

MECCANO (AMERICA) GILBERT ERA (b) 1a

U.S.A.

NAME	MECCANO		
TYPE	Mechanical Engineering		
HOLE DIAMETER	4.2mm	HOLE SPACING	12.7mm (1/2")
SETS IN SYSTEM	Total of 2 : 1025, 1026, 1050, 1, 3, 5, 10 15, Other Meccano items – Microscopes, Meccano Brik, Mysticks, Greenhouses, Ripley’s Believe it or Not.		
DIFFERENT PARTS			
COLOUR	Red, green, black and tinplate with some nickel plate		
FIXING METHOD	8-32 Nut and Bolt. 6-32 on bosses (Same as Erector)		
MOTORS	3 Electric. E2A, E2B, E3		
PERIOD	1933 to circa 1936		
MANUFACTURER	The Meccano Company of America Inc., New Haven, Connecticut, USA.		
COMMENTS	<p>In 1933 the ‘Wide Beam’ sets were introduced. These parts were the same as MECCANO (ENGLAND) ‘X’ Series except for the addition of a flanged Plate (4 1/4” x 1 3/4”).</p> <p>Sets 1025, 1026, 1050, 1 & 3 were ‘Wide Beam’ sets.</p> <p>Sets 5, 10 & 15 also contained Meccano Brik.</p> <p>Sets 10 & 15 contained a mixture of ‘Wide Beam’ and conventional Meccano/Erector parts of 1930-2 period.</p> <p>In 1934 the Wide Beam sets dispensed with bolts, apart from where swivel connections were required and substituted ‘Snap Rivets’ instead. Sets 10 & 15 used ‘Snap Rivets’ to hold the Wide Beam parts together and normal nuts and bolts for the other parts.</p> <p>The sets were also sold in J.C Penney stores under their ‘LITTLE JIM [2] brand name.</p>		

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COMMENTS (cont)

There are actually two variants of the broad beam parts. It is suspected that they correspond to the "bolted" and "snap rivet" versions. The differences are in the Angle Brackets and the Base Plates. The earlier A/B were about 1/2" on each leg, and were two holes from the bend to the end. The later ones were 3/4" or so, with three holes from the bend to the end (there are other holes on either side in both cases). The early base plates had only a few holes in the 'top', and two rows of holes in the flanges; the later ones were more fully perforated in the top, and had three rows in the flanges. The later ones were larger, too. It is not known whether Meccano sets were sold after 1934 as they do not appear in 1935/6 catalogues - only Meccano Morecraft is shown.

NOTE : Another other 'LITTLE JIM [1]' system was also sold by P.J. Penney, but had ERECTOR type parts and nut and bolt fixing and was also known as DUPLEX STANDARD CONSTRUCTION TOY

