

Snippet. 'New' German System: COLUMBUS

The Ebay ad said that this unusual set was from Berlin, that it was 'Schraubenloser' (without screws), and that the box measured 60*33cm. A pre-WW2 wooden system called COLUMBUS is mentioned in Baukästen, made by Spiele-Verlag Otto Wagner of Freiburg, near the Swiss border, some 60km south of Strasbourg, but it seems unlikely that this firm made the present COLUMBUS – quite apart from the question of where it was made, the logo top left on the manual page in Fig.3 is quite different to the one in Baukästen for Otto Wagner.

The main Ebay photos are shown right but are all rather blurry, and the only legible text is the name on the lid label. It seems from the manual page that the parts have their ends rolled over and are no doubt held together by Rods which push into or through them.

The parts shown in the top two rows of Fig.3, starting from top left are: a Rod perhaps, though the large solid 'dot' at each end usually indicates a rolled end; a Strip; a pair of handed Right Angle Brackets; an A/G; Pivoted Strips; a Pulley; 2 small parts, possibly Spacers or Axle Stops; a Crook-ended Rod; and 2 Rods with Angled Ends.

Less clear is the import of the the 3 items in the bottom row. The part bottom left could be a Baseplate; it might even be the wooden looking part top left in the box, which initially I took to be a box for small parts. At bottom right there are 2 Blocks clamped together: the top one could be the Baseplate; the bottom one a table top. They have what look like Rods between them joined across by a Strip with the Rods through its rolled ends. But for what? Just possibly, but rather unlikely, to allow both Rods to be pushed downwards at the same time and thus get exactly the same bend point in each. The centre diagram seems to be a Bracket at the left end with a Rod in it which then passes through the rolled ends of 3 Strips (the last one quite short), and finally the Pulley. If it weren't for the Bracket and the first two Strips this might be a sketch showing how to lock a Pulley onto a Rod, with one end of the short Strip on the Rod and a short Rod through one of the Pulley's face holes passing into the free end of the short Strip.

Now the parts in the box. All the dimensions given are scaled and are very approximate. The Rods in the top right compartment include some curved to a semi-circle. The Mallet is an unusual part in a metal construction set but one pointer to it being original is that the handle fits into cutouts in two of



