball-bearing No.46 was introduced.

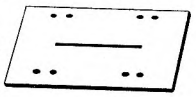


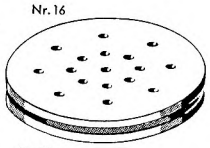
Nr. 6.

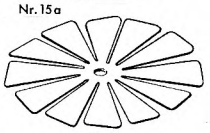
No.9 was a thick 19mm dia **cheek piece** (a thick washer with a cone on one side), total width 7mm. A No.7 could be put between two of them to make a small winding drum. Part No.9 was also used when fastening wheels on the rods to avoid wobble. At first, and especially during the war, the nuts had burrs and were domed as a result of being punched from sheet steel, and it was not always easy to fix a part exactly perpendicular to its axle. Quality improved in the mid 20's and the problem disappeared.


Nr. 9.

The **fan** No.13, dia 77mm, and the **circular saw** No.14, dia 55mm, were always included in STABIL outfits. Parts 15 and 15a were **wooden pulleys**, the original large round parts of this period, with diameters of 47mm and 80mm. PN 16, the **circular saw table**, was also of wood, with dimensions of 67*119*4mm.


Nr. 16

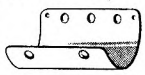

Nr. 15a


Nr. 13

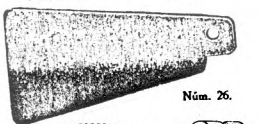
Parts 22 (the **flanged wheel**) and 23 (the **bush wheel**) had a boss (not tapped) to allow wobblefree running when loose on a rod. The flanged wheel had a pulley groove and the boss was inside the flange. The bush wheel was of 1.5mm steel and was very strong and rigid.

Part 24 (the **bevel gear**) had 22 teeth and a diameter of 23mm. Part 25 was a **pinion** 6mm wide with 20 teeth; 25a was a **gearwheel** of 2.6mm face, with 60 teeth and 4 peripheral holes; and 25b was the same thickness with 100 teeth. None of these had bosses in this period.


Nr. 24.

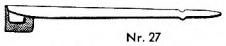

Nr. 30

Part 26, the **windmill sail**, could also be used as a propeller or fan blade, and later in this period a hole was added at each outer corner. It was completely redesigned at the beginning of the next period. Part 27 was a flat spring **click** that was used with a pinion. It was not a real ratchet, as the pinion could be turned in both directions. Part 28 was a **piston rod** of 145mm, threaded 20mm on both ends, and with a smooth middle part of only 3.4mm diameter. Part 30 is described as a **dredger shovel** but had many other uses. In its named role it could be sewed on to the Part 33, the **conveyor belt**. This last was textile belting, 1100* 55mm: an example known from the mid 20s is white but in the 60s it was light blue. Parts 31 was a **wooden cylinder** used with the conveyor-belt, 17mm long; PN 31a was identical but with a centre groove; and 31b was 50mm long. All were 29mm diameter.

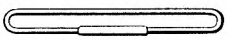

Núm. 26.


Nr. 25b


Nr. 31a

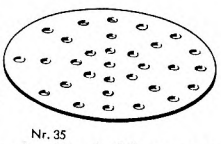

Nr. 27

Part 32, a **contrate**, had 54 teeth and an untapped boss. Part 35 was an 86mm dia **circular plate** without boss, 0.8mm thick; 35a a 38mm **wheel disc**. The **coupling** for threaded rods (Part 36) of this period was cylindrical, cut back at each end to take a spanner. Part 37 was a **Z-formed strip** with only one hole, called a 'Förderhaken', which can be translated as conveyor-hook - it was always in the larger outfits, but the I've only found 2 models in a 1921 manual in which it was used - one of them is shown at the top of the next page.

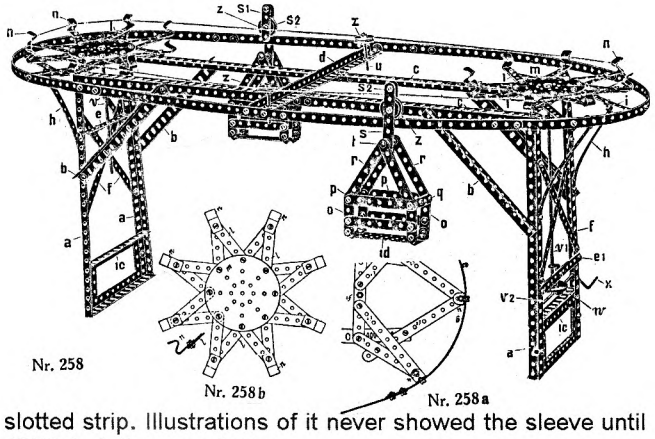

Nr. 40


Núm. 36.


Nr. 37


Nr. 35

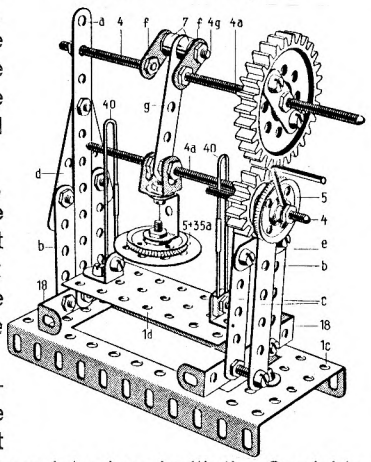
Part 38 was a flat, S-form **wire hook**. Part 39 was a **wooden dowel**, length 50mm and 4mm diameter which could be pushed into strips as rungs of a ladder, with the top and bottom spaced by threaded rods. The **Wire Stay**, Part 40 was a loop of 1.5mm steel wire joined in the middle of one side by a sleeve; it's 64mm long and is in effect a



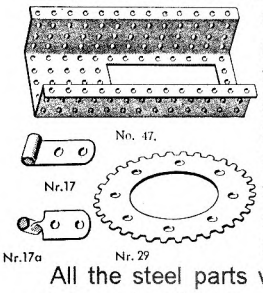
slotted strip. Illustrations of it never showed the sleeve until 1956 but it was always fitted to the real parts. Among its many uses the stay can act as a guide for a sliding rod, as in the 1950's No.49 set model opposite.

The **single bent strip**, Part 41, is similar to the Meccano 102 but was not made from a 5-hole strip: the distance between the sides is 10mm and the overall length is 33mm.

Nr. 118 Exzenterpresse

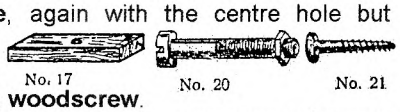


The following parts existed at the end of the first period, but were not included in outfits - they were introduced with the Gewichtsmotor in 1921 or before that. Parts 17 and 17a were **special bearings** for the threaded rods; Part 29 was a **sprocket ring** with 34 teeth; part 35b, a 62mm **circular plate**; and Part 42, **sprocket chain**. Part 47 was the **special base** for the Gewichtsmotor. STABIL sprocket chain had 17 links per 100mm.



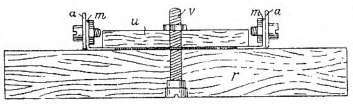
All the steel parts were nickel plated; gears and fittings were made of brass. However during WW1 and into the early 20s brass was in short supply or unobtainable, and all brass parts were replaced by die-cast parts of similar size, or they were made up from sheet steel. In my outfit, parts 7 and 9 were each made from two formed pieces of steel. To give them a brass-like finish, they were shellacked. Also the parts that would normally have been nickelled had a grey metallic finish. The nuts were punched from 2mm sheet steel and showed awful burrs and were slightly domed. This poor quality was only temporary and the parts of my 52a and 53a outfits were to the normal standard with brass in use again, although the problem with the nuts was not solved completely until later in the 20s.

Most of the parts described above, except those introduced late on, are thought to have been available well before 1914. There were in addition at that time certain parts that were no longer listed by 1920. Parts 17,17a,17b, were wooden clamping **beams** (Spannbrett), all 11mm thick with a single central hole in each, and 50*20, 65*33 and 80*20mm in plan. Part 18 was a wooden **plate**, 85*85mm and again 11mm thick with one central hole. Part 19 was a 120*120mm **baseplate**, again with the centre hole but thicker at 17mm. Part 20 was a **special bolt** with nut ; Part 21 was a **woodscrew**.



The baseplate is the part used in the ARTS ET MÉTIERS Crane mentioned earlier. It was included in sets together with metal flanged plates in the c1910 manual but probably initially only this wooden base was included in the system.

The drawing below is taken from the same manual as the Crane, and shows a beam, u, being used to clamp angle brackets in place on the baseplate, r, by means of the special bolt, v. In other models the base was bolted to the baseplate and strips were attached to opposite edges of it with woodscrews.



Two other early parts that disappeared were No.28, a smooth **guide rod** for the die in a stamping machine which looks over 120mm long, and No.29, a **tup block** (Fallklotz).

After these parts became obsolete all their PNs were used later for other parts.

Most of the illustrations of parts from the early years of this period look just like those of later parts. One exception is the **86mm circular plate** which has only the centre and outer 8 holes. Some 26mm pulleys, flanged wheels and a bush wheel found in a small collection of various STABIL parts are thought to be earlier than those described above. They are all turned from solid brass and have similar dimensions to the more modern parts except that the holes in the pulley are large enough to allow a rod to pass through, the outer rim of the pulley groove on the flanged wheel is slightly smaller in diameter than the inner, and the face of the bush wheel is over 3mm thick. In the late 10s/early 20s the 26mm pulley (opposite) had a boss, untapped and 7mm long, and no holes in the face.


Nr. 5.

Although a number of INGENIEUR-style parts were carried across into STABIL, the following, some of which were at least as useful, never were: 5,6,9,11h A/Gs; 5*3 and 5*4h Plates; the 3*2h DAS; the 2*1h Angle Bracket; and the 6h long Girder Bracket.

The Second Period, 1922-33 - a time of flourishing developments

In 1917 all rights belonging to the Meccano company before WW1 were bought by Märklin from the German government and after the war Märklin began selling sets which were based on the 1914 MECCANO outfits. With only a few changes, MECCANO parts up to No.64 were used but Märklin added some new parts in about 1920, or even before. Noteworthy were the flanged round plates with a pulley groove formed into their flanges. No.66 (now 10395) had a diameter of 95mm, and No.67 (now 10365) was 65mm. As an example, a MÄRKLIN No.3 outfit had 4 of No.67 and two No.66. Another new part, No.68 (now 11095), was the Large Ring of 195mm diameter which was included in the largest outfit. And as with MECCANO, even quite small MÄRKLIN outfits contained 25-hole strips.

Walthers had to compete against these MÄRKLIN outfits, and only a revolutionary change of the STABIL system would suffice. So parts were added to the outfits until they were comparable to the MÄRKLIN sets. But adding parts was not enough, new parts were needed that were similar to or better than the new MÄRKLIN ones. This was a great challenge but soon they had more new parts than Märklin. At the end, in 1922, a STABIL No.52 outfit compared favourably with a MÄRKLIN No.3.

The main new parts in 1922 were the flanged rings 21 and 21a. Strips or circular plates could be used to give a centre hole but as the circular plates could also be used separately as large wheels, this made the STABIL outfits more flexible in use than those of their competitors. The large ball bearing No.46 was also introduced in 1922, and was an equally well planned part. It could be said that it was a logical development of the large MÄRKLIN ring.

The Erfinderbaukästen included a collection of many new and interesting parts, which were, and are, unique in the world of MCS. In fact these outfits are very rare, and so they probably did not sell very well. Details of the Erfinderbaukästen will be given in a later article.

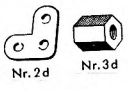
After their introduction in 1926 the patented spur gears

made from sheet steel were included in even the smallest outfit, No.49. They were needed to compete with Märklin's toothed rings, which could be put on the flanges of their flanged round plates. Also some Erfinderbaukästen parts, e.g. the tapped collar and the smooth axle rods found a place in the larger standard outfits. A tyre for the small flanged ring, 21a, was introduced in 1930, and in 1932 three other tyres appeared. They had the name STABIL moulded into their sidewalls, the only parts apart from Spanners, to carry any identification.

From a 1933 German magazine article on the toys of that year, **STABILA** was described as a new outfit for girls with steel parts and wool of different colours, which would probably become popular; and the **KNIRPS motor** (see OSN 11) was also mentioned as a powerful little clockwork motor which in a self-contained tractor model could climb an incline of 30°. Part 5c of the **KNIRPS outfit** can be seen in one of the illustrations and from that we can guess that the KNIRPS outfits, as well as the motor, were introduced in 1933.

It is remarkable that in 1929 Märklin introduced their coloured parts, which were much more attractive than their old black ones, but Walther & Co. kept their nickelled parts until the end. Only some special parts were coloured such as red sideplates for the electric motor, and later the plastic plates.

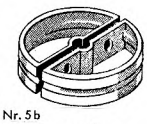
Going on now to details of the new or modified STABIL parts in the second period. The 10-hole long **double strip** was lengthened to 11 holes. The **reverse angle bracket**, No.2a (with no elongated hole), the 20mm wide **double bracket**, 2b, and the **double bent strip**, 2c, were nearly identical to their MÄRKLIN equivalents, but the **flat bracket**, 2e, with a length of 27mm was longer than the corresponding MÄRKLIN or MECCANO part. It is just a 'flat' angle bracket. The 2*2 hole **corner bracket**, Part 2d, was similar to Meccano's 133a but with a sharp inside corner. The **hinge**, 2f, had elongated holes with a minimum spacing of 12.5mm.


Nr. 2d Nr. 3d


Nr. 2f

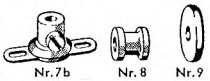
The **bolts** were now cheeseheaded, and the **long nut** 3d was added as a short coupling for threaded rods. Part 5a was a newly introduced **37mm pulley**. Diameters of from 36 to 39mm are given in different manuals but I know of only those of 36 and 37mm. Bolts could pass through its 4 rivet holes. A **37mm split pulley** (5b) was listed from 1930: it was made of brass (nickelled in the 1960s) and when bolted together gripped the shaft. Thus it could be mounted on a shaft in situ - sometimes a great time saver when using threaded rods as axles, but why this particular part was thought necessary isn't clear. It wasn't included in any outfits.


Nr. 5a


Nr. 5b

Part No.7a, the **tapped collar**, was an Erfinderbaukästen part which was included in the standard outfits in the late 20's. Another interesting part from about the same time was the **double arm crank**, 7b. The boss was attached to a raised central area so that the part could be bolted directly over the centre bulge of the pulley 5a without the need to use washers. There was a slotted hole in each arm and the overall length was 31mm.

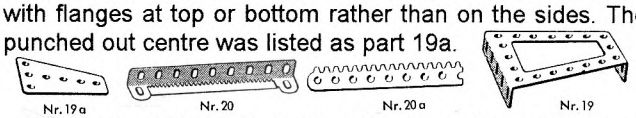
The groove in the **grooved cylinder** No.8 was made much broader. In the mid 20's the part had a total length of 14mm, but after the end of the 20's it was reduced to 10mm. The 14mm dia **pulley** 8a, came with the Knirps motor in 1933. It can be seen in the Stabilobil in 11/273. The **cheek piece** No.9 lost its cone at the end of the 20s and became a washer of 17mm diameter by 2mm thick. It was always made of brass.


Nr. 7b Nr. 8 Nr. 9

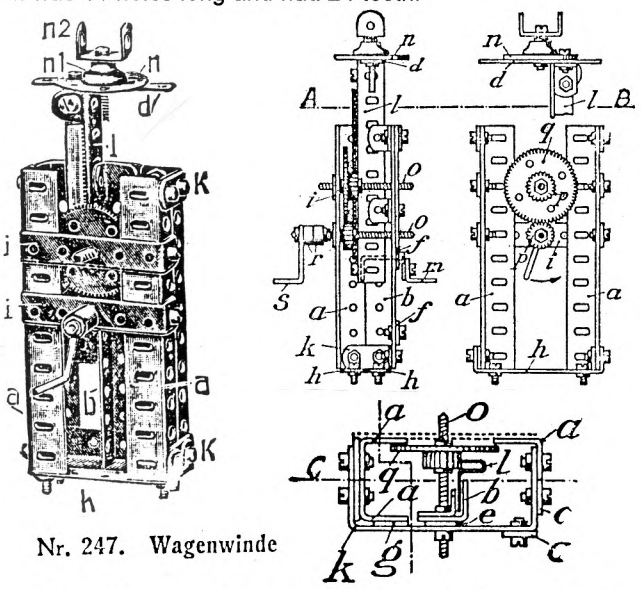
A **screwdriver with a wooden handle** (11a) was added in 1930 and was included in outfits 52 upwards.

The **double angle strips**, 18 (5*1 hole), 18a (5*2) and 18b (3*1), were similar to the MECCANO pattern except that there were elongated holes in the lugs of 18 and 18b. The latter was introduced in 1932.

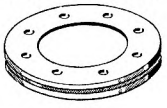
The **sector plate**, Part 19, was not as rigid as the MÄRKLIN or MECCANO pattern but was more versatile with flanges at top or bottom rather than on the sides. The punched out centre was listed as part 19a.


Nr. 19a Nr. 20 Nr. 20a Nr. 19

The **rack strip** 20 had a length of 9 holes and was for use with the fine toothed brass gears. In some models it was used instead of an angle girder. I only know one model where this part was used as a real rack strip - it is the part 'l' in the jack, model 247, from the 1924 53-55 manual (below). It is not in any of the 1940 manual models so its usage might be unknown to those who got their outfit in the 50s or 60s. **Rack strip** 20a was for the '1926' gear wheels, it was 11 holes long and had 24 teeth.


Nr. 247. Wagenwinde

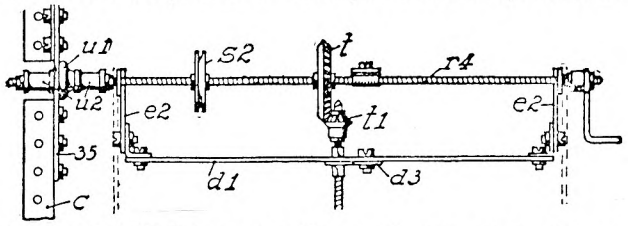
Parts 21 and 21a were the **flanged rings** of 90 and 65mm diameter. Like the MÄRKLIN parts they had a pulley groove in their flange, but the depth of the flange was 8mm against the MÄRKLIN 14mm. As usual with STABIL, the inner part was punched out and simply bolting flat strips across on the inside allowed spoked wheels to be represented. The **narrow strips** 81 and 81a could be used. Or if solid wheels were wanted the faceplates 35 or 35b could be bolted inside. An additional advantage of the central hole was that they could be fastened to the rolled shafts in the Erfinderbaukästen. Although **tyres** were available from 1930, they were not included in the sets except for 4 (for the smaller ring) in the largest outfit, No.55.


Nr. 21a

The thickness of the **bush wheel** was decreased to 1mm. A small **25mm flanged wheel**, 22a, was introduced for outfits 54 and 55. New **bevel gears** were 24a (35 teeth shown in its illustration) and 24b (12 teeth), the small one having a tapped boss. In 1930 the larger one was redesigned with 2 peripheral holes and a boss. They were included in the largest outfit and were used ('t' and 't1' below) in a windmill, model 293


Nr. 22a Nr. 24

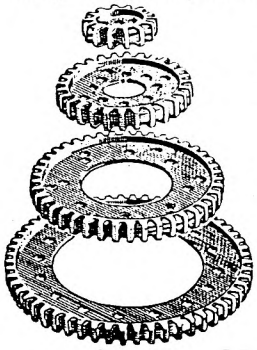

Nr. 24a Nr. 24b



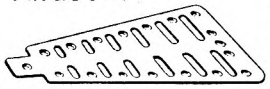
of my 1924 53-55 manual. The original bevel, No.24, was given a tapped boss in 1931, and the **20t pinion** (25) had been given one in 1930 - these additions of course were to allow the parts to be used on the smooth axle rods. All

bosses were single tapped. A 14t **pinion without boss** 25g was used with the Knirps motor (1933) and is shown in Abb.5a in 11/273.

The **patented spur gears** 25c to 25f were added in 1926. They were cheap to manufacture but the teeth could easily be deformed, and there was considerable play in the mesh. The gears had 14, 28, 42 and 56 teeth, allowing ratios of 1:2, 1:3, 1:4. They could also be used as bevel gears. The axles of two 25c had to be 2 holes (25mm) apart, and so on. Again the large centre hole allowed them to be used with the Erfinderbaukästen shafts.



Nr. 25c – f



Nr. 26

Part 26, the **windmill sail**, was one of the first parts changed in the second period. Its shape was altered slightly and the pattern of holes and slots punched in it, at half the standard spacing lengthways, gave much greater versatility. It was 4 holes wide at the tip and 8 holes long.

The **pawl** 27a was similar but not quite identical to Märklin's or the early MECCANO pattern. It was nickel plated and its length overall was about 55mm, 1mm or so shorter than the (black) MÄRKLIN. Another **piston rod**, 28a, 200mm long, was added and included in the No.54 and 55 outfits.

The new small **sprocket wheel** 29a had 17 teeth and 4 peripheral holes. It had no boss and like the larger one was 1mm thick. Both parts had a small hole in the face which could be used to attach a cord. 4 holes were added to the face of the **contrate** in 1930. The **worm** 32a was made of brass and originally had no boss: one was added in 1930.

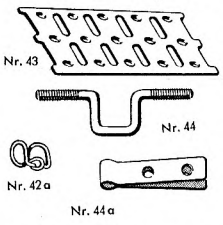
The **tension spring** 34 first had a length of 50mm, later 37mm. Its diameter was 3mm. 34a and 34b were 200 and 400mm lengths of **spring cord**, 2mm dia. One end was tapered so it could be put into the other end to form a loop. 34c was a 55mm long **flexible drive** and threaded rods could be screwed into its ends. It was only suitable for light loads and was not comparable with the MECCANO 175.

As already mentioned the new 62mm dia **circular plate** 35b could be used with the flanged ring 21a, but also found uses as a wheel, or boiler end, or hub for a large wheel, etc. Parts 35a (**wheel disc**) and 35b were reduced to be .5mm thick, but No.35 remained at 1mm. Part 36 the **coupling** for threaded rods was now in the form of a long nut, 20mm in length. Part 36a, a **coupling for smooth rods**, had 2 single tappings and could only be used as a coupling: it wasn't included in the outfits. The new **threaded hook** 38a became the standard hook. The length of the **wire stay** 40 was changed to 70mm, and 40a, 117mm long, was added. At the end of the 20's it was reduced to 110mm. 40b was a **clamp** to allow other parts to be bolted to the wire stays.

Nr. 34c Nr. 38a Nr. 40b

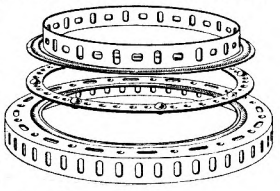
Part 42a was a **special sprocket chain link** with extended ends shaped to allow a rod to be 'carried' in them. Their shape is not obvious from the illustration but can be seen in the auxiliary view on p8 of OSN 1. The ends could be bent slightly to take a bolt, which allowed other parts to be attached to the chain. You can easily make such a part from the wire of a paperclip.

Parts 43-43c were thin **slotted plates,** 3 holes wide and 5,11,15,25 holes long. 2 slots were punched between all the rows of holes. This part was widely used as a plate, girder web, railing, cover, etc, and could easily be curved or bent.

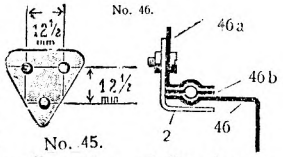


Nr. 43 Nr. 44 Nr. 42a Nr. 44a

The **crankshaft** 44 was 50mm long with a throw of 25mm. 12.5mm at each end was threaded. Part 44a, a **connecting rod** could be prised apart to slip it over the crank. The small **triangular plate**, 45, looks similar to the MECCANO 77, but the holes are not equilaterally spaced.



No. 46.



No. 45.

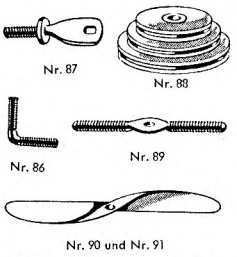
The **large ball bearing** No.46 was perhaps the best and most ingenious STABIL part. All the parts, even the ball cage, were made of thick metal. It was self centring and for a large crane security against tipping was possible by bolting angle brackets to the vertically elongated holes of the upper ring. From the models in the manuals I guess the outer diameter of the lower flanged ring to be 187mm (15 holes) and the inner diameter of the upper flanged ring, 136mm (11 holes). The upper and lower rings could of course be used separately in many applications. The part was quite expensive, in 1930 it cost RM6.50, against RM5 for a No.49 outfit and RM10 for a No.50.

Paper sheets, plain and representing brickwork, roof tiles, and roof slates (48a-d) were available but weren't at this stage in any of the sets.

The Erfinderbaukästen **smooth axle rods** Nos.60-60d (50,90,120,150,250mm long) were included in the larger sets in the late 20s. I only know these from the 1960s and then the ends were guillotined.

The **tyres** already mentioned were Nos.84, for the smaller flanged ring, in 1930; and in 1932, 84a for the flanged wheel 22 and larger pulley 5, 84b for the smaller pulley 5, and 84c for the large flanged ring 21. Until after WW2 only 4 of 84 were included in set 55.

Other parts from 1930 were No.85, a **7-hole strip** with elongated end holes (an unformed 5h DAS); No.86, a **threaded angle rod** (15*15mm), which was used as a lever or handle; and a **handrail support,** No.87. And from 1932, a **cone pulley**, 88 (25/31/37mm dia.); and a **threaded bearing support**, 89. 1933 saw **propellers** 90 and 91, 100 and 140mm dia. Only No.85 was included in the outfits.



Nr. 87 Nr. 88 Nr. 86 Nr. 89 Nr. 90 und Nr. 91

The Third Period, 1934-55 - relative quiet

After the death of Emma and Franz Walther in 1933, Walter Walther became exclusive owner of the firm Walther & Co. It was a well run company at that time and had made steady progress up to 1933.

I don't have full information about the STABIL system from 1931 to 1955 and unless otherwise stated what follows is based on manuals from 1936 and 1955. Changes to the models in the 49-52 manuals from 1929 to 1936 were minimal, about 10% of new models for outfits 49 and 50, and 2 new models for outfit 51. The new models either incorporated the Knirps motor or tyres 84b, and may have been added as early as 1933. The main changes were to the covers and the advertisements.

There were no new models in the manuals from 1936 to 1955. After WW2 only minor changes were made, such as those made necessary because the Erfinderbaukästen sets and most of the parts were no longer available. In a 1936 manual it was said that in 1937 the famous STABIL model competitions would be held again but the 53-55 manual printed in 1940 shows only models from competitions held in 1930 or before. So it is likely that it was a reprint of a manual from the end of the second period. There were certainly no competitions after WW2.

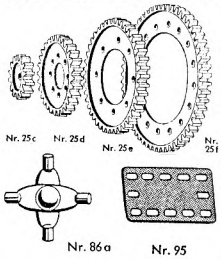
Were there changes to the parts or outfits? Two of interest were noted in a journal printed in 1938. Walther & Co. had introduced moulded Bakelite gears, and some parts

which were formerly of brass or nickeled steel, were now made from aluminium alloy. Also there was a note in a manual from 1941 saying that in all probability some parts that had been brass or nickelled steel would be made of aluminium alloy or plastic, but that the shape, dimensions and usability of the parts would be the same, and that their toughness would meet all requirements. I can't believe that using aluminium alloy was a success, it was done prewar merely as a gesture to the self-sufficiency policy of that time, and during the war no doubt because of material shortages. I've never seen any alu parts, or found any in outfits from after WW2. But the gears 25c to 25f in Bakelite were certainly a real success, they were rigid, meshed well and could transmit ample power. They looked good in cranes, and in other models of machinery that used large gears. Another significant introduction was a range of light blue plastic plates, but exactly when isn't known.

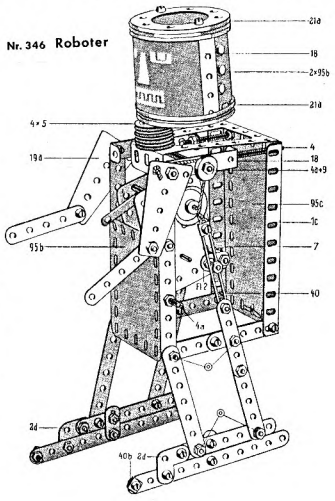
There were virtually no changes to the outfits in this period, and, all in all, It is possible that Walter Walther didn't have the interest, or perhaps he didn't have the time, to continue to develop the STABIL system, and maintain the high standing it had attained. When Märklin introduced new types of constructional sets he didn't respond as Franz and Emma might have.

After the war the Erfinderbaukästen were not reintroduced, nor were the 54 and 55 outfits but the complementary outfits 53a and 54a were still available. The No.48 was the smallest outfit.

The known changes in detail were as follows. At some time after WW2 the **bolt** head was changed to a tapered cheesehead shape similar to that used by Märklin. A 55mm **threaded rod**, 4e, was shown in 1936 but was no longer listed in 1955. The **1938 gears** 25c to 25f were moulded from dark yellow Bakelite and had the same number of teeth as before. A 110mm long **crankshaft**, 44b, first seen in a 1936 manual, had the same throw as the shorter one and was threaded for 30mm at each end. After the war 4 **tyres** 84b for the small pulleys (5) were included in all outfits and 4 of 84a (for the flanged wheels 22) were included in sets 51 and above. In 1955 a **spider** for a Cardan joint was listed (86a), to be used with 2 single bent strips, No.41. The light blue **flexible plastic plates**, 95-95c, had 3*5, 5*5, 5*7 and 5*11 holes, all of them slotted lengthwise, and were probably added to the sets at some point after WW2. The 1955 manual shows changes to the paper sheets - 148c represented block masonry and 148d roof tiles.



The Fourth Period, 1956-72 - a last try The period after WW2 was not advantageous for Walther & Co. Their best market had been in north and east Germany, around Berlin, to the south-east to Breslau (today named Wroclaw), and to the north-east to Königsberg (today Kaliningrad). These last regions were no longer part of Germany and the rest of eastern Germany became the GDR. So the only market was in West Germany or elsewhere in the west.



But in 1956 a new 49-52 manual was produced. Most models were taken from the previous period: for outfits 49 to 51 less than 30% were new, and for No.52 about 50%. The new models were mostly attractive and modern looking, like the clockwork powered Robot opposite, but they were only shown as a drawing with some limited explanatory text. The clear technical language in the description of the components that was used for the old models was not given for the new ones. So you can clearly distinguish which models came from the past, most from the second (!) period, and which were new. However the drawings for the old models had been replaced by better ones and parts that had been introduced or changed in the 1930s were seen in the new drawings for the first time. For example the tyres, the Bakelite gears, and the more recently introduced plastic flexible plates. The manuals from 1956 until 1965 all show the same models. The 50 year jubilee sign '1906 to 1956' was printed on the cover until the mid 60s; after that it wasn't used but the models remained unchanged. In 1967 and later, a manual for outfits 49 to 51 was issued.

The 1940 edition 53-55 manual continued to be used until the firm closed.

With the change to the 49-52 manual in 1956, a few parts were added to the system or were changed. Part 4a, the 90mm **threaded rod**, was lengthened to 100mm. The **grub screw** 7c was introduced. The **spring cord** 34b (400mm long) was withdrawn and 2 of the 200mm 34a were put in the large outfits instead. In 1957 the **plastic plates** became available in green, yellow and red as well as blue, and the first battery driven small electric motor was launched. From before 1955 until the mid 60's, Parts 148, the **paper sheets** coloured as brickwork, etc, which had been available since the 30's as extra parts, were included in the outfits. In 1965 a **plastic rivet** was introduced but had been withdrawn by 1968. The **handrail support** was no longer available in 1968.

In this period, all the **pulleys** 5 to 5c, the **double arm crank** 7b, the **flanged wheel** 22, and the **worm** 32a, were made of steel rather than the brass used up to then, and were nickel plated. I don't know about the bevel gears as I have seen none from this period. Parts 7, 7a, 8, 9, 25, 25a, 25b, and 32 were still brass.

So a rather sad end perhaps to a once proud system. They did try though - Meccano and Steel Tec have only recently caught up with the STABIL-boy idea (opposite), taken from a 1969 leaflet.

This is all I know about Walther & Co., and about STABIL - any additional information or comments would be very welcome.

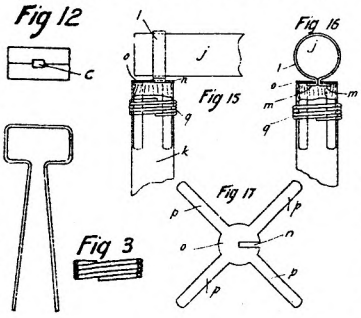
Sources and Acknowledgements I own 49-52 manuals from 1920?, 1929, 1936, 1955, 1957, 1961. I also got info from 1921, 1924, 1925, 1931, 1938, 1941, 1966 manuals. My 53-55 manuals are from 1924, 1925, 1940, and I saw a 1921 one. I also have a copy of the "Erfinderbaukästen' manual, 1. Auflage (first printing) from June 1925, and some details from the 'c1910' manual.

Thanks are due to all who helped me with manuals, information, etc., including Josep Bernal, Jeannot Buteux, Jean Estève, Ulrich Glage, Ansgar Henze, Tony Knowles and Dieter Müller.

[Details of the Erfinderbaukästen and STABIL motors will appear in due course. After that Extra MCS Sheets will be prepared. Particulars of STABILA are given elsewhere in this Issue.]

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

David has also tracked down the French patent for **AJUSTO** (12/315): it turned out to be No.750927 and not the number on the Manual, which had nothing to do with toys. The date of application was 17 February 1933 and it was in the name of Robert Tassel, resident of Eure (to the east of Paris). Of the various clips shown in OSN 12, only types A and B are shown, but an alternative form of A is included (Fig. 3), and also clips to unite various sections other than semi-circular, rectangular for example (Fig.12). A method of joining solid rods is also given (Figs.15-17) - one rod is held in the clip l, which engages in the slot in the thin metal cap o, whose arms are bent down over the other rod and are held by the spring clip q.



