an 8-hole Wheel Disc, and the 2 Spanners with square tails shown below (enlarged), along with the top of the box lid (opposite). (JB)

• The parts in the **SACHSENMEISTER** theme sets (15/418) have only very limited compatibility with the ordinary parts. (JB)

• The parts in a photo of a **SCHWERKA** Set include the Windmill Sails illustrated in OSN 15, though they don't look black. (JB)

• On **TECHNOFIX** the parts are steel, brass plated, the holes are 3.5mm Ø, and the arms shown in Fig.5 can pivot independently. (JB)

• On **WEMA**, Nebenzweig is not a town, it means 'sideline' and thus constructional toys were only a sideline activity for the firm Eberspächer from 1946 to 1948. (They made and still make, heaters for cars.) (SG)

• The early 30s catalogue that listed ALPHA also includes **ZICK-ZACK** with as an illustration the box below. The WK logo (by Nr.) shows it to be from the Wilhelm Krauss period, and the main thing is the unusual hole pattern in the Strips. 3 sets are listed with 40, 80 and 147 parts. The largest one cost 18 Marks a dozen, against 66 a dozen for the ALPHA set with 150 parts, so it would have been aimed at the cheap end of the market. (SG)

The 'NEW' GERMAN NAMES

• **ANDERS**, blue and orange parts without many holes in them, and so not very adaptable. (JB)

• **BAUE SELBST**, from the 1930s with special parts for Cranes. (SG)

• **BOSCH**, MECCANO-type parts, painted black. A photo shows a wooden box with a sliding lid. The label on it is similar to the manual cover reproduced opposite. (JB)

• **COMBINATOR**, 1930, parts to make buildings. (JB)

• **CONRAD**, wooden parts but metal Brackets, Axles, and Wheels. (JB)

• **DUX Railway Sets**. (SG)

• **FRI-DIE**, a simple system with red and blue painted steel parts, and holes spaced at markedly more than ½". [It is probable that this is the FRI-BIE of 11/291; other mistakes in that list: KOHLER should be KOBLER, and WESFALIA, WESTFALIA.] (JB)

• **GECO**, preceded CONRAD and is identical to it. (JB)

• **GESCHA**, a simple system from the late 1940s, with an unusual hole alignment. (SG)

• **HEIKO**, MECCANO-type parts but only a limited number of simple ones. (JB)

• **INGENIO**, pierced or perforated sheet steel parts painted white, red or black, which slot one into the other to make Dolls' Furniture, parts of Buildings, and also Trains. (JB)

• **KOSMOS MASCHINEN**, from the 1930s, with semi-specialised parts to make machines. [Perhaps from makers of TECHNOFIX?] (JB)

• **MAGNETO**, heavy steel parts, with Wheels & Axles. (JB)

• **METALLIX**, from the 1950s, with MECCANO-style steel and natural aluminium parts. (JB)

• **RIAG Modelbau**, another simple system from the late 40s, with a hole pattern like that of ZICK-ZACK above. (SG)

• **ROCO**, possibly from the 1950s, & based on Rods. (JB)

• **UNSERE TAKTSTRASSE**, an East German theme set to make 2 different Tractors with mainly special parts. (SG)

• **WERNER'S Metallbaukasten**, an early postwar copy of TRIX. (SG)

An EGB-ELEKTRO Outfit Well actually most of the parts from one that Richard Symonds came across last year in Canada (for $5). He kindly sent a photo of the parts and as examples, a 3h Strip and a N&B. The Set is thought to be from the 1950s and is shown in MCS as ELEKTRO-BAUKASTEN. EGB was the name of the East German maker from Leipzig, and as well as this EM (Electro-Magnetism) Set, 3 others are noted in MCS - the M (Magnetism), RE (Static Electricity), and CE (Electro-Chemistry) - but no details are given.

The main parts of the EM Set are 2 8*14h Flanged Plates, various Strips and special Brackets, a ready-wound Coil and motor Armature, a Horseshoe and 2 Cylindrical Magnets, and a Bell. All the parts are shown in MCS but the following details can now be added.

