

clude the letters F and R.]

GORDON EZ mentions constructional and electrical sets made in the DDR by Gordon-Apparatebau KG, Schmalkalden/Thüringen between about 1960 to 1972, but without any further details.

HELLER From what I can gather from EZ there was never a MECHANIKUS set in Germany (see 12/321). The tool was called 'Mechanikus' and was included in **HELLER'S STAHLBAU** outfits there. These sets were sold in France under the name **HELLER-MECANICUS** (HELLER-MECHANICUS in 12/321 was an error), and contained the same tool called 'Mécanicus'.

The tool described in OSN, and included in the **MECO** set, was called the 'Constructor' and with its interchangeable heads was more versatile than the 'Mechanikus'.

The period for STAHLBAU is from 1933 to at least 1938 but the French version seems to have been available after WW2 (13/360). MECO dates from about the same time, perhaps from 1934.

HOHA Jeannot listed 2 versions, the first with a hole pitch/diameter of 13.2/4.1, and the second, 13.0/4.6. Both had nickel plated parts and the first at least, rubber Tyres and Pulleys. MCS gives 13.1/4.4, and mentions brightly polished plating with some red and possibly, blue parts. It also mentions the early '30s whereas in EZ a small box is shown among early post-WW2 outfits.

Frank Beadle has some HOHA parts and among them is the 11*5 Flanged Plate (flanged on the long sides) with no holes in the centre 7*3 area, that can be seen in the MCS models. But Frank also has another which, from a photo, seems to be the last 5*5 holes of the 11h long one.

HW Metallbaukasten A photo of a box lid in EZ has METALLBAUKASTEN diagonally across it and the triangular HW logo of Hans Wunsch, the East German toymaker from Niederwiesa/Sachsen. The firm started in 1949 and this was probably one of the early products. The simple Windmill on the lid includes Strips up to about 11h long, a 9h long Flanged Plate, flanged on the long sides, and a 4h Bush Wheel or Wheel Disc.

IMPERATOR See 10/260. EZ gives the Axle diameter as 3.5mm and by scaling, the Strips seem to be about 5mm wide, and the octagonal Hub $\frac{3}{4}$ " A/F.

INDUSTRIE EZ shows an open box with the parts in it, similar to the set shown in MCS. The Strips though don't look as narrow as they appear in MCS and based on the 5mm hole, their width scales at $\frac{1}{2}$ ". The 8-spoked Pulley Wheels are about 30mm diameter. All the parts have a black metallic finish. Two periods are quoted - 1919 to at least 1931, and 1925 to at least 1935.

INGENIEUR This name is listed in EZ but without any details except that it was made by Ihag GmbH of Nürnberg around 1919.

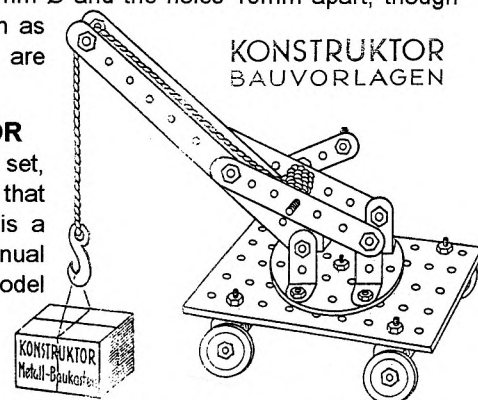
JOLEI This little system from c1950 had only some 12 different parts, all in plain aluminium except for the steel N&B. The holes were 4.4mm Ø, spaced at 11.0mm. EZ has a photo of a backing card with some parts on it - I think I can see 3,4,5,7,9&11h Strips, 1*3*1 & 1*5*1 DAS, an Angle Bracket, and a Screwdriver rather like the MECCANO #36.

KEIM EZ gives only the maker, Keim & Co., A.G., für Blechindustrie, Nürnberg, and the period, c1923 to c1928. A graphic from 1923 shows panels falling off a skyscraper in a strong wind (or so it seems). Perhaps it was an architectural system.

KINEMA EZ confirms much of what appeared in 12/306. The Tubes are 6mm Ø and the holes 10mm apart, though their size is given as 2mm. The dates are c1946 to 1950.

KONSTRUKTOR

An East German set, but apart from that all I have on it is a copy of the manual cover with the model opposite on it.

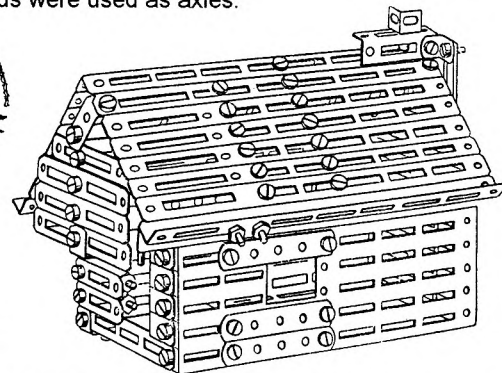


KONSTRUX

A small system of some 30 parts, made in West Berlin by the firm E.P.Damaschke, from about 1946 to 1950. The parts though, painted black, are unusual and, as can be seen in the model below, most have long slots in them with square ends. The holes are 4.1mm Ø and are spaced at multiples of 12mm. Other parts can be seen in a nice, good sized multi-jib Crane shown in EZ, and include DAS, Flanged Plates, small Pulleys, and Discs of several sizes up to about 60mm Ø. The larger Discs have a centre holes, 4 long radial slots, and radial holes between them. These slots are the only ones to have rounded ends. The corners of most parts are slightly chamfered as in the House, but a few on Plates and A/Gs are square - none have the large radius of the 5h Strip in the House. An ordinary Double Bracket is shown in EZ with a similar one alongside except that it has large hexagonal holes in its sides. Its purpose isn't clear but there is a hexagonal section Threaded Coupling that might be about the same size. It looks as if Threaded Rods were used as axles.



Nr. 13



The words Konstrux Deuteron appear on the manual cover under the main KONSTRUX name, but what this signifies I don't know. Also in addition to a logo based on the initials EPD of the manufacturer, there's another (above left) with the name Bergmann, and what might be crossed hammers.

MABA EZ has a photo of the #4 Set described in 12/306. The dates given are c1946 to 1950.

