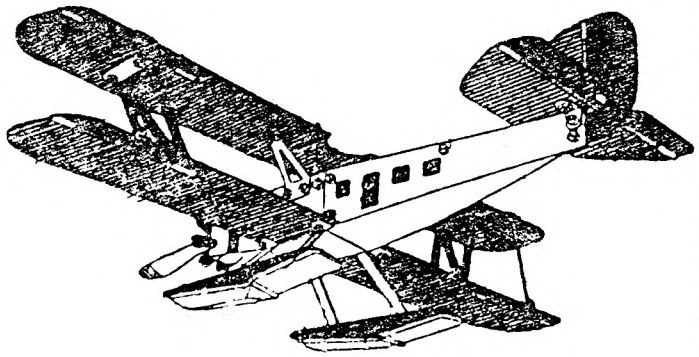
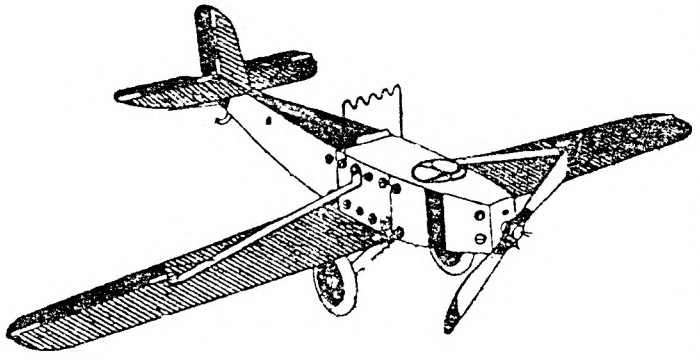
DUX AERO OUTFITS. The standard DUX-UNIVERSAL sets made by Markes & Co. are covered in MCS but no mention is made of Aeroplane Outfits. Now Richard Symonds has sent a photocopy of a manual for such a set, DUX Metall-Flugzeug-Baukasten Nr.104. That was the smallest outfit in the series and the contents are also given in the manual for two others, #106 and 108, plus a linking set, 106a.

The main difference between #104 and the larger outfits is that the wings, tailplane and fin supplied are simpler with fixed control surfaces; also the 7-cylinder radial Engine only comes in the larger sets. Only monoplanes can be made with the two smaller sets but for #108, 4 extra parallel chord wings are supplied and these are used for biplanes. The only other difference is that floats are included in Set 108.

6 models can be made with the 104 Set: 3 variants are low wing, shoulder wing and parasol monoplanes, obtained by simply moving the wing position; for the other 3 the rear fuselage panels are fitted on opposite sides so that the windows etc painted on one side don't show. 12 models are claimed for the #106 Outfit and from the contents it is likely that these are the 6 above plus the same 6 but with the radial engine fitted. Set 108 is said to allow 30 models, 21 monoplanes and 9 biplanes, so at least for the monoplane some possible combinations of wing position, side windows or not, engine or not, floats or not, have been left out.

Not much is known about the parts or their dimensions. It is suggested in the manual that if dirty, aluminium parts should be cleaned with benzine, but whether all the main parts are of that material isn't clear. Richard has seen a model made from this system and describes it as being a gunmetal colour. All the flying surfaces appear to be corrugated and since the wings are not handed they no doubt have no chordwise curvature. In fact there is a left and right wing in Set 104, the ones without ailerons, but the reason for this is not known. The wheels are fitted with rubber tyres. One unusual part is a wire bracket which can be bolted to the top of the fuselage to allow the model to be hung up.





The manual has 12 pages including covers, of about A4 size, and after an introduction to flying and the sets, step by step building instructions are given for one model. Then each model is illustrated with details of an actual aeroplane that it might represent, 3 German, one English, one French and one Dutch. The various manoeuvres that an aircraft can make are described, and how the controls of a real machine are arranged. Reference is made in different places in the manual to Sets 106c, 109, and 110 but no details are given, except that after #108 is '(Steuer beweglich)', and after #110, '30 Modelle mit completter Steuereinrichtung'. The best I can do with these are 'movable controls', and 'complete with adjustable controls'. German speakers forward please. Mention is also made of a Clockwork Motor but again with no details except that when fitted the propeller will pull the model along the floor.

The manual gives a positive date with 'Copyright 1937' on p2; there is also a printing reference of T.839L. From the aircraft mentioned I would have guessed that the set might have dated from earlier in the 1930s. It is also stated on p2 that German, English, French, Dutch, Italian, Swedish and Spanish versions of the manual are available. Despite all the models having open cockpits no pilot was provided to add a finishing touch.

Extra MCS Sheets contain • illustrations of all the parts, • a Parts List and Set Contents, • the full manual cover, • various other extracts from the manual.

AMENDMENTS TO INDEX IN OSN 6: NAME: DUX AEROPLANE. TYPE: AS. CY: GG.

KLIPTIKO. In the Set Contents given in 5/101 the No.0 is listed with the 'A' linking outfits under Accessory Sets, and now thanks to Geoff Wright, that small mystery is explained. In a small Manual he showed me there is an illustration of it (below, x.7) with its raison d'être. Also, below, a list of the complete (presumably) range of Sets available, taken from the same source. Whether it was the intention to confuse possible purchasers I don't know but in case it helps Models 1-7 were shown in the Manual for Set No.1, 8-10 for No.2, and 11-12 and 13-17 for Nos.3 and 4. No models were shown for Sets 03, 3½, or 3A. There is nothing to date this Manual but it may be fairly early since some play is made of Patents including a U.S. one said to be of May 5th 1914.

One of those quoted is English Patent No.9628/13, and Malcolm Hanson tells me that he has details of this and that there was an earlier relevant Patent in 1909; both were granted to a Henry Charles Harrison. MCS/NZ gives the date of introduction of KLIPTIKO as 1911; the earliest reference I have to sets on sale is in the 1913 Au Bonne Marché catalogue where 3 Sets were shown. At about that time a UK trade list also shows 3 Sets, but neither gives Numbers for the sets. In a 1925 Dutch toy catalogue from Harry Mariën, Sets 1-6 are listed, plus Accessory Sets 1a-5a and 0. So it may have been that originally there were no 'accessory' sets, then the complicated series below grew up, followed by rationalisation into linking sets plus the #0.

