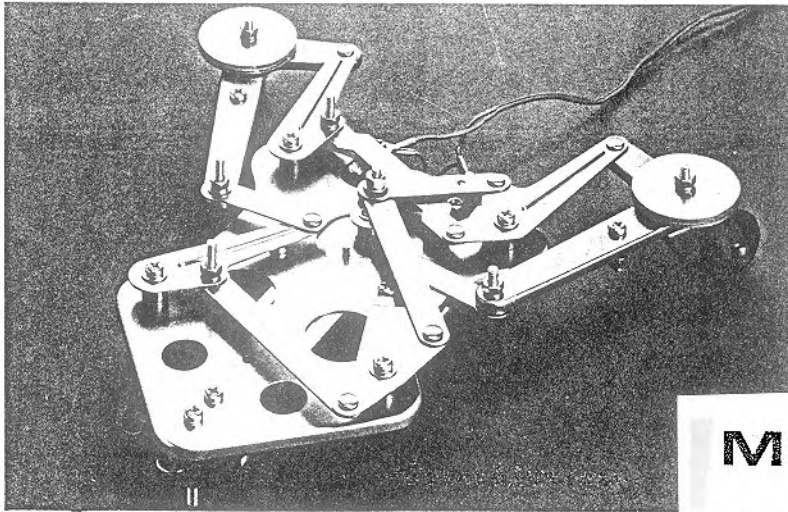


MECHANIMALS Denis Higginson was good enough to send an instruction sheet and parts lists for various of these creatures, and he also drew my attention to a mention of them in the North Midlands Newsmag No 18 (Aug 1980). It seems that there were kits for 6 animals, made by Gaku Ken Ltd in Tokyo, an Inchworm, a Squid, a Frog, a Baby Snake, a Worm and a Beetle. The models are made largely of aluminium parts, they are operated by remote control (through wires), and while they do not look particularly true to life, their movements are said to be remarkably realistic. The piece ends with "These toys have something in common with the cybernetic sculpture, 'The Senator', by Edward Ihnatowicz (see pp.56,61), where the movement and not the appearance conveys the impression of the animal."

The instruction sheet was for the Frog and full details of parts and assembly are given in Figs 1, 2 and 3. These have been reduced in size, note the centimetre scale along the bottom of Figs 2 and 3.

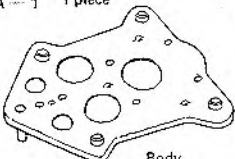
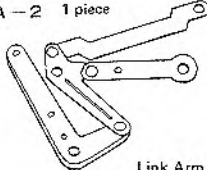
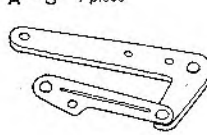
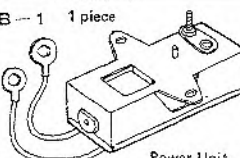
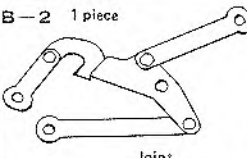
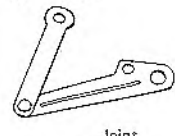





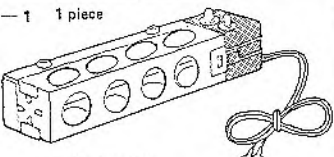
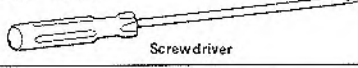
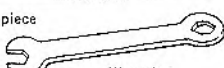


Martian Frog

Instructions for Assembly

Fig 1

Parts List

A				
A-1 1 piece  Body	A-2 1 piece  Link Arm	A-3 1 piece  Link Arm		
B				
B-1 1 piece  Power Unit	B-2 1 piece  Joint	B-3 1 piece  Joint		
C				
C-1 1 piece  Terminal Plate	C-2 3 pieces  Spring	C-3 4 pieces  Weight	C-4 3 pieces  Wheel	C-5 1 piece  Step Bushing
D				
D-1 1 piece  Battery Box	D-2 1 piece  Screwdriver	D-3 1 piece  Wrench		