MAFELL From EZ. This system was made by Maschinenfabrik Fellbach GmbH, Stuttgart-Fellbach/Württ., around 1930. It consisted of relatively few, large steel parts, including strong wheels with suitable axles. In many ways it was comparable to the GILBERT WHEEL TOY.

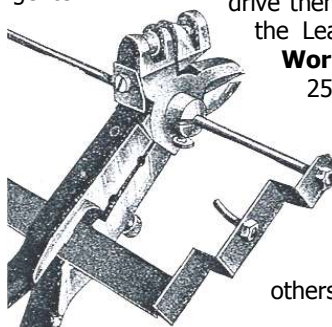
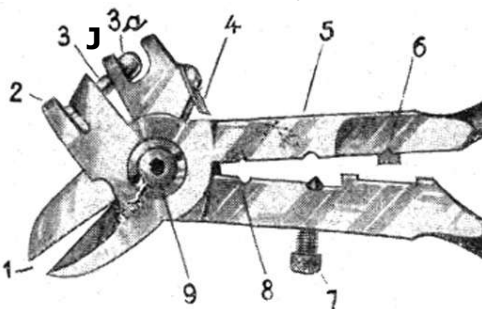
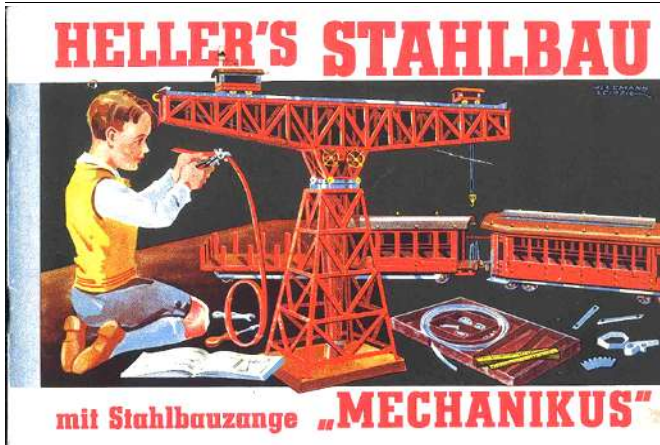
MECANIC/MEKANIK In answer to the point about which came first (13/361), EZ provides the answer. The original name (in 1948) was MECANIC and the original maker, Dörken & Mankel KG, Ennepetal-Voerde/Westfalen. Later (c1959 to c1963) the system was made by Adrian & Rode, Velbert/Rheinland and by that time the name had changed to MEKANIK. Jeannot wrote that the change was made in

On HELLER'S STAHLBAU and MECHANICUS

Thanks to Jürgen Kahlfeldt, Thomas Morzinck and Werner Sticht, I now have photocopies of a HELLER'S STAHLBAU Nr.20 manual and a MECHANICUS leaflet, both believed to be pre-WW2. Also to hand, a number of Ebay photos of various Heller items, and a small MECHANICUS set, apparently unused, from, most probably, well after WW2. According to Baukästen Heller STAHLBAU sets were made pre-WW2 by Gebr. Heller of Schmalkalden, a town some 30km to the south of Eisenach, in what was to become East Germany. One of the firm's specialities was pliers-type tools. Presumably production resumed after the war & around 1950 the company became VEB Ankerwerk. An end date of 1956 is possible.

Brief notes on HELLER sets appeared in 12/321 & 15/415, and a MECHANICUS manual, identical to the one with the Set above, was described in 18/518. With the exception of the said MECHANICUS set, all the names of sets & manuals seen (about a dozen on Ebay) are like the present Manual at the top of the page, with a reference to the 'Mechanicus' Tool. However the name STAHLBAU only appears on the front of the Leaflet (right) with MECHANICUS more prominent, and all the sets & parts in it are listed under the name MECHANICUS. It will be recalled that the name of the French sets in MCS is HELLER-MÉCANICUS, and the Tool is called Mécanicus.

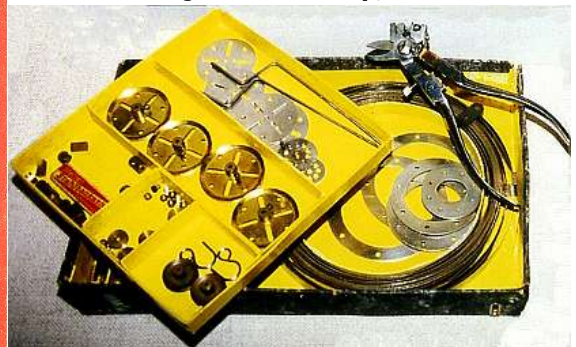
The PARTS Right, from the Manual, a close-up of the head of the **Tool, #1333**. Using my names, 1 are the shearing blades. 2 is the die plate for the punching die, 3 - it is like a rivet with head 3a. 4 is a stop which limits the opening of the Tool. It is held by a screw and if removed the Tool can be opened enough to remove the die by passing its shank upwards through a slot in the jaw 'J'. It is explained in the Manual that this is only necessary if the die is to be reground or replaced. 5 is the Flachzangenteil (?flat part of the Tool). 6 is a vee section die which pushes down into a corresponding recess to bend Strip, and 7 is an adjustable screw stop which controls how far 6 travels, and hence the degree of bend - it is 90° if the stop is fully unscrewed. This stop can also be used to limit how far the blades 1 will cut, said to be useful when shearing A/Gs for instance. The semi-circular slots 8 grip a Rod and it can then be bent by hand. The claim in OSN 12 that Rod can be sheared was incorrect. 9 is a bore in which a 3mm rod carrying the Z-shaped gauge length Stop (right) is held by a



collet. The different parts of the 'Z' provide stops for the different operations, and the curved bolt through the centre segment can engage with the last hole punched to allow the next to be at the correct pitch.