While talking of KLIPTIKO, MCS gives the finish as nickel (/NZ) and black (/FB); another scheme I saw recently in a Set, was brassed Tubes with the Hopper parts red one side and brassed on the other.

Complete Sets.
No. 1
" 2
" 03
" 3
" 3½
" 3A
" 4

Accessory Sets.
No. 0
" 01
" 02
" 03A
" 04

Combinations of Sets and Accessory Sets.

No. 0 is useful to any Set.

No. 01 added to No. 2 will build all Models from No. 1 to No. 10, and Sandwheel No. 16, also Models Nos. 17 and 19.

No. 02 added to No. 1 will build Models Nos.1 to 7, and Models Nos. 16, 17 and 19.

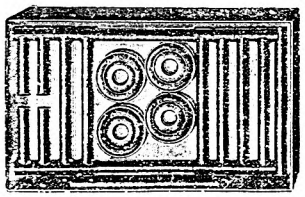
No. 02 added to No. 2 will build all Models mentioned above, also Models No. 18 and many others.

No. 03A added to No. 3 will build Models Nos. 1 to 12, Sandwheels Nos. 16 and 22, also Roundabout No. 23.

No. 04 added to No. 4 will build Models Nos. 1 to 15, also Sandwheels Nos. 16 and 22, Passenger Wheel No. 24, Roundabout No. 23.

ACCESSORY SETS.
No. 0.

Containing everything necessary to mount the Cranes and other structures on Wheels, and to facilitate the erection of working models requiring pulleys, etc.



MCS DATABASE In OSN 6/122 I gave some details of a Database that I had produced with the aim of having a concise record of some of the more useful facts about all the various OS, and in a form that could easily be reprinted following the incorporation of amendments. At that time I had a preliminary version and since then I've entered new information as it has come to hand, including the data in Frank Beadle's MCS Part 5. There are still many gaps in it but that will I expect always be the case, and so I have now produced the first proper version which is available for £4, UK, and £4.50 overseas, including postage.

It runs to 14 A4 pages and its layout and the information in it is essentially that described in OSN 6, except that now all three classifications, alphabetical, by Country and by Type, are included in the one document, as well as the notes on the contents, and the lists of the abbreviations used. However to keep it to a manageable size only the 10 most important facts are shown for each system in the Country and Type listings - reference to the main alphabetical list is needed for the others, and for the Comments given for each system.

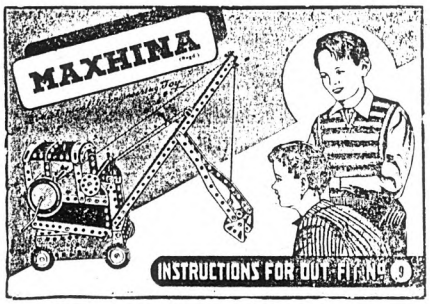
To avoid any misunderstanding I must make clear the the Database contains very little information that can't be found in MCS or OSN, and of that most will appear in future Newsletters. It's just a question of whether it's worth having it classified, and all in one place.

Finally let me thank Don Redmond for his most valuable help in tracking down errors and omissions in the preliminary version, and for his suggestions on improving the layout to make it easier to use.

range of parts isn't known either. The Part Nos. don't follow the MECCANO numbering and the 51 parts listed for the #9 Set go from 1 (5x11h Flanged Plate) to 256 (Nut).

MEI's parts may not all have been perfect but their range of slogans was tremendous. I've mentioned the one on the box lids and there are many more on the N&B boxes, and on practically every page of the manuals - 'Toys of Quality', 'Be an Engineer', 'The Toy of the Century', 'Real Engineering in Miniature', 'The World's Greatest Constructional Toy', 'Engineering for Boys of all Ages', 'Actual Mechanism is in your Hand', 'Toys that help Teach', 'Win your Battle of Life on Play Ground', 'It's Realistic, It Works, It's MAXHINA', etc. The introduction in the manuals and the titles of the models are shown in Hindi as well as English, but the slogans are only in English.

SUMMARY OF MANUAL #Name: MAXHINA #Details of maker: Machino Engineering Industries, Delhi, India. #Dates &/or Ref Nos: none. #Page size: 254x180mm deep. #No of pages: 16 inc covers; no page nos. #Language: English, Hindi. #Printing: Black line drawings on poor paper. #Page No. of Parts List/Set Contents & highest PN: 15, 256. Sets covered: #6. #No of models: 31. #Name, Model No, Page No. of first & last model: SCALES, 6.1, 3. LAND YACHT, 6.31, 14. #Other notes: models between 6.1 and 6.31 are not in order. 5 No.7 Set models are shown on the back cover.

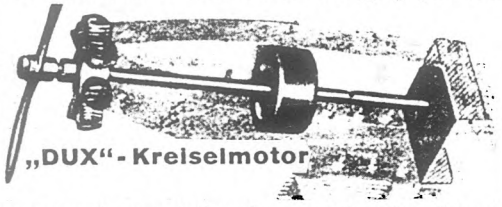


SUMMARY OF MANUAL (details which are as above are not repeated) #Page size: 245x186mm deep. #No of pages: 20 inc covers; no page nos. #Page Nos of Parts List & highest PN: 19, 256. #No Set Contents. #Sets covered: #9. #No of models: 31. #Name, Model No, Page No of first & last model: ICE CREAM VENDOR AND VAN, 9.1, 3. TRACTOR AND HAY WAGON, 9.31, 18. #Other notes: three No.10 models are shown on the back cover.

DUTCH DUX AERO Since the article in 10/248, Peter Page has acquired a #104 Set from a Dutch friend, and kindly sent a copy of the manual and the following notes on the parts: "The hole size is .130" (3.3mm); hole pitch is 12.5mm based on #67 [the centre, side plate of the fuselage]; and the thread is 1/8" WHIT. All the parts are steel except for the rubber tyres, the brass bosses on the prop and wheels (single tapped), and the brass shouldered screws, #74, 88 (plain turned head with no screwdriver slot). The normal screws (slotted, square cornered cheese headed) and the 6mm A/F hexagon nuts are bright plated.The corrugated surfaces are all flat and the control surfaces are painted on. The wings have painted ailerons on one side only, thus handing them. Most of the parts are painted aluminium grey with the printed windows on #68 and 69, but #63 [the rear, upper fuselage] is red and yellow. The trade mark on #62 [front upper fuselage] is a separate stamping, tab fixed. Note in the manual the flywheel 'motor' on a longer shaft."

