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 Wünsch, 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 ¾" A/F.

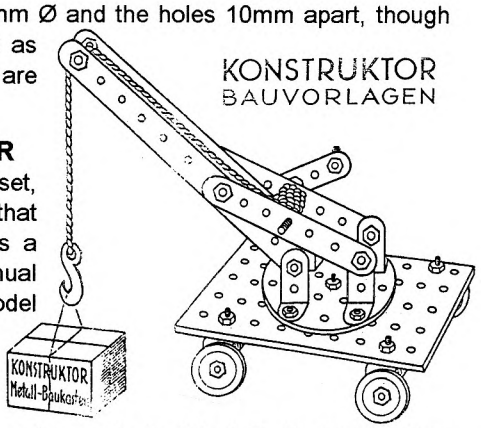
INDUSTRIE EZ shows an open box with the parts in it, similar to the set shown in MCS. The Strips though don't look as narrow as they appear in MCS and based on the 5mm hole, their width scales at ½". The 8-spoked Pulley Wheels are about 30mm diameter. All the parts have a black metallic finish. Two periods 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.

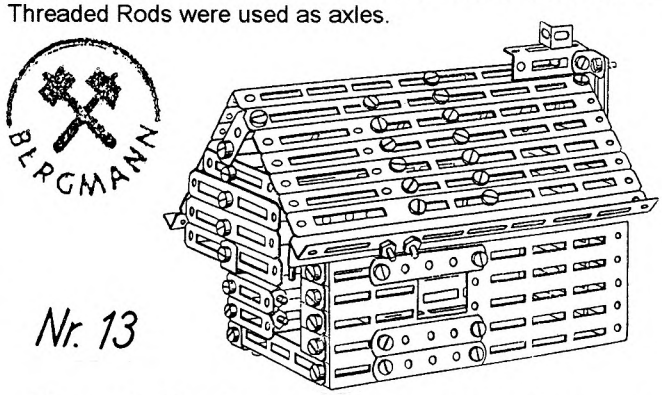
KEIM EZ gives only the maker, Keim & Co., A.G., für Blechindustrie, Nürnberg, and the period, c1923 to c1928. A graphic from 1923 shows panels falling off a skyscraper in a strong wind (or so it seems). Perhaps it was an architectural system.

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.



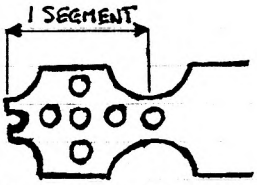
The words Konstrux Deuteron appear on the manual cover under the main KONSTRUX name, but what this signifies I don't know. Also in addition to a logo based on the initials EPD of the manufacturer, there's another (above left) with the name Bergmann, and what might be crossed hammers.

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

More on GERMAN SYSTEMS Following the notes in 15/412, Jeannot Buteux, Sven-Ulrich Glage and Don Redmond have been good enough to sent comments, additional information, and the names of yet more German systems. For reference purposes the initials JB, SG or DR after each contribution indicates its origin. [The illustrations from Jeannot are courtesy of the *Constructorama* archive.]



• The form of **AKRON** parts is as sketched opposite, and some contain as many as 17 segments. (JB)

• An early 1930s commercial catalogue lists 5 main **ALPHA** sets (ALPHA [2] in MCS) and 4 linking sets. No set numbers are given, only catalogue references, but No.2 can be seen on the one set illustrated. It's the middle sized of the 5 main sets and it's the same as the No.2 in MCS, and with the same numbers of parts. So it's likely that the main sets listed are Nos.00, 0, 1, 2 & 3.