FIG.1

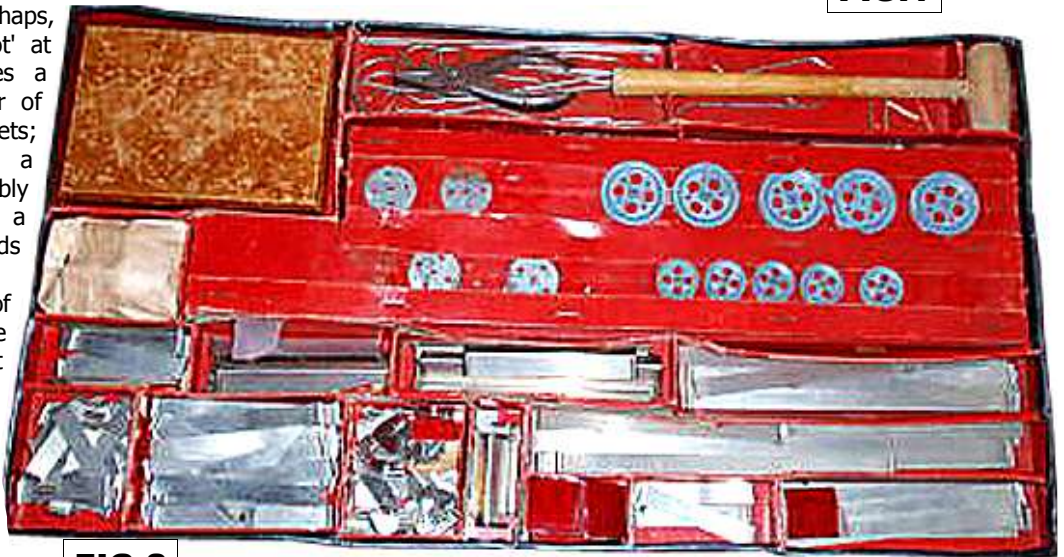


FIG.2

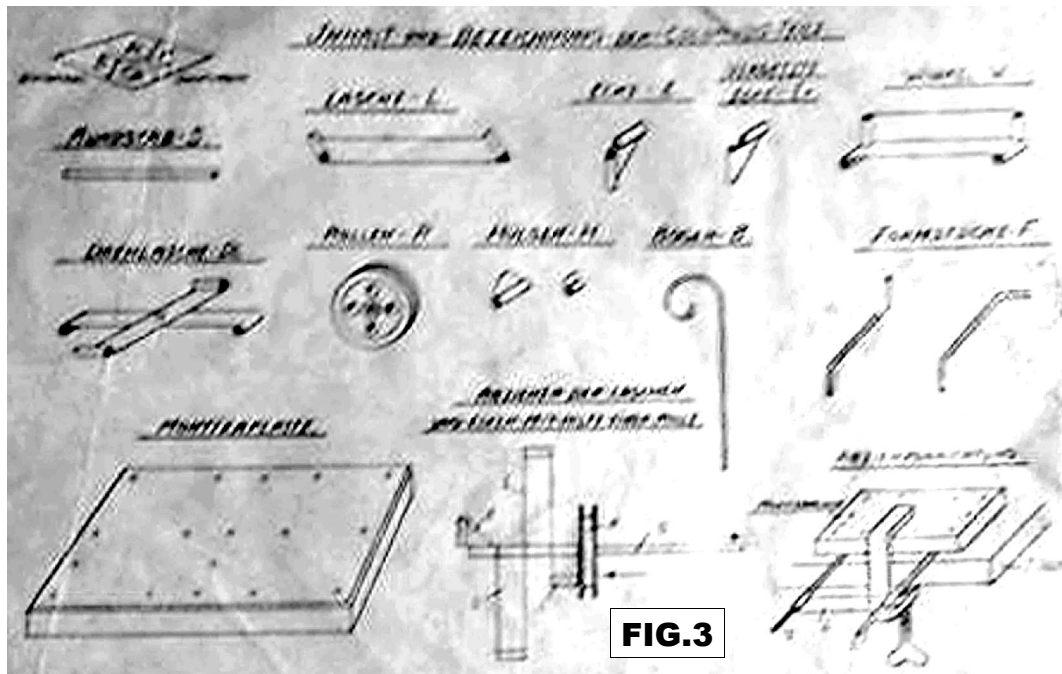


FIG.3

the partitions. There is nothing to hold the Pliers in place but such a tool would probably be found very useful, possibly essential. The Pulleys scale at about 3 & 4cm Ø. The Strips all look to be 1½cm wide and the longest is about 20cm. The longest A/G is 10cm and its flanges are also 1½cm wide.

Structures made of Rods pushed into rolled-over Clips were first used in BILDICO before WW1 but the method of assembly used in COLUMBUS is unique as far as I know.

COLUMBUS Jean-Paul Meulemans now owns the Ebay set that was the subject of a Snippet in 41/1254, and he kindly sent details of it. It is an unusual type of system, and perhaps unique in having structures made of Rods which push into rolled sockets at the ends of Strips, A/Gs, & Brackets.

The maker given on the lid label, right, is Columbus G.M.B.H., Berlin-Charlottenburg. Nothing more is known of the company, but the system was patented in Germany by Anton Gerstadt, 5 Goslarerplatz, Charlottenburg on Dec. 21, 1922. *Baukästen* does list a Columbus but as a wooden system from a different firm in Freiburg.

Also on the label, Schraubenloser Metallbaukasten [Screwless Metal Building Set], and the same in English & Spanish. Also D.R.G.M. (trademark registered), D.R.P.A. (patent applied for), & AU.S.L. PAT (patented abroad).

The SET Its box, 61*33*3cm, has no set number (but its sides are covered in tape) but its contents match those of a No.3 listed on the back cover of the 'manual' (actually loose sheets in a folder). The layout of the parts was shown in OSN 41 but the circular parts are in fact on an L-shaped card which lifts out to reveal 9 compartments with Rods in them.

The PARTS The Illustrated Parts from the manual is shown in Fig.2 (the 2 sketches bottom right show methods of sliding tight sockets off Rods), and Fig.3 has examples of the various types of part. The Pulleys are probably zamac (all have suffered from zinc pest); the other metal parts are steel, most probably nickelled. The parts are listed below with my names, notes on their uses, and quantities in curly brackets. Those asterisked are not shown in the Illustrated Parts but are used in the models and (apart from the Hook) are in the Set. In the manual models the key dimension of the different parts in

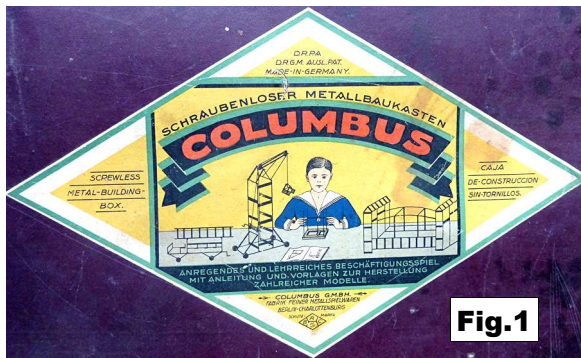


Fig.1

centimetres is given after the part's letter designation.

Rods, 2.5mm Ø. **#S** are 50,40, 28,20,14,10,7,5,3,2cm long {6, 8,12,12,18,20,12,12,12,12}. **#F:Z-form**, 8 & 11cm long o/a but are shown as F5 & F7 in some models; **U-form**, 8cm o/a {16 total}. **#B: Crook** {4}. **#DL: Pivoted** {1}. Large-radius Curved Rods, not in the

Set, are used in one model and are labelled B28 (see Fig.9).

Strips, **#L**. 12mm wide & 28,20,14,10,7,5,1cm long {8,8,12, 24,12,24,12}. 4 of #L10 & 4 of #L5 have a centre hole which is used as a bearing for a Crank Handle etc, as in Fig.5. In one model #L14 is shown with a centre hole.

A/Gs, **#W**. 14,10,7,5cm with 12mm wide flanges {4,4,4,4}.

Corner Bracket, **#E** {48}. **Ditto**, **Offset**, **#Ev** {12}. #Ev allows Rods to cross at right angles, as in the stocks of the sails in Fig.5. It is also used as a bearing (for the Crank Handle in Fig.7 for example) and all the parts in the Set have one socket larger than the other for this purpose.

Sleeves, **#H**, **Wide & Narrow**. Used as spacers & axle stops {24 total}. The Wide part is also used as a rod connector.