The manual is in Dutch but is otherwise very similar to the German version. Differences of note are: • On p2 there is no mention of a Swedish version. • The date following 'Copyright' is missing; the print reference is 1000.9.32. •Sets 106c, 109 and 110 are not mentioned, nor is the Clockwork Motor. • The contents of the sets are not given, only the List of Parts, which is identical to that in the German edition.

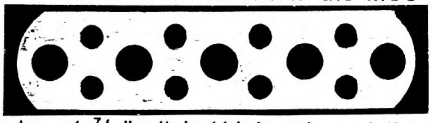
There is the same remark about cleaning aluminium parts (Aluminiumteile in the German) in both manuals, so this was no doubt a reference to the aluminium grey painted parts.



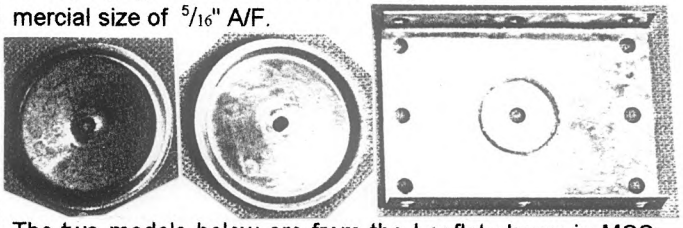
There is this illustration of the flywheel motor in Peter's manual, see above. I suppose the prop went on rotating for a while after it had been spun up by hand.

Going back to the German phrases 'Steuer beweglich' and 'Modelle mit kompletter Steuereinrichtung' in the OSN 10 article, my thanks to Geoff Davison and Al Sternagle for offering translations. Taking some liberties with these to allow for the aeronautical context, the first may indicate that all the contol surfaces, rudder, elevators and ailerons, are movable, which is true for Set 108, and for #106, which has the same flying surfaces. The second may mean much the same, or may indicate that some further stage/degree of control is provided (in Set 110). I can't think what this could be unless the contol surfaces were linked to the cockpit contols, which would hardly be practical in a small model.

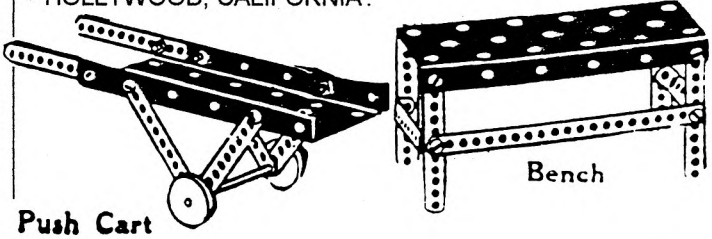
HOLLYWOOD U-BUILD-IT Richard Symonds recently sent me a Strip (photocopied below) from this rare American system, and a photo of the other parts he has. These, together with some information from an article in the Southern California Meccano and Erector Club Newsletter for July 1986, allow a few more details to be added to the MCS entry.



The Strips are rather unusual with the 4.8mm ($^{3}/_{16}$") main holes at $^{7}/_{16}$" pitch (11.1mm), and the pairs of $^{1}/_{8}$" holes between. They are 13.0mm wide, and are known in 6 lengths with 2, 5, 7, 12, 14 and 18 (main) holes. The Flanged Plate shown in MCS (below) would have 5x7 holes on top if all the holes were present; there's also a similar but longer Plate, with 5 holes in the flange at the same $1^{5}/_{16}$" spacing. The Wheels (below) are 2" dia with no boss and a shallow flange. Angle Brackets are not made from short lenghts of the Strip material but are plain with a round hole in each arm. Apart from steel N&B all the parts are made of aluminium; the mention of wooden wheels in MCS may have been a misunderstanding. The thread is 6-32, too large to go through the small holes in the Strips but there would be considerable play in the main holes. The Nuts judging from the size of the Spanner, were the commercial size of $^{5}/_{16}$" A/F.



The two models below are from the Leaflet shown in MCS; they are straight copies from the ERECTOR manuals of the late 1920s for their small beginners set, and do not show the actual HOLLYWOOD parts. No indication of date is given anywhere. Certain words under the models have been blacked out, but they can be deciphered as 'GOLDEN STATE / CONSTRUCTO / MANUFACTURED BY F.K.HAAS - HOLLYWOOD, CALIFORNIA'.



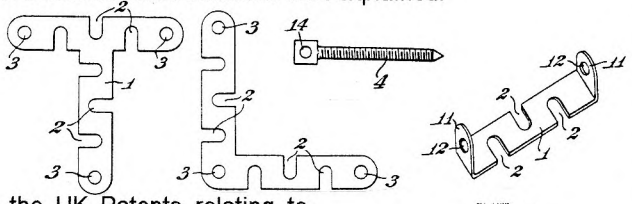
Push Cart

ITEMS FROM LETTERS

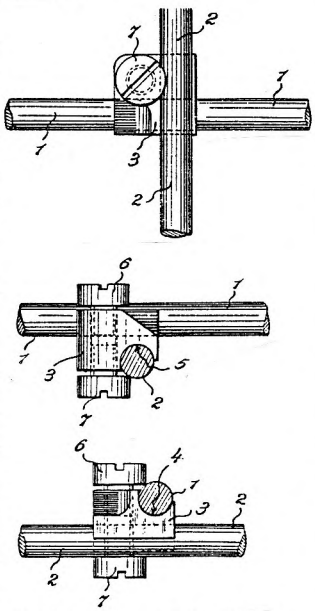
1. On TEMSI (see 11/292) René Mikkers wrote that: • The 15t Pinion isn't available because it would cost too much to produce. • The slight error in the hole spacing of the longer parts has certainly existed for at least the last 10 years. • The extra crosswise holes in the flexible plates is caused by the tooling used. • The Wheelbarrow Set was introduced some years ago and was a relatively expensive outfit.

2. On the KNIRPS aircraft (11/273), Peter Page said 'It's the first time I've seen a model of the revolving wing machine that impressed me in prewar boys' comics.' He also noted that Model & Prototype Systems Ltd. [who made, and perhaps still make, PROTO, one of the industrial 'Meccano' systems] is for sale.

