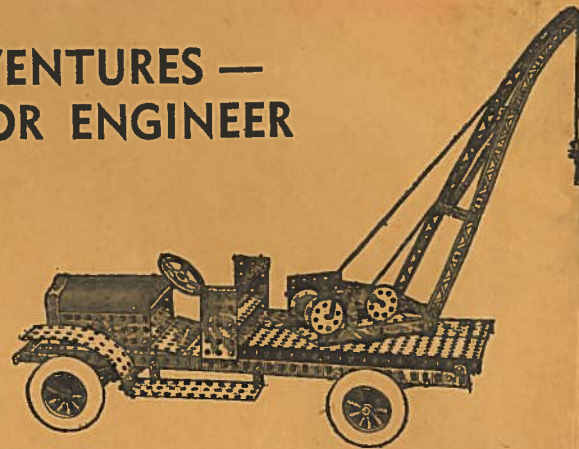
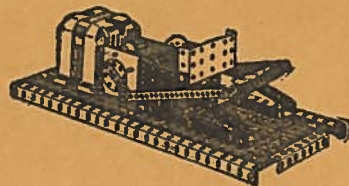
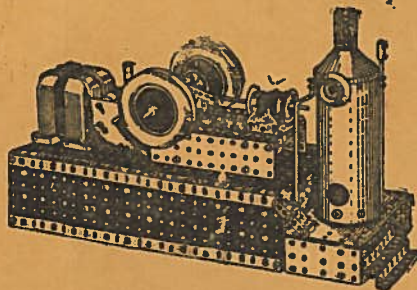


HELLO BOYS —

IF YOU LIKE THRILLS AND ADVENTURES —
YOU'LL LIKE BEING AN ERECTOR ENGINEER



You'll find engineering thrills by the dozen building with Erector. One day you can be an automobile engineer and build a big motor truck. Put it together—piece by piece—with your own hands. Another day you can construct a giant Derrick with a real electric motor in it—and then make it work just like the ones you see on the highways. Then you can build a draw bridge that actually opens and closes—a towering ship crane such as used in Uncle Sam's Navy Yards—a mighty hoisting engine—an airplane—and dozens of other thrilling engineering marvels. Then there are many other fascinating models you can make such as Jib Cranes, Battleships, Wagons, Trucks, Ferris Wheels, Elevators, Merry-go-rounds, Tractors, Walking Beam Engines, etc.

Does that sound like fun? I'll tell you boys, being an engineer is the most exciting thing in the world. And that's just what you are when you have one of my new Erectors.

Remember too, that building these models is **only half the fun**. There's an electric motor in all sets commencing with the No. and the final thrill comes when you hook them up and see them hum into action.

Every Erector Set has been completely re-designed and modernized. They are twice as much fun as ever before. You can make more realistic models. You can make them easier and quicker and have fun and thrills you'll never forget.

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The Great NEW **ERECTOR**

Hello Boys!

I'm sure you fellows who own one of my great new Erector sets will be just as proud of it as I am—More parts, many in bright brilliant coloring and other important changes, will make Erector model construction more thrilling than ever.

Your Friend, *A. C. Gilbert*

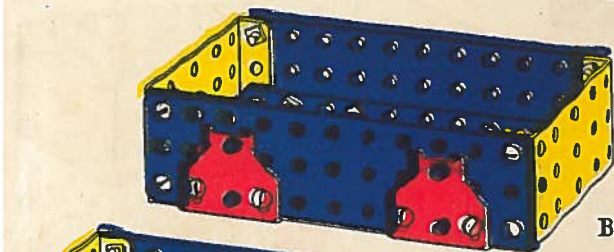
Models Built with No. 1 1/2 Erector

The only Construction 
Toy with the Square Girder
with Patented interlocking Edges

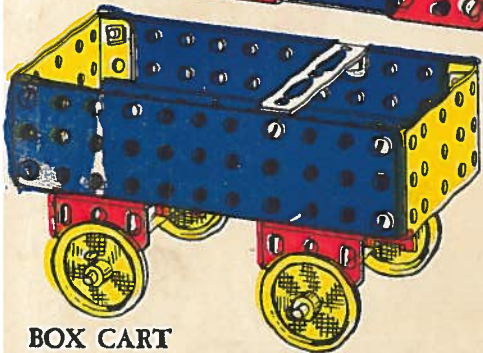
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New Haven, Conn., U. S. A.

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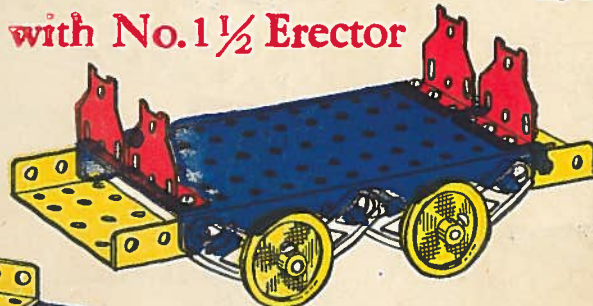
BOX



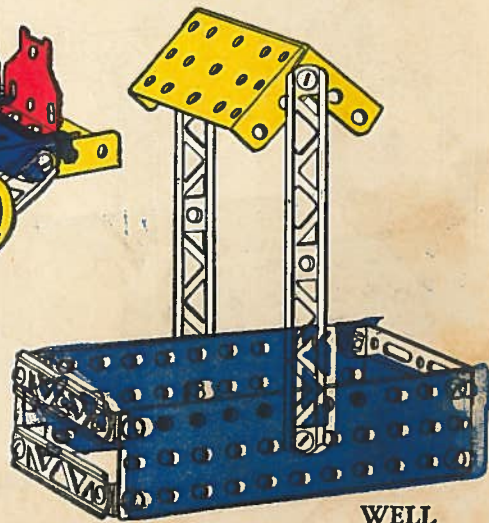
BOX CART



EXPRESS WAGON



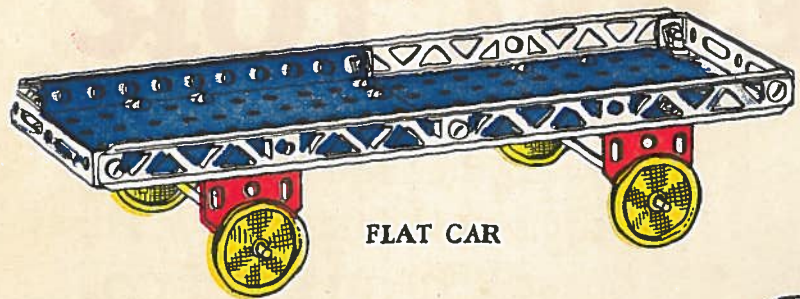
FACTORY TRUCK



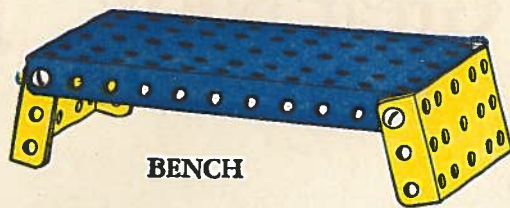
WELL

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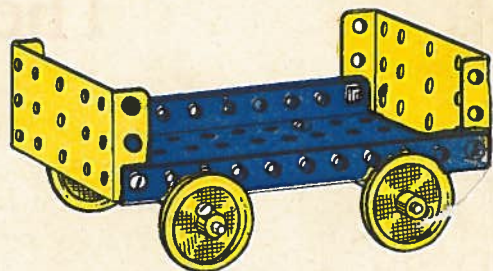
Models Built with No. 1½ Erector



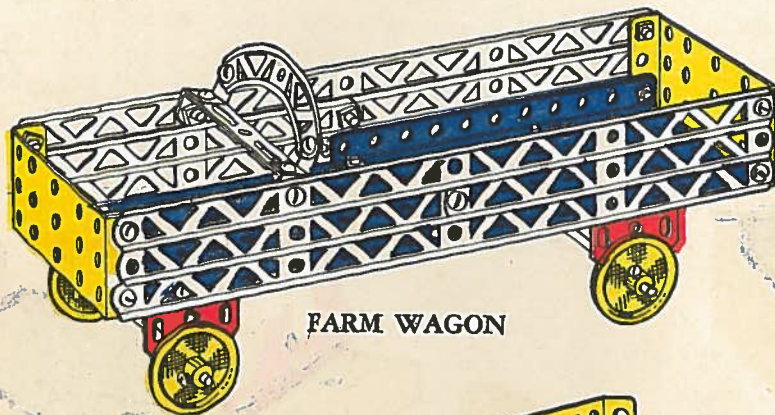
FLAT CAR



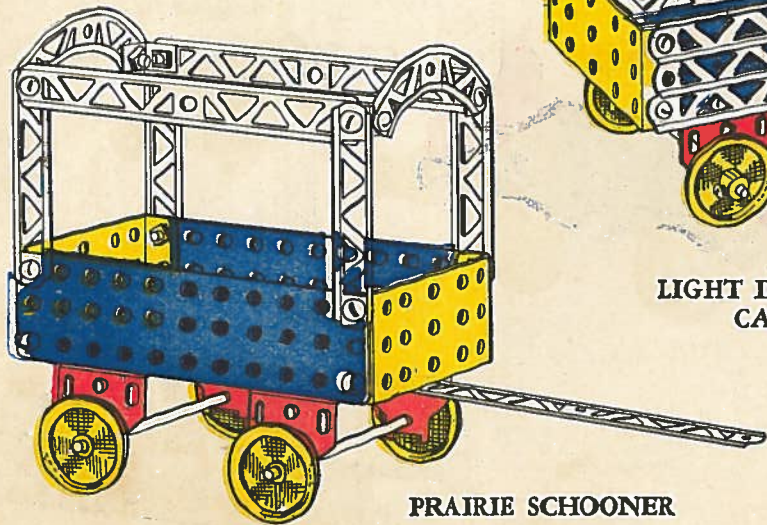
BENCH



BAGGAGE TRUCK

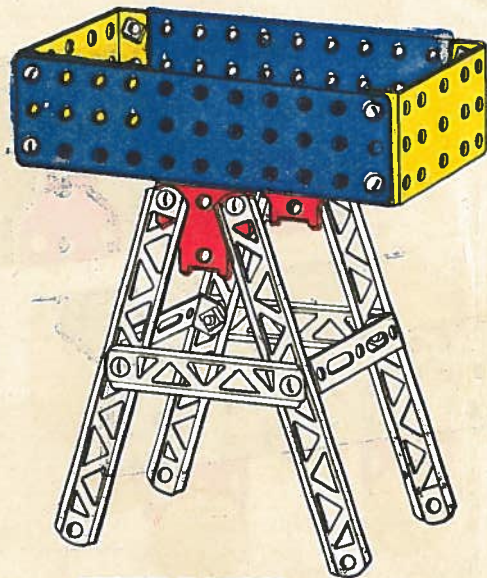
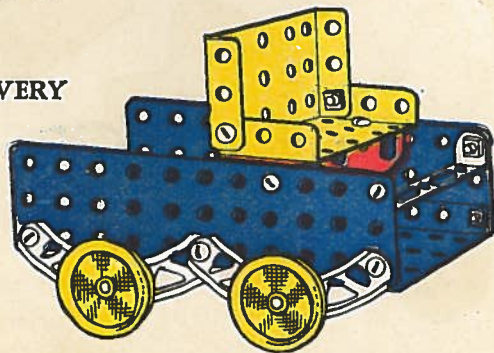


FARM WAGON



PRAIRIE SCHOONER

LIGHT DELIVERY
CAR

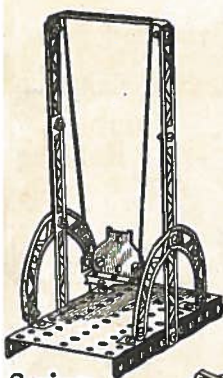


WORK BASKET

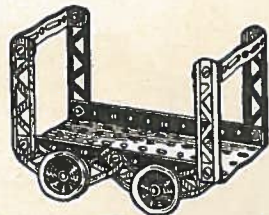
Models Built with No. 1 and 1½ Erector

SECTION 1

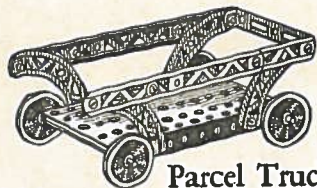
The number of models that can be built with Erector is unlimited. While we show a great many in this book, they are only indications of the large number of different varieties and the adaptability of Erector, The World's Greatest Toy.



