

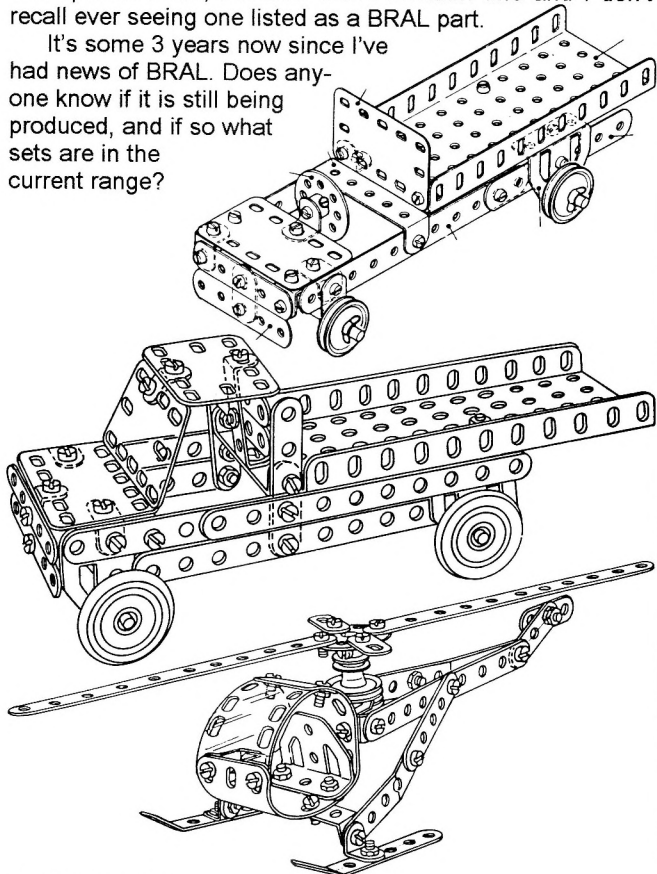
**The BRAL 400 Set** Don Redmond mentioned in passing that he had such an outfit, and since I'd never heard of it he kindly sent some details. It's a small set in a large box, which he bought in about 1994, secondhand but in very good condition. It carries the BRES logo, and the company changed to that name between the mid 1980s and 1991, but I'm not sure exactly when.

The box measures 18\*14½\*2" and has an end-flap opening. 6 models are shown on the top in full colour against a printed red background, while on the bottom are all the parts in the set, and an Articulated Wagon. The parts are housed in a grey plastic insert & the main ones are 2,8,2,4 of 3,5,7,11h Strips, 2x 2½" & 1x 1½" DAS, 2x 5h Curved Strips (M90a), a 5\*11h Flanged Plate, 2 each of Trunnions, Flat Trunnions, & Reversed Angle Brackets, 8 Angle & 4 Flat Brackets, 2x ½" & 1x 1" Double Brackets, a Bush Wheel, 4x 1" Pulleys with Boss, and Tyres for them, 2x ½" Pulleys, 2 each of 90mm & 38mm Axles, 3 3\*5h Flexible Plates, a small Loaded Hook, 30 Spring Clips, about 30 N&B (5 & 7mm u/h), a Screwdriver & Spanner, and a sheet of stickers (brand names, etc).

Based on a known No.3 Set from the mid-1980s, these contents, with a few minor exceptions (and apart from those 30 Spring Clips), are what might be expected from a No.2 of that period. So was there a whole '100' series of sets in perhaps the late 80s? Any further information would be welcome. As with the No.3, the Strips and Brackets in the 400 are nickel, but the Flanged Plate in it is light blue instead of green.

With the Set was the huge 25\*19" poster mentioned in 7/142 (showing the parts with 4-figure PNs), and a Model Leaflet accordion-folded in 4 to 11\*7¾". It bears no Set No. and shows line drawings of 29 models. Nearly all are quite reasonable small models, with a good sprinkling of Buggies & Helicopters, though some require sharp bends in Strips and the Flexible Plates. Over half don't use the Flanged Plate and Tyres, and so may have been designed for a smaller outfit. The models compare very favourably with the mostly very simple and unattractive ones in the No.3 manual of the mid-1980s Set. The Lorry below is one model that has been carried across, and for comparison, the one under it is its neighbour in the Leaflet. Several of the models, such as the new Lorry & the Helicopter below, need a 3\*5h Transparent Plate, but Don didn't mention one and I don't recall ever seeing one listed as a BRAL part.