3. David Hobson kindly sent copies of various patents. For the ULOX patent referred to in 10/254, he pointed out that since its application date was May 8, 1929, sets wouldn't have been on sale before then. The 4 parts below are shown in the Patent but as far as is known they were never marketed. The threaded rod with the square eye on the end, essentially similar to the Loop Spindle shown in 10/253, was intended to allow two screwed rods to be joined at right angles, but no specific applications are mentioned. I had hoped that the Patent might give uses for the four small holes in the Disc, but it only refers to them as housing a crank pin (Lever, see 10/252), and why the latter needed to be of a substandard diameter isn't explained.

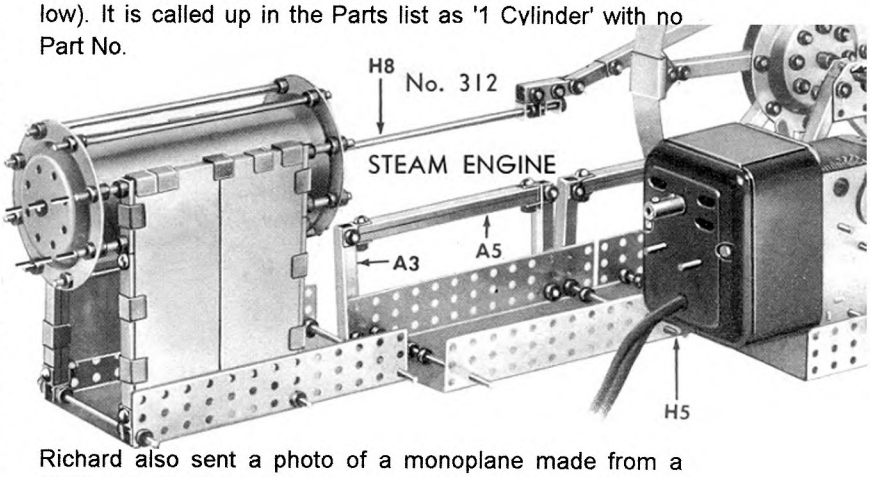


On the UK Patents relating to BOB, it turns out that the Joint (clamp) shown in 500629 (1939), mentioned in 9/233, is not exactly the type that is found in BOB sets. These are hexagonal in shape (as shown in 4/75) and are described in a later UK Patent, 622212 of February 1946, which is in the name of a Patent Agent, A.A.Thornton, who seems to have been the assignee of Charles Baumgartner. It was probably he who licensed the Patent to Ridingbery & Co. David added that according to 'British Tin Toys' the Feeder Road address for 'Ridingbery Metal Toys Ltd.' dates from 1948; before that they were at Bath Buildings, Bristol. It is said that Chad Valley took over the Company in 1949, and that no doubt was the end of BOB, even if it had lasted that long. The square shaped Joint from the earlier Patent is shown above. According to 6/121 Swiss BOB was marketed at the beginning of WW2, so it is possible that the earlier version was used at first. There is no Convention Date on 622211 and It isn't known if there was a Swiss patent for the hexagonal Joint.



Finally David noted that the two patent numbers quoted for BOYCOY (11/276) were in fact application numbers, and patents for them were never granted. This may have been because complete specifications were never submitted but, perhaps more likely, the invention was found not to be new, MOBILO for example had been patented in 1918.

4. In reply to my request for information on the LIONEL Cylinder part (11/271), Richard Symonds sent some details. It's red and rolled from .015" sheet with a butt joint, and is 4½" long and about 2.1" in diameter. There aren't any holes in it. He also sent a copy of a page from a #343 manual showing the Cylinder used in a Steam Engine (below). It is called up in the Parts list as '1 Cylinder' with no Part No.



Richard also sent a photo of a monoplane made from a DUX 104 Outfit, that he took at a Toy Show. All details agree with those in 11/287 except that the rear upper fuselage (and the logo on the nose) are blue. The painted control surfaces are red.

And on the NORELCO ME1200 Mechanical Engineer Set, he sent details and photos, and with them, and the MCS entry, I was able to make a good comparison with my own PHILIPS ME1200 Outfit. Apart from the change of name (everywhere except on one piece of cardboard packing which has PHILIPS on it in both cases), they appear to be identical (parts, manual, packaging), apart from the left end panel of the lid, which shows different models, and there's also some chat about the scope of the set on the NORELCO one.

5. Werner Sticht sent outline details of a universal coding system for parts which he uses to keep track of his parts from half a dozen different systems, and which could be extended as far as is necessary for any particular purpose. One or two examples from the many he provides are: A50 for a 50mm Axle, AT50 for a 50mm Threaded Rod, W36X for a Disc without Boss.

He also sent initial proposals for a Relational Database for MCS which could include full details of the systems entered, including outfits and parts, and would allow searches to be made in terms of any chosen single or combination of parameters.

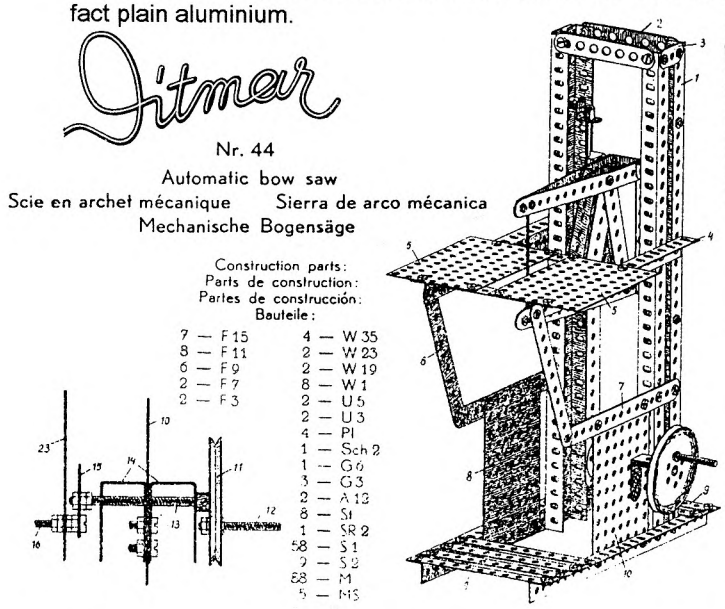
Each of these topics is on a single A4 side and I can send copies to those interested.

