

**ENGINEERIT** It is said in MCS that ENGINEERIT was an American system from the 1920s, but the very few sets that are known were in Australia, sold there by an agent.

ENGINEERIT had a small range of more or less conventional parts except that slotted Clips held in place by flat Wedges were used to hold the parts together instead of N&B. This method was also used in the first version of the Australian EZY-BILT (see 22/636) and in the German PHANTASIE (see 15/417).

This account is based on some parts to hand and photocopies of two model leaflets that were with them. It is thought that the latter were the basis for the MCS entry. One leaflet, no doubt the later of the two, is headed New Series and shows different models with some slight differences in the parts, notably the shape of the Clip, as explained later.

**The PARTS** All to hand except the Axles & Crank Handle, are shown in Fig.3, with inset a clearer photo of the Clip & Wedge. A few traces of the original bright tin finish remain. All **holes** are round and are 4.3mm Ø at 12.7mm pitch. **Strip parts** are 12.5mm wide. **Axles** are 3.7mm Ø, 1½ & 3½" long, with sheared ends. The **Crank Handle** is similar with a shaft 3.9" long, and a .9" handle offset by .8". The **Wheel & Pulley** are 35 & 18¼mm Ø with discs held together by a nickelled eyelet. The Pulley is 2½mm wide at the rim. The Wheel is loose on the Axles; the Pulley very slightly tight. The **Clip** is 11mm Ø with a 9½mm long tongue. The **Wedge** is 15mm long. A **bifurcated paper clip** 1" long, is also included in Fig.3 – there were a number of these among the parts and perhaps they were used to hold the parts to a backing card.

The parts are generally accurately made except for the registration error between the 3<sup>rd</sup> & 4<sup>th</sup> rows of cross holes in the large Flanged Plate.

**The FIRST LEAFLET** is a single sheet printed on both sides. An introduction is headed by an illustration very similar to the label on an Ebay lid (Fig.1), but in B&W with the agent's details instead of the set number. It mentions tinned steel parts with holes at ½" pitch, and ends with some building tips.

6 cards of 'Extra Parts' at 1/- each were advertised with the contents of each listed, plus a 5½\*2½" Base Plate at 4d.

Also 2 Motors, with the illustration in Fig.2, 'designed to be driven by Dry Cells or Storage Batteries': a 4 volt at 15/- and a 6 volt at 25/-, with a Driving Pulley available at 6d. An Illustrated Parts lists the following (with my names). • #1,2 Flanged Plates 5½\*2½", and 2½\*2½".



FIG.1

- #5,7,10 Strips 11,5,2h, 5½, 2½,1". • #16,19,20,21 DAS 11,5,4,3h, 5½,2½,2,1½".
- #22 A/B. • #25, Clip, Wedge, & Washer (the Clip square, it was shown in OSN 22 and can be seen in Fig.4).
- #30,31 Axles 3½,1½".
- #36 Crank Handle. • #40,45 Wheel (called a Tractor Wheel) 1½" Ø. Pulley ½" Ø (not illustrated, but see Fig.2).
- #50 A/G 11h, 5½". • #53-55 Perforated Plates 5½\*1", 5½\*2½", 2½\*2½". • Rubber

Axle Stop (no PN). • All the structural parts are shown with square ends/corners. Under the Strips & DAS it is said that longer and intermediate sizes will be available as extra parts.

27 models are shown with a line drawing of each, 24 for Set 1 (though one is said, probably wrongly, to need Extra Parts), and 3 for Set 2, mixed up in the others. The No.2 models are a very rudimentary Aeroplane, plus the Motor Truck & Chassis in Fig.4; those for set 1 include 2 Cranes plus a selection of the usual small Trucks, Barrows, furniture & domestic items – Fig.4 shows one of the Cranes and a Bedstead.