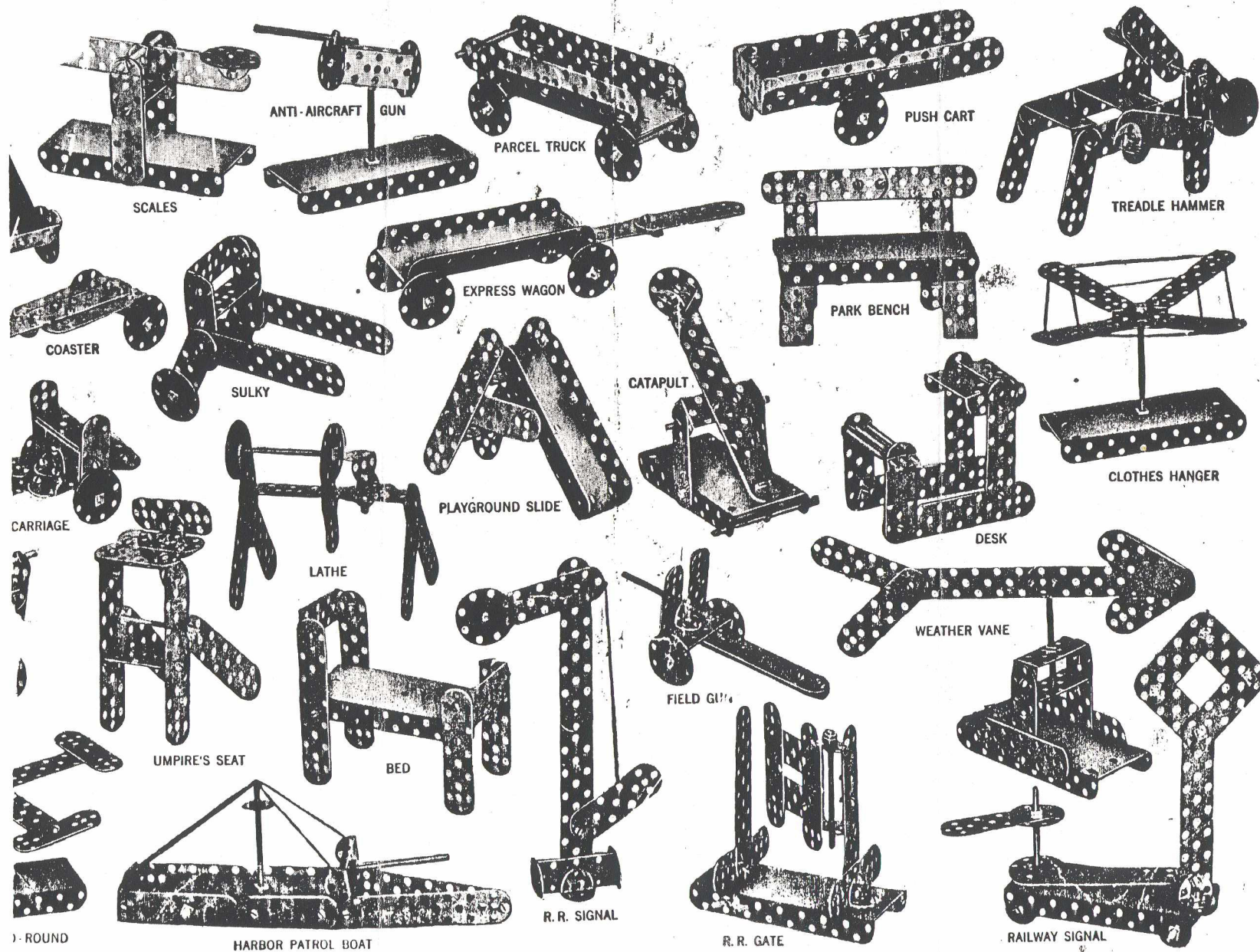
OTHER SYSTEMS NEWSLETTER

12/316, 13/364, 14/386, 15/426, 19/546, 27/788, 29/846, 30/876A, 35/1036

MATERIAL SUPPLIED BY Clyde, T. Suttle, Kendrick Bisset and articles in OSN.