6. In 11/272 Walther & Co. were said to have closed in 1968, but Don Blakeborough has pointed out that they were still in business in 1970, and sent a 1969 leaflet and a 1970 price list as evidence. On checking I found a note in MJ 28/821 that a letter sent to Walther's Berlin address in April of 1972 had been returned marked 'Firm closed down'.

7. Don Redmond wonders how to tell nickel MECCANO A/Gs from AMERICAN MODEL BUILDER ones, and adds that although AMB Sector and Flanged Plates have slotted holes longer than those in the MECCANO parts, this is not true for the A/Gs. Equally difficult is identifing the differences between the many parts that AMB, CASTLE BUILDER, MODELIT and STERLING TOY BUILDER have in common.

double-decker bus - it's made of short Strips and 3h Ø Wheel Discs, the latter probably nutted to Screwed Rods as axles.

DITMAR This system from the late 1940s has small parts with 3.7mm holes at 8.5mm pitch. The Manual has only the name and Metallbaukasten on its cover; inside the text is in English, French and Spanish as well as German. The model below includes Strips from 3 to 15 holes; A/Gs 19, 23 & 35 holes long; a 3*1*3 Double Bracket; a 7*11h Perforated Plate, and a Pulley of about 50mm Ø with 6 holes in its face near the centre. The Plate and A/Gs have square corners. Again Threaded Rods seem to be used as axles although the Pulley is shown with a tapped boss. A larger model is featured on the box lid in Pl.60 of EZ and some red Circular Plates or Pulleys of perhaps 70mm Ø can be seen. The other parts shown are black but some were in fact plain aluminium.



DÖCO EZ says that this system was made by Döhle & Co., Berlin-Stralau around 1920, but no details are given.

DORANDO An architectural set from 1926 made by Mosbacher & Schönfeld of Frankfurt am Main. A photo in EZ shows black metal strips and channels bolted together to form a framework, with stone blocks as infill. They are mostly fawn with some blue uprights, and the window blocks are black with white frames and green shutters. A red tiled hipped roof sits on top - it's made from thinnish material and though it looks to be in one piece, some joints would have been needed if it fitted into the box shown.

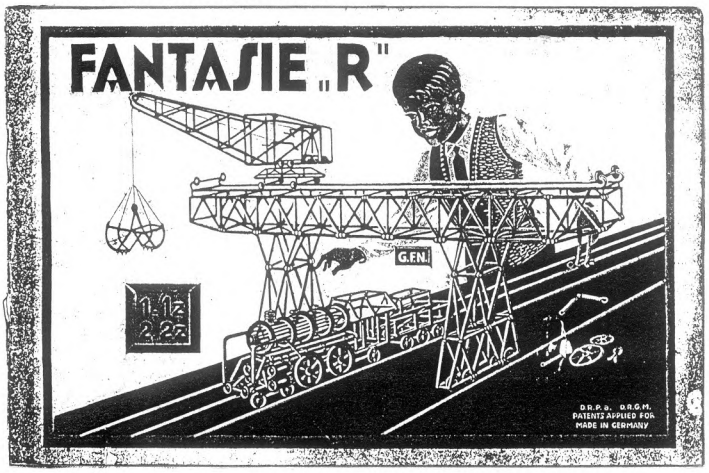
DUX AERO EZ says that this system came on the market in 1932, the probable date of the manual in 11/287.

DUX-UNIVERSAL This rather unusual system is well covered in MCS and I hope to write some notes on it in a future issue. EZ mentions a February 1939 Patent No. 705732 but I'm not sure whether it was actually made before WW2. Production ceased around 1958.

EIFFEL EZ gives specific dates (see 10/247), with production between 1940 and 1948.

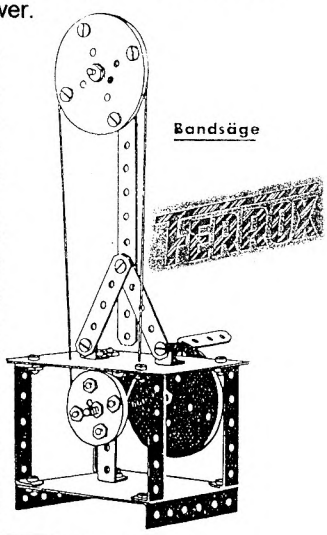
ELECTRIC There's an MCS entry for this system and a few further details were given in 8/183. The only mention in EZ is the dates (c1932-c1970), and the various makers after the one in MCS, as follows: from c1940, Böhmer & Helm, Meißen; in the DDR, Mewa Mesco-Werk VEB Meißen Sa.

FANTASIE "R" This simple system was made by Gebr. Fleischmann of Nürnberg, and was introduced in 1932. It was also sold under the name **ROBA**. It cost 50 Pfennig a pack and consisted of Tubes connected by (rubber?) Couplings. As can be seen, the Manual cover below boasts a quite large Crane and Loco, and has 1,1z,2 & 2z on it, presumably set numbers. EZ says there were only 29 different parts but that the Manual contained 168 models on the theme of the technical world.



F.D.K.K. Another small? system from the WW2-early '50s period. Two widths of Strips were used, 9mm and 12mm. Holes were 5mm Ø and the spacing 11.9mm. The parts were of steel with a black finish. A small photo of a box lid in EZ shows the top of a large Tower.

FERROX Another small system from the late 40s to early 50s, with 4.1mm holes at 12mm pitch. There were about 20 parts including Strips of 2,3,5,7,11 & 14 holes; 1*3*1 & 1*5*1 DAS; 1*1, 1*3, & 2*1*2 Brackets; 17,36 & 69 mm Discs; and 2 Plates, one flat and one flanged. The flanges are always shown with 6 holes in them, but otherwise only a few holes are indicated, and their position varies in the different models. Note the 'extra' hole that can be seen near the centre of both the large and small Discs in the Bandsaw opposite; also the ends of the Strips, Brackets, etc with angled corners, like VOGUE. Again Threaded Rods were used as axles. Some parts were aluminium and the others were red, green, or black.