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

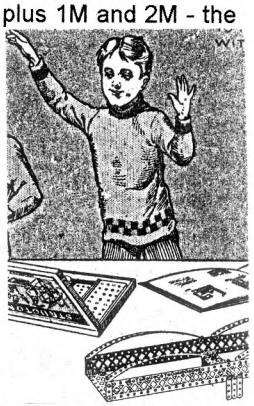
4. Josep Bernal sent a copy of the cover of a 1921 **STABIL** Manual for Sets 49-52 in Spanish. It is basically the then normal STABIL standard with the righthand panel like the DEN LILLE INGENIØR one in 7/157 and on the left, „Stabil" and the text details in Spanish.

5. John Hanby wrote that he had recently acquired a **JUNEERO Engineer's Set** (see 8/178, 9/216) and that it is almost certain that it was originally bought at Xmas 1940. The metal Discs in it were 2.50" and 1.75" dia, different to the postwar ones described in OSN 8, and those in my Engineers' Set were different again at 2.13" and 1.68". All were the same thickness.

6. Don Redmond has discovered that at least from 1936 to sometime in the 1960s, the major occupant of the address given for **THE ENGINEER** (12/328) was Armstrong Bros., machinists (Armstrong Bros. Engineering from about 1945 on). He also notes that the Screwdriver shown may have been a commercial, bought in item, and is similar to the AMERICAN MODEL BUILDER one, and to those supplied with White sewing machines ca.1919.

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

In a later letter Don wrote that in the *Canadian Encyclopedia* under *Toys,* it is said that the **Manual Construction Co**. and the **Reliance Toy Co**. both made steel construction sets. Reliance is one of the big firms in Canadian toys but so far no details about Manual are available. For STRUCTOMODE the same article gives the dates 1920-29 under Canadian Toys Ltd. [A Canadian Toys manual has a Price List dated 1918 in it. The maker shown in another manual is Structomode Ltd., again of Hamilton, and fewer sets are listed, 00 to 3 against 0 to 6 plus 1M and 2M - the prices of corresponding sets are higher, $6 for a #3 against $4. The Little Hustler motor and the distinctive Braced Girders are no longer in the Parts List although the manual cover shows some of the latter but with MECCANO cutouts. The right-hand boy on the cover is wearing a jumper with a 'diced band' around the bottom, instead of that rather fancy jacket (see MCS). The Windmill Sail shown is also MECCANO-like with an arm, 6 bumps and rectangular holes, instead of the round holes in the Canadian Toys manual. Mainly because of the jumper I'm inclined to think that Structomode Ltd. came after Canadian Toys.]



7. Roger Baker bought a German set called **MECANIC** recently with parts that seem the same as those for the German MEKANIK in MCS. [In MCS Part 5 there's a Swedish MECANIC which is virtually the same as their MEKANIK - does anyone know anything of the change from 'Cs' to 'Ks' or vice-versa?]

8. Kendrick Bisset wrote that he has been told that the **MODELIT** Motor No.10 (12/327) was a Weeden product with the nameplate changed; also that he remembers seeing an ad for a motor similar to the one in the Loom (12/332), and it may have been a 'Little Hustler'.

On differences between similar parts from different systems he has found that the small hole for cord in old **MECCANO** Crank Handles is 1½" from the end, while **AMB** holes are 1½" from the bend.

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

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

10. On **JUNIOR MECHANIC** (12/327), Al Sternagle wrote that he has a smaller #101 set in a 11½*8¼" box, and thinks that it dates from the 1950s. As with the 201 there were no tools or manual with it, but 6 models are shown on the lid. The thread is 5-40 with the same length Bolts as in the 201, and the Nuts are $^{5}/_{16}$" A/F and $^{1}/_{16}$" thick. The thread on the end of the Crank Handle is $^{11}/_{16}$" long.

11. Tony Matthewman, in reply to a question, said that **TRIX** Angle Girders were not introduced until after WW2, and that Continental ones were, and are, steel, and not aluminium as in the UK. He also mentioned that a German mail order house called Quelle has for several years sold 3 of the current TRIX sets under the name **QUELLE GOOD PLAY**, but 'TRIX' is also on the box lids in small letters.

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

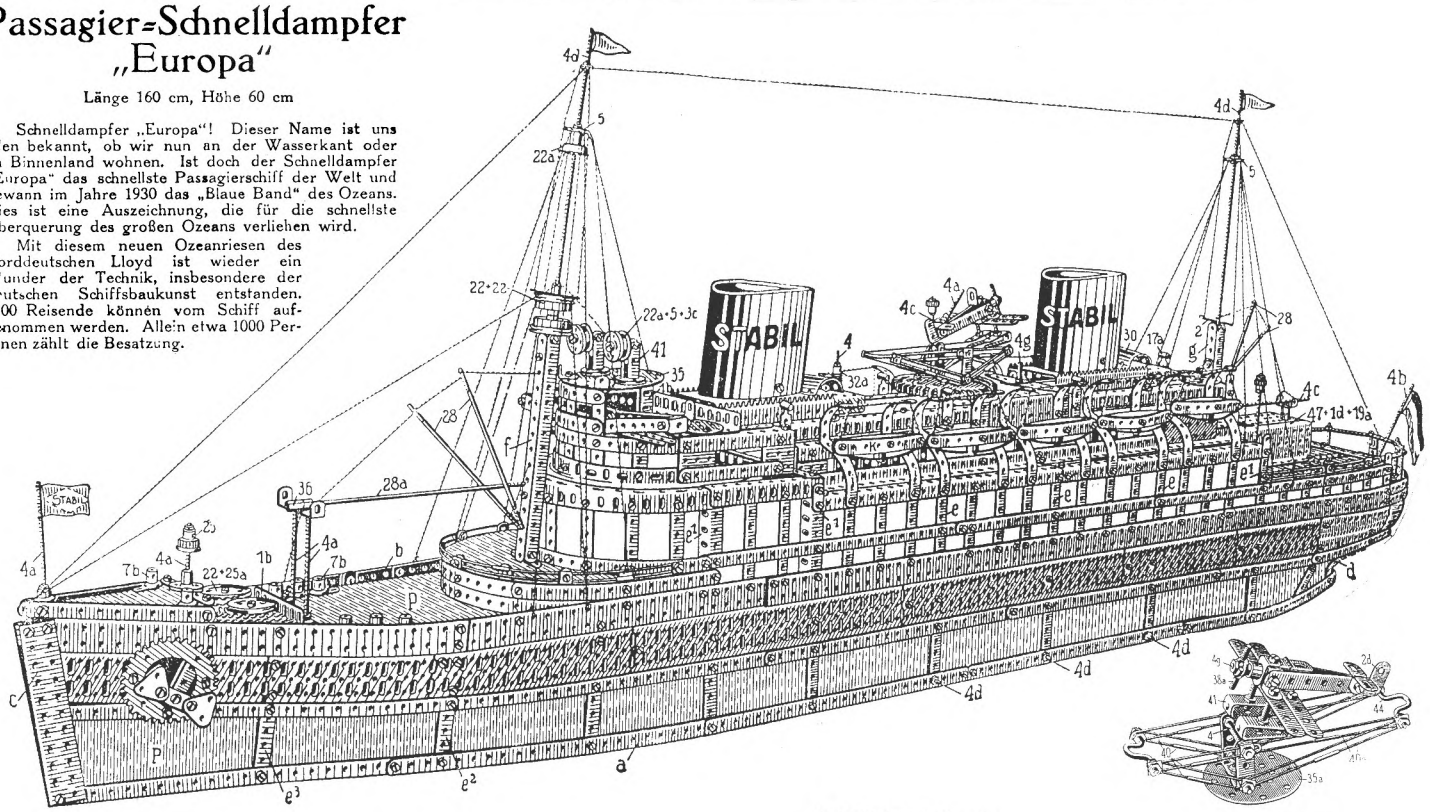
Nr 714

Passagier-Schnelldampfer „Europa"

Länge 160 cm, Höhe 60 cm

Schnelldampfer „Europa"! Dieser Name ist uns allen bekannt, ob wir nun an der Wasserkant oder im Binnenland wohnen. Ist doch der Schnelldampfer „Europa" das schnellste Passagierschiff der Welt und gewann im Jahre 1930 das „Blaue Band" des Ozeans. Dies ist eine Auszeichnung, die für die schnellste Überquerung des großen Ozeans verliehen wird.

Mit diesem neuen Ozeanriesen des Norddeutschen Lloyd ist wieder ein Wunder der Technik, insbesondere der deutschen Schiffsbaukunst entstanden. 2200 Reisende können vom Schiff aufgenommen werden. Allein etwa 1000 Personen zählt die Besatzung.

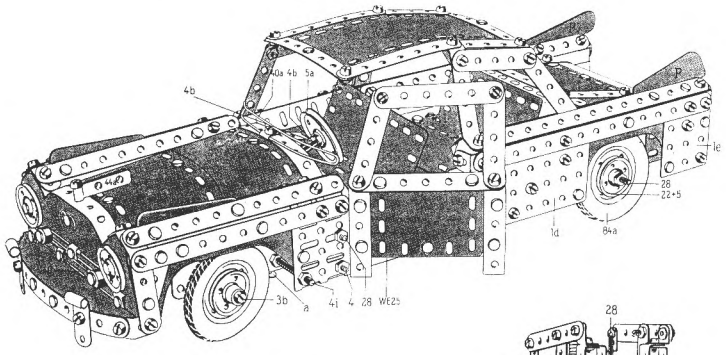


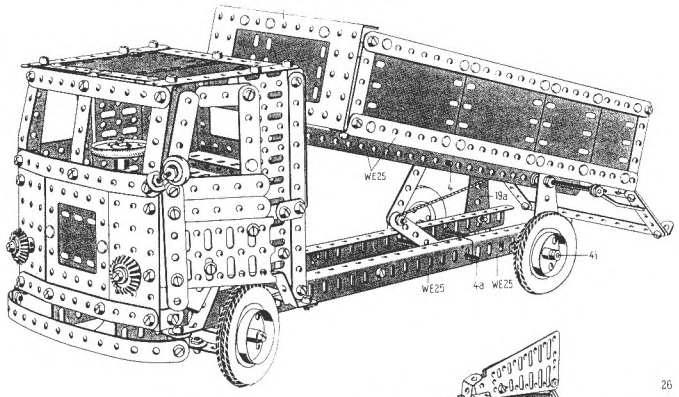
Nr. 423 Personenkraftwagen

Abb. 714a Katapultanlage

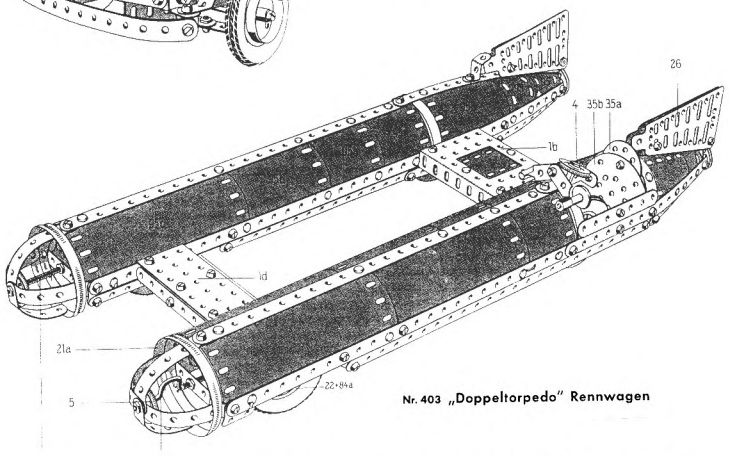
Walther's „STABIL"

The Liner above is from a 1940 manual; the other models were in the last manual issued in 1956. See p348 for more on STABIL.





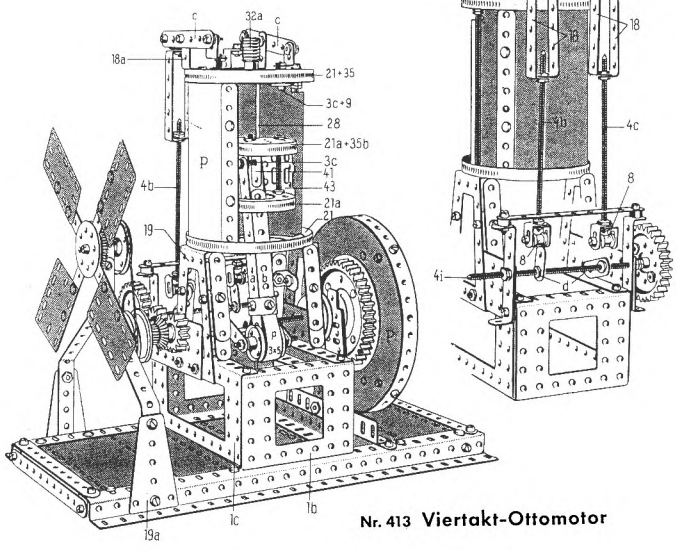
Nr. 414 Kipplaster



Nr. 403 „Doppeltorpedo" Rennwagen

Um für Rekordfahrten eine möglichst günstige Stromlinienform zu bekommen, hat man diese Wagenform konstruiert.

Wir haben hier bewußt keine Zeichnung der Lenkorgane zugefügt. Seht Euch bei anderen Modellen die verschiedenen Bauweisen an und dann entwickelt selbst einmal für dieses Modell die Lenkung.



Nr. 413 Viertakt-Ottomotor

Teile zum Schnittmodell Viertakt-Ottomotor:

1 Kurbelwelle	4a + Fl. 3 L.lg. + 4 + Fl. 3 L.lg. + 4a
2 Gegengewichte	Nr. 2d
1 Pleuelstange	a 2 Fl. 11 L.lg.
	b 2 „ 7 „ „
1 Pleuellager	3 × Nr. 5 (verkleidet)
1 Kolbenbolzenlager	Nr. 41
1 Kolbenbolzen	„ 3c
1 Kolben	2 × 21a + 35b + 43 + 4 + 44
1 Zylinder	2 × 21 + 35 + 2 × 4b + 2 Fl. 9 L.lg.
1 Zündkerze	Nr. 32a
2 Ventile	„ 3c + 9
2 Kipphebel	c Fl. 6 L.lg.
1 Kipphebellager	Nr. 18a
2 Stößelstangen	„ 4b + 2 × 18 + 8
1 Nockenwelle	„ 4i
2 Nocken	d Fl. 2 L.lg.
1 Nockenantrieb	2 Nr. 25c + 25d

Beim Bau des Motors ist darauf zu achten, daß die Nocken die Ventile im richtigen Augenblick öffnen.

	Einlaßventil	Auslaßventil
1 Ansaugen	auf	zu
2 Verdichten	zu	zu
3 Arbeitstakt	zu	zu
4 Auspuffen	zu	auf

Wenn nach dem Verdichten der Kolben seinen oberen Totpunkt erreicht hat, wird durch die Zündkerze die Verbrennung des angesaugten und verdichteten Luft-Gasgemisches eingeleitet. Die Nockenwelle dreht sich mit der halben Drehzahl der Kurbelwelle. Um die Kurbelwelle nicht zu dünn erscheinen zu lassen, sind einige nicht erforderliche Teile daraufgesteckt. Damit der Kolben bei dem Schnittmodell vorne nicht herausfallen kann, wird er durch 2 Stangen Nr. 28 gehalten.

The STABIL ERFINDERBAUKÄSTEN These Inventor's Outfits, to use their English name, were mentioned in the history of STABIL in OSN 13, and as explained there, they were intended to be used with the regular STABIL sets. This account is based on material sent by Werner Sticht, and has come mainly from an incomplete No.57 Set and the 1925 manual with it, for Sets 56 and 57, all of which Dieter Müller kindly made available to Werner.

There were three sets, Nos.56 and 57 introduced in 1925, and the smallest, No.55, which came later: just when isn't sure but certainly by 1929. Neither the sets nor the special Inventor parts were reintroduced after WW2. The new parts fell into three main categories:

- 14 and 25mm dia Rolled Shafts, and associated parts, including Ball Bearings for them to run in. Plus similar Bearings for the existing Threaded Rods and for new 4mm diameter Smooth Axle Rods.
- Flexible Bands with slots in them that would accept Single Gear Teeth, thus allowing large-tooth gear wheels to be made up. There was also a Crown Ring with slots for the teeth of a crown wheel.
- Various other parts including Curved Strips, Square and Rectangular Frames, T and L shaped Brackets, and a Circular Strip of 50mm pcd.

THE BEARINGS AND SHAFTS The Bearings were the cone and cup type (as used in bicycles) with the balls held in a cage. The parts and assembled Bearing for Threaded Rods are shown in Fig.1. To mount the Bearing the Cup part could be bolted to the Flanged Mounting Bracket, No.83, or to the local structure, using Angle Brackets for instance. The Bearings would have to have been used in pairs, and then the slots in the flange of the Bracket would allow adjustment of the play, provided the Cups were in about the right place on the Threaded Rod.

For Smooth Rods the same parts were used except that the Cone 63, was replaced by No.63a (see Fig.1), which was held on the Rod by a Set Screw.

Fig.2 shows the arrangement for the Rolled Shafts, in this case for the 25mm size. The Cone 63c is held by the Tapered Rolled Pin, 67a, made of springy steel. Its diameter goes from 4.5 to 4.0mm and it is ridged at the smaller end. So presumably it would be pushed through until the ridge pops through the far hole and the large end should then be tight in the holes on its side of the shaft - but would it be tight in the other side? It's possible I suppose if the dimensions of the pin were just right and there was enough spring to it. Werner says that their cross section is like the letter 'c'. There's no suggestion that the holes on opposite side of the Shaft and fittings were of different sizes but I don't know that for sure. The 14mm parts look like scaled down versions of those for the 25mm shaft. For both Flanged Mounting Brackets similar the those for the 4mm bearing were provided. None of the Mounting Brackets, Nos.83,83a,83b, are mentioned in Dieter's manual and were not in his set. They are included in the next list of parts available, from 1929. The Balls used in the larger Bearings are 4.75mm dia; those for the small size are missing from Dieter's set.

The Shafts were rolled from .7mm thick steel and the edges butt together. There were two 25mm Shafts, 11 and 15 holes long, but only one, 11h long, of 14mm diameter. As can be seen in Fig.3 both had rows of slots between their rows of holes, and the former were sized to allow a standard Strip to pass through.

Various fittings were used with these Shafts. The standard circular parts with a large centre hole could be bolted to Flanged Collars (66 and 66a), which were fitted to the Shafts with the Rolled Pins (Fig.4). The 14mm Flanged Collar had one circle of 8 holes, 25mm (2 holes) pcd; the two (staggered) circles in the larger size were spaced at 3 and 4 holes across (although in some illustrations only one circle of holes is shown). The Flanged Collars were also used as a mounting when the Shafts were used structurally as columns, etc.

14mm Shafts could be joined using a 50mm long Rolled Shaft Coupling, No.61a, held by two of the Rolled Pins. Fig.5 shows this part and three other ways of joining either size of Shaft - by fitting Flanged Collars to the ends and bolting them together; or by fitting the special Hook Brackets into opposite slots and joining them with Strips or Threaded Rods.

THE GEAR WHEELS The various parts are shown in Fig.6. The Single Teeth (No.77) were made of spring steel, about .33mm thick, and are a bronze colour. They are 10.5mm wide and 9mm high. To mount them they had to be squeezed and to avoid overstrain, special pliers were included in the outfits, with jaws that were 3.6mm apart when fully closed.

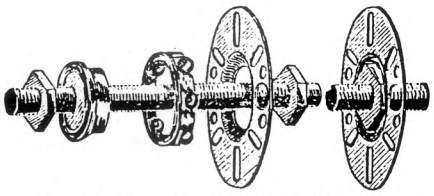
The Slotted Bands, 75-b, into which the Teeth are sprung, were made from very springy steel, .3mm thick and 12.5mm wide, and were in 3 lengths with 17, 33 and 65 slots. The two end slots were overlapped and a Tooth going through them held the Band together, giving 16, 32 and 64-toothed rings. A 64-tooth wheel would have a diameter of about 200mm. Claw Brackets, 69, were inserted at intervals inside the teeth, and gripped the ring when they were bolted to one of the Flanged Collars as a hub, using Strips as spokes for the larger wheels. A Claw Bracket was always used where two bands were overlapped because it held them tightly together.

More overlap could be used if smaller gears were required although it may not have been practicable to have had many fewer than 16 teeth. Larger gears could be made by using more than one Band but Werner found that the pitch of the slots in each size of Band was slightly different and so it wouldn't have been advisable to use ones of different lengths together, or indeed possible if more than one or so holes overlapped. The pitches measured were 9.0mm in the 17h band, 9.6 in the 33h, and 10.0 in the 65h. The corresponding slot lengths were 5.0, 5.6 and 6.0mm, and such a systematic variation in both measurements must surely have been intentional. If so was it to give better running or for some other reason? Taking a mean value of the pitches gives a Modulus of close to 3.

The manual also shows rack strips with the Claw Brackets bolted to a standard Strip, or to Curved Strips, No.79, to give a curved rack (S1, S3).

The o.d. of the Crown Ring, 76, is 171mm and there are 48 slots for the Teeth. The pcd of the inner ring of 32 holes is 125mm, so an 11h Strip would bridge across. The steel used was .55mm thick and this means that the Ring isn't very rigid: no doubt for this reason it is shown in the manual (BB and CC in Fig.6) attached to a substantial hub or braced by (Curved) Strips.

THE OTHER PARTS One of the problems that had to be overcome with the introduction of Smooth Axle Rods was how to attach Pulleys, Gears, etc, most of which at the time didn't have bosses. Two of the Inventor parts allowed all but small parts like the Pinion and Worm to be so fixed. The first was a Spring Sleeve with two Hooks at the base (No.70). How it was used can be seen in Fig.7(A) - the hooks engage in two of the holes in the 25mm Pulley and the Collar (7a) is held by the springiness of the Sleeve. No



Nr.63 Konus | Nr.64a Kugel-halter | Nr.65a Lager-schale | Zusammen-gesetztes Kugellager

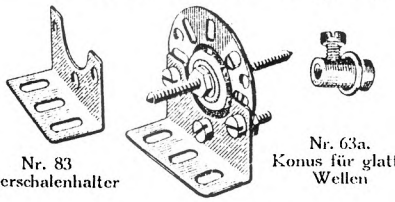


Fig.1

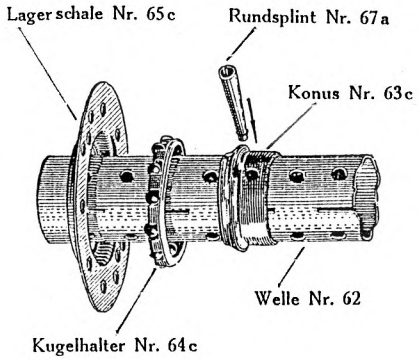


Fig.2

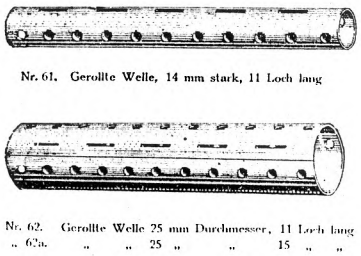


Fig.3

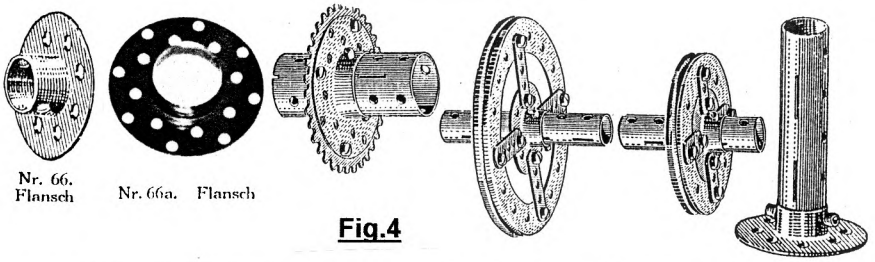


Fig.4

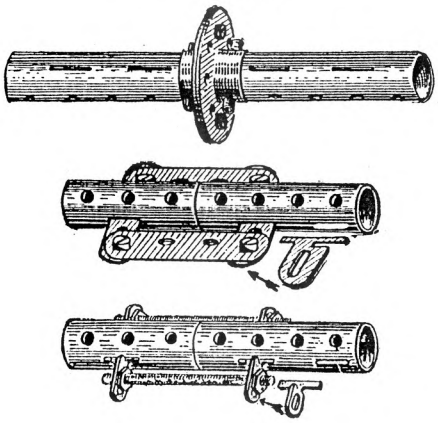


Fig.5

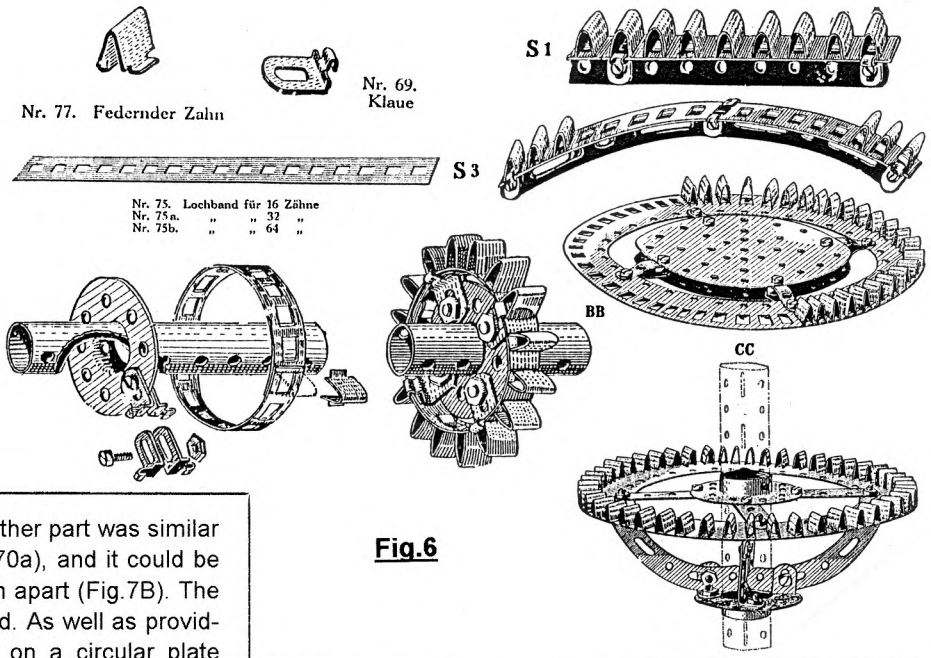


Fig.6

other use is shown for this piece. The other part was similar but with lugs replacing the hooks (No.70a), and it could be bolted to any part that had holes 25mm apart (Fig.7B). The holes in the lugs were slightly elongated. As well as providing a central boss it is shown offset on a circular plate (Fig.7K) to provide an eccentric. In effect the Lugged Sleeve with a Collar formed a double arm crank; later a proper Double Arm Crank, No.7b, was introduced but it isn't known if it replaced the Lugged Sleeves in the Inventor's outfits.

Fig.8 overleaf shows the various new structural parts. The T and L Brackets were missing from Dieter's set. The Frames are .95mm thick and each set of three was pressed out of one piece of steel.

Two of the Curved Strips 78 make a circle 7 holes across when butted together, and similarly four of the 79's give a 9 hole diameter circle. The Circular Strip, No.80, is 5 holes across and the o.d. and i.d are 62 and 37.3mm. Werner notes that the Crown Ring, the Curved Strips, the Circular Strip, and the Wheel Disc, 35a, are all .55mm thick and one circle of each of the Curved Strips, and one each of the other parts could have, and probably did, all come from one piece of steel. Apart from the Wheel Disc, this is the number of each of the parts in the No.58 set and none of them are included in the smaller outfits. And it is interesting to see that in the illustrated parts list in the manual the Curved Strips are shown with square corners. They also have a different pattern of holes there, with alternate round and elon-

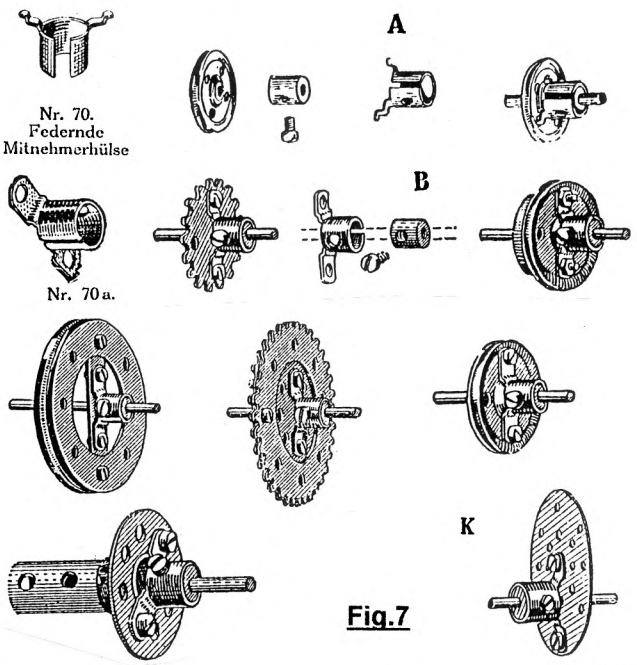


Fig.7

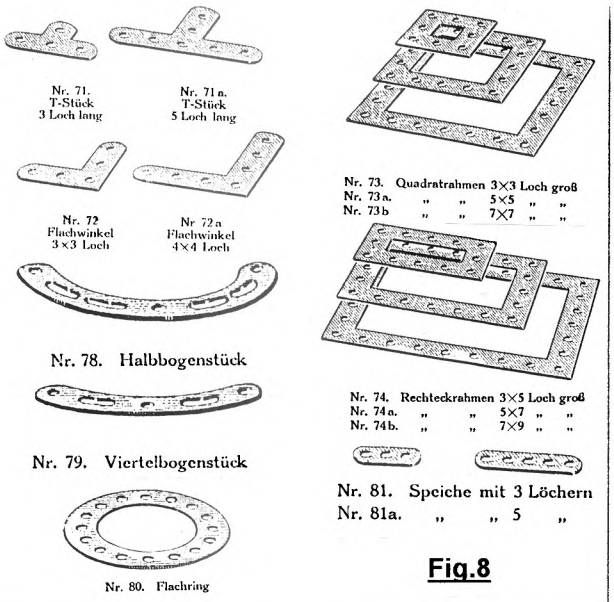


Fig.8

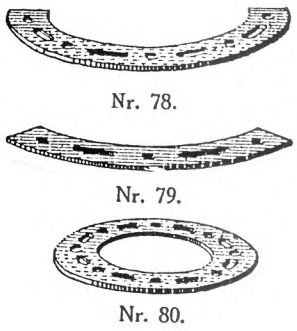


Fig.9

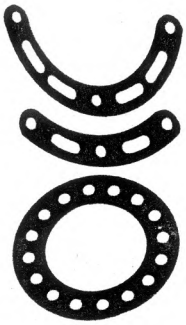


Fig.10

has a different pattern of holes there, with alternate round and elongated holes, as does the Circular Strip, but both are shown correctly everywhere else in the manual. Fig.10 shows actual parts, taken from a photograph.

Finally (in Fig.8), two narrow strips, called Spokes, with holes 6.25mm apart, half the normal pitch. No.81 has 3 holes and No.81a, 5. Their width isn't known, they were missing from the No.85 set.

All the Inventor parts except the Gear Bands and Teeth were nickel plated.

THE OUTFITS Illustrations of the sets are shown below. In the Contents of the largest set, No.58, given in the 1925 manual, the only standard parts included were 100 N&B and 5 Collars. The other main parts were:

- 2 complete Bearings for use with Threaded Rods, and 2 for the 9 Smooth Axles (50 to 250mm long).
- 6 of the Spring Sleeves, 2 with hooks (70), and 4 with lugs (70a).
- 2*14mm Shafts (11h long), a Coupling for them (61a), 4 Bearings, and 4 Flanged Collars.
- 2*11h and 2*15h 25mm Shafts, 4 Bearings, and 4 Flanged Collars.
- 2*17-slot Gear Bands, 1 each of the 33 and 65-slot Bands, and 1 Crown Ring. 120 Gear Teeth, and 24 of the Claw Brackets.
- 2 of each size of T and L Brackets, and of each Square and Rectangular Frame. 2 of the half circle, and 4 of the quarter circle Curved Strips. 1 Circular Strip. 8 each of the 3 and 5-hole Spokes.

The No.57 set had no 25mm parts, and about half the number of Smooth Axles and Spring Sleeves. For the gears there was only one each of the 17 and 33-slot Bands, 50 Teeth, and 16 Claw Brackets. There were no Frames, Curved or Circular Strips, and only 4 each of the Spokes. No 3-hole T Brackets are listed for this set in the manual but the part can be seen in the illustration.

No detailed list of contents for the No.56 outfit is available but from the illustration the main parts are 2 Bearing for Threaded and 2 for Smooth Rods, and 1*14mm Shaft with 2 Bearings for it. All sizes of the T and L Brackets can be seen, and the Spring Sleeve with Lugs. No gear parts were included.

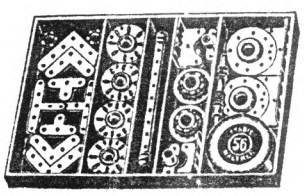
THE MANUAL It is the 1st Edition of June 1925, for Sets 57 and 58, with 32 pages plus covers. The pages are the standard size and the cover is the one shown in 7/157 with 3 children and the logsaw. At the front are 8 pages showing the parts and how they are used. Then 19 models starting with those needing Sets 50 and 57 and going through to a single model that needed the No.58 Outfit, with Set 53. Werner sent copies of 8 of them and 3 are shown on the back cover of this Issue, although space doesn't allow all the details to be included.

The Press is one of the better of the smaller models but as with others of this size, the gears look a little too coarse if anything - notice the Coupling, 61a, being used as the sliding tool holder. The Bearings for the main top Shaft are attached to the side Strips by Angle Brackets, and their slotted holes no doubt allowed adjustment of the play in the Bearings.