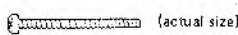

E-1 23 pieces  Nut	E-2 23 pieces  Spring Washer	E-3 14 pieces  Washer
E-4 19 pieces  (actual size) Screw 12mm		E-6 7 pieces  Brass Bushing
E-5 4 pieces  (actual size) Screw 25 mm		E-7 2 pieces  Brass Pipe

Fig 2

The parts list for the Inchworm, Spider (not mentioned in the Newsmag article) and Snake are shown in Figs 4 and 5 (.65 full size). I don't have pictures of them but in case you ever need to know my dictionary tells me that an Inchworm is another name for a measuring worm and that "it is the larva of a geometrid moth: it has legs on its front and rear segments only and moves in a series of loops. It is also called a looper."

Read instructions carefully before beginning assembly.

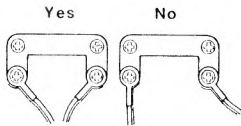
To assemble follow numbered sequence.

- 1 Attach wheel C-4 to body. First insert and tighten E-4 screw then attach wheel and insert and tighten E-5 screw.
- 2 Attach B-1 power unit and C-1 terminal plate to body.
- 3 Attach wheels C-4 and weights C-3 to A-2 and A-3.

After securing the wheels to A-2 and A-3 be sure they move freely.

- 4 Attach E-7 pipes and spring C-2 first to A-2 and A-3 and then connect to wheels C-4.
- 5 Connect A-2 to B-2 using step bushing C-5.
- 6 Connect A-2 to A-3 using E-6 bushing.
- 7 Connect B-3 to B-2 and A-3 using E-6 bushing at both connections.
- 8 Following diagram attach A-2/A-3/B-2/B-3 assembly to body. Connect assembly to power unit crank arm.
- 9 Connect wires from power unit and battery box at terminal plate C-1.

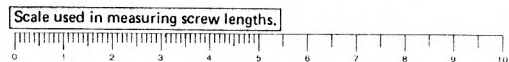
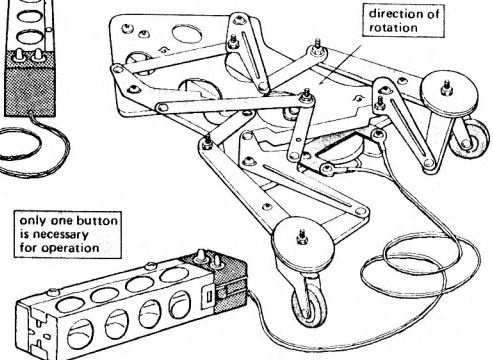
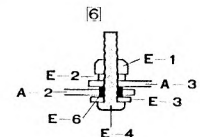
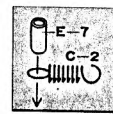
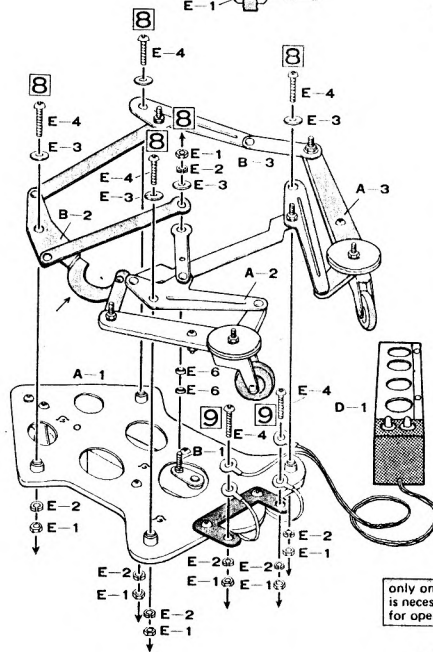
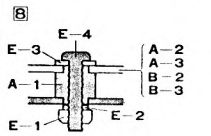
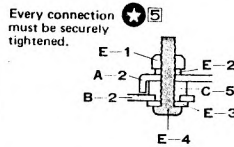
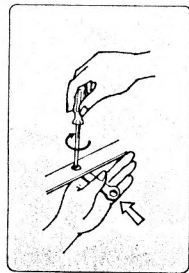
Wire terminals should be flat against each other.