Also included is a Kanonen-Baukasten with 227 parts in a box 34*18cm. A model is shown (right) and with a geared drive for elevation at least, it is more sophisticated than the 1930s STABIL Kanonen models. (SG)

• Is **AUTO-CONSTRUKTOR** (15/412) a printing error? [Probably yes, it is spelt that way in *Eisenzeit*, p177, but if it's the same as the Dutch AUTO-CONSTRUCTEUR, which seems likely, the name on the pages still in German in the Dutch manual is AUTO-CONSTRUCTOR.] (JB)

• **BURGER** has 4.1mm diameter holes at 12.5mm pitch, Bolts are M4 with hex Nuts, and Axles are 4mm Ø. The parts are painted red, blue, green & cream, and are poorly finished. (SG)

• The lid from a photo of a small **DER KLEINE INGENIEUR** Outfit is shown opposite, and the parts in the box include various Strips, an 8-hole Wheel Disc, a STABIL-pattern Flanged Sector Plate, and 2 of what appear to be Screwdrivers, with large tapering wooden handles. (JB)

• On **DORANDO**. Unlike INGÉNIO (16/430) for example, the metal frame is on the inside and is hidden in the finished model. (JB)

• The initials **F.D.K.K.** stand for FÜR DEN KLEINE KONSTRUKTEUR. (JB)

• There was a connection between **INDUSTRIE** and **PHANTASIE** (15/417) in that the models in the manuals owned by *Constuctorama* are identical: the PHANTASIE Crane in 15/417 is Model 33 on p10, and the same model, but reversed right to left, is in the INDUSTRIE manual, again on p10, but it is No.24. Also the parts in it are held together by snap fasteners. Those are the only differences as far as the manuals are concerned, but the parts in the 2 systems aren't compatible, with a different hole size and pitch. [N&B are shown for INDUSTRIE in MCS and snap fasteners were used in an earlier period] (JB)

• **KONSTRUX** is larger than stated in OSN 15 and there were 5 sets called MIKROS, DEUTERON, MEGA, MAKROS, REX - Greek or Latin names all relating to size in some way. (JB)

• The French patent (No.707915) for **MAFELL** (15/415) was granted in 1930. A model is shown at the top of the next column. (JB)

• **MECANIC/MEKANIK.** The change of name occurred in 1949 when the system was still being made by Dörken & Mankel. (The company still exists under the name Dorma and is now a leading manufacturer of door closing systems.) According to information from the firm, production of constructional toys ceased in the mid 50s [a catalogue from 1957 is known] because of problems of distribution in the toy market. A manufacturer has to be listed by VEDES, the powerful organisation of German toy retailers, to be able to sell products nationwide. D&M, (and also the firm who made MIGNON) were apparently not on good terms with VEDES. As a matter of interest it is said that VEDES played an important role in the confiscation of Meccano's rights during WW1 and their sale to Märklin.

Sven continued that he has some 25 MECANIC/MEKANIK sets in his collection but not one made by Adrian & Rode, and so he would like to know more about their period. In a mid 50s Leaflet a new Gears Set is shown but was it ever introduced? The parts were included in Parts Lists (see 3/33) but he has never seen any of them. (SG)

• **MIKRONO, ROSETTA, & PYTHAGORAS** were different names for the same system, and their parts may be wooden, but this isn't sure yet. (JB)

• On **MÖWE** (15/416) the original firm would have been Möninghoff & Weiß, the brand name coming from the first 2 letters of each. (DR)

Sven's **MÖWE** set is packed in a nickel plated box with a sliding lid and hazardous sharp edges. It measures 28.5* 8.3*2.3cm and the lettering on it is stamped into the metal. Holes are 4.3mm Ø at 13.0mm pitch, and the Bolts are M4 with (unusually for German systems) square Nuts. Strips, Plates and Brackets are nickel plated steel of various thicknesses around 1mm. Pulleys have a brown finish like thin brass plating. [Sven kindly sent an 8h Strip and it is 13.2mm wide by 1.18mm thick, with 4.4mm Ø holes. Its end radius is 7mm. And in a photo of the Set can be seen a 12*5h Perforated Plate, the Flat Sector Plate mentioned in OSN 15 (with straight ends and all holes parallel to them), and 2 of the STABIL-type Flanged Pulley Discs. The manual has landscape pages almost the size of the box, against the near A5 size of the page the model in OSN 15 was taken from.] (SG)

• The EMB4 **PLASTICON** set includes a motor and other electrical parts, with some plastic parts, and others of nickel plated steel. (JB)

• The parts shown in a photo of a **RECORD** Set include some short Strips and Brackets with semi-radiused ends,

INDUSTRIE Since the brief note in 17/476 a little more about this simple 22-part 1920s German system has come to hand. It was made by Josef Falk GmbH of Nuremberg from 1919 until the closure of the company in 1935. At a glance most of the parts look similar to the slightly later PHANTASIE (PHA henceforth) made by a different company (see 15/417, 52/1610), and many of the manual models are the same, though redrawn. But there are significant differences, as noted below.