It's some 3 years now since I've had news of BRAL. Does anyone know if it is still being produced, and if so what sets are in the current range?



**ELETTRO BRAL** The electrical sets produced by Roberto Braglia under this name came to mind recently when Richard Symonds kindly sent photos of a set he had found, which looks complete, & a photocopy of the manual. The latter appears to be the one from which the MCS pages were taken, and apart from the cover, is identical to one I have. Also used in this note are illustrations of the sets in ad leaflets, & on the backs of manuals.

No start or end dates are known for the Sets but they were certainly available in 1964, and were still on the back covers of manuals in the mid-1980s. The main parts were a 5\*7h Perforated Insulating Plate, a simple 4.5v permanent magnet 3-pole Motor; a Bell Unit; a Rhumkorff Apparatus (a shocking coil?); a Horseshoe Magnet; & a Transformer. All devices came fully assembled but the Motor could be taken to pieces. Smaller parts included various Lampholders & Reflectors; Toggle, Pushbutton & Changeover Switches, Plugs & Sockets; Coils of Connecting Wire; and standard & smaller diameter N&B. Tools were a standard Spanner, a Screwdriver with plastic handle, Scissors, Pliers, & a Hammer.

A mid-1970s ad shows the main parts in the Sets. The No.1 has the Bell & the Plate. The Motor is in the No.2 but there's no Plate. No.3 looks much like the No.2 except that the Motor isn't assembled. The Plate is restored to the No.4, the Motor is fully assembled, and there's a Transformer. Additionally in the No.5 are the Rhumkorff kit, the Horseshoe Magnet, & the Hammer. The No.1 has 2 Bulb Holders, Reflectors, & Switches, with more and a greater variety of such parts in the larger outfits.

Most of the illustrations show the parts attached to a backing board but in a later one, & in Richard's Set, they are in a moulded plastic tray. There's no Set No. on his box but it corresponds to the No.5 above except that it has no Transformer (though if the parts were rearranged there might be space for one), and, as well as a 5\*7h Plate, there's a 7\*11h one. A similar looking Plate is shown in an ad for a BRAL semi-constructural Telephone Kit.

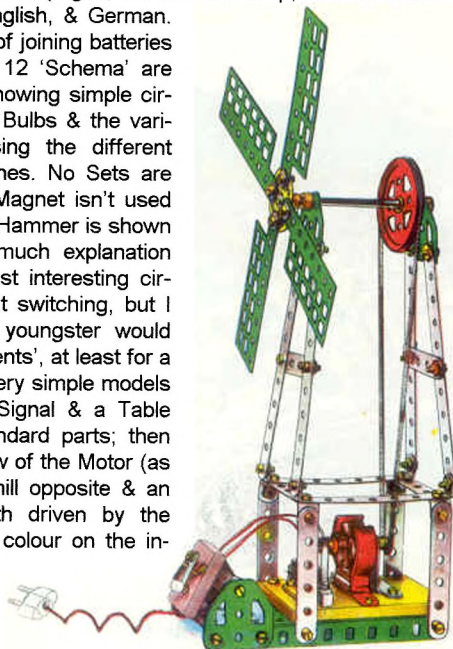
On the parts, Richard's Plates are plastic mouldings with ¼" Flanges on all sides, & no centre hole. Earlier Plates look as if they may be the same. In Richard's Set, and the earliest Nos.4 & 5, there are some fancy Bulb Holders with radial fluting, about 2" Ø.

Apart from white/cream Plugs, Sockets & some Switches, most parts are red, or in some earlier sets, an electric blue. Exceptions are black Transformers, the 5\*7h Base which is usually yellow, & Reflectors which are sometimes red, blue, green, and yellow in the same set.

The sets with strung parts are in blue boxes with the label showing a boy in front of a large yellow space telescope, and a red control console. In an ad the set with the formed tray has a yellow lid with again a boy in front of a (white) telescope, and there may be a console but that part of the lid isn't visible. Richard's lid is brown with swirls of light blue lines around the name, and 5 small circular insets showing most of the main items wired up to Switches, etc., and bolted to 7\*11h Plates.