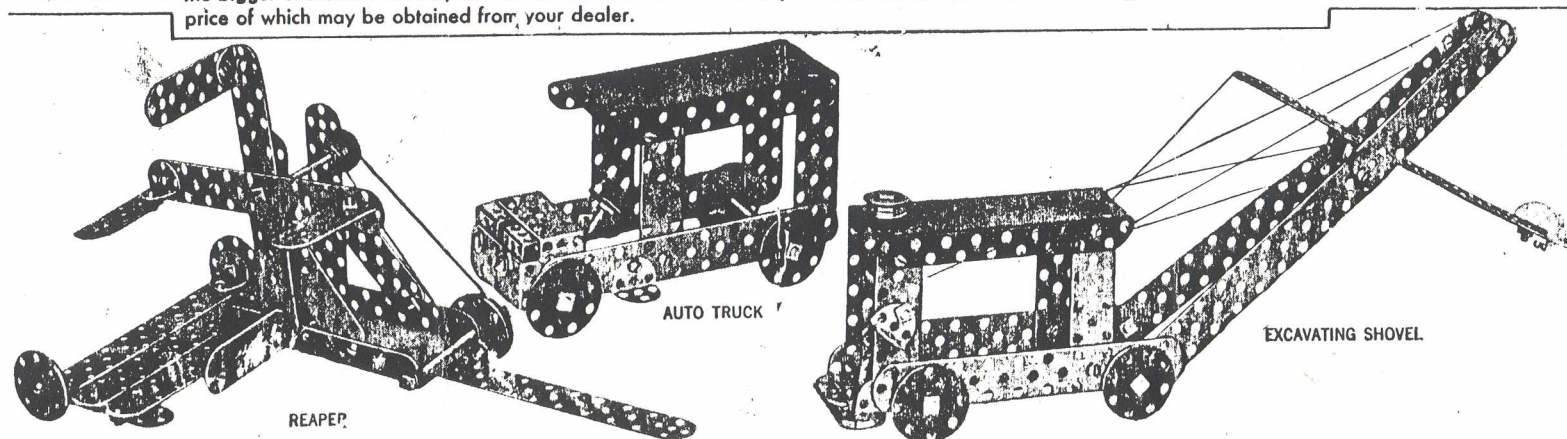
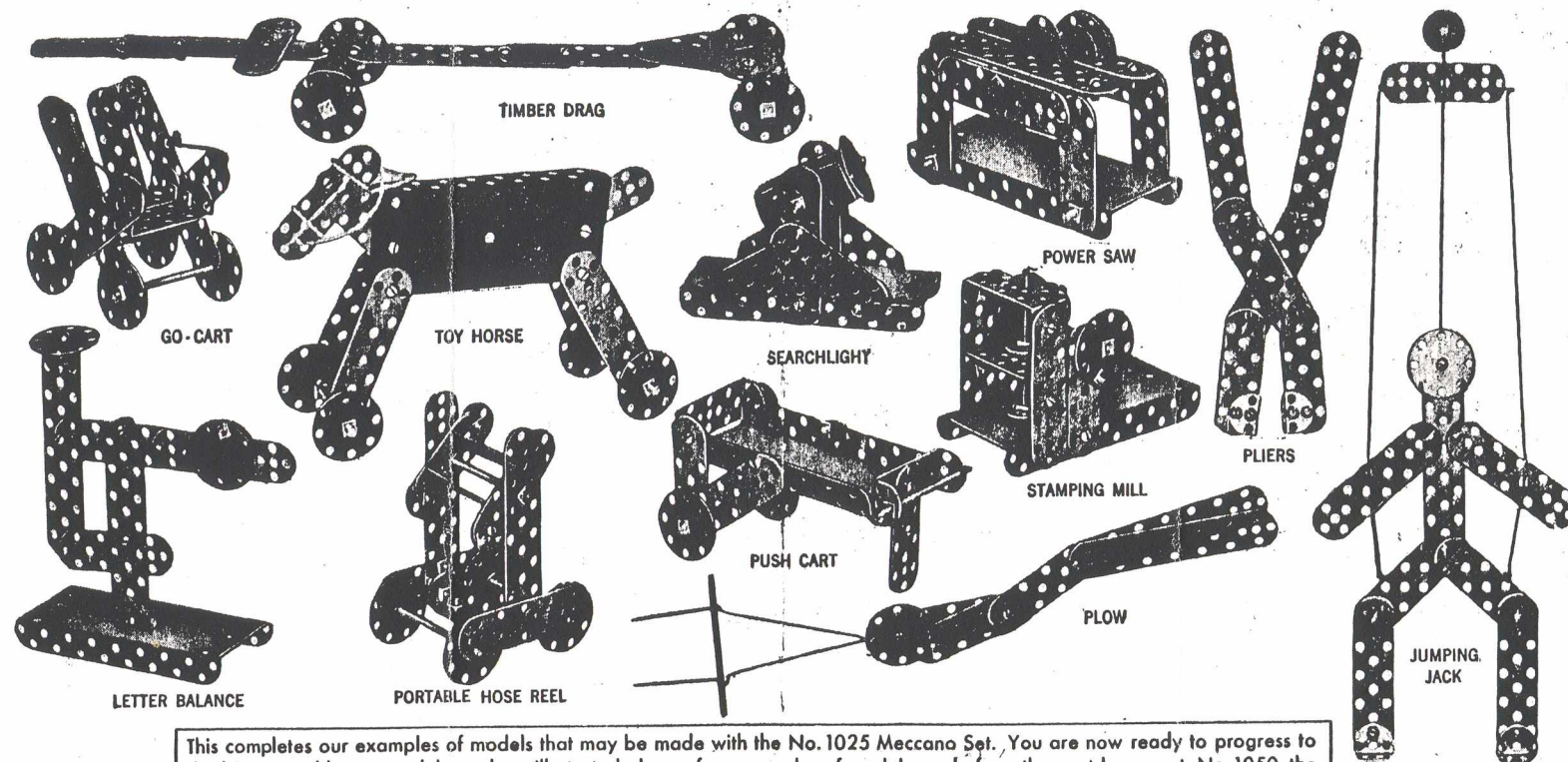
MECCANO (AMERICA) GILBERT ERA (b) 5a