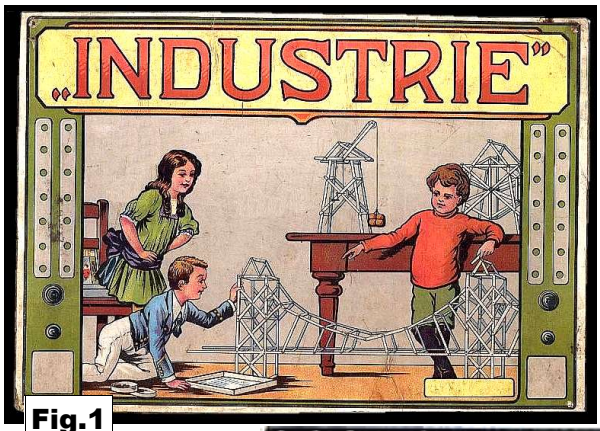


Fig.1

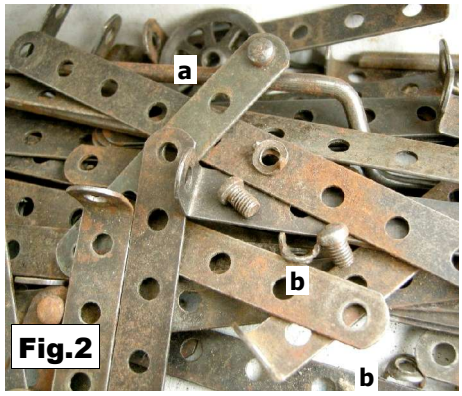


Fig.2


Fig.3


Fig.4

The PARTS All holes are round, 5.0mm Ø at 15.0mm pitch. All strip parts have a chemical black finish. Most parts can be seen in Figs. 2-6. **Strips** 3,5,7,11,21h, 12mm wide. (PHA 10mm). **A/G** 21h: Fig.3 is from a set in a 1930 Falk catalogue and all holes look round, but in Fig.4 from Ebay the end holes (at each end) look enlarged. (As far as is known there was no PHA equivalent and what look like A/Gs in some models would have to be made from Strips.) **A/B**. **DAS** 1*5*1, 1*3*1, 2*3*2, 3*1*3, 3*5*3h. The 1*3*1 appears to be used in the manual models but is not in any of the sets seen. **Axles** which scale at 30,65,105mm long. (Unlike the PHA rolled tubular Axles they look solid rods.) **Crank Handle**. **Pulley**, 8-spoke, cast with a silvery look, about 32mm Ø. The manual says that thanks to a brass bush in the Pulley it will be fixed when placed anywhere along an Axle or Crank Handle. The gist of this is repeated in the 1930 Falk catalogue. What looks like the end of a brass bush can be seen in photos ('a' in Fig.2 for example) but how this allows a Pulley to be fixed on an Axle is unclear, unless like PHA, the Axles are tubular and their springiness secures the Pulley. (The PHA has no spokes.) **Hook**, wire or loaded, shown in several manual models but not seen otherwise. **Fixings**, originally by Press Studs (called Druckknöpfe, Snap-Button, in the manual). 3 thicknesses of Strips can be joined, or 2 plus a spacing Washer. Later by Bolt & Wing Nut as in Figs.2 & 6 (in Fig.2 Nuts are shown at 'b'; Bolt heads look to have no slots). **Tools**, the manual, which shows Press Studs in the models, and does not mention Wing Nuts, speaks of a Key (Schlüssel) used to open the Press Studs and secure the Pulleys ('lock-nuts' in the English text is a red herring). A set which probably included Press Studs (Fig.5), has a Tool either side of the Crank Handle but how does either secure a Pulley? A similar set with Wing Nuts (Fig.6) shown in a 1930 Falk