The other parts are shown, from the Manual, on the next page. Those in the Leaflet & MCS are mostly identical but differences will be noted. The shape of the Gear teeth can best be seen in MCS or OSN 12. An '/xx' after a PN is the diameter in mm, or for Gears

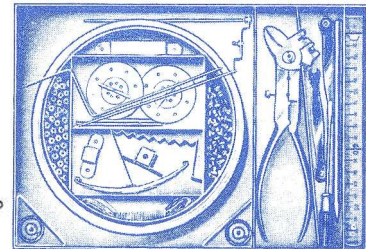
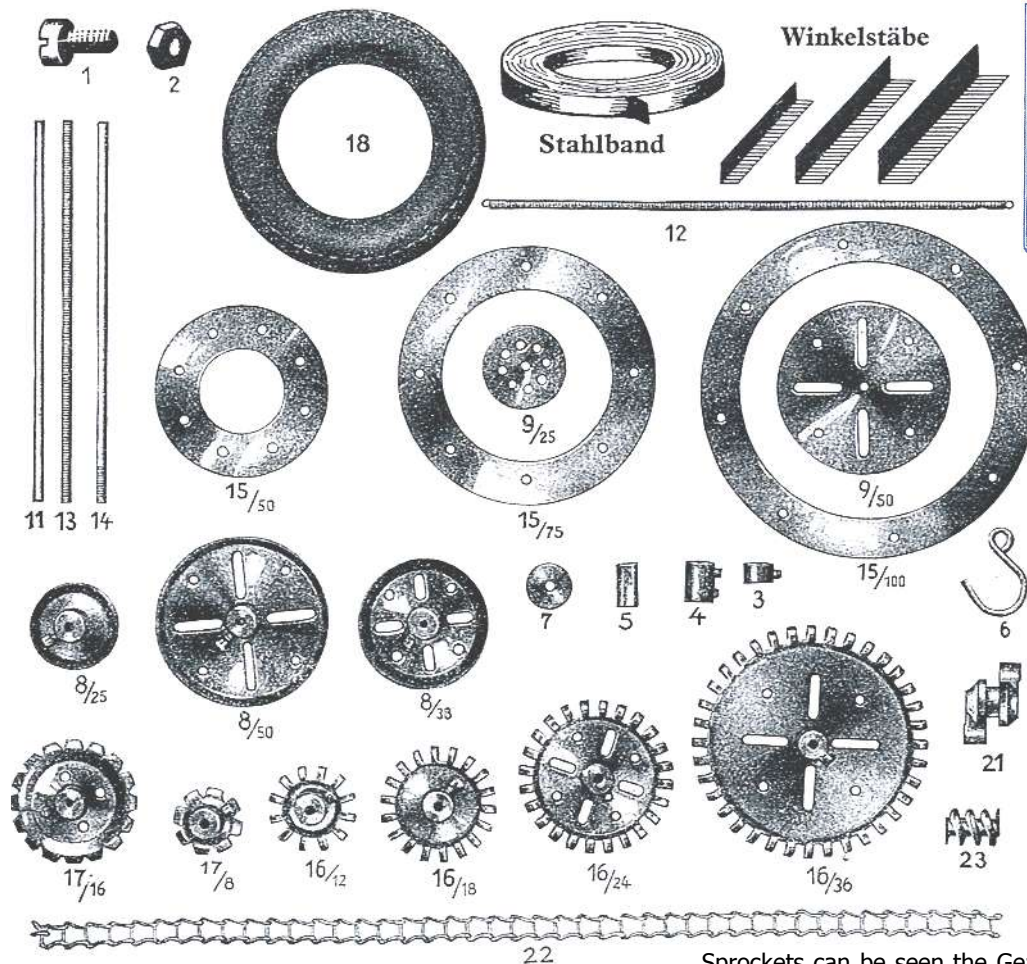
etc, the number of teeth. As in the #1942 set below, and in all other Ebay photos, parts #3-8 are brass coloured, and most other metal parts are silver looking. The steel **Strip**, 12mm wide



& .5mm thick is nicked or painted red. **A/Gs** are red. A 50cm length is listed in the Leaflet, but 1m also in MCS & the Manual. The 3mm Ø **N&B** are brass and in packs of 50 Bolts & 60 Nuts, plus, in the Leaflet, 1000 of each at RM 14 (against RM .75 for the small pack). **#3** is a **Collar**; **#4** a **Coupling**; **#5** a hexagonal **Threaded Coupling**; & **#6** a **Hook**. Standard Bolts are used as set screws in #3 & 4. **#7** & **#8** are **Fast & Loose Pulleys**. **#9** are **Discs** and include a 38mm not shown. **#10** is a **Crank Handle** but is not illustrated. It can be seen in the #1942 set above and in other Ebay sets; it is also in some of the illustrations of sets in the Leaflet. **#11, 13 & 14** are **Axles, Screwed Rods & Screw-Ended Rods**, each in lengths of 25, 50, 75, 100, 150mm. **#12** is a short length of **Spring Cord**, used in cord drives, sometimes with two linked together. **#15** are **Circular Strips**. **#16** are **Gears** & **#17 Sprockets**. **#18** is a black rubber **Tyre** to fit the 50mm Pulley. **#21** is a **Drive Coupling** with tapped bores. It is only used in the Model 104 (shown on p1086) and as far as I can see the Bolts screwed into the outer bores engage with Bolts in the bosses of Pulleys, etc, to drive them. The **Sprocket Chain #22** is listed in the Leaflet as brass in 1m lengths. **#23** is a **Worm**. **#24** is a white **Rubber Ring** for the 25mm Pulley and is not mentioned in the Manual.

Not listed but shown in the Manual as parts for models are **Rubber Rings #19 & #20** to fit the 50mm & 25mm Pulleys respectively.

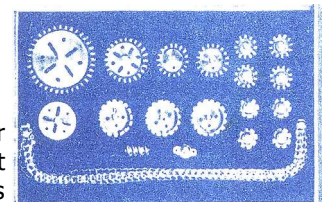
As well as the basic Tool, various others are listed, as follows: #3215/5 **Pliers**;



Tyres. If the dimensions in the Table are right the parts must be tightly packed in the box. In the only photo to hand of a #1943 the box is red and the (remaining) Tools & parts are on 3 sides of the coil of Strip.

The parts in #1941, and in #1942 below, include 50mm Pulleys & what seem to be Tyres for them, or more likely Rubber Rings, possibly the part #19 mentioned earlier. An incomplete #1943 Ebay set contains 6 black Tyres, and one smaller set has one white Rubber Ring that would fit over a 50mm Pulley.