My manual has the boy, yellow telescope, & console on the cover, while Richard's & the MCS one have the Motor on its red base, bolted to a thick yellow 7\*11h Plate, and, above, a yellow tray with a compass in it, supported by a DAS. These last 3 parts aren't in the sets, nor are they mentioned anywhere else in the Manual. The latter has 16 pages, 157\*219mm deep, and the text is in Italian, French, English, & German.

After an explanation of joining batteries in series & parallel, 12 'Schema' are given on 7 pages, showing simple circuits connecting the Bulbs & the various main parts, using the different Connectors & Switches. No Sets are referred to and the Magnet isn't used at all. No use for the Hammer is shown either. There's not much explanation and perhaps the most interesting circuit is for 2-way light switching, but I can imagine that a youngster would enjoy these 'experiments', at least for a while. Next come 2 very simple models of a Railroad Light Signal & a Table Lamp that need standard parts; then after an exploded view of the Motor (as in MCS), the Windmill opposite & an Aeroplane Ride, both driven by the Motor, are shown in colour on the inside back cover.



**Corrections** • On the lid of the MORECRAFT No.4 Set (19/537) the MORECRAFT/POWER/Quipped group of words are at bottom right, not bottom left as stated. Thanks to Don Redmond for pointing this out. • On KON. SHKOL'NIK in 18/501, '7 & 11h Strips' in the 4<sup>th</sup> line of the 5<sup>th</sup> para should read '7 & 9h Strips'.

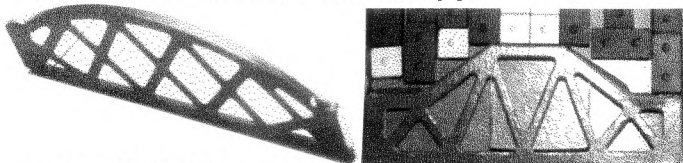
## ITEMS FROM LETTERS

1. From Thomas Morzinck. • A photo from Tobias Mey of the lid of a No.1 **Kosmos MASCHINEN** Outfit. It's in full colour and shows a boy using a real bench drill that is of a similar type to the model shown in 20/586. The drill is blue and a couple of parts alongside the box look blue too. The wording along the bottom of the lid is: KOSMOS-BAUKASTEN MASCHINENBAU. Also in the photo is the manual, in portrait format, cream with the same picture as on the lid, but quite small and in black.

2. From Don Redmond. • Some details of the **MODERN-MORECRAFT No.4** box described in 19/537. The box is 2¾" deep with both the top (lid) and bottom based on a wooden frame 13⅞"×11"×1⅞". [The lid sits on top of the bottom, located by an inner liner, and this gives a clear space above the inner tray, where a Motor could have sat, of 2¼" at most.] On the bottom of the box is \$4.89 in pencil.

• On the **ELETTRO BRAL** Ruhmkorff Apparatus (19/532), Heinrich Daniel Ruhmkorff (correct spelling) 1803-77, invented the induction coil in 1855, and it was called by his name, the Ruhmkorff Coil, in the 19<sup>th</sup> century.

• A letter from Kendrick Bisset in the July 1997 issue of the *S. Cal. Club Newsletter* compares the Richter metal Arch Bridge Parts with those produced by Gilbert for use with **MECCANO-BRIK**. (He had bought the toy division of the US branch of Richter's company in 1919.) The Arches are supported by the same type of U-Strip but their bracing is simplified with no vertical members. (But in ads & manuals the Richter pattern is shown.) In size they are the same height, 2", but the Gilbert parts are 6" long against 6.12", and 2.21" wide against 2.35". The Richter parts are painted a dark blue-grey and the Gilbert ones red. [See also the notes on the Richter parts in 19/555. The Arches and Roadway in a #000 MECCANO-BRIK Set are made of orange cardboard and the Arch is humped with diagonal bracing. In the photo below right, the metal U-Strip may be visible behind the card humped Arch, and on the left an oblique view of the Gilbert metal variety.]



• On **STRUCTO** (see 15/424) one Spider (Bush) Wheel has a flat front face and another has a boss on it protruding ⅛". The groove on the Crank Handle to hand is 'barely a scratch'. The pitch of the Sprocket Chain is about 8mm, perhaps 3 links to the inch.

• On **bolt heads** (20/585), 'Allen' is the name of the hexagonal socket in the head, not the head itself. There are other sockets of course, the PHILLIPS cross type for example, and square Robertson sockets which were patented in, and are unique to Canada.