Fig.5

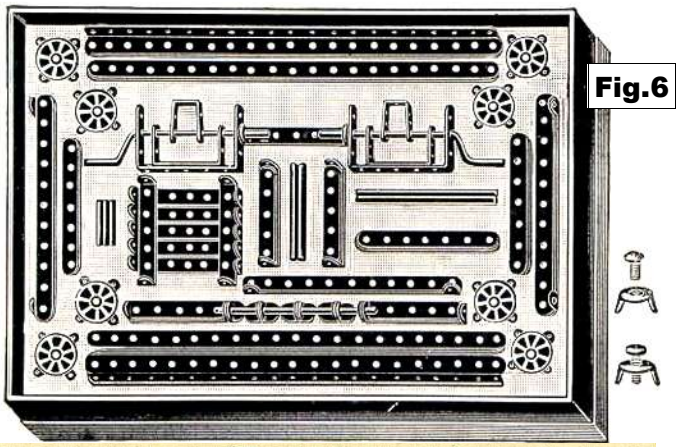


Fig.6

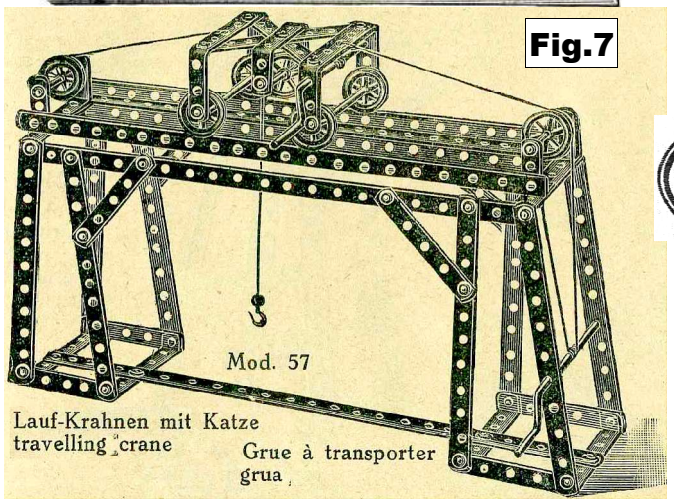


Fig.7

Fig.7a

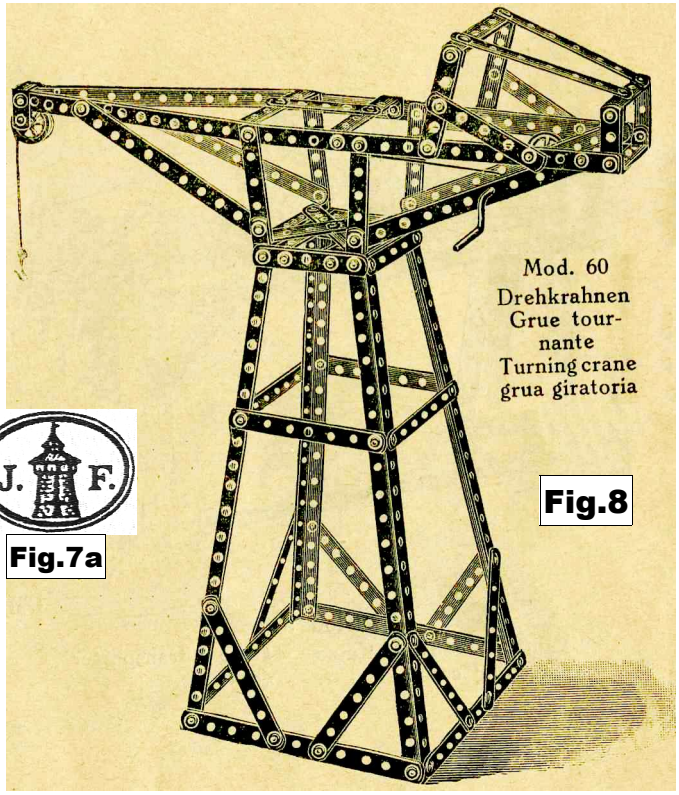


Fig.8

catalogue has no Tools, and says that with the Wing Nuts none are needed. (PHA of course used Clips held by Wedges).