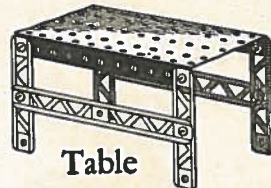
Swing



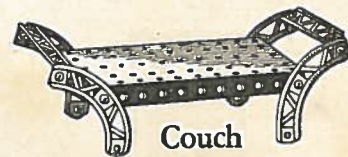
Baggage Truck



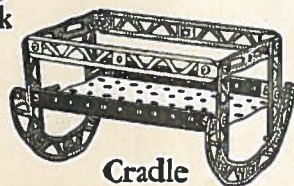
Parcel Truck



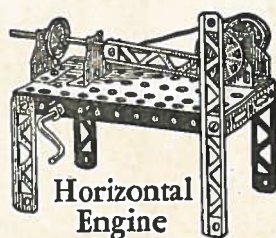
Table



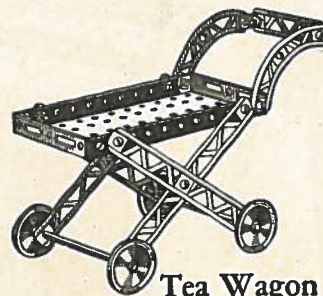
Couch



Cradle



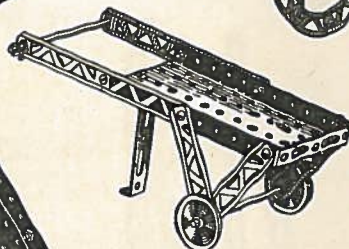
Horizontal Engine



Tea Wagon



Small Bed



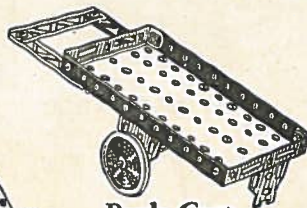
Vegetable Cart



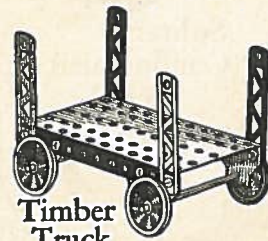
Gravel Screen



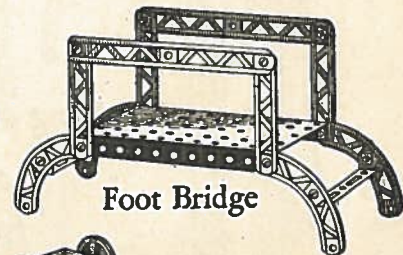
Hand Truck



Push Cart



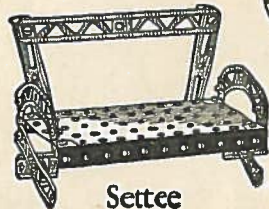
Timber Truck



Foot Bridge



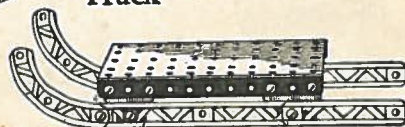
See Saw



Settee



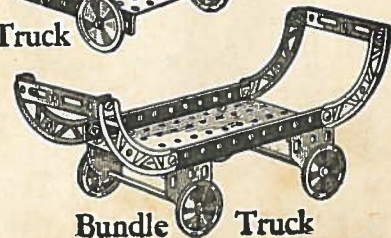
Small Wheelbarrow



Sled

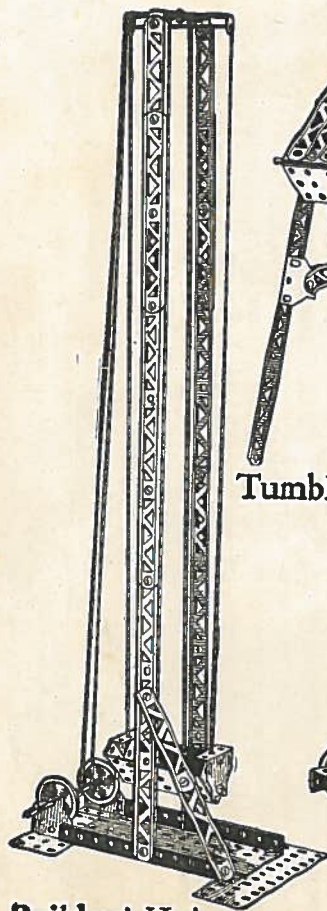


Flat Truck



Bundle Truck

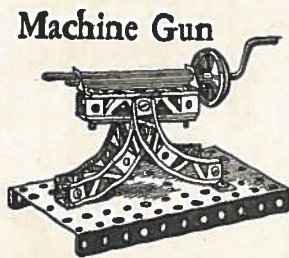
Models Built with No. 1½ Erector



Builders' Hoist



Tumbling Barrel



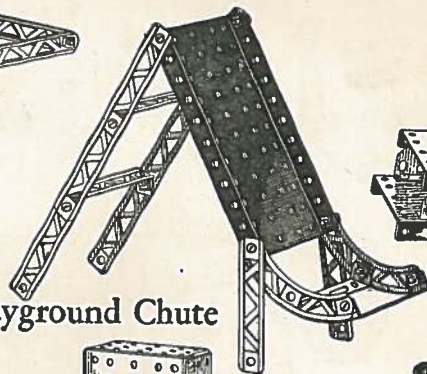
Machine Gun



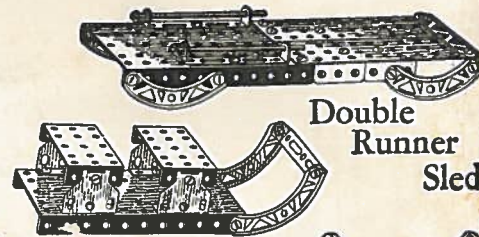
Solitary Confinement Cell



Weathervane

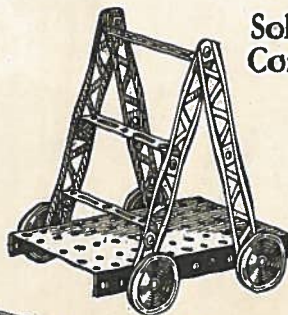


Playground Chute

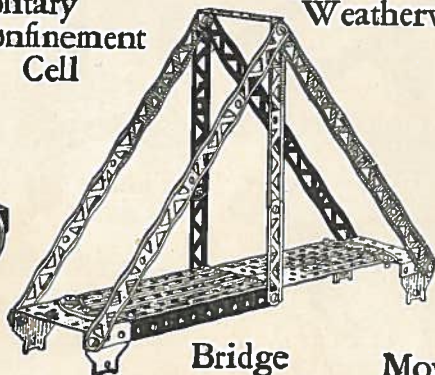


Double Runner Sled

Sled



Truck Ladder



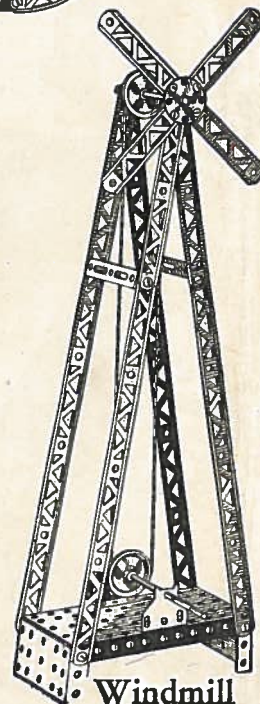
Bridge



Movie Camera

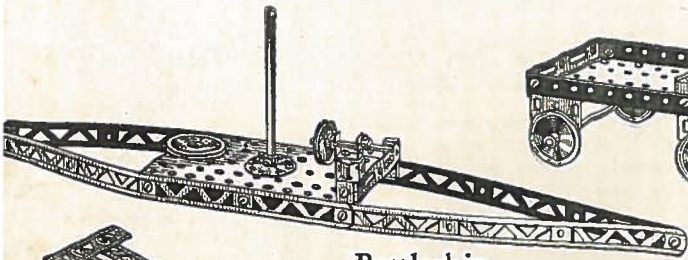


Portable Ladder

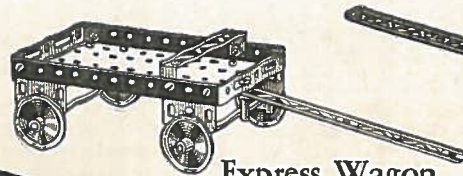


Windmill

Models Built with No. 1 and 1½ Erector



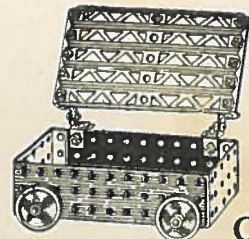
Battleship



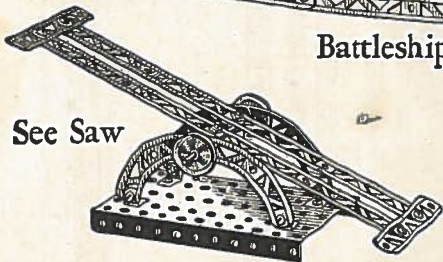
Express Wagon



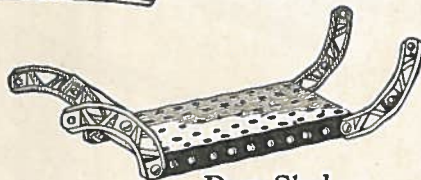
Wagon



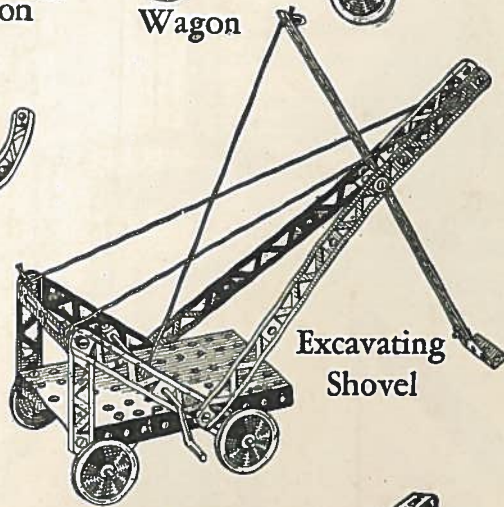
Chest



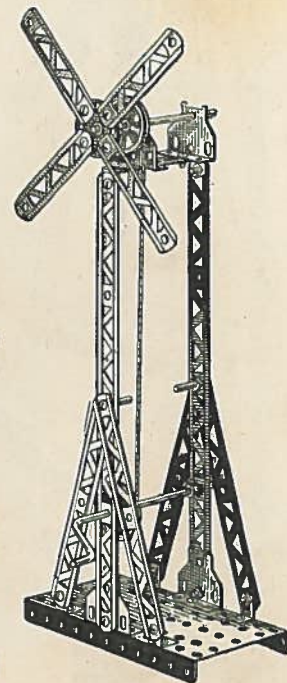
See Saw



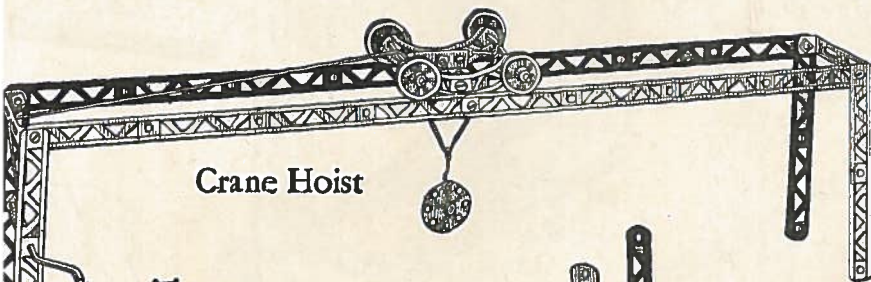
Dog Sled



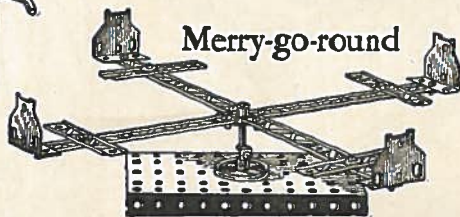
Excavating Shovel



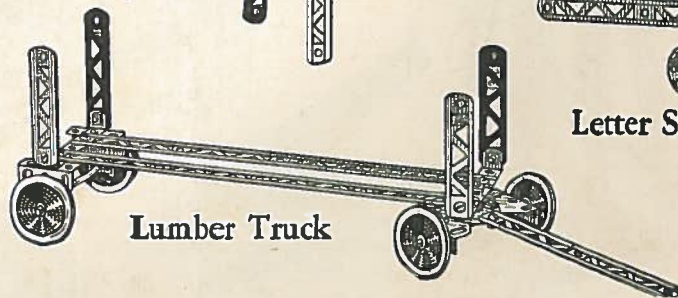
Windmill Pump



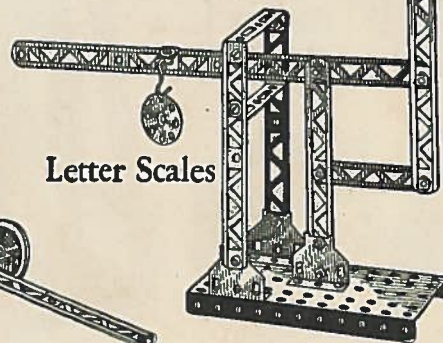
Crane Hoist



Merry-go-round