• On the **POW'R HOUSE Ferris Wheel** (20/587), the radial Arms are indeed a rounded channel section, with 2 long tabs at one end which are bent out at right angles to attach to the Rim Segments where they join each other. The Rims have a channel or groove at one side, evidently for a drive belt. Also the hole for the Axle in the Side Supports is at least ¼" Ø and so presumably the Hub and Axle correspond. [The Axle can be seen more clearly in the original of the illustration in OSN 20 & could well be ¼" Ø.]

3. From Werner Sticht. • On the yellow parts in Germany, see 20/571, some of the **original MÄRKLIN parts** were

yellow. Pl.18 in *Bauklötze Staunen* shows a 1935 outfit and the 25mm Pulleys, Bush Wheel, and 38mm Flanged & Grooved Pulleys are yellow. In the late 1930s such parts were made of aluminium due to material shortages and were unpainted. A set with such parts can be seen in *Eisenzeit*, Pl.36.

• On the **Lilienthal patent** (20/571), although it was in the name of Otto Lilienthal, the aviation pioneer, in reality his brother Gustav was the inventor of the system. Otto's name was used because Gustav, who had also invented ANKER blocks, had lost all his money in November 1987 as the result of a lawsuit with Richter.

• Of one 'imitator', Hornby, in his Life Story (see 20/571), wrote, 'One of the earliest of these systems consisted essentially of bars of wood perforated at regular intervals with holes, and capable of being fastened together in various positions by metal pins passed through these holes. By means of this system it was possible to build a variety of houses and other fixed structures, but it was impossible to construct engineering models or mechanisms that worked. No matter how the parts were joined to one another, the result in every case was a fixed position - there was no means of producing movement. The opening words of the patent specification of this system read:- "The subject of the invention is a toy building set, by means of which structures can be put up closely resembling real structures put up by carpenters . . . ." This phrase places it beyond all possible doubt that the object of this system was to produce fixed structures based on the principles of carpentering. Meccano, on the other hand, is designed to produce working structures built on the principles of engineering.'

The patent referred to is 153854 of 1903 by Walter Walther (see 13/348) and the opening phrase quoted is a direct translation of the original German. It is now known for sure that Walter was the son of Franz, the originator of STABIL. Hornby's application for a German patent to cover his 1901 invention was not successful. [I understand that the papers that might have explained why were destroyed long ago, but I hope to include more on early patents in the next Issue. Why did Hornby give so much space to Walter's patented system? And was it ever produced?]

4. From Jeannot Buteux/Constructorama. • Some details of a **YUNYI [YOUNI] KONSTRUKTOR** set like the one described in 20/567, but from 1994. The nickel plating in it is very bright but flakes off in the fingers. The abbreviation 'F-ka' stands for Fabrika (фабрика), meaning factory.

• **OS names** not yet mentioned in OSN: ARMA (Czech, 1960, green Wheels); BOB (German); CONSTRUCTO (Belgian, c1948); IDÉAL MÉCANIQUE; KÖSTER (from 1951, a theme set to make trains in various colours); LA CONSTRUCTION MÉTALLIQUE; M.C.D. (Dutch); MECCAMINI; MULTI-MAKE (French, from c1910); LES NACELLES VOLANTES (French); N.S.V. (Dutch); TECNOR (French)

• On the date of **HOHA** (18/517), a set is known from 1950.

• In a known **KONSTRUKTOR-MEKHANIK** set like the one in 18/566, the Axles are 4.0mm Ø and the Bolts are 6,8,10 & 15mm u/h. [See also 20/566].

• **MECHANICUS** (see 18/518) was sold in Holland under the name MECHANIKUS STAALKNUTSELDOOS (an original brochure is known).

• The Patent described in 18/521 does indeed correspond to **FANTASIE 'R'**. Fig.10 on p11 of the Manual is identical to Fig.5 of the Patent, and one manual models is marked G.F.N. 1932. (G.F.N. = Gebr. Fleischmann / Nürnberg)

• On **GEOBRA** (19/522), there is also a larger outfit to make a Crane of the same type but bigger. Such a set is known from 1970.

• At the time of writing an **OS Exhibition** is being held at Euro Tecnica (at the Old Customs House, Hergersberg) near the Belgian/German border (Bullange/Losheim). On view, over 70 different systems which belonged to the late Dr Griebel, with sets and many models. The exhibition may have closed by the time you read this, so phone beforehand