



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 1/2". [It is probable that this is the FRI-BIE of 11/291; other mistakes in that list: KOHLER should be KOBLE, 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 nicked 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.

This German system was mentioned in OSN 17, p477. Also Baukästen has a picture of a set on p215, and indicates that it was made in the 1930s; on the maker there is only 'westfälischer Hersteller', that is: made in Westphalia. My comments and pictures are based on a Nr.3 set. There is no indication of date except perhaps the printing information on the manual: 'Bald & Krüger, Hagen, BAH 25 12000. 11. 48.', which suggests that it was printed in November 1948. Hagen is a town in Westphalia, which agrees with Baukästen. Neither the manual, nor the box gives any indication of the maker.

**The PARTS** Fig.1 is taken from the Illustrated Parts in the manual; the actual parts are shown in Fig.2, with top & bottom views of PN1 & 13-18. They are steel, painted white or red on only one side, save the Wheels. The system includes Nuts & Bolts, but this is not the main way of assembling the parts, and Set 1 does not contain a single Bolt. Some parts have tongues while others are made of two pieces soldered together to give a space between them along their sides. This allows a tongue to slide in and this is the main method of assembly. The end tongues are not shown for PN1-6 in the Illustrated Parts. The diameter of the holes is 3.0 mm, and the distance between holes is usually 9.0mm, but 5.5mm for some of the cross holes in PN2, 5, & 8.

**Parts #1-11 with tongues.** They are painted white, and all have 3 tongues. The rectangular cutouts in some of the Plates are referred to as windows. The dimensions below for PN1-11 are over the tongues / for the central plate.

**PN1 & 2:** 73\*42mm / 68\*34mm.

**PN3:** 42\*39mm / 34\*34mm.

**PN4-6:** 73\*25mm / 68x17mm.

**PN7-11:** 42\*21mm / 34\*17mm.

**Parts PN12-18** are red.

**PN12** it is a kind of DAS which is used as a bearing for an axle. There is no tongue, but a hole in the middle of the top surrounded by four slotted holes; each side arm has a row of 3 holes.

**PN13-16** are 17mm wide & a quarter circle in section. As explained earlier they are made from two pieces and the tongues can push into their sides. Their overall lengths are 34, 68, 104, & 47mm respectively. As can be seen PN16 has a closed end.

**PN17-18:** Large & Small Wagon Wheels, 34 & 22mm diameter. Both are flanged. There is nothing to fix either to an axle but they are a push fit and hold more or less.

**PN19:** nicked Axle, 3.0mm Ø & 64mm long.

**PN20:** nicked Crank Handle, total length 97mm with a 74mm shank.

**PN21:** nicked cheeseheaded Bolt, 2.8mm Ø, 10mm u/h.

**PN 22:** hexagonal nicked Nut, 6 mm A/F.

There are also brass **Washers** which are not mentioned in the manual.

No **tools** are mentioned in the manual, and there are none in the box. Most assemblies are made with sliding parts but some Nuts & Bolts are used in the Set 2 & 3 models.

The parts are well made, with the tongues usually rather hard to push home – it would be difficult to insert all the length of a tongue at the same time, one must begin at one end of the slot and then slide the tongue into the slot (as shown in the manual). The parts show absolutely no sign of corrosion,