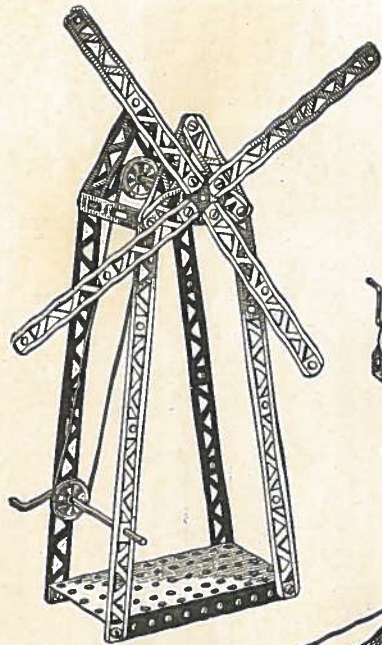


Lumber Truck

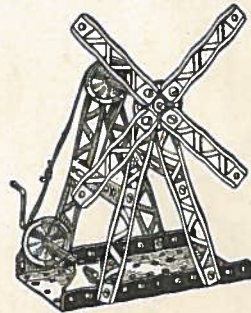


Letter Scales

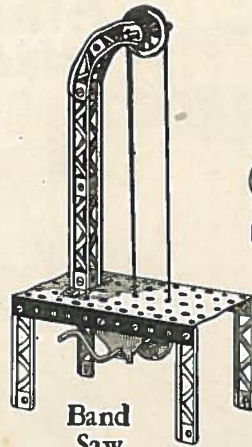
Models Built with No. 1 and 1½ Erector



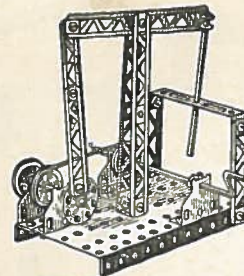
Windmill



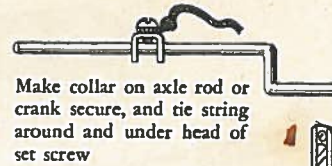
Small Windmill



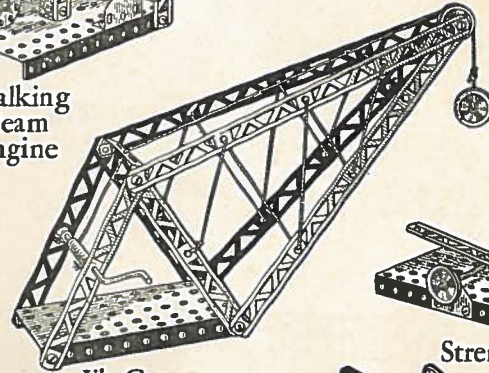
Band Saw



Walking Beam Engine



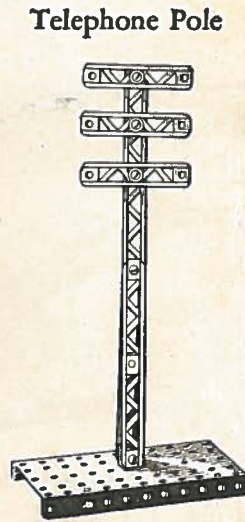
Make collar on axle rod or crank secure, and tie string around and under head of set screw



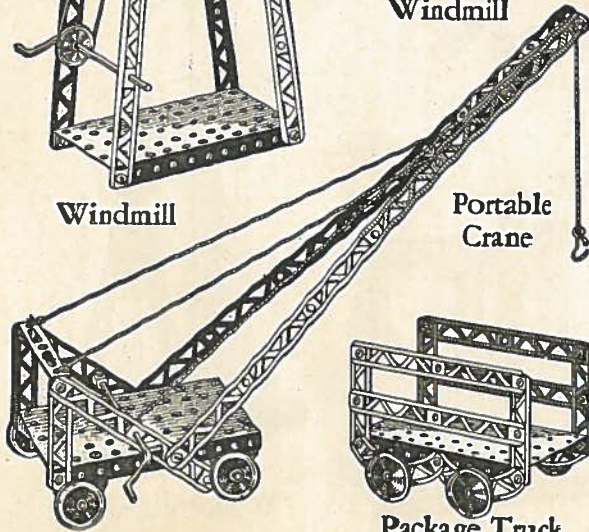
Jib Crane



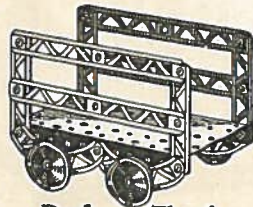
Strength Testing Machine



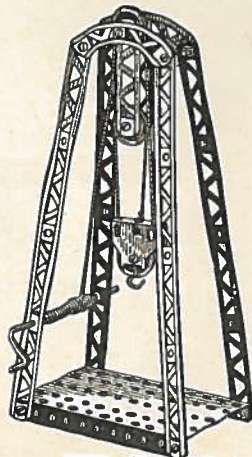
Telephone Pole



Portable Crane



Package Truck

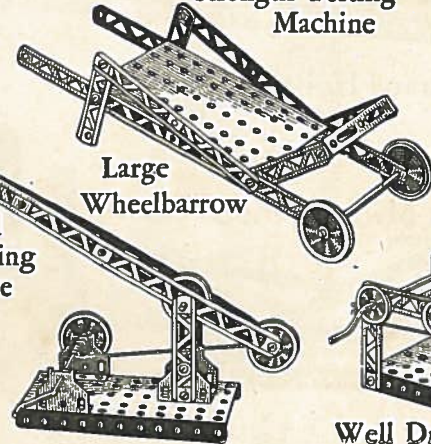


Windlass Hoist

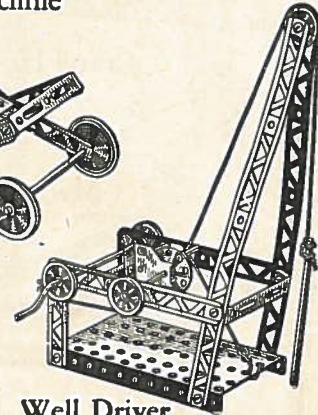


Siege Gun

Railroad Crossing Gate



Large Wheelbarrow



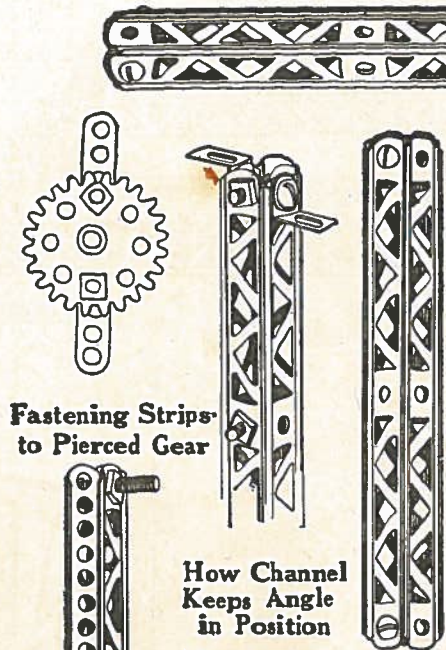
Well Driver



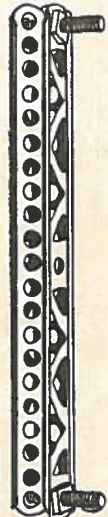
Parallel Beam



use washers to prevent screw from protruding too far beyond girder



Fastening Strips to Pierced Gear



How Channel Keeps Angle in Position

5 in. I-beam

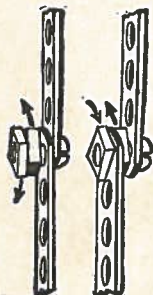


A

5 in. Square Girder



B



C



To construct a Square Girder commence by putting a long screw through center holes of two girders, as in A; then separate the two, take another girder pushing it down into the grooves or channels, as in B. Having assembled the three sides, take the fourth girder and likewise insert it into the grooves or channels, as in C; then slide it down until the two are flush, which makes a square column girder.



10 in. Square Girder



Method of fastening Double Angles to Pierced Disc



-Showing method of making bearings for axle



-2 1/2 in. Square Girder

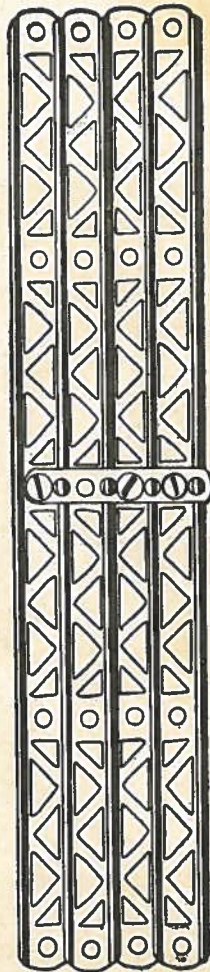


-2 1/2 in. I-beam

D

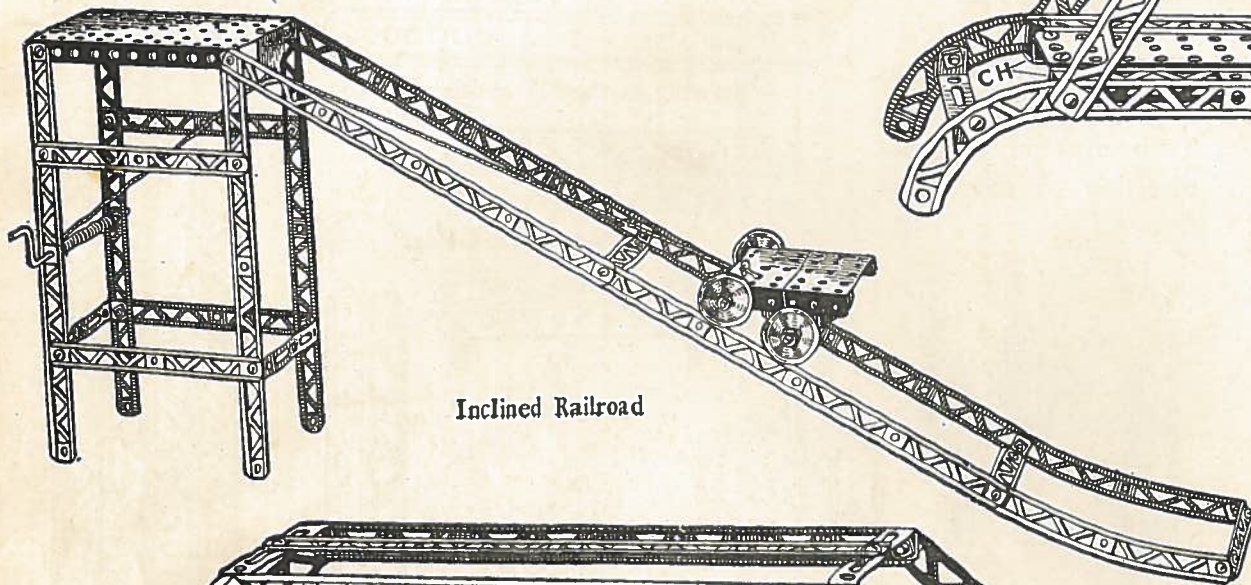


-Angle Iron

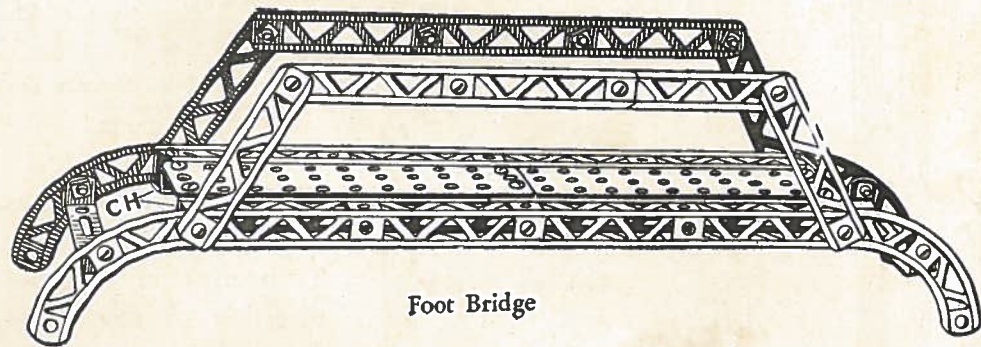


Flooring Co. Inc.