• **DATA** (in mm) STRIP (3-hole): •hole pitch/dia, 10.0/4.2; •width, 10.0; thickness, .86; •ends fully radiused. [No bosses] THREAD: M3 [No Axles or Gears] NUT: hex 5.6 A/F; BOLT: tapered cheesehead 5.0 Ø; both nickeled steel.

• The **Flanged Plate** is moulded from dark brown plastic and has no holes in the flanges. The holes in the top look much smaller than those in the Strips.

• The 3 & 9h **Strips** are aluminium and have little material outside the end holes, so the 3h one is less than 28mm o/a. The 6h Strips look to be dark brown plastic.

• The **Trunnion** appears to be aluminium, and the long centre slot looks much longer than in the MCS illustration.

• Most of the other **Brackets** look as if they are nickel but some may be aluminium.

• The base and switch handle of the **Switch** #8 look to be red fibre, and the fittings, nickel.

• The **Coil** is about 20mm wide and its top and bottom are brown plastic. The **Armature** is about 10cm long o/a.

• The top contact part of #12 (**Contact Strip**?), and the **Brushes** #18 are copper.

• The **N&B** are in a flat square box that may be made of brown plastic. It's about 4*4cm with a hinged lid, and may be a substitute for the #21 shown in MCS. In Richard's parts the **Container** #22 (with Iron Filings in it I think) is a clear phial with stopper.

• The flat **Plates** #29 & 30 are red - plastic no doubt.

• The **Pointers** #31 & 32 are about 6cm long. #31 looks at first glance like light yellowy-brown wood, but is probably plastic; #32 is aluminium.

• Part 33 (**Nägel**, but I can't think of a suitable English word), looks aluminium, and is some 5cm long with a small hole in the 10mm long by 5mm wide spade end.

• The **Bell** is nickel and about 8cm diameter.

• What may be #35 (**Disc**?) is black and about 2cm Ø. **Axle** #36 is a brass looking Threaded Rod, 5cm long.

• There are 4 lots of **Wire** on the card former of #41, and the wording on it is Kupferdraht 0,10mm Ø; Kupferdraht 0,30mm Ø; Eisendraht 0,30mm Ø; Heizdraht 0,12mm Ø.

• The **Bolts** are 6mm u/h, and 2 longer ones can be seen, one 15 and the other 18mm long. Their (neat) heads are 2.0mm deep. The (machined) **Nuts** are 2.3mm thick.

• There are 2 identical nickel **Spanners** which look like the one in MCS and are about 8cm long. The **Screwdriver** is perhaps 16cm o/a and has a long, round wooden handle.

Richard wrote that parts 13,14,15,19,20,27 & 40 are missing from the Set, and I can't see 23,26,38,39 & 42-46 either.

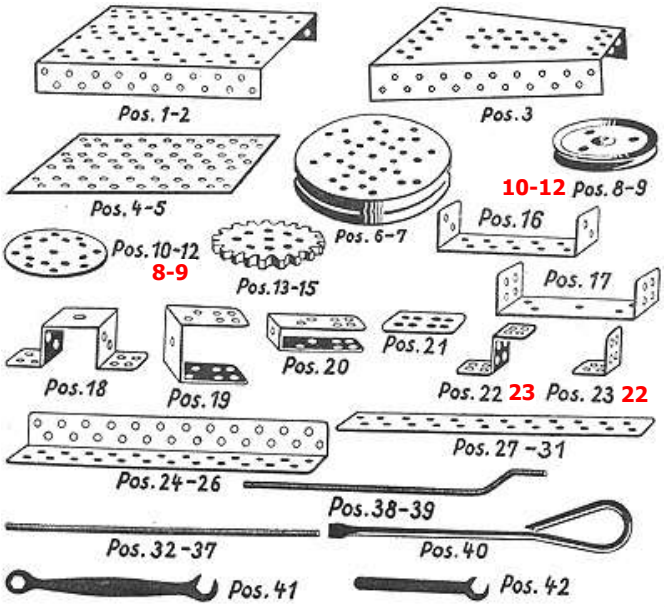
RIAG The name of this 50 part German system was mentioned in 17/477 and now Jacques Pitrat has kindly sent details of his unused No.2 outfit. Also to hand, an Ebay 'snippet' of a No.1 set, and as will be seen the two sets have different lid designs and packaging.