- * Using batteries, test the rotation of B-1 crank arm. Counterclockwise rotation is most efficient. If rotation is clockwise, reverse battery box wires at terminal plate.
- * If no movement occurs when power is applied check terminal connections.
- * If movement is heavy and intermittent, check steps 3, 5, 6, 7, 8.

Parts Necessary for Assembly

A-1	Body
A-2	Link Arm
A-3	Link Arm
B-1	Power Unit
B-2	Joint
B-3	Joint
C-1	Terminal Plate
C-2	Spring
C-3	Weight
C-4	Wheel
C-5	Step Bushing
D-1	Battery Box
E-1	Nut
E-2	Spring Washer
E-3	Washer
E-4	Screw 12mm
E-5	Screw 25mm
E-6	Brass Bushing
E-7	Brass Pipe

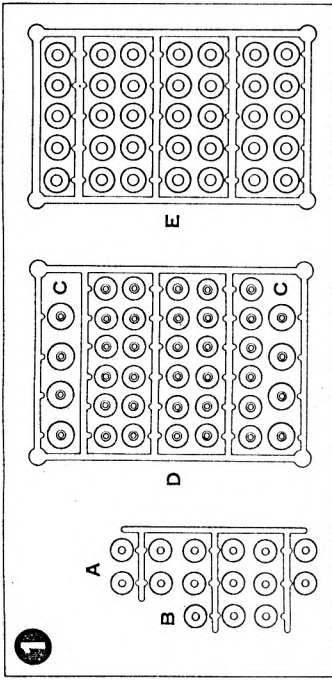


Keep small children away from moving parts.

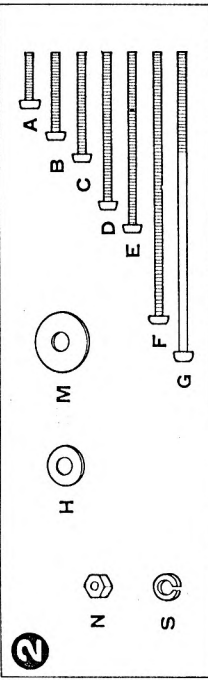
Fig 3

[Cont >]

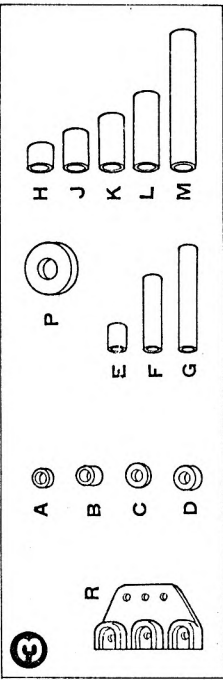
MECHANIMALS



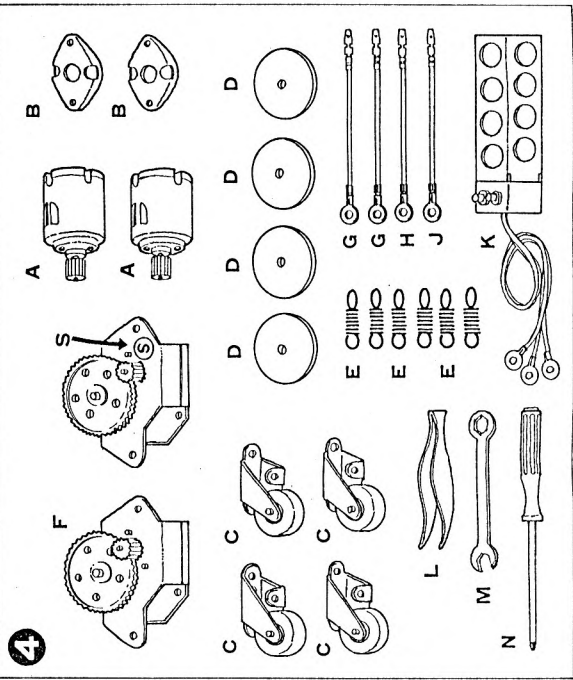
- 1** Molded parts
 A Plastic spacer (5m) (14 pcs)
 B Plastic spacer (lg) (3 pcs)
 C Step bushing (lg) (8 pcs)
 D Step bushings (sm) (30 pcs)
 E Plastic washer (35 pcs)