1933 range using bolts

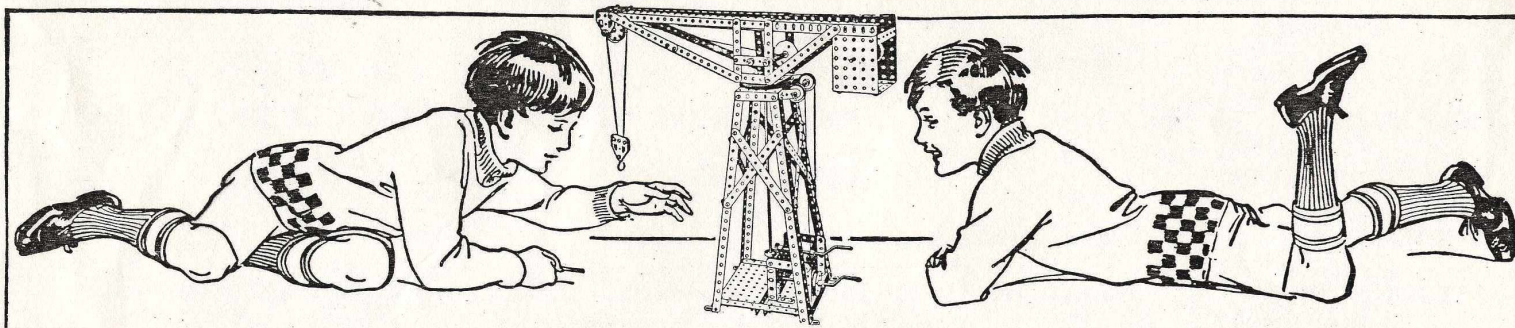


MECCANO (AMERICA) GILBERT ERA (b) 5b

1933 range using bolts



The sets were sold in Penney's Stores under the name 'Little Jim'



LITTLE JIM

(TRADE MARK REG. U. S. PAT. OFF.)

MANUAL OF INSTRUCTIONS FOR No. 1 OUTFIT

This outfit will build scores of other fine models in addition to those illustrated. There is no limit!

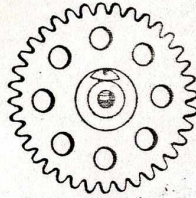
M1351

Printed in U.S.A.

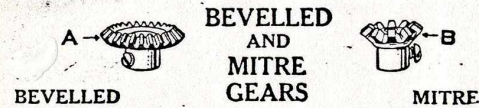
STANDARD GEARING

INTRODUCTION

GEAR
WHEEL



A wheel that is provided with teeth to mesh, engage, or gear with similar teeth upon another wheel, so that the motion of one may be imparted to another, is called, in general terms, a gear-wheel.



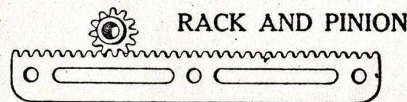
When a wheel has its teeth arranged at an angle to the shaft as in Fig. A it is termed a bevel-gear; but when this angle is one of 45 degrees, as in Fig. B, as it must be if the pair of wheels are of the same diameter, so as to make the revolutions of their shafts equal, then it is called a mitre gear.

CROWN



GEAR

When the teeth are arranged upon the radial or side face of the wheel, as illustrated, it is known as a crown-gear.



When the teeth are arranged along a plane surface or straight line, the toothed plane is termed a rack and the wheel is termed a pinion.

The pinion is also used as the smallest wheel of a pair, or of a train or set of gear-wheels.

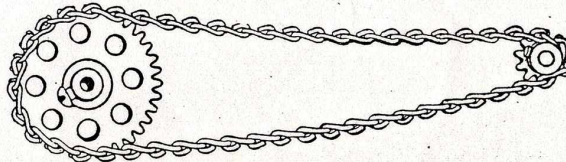
This information is given in an endeavor to acquaint every boy in a clear manner with gearing terms and gear application.