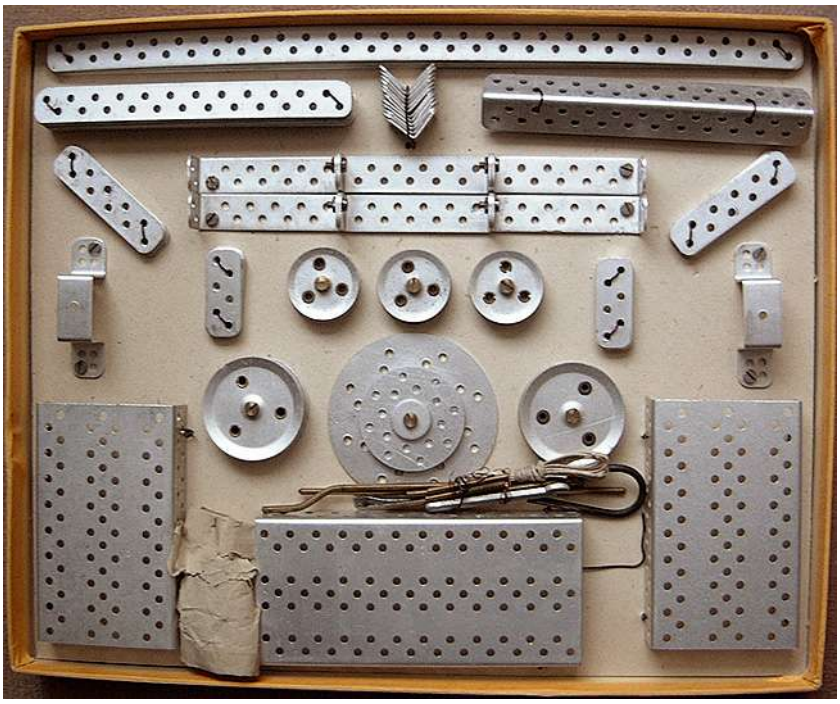
The No.1's maker was given as 'Riedel Apparatebau GMBH Berlin Steglitz' and its manual was said to be dated '9/43'. So RIAG could have existed pre-WW2. No maker or date is given in the No.2 material except that the manual's PR is '10000 11.49 Hellmich, Berlin'. So quite likely it dates from 1949. Both Steglitz & Hellmich are in what was West Berlin.

As can be seen from the illustrations below the parts have an unusual pattern of holes, and no doubt it was thought a good idea to have Strips about the same width as MÄRKLIN (or MECCANO) but with two staggered rows of smaller holes; thus with some of the advantages of the TRIX pattern but without its wider Strips, which often looks rather clumsy in models, particularly the smaller ones. The Strips are actually 14mm wide and the longest Strip & A/G are about the same length as a 25h long part with ½" pitch. The Flanged Disc Pulleys are 65 & 100mm Ø, but are only included in the larger outfits.

The No.2 SET The box is cardboard, 315*255*35mm, and the parts are wired to a backing card or attached with brass N&B (see the open box below). The NBW are in the paper packet. The lid is about the same shade as the manual cover on the next page and has a label, 210*148mmmm, of the same design and size as said cover, but white. A '2' label is in the bottom right corner of the lid. The contents of the 5 main & 4 linking sets at the bottom of the page are taken from the No.2's manual.