- 2** Screws, nuts & washers
 A Screw 3X10 (40 pcs)
 B Screw 3X16 (20 pcs)
 C Screw 3X20 (10 pcs)
 D Screw 2X30 (2 pcs)
 E Screw 3X35 (6 pcs)
 F Screw 3X53 (5 pcs)
 G Special screw 3X60X20 (1 pc)
 H Metal washer (sm) (6 pcs)
 M Metal washer (lg) (55 pcs)
 N Nut (60 pcs)
 S Spring washer (60 pcs)
 Extra screws, nuts and washers are included.

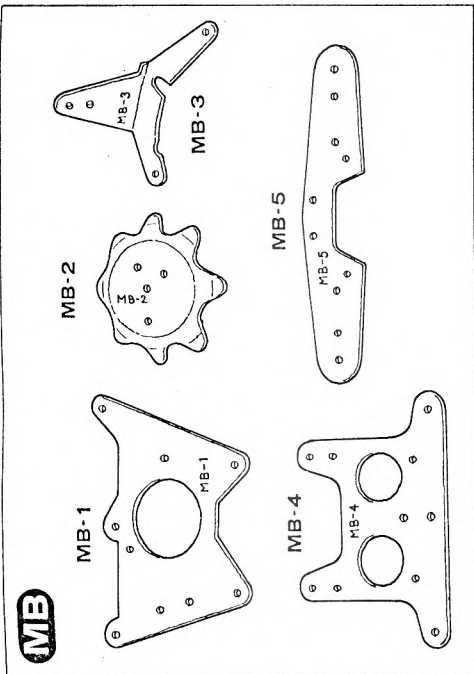


- 3** Bushings and pipes
 A Brass bushing (sm) (30 pcs)
 B Brass bushing (lg) (8 pcs)
 C Brass collar (sm) (8 pcs)
 D Brass collar (lg) (3 pcs)
 E Brass pipe 4X6 (4 pcs)
 F Brass pipe 4X14 (4 pcs)
 G Brass pipe 4X20 (8 pcs)
 H Aluminum pipe 6X4 (2 pcs)
 J Aluminum pipe 6X7 (11 pcs)
 K Aluminum pipe 6X10 (2 pcs)
 L Aluminum pipe 6X14 (4 pcs)
 M Aluminum pipe 6X27 (4 pcs)
 P Aluminum spacer (2 pcs)