A gear-Wheel that which impels the other is termed the driver, and that which receives motion from the other is termed the driven wheel or follower; hence in a single pair of wheels in gear together, one is the driver and the other the driven.

A series of more than two wheels in gear together is termed a train of wheels or of gearing. When the wheels in a train are in gear continuously, save the first and last, both receives and imparts motion, it is a simple train, the first wheel being the driver, and the last the follower or driven, the others being termed intermediate wheels. Each of these intermediate wheels is a follower with reference to the wheel that drives it, and a driver to the one it drives.

Different styles of gearing combinations are shown to illustrate practical gearing methods and mechanisms. They also offer the builder a variety of different kinds of power from which he can select the most practical to meet the requirements of any particular model through the features and ability to use either the E-3 110 Volt Motor or 6 to 24 Volt motor.

GEAR AND CHAIN DRIVE

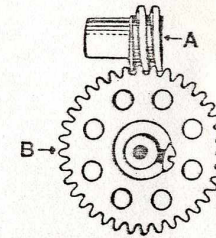


Rotary motion is often imparted from one gear and transmitted by chain to another gear, this is known as chain-drive Gears, when used in this manner are sometimes also called sprocket wheels and the chain, sprocket chain

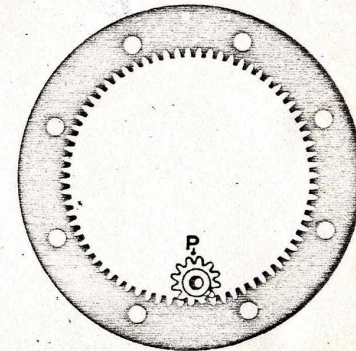
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SEC. 3
M1599

WORM
AND
WORM
WHEEL



A wheel that is driven by a revolving screw, or worm as it is termed, is called a worm-wheel, the arrangement of a worm and worm-wheel is shown in illustration A and B. The screw or worm is sometimes also called an endless screw, because its action upon the wheel does not come to an end as it does when revolved in one continuous direction through a nut.