FIX Another little system, in this case made by MWK of Kitzingen/Main. A date of 1948 is known, and EZ gives production as around 1940. There were less than 30 parts but they were rather unusual. There were 2 types of Strips. One that I'll call a Linked Strip had 2,3 or 4 strips joined together with eyelets, so that the elements could rotate relative to one another. The elements were equivalent in length to strips 3,4,5 & 8 holes long but each had only the end and one centre holes. The ends of the strips are shown rounded. There were 12 different Linked Strips, as shown - they ranged from 2x3h strips to a 3+4+5 which can be seen forming the triangular frame at the lefthand end of the Signal in the next column.

The 'ordinary' type of Strip again had only a centre hole plus rectagular end holes that extended out to the square

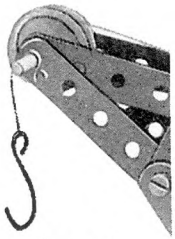
Correction The transliterated name BOENNAYA in 25/717 & 718 should read VOENNAYA (my thanks to Don Redmond). This set in question is no doubt similar to the one mentioned in 24/714, though some details are not identical.

ITEMS FROM LETTERS

1. From Thomas Morzinck. • On the **ANKER Metal Parts** (25/730) The set with the 1897 parts offered by Richter in that year cost (a very expensive) 60 Marks. One year later it was deleted. Tobias Mey mentioned in his book *Zum Bauspiel*, that the Keller brothers - former employees in Richter's factory - sold their own Bridge Set from 1897 using preformed metal parts. In their advertising literature the Keller brothers called Richter's 1895 Bridge Set 'a screwed idea'.('eine verschraubte Idee' in German). [The **Keller Set** may be even earlier. A UK patent No.5781 in the names of Georg & Paul Keller is dated 1890, and the parts in it (owned by David Hobson) correspond to those believed to be from a Set which was awarded a prize at a London exhibition in 1891, and also to those in a photo of a Bridge made from the 1897 Set above. The main elements are Straight & Curved T-section Girders, joined by Flat Strips which push into the double wall web of the Girders to represent uprights & bracing. A George Wetzel sales list sent by Don Redmond has an illustration of a Keller Bridge Set called **DIAMOND BRIDGE BUILDER**, with 4 children ('one Chinese, one American Indian, one white, & one Ethiopian') looking at a Church made from blocks, and a Bridge with block piers and a span of the metal parts.]

• Tobias mentioned that the early **DUX** parts (c1938) look like the Julius Weiss parts from 1892.

2. From Don Redmond. • More on **NECOBO**. The parts mentioned in 24/714 were from a lot which are probably a large part of an early No.4 Set, plus some later parts, and some which may or may not be NECOBO. The manual with them covers Set 0-4 and its parts list goes up to only PN 99, so is earlier than either of the MCS lists, and fits between the 1st & 2nd manuals described in 4/57. The 11 & 25h Strips have large-radius ends but there are also 11h, and 3 & 5h, with half-round ends. There are 2 sets of 1" Pulleys: 3 have red painted steel discs and very fine (small, round) peening on the brass boss; the other 4 have aluminium discs and steel boss with very deep conical peening. The aluminium Pulleys had a set of fat white soft Rubber Rings of 5mm circular form, 35mm o.d. The red ones had black rubber Tyres with a tread of 5 circumferential raised lines & radial raised bars on one sidewall. There was also one Tyre about 7mm thick, 38mm o.d., with NECOBO in raised lettering on one side. The aluminium Pulleys are suspect since there were also red Loose Pulleys. All the Gears are Mod.1 and the 60t is the early unperforated type. The Flanged & Triangular Plates, and the Face Plate are red. The Flexible Plates are aluminium painted dark blue. Under a red & ivory daub of enamel the Windows (#126) seem to have been painted silver. Strips, A/Gs, & Railings are dark green, darker than the early MECCANO dark shade. The red is quite light, between Meccano's light & medium. The parts have a surprising range of thickness. 25h Strips are 1.38mm; 11h Strips 1.0mm; Railings .84mm; 5*4h Triangular Plates 1.18mm; Windows .81mm; but Trunnions are only .67mm. Two types of Collar were found, both tapped 5/32" BSW. One is 10mm Ø, 7mm thick, double-tapped, and the other 8.5mm Ø, 6.5mm thick, & single-tapped. Two later parts are the Cone Pulley, #176, machined from brass with a concave rear (boss) face, and the Eccentric, #180, which has a brass arm/loop held between two red steel discs by a brass boss and a matching brass stub, both peened with a very deep, conical bottomed recess. [A small lot of later Strips, Girders, & Trunnions (up to PN 195C but none more than 9h long) are also the very dark green – the Girders are about .8mm thick, the Strips 1.05mm, and the Trunnions .85mm.]



In a later letter Don pointed out that the Hook #90 hasn't been seen, and isn't illustrated in any parts list, but in the manual models is shown as the wire type right. Also it seems likely that the Faceplate #83 with the 2 rings of 8 holes (see 24/714) is an early part because the 6cm Disc, #82 (a Faceplate without a boss), appears thus in several of the manual models. Later, as shown in 4/59, both had the pattern with radial slots.

• On **STEEL ENGINEERING** (see 23/666), the wings of the formed Collar, X37, are near circular in shape, as opposed to the ERECTOR rectangle.

• In response to a question to Don about **WISDOM** (to include also CONSTRUCT-O-STEEL & CONSTRUCTION MODELS), he wrote that there are two patterns of slotted holes in Trunnions & 5*11h Flanged Plates. Most have rounded ends but some have large-radius 'BRAL' ends. The length o/a is 6.4mm for both. All the slots in known examples of the other sizes of Flanged Plates have rounded ends. Note that the Flat Trunnion is not made from the same blank as the Trunnion, and has no slotted holes. On colours, the 5*11h Flanged Plate is known in light, medium, & dark* blue, and medium, & dark* red; the Trunnion in medium, & dark* blue, and in two shades of dark red*. The asterisks denote a lacquered finish, with a metallic look.

3. From Tim Edwards. On Chinese **MECHANIX** (see 24/710), there is also a 001 Set with 68 parts, price £3.50. [A 002 Set with 108 parts has also now been seen.]