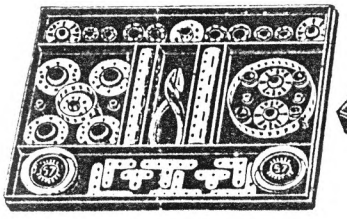
The Tipping Lorry is one of the medium sized models. The front and back axles are similar but the front Bearings are bolted to a frame which is pivoted centrally to provide steering. It's a very fair model but it does I think show some of the limitations of the new parts - how could a differential be fitted to the back axle? - how could Ackermann steering be arranged?

The last model in the Manual is the Flettner Rotor Ship. This was an up to the minute model in 1925 - the first report of such a craft in Meccano Magazine was in January of that year. In the real thing the wind acting on the vertical rotating cylinders produced an aerodynamic force normal to the wind direction, rather like a sail on a yacht. 25mm Shafts are used as the cylinders in the model, each running in a pair of Bearings, and driven by cord which passes around one of the Flanged Pulley Wheels on which the model can be pushed along.

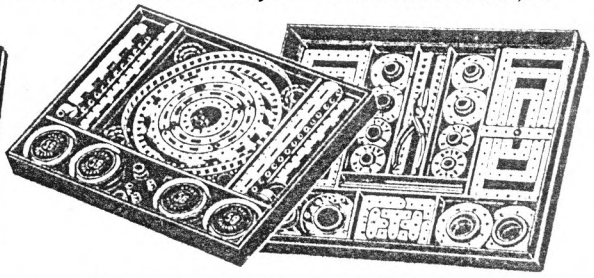
THOUGHTS In that not many of the Inventor's Sets, or



Nr. 56 Pappkasten 250×175×25 mm



Nr. 57 Pappkasten 350×250×30 mm



Nr. 58 Pappkasten 360×270×60 mm

even the parts from them, seem to have survived, this STABIL innovation may not have enjoyed the same popularity as others of the period. Was price a factor? In 1930 Sets 56 to 58 cost RM7.50 to 34, compared with RM22 for a STABIL 20v motor; a MECCANO luxury item, the Geared Roller Bearing, cost £1, against the E20b motor at 18/6 (£0.93). On that basis, given that quite a few GRBs are still in circulation, one might at least expect to be able to find some Inventor parts without too much difficulty.

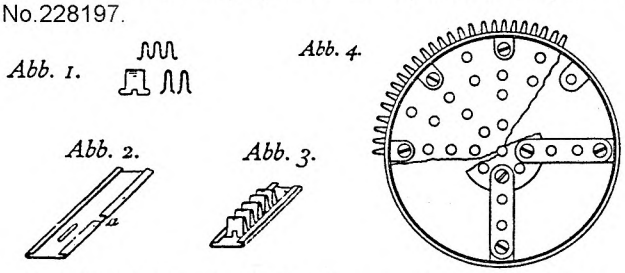
Other factors. The sets and parts would certainly have looked attractive but in practice did they get a name for being of limited usefulness? This is a problem which can still beset efforts to introduce large diameter axles. And another thing, it is difficult to see how the new parts could be used to provide a gear ring to use with the existing large Ball Bearing, PN46.

Or perhaps the new parts were difficult to use satisfactorily. Did the Rolled Pins really work well or did they allow play, and/or work loose? Was it difficult to make structures stiff enough to allow the proper adjustment of the Bearings? How effective were the Hook and Claw Brackets in practice?

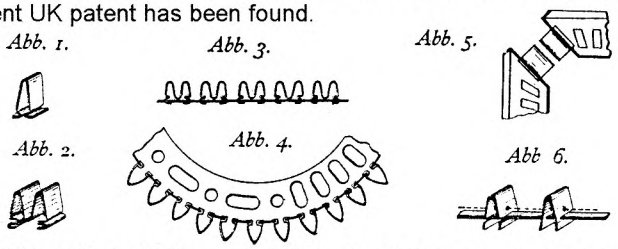
And what of the models in the Manual? They look reasonable, especially bearing in mind that at the time many manual models of most systems didn't do full justice to the potential of the outfits they came from, but were they really going to tempt potential buyers? The Rotor Ship for instance - the point about the real one was that the speed of the rotors was controlled independently in order to steer the vessel, so shouldn't something of that have been built into the model, given the fair selection of parts in the No.53 outfit. Perhaps later Editions of the Inventor's Manual contained larger and more enterprising models but only the 1925 version is known at present. Some new models may have come from the 1926 Model Competition - entrants were told that models which included the new parts would have the best chance of winning.

But even if all the possible criticisms were valid, I'm still surprised that more of some of the parts haven't survived. The Shafts and their fittings must have been very useful for all sorts of purposes, and those Frames, irresistible. And how could any STABIL boy have managed without the Curved Strips, the only ones in the system. None of these parts were particularly expensive to buy separately, for example in 1930, all were as cheap or cheaper than comparable MECCANO parts, compared in each case to the cost of an 11h Strip.

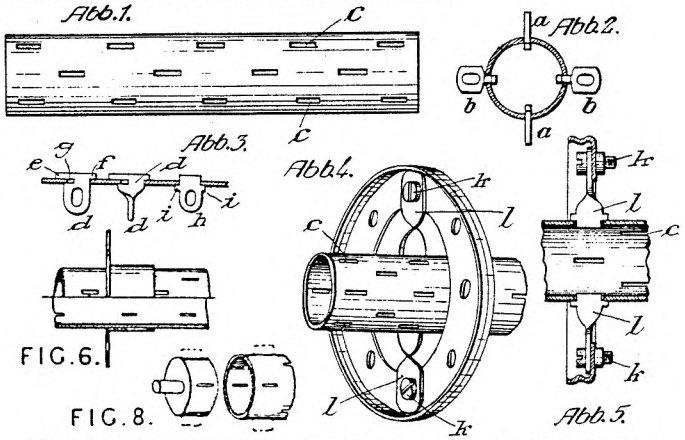
PATENTS Three German patents in the name of Wather & Co. are of interest. Nr.409396 (January 1924) shows a method of making gears or rack strips that, as far as is known, was never used. Solid or sheet metal teeth, singly or in twos or threes, were to be assembled in a metal strip with turned over edges. The strips were then fastened to a disc or to a hub using spokes. The equivalent UK patent is No.228197.



Nr.412504 (March 1924) follows on from the above and shows how single or double teeth could be mounted in slots in a strip (Abb.3), in a flange, or in a formed ring for bevels. Abb.6 shows another method of mounting teeth on a strip, with alternate teeth sliding on from left and right, and with a wire passing through the holes to locate them. No equivalent UK patent has been found.



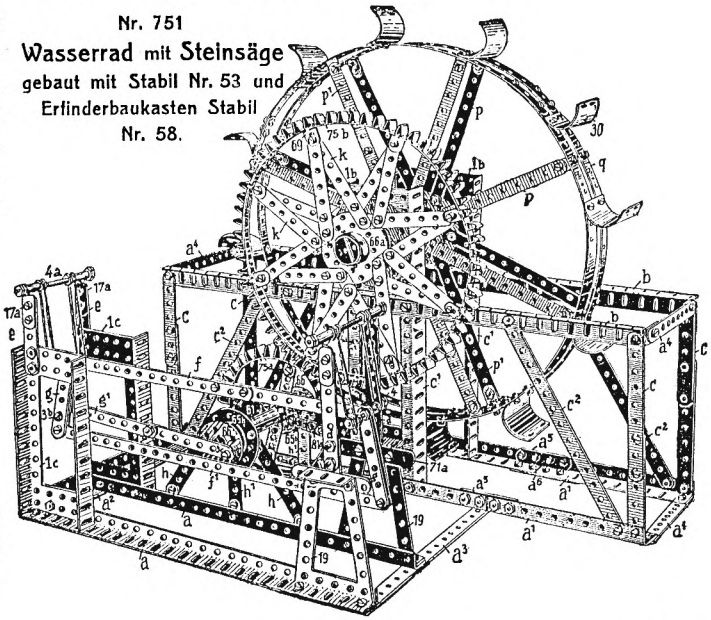
The rolled shafts, and fittings for them, are covered by Nr.438722 (January 1924). The figures from it show some of the ideas used for the actual parts, and one or two that were never produced. The illustrations in the equivalent UK patent (228539) include two additional features - the flanged collar (Fig.6), and a spigot (Fig.8) which could be inserted into the end of a shaft (and would thus allow it to run in a standard hole). This spigot was to be held in place by 'transverse wedges etc', the only mention of such a method of fixing, although I may well have missed any similar references in the German version.



The UK Patent Nos. were given in error as 298197 and 298539 in some STABIL literature.

Thanks are due to Toby Haffter and David Hobson, as well as Werner, for the information on the various patents.

ENDWORD Since this account was written Werner has sent copies of 4 models from a later edition of the 1925 Inventor's Manual, and all are appreciably better to my eyes than the earlier ones. None are particularly complicated mechanically but in all the mechanical elements look right, and in some cases the new parts are used to good effect structurally or decoratively. A general view of the simplest, a stone saw driven by a waterwheel, is shown below.



supplies would be available.

3. Al Sternagle wrote about the **GILBERT RIDE-IT** set too. He once made up all the models from a Set for his 5 year old son, and the biggest hit was the 'Kenworth' tractor complete with double exhaust stacks. His daughter's favourite was a Fire Engine. Conclusion - a much underrated toy for young children, though they might have difficulty building with it.

4. Clive Weston sent a copy of a page from his wife's magazine ***Doll's House World***, which shows an ad for a 1/12 scale **MECCANO Set**, 'price £19 (instructions included)'. You can see the name MECCANO on the lid but you can tell it isn't genuine, the Strips are red and the Plates green.

He also recounted a cautionary tale about the interesting

looking **'mystery' part** opposite (¼ scale), that he once found in a mixed lot. Was it an architectural part? or a trunnion from a large axle system perhaps? Well no, all was revealed at an outdoor market where numerous examples could be seen on a rail with necklaces and chains hanging from them. Clive added, 'My wife was amazed by my sudden interest in jewellery stalls but quickly lost interest when I explained what had attracted my attention.'

5. Richard Symonds sent an ad showing the **Hook** which was loose in the **UMAKIT** Set (13/339), and it is listed as a TONKA replacement part.

6. Notes from Don Redmond. • **ERECTOR** and **AMB Worms**. The first phase ERECTOR Worm is steel, 21mm overall. It has a 3-turn length of thread (16 DP) and a rather long and slightly tapered boss with a small countersink to the bore at that end. The thread-end is flat. My AMB Worm is brass, 16mm long, with 4 turns of thread at 3mm pitch, and a round or bulbous end. The boss is very short (6mm long), and is fitted with a Grub Screw. It is 16mm long overall and is much shorter than it looks in the manual. (The reason the ERECTOR boss has to be so long is its round-head Set Screw) [A couple of first phase ERECTOR Worms to hand are as described above and are nickel plated. The pitch is about 5mm. Later 24 DP Worms are steel but brass plated, and the pitch is about 3¼mm, much nearer the AMB. Again there are 3 turns of thread and the ends shapes are similar. The boss is even longer (11mm), but with no taper. The overall length is 19mm.]

• Some orange-red heavy steel **Disc Wheels**, $13^{13}/_{16}$" dia, with ¼" axle bore, which came in a job lot, turned out to be **ERECTOR** part DM. It was listed from 1927 through 1932, and was included in the larger sets. The 'Duplex' parts of the period had alternate standard and ¼" holes. DM Wheels are shown on p107 in *Greenberg* fitted with white Tires (#DR) which are actually rubber 'skins' that fit over the formed 'balloon' rim of the wheel. The brass bosses are on the outside face of the wheel and take an 8-32 setscrew. [The original DM was the 6-spoked Front Wheel shown on the Van in OSN 2, p28, and there was a different spoked Rear Wheel, DN, with a much larger hub. The Tires for them, DR, look as if they are of rectangular section, with one on the front, and two on the rear wheels. These three parts were only listed in 1926.]

• Some aluminium parts in a miscellaneous lot, including blue Wheels Discs and a Crank Handle. They correspond to **JUNIOR MECHANIC** (12/327, 13/361) except that the Strips and Angle Brackets have rounded ends. There were also some 6-32 N&B, but ¼" and ½" in length.

7. Karst Quast sent the Jan. 1962 issue of a Dutch hobbies magazine called Na Vijven (After Five), and in it were featured 6 models from a **JUNEERO** competition that had been announced the previous September. One of them is a nice Lifting Bridge that looks about 3' high. There's also an ad from a company called Uitgeverij Esks N.V. of Utrecht which offered a JUNEERO Set at f17.50, material (by the kilo), and parts, including plastic gears.

The end date for JUNEERO isn't known but it was obviously alive in Holland in 1962, some 10 years on from the last ad in ME, noted in 9/216.

8. Kendrick Bisset mentioned a book on Richter Anchor Blocks that he enjoyed despite not being a Richter enthusiast. It describes the history of the company and the stone block sets, and covers the metal additions used with the blocks, as well as (briefly) the metal construction sets. It costs about $60 and can be obtained from the author/publisher, George F. Hardy, 1670 Hawkwood Court, Charlottesville, VA 22901, U.S.A.

EXTRA MCS SHEETS The Sheets listed below are available at 15p per Sheet plus postage. That makes £2.70 + post for all 18 Sheets.

MCS Amendments, List No.3 [1 Sheet]
AJET: X1.1,7 [1 Sheet]
CLIP-CRAFT: X1.1,7 [1 Sheet]
CONSTRUCTION TRUCK: X1.1,2/4/5/6 [1 Sheet]
CONSTRUKTA: X1.1,2,4,5,6 [3 Sheets]
COOL STEEL: X1.1,7 [1 Sheet]
KITSPOCK: X1.1,7-b [2 Sheets]
MEC-BRAS: X1.1,2,4,5,6-a [3 Sheets]
METALCRAFT: X1.1,4 [1 Sheet]
STEEL TEC STARTERS: X1.1,2/4/6,4/6a-b,5 [3 Sheets]
TECHMASTER: X2.4a/5a/6 [1 Sheet]

ACCOUNTS Dear Subscriber,
Your remittance of received with thanks.
Your credit balance after deduction for this Issue and
is Please renew your subscription if you wish to receive the next Issue.

SUBSCRIPTION RATES For 1996 (OSN 14 and 15), including postage, at Printed Paper Rate where appropriate: UK £6; airmail to Europe and surface mail anywhere, £7; airmail outside Europe, £8. **BACK NUMBERS** For the zones above: OSN 1: £1/£1.30/£1.50; OSN 2,3: £2.30/£2.70/£2.90 each; OSN 4-13: £3.60/£4.10/£4.50 each.

SMALL ADS Up to about 150 words free for each subscriber in each Issue; above that by arrangement. Insertion guaranteed in OSN 15 if ads reach the Editor by the end of July, 1996.

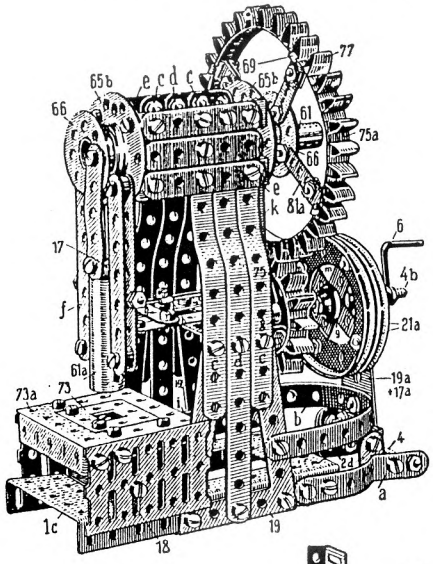
PAYMENT Please make cheques etc payable to P.A.Knowles. Remittances in other than Pounds Sterling will be cashed locally and the resulting Sterling credited, but bank charges are often prohibitive.

• Overseas subscribers can pay by VISA, ACCESS or MASTER cards: please send Card No, Expiry Date and Name and Address of Card Holder. Debits appear under the name 'SIMPLY COMPUTERS'.

• Overseas subscribers need not send sums of less than £5 for Back Numbers, purchases from the Editor, etc, until it is time for subscription renewal.

Nr. 652 Prägemaschine, gebaut mit Stabil Nr. 51 und Erfinderbaukasten Stabil Nr. 57.

Models from the first Edition of the STABIL Inventor's Manual. See pp368-371.



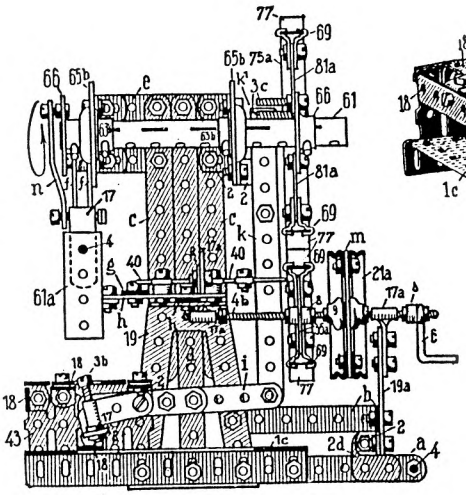


Fig. 652a.

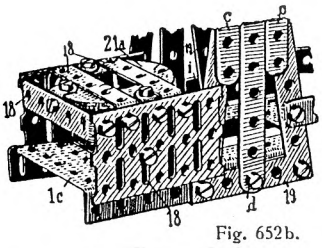


Fig. 652b.

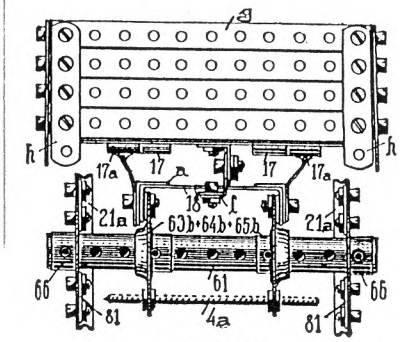
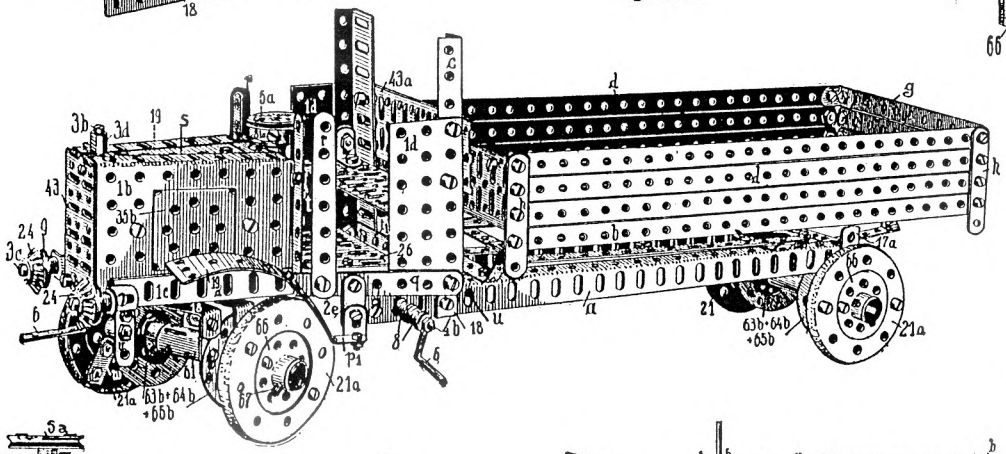


Fig. 700d



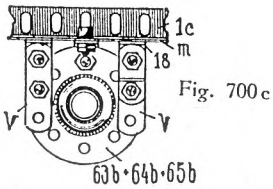


Fig. 700c

Fig. 700e

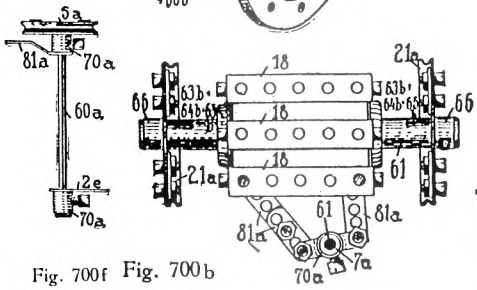


Fig. 700f Fig. 700b

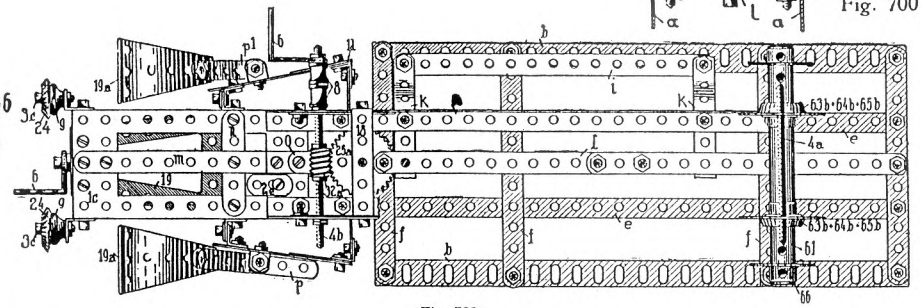


Fig. 700a

Nr. 700 Lastkraftwagen mit kippbarem Ladekasten

gebaut mit Stabil Nr. 52 und Erfinderbaukasten Stabil Nr. 57.

Fig. 750d

Fig. 750e

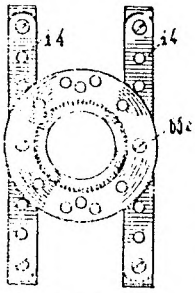
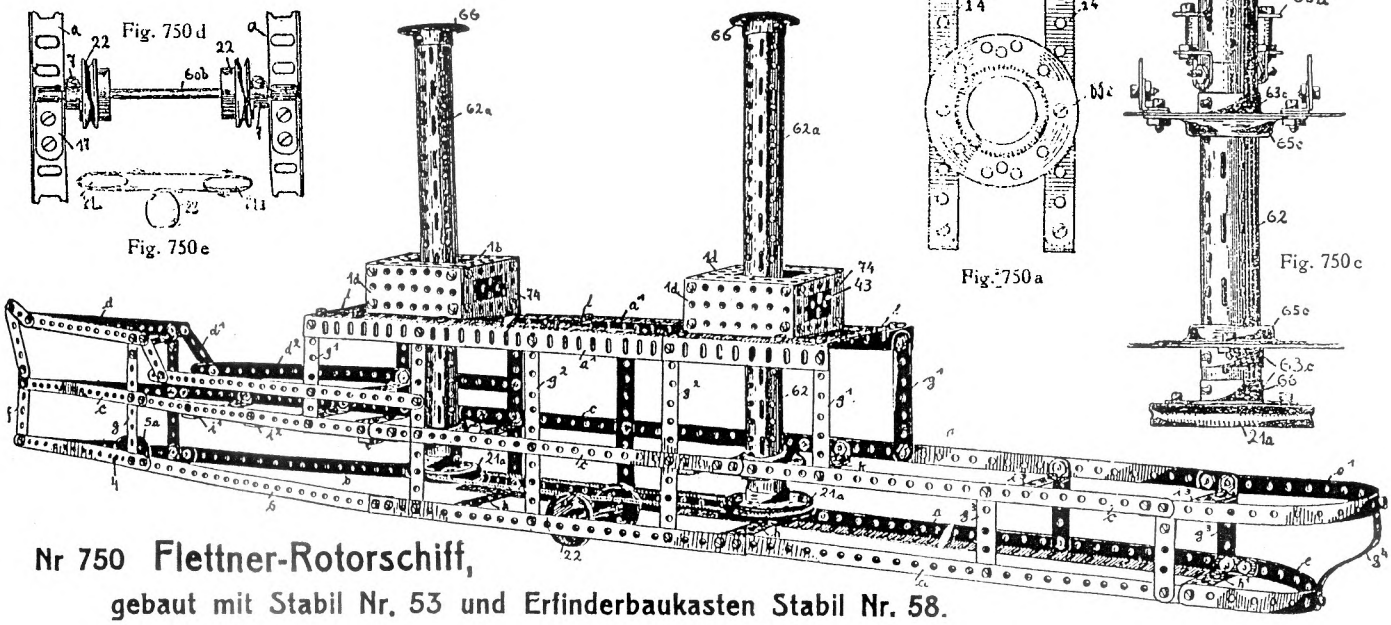


Fig. 750a

Fig. 750c

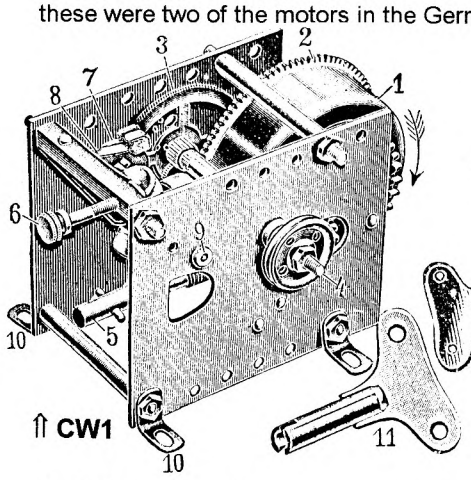


Nr 750 Flettner-Rotorschiff,

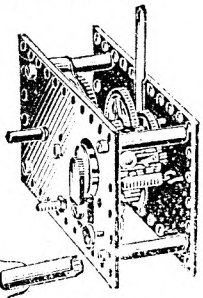
gebaut mit Stabil Nr. 53 und Erfinderbaukasten Stabil Nr. 58.

STABIL Motors This account follows on from the notes on STABIL in 13/348 and thanks are again due to Werner Sticht who sent most of the material. The first motors seem to have been introduced at some point between 1914 and 1919. The 1914 catalogue doesn't mention them and in 1919 three motors were listed, but without saying whether they were clockwork or electric. They were described as being iron type, brass type and nickel type - perhaps it was just the finish that was different but the nickel cost Mk.325 against Mk.130 for the iron version. At the time the largest No.55 set was Mk.890.

CLOCKWORK Motors The earliest known illustration of a motor was in a Danish manual, believed to be from 1921. For ease of reference I'll give the different motors codes, so this will be CW1. The winding shaft '5,' at the end, carried a pinion which engaged with a large contrate on the spring shaft. It was claimed to run for between 5 and 10 minutes, and the speed could be adjusted by the screw 6, which no doubt acted on the governor. The output shaft '4' was threaded. This motor also appeared in a 1924 Dutch manual and was referred to there as the iron version; a brass version was also illustrated (CW1A), which is obviously different and had a reversing lever on top. It's larger too with 6*11h sideplates, and it was said to run for 3-6 minutes Possibly these were two of the motors in the German 1919 List.

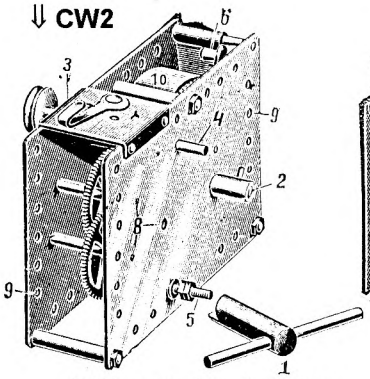


⇑ CW1

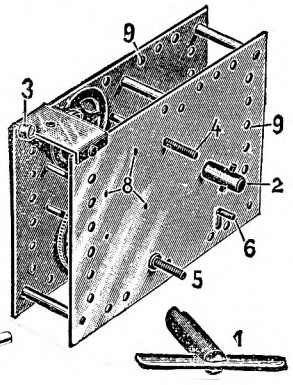


⇑ CW1A

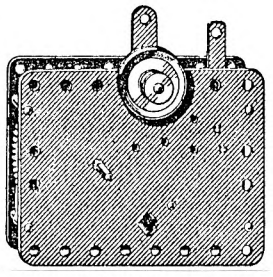
⇓ CW2A



⇓ CW2

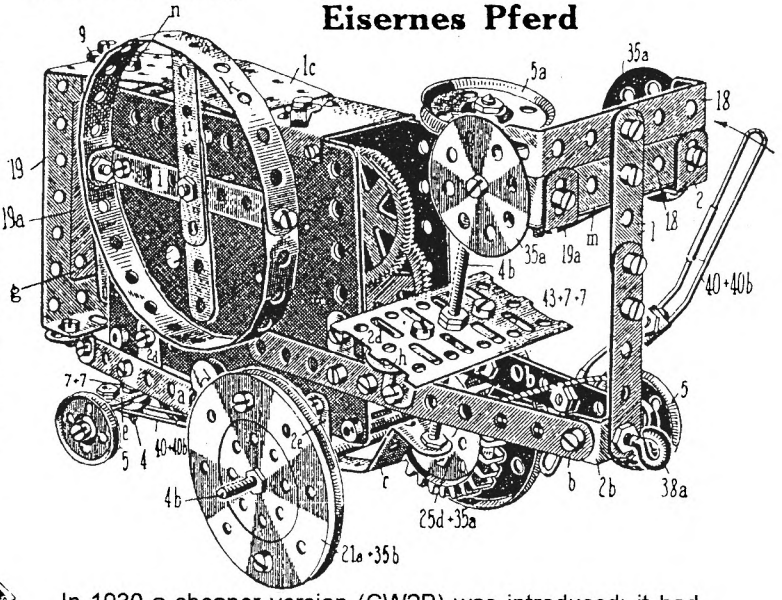


CW2 was the first version of the standard prewar motor and an ad for it is known from 1924. The running time was given as between 7 and 20 minutes depending on the setting of the regulating lever '3', which also served to start and stop the motor. A full wind needed 20-25 half-turns and the key was made so that the spring couldn't be wound the wrong way. The output shafts '4' and '5' were threaded and '5' could be reversed with the lever '6'. Two versions were available, iron and brass, but it isn't known whether this indicated any mechanical differences. This motor was probably available before 1924 - it was shown in a DEN LILLE INGENIØR manual (see 7/157), which may have been as early as 1922.



⇑ CW3

Some changes were made later (CW2A) and the new motor was shown in a 1927 manual. The running time remained the same and the only noticeable differences were in the regulating lever, 3, and the different reversing lever '6'. The #50 outfit Iron Horse model below incorporating this motor, is from the '27 manual.

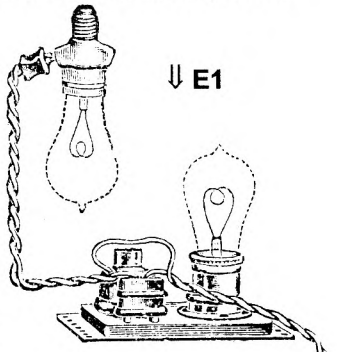


In 1930 a cheaper version (CW2B) was introduced: it had no reversing gear, and only one output shaft (I think), but Its running time was the same. No illustration of it is available.

Details of the small but ingenious KNIRPS motor of the 1930s and beyond were given in 11/272.

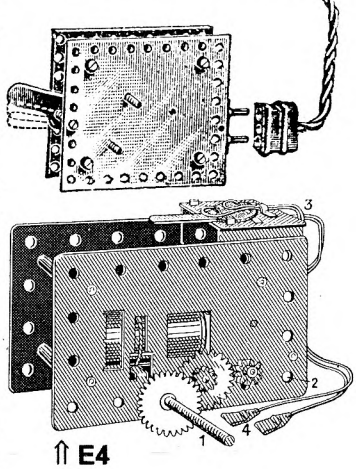
A completely new motor, CW3, was introduced after WW2, probably in the 1950s. It is said that it was made in Switzerland, and was claimed to be suitable for almost all STABIL models. One lever changed the speed and the other gave reverse.

ELECTRIC Motors The earliest reference to an electric motor (E1) is in the 1924 Dutch manual. It was for use with the 250v mains and more details are given in a 1925 German manual. The lever gives forward/stop/reverse by mechanical action, and the speed of the two threaded output shafts depended on whether 1 or 2 bulbs were in circuit. One ran at 1100 or 560rpm, and the other at 270 or 200.



⇓ E1

An entirely new motor (E2) was shown in a 1930 List, and it continued, seemingly unchanged, until at least 1940. Said to be powerful enough for even the largest models, it ran from a 20v transformer. At RM.22, it cost 2 marks more than the CW2A, though a transformer would have added another RM.12.

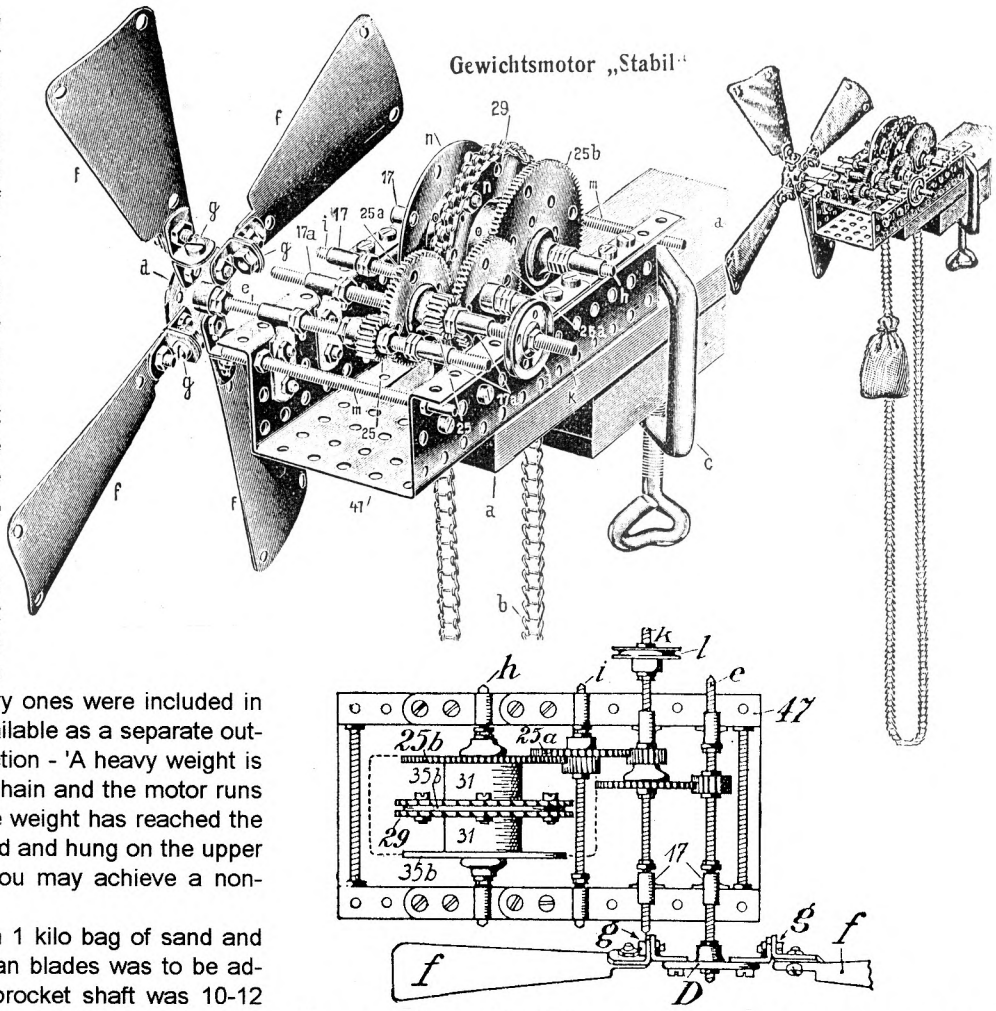


⇑ E4

A different 20v motor (E3) was sold after WW2, smaller and simpler by the look of it, though it

was still claimed to be suitable for the largest models. The earliest illustration to hand is from 1956; the illustration in a 1961 manual shows some detailed changes to the front panel (E3A). There was no mention of it in a 1966 manual.