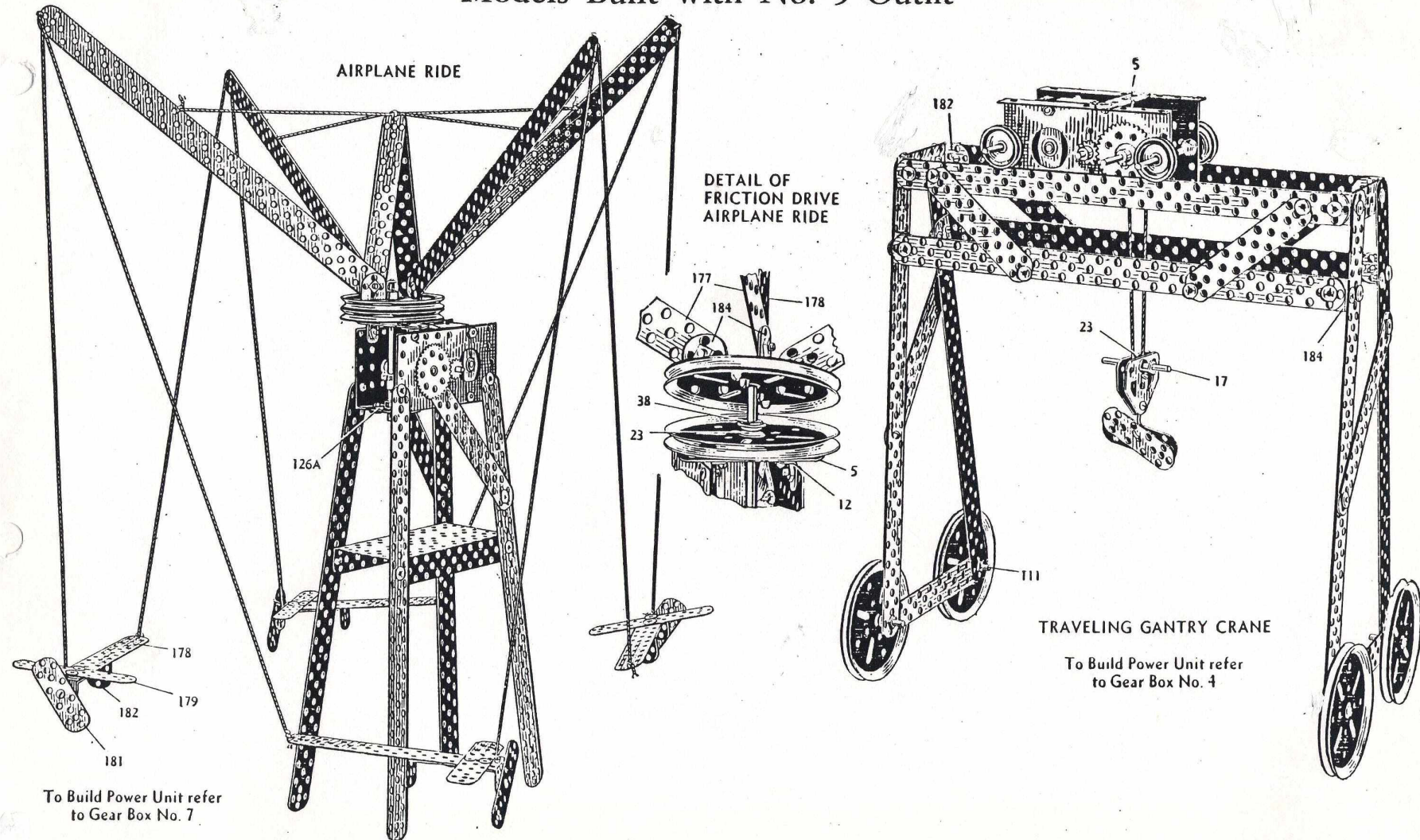


INTERNAL
GEAR

An annular or internal gear-wheel is one in which the faces of the teeth are within and the flanks without. The illustration shows how pinion P operates within the wheel.

1934 Snap Rivet Outfit

Models Built with No. 5 Outfit



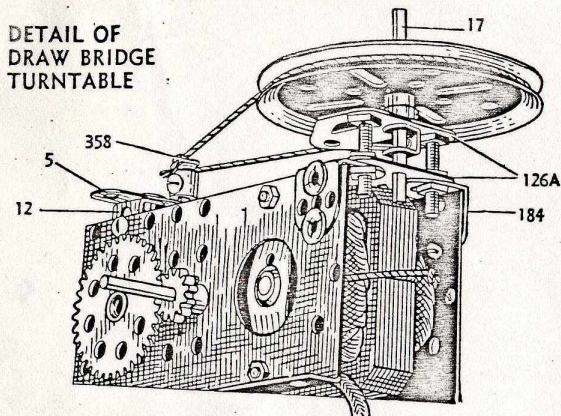
MECCANO (AMERICA) GILBERT ERA (b) 1936 5d