The PARTS are of good quality and all are aluminium except the plain steel NBW, the steel Screwdriver, and the brass Screwed Rods & Crank Handle. Many of them can be seen in the open box below, and/or in the Illustrated Parts below left, while their names are in the Set Contents together with for most, either the diameter or the number of holes in

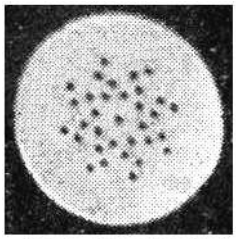


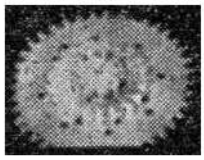


Pos.	Benennung		Baukästen 1	1a	2	2a	3	3a	4	4a	5
1	gr. Rechteckplatte	130 Loch	1	—	1	—	1	—	1	1	2
2	kl. Rechteckplatte	97 Loch	1	1	2	1	3	—	3	1	4
3	Sektorplatte	68 Loch	—	—	—	1	1	1	2	—	2
4	gr. Grundplatte	82 Loch	—	—	—	—	—	2	2	2	4
5	kl. Grundplatte	61 Loch	—	—	—	2	2	—	2	2	4
6	gr. Seilscheibe	100 ø	—	—	—	—	—	—	—	2	2
7	kl. Seilscheibe	65 ø	—	—	—	—	—	2	2	2	4
8	gr. Lochscheibe	65 ø	—	1	1	—	1	1	2	2	4
9	kl. Lochscheibe	40 ø	1	3	4	—	4	—	4	—	4
10	gr. Laufrad	40 ø	—	4	4	—	4	—	4	4	8
11	ml. Laufrad	27 ø	5	1	6	—	6	2	8	—	8
12	kl. Laufrad	15 ø	1	—	1	—	1	1	2	—	2
13	gr. Zahnrad	80 ø	—	—	—	1	1	—	1	1	2
14	ml. Zahnrad	40 ø	—	—	—	1	1	—	1	1	2
15	kl. Zahnrad	20 ø	—	—	—	1	1	1	2	2	4
16	Verbindungsbügel	10 Loch	1	5	6	2	8	—	8	2	10
17	Lagerbügel	13 Loch	—	—	—	1	1	1	2	—	2
18	Lagerbock	13 Loch	1	1	2	—	2	2	4	2	6
19	Lagergabel, breit	13 Loch	—	—	—	1	1	1	2	2	4
20	Lagergabel, schmal	13 Loch	—	—	—	1	1	1	2	2	4
21	Verbindungslasche	8 Loch	—	—	—	4	4	4	8	—	8
22	Winkel	8 Loch	8	4	12	2	14	8	22	10	32
23	Z-Winkel	12 Loch	—	—	—	2	2	6	8	2	10
24	Winkelschienen	36 Loch	—	—	—	—	—	4	4	4	8
25	Winkelschienen	48 Loch	—	4	4	—	4	—	4	4	8
26	Winkelschienen	116 Loch	—	—	—	2	2	2	4	4	8
27	Flachschienen	6 Loch	4	6	10	4	14	6	20	—	20

Pos.	Benennung		Baukästen 1	1a	2	2a	3	3a	4	4a	5
28	Flachschienen	10 Loch	9	1	10	2	12	8	20	10	30
29	Flachschienen	18 Loch	—	—	—	4	4	4	8	2	10
30	Flachschienen	24 Loch	4	8	12	4	16	—	16	8	24
31	Flachschienen	58 Loch	—	4	4	—	4	4	8	2	10
32	Gewindewelle	150 mm	—	—	—	—	—	2	2	—	2
33	Gewindewelle	125 mm	—	1	1	—	1	—	1	1	2
34	Gewindewelle	100 mm	—	—	—	—	—	1	1	1	2
35	Gewindewelle	75 mm	2	—	2	—	2	—	2	2	4
36	Gewindewelle	50 mm	—	—	—	—	—	2	2	2	4
37	Gewindewelle	30 mm	2	—	2	—	2	2	4	2	6
38	Kurbelwelle	125 mm	1	—	1	—	1	—	1	—	1
39	Kurbelwelle	100 mm	—	—	—	—	—	1	1	—	1
40	Schraubenzieher		1	—	1	—	1	—	1	—	1
41	Mutternschlüssel, doppelt		—	—	—	1	1	—	1	—	1
42	Mutternschlüssel, einseitig		1	1	2	—	1	—	1	—	1
43	Lasthaken		1	—	1	—	1	1	2	1	3
44	Handkurbel		—	—	—	1	1	—	1	1	2
45	Doppelöse		—	—	—	2	2	2	4	4	8
46	Abstandsrollen	10 mm	—	—	—	2	2	2	4	2	6
47	Abstandsrollen	5 mm	—	—	—	2	2	4	6	—	6
48	Langmuttern M 3		—	—	—	2	2	2	4	2	6
49	Muttern M 3		40	50	90	45	135	65	200	100	300
50	Schrauben M 3 × 12		6	9	12	3	15	7	22	13	35
51	Schrauben M 3 × 6		34	26	60	40	100	60	160	60	220
52	U-Scheiben		10	—	10	5	15	10	25	5	30
53	Kordel		1	—	1	—	1	—	1	—	1