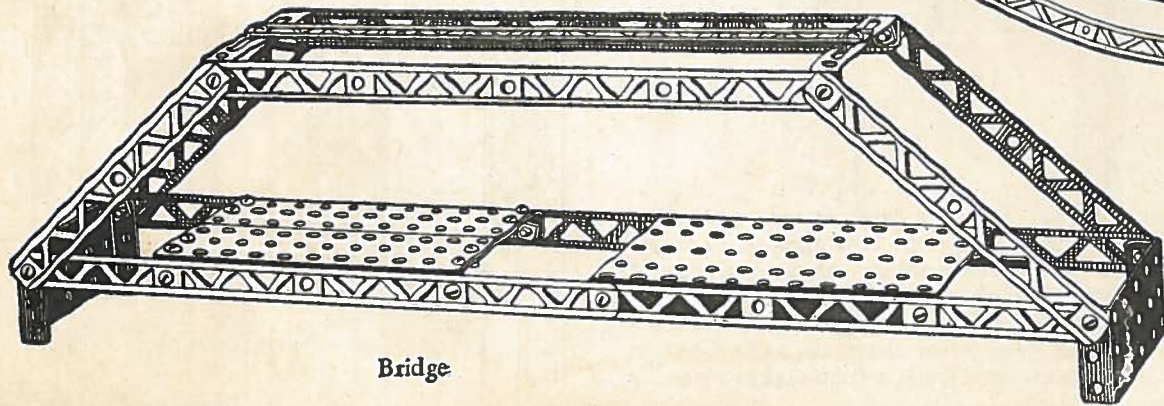
Models Built with No. 2½ and 3 Erector



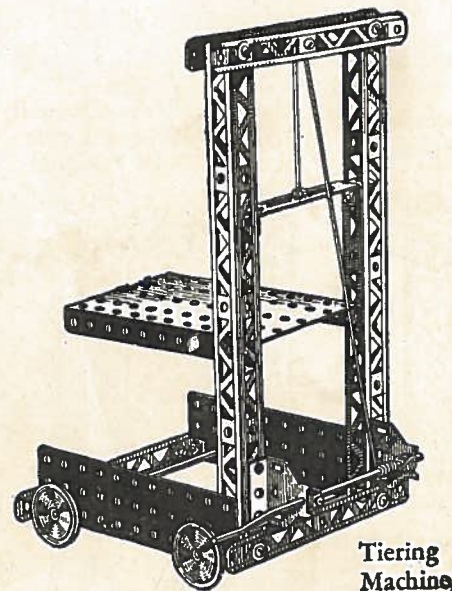
Inclined Railroad



Foot Bridge

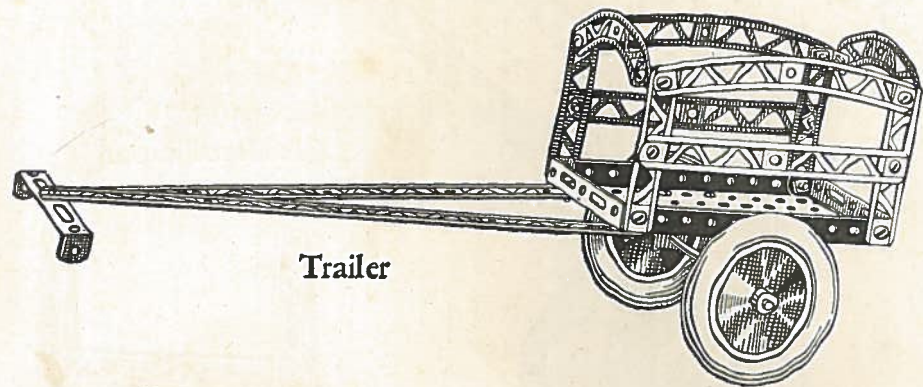


Bridge

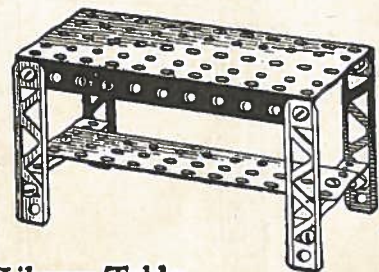


Tiering Machine

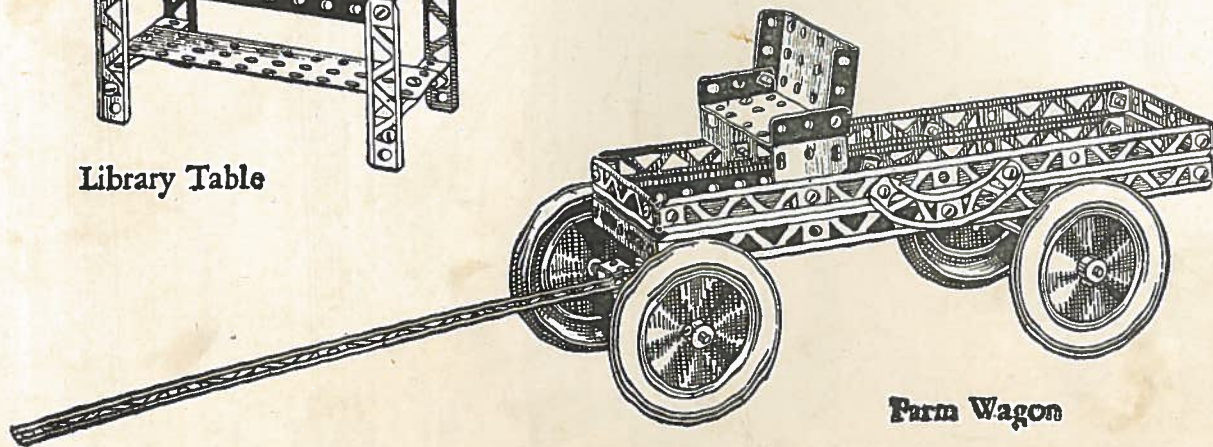
Models Built with No. 2½ and 3 Erector



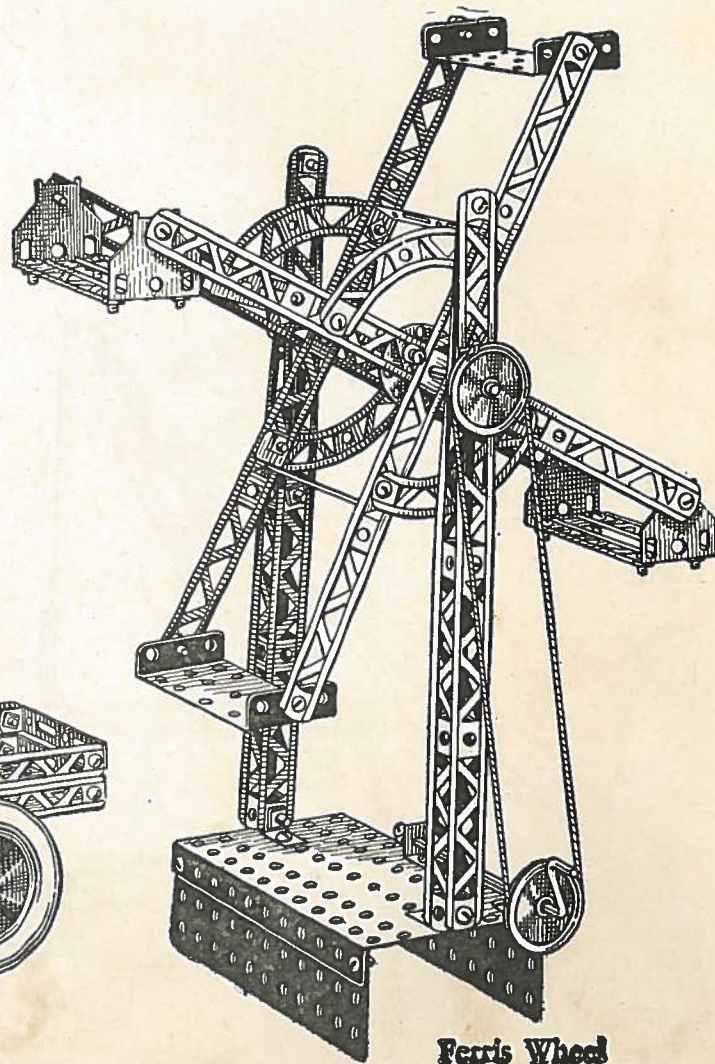
Trailer



Library Table

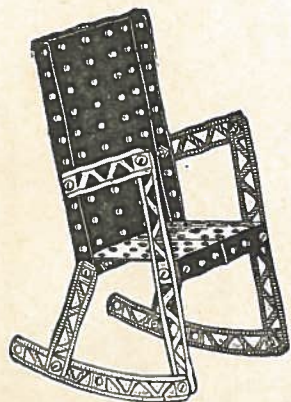


Farm Wagon

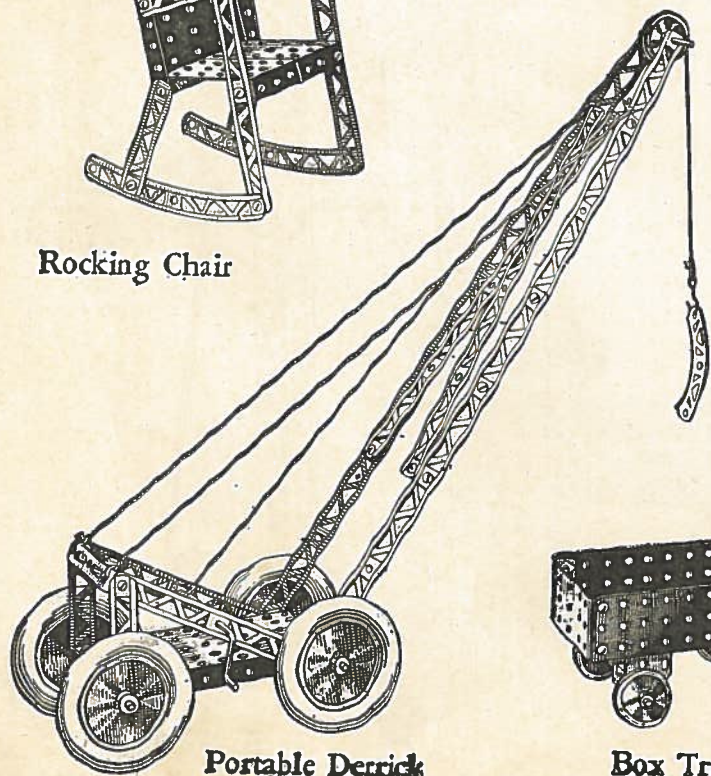


Ferris Wheel

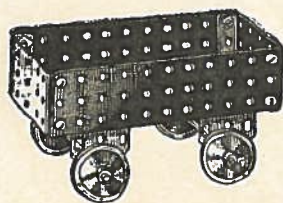