1934 Snap Rivet Outfit

Models Built with No. 5 Outfit

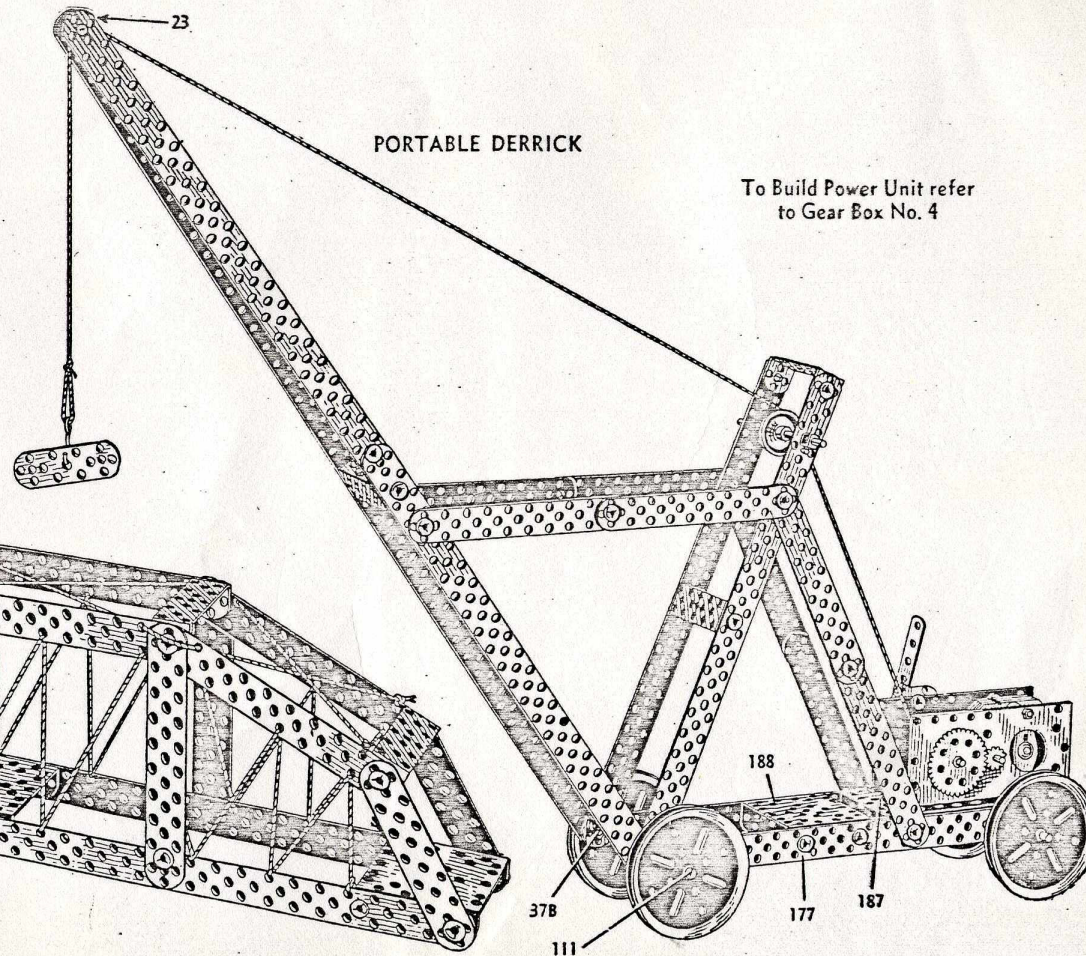
Sec. 4—M1568

DETAIL OF
DRAW BRIDGE
TURNTABLE



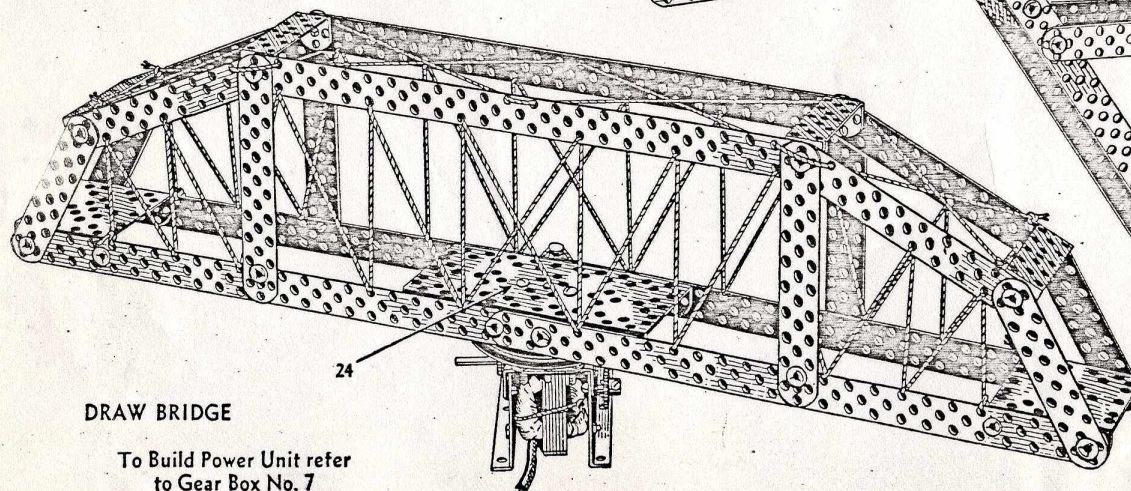
PORTABLE DERRICK

To Build Power Unit refer
to Gear Box No. 4



DRAW BRIDGE

To Build Power Unit refer
to Gear Box No. 7

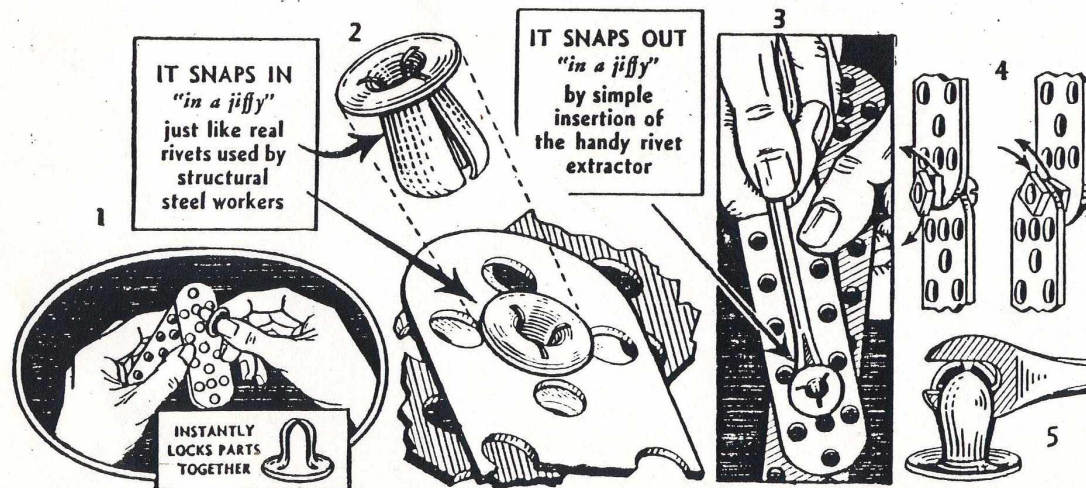


BOYS! You are to be congratulated in owning one of the new Little Jim outfits "the Toy that made Engineering famous." You can make hundreds of models such as Ships, Automobiles, Bridges, Airplanes, Locomotives, Derricks, Power Plants, Cranes, Machinery, Ferris Wheels, Steam Engines, Horizontal Engines, etc. It is easy making models with LITTLE JIM—the manual tells you how and all models illustrated are built on correct engineering principles.

There are hundreds of other models that you can invent yourself and there is simply no end of fun in assembling models of the most famous inventions known to the engineering world—models that work like the real thing and what is more, actually operate when hooked up with the powerful electric motor which comes with the No. 5 set and up. LITTLE JIM outfits contain all necessary parts such as pulleys, gears, girders, axle rods, couplings, snap rivets, nuts and bolts, miniature Dunlop Rubber tires, angle girders, all kinds of ship parts, automobile parts, etc. If you want to become a famous engineer start now. It is easy to build with LITTLE JIM—"Just count the Holes."