1957 saw the first battery motor (E4) which on no load would run for 12 hours from one 4½v torch battery. Two speeds were available, 60 rpm as shown or 130 with the output shaft '1' inserted through the holes '2'. The start/stop/ reverse switch '3' could be detached to allow remote control.

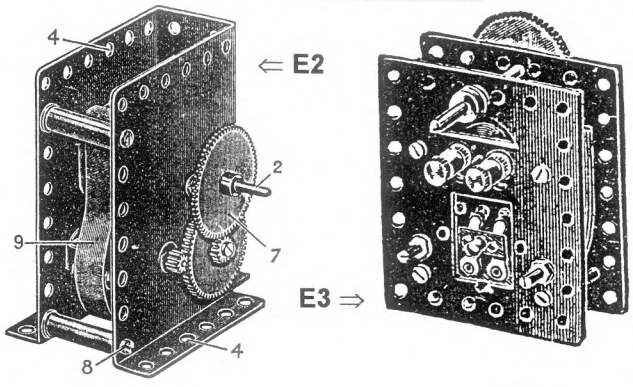


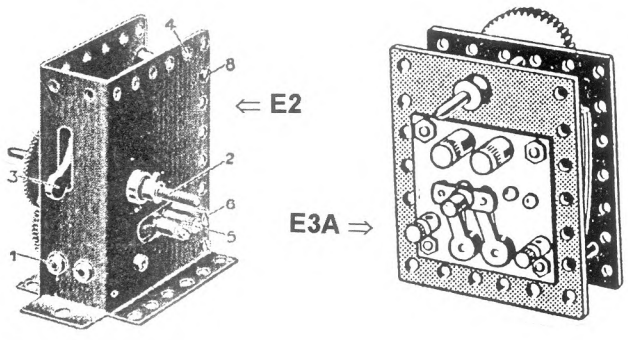
The WEIGHT MOTOR This was probably one of the first STABIL motors (above, right) and could be made entirely from standard parts. All the necessary ones were included in the largest set but were also available as a separate outfit. The manual explained the action - 'A heavy weight is hung on the top of the endless chain and the motor runs as it slowly descends. When the weight has reached the lowest point it should be removed and hung on the upper part again. With two weights you may achieve a non-stop drive.'

The weight suggested was a 1 kilo bag of sand and then the pitch of the governor fan blades was to be adjusted until the speed of the sprocket shaft was 10-12 rpm. Under load that was to reduce to 6-8rpm, giving a speed of say 100rpm at the output shaft. That would mean changing weights every ½ minute or so if the motor was on a table and the chain reached down to the floor.

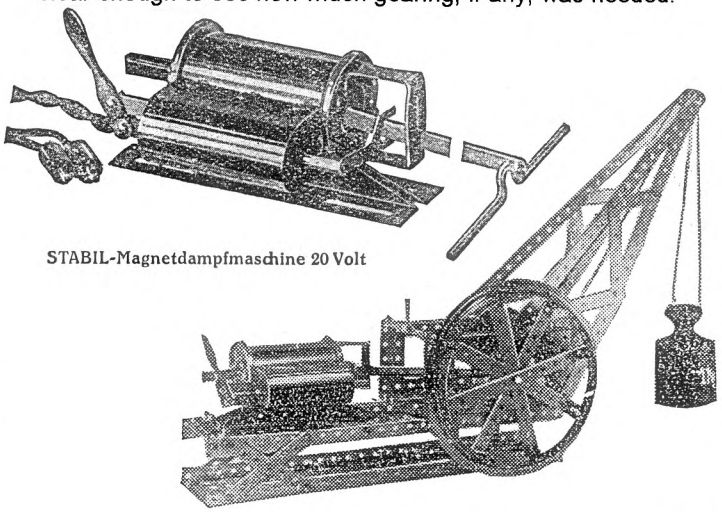
As mentioned in 13/353 the Flanged Plate, #47, was specially introduced for this motor, and at the same time the Bearings 17 & 17a. They were needed to reduce the friction from the Threaded Rods which were used as Axles. The double Sprocket was held by being clamped between the 2 Wooden Cylinders, with the rigid Cheek Pieces on the outside. This assembly would have stiffened the sprocket shaft considerably and prevented it bending excessively under the 1kg weight.

The last known reference to the motor is in a 1925 German manual.





The MAGNETIC STEAM ENGINE This patented motor was advertised from 1932 to at least 1936. To quote from an ad: 'The MSE is a realistic model of a modern high pressure steam engine cylinder with slide valve control. But it is not driven by steam, but by electromagnetism. The only control is the lever on the valve chest which gives stop/forward/reverse and fast/slow. The motor can be used to drive all STABIL models and is easy to use and mount. It may be used vertically as well as horizontally, and it is perfect when built into a crane, etc. It requires 20v dc from a so-called railway transformer, or from dry cells or accumulators. The crane shown can lift a 1 kg weight without difficulty.' The illustration isn't clear enough to see how much gearing, if any, was needed.


STABIL-Magnetdampfmaschine 20 Volt

are unpainted and have the 8 spokes shown in the manual. • The Engine Crank is grooved, on the side opposite the crank projection. • The Flexible Shaft Coupling is a spring a bit less than 1½" long and with an o.d. of .226". It fits tightly over the Shafts and so isn't fitted in the same way as the MECCANO #175. • Windmill Cards are red, 1$^{5}/_{16}$*1$^{15}/_{16}$" and have a simple line as the border with 'MADE WITH STRUCTO' inside. • Shafts are between .160 and .164" Ø with most towards the upper value. All bosses and Collars are double tapped 6-32. The N&B are 8-32, and the Bolts have a shallow filister head. • Some Strips have larger holes than others and there appears to be 2 standards, 4.3±.1mm and 4.4±.15mm. Possibly later parts had the second size. • Strips, A/Gs, etc were all tin plated, and have gone grey. The cast parts are a dull to shiny grey, the colour of some of the zinc alloys used in model locomotives. N&B are shiny (nickel or chrome?) plated. [Kendrick went to some trouble in measuring the diameter of holes in a sizeable selection of parts using plug gauges and a calibrated tapered rod (a better version of the one mentioned in 4/74). He also measured the holes in some U.S. MECCANO Strips and found 4.35±.075. He sent me full details and some interesting comments, but unfortunately I haven't room for them in this Issue. His conclusion is that it seems appropriate to quote hole size to the nearest .1mm, but even with that degree of imprecision, care is needed in using hole size in identifying parts because of the tolerances and differences that can occur. (±.1mm = ±.004")]

On Threads (7/168, 8/203) he sent copies of pages from the 1914 American Machinists' Handbook. Those shown (with the initials used earlier in brackets) are Whitworth (BSW), B.A., International & French (Metric) (IFS), Löwenherz (Lhz), A.S.M.E., and American Screw Company. The International Standard for metric threads was adopted in 1898 and was effectively the then French Standard. Lhz was designed in 1894 and was said to be widely used as a fine thread in Germany for measuring instruments and similar work. A.S.M.E. stands for American Society of Mechanical Engineers and their standards were promulgated in 1907 as a series of 'standard' and 'special' sizes. With a few exceptions they correspond to the ANF & ANC sizes respectively and all the combinations of diameter and tpi used have already been given in OSN 7 & 8. The American Screw Company sizes are all within the A.S.M.E. and ANC/F series except 2-48, 5-32, 6-30, 12-20, & 14-18. The Angle of all the American threads is 60°. If anyone would like more details I can copy to them the 7 A4 pages that Kendrick sent.

Also an answer to **Query 10** (5/106) about where the name **LYONS**, used in connection with the METALCRAFT Spirit of St. Louis sets, came from. An outfit he acquired recently has a LYONS sticker pasted on the outside, and a flyer included in it (showing the range of sets) has a description of the Lyonsport Aero Club by Garvey Lyons. It is thought that his name started to be used after he became president of Metalcraft in 1928 or 1929.

On **BOOMTOWN** (15/422) Kendrick's Plates are painted a rich blue, though not as bright as the current MECCANO shade.

11. On **STRUCTO** (15/424), Richard Symonds sent a copy of a page from the 1921 No.93 Montgomery Ward catalogue; it shows a train set which includes a bridge made from what appear to be 2 STRUCTO Multi-Unit Girders and various Strips. The maker's name isn't given but perhaps Structo were using up their remaining parts in that way, after they had ceased producing constructional sets.

12. On **STABIL** Werner Sticht sent a translation of an announcement contained in a 1929 circular to German toy dealers from Walther & Co., the manufacturers. It says that for years they have produced coloured sets for export, but these have never been sold on the German market because no matter what paint, lacquer, or method of colour printing is used, damage to it always occurs when tightening the nuts and bolts. An unused coloured set looks very well, and so does the first model, but soon the appearance is spoilt by the deterioration of the parts. Without hesitation they recommend only the nickel version of their outfits. Werner asks if anyone has any information on these coloured sets or parts, which were possibly sent to markets in North or South America, or elsewhere, and may have been sold under names other than STABIL. [1929 was the year in which Märklin introduced their coloured parts - as noted in earlier Issues, STABIL metal parts remained nickel plated until the end.]

13. Late last year D.Courdoux wrote to the **METALLICO** agents in France, Italy and Holland, as listed on their boxes (see 13/336), asking about the availability of sets. Only one replied, Meridien Sarl of Dijon, saying that the constructional sets had been discontinued after a legal complaint by Meccano-France.

14. On the **MEK-STRUCT** Couplings shown in 12/310, Gordon Finch wrote that the ones he has are 13mm long, with the holes spaced 7mm apart and tapped 2mm or slightly larger.

EXTRA MCS SHEETS The Sheets listed here are available at 15p per Sheet plus postage. That makes £6.15 for all 41 Sheets.

MCS Amendments, List No.4 [1]
BILDICO [2]: X1.1 [1]
BOY: X1.1,7 [1]
CONSTRUC: X1.1,2 [1]
CORUS: X1.1,2 [1]
DEN DANSKE INGENIØR: X1.1,2 [1]
D.V.s INGENIØR: X1.1,2 [1]
ERECTION: X1.1,2,4,5,5a [3]
HANDY CRAFT: X1.4 [1]
INGÉNIO: X1.2,5 [1]
JOC MECANO: X1.1,5 [1]
JUGA: X1.1,2 [1]
KOBLER: X1.1,2,3/6,4/5,4a/5a [3]
KONSTRUKTOR-III: X1.1,2/3/4/6 [1]
KONSTRUKTOR MALYUTKA:X1.1,2,3/4/6,5 [2]
KONSTRUKTOR MEKHANIK: X1.1,5 [1]
LEONARDO: X1.1,7 [1]
L'INGÉNIEUR FRANÇAIS: X1.1,2,5,7 [2]
LYNX: X1.1,3e/4e/5c [1]
MALY KONSTRUKTOR: X1.1,2 [1]
MAYKO: X1.1,2 [1]
MECCANICO: X1.1,2 [1]
MEK◦TRAX: X1.1,2,4/6,5 [2]
MÉTAFLEX: X1.1,3/4,7 [2]
MÉTALOR: X1.2 [1]
MÉTALU: X1.2,5 [1]
MEX: X1.2a/4a/6,5 [1]
MINITECH: X1.2 [1]
OREGION: X1.1,7 [1]
PYGMÉE: X1.7a [1]
STERLING: X1.5,5a [1]
STRUCTEX: X1.1,2 [1]
TEST: X1.1,7 [1]

ACCOUNTS Dear Subscriber,
Your remittance of received with thanks.
Your credit balance after deduction for this Issue and
is Please renew your subscription if you wish to receive the next Issue.

SUBSCRIPTION RATES For 1997 (OSN 16 and 17), including postage, at Printed Paper Rate where appropriate: UK £6; airmail to Europe and surface mail anywhere, £7; airmail outside Europe, £8. **BACK NUMBERS** For the zones above: OSN 1: £1/£1.30/£1.50; OSN 2,3: £2.30/£2.70/£2.90 each; OSN 4-15: £3.60/£4.10/£4.50 each.

SMALL ADS Up to about 150 words free for each subscriber in each Issue; above that by arrangement. Insertion guaranteed in OSN 16 if ads reach the Editor by the end of July 1997.

PAYMENT Please make cheques etc payable to P.A.Knowles. Remittances in other than Pounds Sterling will be cashed locally and the resulting Sterling credited, but bank charges are often prohibitive. Overseas subscribers need not send sums of less than £5 for Back Numbers, purchases from the Editor, etc, until it is time for subscription renewal.

Corrections • Jeannot Buteux has pointed out that for the second time (!) I got the name of MAYKO wrong, see MAKKO/MAYCO in 15/427. But I did get it right in 16/447. • In the 3rd para of 'A Russian Baby' (16/435), the '5*10h Flanged Plate' should read '5*11h Flanged Plate'.• At the top of the 2nd column of 15/420 the 'red or blue' colour of the painted ZICK-ZACK parts should read 'green or blue'.

ITEMS FROM LETTERS

1. From Don Redmond: • John's Photo & Hobby, 2188 Danforth Ave., Toronto, Ontario, M4C 1K3, tel/fax: 416-421-1850/7441, stocks **TEMSI** sets and parts. • Parts which may be **CASTLE BUILDER** have a hole pitch of 12.77mm±. • In a large lot of **AMERICAN MODEL BUILDER** parts there were two types of N&B: the normal ones, plus 3mm thick, ⅜" square Nuts, and Bolts with 7mm Ø heads, both brass. And AMB Sprocket Chain has 13 links in 4". • The lower **STERLING** Screwdriver in 16/430 looks like the bought-in commercial item that is found with post-WW1 White sewing machines, and in other sets as well, including AMERICAN MODEL BUILDER. • A **BRAL** 400 Set has deceptive packaging: it is in a carton 18*14*2" but the indentations for the parts are contained within 12¾*9*1½", so 34% of the volume of the carton. [I hadn't any record of a BRAL 400 Set and Don has now sent me more details. It's a small outfit from the current 'BRES' period, but before 1994, and it's based on 4 1" Pulleys/Tyres and a 5*11h Flanged Plate. I'll include more about it in a later Issue.]

2. From Jeannot Buteux: • From 15/413, there is also a Danish **EIFFEL** which is compatible with MECCANO and the parts are marked EIFFEL. [Could this be the EIFEL mentioned in 16/458?] • The French **ASSEMBLO** patent (see 15/420) was No.720276 and was granted on 3 Dec. 1931. • **FALCO** [1] (15/426] was a MECCANO-type system with very colourful parts. • On **RODOPI** (see 16/458), it is confirmed that Bratsighovo is in Bulgaria.

Some new names: • **ARMA**, Czechoslovakian from 1955. • **CONSTRUCTAM**, French, perhaps from the 1950s. • **E.B.S.**, new theme sets from The Czech Republic introduced in 1996, with large, heavy, steel parts, nickel plated. • **LA CONSTRUCTION MÉTALLIQUE**, a French architectural system with 60 different Flanged Plates as the main parts, each of which was available chromed, or painted in 10 different colours. • French **MA TOUR CONSTRUIT**, from the 1930s, with light steel parts. • French **TECHNIC**, 1939, with nickel plated steel parts but wooden Wheels.

3. In some French TRIX literature that Jean Estève kindly lent me the **BTB PENDULE ÉLECTRIQUE** (see 15/427) is included in a 1935 catalogue, price fr.59, and isn't among the new lines for that year, but it isn't in a list and brochure from 1938.

4. On **PREMIER** (16/457), David Fellows wrote that his brother received a set at Xmas 1955, and he remembers the Flanged Plates which were of a heavier gauge than contemporary MECCANO, and were finished in mid-blue semi-gloss enamel, similar to the current French colour.

5. From Keith Cameron on the **STABIL** article in OSN 14. 'Those Inventor's Outfits are extraordinarily advanced for their day, including the very early attempt to introduce heavy axles. But like so many innovations, these STABIL items have passed into oblivion almost unnoticed, perhaps due to failure to correct imperfections in the original design. I still think that the single metal teeth assembled in a metal strip around a hub was a brilliant idea - surely something should have come from it.'

6. From Kendrick Bisset. The **STRUCTO** Bridge (16/459) was the result of a marketing agreement between Structo, of Freeport, Illinois, and American Flyer of Chicago (before Gilbert bought the firm), which was formalized in 1922. AF advertised Structo non-constructional vehicles (trucks, autos) with AF trains, and acted as Structo's distributor. The 'constructional' Bridge is shown as an accessory in a (reproduction) 1918/19 AF catalog, and this would have been before Structo ceased producing their standard constructional outfits (see 15/424).

7. From Josep Bernal on a point about the production of **MECCANO** in Spain by Exin around 1970. Their last address (now closed) was Exin-Lines Bros. S.A., Roger de Flor 86, Barcelona 13. Later production was transferred to Mexico using the same machinery. The thread used for both the Spanish and Mexican parts was M4.

EXTRA MCS SHEETS The Sheets listed here are available at 15p per Sheet plus postage. That makes £7.95 for all 53 Sheets.

MCS Amendments, List No.5 [1]
ANCHOR: X1.2,5a,5b [2]
ARTS ET MÉTIERS Série 3: X1.1,2,3/4/6 [2]
BERGLAND:X1.1,2/5 [1]
BURGER: X1.1,2 [1]
CONSTRUCTION JEEP [2]: X1,2/5,2a/5a,4 [2]
DITMAR: X1.1,2/5 [1]
DORANDO: X1.1 [1]
FANTASIE "R": X1.1,2 [1]
FERROX: X1,2/5 [1]
FIX: X1.1,2,4/5 [2]
FRYDAGH: X1.1,2/5 [1]
GLOBUS Der Kleine Ingenieur: X1.1,2/5 [1]
GLOBUS LEICHTBAU: X1.1,2 [1]
KONSTRUX: X1.1,2,5 [2]
MAC et NICK: X1.3/4a-3c/4d,5-a [3]
MAFELL: X1.1,5 [1]
MÄRKLIN: X1.2,3,4/6,4a/7c [2]
MECHANIC: X1.1,2,5 [2]
MEHANISKAIS KONSTRUKTORS 'SKOLENS': X1.1,2,5,3/4,3a/4a/6-3c/4c/6b/4d [4]
METEOR (M): X1.1,2,3/6,5 [2]
MINIATUR: X1.1,2,3/4/6,5 [2]
M K A: X1.1,2/5 [1]
MÖWE: X1.1,5/7 [1]
MWK: X1.1,5 [1]
PHANTASIE: X1.2/4,5 [1]
PLASTICON: X1.2 [1]
SACHSENMEISTER: X1.1 [1]
SPEDICON: X1.1,2/3,4,5 [2]
STEEL TEC: X2.2a/5b,4a-c,5a [3]
TRIANGLE: X1.1,5 [1]
TRI-SECTOR: X1.1,7-7b [2]
TUBA: X1.7 [1]
ZICK-ZACK: X1.1,2,5 [2]

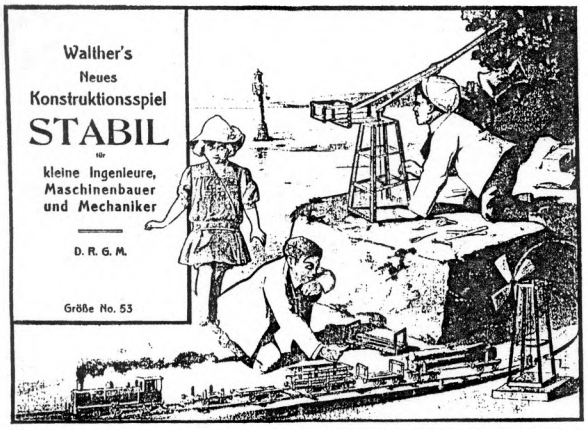
ACCOUNTS Dear Subscriber,
Your remittance of received with thanks.
Your credit balance after deduction for this Issue and
is Please renew your subscription if you wish to receive the next Issue.

SUBSCRIPTION RATES For 1998 (OSN 18 and 19), including postage, at Printed Paper Rate where appropriate: UK £6; airmail to Europe and surface mail anywhere, £7; airmail outside Europe, £8. **BACK NUMBERS** For the zones above: OSN 1: £1/£1.30/£1.50; OSN 2,3: £2.30/£2.70/£2.90 each; OSN 4 onwards: £3.60/£4.10/£4.50 each.

SMALL ADS Up to about 150 words free for each subscriber in each Issue; above that by arrangement. Insertion guaranteed in OSN 18 if ads reach the Editor by the end of January 1998.

PAYMENT Please make cheques etc payable to P.A.Knowles. Remittances in other than Pounds Sterling will be cashed locally and the resulting Sterling credited, but bank charges are usually prohibitive. But U.S. Dollar bills are acceptable at an exchange rate of £1=$1.60. Overseas subscribers need not send sums of less than £5 for Back Numbers, purchases from the Editor, etc, until it is time for subscription renewal.

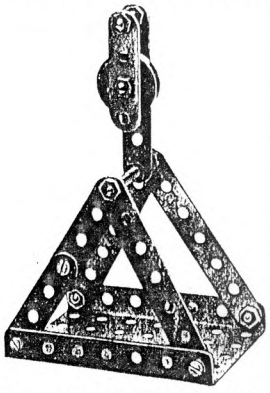
STABIL Notes What follows adds to the notes in 13/348 & 15/406, and is based on further discoveries by Werner Sticht. Thank you also to Thomas Morzinck for additional material, & contributions from Josep Bernal, Don Blakeborough & Jeannot Buteux.



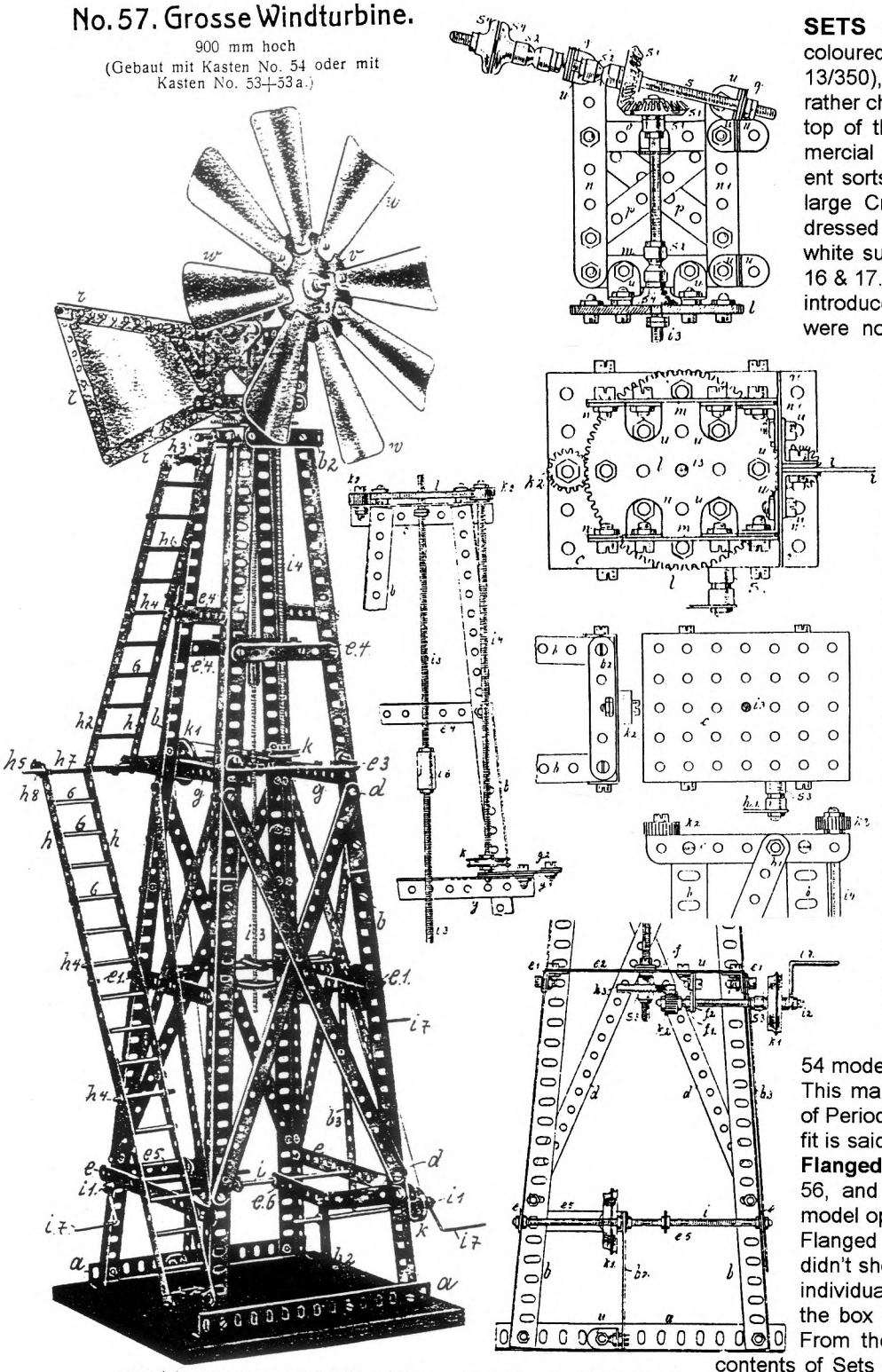
The FIRST PERIOD This period can be subdivided into two, which I'll call **1a & 1b**. The change was the introduction of the **5*11h Flanged Plate** & improvements to the outfits, with some extra parts, and the Flanged Plate in all but the smallest set. At the same time the number of models shown for each set was significantly increased - from 16 to 50 for No.49 for example, and from 6 to 9 for No.54. The first of the 2 ARTS ET MÉTIERS manuals in 17/461-3 would be from Period 1a, the second from 1b. The best estimate of the date of the change is 1912, or possibly 1913. **Set 54, the 5*7h Flanged Plate, & Parts 35-39**, are thought to have been introduced rather earlier, & the **No.55 Outfit,** with **Parts 40 & 41**, between the change & 1914.

Parts 17-21 (Wooden Beams, Bases, etc) & 34 (Tup Block), see 13/353 & 17/462, were dropped in stages after the 5*11h Flanged Plate was introduced. In the 1917 manual (©1915) it was explained that Woodscrews, the last of these parts remaining, were no longer included because they were only needed to fasten models to wooden boards, and the latter were not part of the outfits.

PARTS • Early **Strips** were shiny, perhaps tin plated, but in Period 1b they were typically a grey colour, possibly either plain steel or chemically treated. WW1 saw the use of any suitable material that was available, and so one outfit contained light alloy Strips, dark blue shining steel parts, and obsolete brass Wheels. • The **7*5h Flanged Plate** below, without the centre 3*3h cutout, and with round holes in the flanges, is shown in two models in a Manual (discussed later) which is thought to be from near the end of Period 1a. No such part has ever been discovered, but Plates have been found in sets that have normal elongated flange holes and no cutout. In this form it coexisted with the 5*11h type, which always had the centre cutout. The cutout in the 5*7h was introduced before the **3*3h Plate, #1e** was first listed in 1918. • **Threaded Rods, #4**, see the notes for 'Worm' later. • As mentioned in OSN 13, the first **26mm Pulleys, #5** were turned from solid brass. Later several other types were produced, particularly during WW1, before the final form was introduced in 1920. These included one made of formed sheet brass discs, held through the centre hole by a shallow boss on each side, with 4 peripheral holes still large enough to accept a Rod. Another type is as shown in 13/353, with steel discs, without peripheral holes, held by a small steel boss on one side, peened over on the other. The examples known are brass plated. In another design the boss is brass with a much thinner wall and looks like a tube. In the final design the 2 discs with bulged centres were joined at each of the 4 outer holes by a peened over 'upset', as in M22a for example. The finished holes were no longer large enough for a Rod to pass through. The discs were probably originally steel, usually brass plated, but nickel ones are known. Brass was used later on. All Pulleys of this type, and the 37mm ones, had the inner faces of the V groove slightly serrated. • Early



Collars, #7, **Grooved Rollers, #8**, & **Cheek Pieces, #9**, were made of wood but they tended to break when tightly bolted on a Rod, and after 1910 they were turned from brass. During WW1 the Collar (right) and Cheek Piece were made from two steel pressings, & the Grooved Roller was solid steel. • **Tapped Cheek Pieces** were used as buffers in the Railway Wagon Sets, and though this part is shown in some of the standard manual models, it was never included in the standard sets as far as is known. • The **Wooden Pulley, #15**, originally had 6 holes, and the 8-hole type was introduced after WW1. • Like the Pulleys the **Flanged Wheel, #22**, changed from solid brass to being made up from formed sheet steel parts. Some bosses were similar to the 2 part Collar illustrated above. Brass pressings were used later on. • A solid brass, **smaller Flanged Wheel** was introduced for the Railway Wagon Set models but was not included in the standard outfits. It had 4 large holes in the face and a small diameter 'inside' boss. • The original **Bush Wheel, #23,** was brass 3mm thick with an integral shallow boss on one side. The later design was adopted in WW1. • Some **Bevel Gears, #24**, were die-cast zinc or machined aluminium in WW1, rather than the normal brass. The **new Bevels** (see 13/354) were #24a with 36 teeth & #24b with 12. At that stage there were no holes in the face of 24a, and 24b had no boss. In 1930 the 2 tapped holes were added to 24a so that the Double Arm Crank, 7b, could be bolted to it to provide a boss, and 24a was completely redesigned with a single tapped boss. All 3 Bevels have the same cone angle & will run together at 90°. • The **Bakelite Gears, 25c-f,** were black or dark brown in the late 1930s, a dark yellow in the 1950s,.and a clearer yellow in the 1960s. • The **Click, #27**, is known in right & lefthand versions but only one type was ever listed. • The **Sprocket** teeth are more rectangular than MECCANO or MÄRKLIN, and so there is less likelihood of the Chain slipping. A pair of Sprocket Wheels, or a Ring and a Wheel, can be used together as bevel or spur gears, but not 2 Rings. The Sprockets will also mesh with the Patented Spur Gears, 25c-25f. • A **Worm, #32a**, in a large lot of STABIL which dated from about 1922, had a smaller than normal bore, and some correspondingly smaller diameter **Threaded Rods** have been found in other STABIL lots. They are about 3.6mm Ø (against 3,9mm normally) but are threaded the normal 5/32" BSW. • The **Piston Rod, #28**, may have originally been a smooth 4mm Ø rod with no thread, and Parts 8 & 9 jammed on to it by a small piece of fabric or sliver of wood. •The **Tup Block, #29**, see 17/462, is wooden, with grooves on either side, and its estimated size is 65*65*10mm. • One of **PN34** was listed in the Set Contents on the inside of the lid of an early No.53 Set, but it wasn't illustrated or described. As a guess it may have been a Belt narrower than #33, perhaps for use with the 17mm wide Roller, #31. Later #34 was a Spring. • When first introduced the **Circular Plate, #35**, was 80mm Ø with only an outer ring of 8 holes. Then in Period 1b it was changed to have 3 rings with 8 holes in each, and the final version, in Period 2, had 16 (8 extra) holes in the outer ring. The illustration at the bottom of 13/352, is incorrect. • The **Wire Hook, #38**, was originally longer than the later type, perhaps up to about 30mm o/a. • The 4x **84b Tyres** (to fit the 25mm Pulley, #5) were included in all sets well before WW2 - probably from 1932, and certainly after 1936. • The **Cardan Joint Spider, #86a**, is best used with 2 Double Brackets, #2b; they fit exactly whereas the sides of the (recommended) Single Bent Strips, #41, have to be bent



apart to accommodate its width. • The **Handrail Support, #87**, is 9mm wide, 30mm o/a, with 12mm of thread. • The **Cone Pulley, #88**, was pressed from sheet steel about 1mm thick, and nickel plated; the boss is inside the cone, riveted to the top face. • The **Bearing Support, #89**, is 61mm long o/a, with 21mm of thread on each side. • The **Propellers, #90 & 91**, are made of wood. • The **Flexible Plates, #95-95c**, were introduced after 1951 but by 1955. • The **Plastic Rivet, #96**, is known to have been listed as a new part in 1963, & as it was advertised as being 'new' for a number of years, it may date from before that. • The revision of the **Paper Sheets, #148**, in 1955 or 1956, wasn't immediately shown in the manuals. • The **C/W Motors** in 15/406, labelled CW1 & CW1A, are illustrated in a 1920 brochure and referred to as the 'iron' and 'brass' versions. So they are probably the same as the ones in the 1919 List. • After WW2 the **C/W Motors** were made by a firm in the Schwarzwald, a mountain region in south-west Germany.

SETS • Although pre-WW1 manuals have plain coloured covers with only text on them (see 13/350), the **set lids** at that time had a large, rather charming, full colour label. It is shown at the top of the opposite page. A Windmill, & a commercial loco drawing 5 STABIL Wagons of different sorts, can be seen in the foreground, with the large Crane behind on the rock. The boys are dressed in white and the girl has a red dress & a white sun hat. Such lids are shown in *EZ,* Plates 16 & 17. • The **Railway Wagon Sets**, 59-63, were introduced at some point during Period 1b, and were no longer available in the 1920s. • Set **Boxes** were originally black but from sometime between 1930 & 1935, until the end, they were blue. After WW2 some lids had the strips & diamond decoration described for the 47KM Set overleaf.