Crank Handle*, **#Kw**. 2 sizes, 16.5 & 20.5cm o/a {1,1}.

Pulleys, **#R**. 42 & 26mm Ø {6,6}. The larger one can be made fast by 2x #L1 on the shaft supporting a Rod through a face hole, as in Fig.10a.

Hook*. See Fig.7.

Cord. Not seen. {3m}

Wheel Disc*, **#Sch**. 32mm Ø {2, but 4 found in the Set}. It can be made fast to a shaft in the same way as the 42mm Pulley – as in the winding drum in Fig.7.

Mallet*. Provided to tighten sockets if they lose their grip {1}.

G-Clamp*. See Fig.2 {1}.

Mounting Plate. Wooden, with holes to take Rods, and which suit the length of some of the Strips {1}. It is only used as in Fig.2, not in the models.

Pliers. Not mentioned anywhere but found in the Set and would be useful in adjusting the grip of the sockets and in pulling them off Rods.

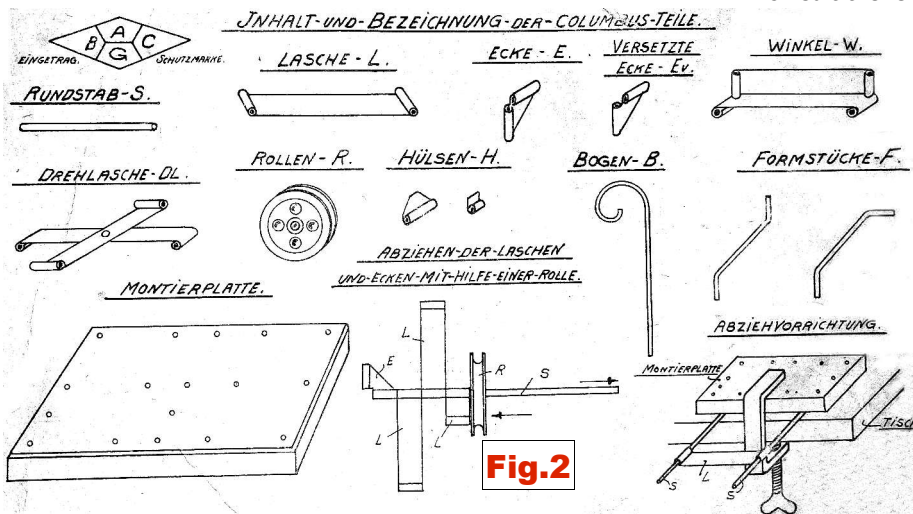


Fig.2

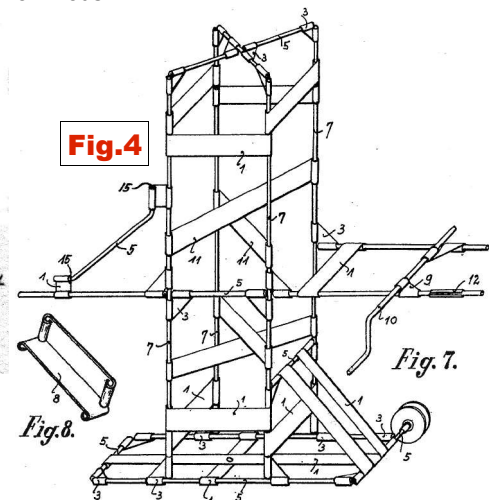


Fig.4

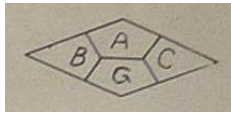
Fig.7

Fig.8



Fig.3

The PATENT All that is known of the German patent is its date. The UK patent was 208698 & the main parts covered by it are shown in the figure above. That's to say, the parts S, L, E, Ev, W, R, H, & F in Fig.2. The main claims are (a) the two types of the Corner Bracket, and (b) the lengths of Strips, Rods, & A/Gs increase by a factor of $\sqrt{2}$ to allow rigid structures by cross bracing. The claims do not include the use of sockets in joining the parts. Although Corner Brackets are used as bearings in the Figure nothing is said of the need to



MODELL-№ 26
WINDMÜHLE.