Introducing SNAP RIVETS

The new snap rivets present a quick and simple method of model building. All that is necessary is to place the parts in alignment, with the corresponding holes in position, and push the rivet through, Fig. 1. The rivet has a spring action that yields readily to the pressure of the finger or thumb, while being pushed through the holes, and immediately expands, maintaining tension—Fig. 2.



RIVETS MAY BE USED OVER AND OVER AGAIN

To remove them, insert the prongs of the rivet extractor under the shoulder of the rivet and pry upwards, as shown in illustration, Fig. 3.

TO OBTAIN A PIVOT OR SWIVEL JOINT WITH SNAP RIVETS

Push the rivet as far as possible through the first strip and only partly through the second, leaving a small space between. This space acts as a swivel.

A PIVOT WITH SCREW AND NUTS

These can be made by locking the nuts as shown. This permits strips to swivel. Turn nuts in opposite direction as indicated by arrows. Fig. 4.

TO INCREASE THE TENSION OF THE RIVET

After a great deal of use rivets may become compressed and thus lose their tension. This can be readily remedied by inserting the prong of the rivet extractor, or any other strip of metal, between the slot portions of the rivet and spreading them open. This is very easily done, as shown in illustration, and the rivet regains the same tension as when new. Fig. 5.

MECCANO (AMERICA) GILBERT ERA (b) 7b

A 1934 No.10 set