MANUALS • The **illustrations** in 1a period manuals were good quality halftones, usually on art paper; after that line drawings were used. • The **plain cover** shown at the top of 13/350 is typical for all of Period 1. • On a **very early manual** the sets covered have been written into the top panel by hand, in the old German script. • The wording in the panel of a no doubt **slightly later one** has been stamped on in violet ink. As might be expected there are inconsistencies in early items and this manual is a case in point. The violet stamp says it is for Set 53 (Vorlagenheft zu No.53), but inside is a standard 49-52 manual, followed by 2 sections glued in which show models for Sets 53 & 54. The models are as in the first A&M manual described in 13/463, plus one extra for Set 53 (No.55, Windmühle mit Zahnradgetriebe), & 6 models for #54 (from No.56, Schwebebahn, to No.61, Grosser Werkstattkrahn). The Set 54 models need the Parts 35-39 mentioned earlier. This manual is thought to date from the very end of Period 1a, & in a list of sets in it, the No.55 Outfit is said to be in preparation. • The unusual **7*5h Flanged Plate** mentioned earlier is used in Model 56, and also as the top platform in the Set 54 model opposite. None of the models use the 11*5h Flanged Plate of course. • Pre WW1 manuals didn't show the **contents of sets** or illustrations of individual parts. Both were on a sheet glued inside the box lid, but only covered the set in question. From these it has been possible to tabulate the contents of Sets 49-54 pre-1914, and these will ultimately be included in MCS. • A 49-52 21st Edition manual dated 10/21 shows some of the new **2nd period parts**, whereas non-German manuals from 1921 don't. So certain new parts were introduced in 1921 in Germany (to compete with MÄRKLIN), and a year later for export. But the complete change from the 1st to 2nd Period took some years, and at first only the manuals for the small sets were updated. Many of the prize models in the 1921 manual contained new parts, but these were probably added by the firm. Some of the prize models had been shown in earlier Editions without mention of a prize or the name of the builder. • The Set 53 models in a **1929 53-55 manual** are identical to those in the 1940 Edition, but the 54 & 55 models are the same as the 1924 ones, with the same Model Nos. It is said in the Manual that new models would be included in the 1930 Edition, but none were and so the new 54/55 models must have appeared between 1931 & 1940. • A 1932 French **KNIRPS No.1 manual** is known. • A postwar **1951**

49-52 manual has the prewar cover except that the name of the suburb, 'Neukölln', has been added to the address.

HISTORY • Franz Walther was born in 1860, and his son, Walter, in 1889. His son, Torsten, born in 1924, is still alive, and he started working in the company in 1950. He recalls that the reintroduction of the Inventor's Outfits was considered at about that time but the idea was eventually dropped. Also, no changes, apart from the date, were made to the manuals after 1957 - he has no recollection of a 49-51 manual from the 1960s, and the one mentioned in 13/350 may have been the result of a misunderstanding. Unfortunately all the prewar company records were destroyed during the war. • Walthers collaborated for a long time with Markes, who made DUX-UNIVERSAL, & they made parts for each other.

CORRECTIONS to OSN 13 & 14. • There was already a factory on the Harzerstraße site (see 13/349), & an extra 200m^2 was added to it. • As is obvious from the text, the illustrations of the 3rd & 4th manual covers in 13/350 should change places. • The Set Nos. in the first para of 14/368 should be 57 & 58, with 56 introduced later.

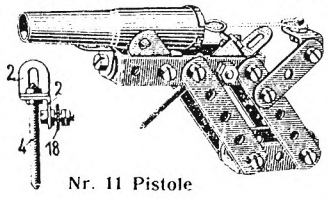
The STABIL KANONEN Outfits

An account of these Sets was given in 11/273, but more details are now available thanks to information from Thomas Morzinck and Werner Sticht.

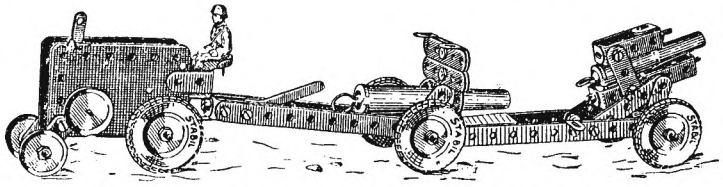
Packed with both the 46KM & the 47KM Sets were the same 2 manuals, the standard 46 and a supplementary one with military models using the Knirps motor and the special Kanonen parts. The supplementary one to hand has 8 pages including covers, about 20*13cm, all printed in B&W with line drawings of the models, and on the back cover, a PR of '35. Auflage \\ 093512 J.M.'.

The Contents of the 46KM are on p2, and all but some extra N&B, a 50mm Screwed Rod, & a small Span'driver, #10b, were mentioned in OSN 11. The latter can be seen bolted to the trail of the Gun in the OSN 11 Model 15, and in the Model below, with its tail pointing upwards. The 4 Collars are made of wood (PN 7c) and the Gun Barrels are described as being 85 & 110mm long. In a photo of a Set the small one is black and the larger one is banded green (at the muzzle end), yellow & red. The 46KM models run from No.1 Trecker, on p2, to No.13, Gebirgshaubitze, on p8.

Only one, No.14 (below), is shown for the 47KM. It is described on p8 but illustrated on p1, and is in fact made up of 2 of the 46KM models, Nos.2 & 8, plus the Soldier described later. The models 14 & 15 in OSN 11 (from the Knirps Leaflet) are Nos.7 & 2 in this manual. Most of the models are large guns of one sort or another, but there's also a Tank, an Ambulance, & the Pistol opposite. Many of the models need cardboard parts, and patterns for these are given on p7.



Nr. 11 Pistole



A 47KM box lid measures 33½*22½cm and is the usual 1930s blue, with a label showing Model 14 (above) on a green foreground, with a Crane in the background against a yellow sky. Also stuck on are 2 yellow 'Strips' at right angles to each other, and, where they intersect, a red diamond with STABIL on it, edged with blue 'Strips'. The lid of a blue 46KM box has a similar label, but with no 'Strips' & diamond.

The 47KM Contents aren't given in the Manual, the reader is referred to a label inside the lid of the Set. This has the PR 'J.M. 08350' and extra to the 46KM contents are some Strips, DAS, & various other small parts. Noteworthy are a second Span'driver, the Soldier (#94). who sits on the Tractor, and a Money-box (to encourage saving up for the next outfit). The Soldier was made of 'Lineol', a mixture of the glue made by boiling animal bones & fine sawdust; the same brew from a different firm was called 'Elastolin'.

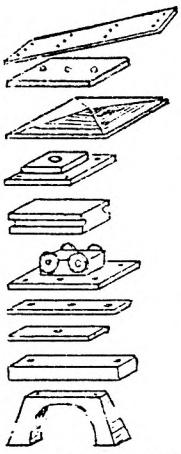
The Seat, #92, simply pushes onto the Motor, and a peg on the Soldier locates in a hole in the middle of the seat pan. The Gun Barrels, #93 & 93a, are not bolted on either, but are held between Strips or Brackets which are usually pulled together under the Barrel by Nuts on a Threaded Rod. Parts 92-94 were only ever included in the 'KM' Sets, and were not available after WW2.

A Larger WALTHER'S INGENIEUR Outfit

Notes on the #11 Set were given in 7/164 and it was thought from the 1914 Price List (13/348), that it was the largest Set in the series. However Werner Sticht has now kindly sent news that Karl Debik owns a #12 Outfit, and, thanks to him, Werner was also able to send copies of the box lid, & the Illustrated Contents label pasted inside it.

Like the #11, the box is wooden, and the same size, 28* 38cm. The label that nearly covers the lid is similar in general, but some of the models around the main centre Tower are different, though of the same genre. Also a Gothic typeface is used and there's some additional wording. From this it looks as if the #12 was dropped before the 1914 List, rather than appearing after it.

The #12 has all the #11 parts, generally in the same quantities, plus a number of others. The extra wooden ones comprise 16 Round Rods of various sizes, plus those shown opposite. From the top their sizes are 270*70*2, 110*110*9, 125 sq., 80*80*13, 70*40*15, 75* 60*20; 110*30*5, & 90*30* 5mm. No details of the last Beam or the Arch are given. There are also 4 House Wall Panels, 105* 90mm, made of card, and not illustrated.

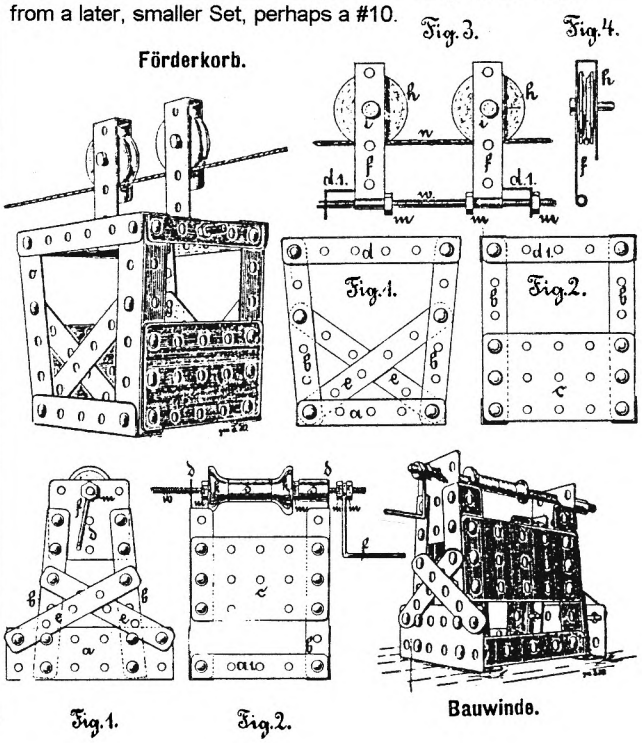

1 Bodenbrett
1 Trempelplatte
1 Dach
1 Plattform
1 Fallklotz
1 Laufwagen
1 Spannbrett
1 „
—
—

The main extra metal parts are 2 of the 3*4h Plates, 6 A/Gs, and 26 Strips including some 11 & 4h long. There are also some new ones with no illustrations: 2 Wulsteisen, 18h long, 1 Drehling, and 1 Drahtstift (Nail perhaps).

Other items: 2 Manuals are listed, but of the Tools, not the Drift or Small Screwdriver.

Karl also provided a copy of the manual that was with the Set. The cover is about the same size as the #11 (16* 23cm deep), and is very similar in design (see MCS), but has an italic typeface & a slightly more ornate surround. With the covers it has 16 pages and, unlike the #11 Manual, includes an Introduction, rather similar to STABIL ones. 10 models are shown against 9 in the #11, but though of the same general type, they are smaller, & don't need many of the parts in the #11. Some however use 2 parts not listed for either Set 11 or 12 - a Wire Crank Handle, & a Hanger Strip; they can be seen in the models below. The Strip has a rolled-over end to allow it to be held on a Threaded Rod.

Since the #12 Contents includes 2 manuals, this might be one of them, but it is thought more likely that it came from a later, smaller Set, perhaps a #10.



FRANZ WALTHER As most OSN readers will know, Franz Walther founded the firm that made STABIL & other constructional toys, and he is as well known to many German enthusiasts as Frank Hornby is in the UK. The photo opposite [courtesy of his grandson, Torsten Walther] shows him as a young man in military uniform; the one below was probably taken when he was in his sixties.

First a slightly condensed extract from an article to mark Franz's 70th birthday, in the Oct. 1930 trade journal, *Deutsche Spielwaren-Zeitung*:

'Franz was born in 1860 and on leaving school he became a carpenter, obtaining his certificate as a master carpenter after paying to study at a trade academy. Following military service he worked on various building projects including a large military barracks at Posen. Next he was in charge of a factory at Eisenach making parquet & furniture, and there he was able to exploit his first patents on military furniture. He left this work in 1898 to co-found Pfeil & Walther in Goslar/Harz, to make the patented furniture himself.

It was there that the idea of the wooden RECORD constructional system came to him, based on an unused patent by Lilienthal, the aviation pioneer. He had taken it out shortly before his death and it described a toy made from parts with equispaced holes, joined by pins or screws [see 11/295]. Scrap from the other work provided the raw material.

Then it was only a small step to replace the wooden Strips with metal ones, and the concept of STABIL was born. The first sets were the INGENIEUR-Baukasten [see 19/550]. Initially progress was slow, partly because limited finances prevented foreign patents being obtained, and firms abroad were imitating his ideas. But even before WW1 the name STABIL was known all over Germany. The war caused problems arising from shortages of materials and of skilled labour, but afterwards expansion was rapid & after 25 years the new premises & factory at Harzer Straße were occupied [in 1930].'

Other points of interest come from the Walther house magazine, ***Stabil- und Record-Zeitung***, and a brochure for Christmas 1931. Issues Nr.8 & 10 (December 1930 & 1931) of the former are known, both with 12 pages 150* 227mm. Nr.8 includes an article congratulating Franz on his 70th birthday followed by a page exhorting Germans to buy only German goods, and claiming STABIL as the oldest metal constructional set. The text reads, 'A foreign firm claims to have created the original construction setw and states in their advertisements to have got the first patent for it in 1901 (allegedly in England). But as explained before, the inventor of the constructional set was Otto Lillienthal who obtained a German patent in 1888. And, as the calculation of time is the same in Germany as in England, this patent existed 13 years before the alleged first English patent. The construction set with strips that can be connected together originated in Germany therefore, and it was Franz Walther who first put the idea into practice. That's why the German Stabil metal construction set is the earliest construction set and is better than any other foreign product.'

That may sound a touch fierce but at the time appeals to national sentiment were commonly, & successfully, used in advertising everywhere. The point about Lillienthal having first claim to the idea of equispaced holes seems fair (David Hobson goes into the details in his book on PRIMUS, reviewed on p583); Hornby's achievement was in creating the first mechanical constructional system. Werner Sticht commented that in the development of constructional toys each manufacturer has borrowed ideas from others.

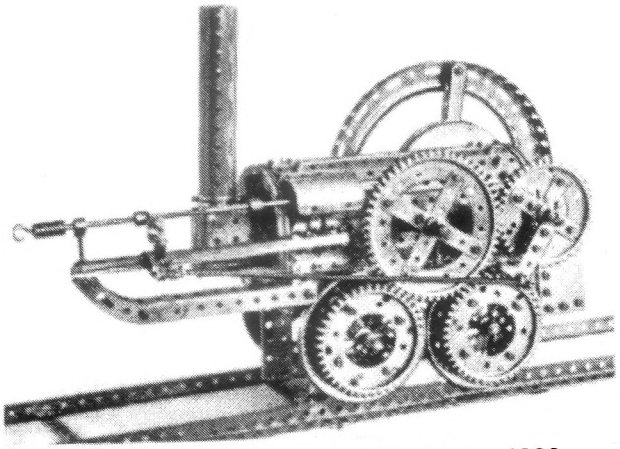
I myself wonder how far Walther & Hornby were simply commercial rivals and how far their attitude to each other was fuelled by a belief that the other man was somehow cheating. In Hornby's *The Life Story of Meccano* (MM 9-10/21) he says 'amongst the first imitators of our system was a man called Walther of Germany, who brought out a metal constructional toy containing strips with equidistant holes, etc., under the name of "Stabil". It was a flimsy kind of toy, however, and not well manufactured, and although it had a small sale, I think the principal effect of its introduction was to emphasise the value & quality of Meccano.' It's true that he was even more scathing about STRUCTATOR, rightly so no doubt, but his view of STABIL does seem a little unkind.

Apart from ads, the Nr.8 contains illustrations of several models and notes on the prototypes of 3 of them. A 'Stabil-Bastel-Saal' (Stabil hobby hall) is also mentioned, where films were shown, and models with their prototypes displayed. In addition Stabil boys, and even school classes, were instructed on how to build with STABIL - all without charge.

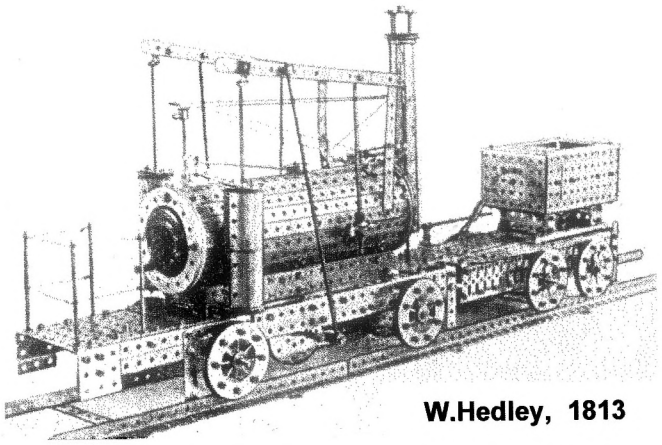
Nr.10 starts with an obituary for Franz who had died in Sept. 1931. Next a 3-page article on locos illustrated by 6 attractive models, which I hope to show in OSN 21. Then 5 models from the small Nr.48 Outfit, and various publicity stories and items, including an ad for Tyres 84, 84a & 84b.

The Xmas 1931 **Brochure**, under the heading 'Important', has: 'A foreign firm is trying to gain a footing with a set similar to Stabil. Comparing the two you will immediately realise that the foreign sets, though having a smaller content, are more expensive than the German Stabil.' Further on some remarks about painted parts starting, 'The so much praised coloured parts have proved impractical', and continuing along the lines of 16/459. It finishes by noting that 'the same colours have to be used for all models and red, green & yellow don't always fit together harmoniously'. No doubt the foreign sets were MECCANO; the red & green coloured parts could equally have belonged to MÄRKLIN, but which system would have had yellow parts at the time? Ads for Set No.48 & the Magnetic Steam Engine are included, and thus both were available before the dates given in 13/349 & 15/407.

Thanks are due to Karl Debit who supplied most of the historical material, to Werner Sticht for translating it; and to Thomas Morzinck for the photos above.

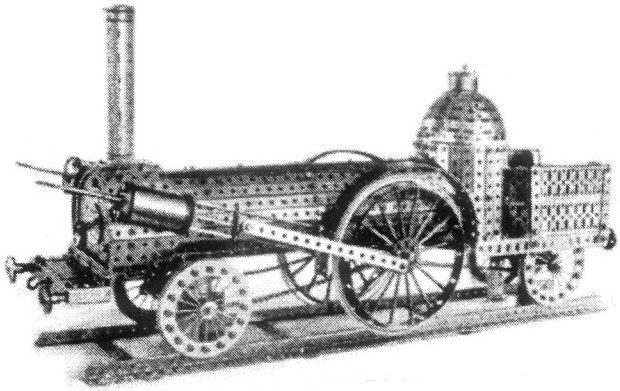


Trevithick, 1803

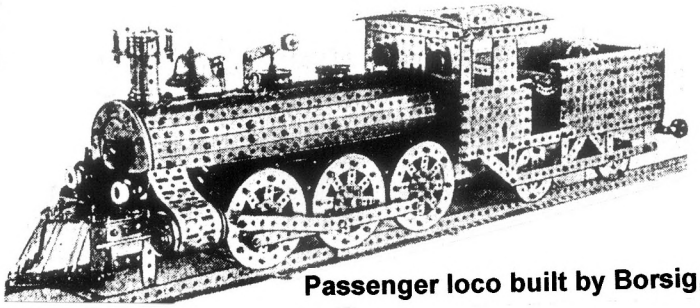


W.Hedley, 1813

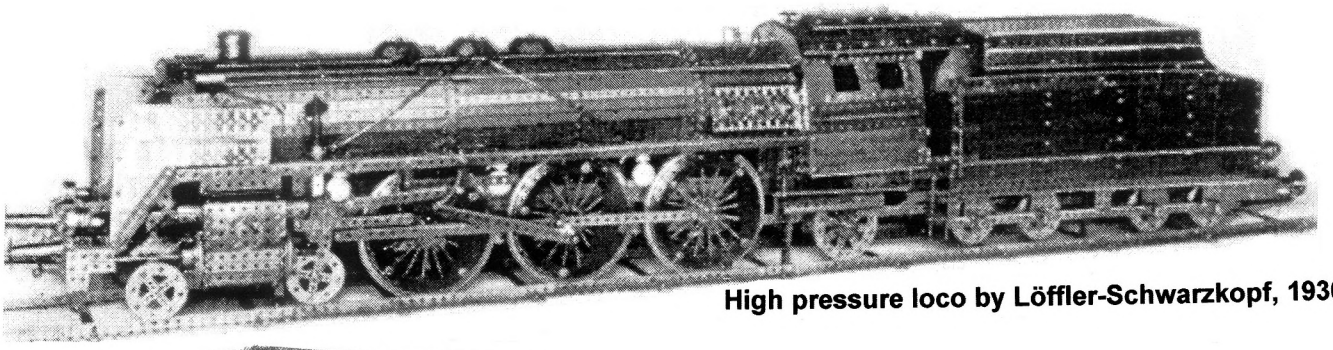
These are the 6 STABIL models mentioned in 20/571, that were used to illustrate an article on loco history in *Stabil- und Record Zeitung.*



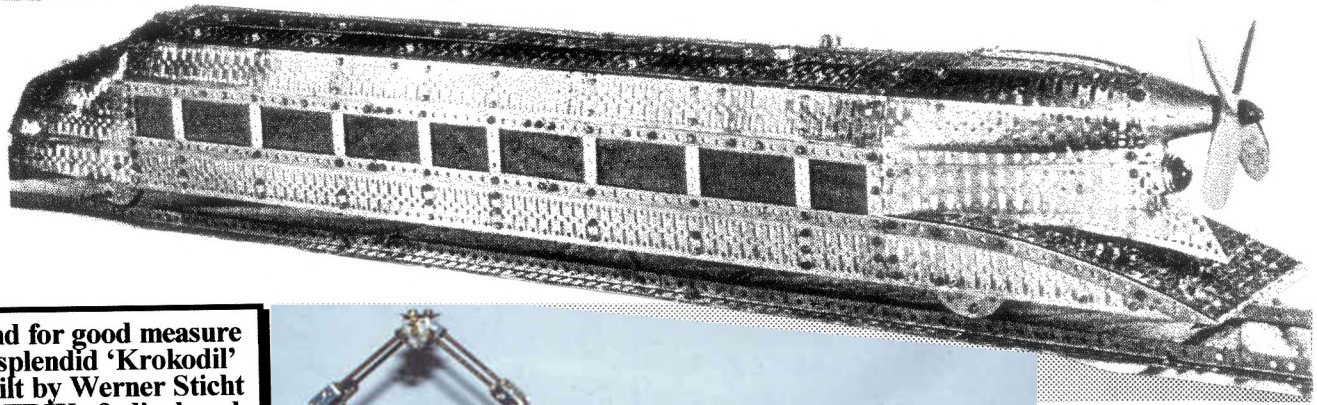
1st German built loco,
by Uebigau of Dresden, 1838



Passenger loco built by Borsig, 1870

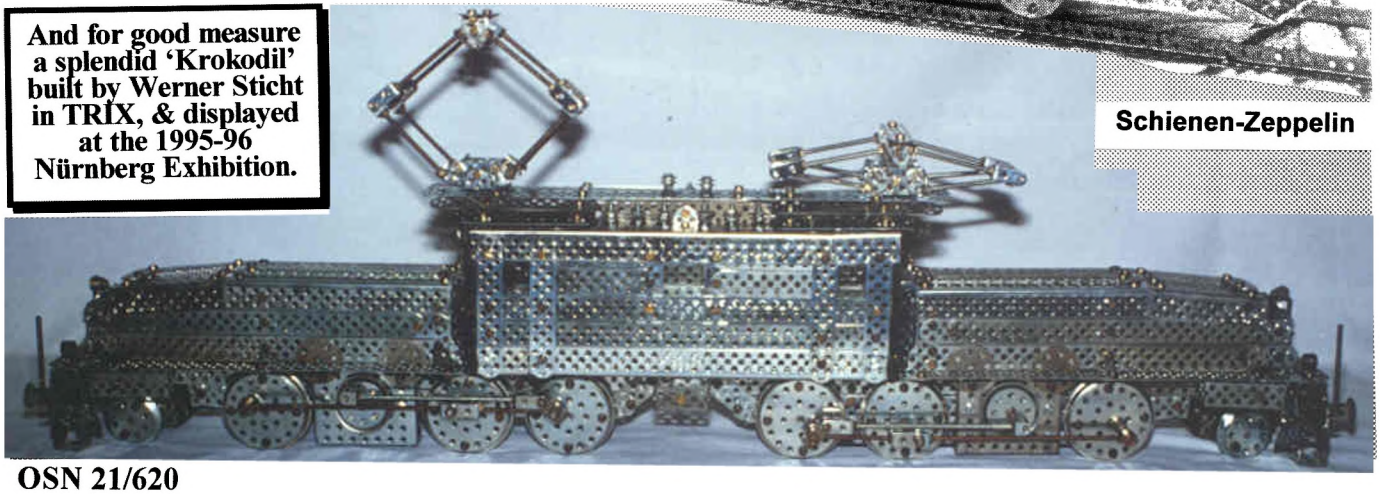


High pressure loco by Löffler-Schwarzkopf, 1930



Schienen-Zeppelin

And for good measure a splendid 'Krokodil' built by Werner Sticht in TRIX, & displayed at the 1995-96 Nürnberg Exhibition.



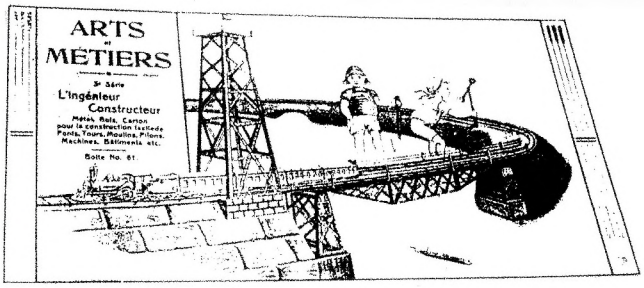
OSN 21/620

An Early STABIL Outfit The first years of STABIL are still not well recorded but now Tobias Mey has found a No.52 Set which is believed to be from 1907 or 1908, and Thomas Morzinck has kindly sent some details, and the photo below.

The sliding lid of the wooden box has a label (slightly torn) which is thought to be the very first one, used until 1909. It was probably changed around 1910 (to the one shown in 19/548) because Walther wanted to show some of the models from the newly introduced Railway Wagon Sets (see 13/348) on it. The top left panel looks pale brown and the rest is in full in colour; a toy train runs under a Tower from an inverted girder Bridge, with a yacht sailing under the Bridge, and 2 children in the background, one setting a railway signal. The words above **Stabil** in the panel are 'Walther's Ingenieur-Bauspiel '; in the 1910 label it had become 'Walther's Neues Konstruktionsspiel'.

The manual cover is generally similar to the illustration at the top of 13/350, but is white or light grey in colour and has Walther's neues Ingenieur-Bauspiel at the top instead of the later 'Walther's neues Metall-Bauspiel' or 'Walther's neues Konstruktionsspiel'.

The Strips in the Set are nickel plated with a high polish, and the Windmill Sails (below the Manual) are cardboard. In the photo the Brackets, Saw Blade, & Spanners look black, but it may be a trick of the light. The Saw Table is in a light wood, the Beam to its right is mahogany red, and the wooden Base at the end looks as if it has been painted or stained black.

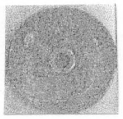


The picture in the label on the lid is the same as the one above used for the No.81 ARTS ET MÉTIERS Set mentioned in 13/351. The No.81 was a Série 3 outfit, that's to say the A&M equivalent of WALTHER'S INGENIEUR (see 7/164 & 19/550).

PFEIDA - a 'New' System Thomas Morzinck kindly sent all that is known of this small German system: a double-sided Model Sheet with models from a No.0 Set, and some details of parts believed to be PFEIDA.

Parts. The hole pitch is 12.5mm, and the holes are 4.2mm Ø. No list of parts is available but the 14 different types below are known or can be seen in the manual models. All the parts are steel, and the 'strip' parts are made from thin tinplate, .5mm thick. All holes are round.

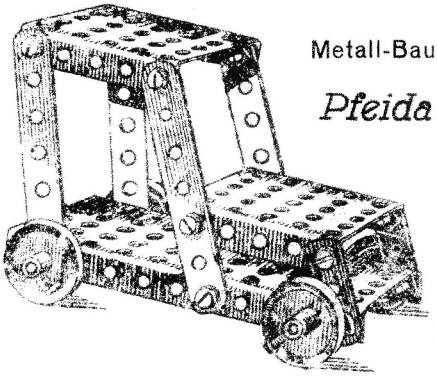
• **Strips**. 2,3,5,7,11h long, & 13.8mm wide, so they can't be bolted side by side. The ends are cut back close to the end holes, as in the 3h example left. A 1*5*1h **DAS**. • **Flanged Plates**. 5*5 & 5*11h, with open ends. • **Brackets**. An Angle Bracket, & a Reversed A/B, no doubt made from the 2 & 3h Strips. • A **Pulley** 29mm o.d. (left) with a boss of only about 7mm Ø, and an **Axle**, 80mm long & 3.9mm Ø, with square ends. • **N&B**. CH Bolts & square Nuts are shown in the models, but RH Bolts of at least 7mm u/h, can be seen in the bosses of the Pulley above, & those in the models.

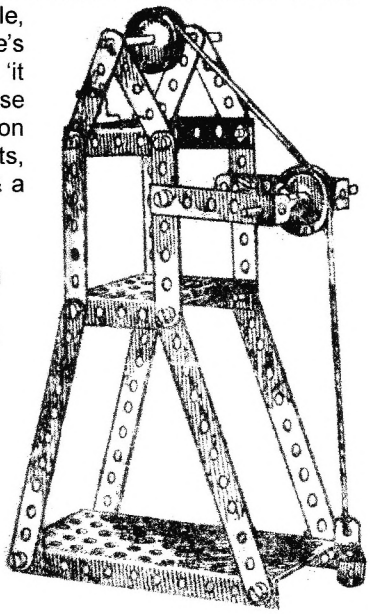


The **Model Sheet** is 21.2*15.3mm deep, and apart from the models opposite, the others are a Bridge, a Table & Chairs, and 2 Trucks. Looking at the Hoist, what happens to the Cord after it passes over the top Pulley? And is that a Reversed A/B (to act as a guide for the 'missing' Cord maybe), or some other part, that can just be seen between the 5h Strips at the top?

Quantities. The models shown need as many parts as any of the others, except for 2x 3h, & 4x 5h Strips.

History. PFEIDA's maker isn't known but Thomas suggested that the name, which has no obvious meaning, may well have come from the first letters of the names of the company, as, for example, Pfeifer & Danneberg. There's nothing on date either but 'it was probably one of those German systems from soon after WW2, with few parts, few models, a low price, & a short history'.





Corrections Under KONSTRUKTOR-MEKHANIK in 21/618, '18/566' in the 2nd line should be '18/499'.

ITEMS FROM LETTERS

1. From Werner Sticht. A complete list of all the **Walther** (of STABIL, etc. fame) **patents & DRGMs**, from 1898 through 1933, that he has compiled. In fact he was able to search to 1943 but there weren't any after 1933. Some of the points of interest: • Walther's first metal system was the **INGENIEUR** sets (see 7/164, 19/550), and a DRGM application (#253288) for the **Bifurcated Clips** that were used to fasten the parts together was made on June 16th 1904. On the same date application was made for the 5 DRGMs quoted in 13/348 but their numbers are 248034 to 248038, and not 249934-38 as given in OSN 13. • The DRGM application, #289896, for the wooden **RECORD** parts, (mentioned in 13/348) was made in July 1906. • DRGM 473572, for the use of **Threaded Rods** as axles or connecting rods in a constructional toy with Strips & A/Gs having equi-spaced holes, was made in June 1911. STABIL, which used such Threaded Rods, with Wheels, etc held on them by Nuts, had been launched some time before that, and they were used in the earlier INGENIEUR, so it is surmised that something must have alerted Walther to the need to protect his use of them. Had he become aware of MECCANO, with its less satisfactory tongued Clip method of fixing Wheels to Rods that was still being used in 1911? • March 1913 saw the application for DRGM 548483, subject a **Flanged Plate** with the centre punched out. This suggests that the transition from Period 1a to 1b (see 19/548) was in 1913.

• The date of **introduction of STABIL** is further confused by a wholesaler's catalogue, believed to be from 1911, (courtesy Tobias Mey, via Thomas Morzinck) for the 'Neu! Ingenieur-Bauspiel STABIL' with metal parts. What was new if STABIL had already been on sale for some years isn't clear - new to the wholesaler perhaps. At any rate 5 sets were advertised, with no set numbers, only the sizes of the boxes. The smallest was cardboard, and the others wood, with the largest measuring 46*29*4½cm. Also listed are 2 sets (Stabil - Spezialspiele) to build Railway Wagons. From the details given it is likely that the range was Sets 49 to 53, plus the Railway Sets 60 & 61 (Railway Sets 59-63, from 1914, were mentioned in 13/348).

• On the date of **MINIATUR** (see 17/468), it was not in a dealers' catalogue printed for the toy fair in the Spring of 1914, but it was very probably introduced before Xmas of that year, under the name STABIL MINIATUR. Thomas Morzinck has seen a box and a manual belonging to Tobias Mey, both with this name on them, and though the contents of the Set are as later, the Manual has fewer models for both Sets 20 & 21, than the © 1915 one. It is supposed that the name was changed because customers thought that, particularly because of its low price, STABIL MINIATUR meant a small STABIL set, and then found that they had bought a different system with parts that were not compatible with STABIL.

A pointer to when MINIATUR was being developed is that the DRGM for the Flanged Sector Plate was applied for on May 14th 1914. This part was not introduced into STABIL proper until 1921.

Probably production of MINIATUR ceased in the 1920s but it may have resumed in the mid-1930s. It was advertised in a 1936 brochure, possibly as a reaction to Märklin's MARBI (see 10/246). No changes were ever made to the models in the 1915 version of the manual.

2. From David Hobson. • A reply from **Trix** to an enquiry last October said that their constructional set programme had ceased but that some parts were still available.

3. Clive Weston wrote that he had obtained a copy of ***Baukästen*** (see 21/601) from www.Amazon.de at a total cost of about £21.