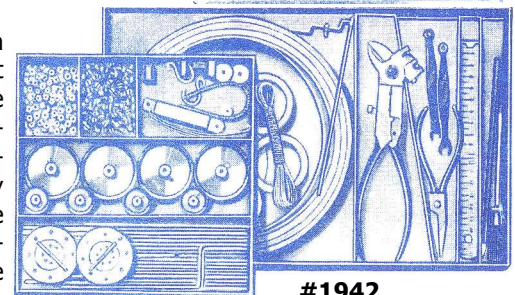
All sizes of Gears and



Sprockets can be seen the Gear set right, plus a Worm and what may be a Drive Coupling to its right.

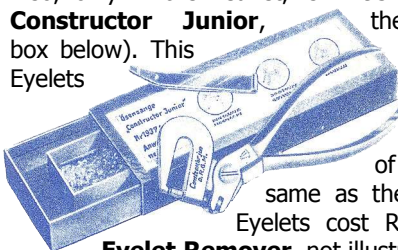
All the main outfits except #1943 have cardboard boxes, black mottled with grey on the outside and yellow inside (as the #1942 shown earlier and the lid below). The N&B etc were packed in small, lidded, red & white metal boxes about 7cm long, with 'Heller Stahlbaukasten' on the lid. An example can just be seen in the left side of the tray in the #1942 photo.

Two types of lid label have been seen, one is almost the same as the Manual cover, and the other, below, and perhaps earlier, features the same boy but different models. The design is signed by 'Schumann'. The name on the other label looks



#1942

#09/80mm **Screwdriver**; #3471 **Spanner**; #3440 **Ruler**. Also, only in the Leaflet, is #1937½ **Eyelet Pliers** (called **Constructor Junior**, the German name, as on the box below). This Tool, complete with 300 Eyelets and a tool to push the Eyelet home before clenching it (it is on top of the box) cost RM 4, the same as the basic Tool. 1000 spare Eyelets cost RM 1.50, and #1968, an **Eyelet Remover**, not illustrated, RM 1.20.



The SETS The Leaflet has some details of the sets, and drawings of the layout of the parts in all except #1943. The Table below gives the main details, and the illustrations of 3 of

Set Ref. \ Name		No. of Tools	Strip length	No. of Parts	Box Size cm	Price RM
1940½	0	2	5m	64	24*20*2½	5
1940	1	6	5m	77	30*22*3	8
1941	2	7	10m	150	35*22*3	12
1942	3	7	20m	215	35*22*5	15
1943	4	7	20m	219	39*29*2	20
1946	Add-on	0	10m	120	22*22*3	4.50
1948	Gears	0	none	22	30*20*2½	5

the sets (#1940, 1948, & 1942) are in the next column. All the sets except the Gears outfit have a coil of Strip with parts inside it. Alongside the coil (except for #1946) are the Tool & (except for #1940½) more parts.

A few formed strip pieces which are not listed as parts can be seen in several of the sets. In the #1940 for example a Double Bent Strip at bottom left in the centre square, and the Leaf Spring below it.

#1942 has an extra tray of parts. #1943 has a metal box and the same contents as #1942 but with the addition of four



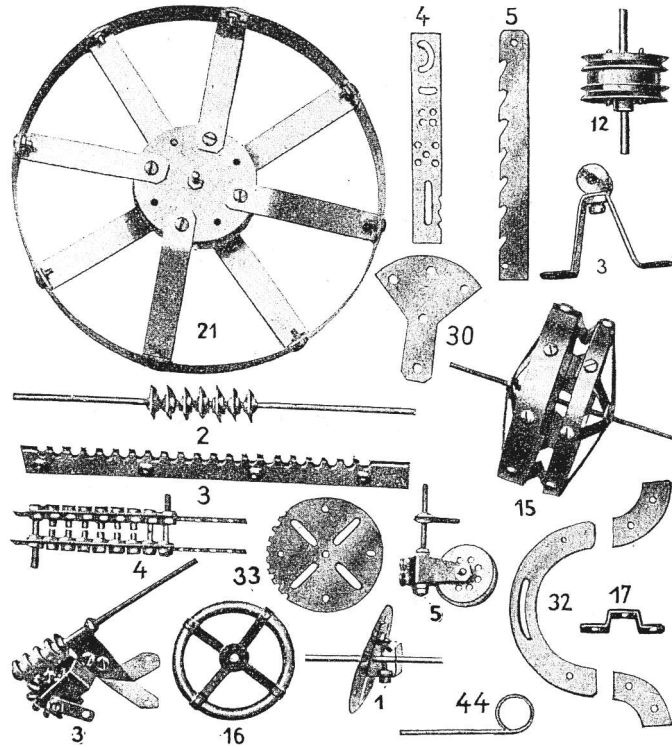
like 'Ullemann Leipzig' though the first letters may be wrong.

Some of the Ebay sets have a label inside the lid showing the layout of the parts in the set, & some, like the Airship one, have the Set No. stamped on the bottom border of the label.

The French sets in MCS are identical in content to those in the Leaflet, and also in the layout of the parts, except for minor differences in the smallest 1940½ set.

The MANUAL The Manual is in German and has 80 pages, plus covers, 241*162mm. It is referred to as Nr.20 on p1 and was included in all but the smallest set. The front cover was shown earlier and the others are blank.

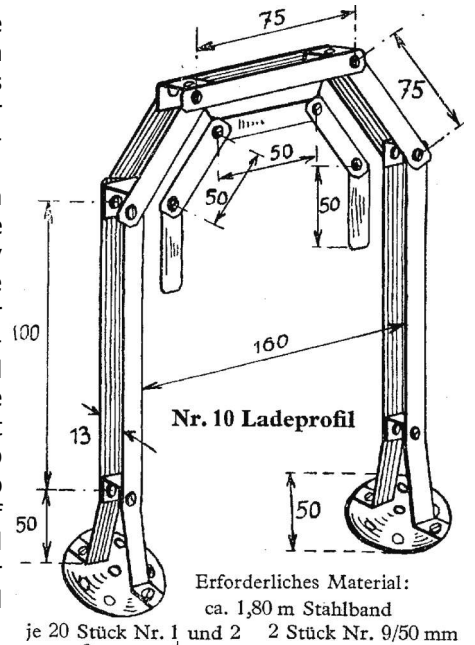
The first 8 pages are about how to use the Tool, and pp9-11 give details of the parts. pp12 & 13 show methods of joining the parts and some useful basic parts made from the Strip & circular parts. There are 48 in all and they include various brackets, parts with slotted holes, & toothed parts. Next are 9 pages of basic constructions, 109 in all, including bearing brackets, leaf springs, a double-throw crankshaft, rack strips, & numerous built-up wheels. A few of these 157 items were in OSN 18 and some more are shown below.