Fig.3

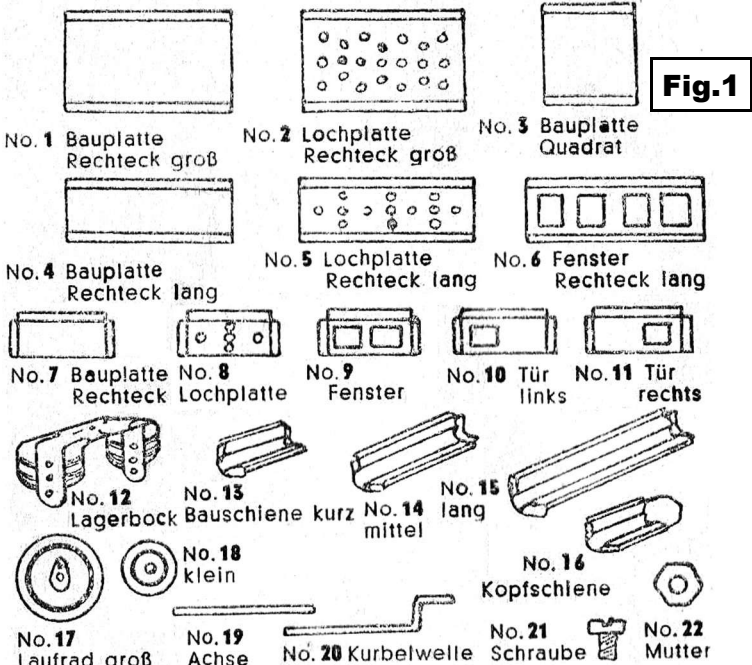


Fig.1



Fig.2

Bauteil No.	Kasteninhalte INGENIO No.		
	1	2	3
1	4	2	2
2	—	2	2
3	6	6	6
4	2	2	2
5	—	2	8
6	4	4	6
7	8	6	6
8	—	4	4
9	8	6	6
10	—	2	4
11	—	2	4
12	—	2	4
13	8	10	10
14	6	6	10
15	4	4	8
16	4	8	8
17	—	—	8
18	—	4	4
19	—	2	10
20	—	—	2
21	—	6	10
22	—	6	10

however bits of the paint are sometimes missing, and one PN1 has never been painted.

**The SETS** This system has three sets: 1, 2, and 3. Fig.3, taken from the manual, lists their contents. As can be seen Set 1 consists of the ¼-circle parts, and Plates, plain & 'windowed', but with no Wheels, no N&B, and no Perforated Plates. There are a few mistakes the Inventory, for instance it has 4 of PN1 for Set 1, and only 2 for Sets 2 & 3. This is incorrect as it is indicated in the Manual that all the Set 1 models can be made with Sets 2 & 3, and the Set 2 models with Set 3. Moreover, my Set 3 includes 4 of PN1. The same mistake occurs for PN7 & 9.

My Nr.3 is shown in Fig.5. The size of the cardboard box is 395\*130\*35mm. The words under the picture on the lid are DIE MODERNE METALLBAUKASTEN.

**The MANUAL** is in German with 8 pages 20\*14cm, including the cover right. Pages 2 & 3 give the basic principles of construction and 10 models for Set 1. Pages 4 & 5 have six models for Set 2, and pages 6 and 7 four for Set 3. Finally, page 8 with the Illustrated Parts,

Fig.4

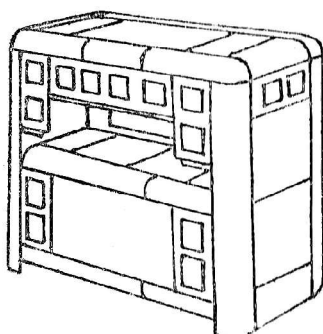




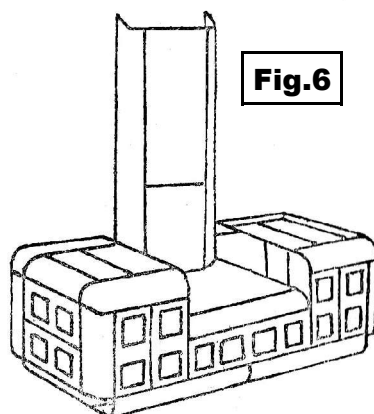
**Fig. 5**

the Inventory, and a table showing the parts necessary for building each of the 20 models. Two Set 1 models are shown below in Fig. 6, & 3 for Set 3 right in Fig. 7.

**REMARKS** This original system is well adapted to building cube-like models but unfortunately many objects do not actually look like 'shoe boxes'. The manual gives only static models for Set 1, & only vehicles for Sets 2 & 3. As there is nothing to fasten the Wheels to the Axles, it is impossible to build complex mechanical models – pulleys are made with two Wagon Wheels just pushed together. The most sophisticated model is the No. 20 Crane on Wheels; the jib cannot rotate but it can be raised.



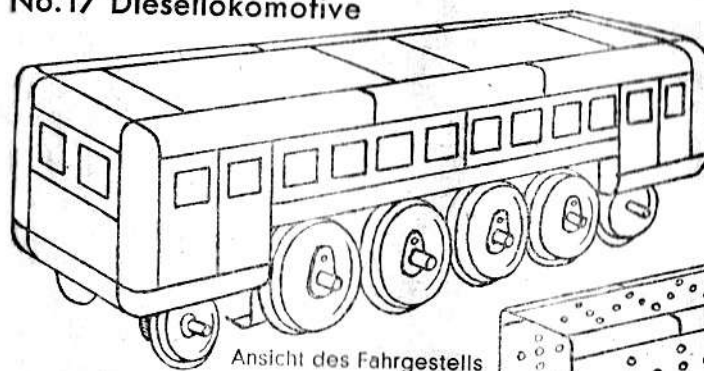
**No. 6 Küchenbuffet**



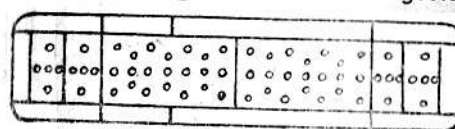
**No. 10 Frisiertoilette**

Diese Modelle können aus INGENIO 1, 2 oder 3 gebaut werden.