Models Built with No. 2½ and 3 Erector



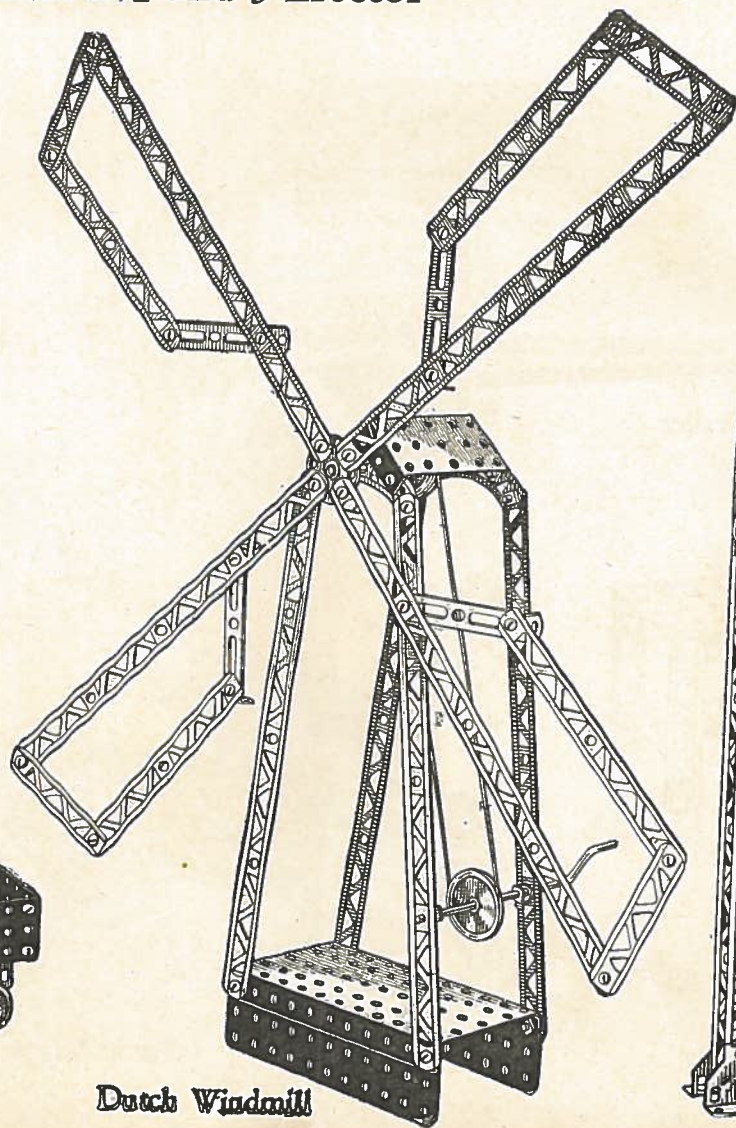
Rocking Chair



Portable Derrick



Box Truck

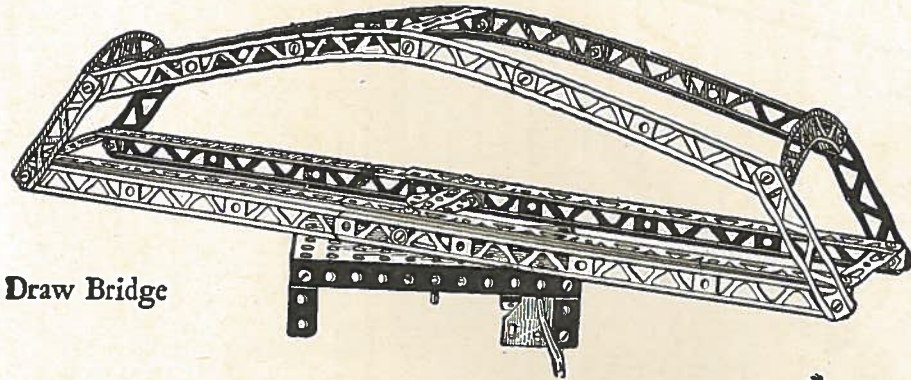


Dutch Windmill

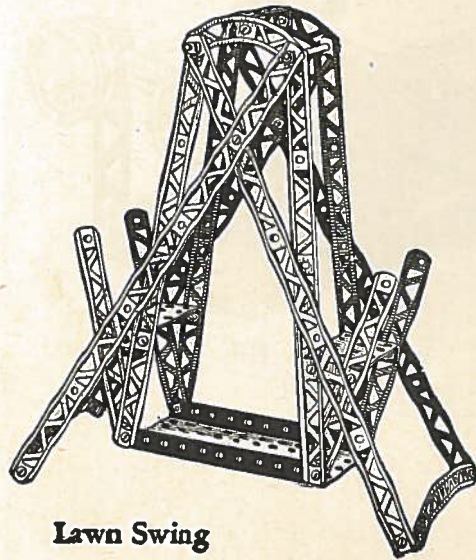
Railroad
Electrification
Tower



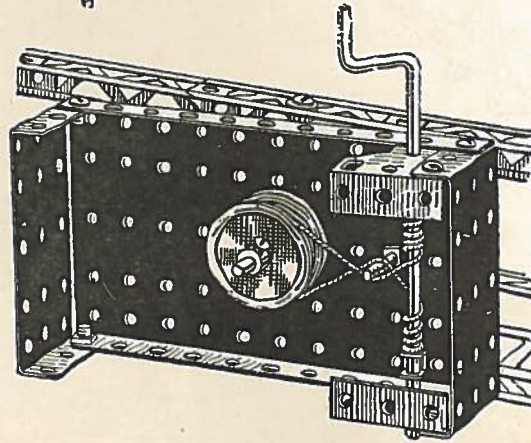
Models Built with No. 2½ and 3 Erector



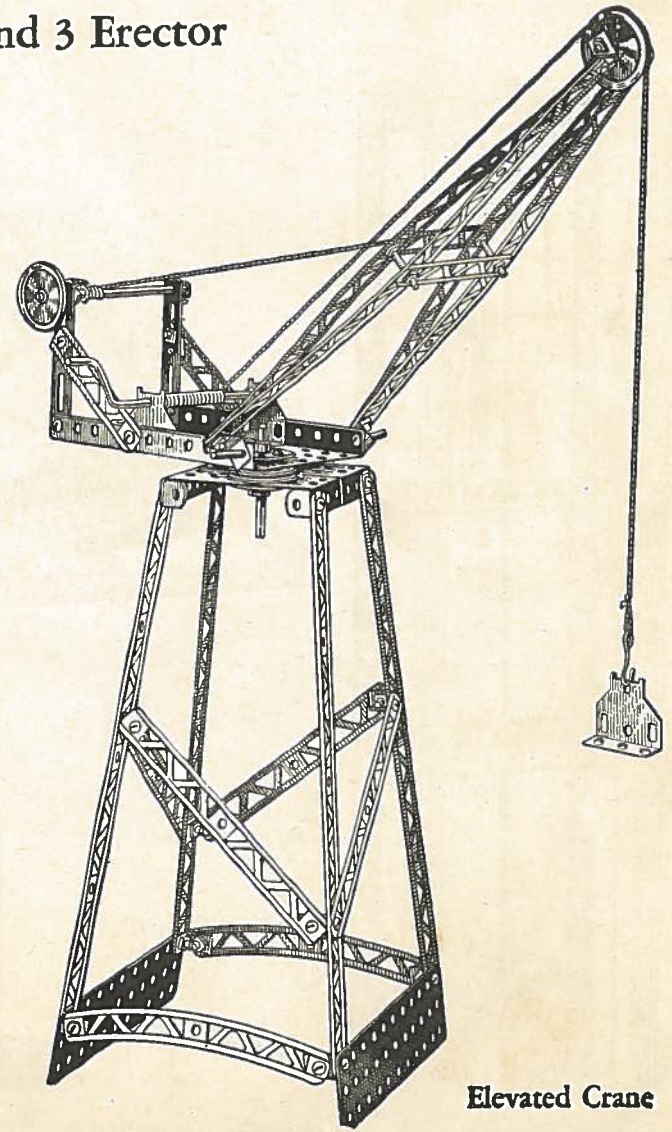
Draw Bridge



Lawn Swing

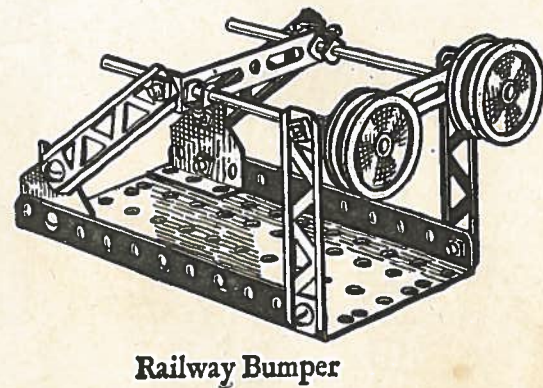
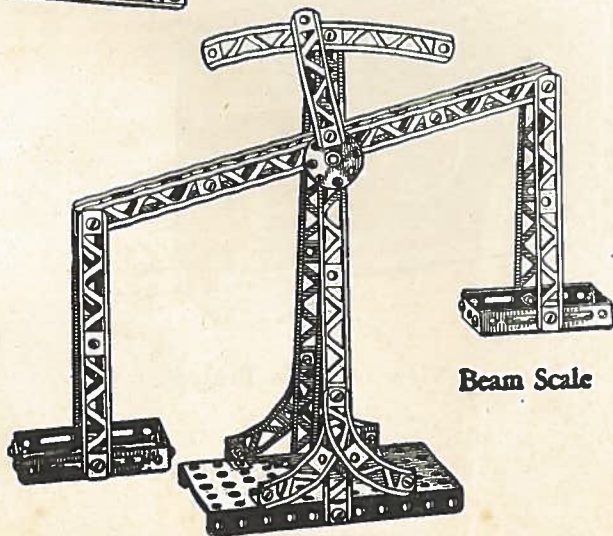
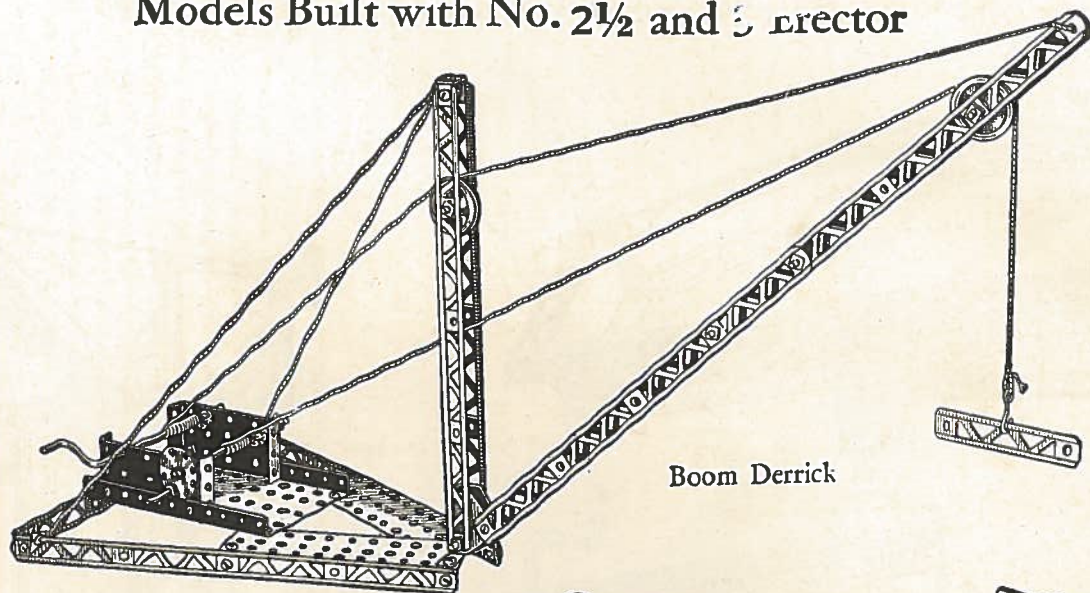
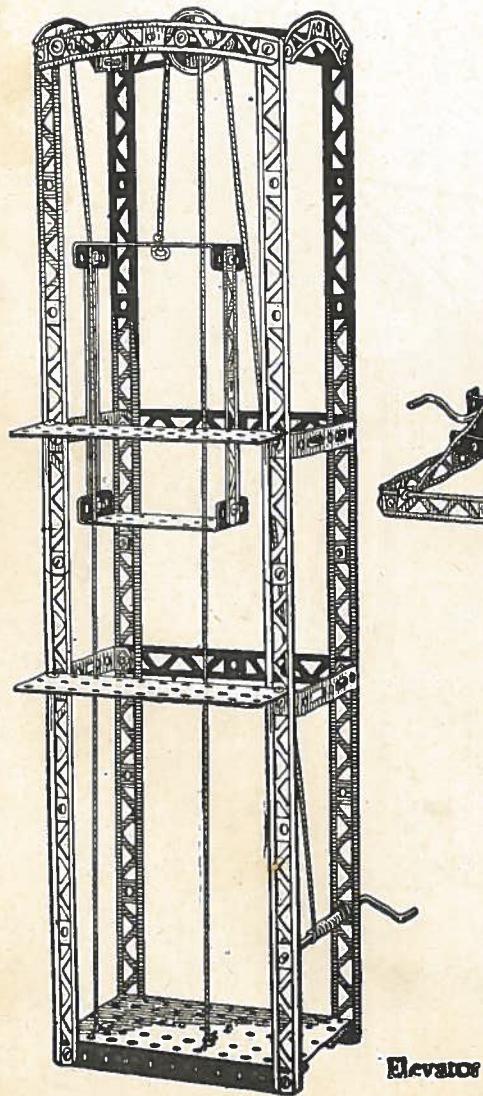