The SETS There were Nos.1-4 with no mention of linking outfits. The 1930 catalogue gives their parts count as 82, 122, 214, 303. Boxes are black, and all have the same label with Press Studs below the Strips (Fig.1), except that sometimes each of the small grey squares in the bottom corners has the company logo in it (Fig.7a), or is replaced by a black oval. Possible box sizes for Sets 1-4, from Ebay ads, are: 28*20cm, 34*28½*3cm, 38*25cm, 41*28*3cm. Fig.5 is probably a No.2 and Fig.6 a No.4 from the catalogue. A No.1 probably has 4 Pulleys like the No.2, but only 4x 1*5*1h DAS and fewer Strips; the No.3, 6 Pulleys, 9 or 10x 1*5*1h DAS, more Strips but no A/Gs (the No.4 has four). A No.1 set has printed on the lid's underside the 15 models given for the Set in the manual. In all the sets the parts are attached to a deep pink backing board probably by clips.

The MANUAL It has 32 pages, 223*143mm, plus covers. Fig.11 shows C1. pp1 & 2 have 'Directions for use' in German, French, English, & Spanish, and p3 the 'Mod.' numbers for the 4 sets: 1-15,31,48,66. The models are all shaded line drawings, mostly clear, with their names in the 4 languages. They are I think good of their type given the parts available, though, as so often, the Pulleys are far too small to be used in the models needing road wheels. The No.1's models are on pp4-6 from Handwagen to Leiter (ladder); pp7-12 have the No.2's from Leitertreppe (step ladder) to Modell einer Windmühle; pp13-20 the No.3's from Wippschaukel (swing) to Werkstätt+engebäude mit Transmissions-Anlage (machine hall); & pp21-30 the No.4's from Güterhalle (goods station) to Bagger (bagger, but actually a type of dredger, cf Drague & draga in the other languages). pp31 & 32 are blank; likewise C2-4.

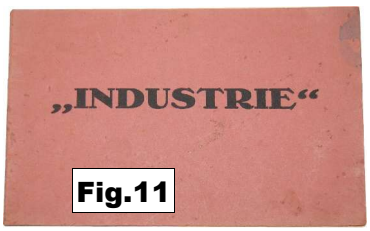


Fig.11

4 of the No.4 models are shown in Figs 7-10. Other of the Sets's models include a Cable Railway & a Russische Schaukel (russian swing – actually a big wheel).