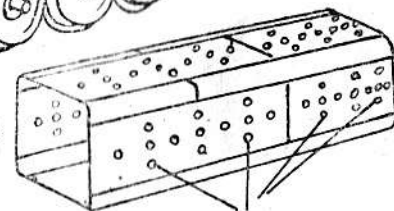
**No. 17 Diesellokomotive**



Ansicht des Fahrgestells

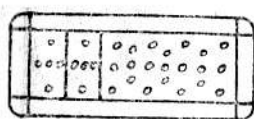


Wagenboden, von unten gesehen



Diese Löcher dienen zur Achslagerung

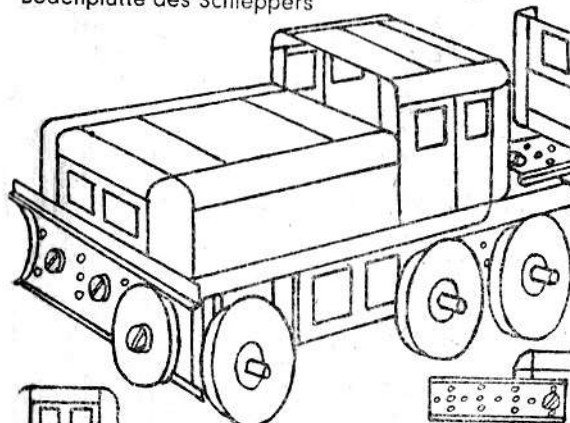
**Fig. 7**



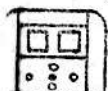
Bodenplatte des Schleppers



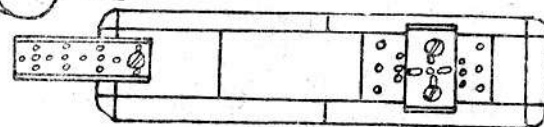
Ansicht des Fahrgestells



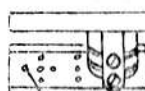
**No. 18 Sattelschlepper mit Anhänger**



Kühler des Schleppers. Lampenträger abgenommen.

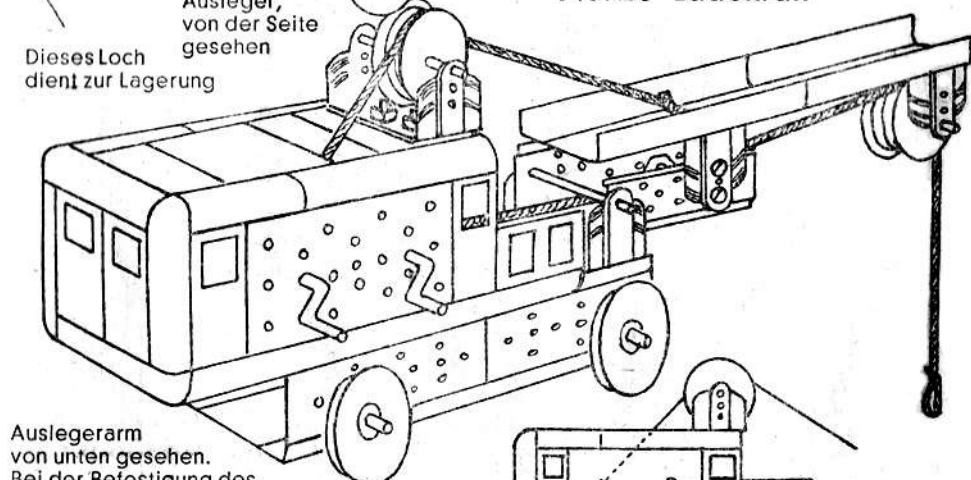


Wagenboden, von unten gesehen

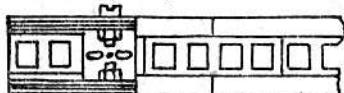


Ausleger, von der Seite gesehen  
Dieses Loch dient zur Lagerung

**No. 20 Ladekran**



Auslegerarm von unten gesehen. Bei der Befestigung des Lagerbockes ist über die Rechteckplatte No. 6 eine Lochplatte No. 8 zu legen



Seitenansicht des Kranwagens