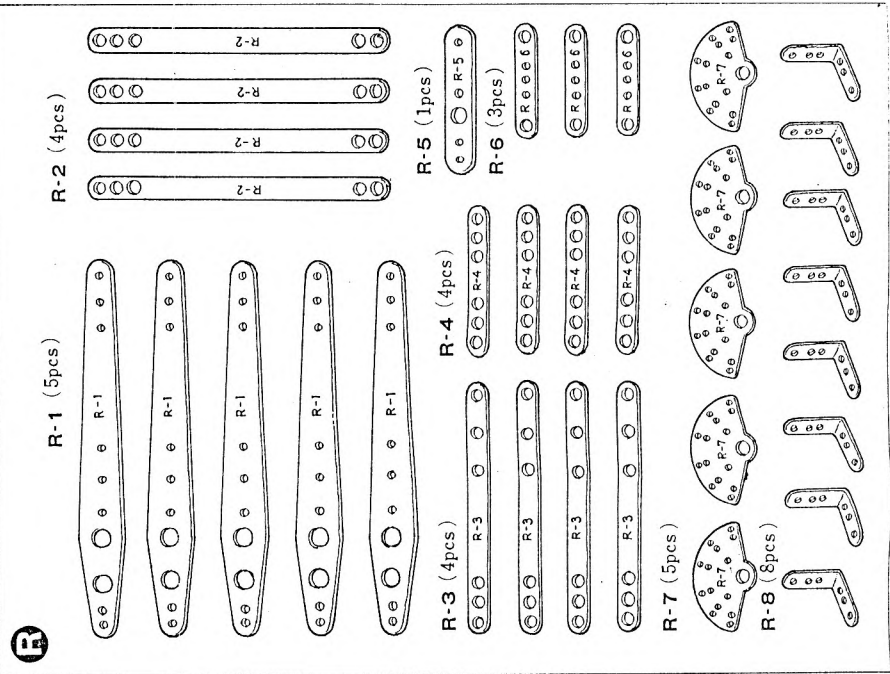


- 4** Other parts
 F Gear box (high speed, 1 pc)
 S Gear box (low speed, 1 pc)
 A Motor RE260 (2 sets)
 B Motor plate (2 pcs)
 C Caster (4 pcs)
 D Weight (4 pcs)
 E Spring (6 pcs)
 K Battery box (1 pc)
 L Tweezers
 M Wrench
 N Driver

Fig 5



- MB**
 MB-1 Inchworm main body
 MB-2 Inchworm rotary plate
 MB-3 Inchworm rotary plate bracket
 MB-4 Spider main body
 MB-5 Snake main body



- R**
 R-1 Arm (5 pcs)
 R-2 Arm (4 pcs)
 R-3 Arm (4 pcs)
 R-4 Arm (4 pcs)
 R-5 Arm (1 pc)
 R-6 Arm (3 pcs)
 R-7 Sector plates (5 pcs)
 R-8 "L" brackets (8 pcs)

MECHANIMALS

Fig 4

ITEMS FROM LETTERS

1. On TEMSI hole spacing (9/225), D. Courdoux says you can bolt 25-hole TEMSI and MECCANO parts together successfully but of course an Axle Rod won't go through all the holes. Also slight changes in gear meshing, good or bad, can be noticed when using TEMSI Plates. He adds that TEMSI parts are strong and of good quality, and that the red colour they use is specific to them.

2. Al Sternagle wrote that he had come across some MECHANIMALS parts (see 4/66): they are larger than might be expected, for example R-1 is about 7½" long and MB-4 is some 4½" wide. He has many more parts than were shown in OSN, no doubt from the other 'animals' in the series - one triangular piece has a base of nearly 12". Only some of the parts are aluminium, the bulk are of a good quality steel alloy and quite durable, especially the links and joints. The aluminium parts are stamped with their PNs. The thread is probably metric and is about the size of a U.S. No.4. If anyone has the complete building instructions for any of the MECHANIMALS please contact the Editor.

3. On the MIGNON Ansatzmutter (10/263), there was general agreement that it wasn't a locknut. Both Geoff Davison and Don Redmond suggested that 'Ansatz' in this context implied joining or an extension. It's possible that if the part is threaded right through it might be used to join two threaded rods, but why then reduce the size at one end? Or is it intend to be used inside a curved structure to avoid the flattening caused when a normal nut is tightened? Possible but a nut with a radiused end would probably be cheaper and more effective. My favourite suggestion is that it is used with a normal bolt to create a non-sloppy pivot joint for two Strips. The length of the 'extension' would then need to be slightly longer than twice the thickness of the Strips. It doesn't look that long in the illustration and the other thing is that with a 2.5mm bolt in the 3.1mm hole in the Strip, the wall thickness of the 'extension' would be little more than 10 thou. I looked in the Manual to try to see how the part was used: 3 of them are called up for one model and that's all, even though there are 10 supplied in the #3 Set. There are 3 pivoted joints in the model where the Ansatzmutter could be used but it isn't certain that it is. On the other hand I can't see anywhere else in the model where they would be needed for any purpose.

4. René Mikkers sent several items which are included elsewhere in this Issue and also mentioned that he can supply TEMSI and BRAL parts. The leaflet he sent showing the range of TEMSI parts is identical to that in 3/40. He also sent an illustrated List of BRAL parts together with prices. MCS shows most of the parts but additions are illustrated in 7/143, 8/192 and 9/227, though the latter aren't in fact in his List. Prices, in Dutch Guilders, seem reasonable, for example, 1.00 for a 25h Strip, 3.75 for a 49h Angle Girder. Details from R. Mikkers, Wezelstraat 23, 7559AP Hengelo, The Netherlands. Tel: 074-774327 (after 19.00).