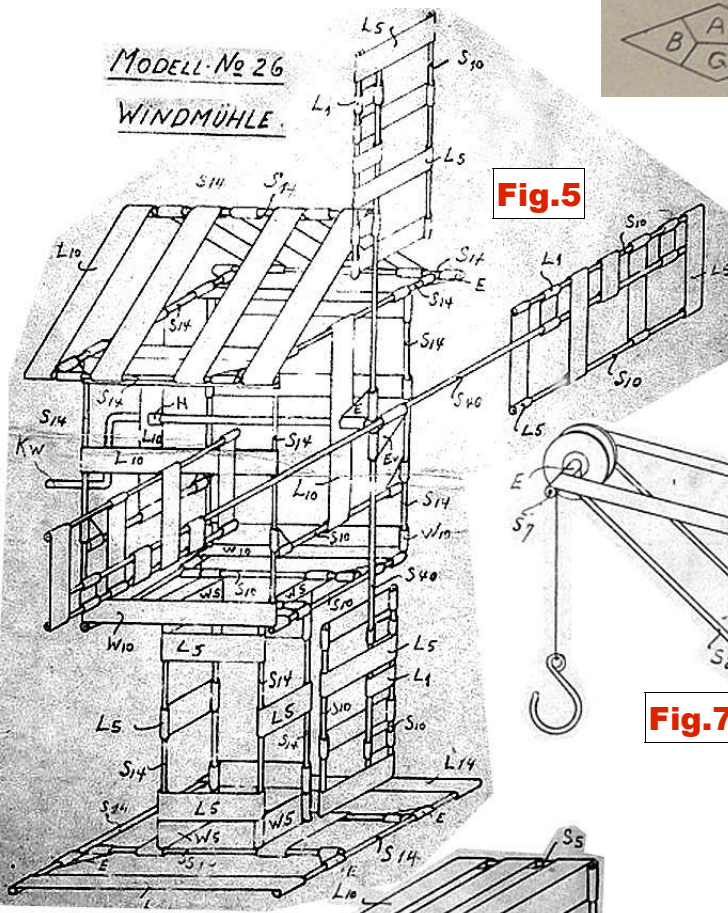


Fig.5

MODELL-№ 30.

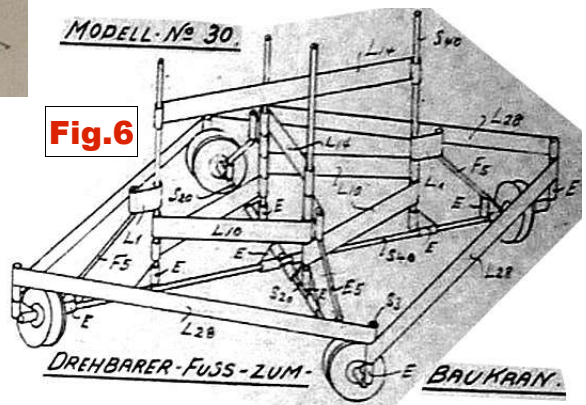


Fig.6

DREHBARER-FUSS-ZUM-BAUKRAN.
MODELL-№ 24. EINFACHER-AUSLEGERKRAM.

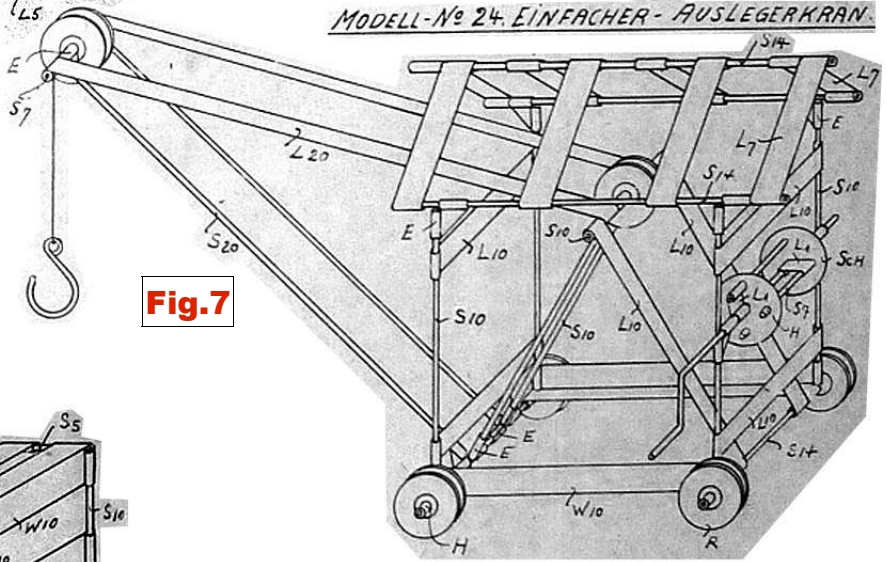
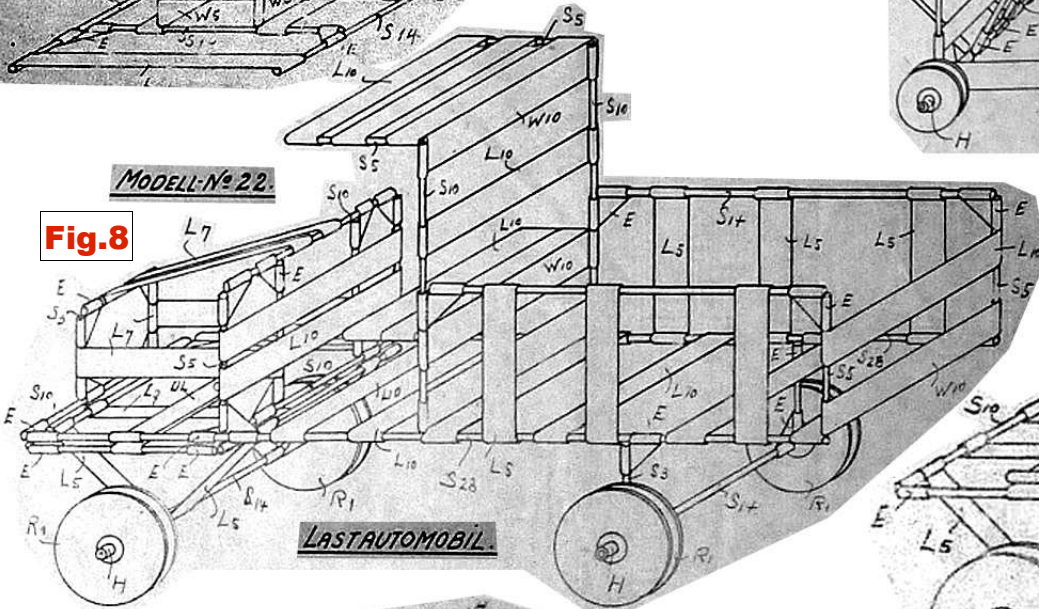


Fig.7

MODELL-№ 22.