the part (though that count is not quite accurate in some cases). Some of the PNs in the Illustrated Parts are wrong and the correct ones have been added in red. Holes are 3.0mm Ø at 10.0mm pitch, and the diagonal pitch is 7.1mm. The Thread is M3, and the Axles & the shank of the Crank Handle are threaded.

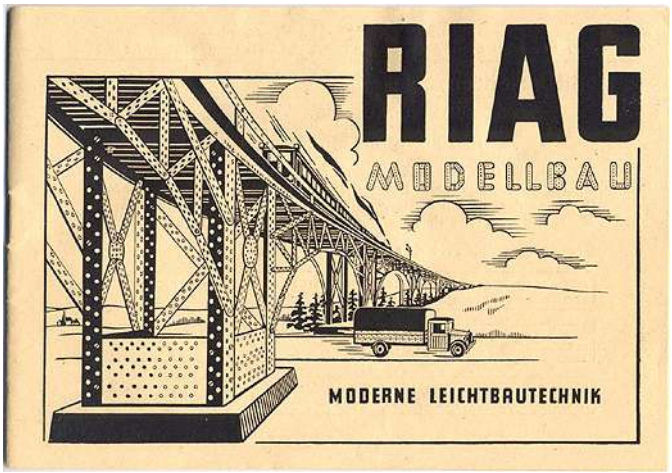




The pattern of holes in a 100mm Ø part (it could be the Disc or the Flanged Disc Pulley) can be seen left, taken from a photo of the No.5 set in the Manual. The 3 Gears are also shown in it (below left) and they are Mod.2 with 10, 20, & 40 teeth.

The parts from #43 onwards are not illustrated. The Hook #43 is wire and can be seen on the Loading Crane below. The Handle Crank #44 might be wire too, like the STABIL part. The Stay #45 is also wire with an eye at each end, as in PRIMUS - it can just be seen half way along the lifting span of the Bridge below with Cord attached to the upper eye. #46 & 47 are probably thick Spacing Washers, 5 & 10mm wide. #48 would be a Threaded Coupling, probably hexagonal, to join the Screwed Rods. The Nut #49 is hexagonal, 5mm A/F, and the Bolts #50, 51 are cheeseheaded. #52 is a Washer, and #53 is brown Cord.