4. Kendrick Bisset wrote that he now has another **TECHNICAL TRAINER** set (see 19/528), and the label on the lid has 'F. A. M.' instead of 'TUCKER TOYS' in the white 'T' (see 10/264) with a small 'CO' underneath instead of 'INC'. And the address on the lower edge of the label is for Farmingdale Aircraftsmen instead of Tucker Toys. The corners & top edges of the FAM box are rounded, but otherwise it is similar in construction to the TUCKER one.

5. From Peter Kessler. Apart from the La Manche Set (see 21/595) **Märklin** have 10 other '**specials**' currently listed. Most are railway items but of possible interest are a 60cm long metal Zeppelin from the 1930s (#11400), and a Fire Engine with Tender (#19035). [The Zep is probably non-constructional; the Fire Engine looks like a long van with a ladder on its roof, and is said to be 'auf Basis des Auto-Baukastens'.] Peter said that delivery of these items was uncertain, and that he hadn't yet been able to order any of the cheap parts mentioned in 21/595.

6. An interesting **MECCANO X** item from Tony Press, copies of the front & back of a Liverpool X2 Model Leaflet, 13/1037/5, with the text in both English & French. On the front the top panel is the same as the LIF one in 16/446, and the text (English in the LH column, French in the right) is the same as that of a 1932 'X' one. The back shows 6 'Super Models' as on the 1932 'X' Leaflet except that the 2 additional centre models of the latter are omitted to make room for the Lists of 'X' parts in the 2 languages. [Despite Tony sending it from Australia, I suppose this Leaflet might have been for the Canadian market.]

7. Ron Michalowski wrote that the 6 page **ERECTOR Booklet** described in 21/593, did bear the reference M 973.

8. Jacques Pitrat sent a picture from ebay of a 'new' system, **PERFECTOR**. The models above the name on the manual cover (right) are a Loco, a Lorry, a Marine Engine, and a Railway Signal, but nothing can be seen of the individual parts. The box has a similar label on the lid. It was described as being German but *Baukästen* says that it was Austrian, made in Vienna by Kappl & Trubrig in 1948. How long it lasted isn't stated but the firm stopped making toys in the 1950s. No other details are given. [Since the above was written Kendrick Bisset has sent more details which will be included in OSN 22.]

9. From Don Redmond. • A brass Flanged & Grooved Wheel with a tread almost conical, and a very smooth curve from flange to tread, is believed to be early **AMERICAN MODEL BUILDER**. Can anyone confirm?

• After removing the nickel MECCANO & AMB parts from a **STRUCTOMODE** No.3 box, the remainder are believed to be original, and include the following. ½ & ¾" tinplate Pulleys without Boss, the ¾" with 4 peened over tabs in the centre hole, the ½" with 3. Strips erratic in their punching and in the form of the ends, with punching burrs on almost every hole. One of 4 Windmill Sail with the holes too close to the outer end. Double Brackets of heavy strip and noticeable higher than MECCANO. A bright nickel 5*11h Flanged Plate, out of square in both sheet & hole punching, with the flange holes on one side distinctly above the midline of the flange, (as in the MCS illustration). 2 bright, and one dull nickel Flanged Sector Plates, with 'slanted' or irregularly punched flange holes. However there is a possibility that the bright Flanged Plates are from a different set/system. These parts are of a much poorer standard than some other parts known to be STRUCTOMODE.

The STABIL INVENTOR'S SETS Manuals Thanks to Werner Sticht full details of all known Inventor's manuals are now to hand. The first is the one mentioned in 14/370, for Sets 57 & 58.

SUMMARY OF MANUAL •Name: Wather's Erfinderbuakasten STABIL Nr.57 u, 58. •Details of maker: Walther & Co., Berlin SO 33. •Dates &/or Ref Nos: 1. Auflage. Juni 1925 on C1. •Page size: About 240*160mm deep. •No. of pages: 32+covers. •Language: German. •Printing: shaded line drgs of models; colour cover with 3 children & Log Saw, see 14/370. •Page Nos. of Parts List & highest PN: 4-6,81. •Page Nos. of Set Contents & highest PN: 12,82. •Sets covered: 57, 58 (with std sets). •No. of models for each set: 18,1. •Name, Model No., Page No. of first & last model of each set: 57+50: Bauwinde, 601,16; Rundlauf bezw. Reckschaukel mit Zahnrad+ betrieb,611,23. 57+51: Standschaukel,650,24; Wasserrad,653, 26. 57+52: Lastkraft+ wagen,700,27; Karussell,702,31. 58+53: Flettner-Rotorschiff, 750,32-C3. •Other notes: •Details from photocopy. •Ads for Motors on C2; Intro on pp1-3; use of parts, pp4,6-11; reading drgs, pp12-15.

As pointed out in OSN 14, the Large-toothed Gears in many of the models look rather out of place, and in some others, particularly the smaller ones, the large diameter Shafts are not strictly necessary, and don't add to the appearance. But in some models the new parts can add greatly to the realism, as in the Feldgeschütz below. I don't think it actually fires though.

There is no date on the next manual, referred to briefly in 14/371, but it is thought to have been issued in 1926. The cover is the one with the Crane, Bridge & Ship models, the 4th one down on 13/350, but with 'Nr.57 u. 58' in the oval at bottom right. Inside it is the same as in 1925 but with additional pages 34-44 showing 4 more models for Sets 58+53. Details of these are:

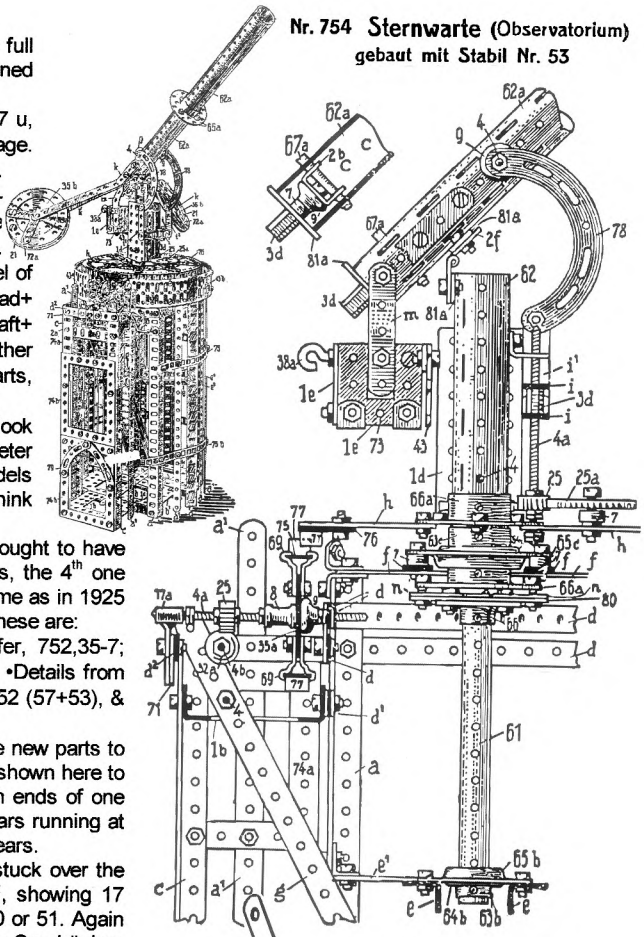
•Name, Model No., Page No: Wasserrad mit Steinsäge,751,34-5; Raddampfer, 752,35-7; Trioblechwalzwerk,753,38-40; Sternwarte (Observatorium),754,41-4. •Other notes: •Details from photocopy. •Sets 58+53 are needed for these models but are wrongly given for #752 (57+53), & #754 (53).

The models are not complicated mechanically but are large enough to allow the new parts to look right in them, and again to add realism. Limited views of two of the models are shown here to give a general impression. The 3-Roll Sheet Mill below has a geared drive to both ends of one roller, while in the Telescope (top right) slewing is through a pair of Large-tooth Gears running at right angles, and elevation is achieved by a Screwed Rod (4a) driven by standard Gears.

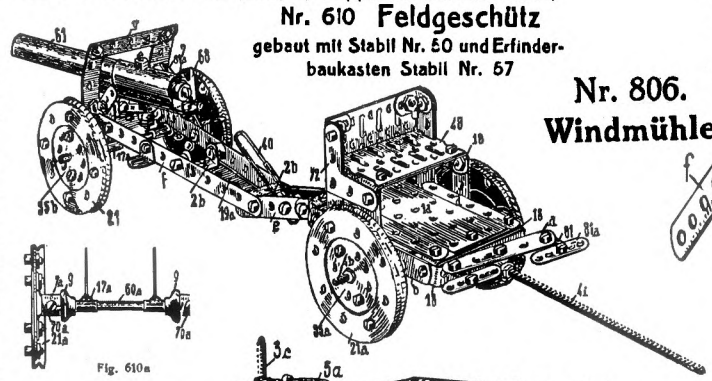
Finally the same manual but a rectangular label with 'Nr. 56, 57, 58' on it is stuck over the oval on the cover, and glued in, immediately after the front cover, 12 pages I-XII, showing 17 models which could be made using the No.56 Outfit, together with either Set 49, 50 or 51. Again the date is uncertain, but the Contents of the No.56 are given, and included is a Sparbüchse (Money Box), an item introduced in 1931. The key models are:

•Name, Model No., Page No. of first/last model of each set: 56+49: Fahrbarer Säulenkran, 801,II; Fahrbarer Steinbohrer,808,V. 56+50: Bohr-maschine,809,VI; Pappenschneidmaschine, 814,IX. 56+51: Steindruckpresse, 815,X; Eisenkaltsäge,817,XII. •Other notes: •Details from photocopy. •p1 has No.56 Contents; & ads inc Sets 56a, 57a, Motors inc Magnet-Dampfmaschine.

There are no Large Gears in the No.56, the main parts are 4 & 14mm Shafts, and bearings for them. However even Set 49 had a pair of the '1926 Patent' Gears and these are more suitable in size for the smaller models. Many of the models are machine tools with some of the normal Screwed Rod axles replaced by the new Shafts running in the Ball Bearings. In the Windmill far right the 14mm Shaft makes a good post, the gear Shafts run in Ball Bearings, & the 14mm Bearing Cups are used to fill in the bottom of the front & back.

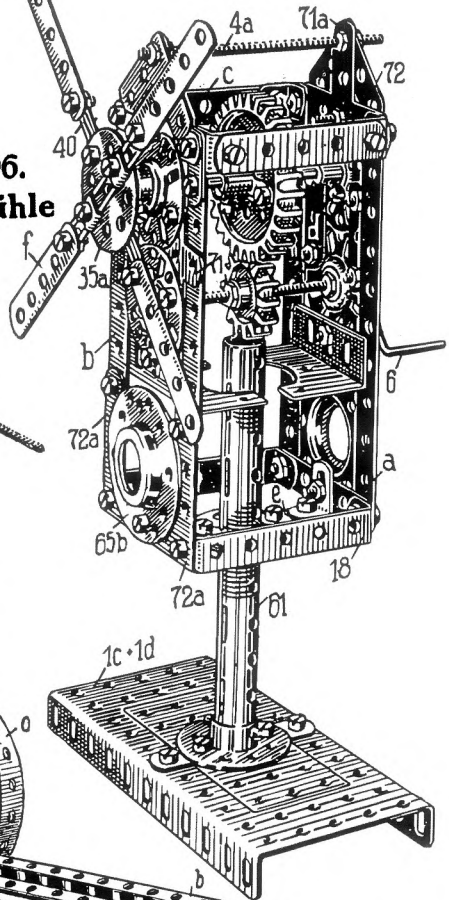


Nr. 754 Sternwarte (Observatorium)
gebaut mit Stabil Nr. 53

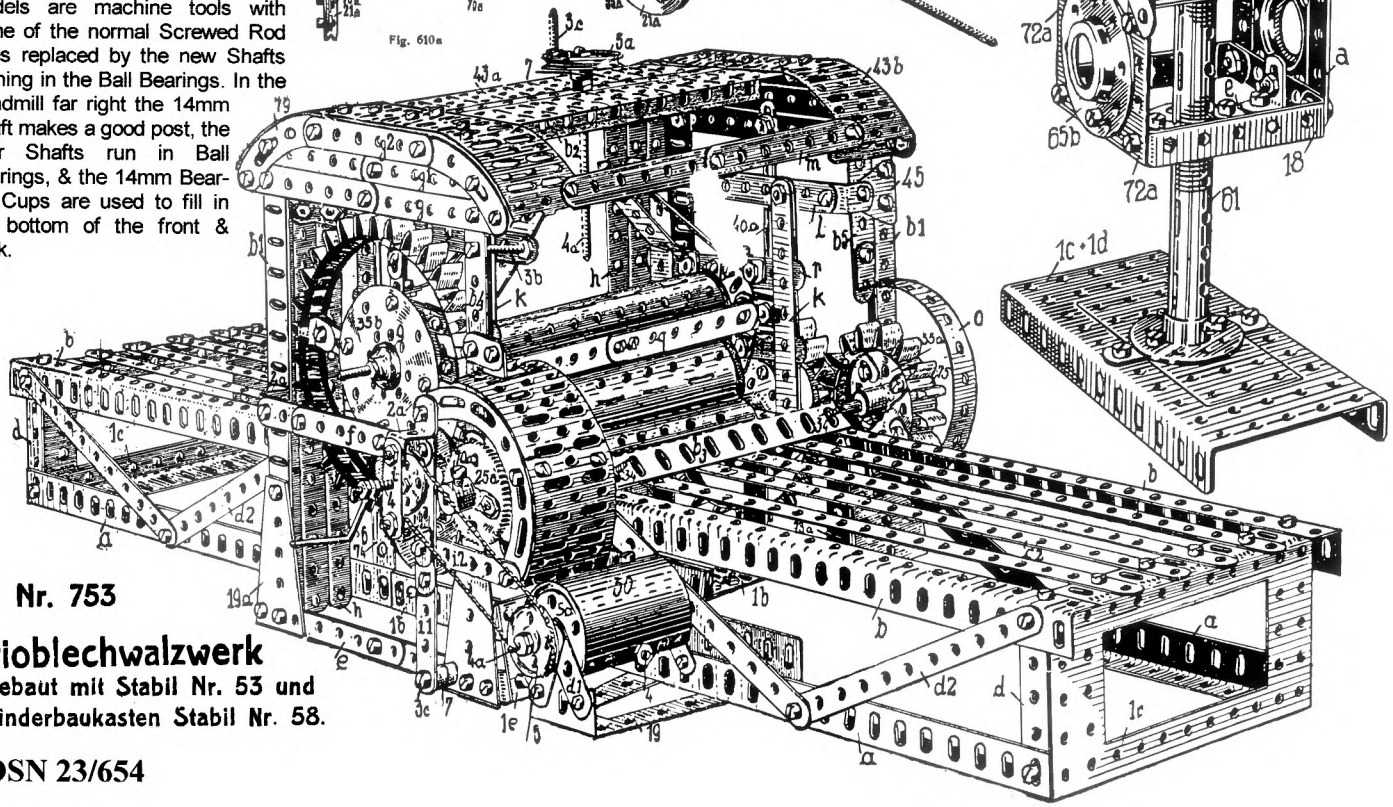


Nr. 610 Feldgeschütz
gebaut mit Stabil Nr. 50 und Erfinderbaukasten Stabil Nr. 57

Fig. 610a



Nr. 806. Windmühle



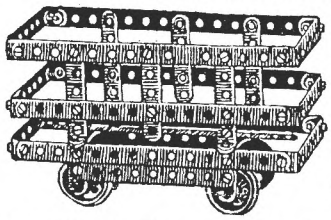
Nr. 753

Trioblechwalzwerk
gebaut mit Stabil Nr. 53 und Erfinderbaukasten Stabil Nr. 58.

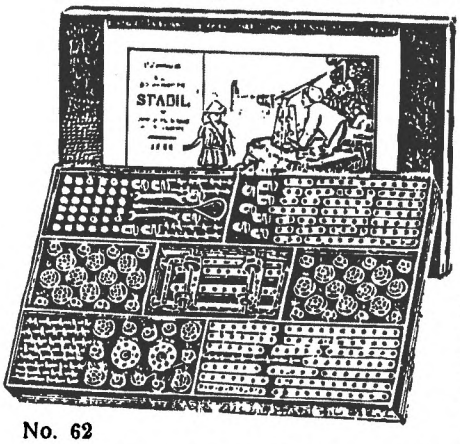
RAILWAY OUTFITS

STABIL Serie: Spezialbaukasten für Eisenbahnwagenbau Despite the fact that the Hornby's 1901 patent showed railway track and a crane on rails, there was never any particular emphasis on railway models in MME & MECCANO manuals. Rather surprising perhaps, given that by repute, every young boy's dream at the time was to become an engine driver. Walther on the other hand introduced a series of sets well before WW1, that allowed various goods wagons to made. What follows is mainly based on a photocopy of a manual, courtesy Ansgar Henze, kindly sent, with some notes on the parts, by Werner Sticht.

The earliest known mention of the Railway sets is in the c1911 catalogue described in 22/650, and it contains an illustration (left) of one model. It isn't among those in the manual and it doesn't have the buffers that are fitted to the Manual models. The wheels are 1 hole lower in relation to the main chassis too.



A 1914 catalogue lists 5 sets (Nos.59-63, see 13/348), plus linking sets 59a-62a. 6 models are shown and all are exactly as in the Manual. Sets 59 - 62 are illustrated and the No.62 is shown left. All the sets have one chassis already made up and the No.62 contained enough parts to make 7 Wagons at the same time.



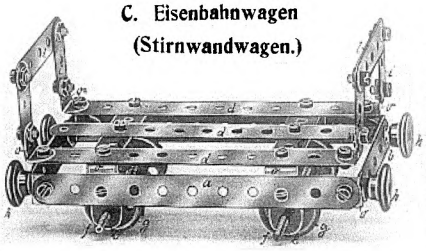
No. 62

The Manual has 16 pages (241*170mm deep), plus covers, and 3 extra pages (showing Models W & X, small illustrations of some non-railway models, and a Price List) have been glued in at the back. The cover is the type at the top of 13/350, with Vorlageheft zu No.59 stamped on in purple ink at the top, and the name 'Serie: Spezialbau+kasten für Eisenbahnwagenbau' under 'STABIL'. Despite the '59' stamp, the models include those for the larger sets as well, and go from A. Eisenbahnwagen (Plattenwagen), p2, to H. Eisenbahnwagen. (Planwagen), p9; then J. Eisen+bahnwagen (Gitterwagen), p10, to L. Eisenbahnwagen. (Vierachsenwagen mit Drehgestellen.), pp12-13; then R. Förderkorb für Drahtseilbahnen, p14, to U und V. Förder+körbe für Seilbahnen, p16; then W und X. Förderkörbe oder Förderwagen für Seilbahnen on the extra page. There is a large photo of each model, apart from W & X which are line drawings, plus lists of the parts needed, and a few drawings of details, all in the usual STABIL style.

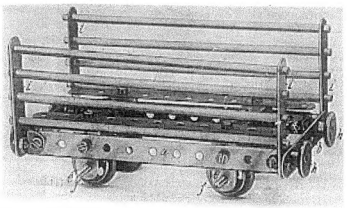
Models A - L are various types of Wagon, all running on 4 Wheels, except G. on 6, and L. on two 4-Wheel bogies. Most are simple frameworks made from Strips & A/Bs, but one has a tarpaulin cover, to be made from paper, one has wooden dowel side members, and one has a crane on the chassis (see OSN 13). The Bogie Wagon needs 26 A/Bs and 102 N&B - it and 2 other Wagons are shown at the top of the next column. To minimise friction the Flanged Wheels run loose between lock nuts on the Screwed Rods used as axles. The models were of ample width to run on 1-gauge track, and it was suggested that the wheel position should be set to suit the track being used.

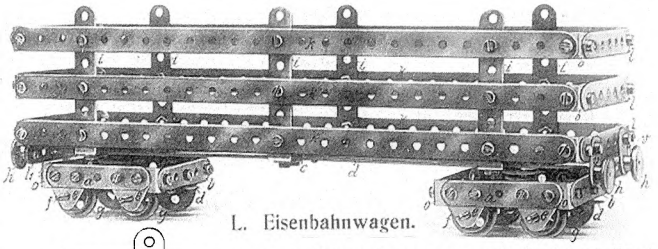
The parts were standard STABIL except: • The 25mm Ø, turned brass Flanged Wheel, see 19/548. • Special lengths of Screwed Rod - 85mm for the axles, & 125mm

C. Eisenbahnwagen (Stirnwandwagen.)

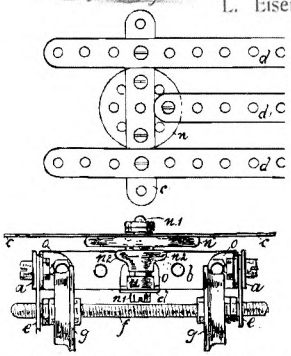


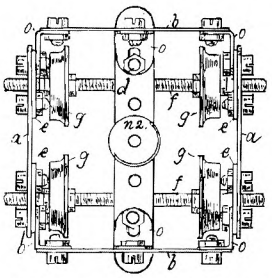
J. Eisenbahnwagen (Gitterwagen).



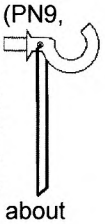


L. Eisenbahnwagen. (Vierachsenwagen mit Drehgestellen.)

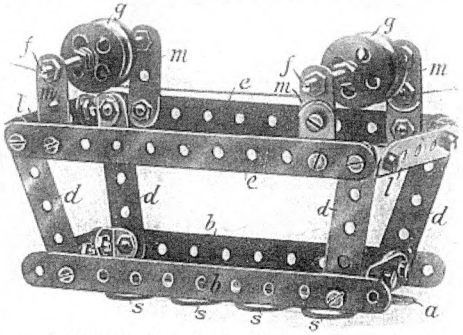




used in the Tip Wagon. • The Buffer, a Cheek Piece (PN9, see 13/352) but with a tapped bore. • The Coupling Hook. One only is called up for each model, and none are shown in the photos. It is thought to look like the sketch right. • The small Triangular Plate used in the bogies. This later became PN45 (see 19/355), and later still was renumbered 145. • The Wooden Rod mentioned above, 145mm long and about 4mm Ø.



The remaining seven models are simple cable railway cars, and the largest is shown right. Parts 'g' are Flanged Wheels of course, and 's' are Buffers.



A few points remain mysteries: • The date of the Manual. One estimate is 1915 but the basic version without the extra pages was probably earlier, perhaps 1912. The same style of manual continued until 1921. • A manual for the standard sets from 1913 contains an ad for the Railway Sets with an illustration of a Wagon with the floor made from a 5*11h Flanged Plate. No such Plates can be seen in the sets in the 1914 catalogue but perhaps old printing blocks were being used. • The Manual has a Model J but no Model I; in the extra manual pages, a list of which models could be made with the different sets mentions Model I but not Model J. • Sets 63a & 64 are included in a list of sets in the extra pages, both marked 'in preparation'. The No.64 was to have built build 13 models, but it isn't known if these sets were ever produced.

PRIMUS ENGINEERING 1913 saw Butchers launch their PRIMUS outfits - they did not include any sets solely to make railway models but a significant number of the 80+ parts in the system were specifically intended to allow construction of realistic railway stations & 1-gauge rolling stock. In his book on PRIMUS, David Hobson has pointed out that in the first manual, 25 of the 35 models have a railway connection. This aspect was often not referred to di-

LYNNCRAFT Some notes on this small American system were given in 12/309, and now more details are available thanks to Chris Freeman who has sent photos of his two sets. The first, a No.146, is the one that was illustrated in OSN 12 except that it has a Pulley Disc between the centre Trunnions, and another 4, perhaps missing in Richard's set, one in each of the other gaps between the Trunnions. The Pulley Disc has not noted before – it has a normal size centre hole but otherwise two joined by a boss would make the Pulley. The 5 Pulleys between the Trunnions in the earlier 'large' set noted in 19/554 are genuine Pulleys but the other two (at the sides) can now be seen to be Pulley Discs.

The other set, a No.136, is smaller, and is in a box about 13½*8½". The lid (below) is of similar design, red & yellow to the No.146, but the two main models on it, and 2 of the 4 at the bottom, are different. The model sheet is again a blueprint stuck inside the lid. Several of the models are wheeled vehicles and all their wheels have Tyres, unlike those of the OSN 12 No.146. Oddly, although several of the models have 4 wheels, there are only 2 Tyres for the 4 Pulleys in the Set, and it isn't obvious where more would be housed. The other main parts are 6 Strips, 1 each Small & Large Flanged Plates, 4 each Trunnions, Triangular Plates, & A/Bs, a Span'driver, & 2x 3" Axles.

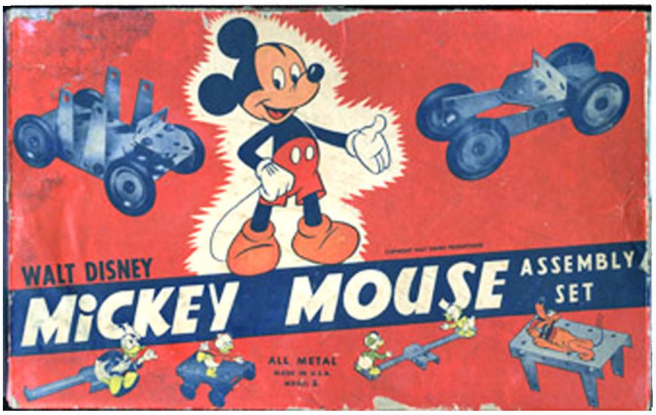
The Nuts in the above sets are square, with about the same A/F dimension as the hexagonal ones of OSN 12. I've also been able to examine some parts which Frank Beadle kindly lent me, and the first thing is that the holes are 4.8mm Ø, and not the (erroneous) 3.8 of OSN 12. Other points: • The Tyres are marked LYNNCRAFT on one sidewall. • The Axles are plain steel, as they are in the No.136 above. • The Bolts have smaller, ¼" Ø, roundheads.

The Pulley Discs mentioned above are a bit of a puzzle because they are not used in any of the models. However, they do make the sets look more attractive in their boxes, and they would have decorative uses in models.

▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪

And two MICKEY MOUSE Sets Recently discovered thanks to Kendrick Bisset & eBay, the two LYNNCRAFT sets repackaged under the name MICKEY MOUSE Assembly Sets S & L (small & large no doubt).

First the **S Outfit** from Kendrick, which is in a box the same size as the No.136 above. The blue on red lid is shown below, and the models on it, and the general layout, are the same as in the LYNNCRAFT one above. Likewise



the blue Model Sheet pasted inside the lid. The company name, 'Hollywood Toycraft Inc.', is printed on the ends of the lid, & 'Copyright Walt Disney Productions' on the top.

The parts are again on a red backing board, but with a slightly different arrangement to accommodate 2 extra A/Bs & 4 Pulley Discs. There appears to be slots for another 4 Pulley Discs, while loose in the Set as found were an A/B, & the extra 2 Pulleys with Tyres that are needed to make the models shown. This Set too has square Nuts, 8.7mm A/F.

The L Set details come from a blurry eBay photo. The colours are those of the smaller Set, and all that can be seen of the lid, the top centre, has Mickey as on the S lid with the models from the No.146 LYNNCRAFT lid on either side. The layout of the parts is similar to the OSN 12 set but with Pulleys or Pulley Discs between the Trunnions, as there should be, and 5 Triangular Plates, instead of 3, at each side. 3 of the 4 Pulley with Tyre positions are empty and the 4th has a Pulley but no Tyre. The models on the Sheet inside the lid are the same as those in the OSN 12 lid except that to make way for the larger top centre logo, the positions of the Draw Bridge, Bar Bell, & Teeter-Totter have been changed. Where appropriate wheels are shown fitted with Tyres (shown as white rings).

One wonders that a large organisation like Disney was content to see its best known star linked to what must be regarded as a less than ideal constructional toy. Another such case was M&S selling BILDICO (see 16/440).

More on STABIL INVENTOR'S Manuals Further to the notes in 23/654, Werner has now found full details of the 5 known Inventor's manuals.

No.1 This was mentioned in 14/370 and was the first manual described in 23/654. The front cover (with the Log Saw & 3 children: cover 'A' for reference) has Juni 1925 on it, and it is believed to date from then. C3 is blank.

No.2 This has the same C1 as No.1, with the Juni 1925 date on it, but is thought to date from the end of 1925. The contents are as No.1 but with additional pages 34-44, and p44 is on C3. These new pages are those described for the 1926 manual in 23/654.

No.3 This is thought to date from 1926 and is the 1926 manual of OSN 23 - it is identical to No.2 above apart from a different front cover, with 2 boys. Crane, Bridge, etc (cover 'B'), and overprinted 'Nr.57 u. 58' in the oval.

No.4 This is the third manual described in OSN 23. It is identical to No.3 above except for the Nr.56 model pages I-XII glued in, and the label on the front cover saying that it is for Sets 56, 57, 58 (cover 'C'). Because of the reference to the Money Box on pl of the Nr.56 section, the example known has been dated as ≥1931. In passing it should be noted that the Contents for Set 57 & 58, in the main pages, had not been updated to include parts 83,a,b, which by 1931 were included in the Sets.

No.5 This is a new find, a single sheet folded to give 4 STABIL manual-sized pages, and was probably included in the first No.56 Set, now known to have appeared in 1927. There is no main title or introduction, just 'Einige Anwendungsbeispiele für [loosely 'Some examples of models for] Walther's Erfinder-Baukasten Nr.56' along the top of each side. 6 models, Nr.801-806, are shown and all are in No.4 above, but with different numbers and one change of name: Pappschere instead of Pappenschneidemaschine. The first model is Nr.801, Observatorium, & the last, Nr.806, Steindruckpresse.

ARMATURE On the question of whether the parts from this system are made from wood or metal (see 23/655), Jeannot Buteux wrote to say that they are definitely not wooden, and are almost certainly aluminium.

Corrections • The page numbering of OSN 23 should read 23/xxx instead of 22/xxx. • In the MCS Database 2000, the 'SM' in 'Codes C' on p44 should read 'SH'.

ITEMS FROM LETTERS

1. From Don Redmond. • John Wapshott recently found a **CASTLE BUILDER** box (22*11½*2½") with no set number on it, and the bulk of the contents turned out to be most of a **STRUCTOMODE** No.6 Set. No manual or other 'paper' was with it. Characteristic STRUCTOMODE parts found included the Windmill Sails with large round holes, Braced Girders with semicircular cutouts, & a Little Hustler motor. Also present were Flanged Plates, whereas CASTLE BUILDER had Perforated Plates & A/Gs instead. The two Propeller Blades of the No.6 were found but they are 'sickle' shaped (as sketched left, ½-full-size) instead of the broad, early MECCANO type shown in STRUCTOMODE manuals. The parts nicely filled the compartments in the box, with the Motor fitting into a full-depth section, and raised level packaging in the other sections.

As noted in 16/458, CASTLE BUILDER was made in Toronto by the Castle Mfg. Co., probably from 1917 to 1918/19. Canadian Toys Ltd. of Hamilton, the makers of STRUCTOMODE, were listed in the Hamilton directory for 1921-22 (after that the manager, R.H.White, appeared until 1925). Is it possible that Canadian Toys acquired and made use of some CASTLE BUILDER boxes?

Points of interest concerning the (supposed) STRUCTOMODE parts found are: • ½" & ¾" Loose Pulleys made of tin discs eyeleted together; • the early MECCANO pattern Pawl is made of ordinary not spring steel, and is nickel plated; • the 5*11h Flanged Plate is as shown in the manual with the flange holes near the bend; • the Motor is as the manual but without the wooden base. (The type was illustrated in 19/551 with 'KNAPP' on the base.)

No Trunnions (see 23/681) were in the box.

• The 1924 **ERECTOR Car Truck** had the top hole raised compared to the STEEL ENGINEERING pattern (see 23/666), and then in 1926 the original hole was restored giving 2 holes at the top. [Referring to *Greenberg*, this last pattern was shown in the Illustrated parts (Fig.1) for 1924-26, and then changed to Fig.2 in 1927 (with a single hole at the top and the side holes elongated). In 1928 & 1929 the Fig.3 type is shown, and no later illustrations are provided. But these changes may not represent the (whole) truth of the matter because where the Car Truck can be seen in the photos of sets, it is the Fig.2 type in 1924, 1928, 1929, & 1933 (all in nickel). It is said that the extra hole was added in 1935 (Fig.4) and this part, painted red, is shown in a 1935 outfit and in later sets. *Greenberg* also has a photo of a set, said to be a 1920 No.1, which clearly shows 4 of the Fig.3 parts. Said part isn't listed in the 1920 Parts List or Set Contents, so was this an early trial set, or has it been mislabelled/badly restored? Figs.1-4 above have been copied from Al Sternagle's *Erector Parts Illustrated*.]

Fig.1

Fig.2

Fig.3

Fig.4

• Re the **ERECTOR 24t Gear** (23/666), the standard pattern prior to 1924 was plain with no face holes. My 2-hole version has a 7mm centre hole and no boss. [My mistake over the standard Gear, the 2-hole version was listed from 1914 through 1920 and was never included in any sets. I wonder if Don's example was a disc that 'got away' before it was 'bossed'. It's true that in some brochure illustrations it doesn't appear to have one but it always cost 15c against 10c for the unpierced one with boss.]

• Were the **STEEL ENGINEERING** Curved Girders the same curvature as the equivalent ERECTOR parts D & E?

• Colin Hinz has a pretty Russian set with the transliterated name of **VOENNAYA TEKHNIKA** (Military Engineering), which was apparently made in St. Petersburg in 1999. It is packed in a transparent plastic box and the parts resemble KONSTRUKTOR [3] (see 22/648), but are steel rather than aluminium. The 16 models in the manual are chiefly army units, & vehicles.