Bottom View of Draw Bridge

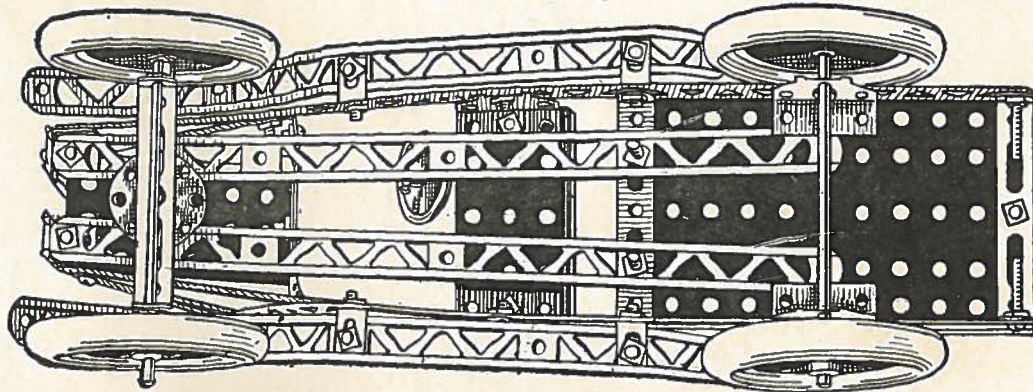


Elevated Crane

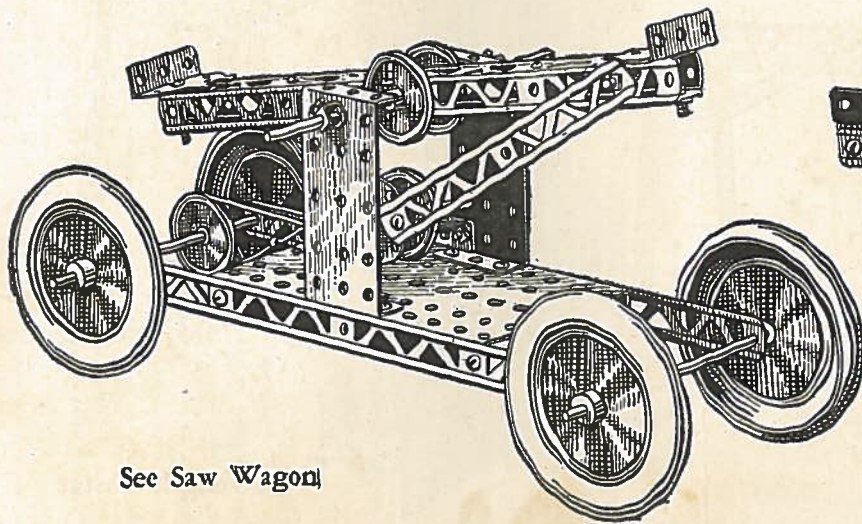
Models Built with No. 2½ and 3 Erector



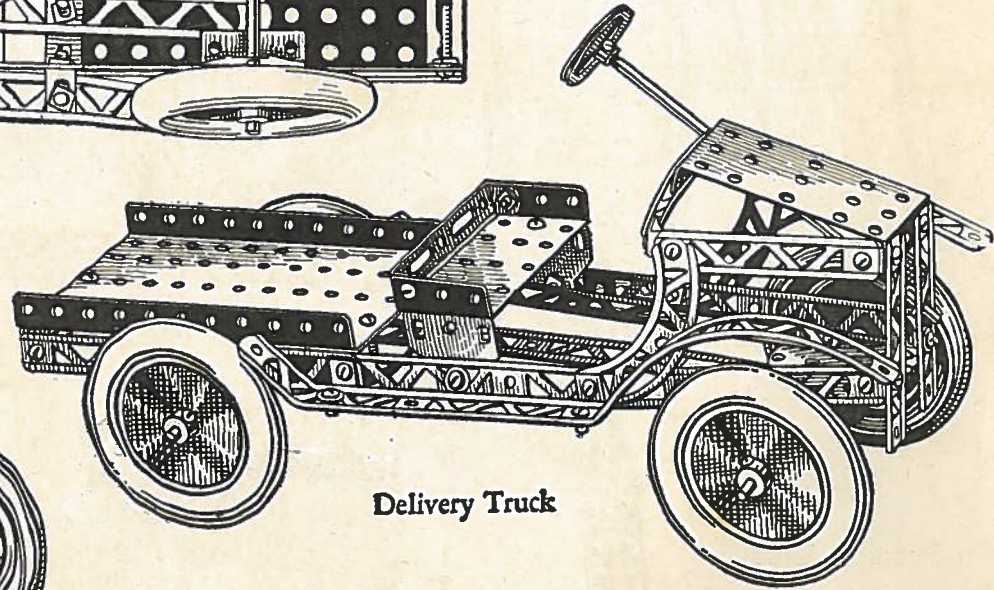
Models Built with No. 2½ and 3 Erector



Bottom View
Delivery Truck



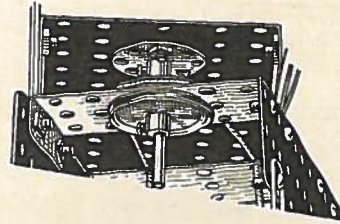
See Saw Wagon



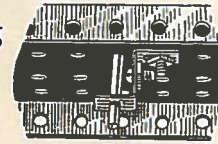
Delivery Truck

Models Built with No. 2½ and 3 Erector

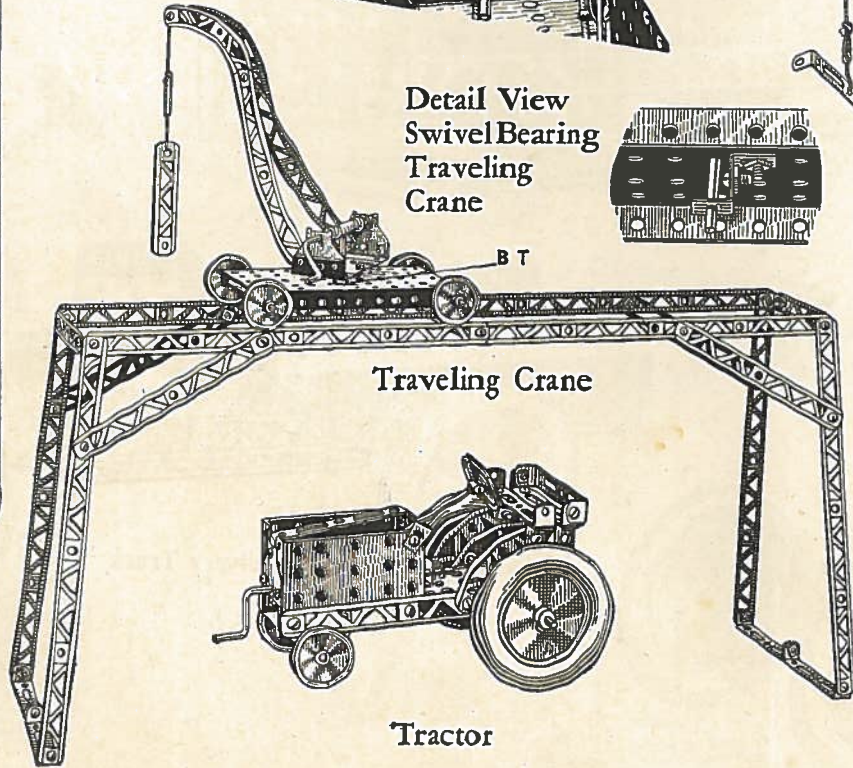
Detail View Revolving Crane



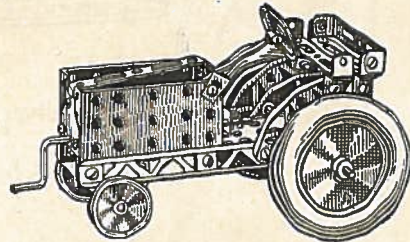
Detail View Swivel Bearing Traveling Crane