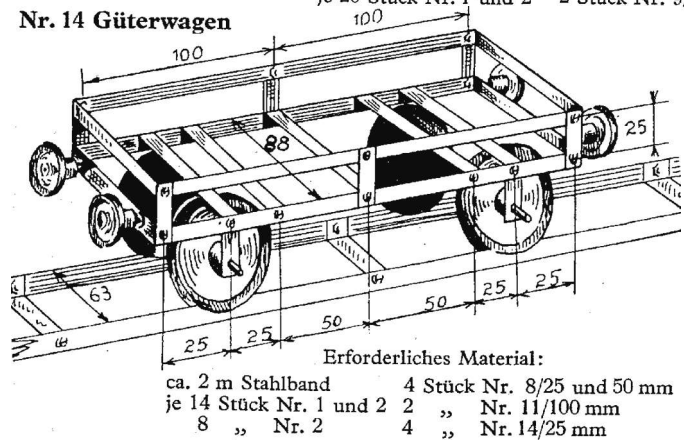
The remaining pages show 91 models, from Nr.2 Stehleiter (Pair of Steps) on p23 to Nr.180 Ketten-Förderanlage (Chain Conveyor) on p80. There is a Parts List for each model, plus a few words of explanation for some, and one, occasionally two, illustrations. The latter are dimensioned line drawings for the first 8 models, thereafter half-tones. The models are small & simple at first with barrows, domestic items, railway accessories, etc, including the 2 shown in the next column. Then a number of fairly straightforward machine tools & a few fairly simple models using Gears - the rather nice Mangle on the facing page reminded me of my Grandmother's. Also opposite the model that uses the Drive Coupling. Next some more elaborate machine tools and larger models including a 2-Cylinder Vertical Engine, Railway Wagons, 2 Back Axles with Differentials, a Car Chassis, a Lorry, a Fire Engine, a Potato Harvester, a Big Wheel, a Threshing Machine, the Gantry Crane in OSN 15, & a Multi-Jib Grabbing Crane. All are attractive models though basically fairly simple mechanically. Strips are sometimes used as infill plating, but otherwise card or any other suitable material was to be used. The Chassis & one of the Diffs are on the next page, & the Grabbing Crane on the page after. It has an interesting luffing system & is said

to be based on one made by Zobel, Neubert & Co, a firm in Schmalkalden. It is shown full size, the other models have been reduced to about 90%.

The model photos are a good size but not all the mechanical detail is clearly shown. Also with just the dimensions overall and for a few key elements, considerable planning would be needed to make some of the models with about the total length of Strip specified for them. Help though in the form of sheets of constructional details, was available for many of the medium and



Nr. 14 Güterwagen



large models. None have been seen but the Leaflet lists them for 21 models, & another 15 in the Manual are marked as having such Sheets. They include the Mangle, the Chassis, & the Grabbing Crane. 3 of the 21 models in the Leaflet are not in the Manual: Nr.184 (no name); 186, a Bridge; & 188, a Flying Model. Two of the latter, made of aluminium, were mentioned in 16/458. Some models needed more than one Sheet, 6 in one case, for the Big Wheel. The Sheets were 43*31cm in size & cost RM .20 per sheet, against RM 1 for the whole Manual.

Other Literature There was a lesser manual or model sheet with the smallest set, but nothing is known of it.

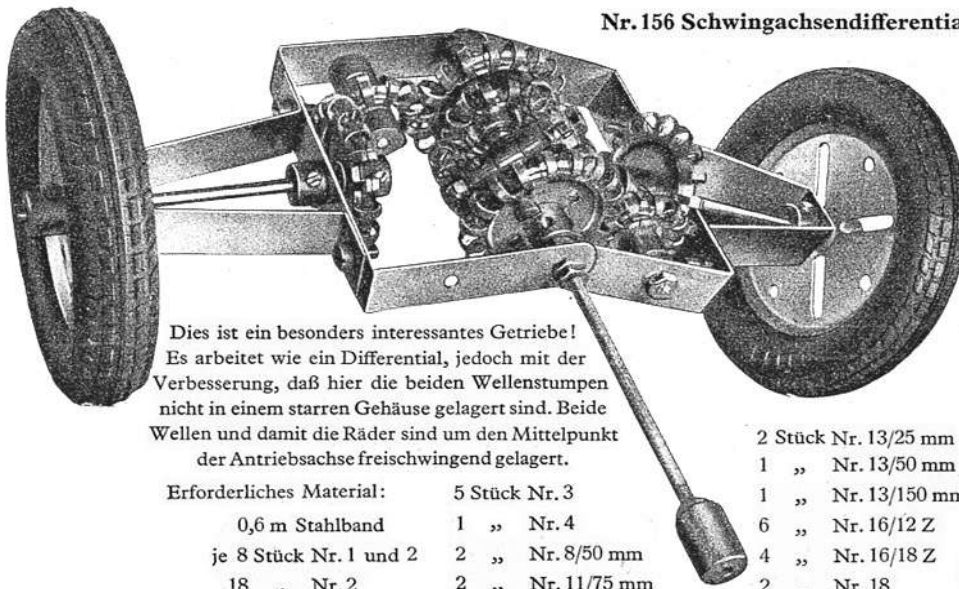
Most of the Ebay sets with the Airship label have a manual with the Crane cover but one has the Airship design - it is about the same page size but was said to have 47 pages.

Another Ebay item was what appears to be a 4 page folded leaflet with the Airship design on the front. It seems to be earlier than the Mechanicus one because a smaller range of sets & parts are shown, the prices, again in RM, are lower, and the manual listed in it is Nr.19 (or possibly Nr.15, but certainly not Nr.20). One inside page has an intro to the system and the other shows 4 sets which look very like #1940, 1941, 1942, & the Add-on outfit. They cost RM6,8,12,4 respectively. The parts are listed on the back cover and include the Tool at RM3.50. The other parts are just #1-13 and are as before except that there are 75 & 100mm Discs but no 38mm.

The manual with the MECHANICUS set, described in OSN 18, is of course but a pale shadow of the Nr.20.