Fig.8



LASTAUTOMOBIL.

MODELL-№ 23.
DREHACHSE
ZUM-LASTAUTOMOBIL.

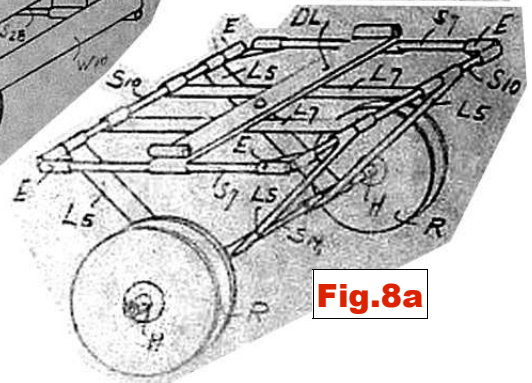
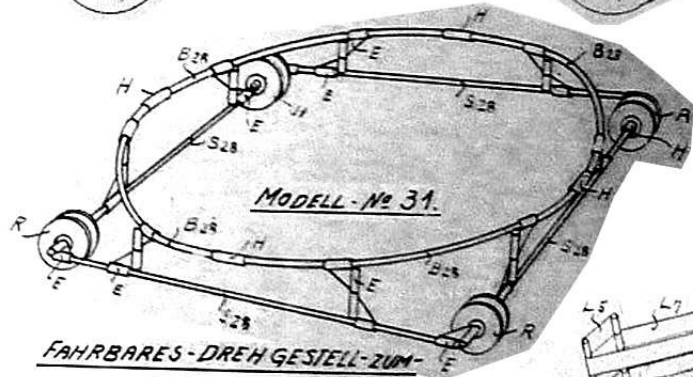


Fig.8a

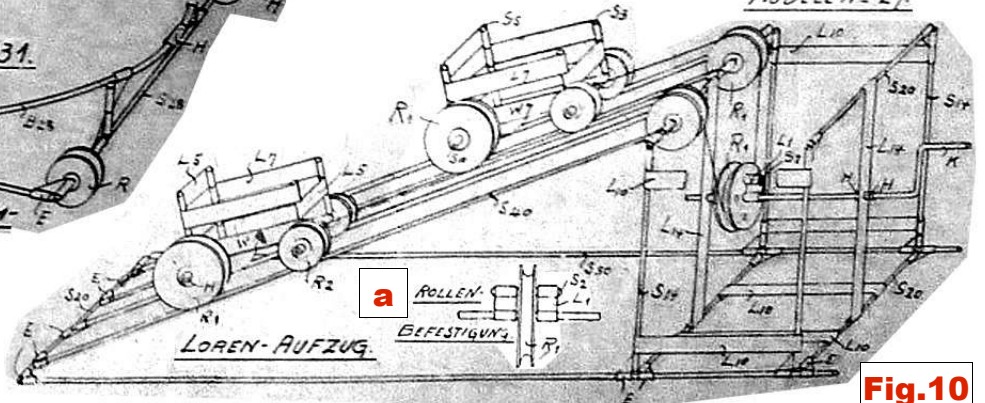


MODELL-№ 31.

FAHRBARES-DREH GESTELL-ZUM-BAUKRAN.

Fig.9

MODELL-№ 27.



LOREN-AUFZUG.

a

ROLLEN- BEFESTIGUNG.

Fig.10

Figs.5-10 are shown in B&W at about 60% of their original size.

enlarge one socket to take a Rod. Nor is there mention of Strips with a centre hole although a hole is shown in the long Strip in the base. Or perhaps it is a Pivoted Strip, another part

not mentioned in the text.

The MANUAL The front cover is shown in Fig.11, C2 has some building advice, & C4 the No.3's inventory. C3 has a



Fig.11

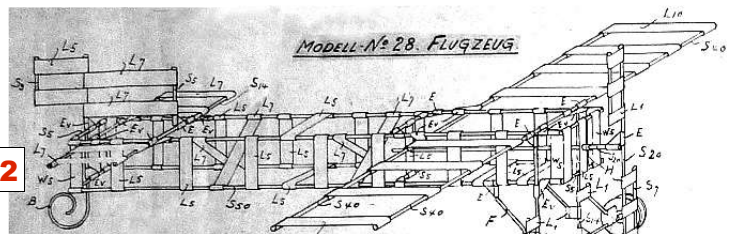


Fig.12

sheet, printed with the Illustrated Parts, glued to it to form a pocket which houses 15 single-sided model sheets 19.5*

31cm. There is a line drawing for each of the 35 numbered models, with a few auxiliary views. Examples are shown on the previous page, and small drawings of some of the larger models on this page.