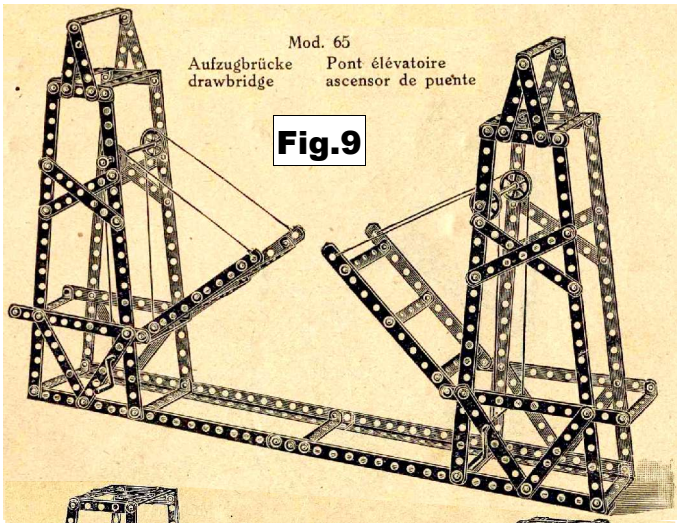


Fig.9

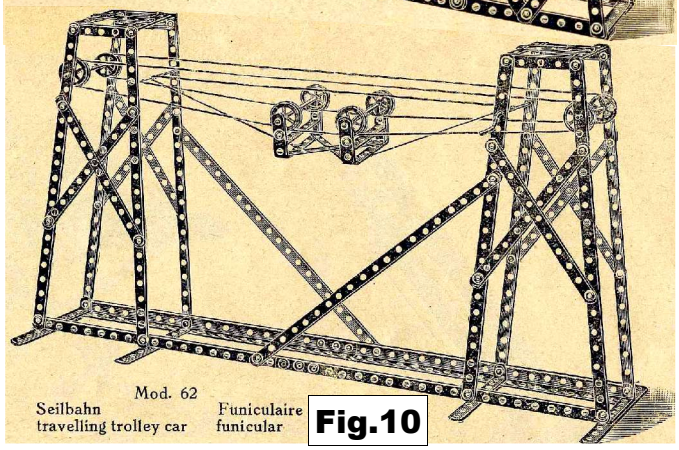


Fig.10

Of all the other manuals seen on Ebay there is nothing to indicate that the contents ever changed but some have a whitish or pale brown cover, usually with the name as Fig.11 but some have the Falk logo below it.

INDUSTRIE: S2 **OSN 53/1620**

Snippets. More MKA 'Der kleine Praktikant' Sets A Nr.IIa set was described in 33/999, and since then 8 sets have been seen on Ebay: a Nr.I, 6 Nr.Ia, & a Nr.IIa. The IIa looked the same as the OSN 33 set but didn't have a manual. Xmas 1949 was written on its lid. The smaller sets differ from the IIa in having Screwed Rods as axles, Pulley Discs rather than bossed Pulleys, a Disc instead of a Face Plate, & a Perforated as well as, at least for the Nr.Ia, a Flanged Plate. Most of the 'new' parts can be seen in Fig.2.

The Nr.Ia The box is similar to the IIa's but smaller, it scales at 28*19cm and is partitioned into 8 bays. The label is again similar except the models in Fig.1 (the Nr.1 label) replace the Lifting Bridge. The set contents are again shown on the inside of the lid, and are as follows, with notes on differences from the IIa parts, and quantities in curly brackets.

Fig.1


Fig.2

#1-3, **Pulleys Discs**, no face holes, 25,34,55mm Ø. {4,4,2}. **#4**, **Disc**, 55mm Ø, with rings of 4 & 8 holes. {2}. **#5**, **Perforated Plate**, 5*9h, square corners. {2}. **#6**, **Flanged Plate**, 5*11h. {1}. **#7-11**, **Strips**, 11,9,7,5,3h. Ends vary from radiused to near rounded. {6,6,6,6,6}. **#12**, **A/B**. {16}. **#13,14**, **N&B**, M4, hexagon Nuts, roundheaded Bolts about 10mm u/h. {50,40}. **#15,16**, **Screwed Rods**, short, long. The short scales at 25mm, the long at 90mm and is smooth with 25mm of thread at each end. {2,2}.

The manual cover is as in OSN 33 but with Nr.Ia instead of Nr.II. It was said to contain 7 models as follows (with possible meanings): Bank [Bench], Übergangssteg mit Signalmast [Railway Footbridge with Signals], Traktor, Gans [Goose], Windmühle (Vorder- und Rückansicht) [Windmill, front & rear views], Traktor mit Anhänger [Tractor with Trailer].

The Nr.I Figs.1 & 2 left show the Nr.I's lid label & open box. The lid is dark brown and scales at 9½*17½cm; the label is similar to the Ia's. The parts that can be seen are like the Ia's except the A/B looks to have 2 holes in one arm, and the Bolts have cheeseheads. It's possible that the Rods below the Plate of the right side have threaded ends and if so may be genuine, but their thread length is only about half that of the Nr.1a's parts.

The box looks large enough to hold the contents of the Nr.Ia and given that the quantities of Perforated Plates, Discs, Brackets, & probably Pulley Discs, that can be seen in Fig.2 match those in the Ia, any differences between the sets rests with the other parts including the Strips & the Flanged Plate. So it is still unclear what the 'a' designation means but it certainly doesn't indicate a linking set.

M K A [2]: S2 **OSN 53/1620**