[Before going to the next section I should have mentioned that the **Leaflet** is a sheet folded to give 12 faces about 95*135mm. As can be seen the front has 'Nr.168' at the bottom. The back face has a boy with a Sailplane model.]

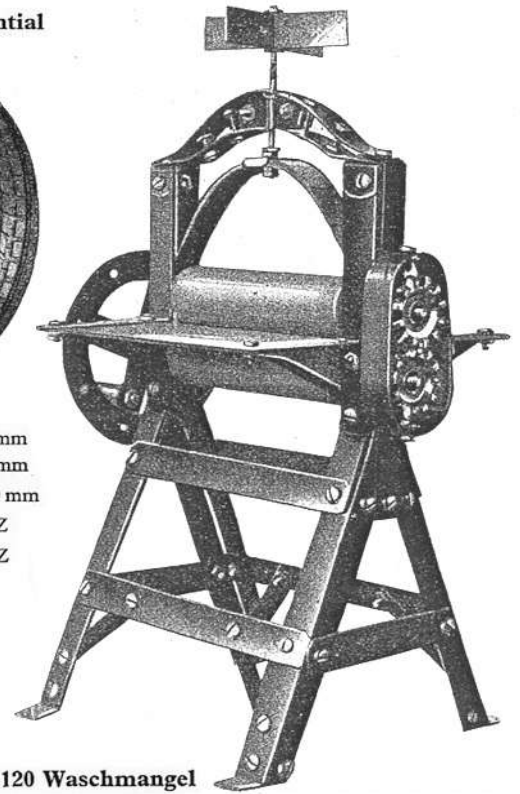
Nr. 156 Schwingachsendifferential



Dies ist ein besonders interessantes Getriebe! Es arbeitet wie ein Differential, jedoch mit der Verbesserung, daß hier die beiden Wellenstumpen nicht in einem starren Gehäuse gelagert sind. Beide Wellen und damit die Räder sind um den Mittelpunkt der Antriebsachse freischwingend gelagert.

Erforderliches Material:

5 Stück Nr. 3	2 Stück Nr. 13/25 mm
0,6 m Stahlband	1 „ Nr. 13/50 mm
1 „ Nr. 4	1 „ Nr. 13/150 mm
je 8 Stück Nr. 1 und 2	6 „ Nr. 16/12 Z
2 „ Nr. 8/50 mm	4 „ Nr. 16/18 Z
2 „ Nr. 11/75 mm	2 „ Nr. 18



Nr. 120 Waschmangel

Erforderliches Material:

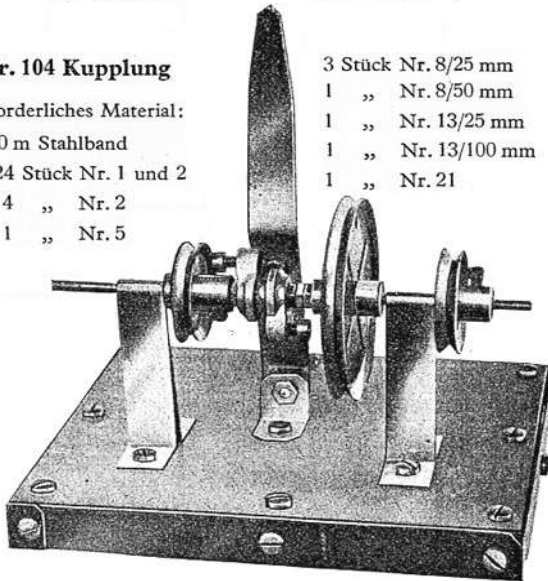
5,5 m Stahlband	Grundfläche 110 x 100 mm
je 60 Stück Nr. 1 und 2	Höhe der unteren Walze bis Mitte 125 mm
20 „ Nr. 2	Höhe der oberen Walze bis Mitte 145 mm
1 „ Nr. 15/50	Tischfläche 110 x 115 mm
2 „ Nr. 16/12 Z	Tischhöhe 140 mm
5 „ Nr. 13/25	Walzenbreite 84 mm
1 „ Nr. 13/50	Walzendurchmesser 22 mm
	Gesamte Gestellhöhe 220 mm

Das Interessante an der Waschmangel ist die verstellbar federnde Lagerung der oberen (auch unteren) Walze durch eine Elliptikblattfeder

Nr. 104 Kupplung

Erforderliches Material:

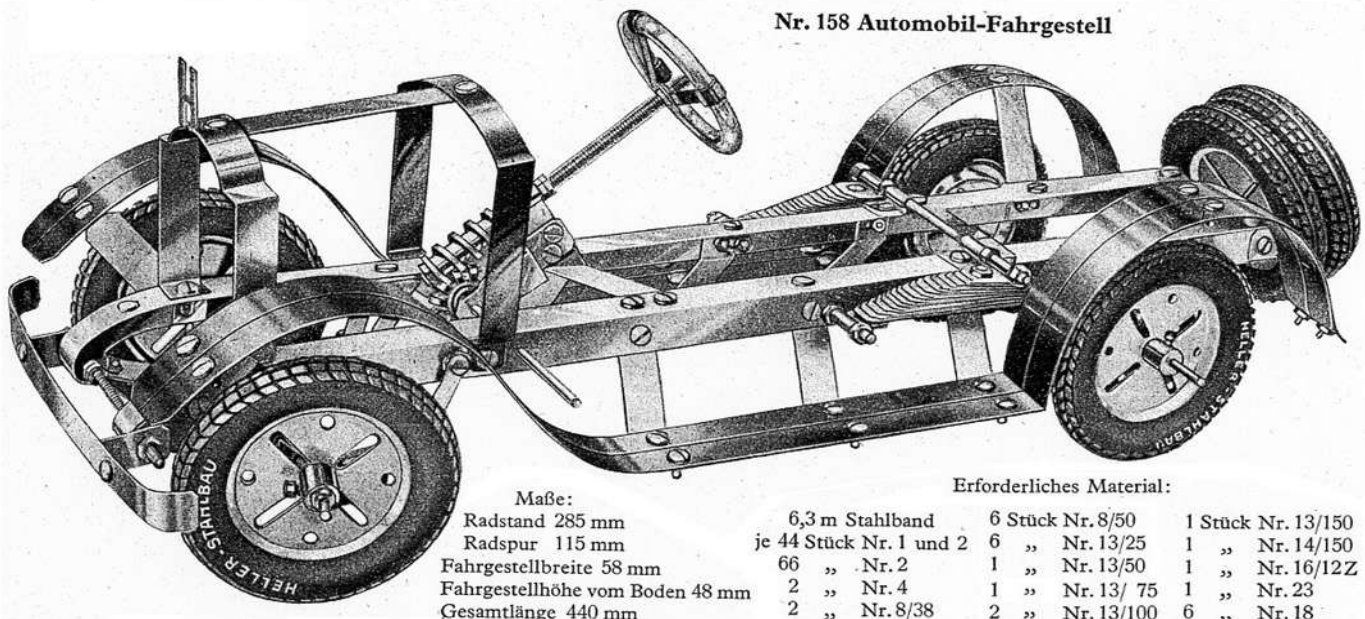
0,80 m Stahlband	3 Stück Nr. 8/25 mm
je 24 Stück Nr. 1 und 2	1 „ Nr. 8/50 mm
4 „ Nr. 2	1 „ Nr. 13/25 mm
1 „ Nr. 5	1 „ Nr. 13/100 mm
	1 „ Nr. 21