Models 1-7 are quite simple with a Chair, a Bed, a Sledge, etc. **No.8** is a simple House with walls made of horizontal Strips suitably spaced apart. This spacing is necessary to leave room for the Strips forming the adjacent walls to be fixed on the vertical corner Rods. **Nos.9-11** are simple Luggage Trucks. A list of parts is given for Models 1-8 & 11 in the order in which they are to be assembled. This is a good idea because one of the problems of this type of system is making sure that all the parts are on the Rods in the right order – a forgotten Strip or Bracket can mean major dismantling. **Nos.12-21.** Fairly straightforward models: 3 types of track for a Crane to travel on, a Display Frame for posters etc, a Swing, an elaborate Lighting Tower

with a framework 5cm square & over 30cm high, 2 Hand Carts, a Winch, & a Sawsaw. **Nos.22-23** are the Lorry in Fig.8, with its centre pivot steering

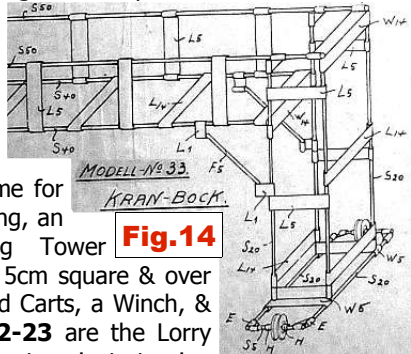


Fig.14

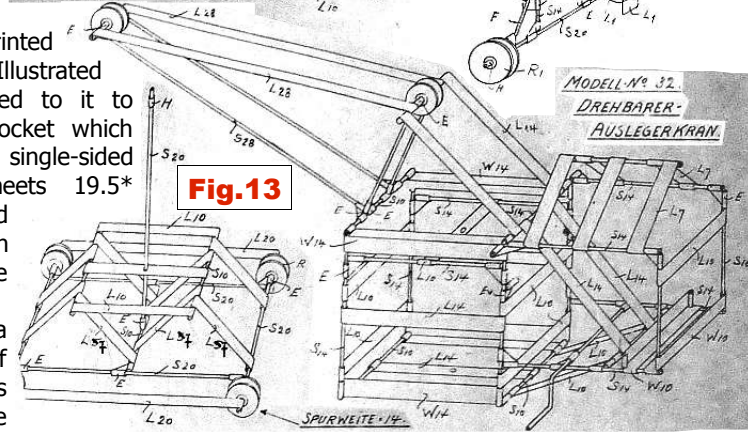


Fig.13

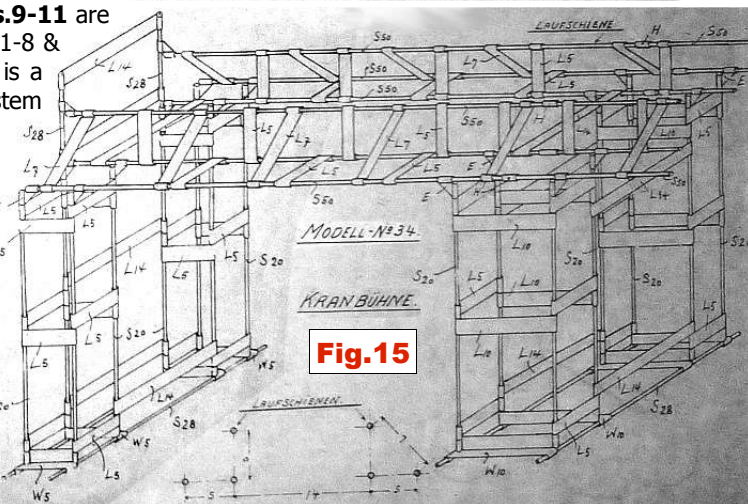


Fig.15

shown as Model 23 (Fig.8a). **No.24** is the Crane in Fig.7 with, as on several of the Manual's Cranes, the winding drum cheeks fixed to the Crank Handle. **No.25:** a fairly rudimentary Bus. **No.26,** the Windmill in Fig.5 – a note with it says that the sails will turn in the wind if they are covered in paper and their angle adjusted. **No.27,** the Funicular Railway in Fig.10, the only model with a 'mechanism', even if it is only Cord around a Pulley fixed to a Crank Handle. **No.28.** The 40cm span Monoplane with rectangular flying surfaces in Fig.11. The fuselage is 5cm square, 50cm long, and without any taper towards the tail, doesn't look right. Pluses are that the rudder could be turned, and the tail skid, a Crook #B, looks rather magnificent. **No.29** is a Travelling Crane with a simple 20cm jib fixed atop a 40cm high, 10cm square tower mounted on a 20*28cm wheeled base. **No.30** (Fig.6) is a Base for a Rotating Crane which could replace the travelling base of Crane 29. **No.31,** a Slewing Base (Fig.9), could presumably have the No.30 Base on it, thus allowing travelling & slewing. **No.32,** a Crane (Fig.13) with a longer 28cm jib attached to a 28cm long cabin. They can slew about a vertical spindle built into the travelling base. **No.33** is a 50cm long travelling Crane Gantry. It is symmetrical and the right side is shown in Fig.14. Judging by the bracing across the base of the horizontal boom there would be a crane rather than a crab travelling along it. Crane 24 would be the right width but would need to slew and, ideally, to luff. None of the Manual Cranes luff but it would not be difficult to arrange. **No.34** is another Crane Gantry (Fig.15) but with fixed legs and a boom which is possibly 100cm long, and if so either extends as a cantilever beyond the righthand leg, or is supported by a third leg at its end. The track width is as No.33 but the boom's design would allow the use of a crab, and the leg in the centre of the boom would allow a load to pass through it. **No.35** is the Roundabout above. It is over 50cm high, about 40cm diameter. and has 4 pairs of arms which rotate above the 10cm square section central tower. A framework for the deck, suspended from them, has pick-up points for, it is suggested, Seats or Benches. Quite an impressive looking model but it has no form of drive to rotate it.