As far as can be seen from the models, Set 1, apart from strip parts, includes a 5\*11h Flanged Plate, 4 Wheels, & a Pulley. Notable additions in Set 2 are a 5\*5h & a 3\*5h Flanged Plate, 4x 3h Strips, & 4x 1\*3\*1h DAS. But no A/Gs. The 3h Strip & 3\*5h Flanged Plate are not in the Illustrated Parts. Nor is the Hook used in the Cranes. In 3 of the models the Wheel is shown with 2 or 3 face holes.

**The LATER LEAFLET** It is again a single sheet but printed on only one side and headed 'ENGINEERIT MODELS NEW SERIES'. Underneath is a list of 21 models and a numbered line drawing of each. All are different to the earlier models. Models 1, 7, 11, 13 & 21 are for Set 1, the rest for Set 2. Though simple as before, they include a Machine Gun and a few of a mechanical nature – a Lathe, and the Ore Crusher in 22/637 for example. 3 of the No.2 models are shown in Fig.5.

The parts in the models look like the ones to hand except that though some of the Strips have large-radius ends, many are square with rounded corners. (Possibly an intermediate stage – the strip parts in the Ebay set all have large-radius ends except that the 3h's are the square with rounded corners type.)

Judging by the parts used in the models the composition of the sets had changed. The No.1 has no Pulley or Wheels and fewer Strips; the No.2 definitely has 2 A/Gs but no 3h DAS. The only unusual parts are 2x 14h Strips formed to provide the back frame, arm rests, & front legs of a Verandah Seat.

**USING THE PARTS** I made a small Lifting Bridge and the parts went together easily enough. The Clips looked very neat on the outside of the model and held the parts firmly enough unless a significant out-of line force was applied. The Wedges though needed