Kupplung zwischen zwei lose auf der Welle sitzenden Scheiben, Zahnrädern oder Kettenrädern. Die Kupplung selbst ist auf der Antriebswelle seitlich verschiebbar. Je nach Wunsch kann man die Mitnehmer des Kupplungsteiles verschieden gestalten. Die Art der Kupplung ist sehr vielseitig anwendbar.

Heller-Stahlbau

Nr. 158 Automobil-Fahrgestell



Maße:

Radstand 285 mm
Radspur 115 mm
Fahrgestellbreite 58 mm
Fahrgestellhöhe vom Boden 48 mm
Gesamtlänge 440 mm

Erforderliches Material:

6,3 m Stahlband	6 Stück Nr. 8/50	1 Stück Nr. 13/150
je 44 Stück Nr. 1 und 2	6 „ Nr. 13/25	1 „ Nr. 14/150
66 „ Nr. 2	1 „ Nr. 13/50	1 „ Nr. 16/12 Z
2 „ Nr. 4	1 „ Nr. 13/75	1 „ Nr. 23
2 „ Nr. 8/38	2 „ Nr. 13/100	6 „ Nr. 18

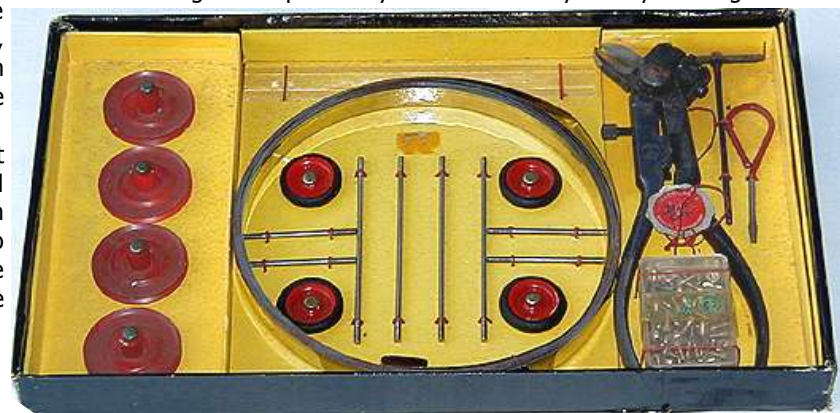
Auf dem Fahrgestell wird die entsprechende Karosserie aufgebaut. So kann man eine 2-Sitzer-Sport oder 6 sitzige Innen-Limousine auf das Fahrgestell aufsetzen. Die Auslegfederung läßt auf ein rassisches Sportfahrgestell schließen. Man kann auch statt hinten Auslegfedern Halbelliptikfederung wählen. Die Steuerung ist eine Schneckensteuerung. (Als Handrad kann man auch einen Schlüssel- oder Vorhangring nehmen.)

The MECHANICUS SET The box is 33½*20*3cm and the lid is shown below. It has the Heller bell logo on it but

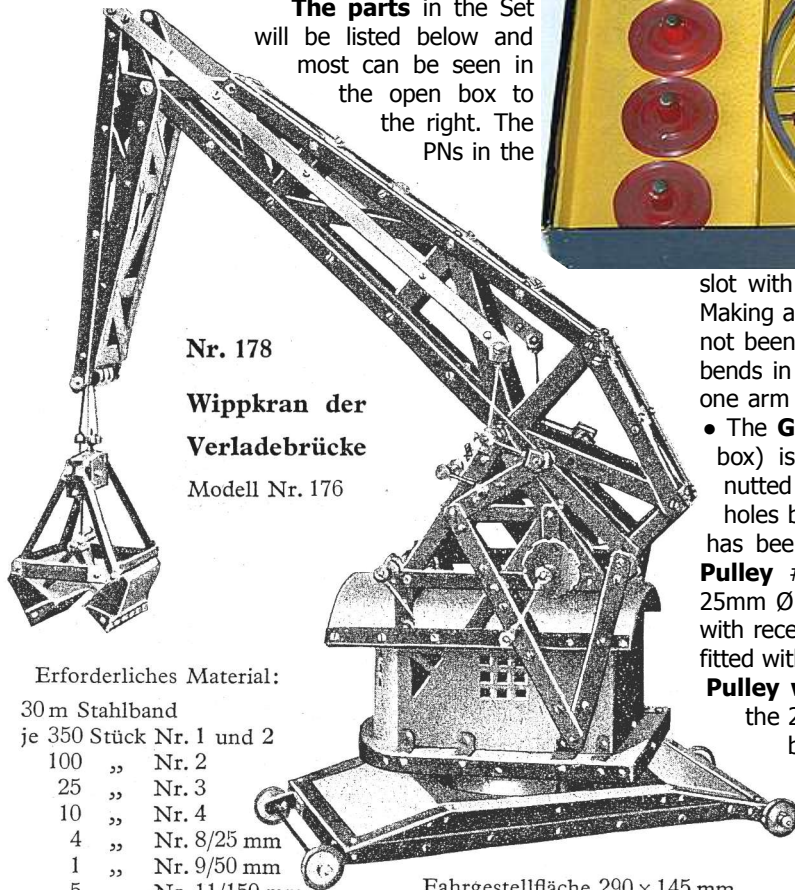


otherwise the only mention of Heller anywhere is that the Strip & A/G are listed in the manual as Heller-Stahlband, -Winkelstäbe. Perhaps the set was produced after the company was 'VEB'd' but there is no firm evidence for this. Neither the set nor its manual give any indication of the maker but this is also true of the Nr.20 manual & the Mechanicus leaflet. The set appears unused & since it doesn't contain all the parts listed in the Manual there may be other, larger MECHANICUS sets. None have been seen on Ebay though and the present one is in fact the only I've ever noticed on Ebay.