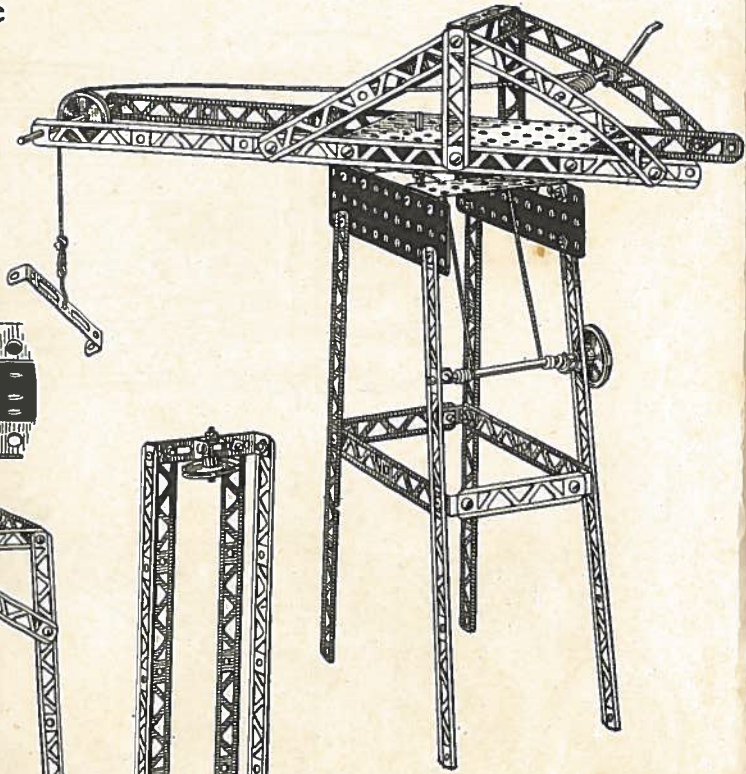
Traveling Crane



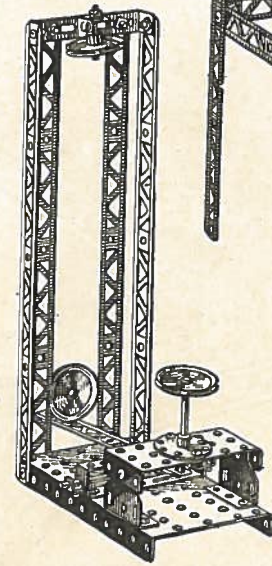
Tractor



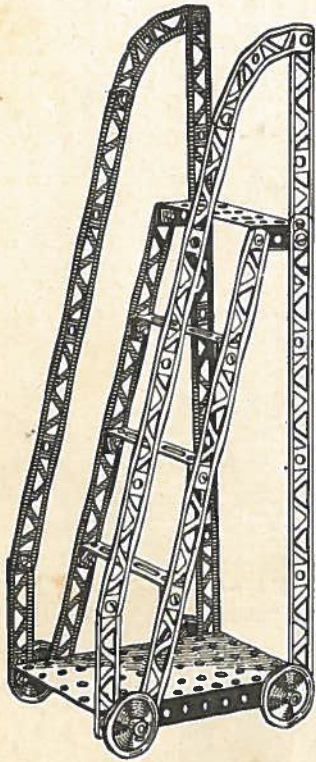
Revolving Crane



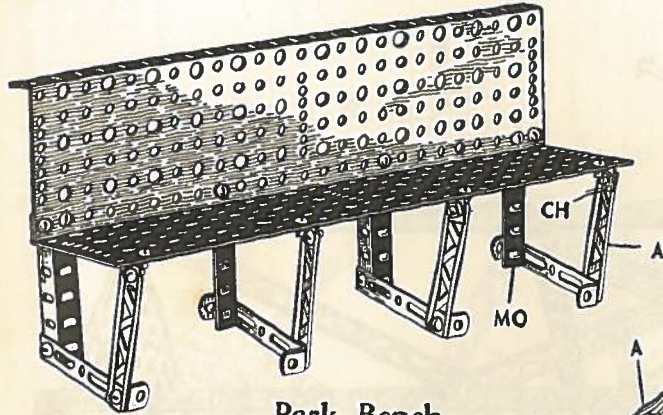
Strength Tester



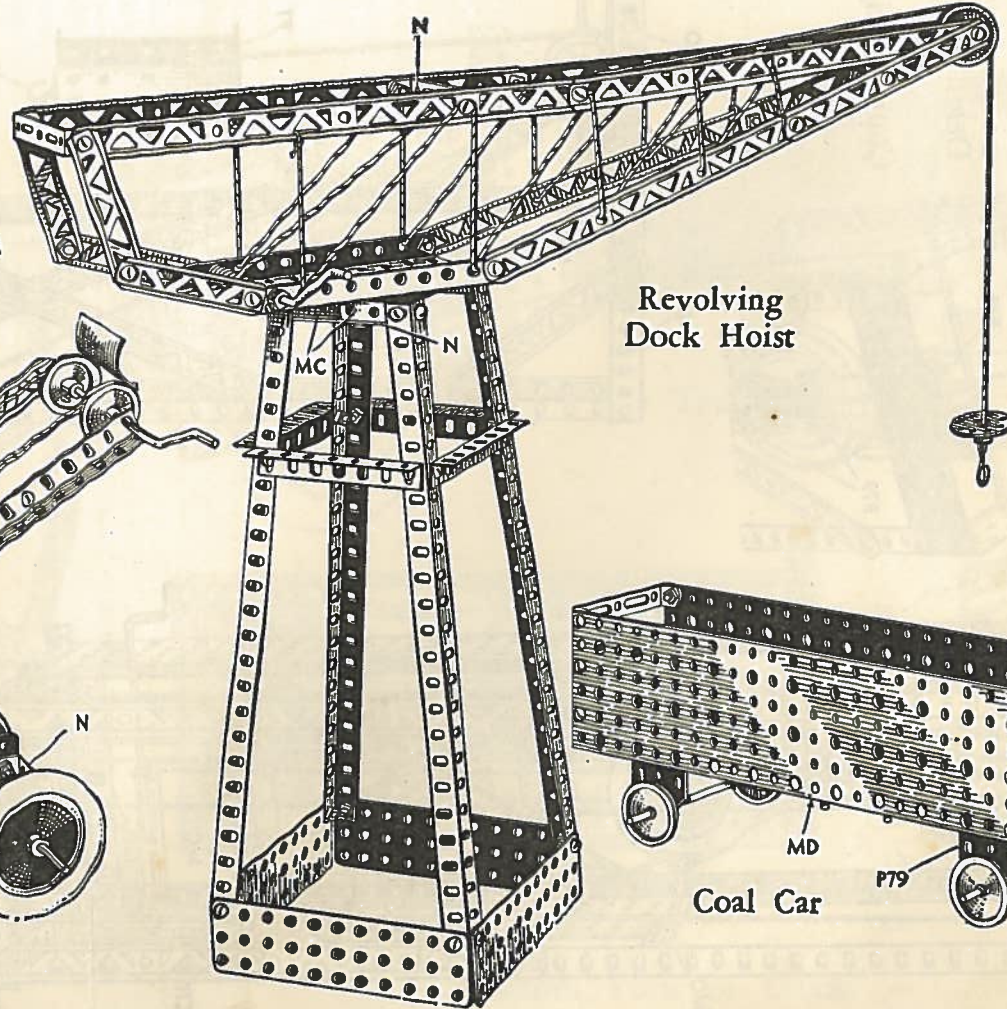
Portable Ladder



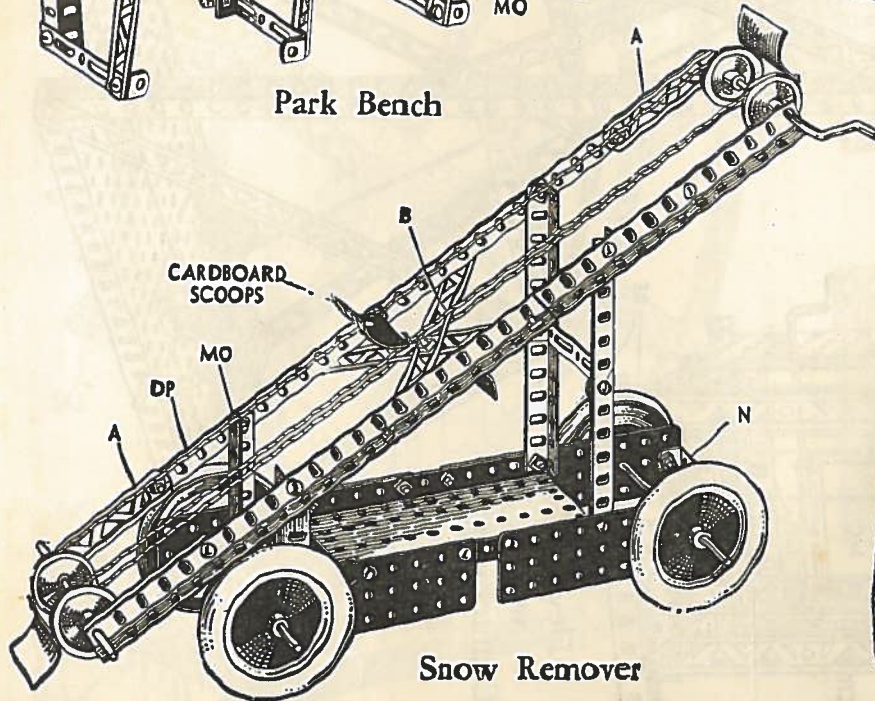
Models Built with No. 3½ Erector



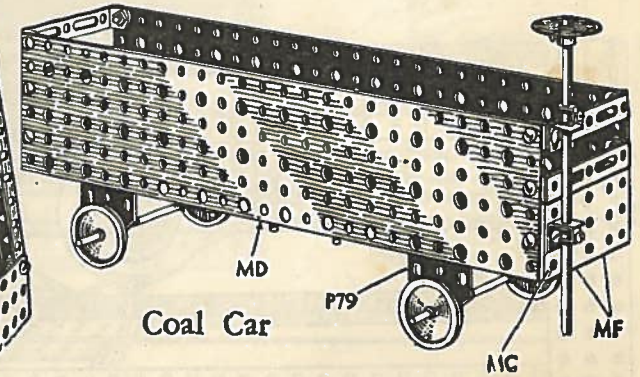
Park Bench



Revolving Dock Hoist



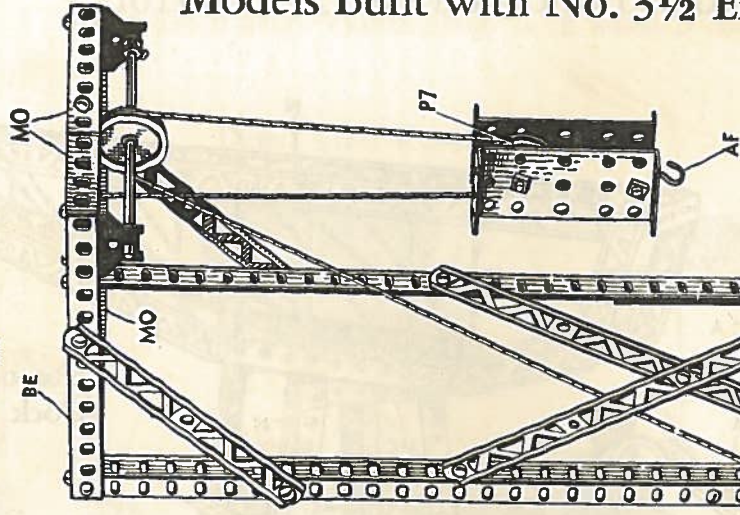
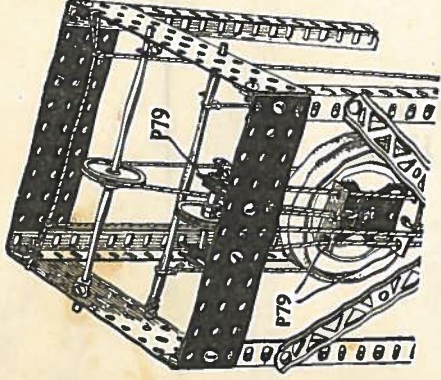
Snow Remover



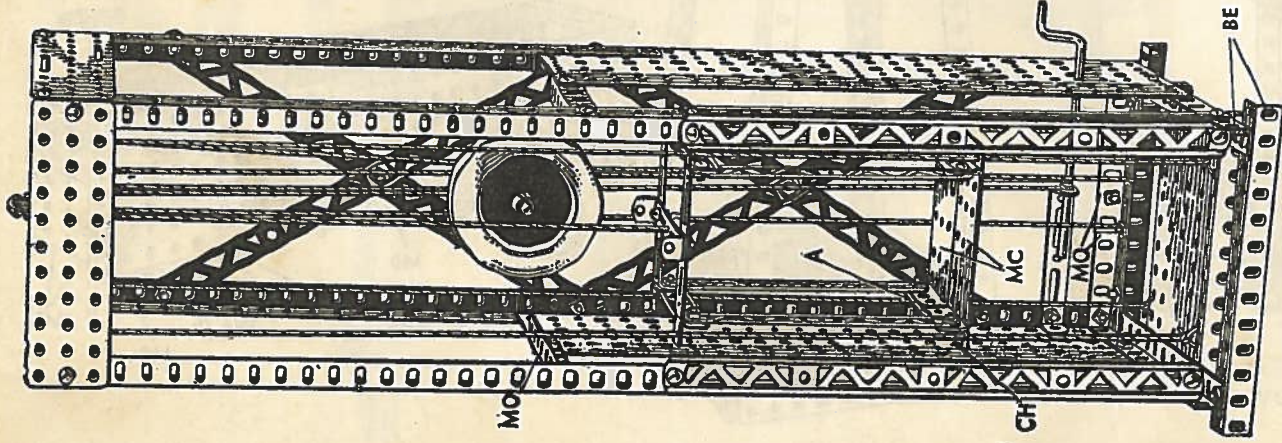
Coal Car

Models Built with No. 3½ Erector

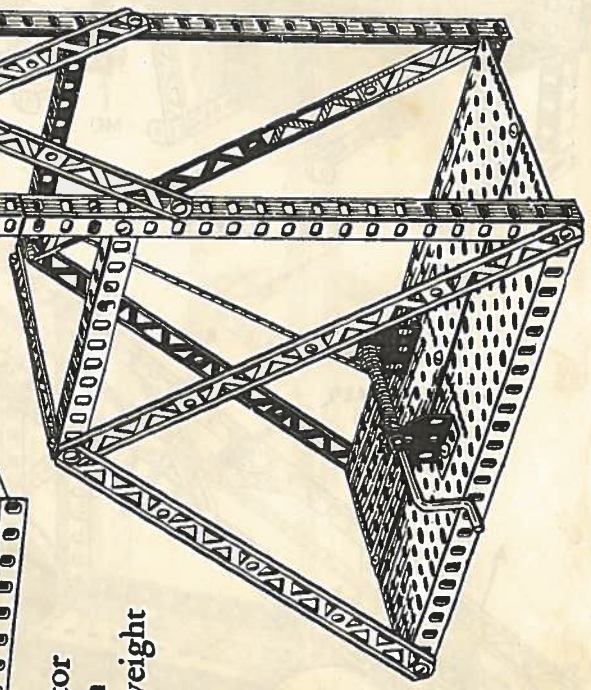
Detail of Top
and
Counterweight



Hoist

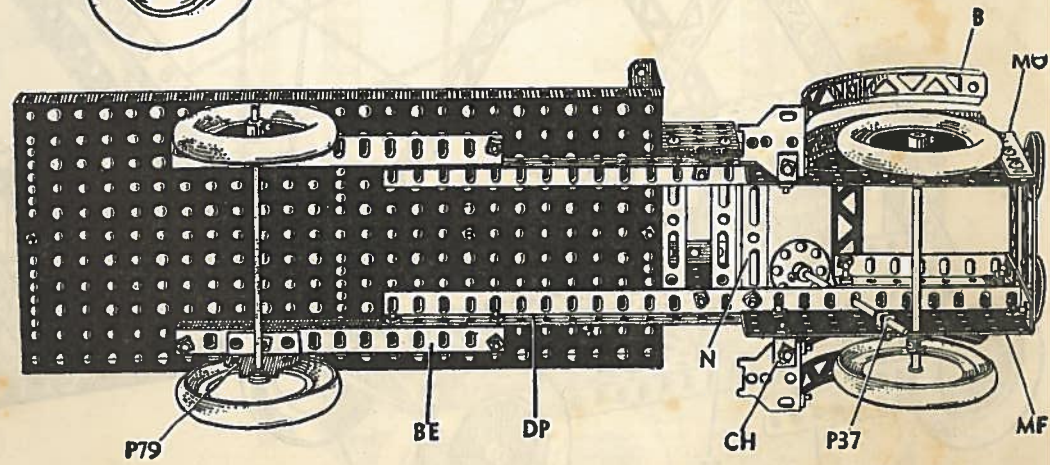
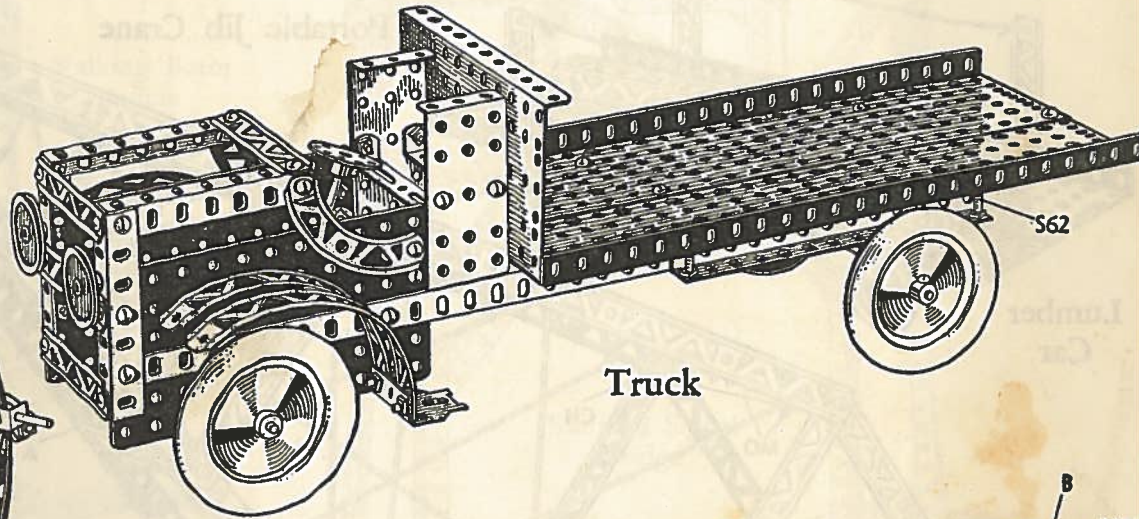
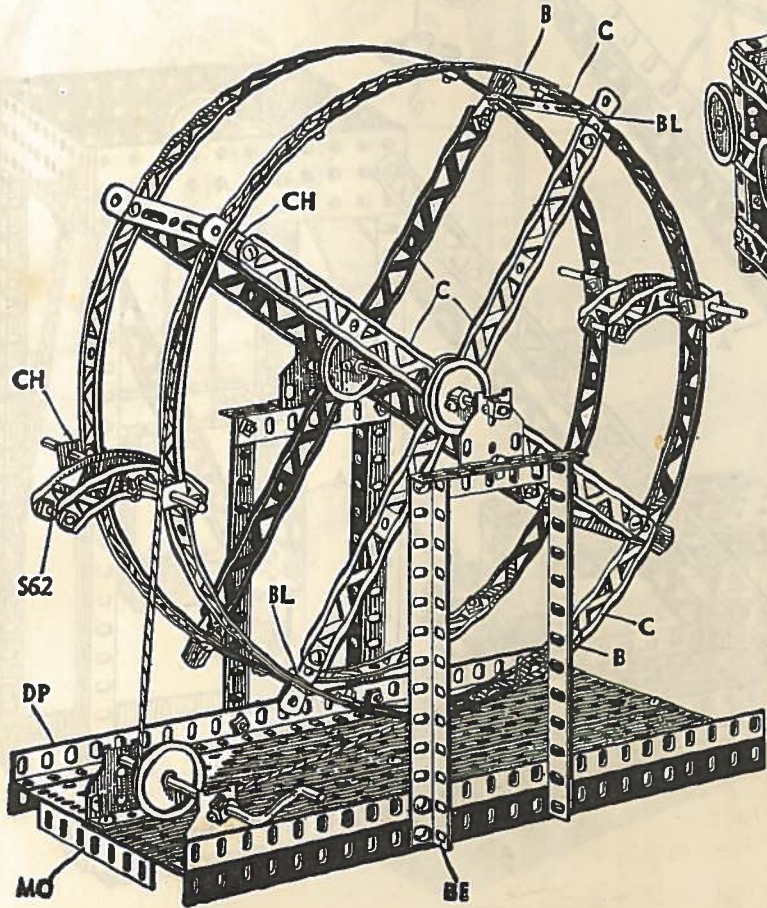