4. Josep Bernal wrote that **BRAL** is no longer being made. [The BRAL web site, www.bralsystem.com has just a home page with 'stiamo ritornando' on it – we will return? Let's hope so.]

5. From Jack Little. • On the **Day patent** (22/637), Jack sent a copy of the original Australian patent (No.6000/22, accepted 27th Nov. 1922), with added changes to the figures arising from an Application for Amendment on 5th August, 1924. The text is similar to the UK version but not identical and the original figures differ too in detail. Fig.1 below shows

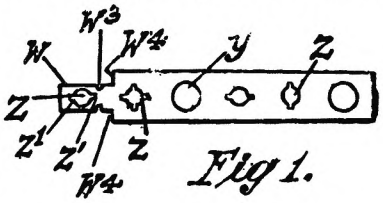


Fig 1.

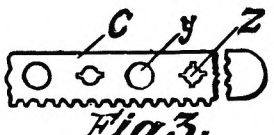
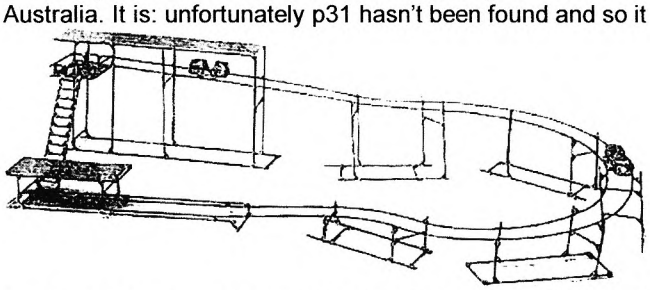


Fig 3.

a different pattern of holes for example, and the Strip in Fig.3 has a serrated edge & rounded end. The purpose of these features isn't explained. The changes made to the figures in 1924 took the form of overwriting some with a large cross and writing Cancelled & 18/11/24 alongside. 3 of the 4 cancellations are of the parts shown in Figs.8, 9, & the righthand end of Fig.4 , in OSN 22. The parts in question are made in the same way as the EZY-BILT Clips (22/636) but whether that had a bearing on the matter isn't known. The fourth change was to delete the slitted end of the Fig.2 Strip, though similar ends with a slit with centre hole remain unaltered.

• Also from Jack, the cutting below from the Nov. 1947 *Sportsgoods, Toy & Canvas "Retailer"*, which confirms that CLIRO (described elsewhere in this Issue) was sold in Australia. It is: unfortunately p31 hasn't been found and so it



A Scenic Railway made from the Schofield Model Building Set. Further details of this set appear on Page 31.

Snippets. DUX Aero Sets A number of items of interest have been seen on Ebay since the notes in 10/248 & 12/330. All but 3 of those to be discussed are included in a list of sets in a Copyright 1933 manual kindly sent by Jacques Pitrat. The exceptions are Sets 50, 106d, & 110, and so these would have been introduced later. Also included in the List, the Kreisel-motor (Flywheel Motor), see OSN 12.

Set 50. The set right was said to be pre-WW2 and its number has been presumed from the lid. It has simpler and no doubt smaller parts than in the standard sets 104-110 – a concept akin to Meccano's Nos.0 & 00 & the MECAVION Baby sets described in 40/1200. The basic Fuselage seems to be in one-piece with a bent down tab at the front to take the Propeller. In the Sketch 3 of the assembly instructions inside the lid (Fig.2) there looks to be a part filling the underside of the Fuselage between the Wings. If so it would stiffen the wing/fuselage joint, useful even for the Biplane since no interplane struts are shown. Other parts (see Fig.3) are a symmetrically tapered Wing with flanged root, right-angled Undercarriage Legs to give an unusually wide track, & the Fin with the tail wheel attached to the bottom of it. The Tailplane is probably largely hidden by the packet under the nose of the Fuselage. The 4 parts under the tip of the top left Wing may be the Struts used to support the parasol wing in Sketch IV.