The MANUAL is in German and has 20 pages including

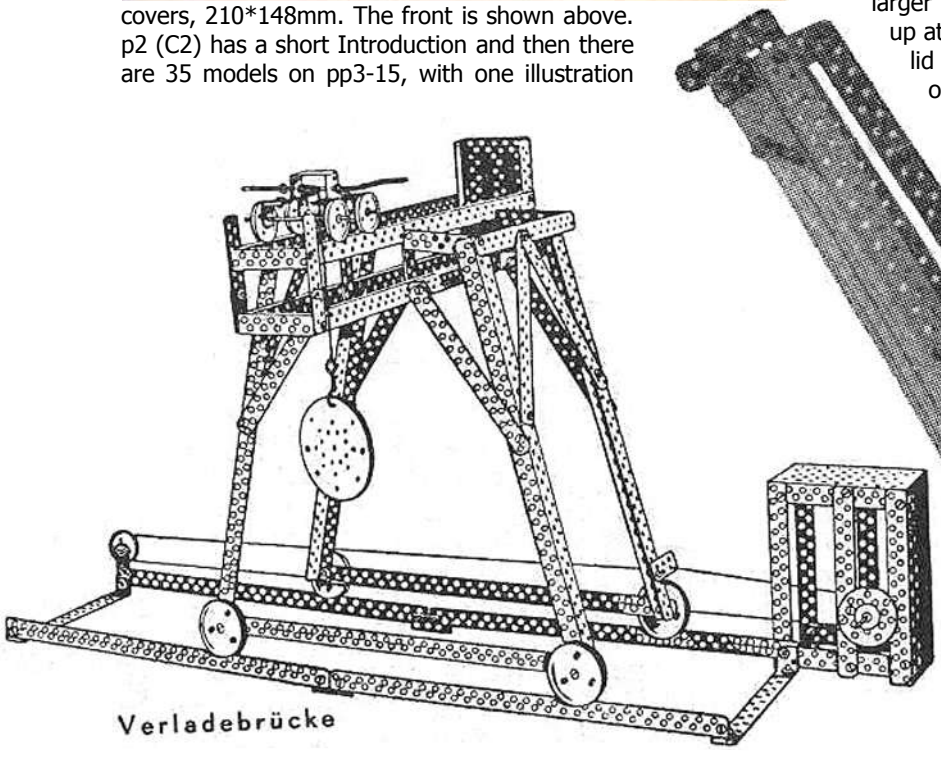


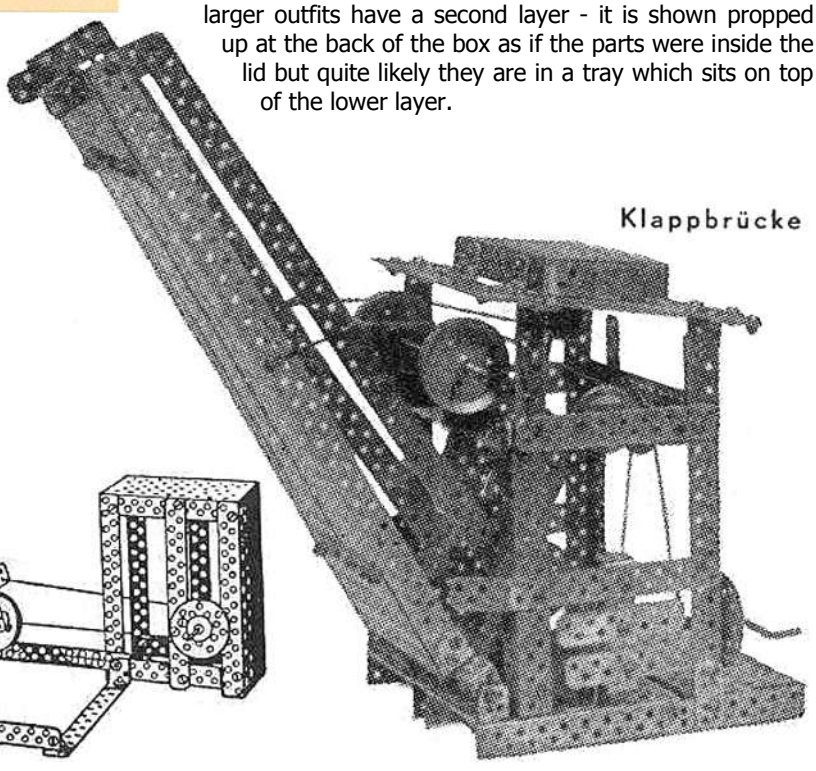
covers, 210*148mm. The front is shown above. p2 (C2) has a short Introduction and then there are 35 models on pp3-15, with one illustration for each: 15 are line drawings & 20 photos. One of each type is shown below. Each model is named but there are no instructions and the Set needed isn't given. The line drawings are used for the smaller models would be adequate to build them, but it would not be easy to make many of the larger ones from the single photo provided. Photos of the open boxes of all 9 sets are shown on pp16-17, the Illustrated Parts are on pp18-19, and p20 (C4) has the Set Contents & the PR. (The illustrations from the Manual reproduced here were on fawn paper but have been changed to B&W for better clarity.)