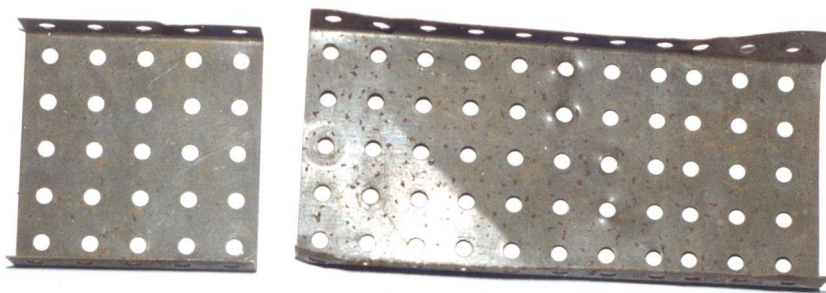


FIG.2

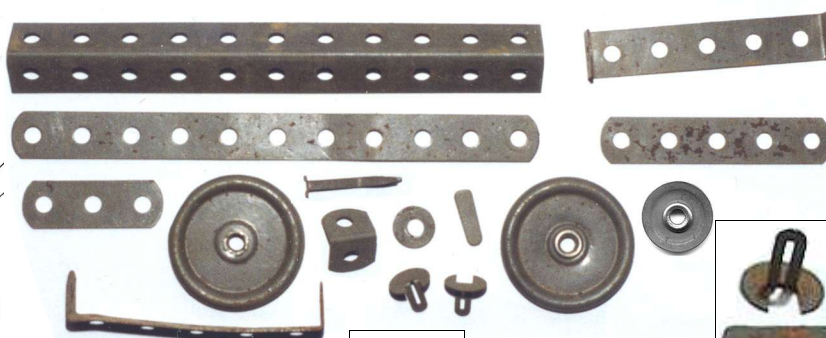
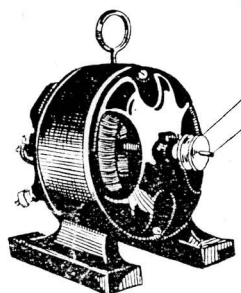
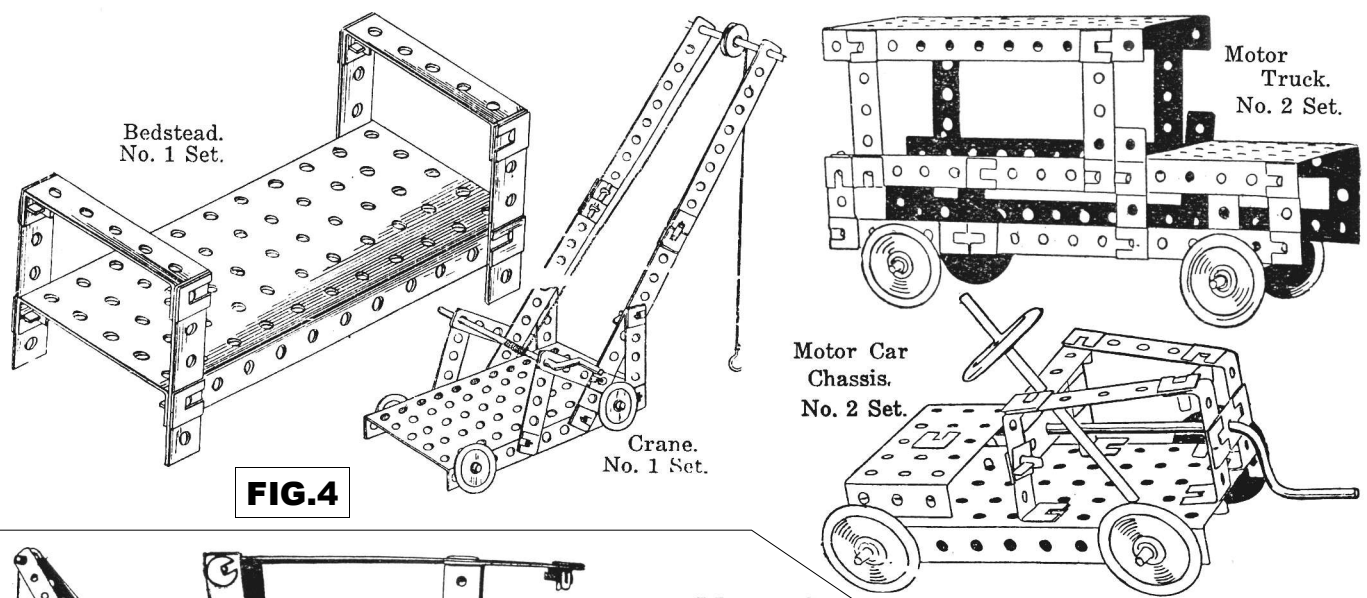
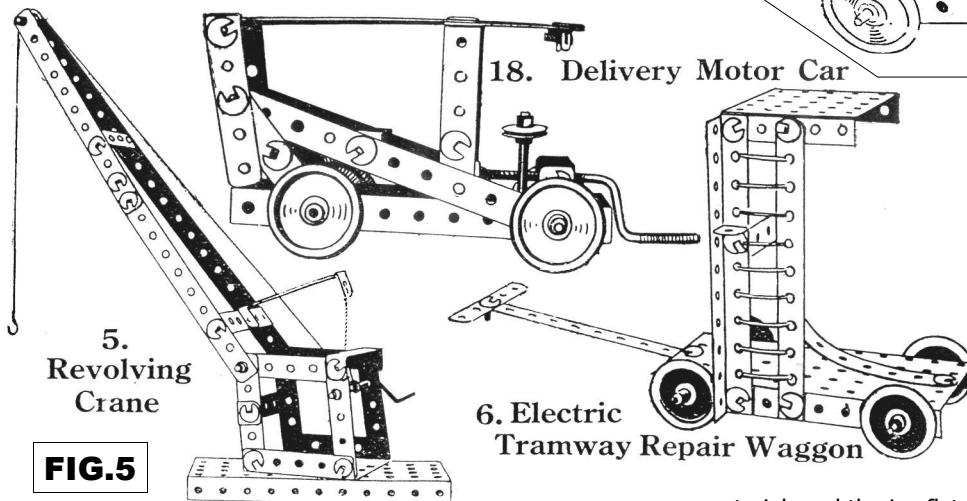


FIG.3



**FIG.4**



**FIG.5**

to be pushed in really hard and pliers were sometimes a help – it was then equally hard to remove them. It was also necessary, as stressed in the Instructions, to use the correct number of Washers to ensure the Wedge would grip, and at .012" thick they are thin enough to allow this. On the whole I doubt if the Patent's claim of speed of assembly & disassembly compared with N&B was really justified. The Wedge couldn't be used to hold a Clip in place when it was being used as a to allow two parts to pivot but the tongue is 4.3mm wide and my substitute Axle Stops could be pushed onto it. The movement was a little lumpy and the tubular type of Clip in the patent (see 22/636) would have been better.