FIG.1

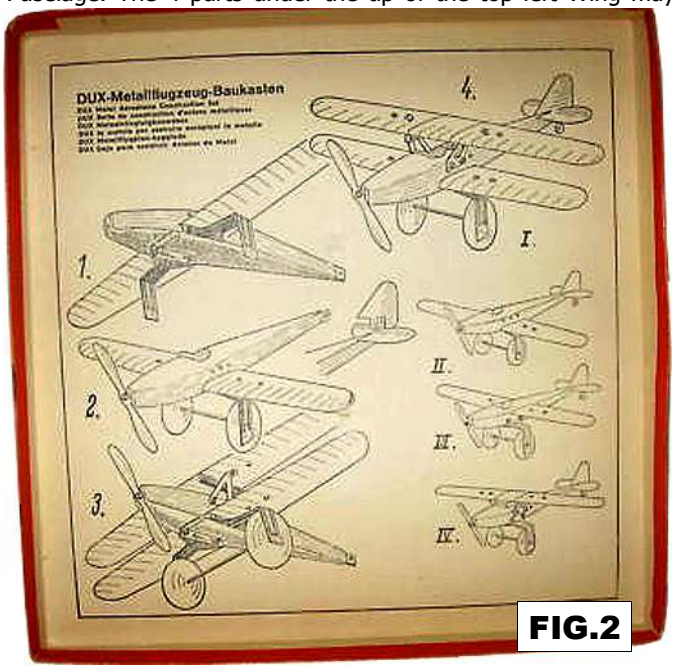


FIG.2

FIG.3

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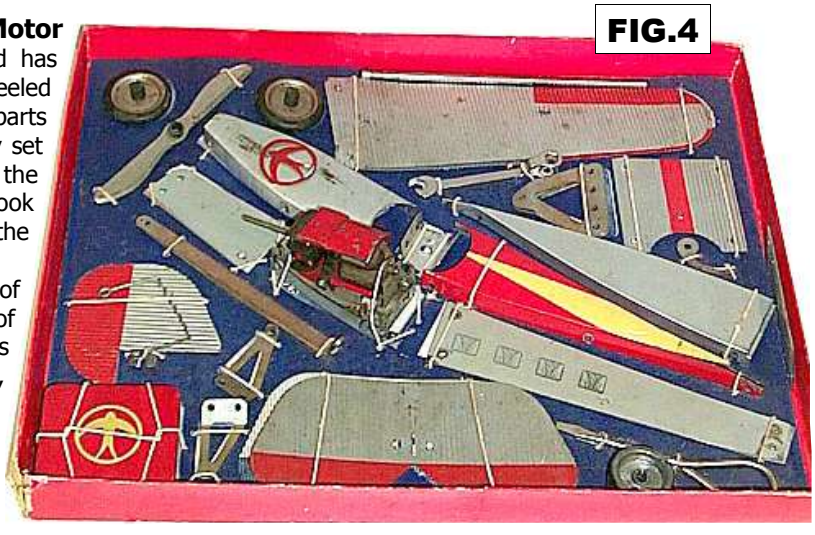
Set 104 with, possibly, an Electric Motor Nr.104 is the smallest 'standard' DUX outfit, and has parts to make only monoplanes with a wheeled undercarriage. Unlike the larger sets the fuselage parts are arranged diagonally in the box. Right the Ebay set with the Electric Motor sitting on top of some of the fuselage side panels – otherwise the parts look identical to those in a standard set. (apart from the extra, unstrung 'Pulley' below the Screwdriver).

I wonder though if the Motor was actually part of the Set. First, the lid has just the 'DUX 104' legend of the 'standard' set with no indication that it is unusual in having a Motor. Secondly, the stringing, though correctly positioned, looks untidy, and the Wire Hanger on top of the Fin (to be attached to the top of the model to hang it up by) is not there in the several other strung sets seen. Thirdly, the Motor looks deeper than the sides of the base (though the lid aprons can't be seen in the Ebay photo).

If the Motor is genuine how & where it is mounted in the model isn't clear – it looks too deep to be situated anywhere other than in the deepest part of the fuselage, and if it is then its shaft, despite being longer than usual, would need a considerable extension to reach the nose.

FIG.4



Set 106 Compared with Set 104 the main extra parts are a Radial Engine; & a Centre Plate to complete the underside of the fuselage. The main change though is that the Wings, Tailplane, & Fin have moveable ailerons, elevators & rudder.

Set 106a This converts the 106 into Set 108 (the latter shown in Fig.11) and the main additional parts are 4 parallel chord Wings; Floats; & the blue Z-Interplane Struts.

Set 106b Elektro Figs.5 & 6 below show the lid and parts from this add-on outfit. It includes an Electric Motor to drive the Propeller, and wing tip lights. The main parts are the Motor; Battery Container; red & blue Bulbs plus Bulb Holders;

FIG.5


FIG.6

a replacement Nose; replacement Nose & Rear Underside Fuselage Plates (with extra holes to mount the Motor & Battery Container); and a Propeller. The glass of the blue Bulb looks a little different to the red one and since one might expect a green Bulb as mate for the red, perhaps it is not original. Other parts, below the Nose Underside Plate, are 3 probable Switches, and an Extension Shaft to link the Motor & Propeller.

Set 106c Autogiro Another add-on set to convert the basic 106 machine into an Autogiro. Many of the parts in the box (Fig.8) can be seen in the model on the lid label (Fig.7, with the whole lid inset). They include the 4 black Struts to support the flanged Top Bearing Bracket for the rotor; a DAS-type Lower Bearing Bracket; and the 3 Rotor Blades. There is no sign of the Rotor Hub so it may be missing or in the small parts box. The 1933 manual says that the rotor runs on ball bearings. Other parts in the Set are the short Wings with moveable ailerons, and a shorter Fin with hinged rudder, necessary presumably to accommodate the droop of the Blades. It would be nice to think that the rotor would autorotate when the model's owner ran along with it.

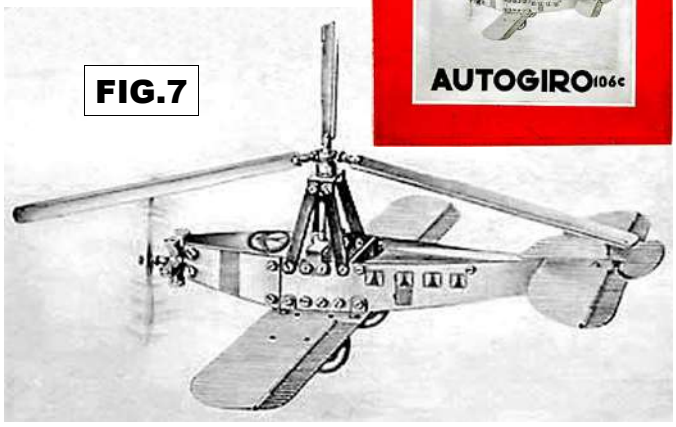


FIG.7


FIG.8

Set 106d Steuerwerk (Steering gear) It appears from the lid label below that the rudder & ailerons can be moved from the rudder pedals (a horizontal pivoted lever) & control column (joystick) in the cockpit, but that the elevators must be moved by hand, which seems rather a pity. With the control runs shown the only other type of model possible would be a Low Wing Monoplane. The parts with modified control surfaces (see Fig.10 overleaf) are a pair of parallel chord Wings; a pair of Tapered Wings; & a Fin. (Since Set 106 has no parallel chord Wings the other parts needed to build the Biplane on the lid

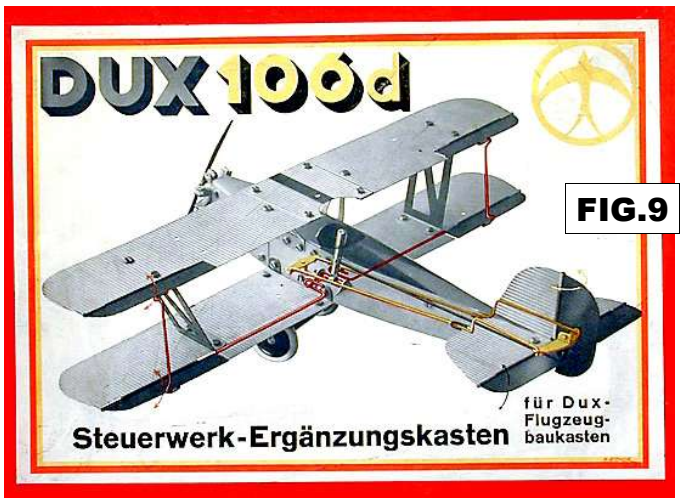


FIG.9