The No.1 SET Below the Ebay set and as far as can be seen the parts are the same as those in the No.2. Equally the numbers of the main parts match the Set Contents in the Manual. As can be seen the packaging is different to Jacques' set and with its partitioning it is no doubt earlier. It matches the illustration of the No.1 in the Manual which it can be assumed hadn't been updated to show the new standard.

The 2 models on the righthand page above are examples of those for Set 2. Of all the models above and 11 more on 2 more pages not shown here, all are line drawings and all but 3 are in Jacques' manual. That accounts for all but one of the 'line drawing' models in the latter, a Lifting Bridge.

The OTHER EARLIER SETS The photos of the sets in the Manual are poor quality and though much of the detail cannot be seen, partitioning is used in the boxes for all the sets. Outfits 1-3, and 1a-3a have a single layer of parts, while the larger outfits have a second layer - it is shown propped up at the back of the box as if the parts were inside the lid but quite likely they are in a tray which sits on top of the lower layer.





TECHNICO TECHNICO was described in 36/1071 but its date wasn't known precisely. Now Urs Flammer has kindly sent copies of 3 pages from the Berlin Internationales Offerten-Blatt for 1920 concerning TECHNICO.

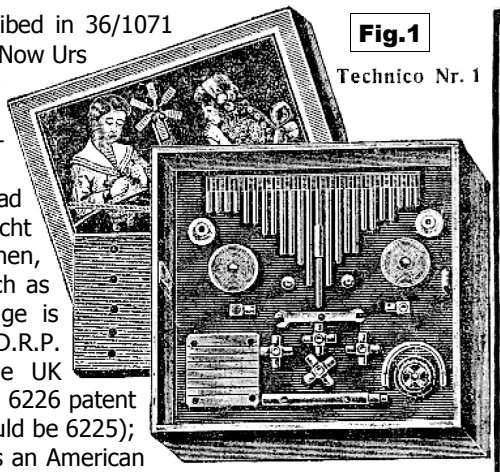


Fig.1

Technico Nr. 1

The first from 17 August is an ad from an Import-Export firm, Max Hecht of Franz Josef-Straße 23, München, which features various products such as cigarette lighters, but half the page is devoted to TECHNICO. It lists the D.R.P. (German patent) No. 280404; the UK patent 28926/6226 (see 24/686, the 6226 patent of addition above is incorrect, it should be 6225); the French patent 464926; and says an American patent has been applied for (it, 1400066, was granted to Adolf Huck (as in the UK patent) on Dec. 13, 1921, and covers the same ground as the 2 UK ones. TECHNICO's merits are described in French, English, & Spanish, but not in German beyond saying that it is the 'ideale Metallbaukasten'. 10 set sizes are claimed and Set 1 is illustrated (Fig.1 above). The lid is as in OSN 36 though the name itself, along the bottom, can't be seen. 2 models are shown, a Hay Cart which is in the OSN 36 manual (for Sets 1-10), and a quite large Wright Brothers type Biplane which isn't.

The second page from 25 September is a review of TECHNICO and mentions that Max Hecht are showing it at the Frankfurt Fair. 6 models are shown, all of which are in the OSN 36 manual, though 5 are shown against a white rather than Black background (as were the models on Page 1 above).

Page 3, from 4 December, is a full-page ad for TECHNICO from Max Hecht, all in German. It features a Crane (Fig.2) which is much larger and more ambitious than any of the models in the OSN 30 manual.

It's good to have a firm date for TECHNICO's existence but I can't see anything in these pages which claims that TECHNICO is new,or recently launched, though this may well have been the case. It was said in OSN 36 that Adolf Huck was still reputed to be the manufacturer in 1920, so presumably Max Hecht was a (or the) distributor, and no doubt he hoped to export the sets.