**HISTORY** The 'Sole Agent For Australia & New Zealand'

given in the first leaflet was P V Morris, 7 Elizabeth St., Melbourne. But was ENGINEERIT American? Having an agent could well point to a foreign product but certainly doesn't preclude an Australian manufacturer. The case for America: tin plated parts were common there in the early days, as were Motors similar to the ENGINEERIT one, and there is no claim anywhere of Australian manufacture. For Australia: home to the only known ENGINEERIT

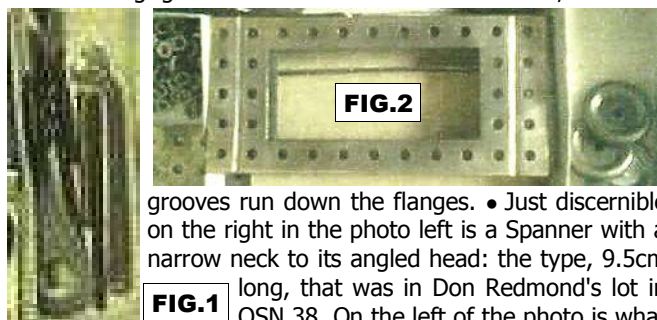
material, and the Leaflets contain no Americanisms.

Now patents. The lid, but not the Leaflet, has 'Patent Applied For' on it, though it doesn't say where. But if in Australia was it the application which led to the successful 1923 patent by James Perrott (see 22/636)? It covers both the square & round types of Clip and the model shown in the patent (Fig.1 in 22/636) is not dissimilar to the Bedstead in FIG.4 from the first Leaflet. If the Perrott patent was independent of ENGINEERIT it seems unlikely that it would have been granted if ENGINEERIT was on the market at the time. In which case ENGINEERIT must have appeared after 1923 and presumably with Perrott's agreement. And presumably it had disappeared before EZY-BILT was launched in the early 1930s (see 34/1030) using the circular Clip?

**ENGINEERIT: S2**

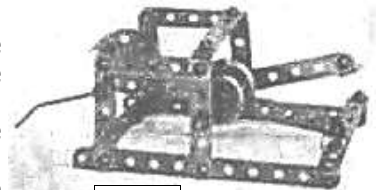
**OSN 45/1368**

**Snippets. PFIFFIKUS** A few points of interest about this small German, 12.5mm pitch system, since the last note in 38/1140. • The Ebay photos of 3 sets have same lids & partitioned boxes as in OSN 38. • In 2 sets the Flanged Plate has stiffening grooves across each end as below, and the



grooves run down the flanges. • Just discernible on the right in the photo left is a Spanner with a narrow neck to its angled head: the type, 9.5cm long, that was in Don Redmond's lot in OSN 38. On the left of the photo is what

looks like a flat Screwdriver with a pierced handle but no such part has been seen in other sets. • Other parts seen are a Stabil-style wire Crank Handle, as in the Trip Hammer below; the 1\*8h SAS which was also in Don's parts; a 1\*2h A/B (or possibly it's 2\*2h); 3 & 6cm long Screwed Rods, and possibly a longer one; a wire Hook; and hexagonal Nuts. • The manual is actually a single sheet folded in two with 2 models on each page. The front was shown in OSN 38, and the models on the other pages (very blurry) are: a See-saw and a crank-driven machine of some sort; a Crane and a Side-Tipping Truck; a Swing and the Trip Hammer. None of them are the models on the lid.



**FIG.3**

**PFIFFIKUS: S2**

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