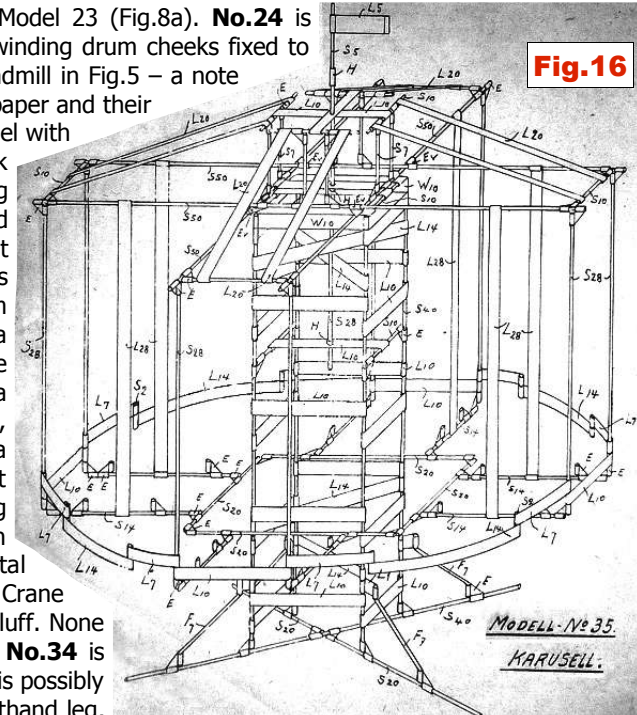


Fig.16

[continued overleaf]

REMARKS No other sets are mentioned in the Manual but it would be reasonable to assume that there were smaller outfits. And perhaps one or more larger to provide (a) the Curved Rods #B for one model (Fig.9), and (b) the parts needed for the at least one, but probably more, manual models for which a No.3 would have insufficient parts.

No system directly comparable to COLUMBUS comes to mind but EREKTIT/BILDICO from around WW1 (see 46/1413) is perhaps not dissimilar in scope and in its reliance on structures made from Rods gripped by sockets. Both systems had attractive looking, shiny parts but neither included any parts which would allow their models some degree of mechanical sophistication. Even so EREKTIT made better use of its Cord & Pulley to control some of its models. Bracing is always a problem in systems of this type & neither has all the answers.

COLUMBUS's '√2' parts are ideal in structures such as those of Figs.4 & 15, but with Clips & Swivel Clips positioned along Strips or pairs of Rods, EREKTIT at least allows the possibility of bracing a Crane jib or the like. It should be said though that this as not a feature of any of the EREKTIT manual models. Tapered frameworks are another problem for both systems but again EREKTIT looks to have the advantage.

The COLUMBUS manual included a good range of models but EREKTIT was more ambitious in terms of machinery & plant. Where COLUMBUS won hands down was in the relative quality of the drawings of the manual models – not perfect but far and away better than the small, unclear EREKTIT sketches. Another COLUMBUS advantage was the smoother look of their models, particularly the smaller ones, due mainly to the untidy look of unused sockets in the EREKTIT Clips.

OSN 48/1477

COLUMBUS: S5

More on SSS Some information on this Dutch system was given in 42/1266 and now Jean-Paul Meulemans has kindly sent more details. He owns 3 outfits, a No.1, a No.2, & a No.3, and the latter, the largest in the range, contains parts not shown in OSN 42. In particular A/Gs, and these are unusual in having a single row of holes in each Flange.

No firm dates are known for SSS but Jean-Paul wrote that the language used in the manual makes it unlikely that it was before 1950. Also, one of the manual models is called Jeep (Fig.3B) so it was certainly after WW2.

The SETS The boxes measure 30*20½, 35*25, & 40*30cm. The latter has 2 layers of parts and like the No.2 in OSN 42, the parts are tied individually to blue backing cards. The contents of the sets are given in Fig.2 with my English names alongside.

The PARTS are made of aluminium with a matt finish, about 1mm thick. Fig.1 shows the main types of part not illustrated in OSN 42, with the Bonnet on the right; others are a Collar, Washers, and N&B. **Holes** are all circular, 3.6mm at 8.0mm pitch. **Strip parts** are 15mm wide. **A/Gs** are 4,8,12,16h long. **DAS**: its lugs have 3 holes, likewise the A/B. **Bonnet**: the top face is formed into a shallow vee. **Washers**: 10 & 16mm Ø. **Wheel Disc**: 32mm o.d. **Axle & Crank Handle**: 3mm Ø, treated steel, 75 & 50mm (the shank) long. **Screwed Rod**: 3mm Ø, brass, 70mm long. **Collar**: brass, 9mm Ø, 7mm wide, double-tapped. **Bolt**: plain steel, 5mm Ø round-headed, 10mm u/h. **Nut**: brass, square, 5mm A/F. **Pulley**: 37mm Ø with a boss that matches the Collar.

The MANUAL has 16 landscape pages 22*14cm. The models are shown as a photo on a black ground, with the parts needed listed in a panel on the outer edge of each page. The 4 pages to hand show 11 models including the two here (Figs.3A & B, at about their original size, with the parts list for both starting at C). The others are all more or less typical small models, though with the Bonnet & A/Gs used to advantage in several of them.