Fig.2

OSN 52/1607 **TECHNICO: S6 [S5 in OSN 39/1164 was mislabelled S1]**

RIAG. The last mention of this German aluminium system was in 37/1109 with a description of a Set 1, and of a Set 2 with a different lid. Now, thanks to Urs Flammer, photos of and notes about a No.3 set. The box measures 36*31*2cm and its lid is like the No.2's. Right the open box, with the Axles etc and N&B below to the same scale. The parts are as expected with 3.3mm holes at 10mm pitch, & the thread M3. Again as expected the Gears are Mod.2 with 10, 20, & 40 teeth. One thing not mentioned in OSN 37 is the 2 types of DAS, #16 (along the sides of the box), & #17 (across the Flanged Sector Plate). They look to be about the same length but have a different pattern of holes. Why were the two needed?

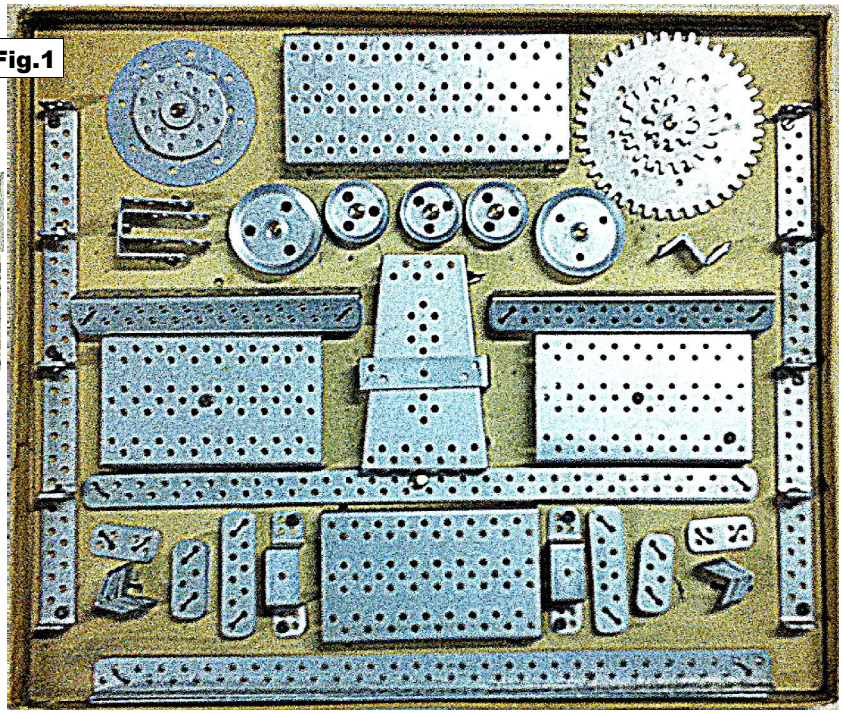


Fig.1

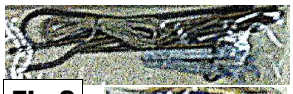


Fig.2

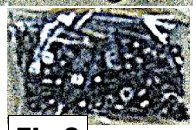


Fig.3

The manual too matches the No.2's with 20 unnumbered pages including covers. The 'line drawing' models run from Brücke on p3 to Zugbrücke [a Railway Bridge which has a lifting centre bay] on p7. Others are mostly small models, including several Cranes, domestic & garden items, a set of furniture, a Telephone, & a Windmill. The Zugbrücke & the Crane in OSN 37 are the only largish models and from the parts in them they may be No.4 Set models. The 'photo' models start with Lastkahn mit Beiboot [Lighter with Dinghy] on p7 and the last one is a Straßenbahn [Tramcar] on p15. The models are a good selection, many the size of the Lifting Bridge in OSN 37 or larger, and include 5 machine tools, 2 Cranes, a Loco, a 3-Wheel Lorry, a Radio Tower, and a Motorcycle & Sidecar. To my eyes they look reasonably attractive but are probably quite simple mechanically, though the poor quality of the photos makes it hard to judge.

A final snippet. A No.1 manual on Ebay with a front cover like the lid in OSN 37 and a back one showing the Zugbrücke mentioned earlier, and a line in small type near the bottom of the page, probably the printer & PR but too blurry to read. It was said, no doubt from the PR, to probably date from 1948.

OSN 52/1607 **RIAG: S3**