The parts in the Set will be listed below and most can be seen in the open box to the right. The PNs in the



Nr. 178
Wippkran der
Verladebrücke
Modell Nr. 176



Erforderliches Material:

30 m	Stahlband
je 350 Stück	Nr. 1 und 2
100	„ Nr. 2
25	„ Nr. 3
10	„ Nr. 4
4	„ Nr. 8/25 mm
1	„ Nr. 9/50 mm
5	„ Nr. 11/150 mm
2	„ Nr. 11/75 mm
8	„ Nr. 13/25 mm
5	„ Nr. 13/50 mm
2	„ Nr. 13/75 mm
2	„ Nr. 13/100 mm
2	„ Nr. 13/150 mm

Fahrgestellfläche	290 × 145 mm
Führerhausfläche	200 × 130 mm
Führerhaushöhe	120 mm
Untere Auslegearmlänge	440 mm
Obere Auslegearmlänge	200 mm
Auslegearmbreite	50 mm
Schienenspur	130 mm

Diese neuere Konstruktion hat einen knickbaren Auslegerarm. Durch diesen wippbaren Ausleger wird beim Einholen der Last ein horizontaler Lastweg erreicht. Die Bewegung des Auslegerarmes ist mathematisch sehr interessant. Das Modell zeigt, wie naturgetreu und konstruktionsecht sich Bauten mit Heller-Stahlbau herstellen lassen. Hergestellt nach Originalzeichnungen der Firma Zobel, Neubert & Co, Schmalkalden.

Manual will be used. • About 4m (but nominally 5m) of #1934, fairly soft **Steel Strip**. It is 12*5mm in section, and is nicely nicked. It has appreciable curvature when uncoiled and though it is easy to straighten it roughly, it is difficult to get it perfectly flat by hand. • The **Tool** #1933 seems to be unchanged with MECHANICUS 1933 stamped on the outside of each handle & the Bell logo on the centre part. It had a small label strung to it with 'TRADE MARK | **Black Cross** | QUALITY GUARANTEED' on it. The punched hole is 3.1mm Ø. In the Manual it is said to be 3.2mm & that versions were also available to punch 2 & 4mm holes. The Tool is well made and in use it performed well although it's design did give rise to some problems. Curves were only possible as a series of shallow bends and finding the appropriate setting for the screw stop was a matter of experiment. Also there was no means of locking the stop or repeating a previous setting. And as the rod of the Gauge Stop has no length markings on it, spacing successive bends equally entailed using a ruler for each new setting. Slots were made by punching a series of intersecting holes but the 'nibbles' had to be very small if a Bolt was to pass along the slot. A slightly larger hole size would have been a great help. Usually it was necessary to tidy the edges of the

slot with a file & in any case this made a much neater job. Making a neat curved slot would be very difficult. The Rod has not been seen but unless it of soft metal I think that making bends in it would be difficult, and probably impossible unless one arm of the bend was long enough to give good leverage.

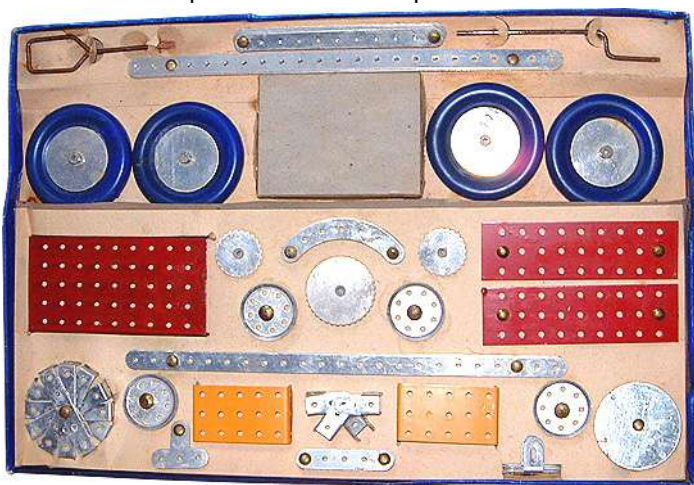
• The **Gauge Length Stop** (on the right of the Tool in the box) is new, and it's simply a 7*6mm angle, 6cm long, nutted to a 3mm Ø rod, with a bent over tip which spaces holes by fitting into the last one punched. This type of Stop has been seen in some of the STAHLBAU Ebay sets. • 4x **Pulley** #7, steel, 41mm Ø, 3.0mm bore, with the centre 25mm Ø of the discs belled. The 10mm Ø boss is also steel, with recessed peening, and is single-tapped M4 (not M3). It is fitted with a bright steel Grub Screw, 5½mm long. • 4x **Loose Pulley with Rubber Ring** #9. The Pulley is 21mm Ø, not the 25mm giving in the Manual, and its centre 10mm Ø is belled. The Ring is black, 29mm o.d. • 4 each of 50 & 100mm **Screw-ended Rods**. The basic rod is 2.6mm Ø, with 12mm of M3 thread at each end. • #1935 brass **N&B** in a clear plastic box. It was sealed and contained 43 Bolts & 54 Nuts against a nominal 50 & 60. The Bolt: 5.5mm Ø cheesehead & 6mm u/h. The Nut: hexagon, 6.0mm A/F & 2mm thick. • #1935 **Screwdriver**. It is made from bright 3mm wire and the handle is painted red. • #1928, clear plastic **Ruler** (at the top of the box) with graduations to 15cm on one edge & to 6" on the other.

The manual was described in OSN 18. The photos of how to use the Tool are different to those in the Nr.20 but the photos of the models are all identical, though they have different numbers.

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]