• The 2000 Database lacks some figures for **NECOBO**. The following are from a batch of parts including Mod.1 Gears (see 7/147): bosses are 4.1mm bore & double-tapped 5/32" BSW; Axles are probably 4.06mm Ø, though some with the parts were 4.02mm. Other points: the bore of the Cone Pulley, #176, is less than 4.06mm; the nickeled boss of the Face Plate (#83 but with 2 rings of 8 holes) is single-tapped; the tapping of the Handle Crank, #124, appears to be 1/8" BSW & the Set Screw is machined brass with a cheese head; the 16/60t Gears run freely at 1½" centres; the 20mm Bevel has 20 teeth and meshes nicely with MECCANO #30.

2. Details of an 11th Edition **C.I.G.E.A. manual** were given in 23/657. Luciano Luppi wrote that his 11th Edition is dated 'X 54'. He also sent some details of a 4th Edition from 1946, as follows. •Name: LA MECCANICA per ragazzi. •Maker: C.I.G.E.A., Milano, Via Nino Bixio, 15. •Date: XII 46, Quarta Edizione 50000 (could be the number of copies printed). •Page size: 246*170 mm deep. •64 pages + covers. Paper quality is much better than in the 11th ed. •Printing: half tones of models; cover is green with off white, grey, black inset. The inset is the same as the lid cover on 23/656. The 'something else' on it is a steam locomotive. •Language: Italian plus French/English/Spanish/German Introduction. •Sets covered A,B,C,D,E. •No. of models for each set: 23,20,21,10,10.

3. From Werner Sticht. • On **Korbuly's MATADOR patent** (22/623 & 23/682), the Austrian patent can be seen at http://members.xoom.com/oelli/matador/Patente/Nr.11515/Seite_1.gif & /Seite_2.gif). It is similar to the German one but also includes a vehicle with wheels, the Cart right. [On dates, it was applied for on 2 Nov. 1901 and was granted (Beginn der Patentdauer) on 1 Dec. 1902. Hornby applied for his patent on 9 Jan. 1901, added to his application on 9 Oct. 1901, and his patent was granted on 30 Nov. 1901. The 1 Nov. date mentioned in OSN 23 is the application date for the UK patent, which was granted on 6 Feb. 1902. No application date is given on the German patent.]

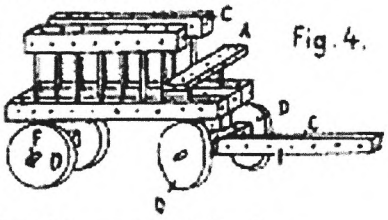


Fig. 4.

• Due to a typing error the **5 STABIL DRGM numbers** given in 22/650 (248034-8) were incorrect – they are really 248934-8, as stated in OSN 13/348. [Due to another typing error the numbers from OSN 13 in OSN 22 were incorrectly given as 249934-8.]

• News from Jürgen Kahlfeldt: • Confirmation of the 1933 date for the introduction of **STABILA** given in 13/343. It is said in an ad leaflet dated 5/33 that it would be launched soon, and in one dated 11/33, Sets 1 & 2 are advertised as being 'new'. • The first known ad for the **KNIRPS** Motor (see 11/272) is from early 1933, and also listed at that time were the KNIRPS Conversion Sets 1a & 2a. The Nr.1a was mentioned in 11/273; the 2a was to make the Nr.2 into the STABIL Nr.48, & the same Set was also available as Nr.46a, to make the STABIL Nr.46 into the Nr.48. • A **Walther's Maschinenbaukasten** with manual has been found [it was mentioned in 13/348, and has mostly wooden parts].

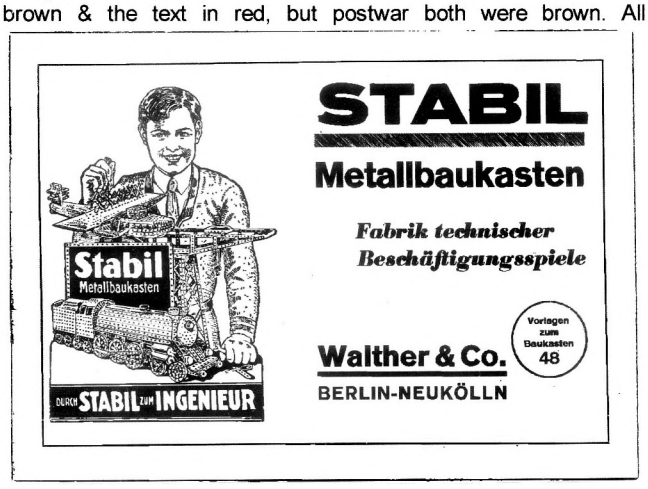
• As would be expected nothing of MÄRKLIN METALL, TEMSI or TRIX at the **Nürnberg Toy Fair** in February, but AMI-LAC had a stand, and so did Eitech. The latter showed a Lorry-mounted Mobile Crane which stood about 3m high. Also present, the firm **Dickie-Schuco**, who use the old Schuco trade mark, and have started to sell a system which looks like repackaged MERKUR. [It is hoped to have more

KNIRPS & STABIL Set 46 & 48 Manuals Werner Sticht has kindly passed on some information supplied to him by Jürgen Kahlfeldt. First about a **KNIRPS Nr.1** manual, dated March 1932, not previously known, and very probably the first edition. It is a single sheet printed in black, and folded into 6 to give A5-size portrait format. At the top of the front is a boy with 3 models, as on the 1966 Nr.48 shown below, with the name underneath, and some text including assurances that KNIRPS parts could be used with STABIL. No parts list is provided but it is said that the contents are shown on the envelope the set was packed in. The contents were given provisionally in 11/272 but from the models it seems that there were 4x 5h Strips, 16 Nuts, 8 Bolts, and the Screwed Rods would need to be 55mm long. Also in the Set, a Spanner & a Crank Pin. The latter has never been seen but is sub-standard in diameter to fit the small holes in the Wheel Discs. It can be seen in the models, as in the Crane below, but it isn't clear how it is held in place. Such a Pin, with a flange near one end, is used in ULOX (see 10/253) with the flange clamped between 2 Discs, but in the KNIRPS models only one Disc can be seen. The 93 models shown start with the numerals 0-9 and all the alphabet except 'J' (Das Knirps-ABC). After these, the first is Nr.36 Leiter & the last Nr.93 Segelboot. Also on the back are 3 slightly larger models, 101-103, which need more than one Set.

A **KNIRPS Nr.2 / STABIL Nr.46** manual from March 1932 is also known, and again it is likely to be the first edition. Once more it is a sheet folded to A5 size, but this time with 8 'pages'. The front has the same illustration as the No.1 and the title is 'Instructions & Models for 'Knirps-Baukasten Nr.2 u. Stabil-Baukasten Nr.46'. In the text underneath it is explained that the only difference between the two Sets is that there are 4 Tyres in the Nr.46. 131 models are shown starting with the Knirps-ABC (but smaller letters than the Nr.1 ones), followed by Nr.26 Fußtritt to Nr.131 Segelschlitten.

The KNIRPS Nr.2 / STABIL Nr.46 manual in its final form was issued in October 1932. The cover, now in landscape, has a large inset of 2 boys, a train on a Bridge, a Flying Boat, & a Tower Crane (it is shown on KNIRPS: X1.2 in MCS). It was printed in black on paper of different colours in different years - blue in 1935 & 1936, and green in 1939 are known. 150 models are illustrated, starting, after the Knirps-ABC, with Nr.26 Barren, and finishing with Nr.150 Eisenbahnkran (shown in 11/273).

Finally the **Set Nr.48** manuals. The models were never changed from the time the Set was introduced in 1931, but the ads on the back cover varied and 4 different front covers, all A5 landscape, were used. The first was similar to the 1966 one below but was printed in B&W. An example of the Danish edition dated May 1931 is known. The second, at the top of the next column, was in full colour, with the boy wearing a red top, the Bridge against a yellow backdrop, and various small models on the blue floor. It was probably used only in 1932 and the example known is from October of that year. After that the first design was used: up until WW2 the illustrations were printed in brown & the text in red, but postwar both were brown. All



these manuals have 16 pages including covers, and the models go from Nr.48/1 Gabel on p2 to Nr.48/205 Stichsäge on p15.

More SCHEFFLERS & METALLBAUKASTEN Dates

After the account of these two systems in 23/662, Clive Weston kindly lent me two manuals. The first was a **SCHEFFLERS**, probably from 1962 (PR III-10-6 Ke 60-62 13000), and it is very similar to the 1966 one in OSN 23. The size & number of pages, parts, set contents, & models are identical although the text has mostly been reset. The covers are the same colour but are of thicker, with a light, embossed pattern, and METALL-BAUKASTEN under *Schefflers* has a hyphen (cf top right of 23/662). The scatter of loose parts has been slightly rearranged too, but the big difference is that the sets are the early ones, as in the MCS/NZ.

Photos of all the old-style sets are also shown inside, & opposite is the label from a 1/2 linking outfit. If the dates assumed are right, the lid label & packaging changed between 1962 & 1966.

The PR of the second manual, a **METALLBAUKASTEN** one, indicates a 1974 date, & so it is within the OSN 23 range of dates. As would be expected the models are as in the SCHEFFLERS manual, with the same text, reset, & photos of all the M-B sets except the Elektro-mechanischer. No doubt its inside pages are identical, or virtually so, to those in the OSN 23 Freeman one. However the covers of the two are not identical though they have the same PR (III-8-9 KI 654 73 1502 on C3) - the coloured band across Clive's is turquoise instead of blue, and there are other small changes. Also there's a second PR, III-8-9 KI 61/74 2476, on 'p63' (it's not numbered), so the inside is apparently a year later than the covers.

In passing the front cover looks identical to the one in the SCHEFFLERS entry in MCS/FB, and the 'p63' with its PR can also be seen in the /FB SCHEFFLERS, on p6.

SMALL ADS

For Sale: **CONSTRUCTION:** Sets C07 (two), C12, C13, C14, plus spares (mainly gears) and 1 motor. **ERECTOR:** Fair quantity in original red metal boxes (2) plus genuine Erector motor. **TRIX:** Modest quantity with several motors. More details from Bill Charleson, tel: 01924 493413, or email: charlesonb@aol.com. (Space needed! so open to any reasonable offers.)

Building Toys List. Update of 1997 database now listing brief details of 900+ building/construction toys, mostly not covered in MCS/OSN. UK £3.50; Europe £4/$6; elsewhere £4.50/$7, including postage. Overseas payments in either UK currency, U.S. dollar bills, or into Editor's PayPal account (please see Editorial, p 717). David Hobson, 'Woodington', Edford Green, Holcombe, Bath, BA3 5DB, England.

(see 17/464). The photos of sets 1-3 are essentially the same as those in MCS; the No.5 has 3 layers of parts, two of which look as if they may be like those in the No.3. Also listed are the previously unrecorded linking sets 1A & 2A, and the Catalogue Nos. for all these sets are 1, 1A, 2, 2A, 3, & 5.

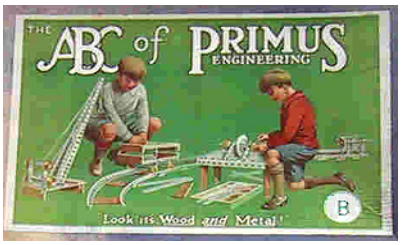
The Catalogue No.4 is the **METALCRAFT** set (see 14/393), and No.6 is the **PIONEER** set (17/466). So these two sets were definitely from the VOGUE stable, and they were on general sale, and not, at least at that point, special sets created for a particular customer. Also though very similar to one another, they existed at the same time. From the Cat. Nos., METALCRAFT may have come first. As might be expected the wholesale prices of the two sets were very similar, 96/- per dozen for METALCRAFT, & 100/- for PIONEER. Thus they fell between the No.1 set at 64/6 & the No.2 at 136/-. Nos. 3 & 5 were 185/- & 257/-.

The Supplementary Spare Parts Sets 1-5 mentioned in OSN 17 are listed; their contents are given and are as in MCS.

The maker is given on the Catalogue as Cascelloid, Abbey Lane, Leicester, Division of The British Xylonite Company Limited. Their offices & showrooms were at 9 Conduit Steet, Mayfair, London, W1, and 7 Pall Mall, Manchester 2.

METALCRAFT [2]: **S1**; **PIONEER**: **S1**; **VOGUE**: **S1** [28/814]

9. From Clive Weston, details of a **PRIMUS Set B**, apparently unused, the first ever reported sighting (see 24/712). It is in a blue box, 9¾*7¼*¾", with the label below. The contents are: 6,4,2 of 5,6,11h Strips; 2 each of 6*6h Plates, Architraves, 1⅝" Wire Stays, & Wood Slips; 5x 1" Loose Pulleys; a 3½" Axle with Tapped Ends (#167); 12 A/Bs; 17 N&B. No sign of a Tool of any sort.



Most of the parts are held in slits in a red backing card, but the A/Bs & N&B are within triangular partitions in two of the box's corners.

The model leaflet is the one described in OSN 24. Some of the 'B' models in it would need parts not in the Set: a Fast Pulley or Axle Stops to locate a Loose one; a Crank Handle; and longer Bolts for the Loose Pulleys, if they were to run freely.

With the Set was a leaflet listing the full range of PRIMUS sets. The 'C' outfit is illustrated and its packaging is in the same style as that of the 'B'. The extra 'C' parts appear to be in line with the details given in OSN 24 except that the Set has 4 Fast 1" Pulleys & one Loose one. A Screwdriver, a Crank Handle, & 2 Axles can also be seen.

The Leaflet is undated but from David Hobson's *PRIMUS* book (see 20/583) it seems likely to be from 1923 or 1924, and the 'A' set, price 1/6, may have been the unidentified outfit from 1923 mentioned on p25.

PRIMUS ENGINEERING: S1 [28/814]

10. From Don Redmond. **STABIL** Flanged Pulleys have two different styles of boss (both on the inside of course). One is the usual stubby cylindrical type with very small peening; the other is thin, with a rounded edge to the free end, and held in position in the disc by a crimped-on wire ring.

STABIL: S1 [28/814]

11. On **ERECTOR** Bolts, Don Redmond mentioned 3 types: 1) Gilbert MECCANO, with what he calls a 'button' head, 5.8 to 6.1mm Ø, the edge almost rounded in at the margin (like antique shoe buttons). 2) Duplex standard or large headed, 7.5 to 7.8mm Ø, 3mm deep. The large head, needed because of the ¼" holes in the Duplex parts, is prominently round. 3) Medium headed, 6 to 6.9mm Ø, under 3mm deep, with a rather wide slot, apparently forged rather than sawcut as the sides of the slot may slope.

ERECTOR: S1 [28/814]

QUERIES [28/814]

Query 28 from 27/803. Some STRUCTO parts are now to hand and the groove in the Axles is vee shaped, with the apex angle rather greater than 90°. The depth is hard to measure accurately and varies a little from part to part but is probably between .5 & .7mm. The Crank Handle & Crank-shaft are also grooved.

Query 29 What colour (or colours) is STABIL Cord?

MYSTERY PARTS [28/814]

No.51 from Don Redmond. A 19h A/G, with a 15mm slotted arm, the other 12½mm, & the hole pitch is 12.7mm. The metal is only .55mm thick and it has a very marked curve, perhaps 2mm radius, at the bend., It is painted, rather badly, bright green.

No.52 More from Don. Parts similar to JUNIOR MECHANIC (see 12/327) but both sides of the Wheels are nicely enamelled red, and both sides of the Flanged Plates are also painted. The ends of the Strips & A/Bs are rounded.

SMALL ADS [28/814]

For Sale. Large collections of **TRIX** & **FISCHER TECHNIC**. Details from Ivor Ellard, 44 Well Lane, Galleywood, Chelmsford, Essex, CM2 8QZ; phone 01245 269830; email ellard@nildram.co.uk.

Wanted. Any metal nut & bolted together **constructional car or other vehicle kits**, or any parts identified or not, ie wheels, axles, chassis, steering gear, mudguards, wings, clockwork motors, etc. Anything & everything in any condition considered. Also boxes, instruction manuals (copies if you don't want to part with originals), or any information at all.

Please call Gary on 01635 200460 before 8pm or email me at gary2car@aol.com.

OSN Subscription Rates The price per Issue, including postage, at Printed Paper Rate where available, is £3 for UK; £3.50 air to Europe, & surface anywhere; £4 air outside Europe. **NB** These prices are for existing subscribers & will increase after OSN 29.
Back Issues For the zones above : OSN 1: £1/£1.30/£1.50; OSN 2,3: £2.30/£2.70/£2.90 each; OSN 4 onwards : £3.60/£4.10/£4.50 each.
Payments Please make cheques payable to P.A.Knowles. Remittances must be in Pounds Sterling (GBP) or, as cash, in Euros or US Dollars (at £1=€1.50=$1.50). Payments from overseas may also be made (in US Dollars) using PayPal.
Small Ads Short ads are free to subscribers. Insertion guaranteed in OSN 29 if received by the end of July 2003.

OSN – Your Credit Balance

after OSN 27

after your remittance of

after this Issue

Please send at least £ if you wish to receive the next Issue.

the Liverpool 5/32" BSW. In round terms 7-32 is 4 thou smaller in diameter and despite the difference in thread angle between the two (see 7/160), 7-32 Bolts & Screws can be used in BSW tapped parts, bosses for instance. They are a little loose but tighten satisfactorily. This means that 7-32 Bolts/Screws would fit bossed parts imported from England.

It is believed that 7-32 was the thread in all the U.S. produced parts, that is from 1922 onwards, but it also seems likely that 7-32 Bolts & Screws were used from as early as 1916. This could possibly have been to circumvent wartime shortages. It is also possible that certain parts were made in America before 1922 and used 7-32. An example is the 56t Gear with the square centre hole & zinc boss (see Mystery Part No.45, in 27/795).

7-32 was used in the 1929 Gilbert 'double-digit' MECCANO sets (see 27/788) but from 1930 onwards ERECTOR threads were used, 8-32 N&B, and 6-32 tapped bosses.

U.S. MECCANO: S1 [29/846-7]

10. On the **No.0 KWIK BUILDER** set in the 1st column of 28/827, Harry Marïen has succumbed to temptation and opened the envelope with the parts in it. The contents are 2,6,2,2,2,2 of 7,6,5,4,3,2h Strips; 4 each of 1*3 & 1*4h 'Plates'; 6 A/Bs; 10 N&B; and a Spanner (as in the No.1). The 3-7h Strips are green, the Plates red, and the other parts are bright looking. The contents are as in the photo in the Set's manual (described in 10/262) except that the 1*4h Plates replace the 1*5h, and the 4 Washers, & 5 of the 15 N&B, shown in the Manual are lacking. (The set contents of No.0 given in OSN 10 was incorrect, it is now apparent that the DAS and the 'small Plates' are actually 4 each of 1*3 & 1*5h 'Plates'.)

KWIK BUILDER: S2 [29/847]

11. Some more information on an **MKA No.II set**, from Jacques Pitrat, see 28/830. The colour of the manual (with a '2') is cream rather than light yellow and it has 8 pages, plus the covers. There are 8 models, one on each page, from a 'Schiebekarre' (Luggage Barrow) to a 'Dekopiersäge' (Sawing Machine). There is only one Flanged Sector Plate in the set, and only one is used in the manual models. There are two 27mm Pulleys, without Tyres, and Tyres appear in the manual, as in the Set, only on the 36mm Pulleys. There are no backing cards in the set, and it is not sure that there were ever such cards. The aluminium clips are used to hold the Strips of the same size together.

M K A: S4 [29/847]

WEB SITES [29/847]

• http://home.t-online.de/home/HGFinke/metall/engl.html (from Thomas Morzinck). A German **MÄRKLIN** enthusiast shows pictures and gives some details of his models and mechanisms. In English.

• Werner Sticht has revised his **STABIL web site**, www.stabilbaukasten.de.vu. Many new items have been added, others have been expanded, and there are additional interesting photos. The new material includes more on the history & parts; on the motors; the Inventors Sets; the Kanonen Sets; the Railway Wagon Sets; the small Sets 46, 48, 48M; the Knirps Sets; and the years up to 1920.

• www.Merkurtoys.cz (from Orion DreamDancer). There is an English version of this **MERKUR** site, and now included are new or revised manuals for sets 012, 014, 019, M4, & M6. All manual pages can be viewed/printed.

• www.bral.biz The new **BRAL** site. It is in Italian but is easy to navigate. More details elsewhere in this Issue.

QUERIES [29/847]

Query 29 On the colour of STABIL Cord, Werner Sticht wrote 'that blue/white Cord (two coloured strands twisted together) was used in the 1950s & 60s – I remember it very well from my first STABIL set that I got in 1957. Plain white Cord was used in sets from the 20s and 30s.'

SMALL ADS [29/847]

Wanted. Any metal nut & bolted together **constructional car or vehicle kits**, or any parts, boxes, manuals, information (see 28/814). Also PRESTACON Tool/Kits.

Please call Gary on 01635 200460 before 8pm or email me at gary2car@aol.com.

MÄRKLIN 1089 Eiffel Tower set, **illustrated instructions needed**, or colour copy, or mono. Happy to pay for copying or full value if original. Graham Colover, L'Escale, Barnet Lane, Elstree, Herts, WD6 3QZ; tel: day 0207 6258899, home 0208 9538143; fax: +44 (0)207 6258866.

For Sale CD VERSION of MCS - MECCANO VOLUME
A completely new edition of the Meccano Volume of the MCS has been produced on CD in .PDF format (Adobe/ Acrobat Reader is needed). It has been thoroughly revised and updated to the present, with many colour images and consists of over 1100 pages. The format is the same as the normal MCS. The Adobe/Acrobat Reader will be included on the CD (for Microsoft PCs), although it is also available as a free download from the Adobe website for virtually all operating systems. Price including postage for the CD will be as follows:-UK - £5.50; Europe - £6.00 (10 Euros); Rest of World - £6.50 (US$11). Send cash in UK£, US$ or Euros, or UK£ cheques drawn on a UK bank to Mr. T Edwards, 5 Burnside Road, Largs, Ayrshire, KA30 9BX, Scotland, Great Britain. Email - timothy.edwards1@btinternet.com. Website – http://edwards.web.users.btopenworld.com/meccano.htm.

REVIEW: CD of MCS MECCANO Volume [29/847]

Some details of this new version of Frank Beadle's original are given in the ad above. For those unfamiliar with Frank's tome it covered MECCANO in Argentina, the U.S.A, Brazil, the UK, France, Germany, Mexico, & Spain, with one or more sections for each, some 400 pages in all.

What Tim has done is to scan Frank's original pages, updating them where possible, and then add all the fresh material he has been able to obtain, in colour where appropriate. There is quite a lot of it actually, with over 1100 pages now, a labour of love indeed. The format is unchanged and also the countries covered, but apart from Brazil & Germany, there are significant additions to all the countries, and huge ones for the U.S.A., the UK, France, & Spain. In each of these the standard & special/theme sets are all included with separate sections for each identifiable period.

This is an invaluable work of reference for all enthusiasts, and would be a 'good read' for anyone even remotely interested in the MECCANO story. Quite apart from the new material it is very convenient to have so much detail of MECCANO in one place. I'm not going to attempt to summarise the additions but I would like to mention that in the French section Tim has included all the sets produced since Liverpool closed. It's the first time this has been done as far as I know, and it was well worth doing now, before the details get muddled with time.

To allow quick access to any section a series of 'bookmarks' can sit permanently on the left of the screen, one for each country. Clicking on one of them gives a dropdown menu with a list of all the sections for that country, and then clicking a section takes one to the first page of it. It's very convenient to use but once in a section the only way to get to a particular page is by clicking through the preceding pages. This doesn't take long, even on my ageing machine, but can be a bit tiresome if one wants to cross-refer between 2 or more pages several times.

Of course if much use is to be made of a particular section it doesn't take long to print off the pages. Provision is made for double-side printing if required with a binding margin on the inner edge of the pages.

Tim has included a slip with the CD asking to be told of errors, & information to fill remaining gaps. More on MECCANO in Germany & Argentina would be particularly welcome.

32

OTHER SYSTEMS NEWSLETTER

Editor Tony Knowles
7 Potters Way
Laverstock
Salisbury
SP1 1PY
England

Email: tony@osnl.co.uk

OSN 32 APRIL 2005

EDITORIAL The Index for OSN 1-30 & the revised Database are both now available. The Database has 56 pages, too many to staple together easily, so it is in two parts, with the basic alphabetical sort in one and every thing else in the other. For prices please see the Small Ads overleaf (the Database is cheaper than forecast because of an arithmetic misfortune on my part). The basic alphabetical sort of the Database is also now on the web site but I've yet to find a way of printing off the righthand side of the landscape A3 pages on an A4 printer. Expert advice welcome. Still on the Database, if you ordered a copy and haven't received it, please let me know (this time it was a spilt tea misfortune which made part of my list illegible).

My stock of some OSN back numbers has run out, and their replacements will be in the form of loose, double-sided A4 sheets made by scanning the original masters. As explained in 31/939 it is easy to make such sheets into the stapled, folded A3 style, and the quality of the scanned photos is nearly always better than the original photocopies.

I am now using the OpenOffice word processor for OSN, with .sxw ending files. There is no problem about opening WORD files in OpenOffice but OpenOffice users sending me files need no longer save them in WORD format. In passing, for anyone not familiar with OpenOffice, it is a free download suite including a spreadsheet, a drawing tool, etc. My experience of the word processor in producing this Issue is that athough not perfect it is overall rather better & easier to use than WORD, especially with regard to graphics.

Shorter NOTES, with thanks to all contributors.

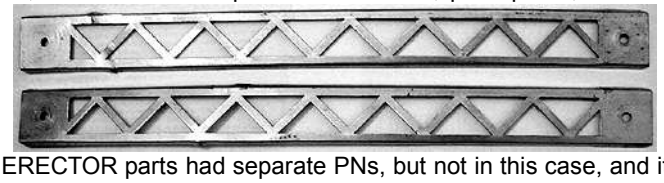
1. Don Redmond noted a Crank Handle, apparently **VOGUE**, with a diameter of 3.48mm, against the normal 3.66±.01. 1 of the 6 to hand here was anomalous at 3.57, and 1 of 6 Axles at 3.76, but I can't guarantee that they are actually genuine VOGUE parts.

VOGUE: S2 [32/940]

2. Don also wrote of some **MASTER BUILDER** parts, see 16/450. The 25h Angle Girder has 4.3mm holes in each, 15mm wide, arm, and square corners. The 5 & 25h Strips have large-radius ends. The 4h Disc, #19, is ¾" Ø. All these parts, and a 5*11h Flanged Plate are tinplate, grey with age, but the Road Wheel, #30 (2¾" Ø, not the 3" in the Parts List), is black enamelled, and its 8 face holes are at ¾" radius.

MASTER BUILDER: S3 [32/940]

3. Jacques Pitrat sent notes on early 12" **ERECTOR** Girders. The first ones in 1913 (they had edges with narrow flanges rather than the V-formed type introduced in 1914) were handed, as shown in the photo below. Most, perhaps all, handed



ERECTOR parts had separate PNs, but not in this case, and it may be that the handing was not deliberate but depended on how the part was handled in the production process. This could explain why the number of each hand found in lots/sets is never equal. Handed Girders with the new type of edge also exist, witness those in the 1914 No.1 set on p51 in *Greenberg*, but this is the only example known and those in the 1914 No.7 on p52 are all of the hand seen in all later sets. No doubt a change in the production method eliminated the possibility of handed parts. However this meant that it was not possible to get 'double-bracing' by laying one Girder on top of another of opposite hand (see 15/400). It also meant that 2 sides of a model could not be made to match, in a Bridge for instance, although in most cases this would not matter. Going back to the 1913 parts, double-bracing could be obtained by placing 2 Girders of the same hand with their flat faces together.

ERECTOR [1 & 2}: S1 [32/940]

4. From John Wapshott. In addition to the parts mentioned in 31/909, John has a Canadian 'Eagle' **LIL'N'GINEER** set (see 27/782). The box measures 12¼*14⅝*2" and its lid & model leaflet are as described in OSN 27.

LIL'N'GINEER: S2 [32/940]

5. Orion DreamDancer wrote that there are two types of 1" x ¼-20 Bolt in both of his Farmingdale Aircraftsmen Mfg. Co. **TECHNICAL TRAINER** sets (see 19/528 & 23/658). They are similar but one has 'STRONGHOLD' across the top of the head in slightly raised letters, and is threaded all the way to the head, while the other head is unmarked and has about 3/16" of the plain shank under it.

Orion also kindly sent an example of the Hook mentioned in 23/658. It is a flat 'S' type, made of 2.7mm Ø dull plated wire, and is 30mm long o/a.

TECHNICAL TRAINER: S1 [32/940]

6. Werner Sticht has added to his web site about **STABIL**, www.stabilbaukasten.de.vu, with more on the parts, the Motors, the period 1921-28, the Inventor sets, prices of sets etc in many years to allow precise dating, etc, etc. Werner hopes to add an English version one day.

STABIL: S2 [32/940]

7. From Don Redmond, about two manuals for the Canadian **YOUNG ENGINEER** system. This system hasn't been mentioned in OSN before but like CONSTRUCTO (see 30/876A, 22/651 & earlier) which succeeded it in 1980, it consisted of 6 sets made up in Canada by Paramount Industries from 1978 to 1980, using MERKUR parts. (Another similar system not previously mentioned is BUILD-O which succeeded or ran alongside CONSTRUCTO in 1981-82.)

The Y E manual covers seen are all like the No.3 shown in MCS (with a Lathe on the front, YOUNG ENGINEERS CONSTRUCTION SET MANUAL above it and MANUEL DE CONSTRUCTION DU JEUNE INGÉNIEUR below– all in B&W but with the outfit number in red). All the models are shown as line drawings with names & numbers. Although the covers are bilingual the model names & notes inside are in English only.

The No.1 has a single sheet inside the covers, 9*13" in vertical format, folded once to give 4 landscape pages and stapled on the top long side to the matching covers. 37 models are shown but the model numbers are not in sequence, with Nos.1-7 & 12 on the last page.

The No.6 has 11 similarly folded sheets inside the covers with the No.1 sheet the outermost one. Model numbers on the

34

OTHER SYSTEMS NEWSLETTER

OSN 34 APRIL 2006

Editor Tony Knowles
7 Potters Way
Laverstock
Salisbury
SP1 1PY
England

Email: tony@osnl.co.uk

EDITORIAL It dawned on me the other day that subscription rates for OSN should be reduced because postage isn't so high now that the pages are printed double-sided. It's a matter of pennies for UK subscribers so no change there, but the price per issue for 'Europe & surface elsewhere' will be reduced by £0.50 to £6, and by £1 to £6.50 for 'airmail outside Europe'.

These rates should have applied to the 3 issues 31-33 so the accounts of those affected have been credited with £1.50 or £3 as appropriate.

Back Issues prices have also been adjusted and details are given overleaf.

Shorter NOTES, with thanks to all contributors.

1. Werner Sticht wrote that he has updated his **STABIL site** (www.stabilbaukasten.de.vu). with more material including many new illustrations of sets & models. Revised areas are the history of the system & the Walther company, the Inventor sets, the small sets & Kanonenbaukästen, the Motors, and the wooden constructional outfits (Maschinen-baukasten, Record, Zimmermannbaukasten). The STABIL periods 1921-1926 & 1927-1929 are now described in detail and can be considered complete. Other additions include detailed descriptions of the Patented Spur Gears, the Rubber Tyres & the parts made from fabric, and a list of books on MCS. The following chapters are still to be completed: Walther's INGENIEUR Bauspiel, STABIL after 1929, and other STABIL matters (ads, contests, etc.).

STABIL: S3 [34/1004]

2. Jack Little has identified the balloon Road Wheel in Mystery Parts No.44 (see 22/640) as a **YOUNG ENGINEER'S** part. He has received a set of 4 of them from Tony Johns, the son of Fred Johns, one of the partners in Johns & Avons who made YOUNG ENGINEER'S sets from 1938-41. It isn't sure though that the rest of the Mystery 44 parts are YOUNG ENGINEER'S. They generally match the Illustrated Parts in MCS but the Plates, #2 & 3, are 6*5h with perforations along all four edges, and both types of Trunnion, #10 & 11, are the 7h pattern. Also MCS says that YOUNG ENGINEER'S parts were possibly red & green.

Mystery Parts 44; YOUNG ENGINEER'S: S1 [34/1004]

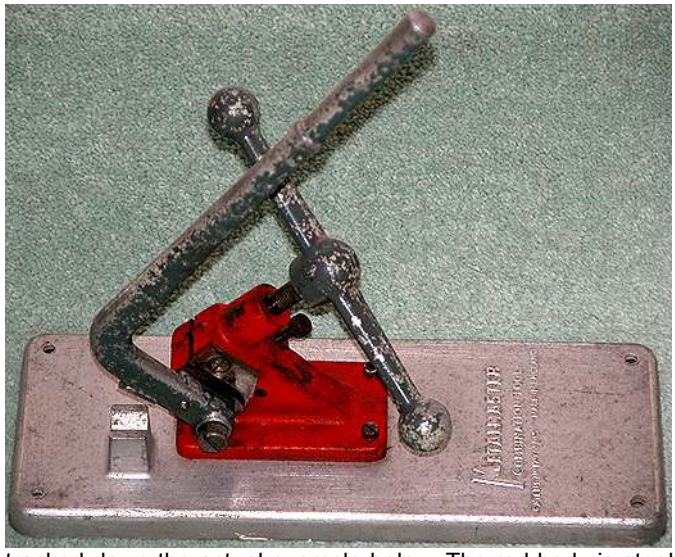
3. News from Constructorama sent by Jeannot Buteux. 6 'new' systems have recently come to light:

- **CUBAL**, French, around 1947 (from an unused set with manual).
- **LE CHARPENTO**, French, around 1950 (from a manual and a box with a few parts in it.
- **AUTO-MÉCA**, French, around 1930, a system to make various vehicles (from photos).
- **INGÉNIORA**, French, around 1950, a system to make various motors (from photos).
- **CONSTRUCTO**, French, around 1922, a Plate system.
- **LE PETIT ARTISAN DE LA CONSTRUCTION MÉCANIQUE**, Belgian, around 1950, probably the same as LE PETIT ARTISAN DE LA MÉCANIQUE - a system in MCS but with no illustrations (from photos).

Jeannot is sending details of CUBAL & LE CHARPENTO and I plan to include them in the next Issue.