5. Eric Sinton sent a clarification of his remarks in 10/267(8): STOKYS Chain can of course only be used with STOKYS Sprockets. He added that when he dismantled the model in question, a Rack and Pinion Locomotive, which had worked faultlessly for many hours with its STOKYS Sprocket engaging MÄRKLIN Large Toothed Rings straightened into rack form, excessive wear of the Sprocket's teeth was noticed, and their rather 'knobby' shape had changed to something nearer an involute pattern!

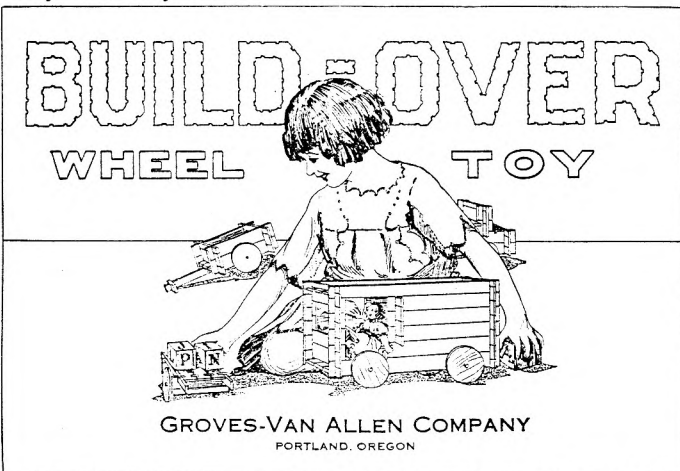
And on 9/227: BRAL Copriruota is a Wheelcover (Conical Disc in Meccanoese). The standard steel parts 3044,

45mm for the 50mm, and 3045, 66mm for the 75mm Pulley, have a narrow steel strip rivetted in the central hole. The ends of this strip are bent in such a way as to make it easy to clip the disc securely to the Wheel. The plastic version seems to have a stub axle (also in plastic?) which may indicate some use other than as an attachment to the 50mm Pulley.

6. Roger Baker confirmed my guess (10/247) that the output shaft of the MARBI motor can be repositioned in the corresponding holes on the opposite side of the motor. The drive is taken from the same large gear wheel which is, of course, centrally mounted.

7. Clive Weston wrote that a Mr Rod Moore, the curator of the Cumberland Toy and Model Museum, Cockermouth, Cumbria, Tel: 0900-827606, has several OS in his reserve stock, and that on a recent visit he was able to handle his large collection of ANCHOR blocks. The interesting feature of these sets was that the flat metal parts, apparently used to construct a framework with the stone blocks as infill, were joined by a rod method akin to that of DINKY BUILDER.

8. Kendrick Bisset sent details of a BUILD-OVER Set, but not the one with metal parts listed in my OS Database. Both were made in Portland Oregon, but by different companies, and the parts in this outfit are all wooden. Apart from Wheels and Axles, there are various notched Strips, about 3/16" thick, which slot into one another at right angles. There were 3 sets and the #3 model on the cover of the Manual (below) is called a 'Police Patrol', despite the lady driver. The parts are plain, untreated wood and are not very accurately made.



9. From Don Redmond: 'I saw a RICHTER set recently which contained two styles of braced girders. One was rectangular as in 10/261; the other was curved (humped) at the top.' And on MERKUR ALFI (MCS X1.2): 'The legend 'Vyrobce' etc. says: Manufacturer: Metal Enterprises, OPMH Broumov; I did not find 'stredisko' but it may be plant or unit. Does anyone know what OPMH stands for?'

In a later letter: 'In a toyshop in a town near Kingston [Ontario] I noticed a GIRDER AND PANEL set with the name Irwin Toys, of Toronto, the Canadian distributors of MECCANO, on the box. I didn't have the opportunity to open and examine the set, but the illustration much resembles other plastic architectural building sets.'

Don also mentioned an ERECTOR No.100 Set he has acquired, which probably dates from the 1950s. The box is 10½x9x¾" and the lid has the same design as that shown for EL NUEVO ING. ARGENTINO in MCS. There is no manual but a sheet pasted inside the lid shows 10 models. It has the code M3366 on it while the lid has M3409. The