Fig.1

C

| Onder-deel Nr. | Benodigd voor Model Nr. | |
|----------------|-------------------------|----|
| | 16 | 19 |
| S. 17 | 6 | 1 |
| S. 13 | | 2 |
| S. 9 | 4 | 6 |
| S. 5 | | 6 |
| HS. 16 | | |
| HS. 12 | | |
| HS. 8 | | 2 |
| HS. 4 | | |
| DH. 5 | 3 | |
| EH. 2 | 6 | 2 |
| HH. 3 | | 2 |
| D. 10 | | 1 |

Fig.2

| ONDERDELEN | | | | |
|----------------|-----------------------|----|----|----|
| Onder-deel Nr. | voorradij in doos Nr. | | | |
| | 1 | 2 | 3 | |
| Strip | S. 17 | 4 | 6 | 10 |
| Strip | S. 13 | 4 | 6 | 10 |
| Strip | S. 9 | 4 | 6 | 10 |
| Strip | S. 5 | 4 | 6 | 10 |
| A/G | HS. 16 | | | 4 |
| A/G | HS. 12 | | | 4 |
| A/G | HS. 8 | | | 4 |
| A/G | HS. 4 | | | 4 |
| DAS | DH. 5 | 4 | 6 | 10 |
| A/B | EH. 2 | 4 | 6 | 10 |
| Hook | HH. 3 | 1 | 1 | 2 |
| Bonnet | D. 10 | | | 1 |
| Flanged Plate | P. 15 | | 1 | 1 |
| Washer | V. 10 | 2 | 4 | 8 |
| Washer | V. 16 | 2 | 4 | 8 |
| Wheel Disc | W. 1 | 6 | 6 | 12 |
| Axle | A. 75 | 1 | 2 | 5 |
| Crank Handle | Z. 50 | 1 | 1 | 2 |
| Screwed Rod | DR. 70 | 4 | 4 | 8 |
| Collar | KL. 1 | | 3 | 6 |
| Bolt | Schr. | 20 | 25 | 46 |
| Nut | Moeren | 18 | 18 | 36 |
| Fast Pulley | HW. 1 | 2 | 2 | 4 |
| Spanner | Sleutel | | 1 | 1 |
| Screwdriver | Schr.d. | | 1 | 1 |

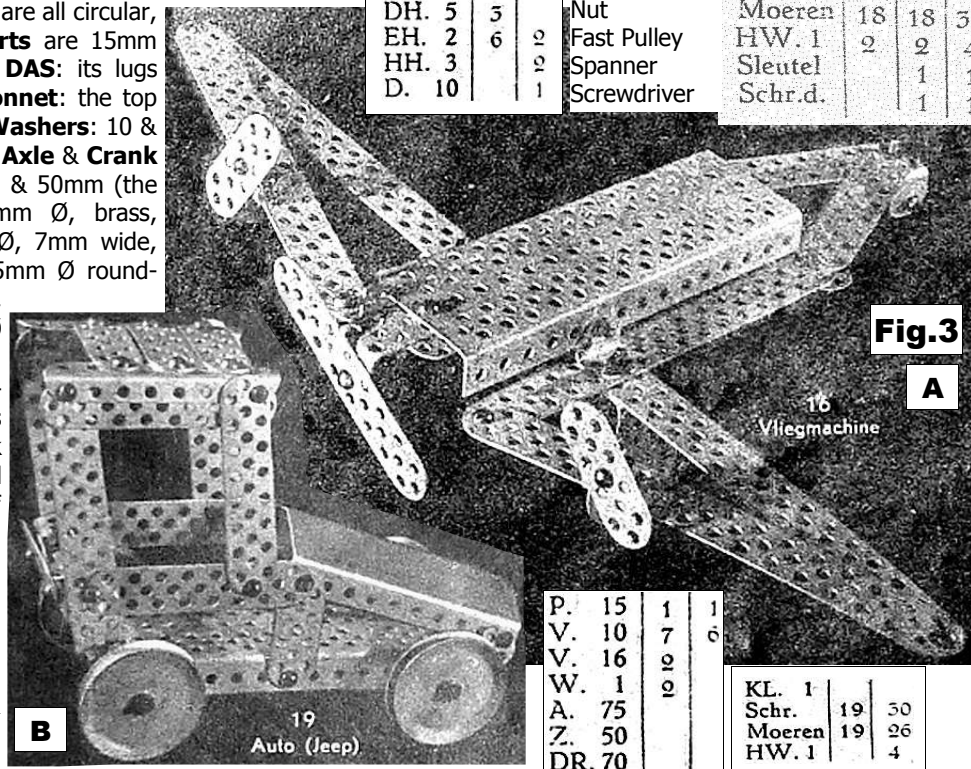


Fig.3

A

B

19 Auto (Jeep)

| | | |
|--------|---|---|
| P. 15 | 1 | 1 |
| V. 10 | 7 | 6 |
| V. 16 | 2 | |
| W. 1 | 2 | |
| A. 75 | | |
| Z. 50 | | |
| DR. 70 | | |

| | | |
|--------|----|----|
| KL. 1 | 19 | 30 |
| Schr. | 19 | 26 |
| Moeren | | 4 |
| HW. 1 | | |