New OS Names: S1 [34/1004]

4. An illustration of the **METALMASTER** DIY Tool taken from a manual was shown in 33/1003 but now Paul Goodman has



tracked down the actual example below. The red body is steel while the base & handles are aluminium. Said base measures 275*105*15mm, a little larger than that of the JUNEERO Tool. Cast into its top face is METALMASTER COMBINATION TOOL PATENT No. 17973/45 MADE IN ENGLAND - that would be the patent application number in 1945. The company's name & address, as in OSN 33, is cast into the underside. A 4mm MÄRKLIN Axle is a running fit in the hole made by the punch but a MECCANO Axle (4.06mm) won't enter it.

METALMASTER: S2 [34/1004]

5. **Snippet: 'New' System: STAHLBAUKASTEN** All that was said of the set right was a date -1948. The main parts in the Bridge seem to be Strips with just a hole at either end joined by several types of small Junction Plate. Some of both types of part can be seen in the box, including the unusually shaped hexagonal Plate at bottom centre. There may be some grey plate material under the Spanner and wood-handled Screwdriver

STAHLBAUKASTEN: S1 [34/1004]

6. **Snippet: A SPIROU/ROBBEDOES No.6 Outfit** Sets 1-5 are listed in MCS for this Belgian version of TEMSI, but a No.6 was recently offered on Ebay. It is a 2-layer set in a red box, yellow inside, with the parts in card partitioning. Sets 2-5 in similar packaging but with a single layer of parts have also been seen. All have the same lid label design, the one described in 27/783.

Sets 1-5 have also been seen with in each case, the parts in a yellow moulded plastic tray. They are all single layer sets and no doubt later than those above. The boxes are again red

36

OTHER SYSTEMS NEWSLETTER

OSN 36 APRIL 2007

Editor Tony Knowles
7 Potters Way
Laverstock
Salisbury
SP1 1PY
England

Email: tony@osnl.co.uk

EDITORIAL Some years ago I wrote a short, outline history of metal constructional systems from the early days up to about the end of WW1. At the time it was for my own benefit but rereading it recently it occurred to me that an updated version might interest newcomers to the 'Other System' scene. I hope therefore to put it on the OSN web site in due course and if it proves useful I could perhaps gradually extend it to cover the later years. Comments on it and suggestions for improvements would be welcome.

Shorter NOTES, with thanks to all contributors.

1. Werner Sticht wrote that he made some major additions to his **STABIL website** (www.stabilbaukasten.de.vu) last November. These include: • A detailed description of Flat Strips & the Money Box (Sparbüchse). • More on brochures & ads since 1927. • Full details of Walther's INGENIEUR BAU-SPIEL (the first Walther metal system); STABILA (the metal sets for girls); STABIL from 1930-31 (Franz Walther's death), from 1932-43 (the period of the small sets), & from 1950-70 (from the restart after WW2 to the end). • More on the history, & the Knirps Motor. There are still some areas to be completed: ads, notes on some of the parts, more on the period 1911-19, the box sizes, and a new list of the manuals, etc.

Werner also wrote that he would like to get more information for his web site about a STABIL Nr.60 Eisenbahnwagen Baukasten which 'allsystems21' bought on Ebay last year. So if allsystems21 reads this and is willing to help please contact Werner at werner.sticht@gmx.de. Equally if anyone else knows allsystems21 please pass this request on to him.

STABIL: S4 [36/1068]

2. **Snippet. 'New' System: STAHL-BAUKASTEN** Below the manual cover from this East German outfit. The line below the title has the makers name, VEB Kranbau Köthen. Köthen is

a town about halfway between Leipzig & Magdeburg and the company, founded in 1934, made, witness the man at the drawing board, cranes, and still does so. All that is known of the set itself can be seen in the model Crane the boys are making.

STAHL-BAUKASTEN: S1 [36/1068]

3. Don Redmond has deciphered more of the words on the **MASTER MECHANIC** model page in 34/1034. The bottom lines read 'This is Gilbert's last effort to out-rival John in the construction of aeroplanes. Note super-structure on which is mounted a rapid-fire ....' (line not finished).

MASTER MECHANIC: S2 [36/1068]

4. **Snippet: An Early TECHNICAL TRAINER Set** In 19/528 Kendrick Bisset noted that the photo of the set in the Tucker manual was in some ways unlike his set and might be an early or preproduction example. Its lid had no lip and the Wheels & internal fittings looked wooden. Since then two of these early sets have been seen on Ebay and one is shown

below. Its box is 11*13¾", slightly larger than later. The Wheels don't have the tread of the later red & blue painted plastic ones and look more like painted wood than metal. The black marking inside the lid is the Tucker logo upside down; the top of the lid wasn't shown. Two model pages from the manual described in OSN 19 were shown with the Set. The second set is similar to the first but the Wheels are arranged exactly as the manual set, see OSN 19, and its lid seems not to be hinged. A manual cover identical to the OSN 19 one is shown over the centre of the lid and would hide the logo if there were one.

TECHNICAL TRAINER: S2 [OSN 36/1068]

5. **Snippet. An Early Canadian ERECTOR Set** The Ebay photos were of an open wooden box with 2 layers of pre-1924 type parts loose on light green backing cards, a manual cover, and the label overleaf which reads 'This Canadian NUMBER

40

OTHER SYSTEMS NEWSLETTER

OSN 40 APRIL 2009

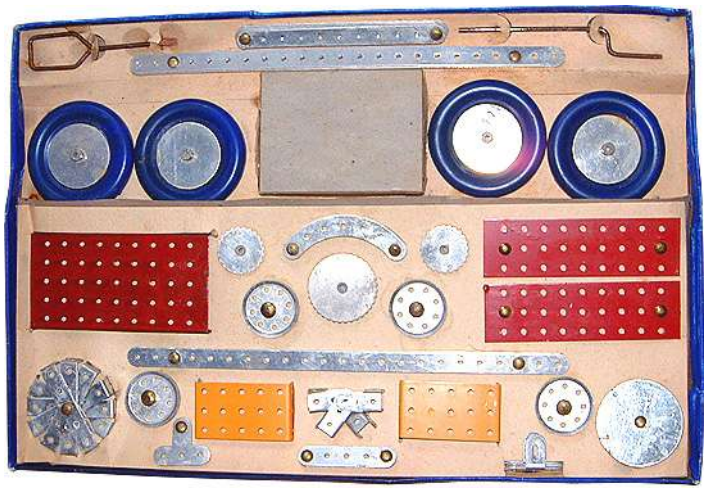
Editor Tony Knowles
7 Potters Way
Laverstock
Salisbury
SP1 1PY
England

Email: tony@osnl.co.uk

EDITORIAL Several readers have asked if the Database on the OSN web site can be printed out. As far as I can tell it isn't possible to print the full width using Internet Explorer – several of the righthand columns plus the COMMENTS column aren't printed. And even then thick vertical lines appear which weren't in the original. By chance though I found that the Firefox Mozilla browser gives a more satisfactory result. If Landscape and Shrink To Fit Page Width are selected in Page Setup the result is that all columns are printed with a small but readable text size. The COMMENTS though are printed as several short lines instead of the original long one and this increases the number of A4 sides for the whole Database from 34 to 41 (with the default margins).

Shorter NOTES, with thanks to all contributors.

1. **JR ENGINEER** Kendrick Bisset wrote that his No.4½ set is virtually the same as the one described in 22/632 & 33/975. The only differences are that it contains only four 5h Strips instead of 6 – still clipped down in each case, and 50, 4, & 40 of Bolts, Long Bolts, & Nuts. Also the lid on the box of small parts is the CONSTRUCTION SUPPLIES one mentioned in OSN 33 and not the plain card one in Jacques' set below.



The manual too is the same and has 'Copyright 1946, Coledi, Inc., New York' on the inside front cover (as in fact did the OSN 22 & 33 examples). Kendrick also has an identical manual except that it has a typewritten yellow sticker on the top of the front cover (above the 'JR EN' of JR ENGINEER), which reads 'MODELS, COPY and LAYOUT by / HARRY SNYDER / 138 E. 34 St. / N.Y. 16, N.Y.' At the top of the sticker are the remains of the last line, as if many labels were typed and cut or torn apart.

JR ENGINEER: S4 [40/1196]

2. **HELLER'S STAHLBAU** Thomas Morzinck has found a review of this German 'DIY' system (see 36/1083) in the January 3rd 1937 issue of Die Sendung (a German Radio Times). It speaks of it as being new and no doubt it would have been in the shops for Xmas 1936.

HELLER: S6 [40/1196]

3. **Snippets: Double-barrelled MERKUR** As can be seen on the lid right (actually the top of a sleeve), the set is being sold under the name EBERT MERKUR. Ebert GmbH was the Munich firm that sold Czech-made EBS sets some years ago (see 22/643) but the present Ebert may not of course be the same company. Another set from the same Ebay seller features a 77 part Windmühle but the name at the bottom is WIFRA MERKUR. From Google a number of German firms have Wifra in their names.

For both sets the sleeve covers a wooden box,16*16*5cm, with a sliding lid, an unusual and perhaps slightly extravagant touch for a set of this sort. An example can be seen below in another WIFRA MERKUR set, this time called Gärtner mit Zwei

Karren – Gardener with Two Barrows.

All the models come from the MERKUR range, and the parts too of course although I don't recall what appears to be a blue-handled Screwdriver in the open box.

MERKUR [1] S6 [40/1196]

4. **STABIL** On the basis of 5 documented sets Werner Sticht has discovered that the N&B used during 1911-1914 were unusual in two respects. First, the Bolts were brass and the Nuts steel, and secondly, the thread was not the usual 5/32" BSW (as in MECCANO) with 32 tpi, but a similar thread with approximately 33 tpi. The two are of course incompatible and a 33 tpi Nut on a 32 tpi Bolt will jam after a few turns. The pitch of a 33 tpi thread is .77mm – not a likely metric standard and the reason for the change is at the moment a mystery.

STABIL: S5 [40/1196]

41

OTHER SYSTEMS NEWSLETTER

Editor Tony Knowles
7 Potters Way
Laverstock
Salisbury
SP1 1PY
England

Email: tony@osnl.co.uk

OSN 41 OCTOBER 2009

EDITORIAL Further to the question in 40/1196 of how to print out the Database from the OSN web site, Thomas Morzinck kindly sent it to me as a .pdf file and I've since added it to the web page, marked as 'a printable version'. It prints in much the same way as described in OSN 40 but is of course independent of the browser. Another advantage is that it loads much more quickly than the original file.

On the subject of the Database, it was compiled in 2004 and my copy is now full of changes and additions. I have it in mind to update it, and hope to have done so by the time the next Newsletter appears. To accommodate the new names, some 120 of them, not counting all those 'Polylong' sets, and to leave rather more space for future manuscript changes, I would anticipate that the present 56 pages in Parts 1 & 2 will grow to 68.

When ready I shall put in on the website and I hope that anyone who wants a hard copy will print it off from there. But while printing my own pages I could print extras for those who prefers that route. But in that case please let me know before Xmas. Including postage to the usual zones the cost will not exceed £7.50/£9/£10.30. Please note though that the pages will be loose, printed on both sides, with the same small margins as in the present edition. I shall bind mine together using the Scotch tape method suggested in 31/939 – I've used it numerous times since – it doesn't take too long to do and seems quite durable.

Shorter NOTES, with thanks to all contributors.

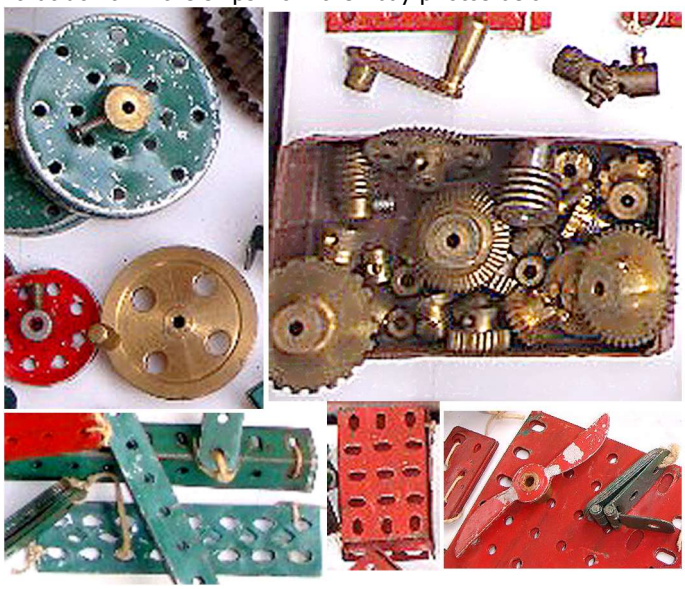
1. **STABIL** A correction to the note in 40/1196 about the thread used in 1911-14. With normal tolerances an ordinary 5⁄32" Nut will not jam on a 33 tpi Bolt, but a Long Nut #3b, or Threaded Coupling #36 (see 13/354 & 352) will jam after 3 to 5mm. More details are given in Werner's STABIL web pages (http://www.stabilbaukasten.de.vu/). These also now include a new menu item, 'Zusammenfassung (Summary) which lists all the important facts and gives links to more detailed information. Other new material includes the WALTHER'S INGENIEUR manual for Set 12, many models, a section on restoring parts (Sammeln, Fälschen, Restaurieren), and more on the history of Walther & Co. (Franz Walther und die Firmengeschichte).

STABIL: S6 [41/1228]

2. **Snippet. Another METALLBAUKASTEN [4] Set** The box is the same as the one described in 30/884 except that the lid is a cream colour and the label is printed in red. The parts look of the same genre but the Flanged Plates are 10*5h without the cutout, and 5*5h. The long Strip is 16h and the circular part is an 8h Wheel Disc with a rather greater diameter than is usual, about 4h. An Axle end that can be seen is threaded and there is a Crank Handle without any thread but with a small Collar on it. The 5h Strip and DAS are as before and one lug of an A/B can be seen with a round hole. The Bolt has a cheesehead and the one Nut visible is a small hexagon.

METALLBAUKASTEN [4]: S2 [41/1228]

3. **Snippet. Some Parts from Italy** A large lot of red & green parts on Italian Ebay was offered as MÄRKLIN, and there was a prewar MÄRKLIN manual with them. But though many of the parts do look like MÄRKLIN there are many more that don't. In the snips from the Ebay photos below:



- The boss of the Flanged Disc Pulley looks to have a larger diameter than in MÄRKLIN, and its hole pattern is that of the early MÄRKLIN pattern, when it would not have been painted. Not shown here, a similar but larger diameter Pulley, whereas the comparable MÄRKLIN part had no boss. Some of the Gears have the larger boss too, and some don't look like MÄRKLIN.
- With the unusual pattern of slotted holes, and the flanges on the shorter sides, the 3*5h Flanged Plate is clearly not MÄRKLIN. There are also a number of other non-MÄRKLIN Plates, some of which only differ in their pattern of holes & slots, and some which were never in the MÄRKLIN range, a 3*7h Perforated Plate for example.
- Other parts that do not look like MÄRKLIN are the approximately 2" Ø brass Pulley; the brass Handle Crank; the green Hinge bottom right with 2 holes in one arm and one in the other, and the Propeller next to it.
- Finally, the most unusual part of all, the green Strip bottom left with square ends and shaped holes in the TRIX pattern. The hole pitch is less than in the other parts, it scales at 10-10½mm if the others are ½". There were a number of these Strips in the Lot, the longest perhaps about 11".

It is quite possible that the lot included parts from more than one system, witness the two Worms of different diameters, although there isn't much variation in the colours between the many different parts in the lot. They could have been repainted of course, and certainly the green doesn't look to be a MÄRKLIN shade. And a repaint would explain the pattern of holes in the Flanged Disc Pulleys. But even so there must be parts from at least one non-MÄRKLIN system in the Lot, and quite a large one too. Quite apart from the 'TRIX' Strips, there is no real match with the other large Italian systems that I know of: BRAL, AMI(-LAC), see 38/1163, C.I.G.E.A. (23/657 & 27/789), and LEONARDO (16/446).

MYSTERY PARTS No.53: S1 [41/1228]

44

OTHER SYSTEMS NEWSLETTER

OSN 44 APRIL 2011

Editor Tony Knowles
7 Potters Way
Laverstock
Salisbury
SP1 1PY
England

Email: tony@osnl.co.uk

EDITORIAL Included in this Issue are updates for Eitech, STOKYS, and 'POLYLONG'. I also checked MERKUR and AMI-LAC but noticed no changes since, respectively, 2009 (OSN 40) and 2007 (OSN 38). METALLUS still list a huge range of parts but running through them quickly I didn't notice any particularly interesting new items. But if you think I missed anything of note please let me know. VEX likewise.

Shorter NOTES, with thanks to all contributors.

1. **Guibert's Encyclopédie.** In 43/1292 Jean-Pierre Guibert's address was given wrongly, it should have been jeanpierre1g@orange.com. 44/1324

Encyclopédie des Jeux de Construction 44/1324

2. **Snippet. 'New' system: DER KLEINE INGENIEUR.** The Ebay photos below are all that is known of this small German system, with no indication of date or the size of the parts. It is the third system with the same name that has been recorded: the first has STABIL-style parts (see 17/476), the second a small selection of light coloured, possibly

FIG.1

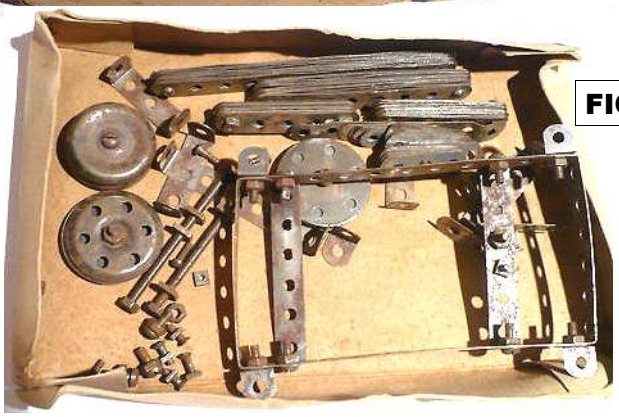


FIG.2

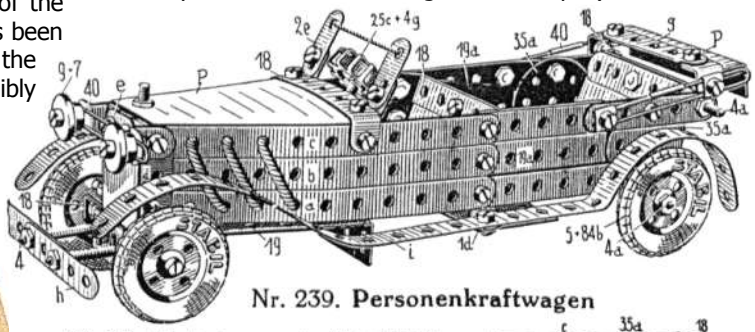
aluminium, Strips and a 5*9h Flanged Plate (see 43/1320).

The parts that can be seen in the box are as follows. • 3,5,8,11h Strips. • 1*3*1 & 1*6*1h DAS. • An A/B. • A Road Wheel, 6h Pulley Disc, & 6h Wheel Disc. • Long Bolts in 2 lengths with hexagonal heads, or perhaps they are Screwed Rods. • Various N&B including roundheaded Bolts with hex & square Nuts; and smaller diameter countersunk headed Bolts with square Nuts.

DER KLEINE INGENIEUR [3]: S1 [44/1324]

3. **STABIL** Werner Sticht has recently added a number of new items to his website (www.stabilbaukasten.de.vu), and the highlights are:

- Stabil Model Contests in the 1920s & 30s (click Detailinfos -> Wettbewerbe, Kundenkontakte)
- Stabil advertising material for dealers, Unterstützung für Händler (Detailinfos -> Teilekabinett, Reklametafeln)
- What you have to pay for Stabil sets, Begehrte Objekte (Sammeln, Fälschen, Restaurieren -> Begehrte Objekte)
- Many new Stabil models (Stabil -> Ausgewählte Modelle)
- More details about the 1953 clockwork motor (Stabil -> Stabil Motore -> Der Stabil-Federmotor ab 1953)
- Special parts for the Gun Sets, Kanonenbaukästen (Stabil -> Stabil Sonderkästen -> Kanonen-Baukästen -> Spezialteile)
- STABIL & its competitors, over the years, mainly MECCANO & MÄRKLIN (Stabil -> Stabil und die Mitbewerber). This section includes some nice small STABIL models from 1936 which used the newly introduced Tyre, and the model below, for Set 50, is one of them.
- New discoveries about Walther's Ingenieur (Walther's andere Systeme -> Walther's Ingenieur Bauspiel).



Nr. 239. Personenkraftwagen

Abb. 239a läßt die Lagerung der Hinterradwelle Nr. 4a in den Achslagern Nr. 2d erkennen und gibt Aufschluß über den Einbau der Karosserieplatten Nr. 19a und 35a.
Die Steuerwelle Nr. 4g ist mit dem Schraubhaken Nr. 38a an der hinteren Seitenleiste c angeschraubt.
Die Kühlerrippen lassen sich sehr schön aus dicker Schnur herstellen. Näheres über die bei den Sitzen und der oberen und vorderen Motorhaubenseite verwendeten Pappen siehe unter dem Abschnitt „Zur besonderen Beachtung" auf Seite 11.

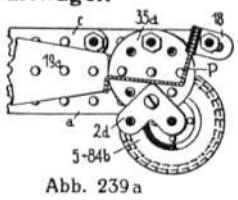


Abb. 239a

Quite apart from the above the site contains an enormous amount of information with numerous internal links to all aspects of STABIL and other Walther systems. If one's German is limited it's not that easy to navigate but clicking around is well worthwhile. The links for the new items above (from the left column on the home page) will help newcomers to get an idea of the scope of the site.

Much has been discovered on WALTHER'S INGENIEUR since the last note on it in 26/779 and it is hoped to include an update in a future Issue.

STABIL: S7 [44/1324]

4. **DER KINDER-KONSTRUKTEUR** Jean-Pierre Guibert wrote that he has the set described in 43/1298 (see p1352) & that the coloured Pulleys & Tyres are not part of the system.

KINDER-KONSTRUKTEUR: S3 [44/1324]

SMALL AD [44/1324]

Wanted: **Philips Mechanical Engineer Set 1201**. Contact Paul Goodman at 07957 197867 or at p.goodman4@ntlworld.com.

5. **'Matchbox' Set Parts.** Jean-Pierre Guibert sent details of the key dimensions of the parts in his 2 CLOU matchbox sets & a Louis Marx MATCHBOX set. That's to say the pitch & diameter of the holes in the 5h Strip, the diameter of the bore in the wooden Pulleys, & the diameter of the wooden Rods/Axles). He found that they are the same for each brand and that they differ from those in the Database.

The latter were based on the values in MCS and those of the parts in sets which I had on loan at the time. In the light of J-P's results I measured the parts in the sets currently to hand, a CLOU, a Louis Marx, & a Linemar MATCHBOX. (Notes on the different 'Matchbox' sets were given in 6/131 – MCB2 there is the Louis Marx.)

Below the measurements in millimetres (m = mean value).

Set ↓	Pitch	Hole Ø	Bore	Axle Ø
CLOU Database	8.6	3.2	2.9m	3.0m
CLOU J-P	8.5	3,15	3.0	3.0m
CLOU Mine	8.7	3.15	3.0	2.9m
Marx Database	8.7	3.3m	3.0	3.0
Marx J-P	8.5	3.15	3.0	3.0m
Marx Mine	8.75	3.4	2.9	3.0m
Linemar Database	8.7	3.4m	3.3m	3.1m
Linemar mine	8.75	3.3	3.3	3.2m

Many of the Axles vary slightly in diameter along their length and/or are significantly oval in section. My Marx Axle can push into the Pulley (actually a Wheel because it doesn't have a pulley groove) because its wood is very soft and fibrous.

Given that care was taken to make the measurements as accurate as possible there are clear differences in the metal parts. Especially noteworthy are the different pitches within the CLOU sets, and the different pitches & hole diameters within the Marx. Presumably they would have been due to different tooling, though whether by the same manufacturer (or subcontractor) one can't say.

And in case you wondered, the pitch of the holes in the other parts matched those in the Strips.

MATCHBOX SETS: S2 [46/1389]

6. **STABIL** Werner Sticht continues to add to his STABIL website, www.stabilbaukasten.de.vu. Click on "Neuigkeiten" (= news) and you will find links to • STABIL before 1912; • other early German systems plus details of MÄRKLIN, TRIX, & MECCANO in Germany; • and detailed accounts of STABIL Pulleys & Flanged Wheels.

In addition the 'News' section has links to updates on 1911-1912 toy trade catalogues, on the 'Eisenbahnwagen-Baukasten', and on the wooden 'Maschinen-Baukasten'. There are also links to the numerous Änderungen und Korrekturen (Changes & Corrections) throughout the site.

STABIL: S8 [46/1389]

7. **VEX** The high shipping cost of VEX items bought from the firm in America was mentioned in 41/1253. Now the company's website, www.vexrobotics.com, says that most products can be shipped from England, but I wasn't able to check any actual shipping costs.

Also on the site, a list of resellers, among them 3 in the UK: one in Malmesbury, Wiltshire; one in Radstock, Somerset; and the third in Brentford, Middlesex.

VEX: S5 [46/1389]

METALL-BAUKASTEN Following the note on Jan Ringnalda's set in 42/1621, Jean-Paul Guibert has kindly supplied details of his set, including the photos shown here. The box is the same but the set is much more complete and all the parts in it are thought to be original.

In all it contains 15 types of part as follows: 3,5,7,9h Strips; a 3h Strip almost twice as wide as the standard Strip; a 5*7h Flanged Plate; a 5h Ø Circular Plate; a 3h Ø Pulley; a Spanner or Span'driver (partly covered by the top edge of the Flanged Plate); & in the top right compartment, enlarged right: a Washer; a wire Handle Crank; a short Screwed Rod, a square Nut, & 2 lengths of cheeseheaded Bolt.


FIG.2a

The main parts are aluminium with 4.1mm Ø holes at 13.0mm pitch. The N&B, etc look nickelled; also the Pulley – it looked aluminium in Jan's set.

A great many 9h Strips would be needed to make the Bridge on the lid.

FIG.1

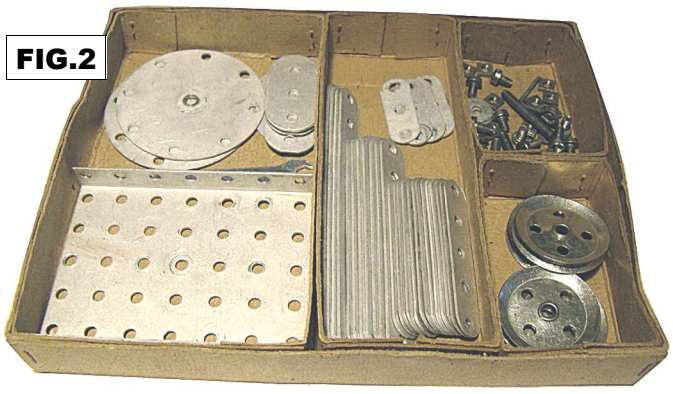


FIG.2

OSN Subscription Rates The price per Issue, including postage, at Printed Paper Rate where available, is £6.50 for UK; £8 by air to Europe & surface anywhere; £9 by air outside Europe. **Back Issues** For the zones above : OSN 1: £1.50/£4/£5; OSN 2,3: £3.50/£5.50/£6.50 each; OSN 4-27: £5/£7/£8.50 each; OSN 28 on: £7/£8.50/£9.50. (All colour & some B&W issues are on loose sheets.) Postage at cost on multiple orders. **Payments** Please make cheques etc payable to P.A.Knowles. Remittances must be in Pounds Sterling (GBP) or, as cash, in Euros or US Dollars (£1=€1.10=$1.50). Payments from overseas may also be made using PayPal (in Sterling please). **Small Ads** Short ads are free to subscribers; insertion in the OSN 47 guaranteed if at all feasible (but repeats may not always be possible, please ask).

OSN – Your Credit Balance:

was £ after OSN 45

was £ after your remittance of £

is £ after this Issue

Please send at least £ if you wish to receive the next Issue.

5. **STABIL Website Update.** Werner Sticht wrote that he has recently updated his (already very comprehensive) STABIL website: www.stabilbaukasten.de.vu Click on Neuigkeiten to see what is new, and erweitert or Änderungen for updated items. The first new topic is a brochure showing 20+ models for dealers to display, and they can be enlarged by clicking on them. The following 3 items all include photos of factory display models. There is also a full account of the LILIENTHAL system, something of which was given in 22/623. It will be recalled that it was based on an 1888 patent and though it had wooden parts it could claim two firsts: Strips with equispaced holes, and one model, a Windmill, with an Axle to allow the blades to rotate. Surprisingly the Axle wasn't used in any of the other models. Another unique feature was that sets were available with 2 sizes of parts: their hole pitch was 25mm in one series, and (probably) 100mm in the larger version.

STABIL: S9 [51/1549]

6. **Snippet: Another FALCO Set.** Like the outfit in 39/1165 it has 2 layers of parts, but is larger and some parts, mostly those with piercing, were not in the OSN 39 set. But not all the earlier parts can be seen, only a single Wheel size for instance. The lid is as before except that the white Set No. circle is missing.

FALCO [2]: S2 [51/1549]

Snippets. AUTO-CONSTRUCTOR Update. A number of sets have been seen on Ebay since the last notes in 42/1291, and have contained a few points of interest.

Basic Sets It will be recalled that 2 basic sets are known, one in a larger box than the other, and it seems that, with one exception, they all have the same contents, enough parts to build the Nr.1 manual models. The additional parts in the exception, a 'large' box, include 4 Buckets, some DAS, extra Chassis Side Members, & a Headlamp (with a second noted as missing), the same extra parts that were in my 'small' set (see OSN 40) but there is no way of knowing if they were originally in that set or if they came from say another outfit. The Set is unusual in having yellow Body Panels, all the parts that are usually blue or sometimes red.

All 3 of the larger sets seen & 1 of the 7 smaller ones, have 'Auto-Constructor' on the lid; in the others all the letters are capitals, as are those on all the manual covers. Where a maker is given in the Ebay ads it is usually Heinrich Fischer but Philipp Kühner is sometimes mentioned. However it now seems likely that the latter was the printer of at least some of the manuals, and the maker before Fischer was Curt Schrader.

Set Nr.1A None of the sets seen have the set number on the top of the lid but it may have been on one of the lid aprons, as in the Nr.1, a small set, mentioned in 40/1216. Most Ebay photos don't show all the aprons and the only set number that can be seen, from another small set, is shown left. Apart from its unexpected 1A designation, it looks a typical small set, and fairly complete, but it does have at least 12 of the DAS in it. However they probably belonged to a Nr.2 set which was included in the Ebay lot, and which, though looking largely complete, had no DAS in it. No reasonable explanation of the 1A designation comes to mind. It's of dubious relevance but the box had a trade label from a shop in Prague on it.

FIG.1

Set Nr.2 2 sets have been seen, both similar to the one in Fig.5 of OSN 42 but more complete, and the better one is shown below. Its dimensions were given as 25.5*15.5*3cm.

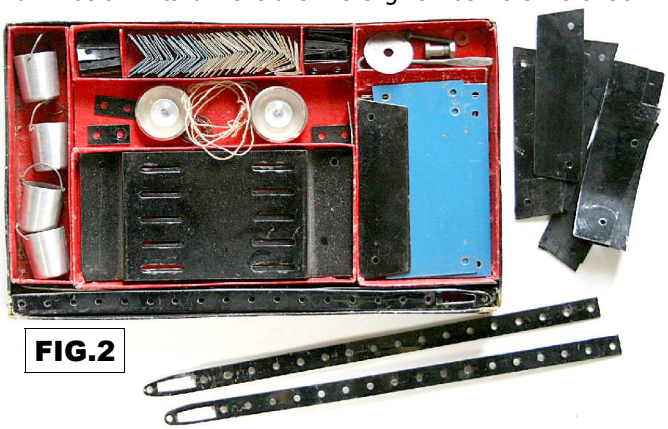
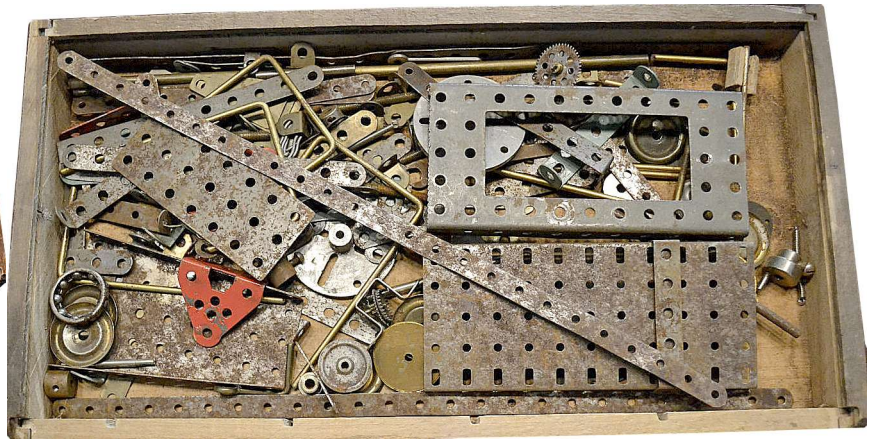


FIG.2

Its DAS are missing, but as explained above they may well be the ones in the Set 1A. The disc top right could be one of the Hose Reel Ends. It was suggested in OSN 42 that the latter were in the Fig.5 set but on a second look it is clear they are Headlamps with a deeper reflector than those in Figs.2 & 11 of OSN 40. No doubt a later, more realistic design. The Headlamps in the other 'new' Nr.2 are also this 'later' type.

OSN 51/1549 **AUTO-CONSTRUCTOR: S6**

Snippet. 'New' System: MECHANIKUS



The set shown here was offered on the German Ebay recently. A PR bottom left on the lid reads (Dr.?) 2443 1047 10000 MDV Haldensleben ??/ 2456. 1047 seems a likely date and Haldensleben is a town 30km NW of Magdeburg. All that can usefully be said of the parts in the box is that they are clearly from more than one system.

OSN 51/1549 **MECHANIKUS: S1**