Elevator
with
Counterweight



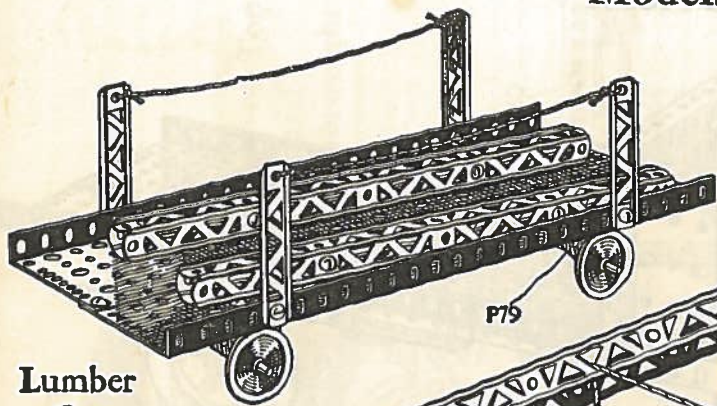
Models Built with No. 3½ Erector

Ferris Wheel



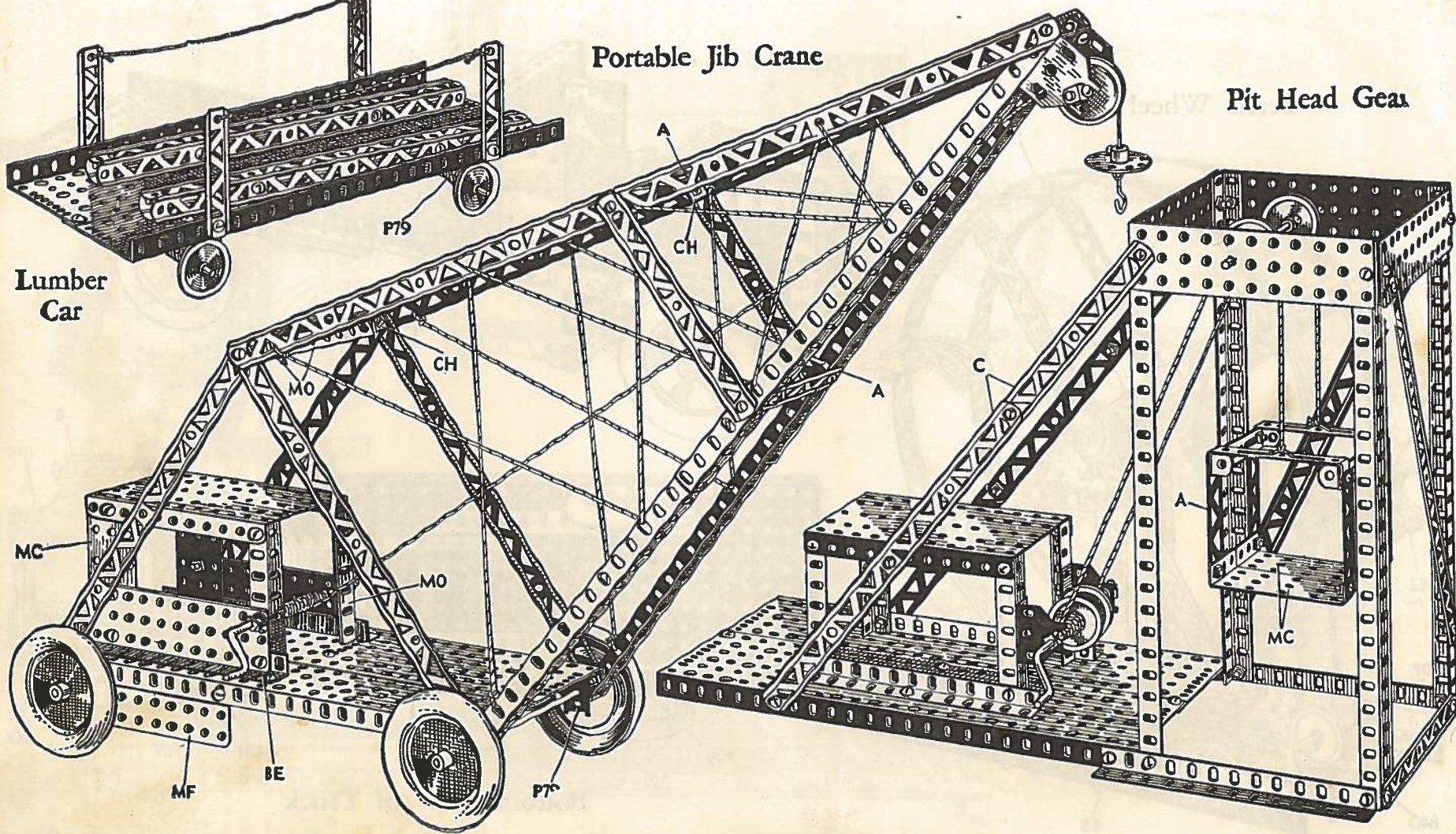
Bottom View of Truck

Models Built with No. 3½ Erector

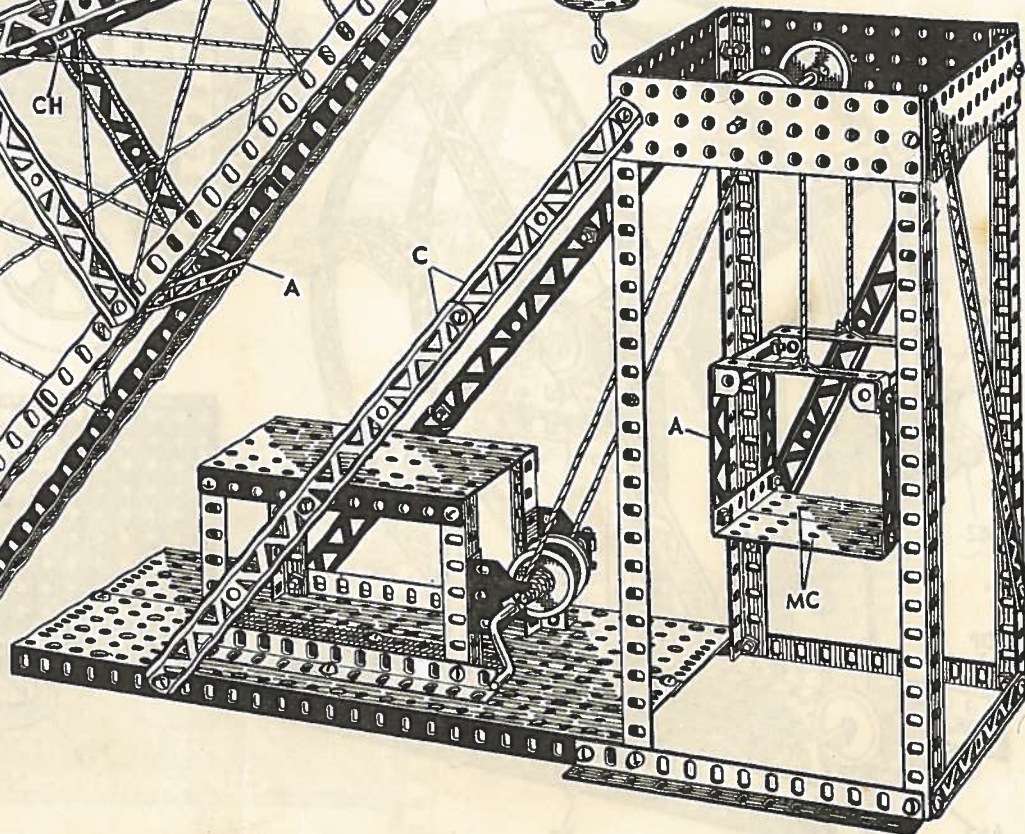


Lumber Car

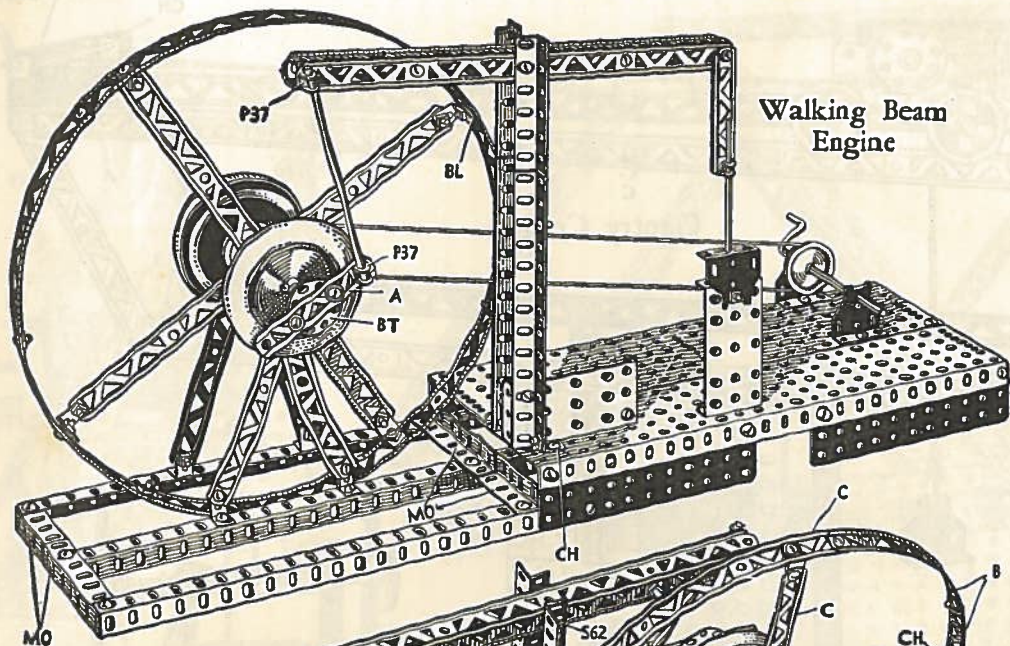
Portable Jib Crane



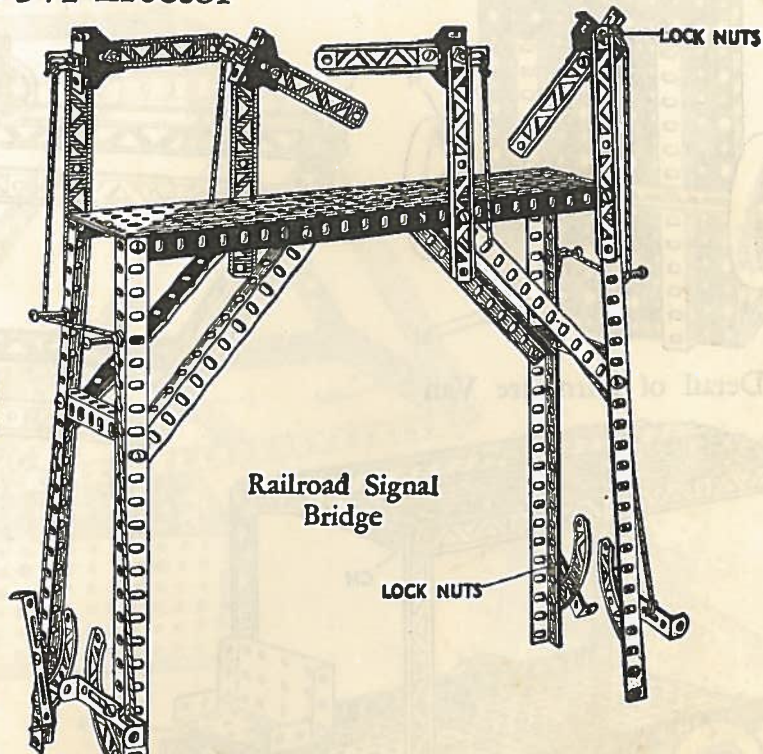
Pit Head Gear



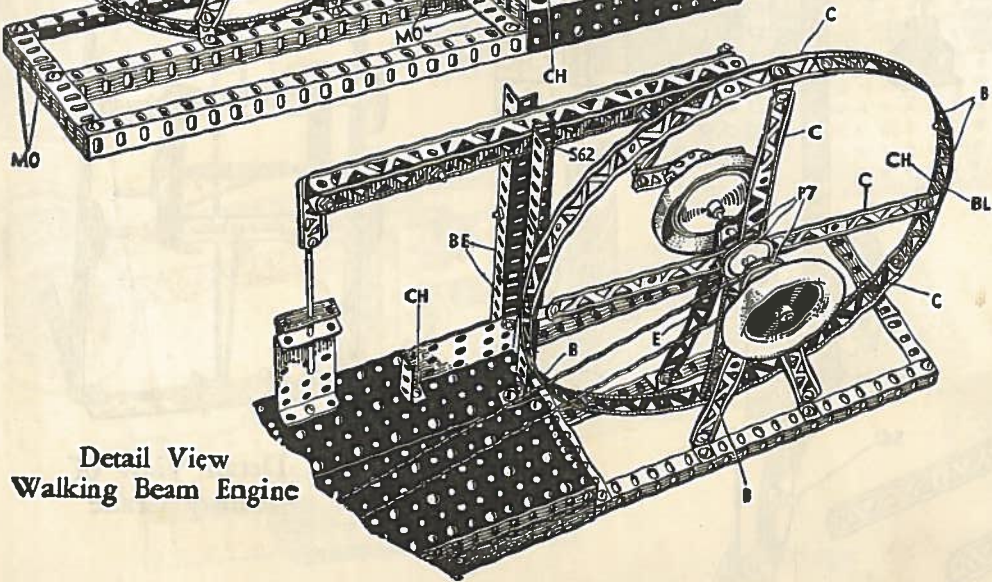
Models Built with No. 3½ Erector



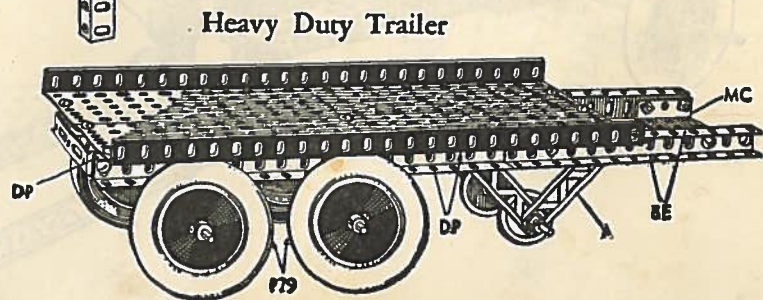
Walking Beam Engine



Railroad Signal Bridge

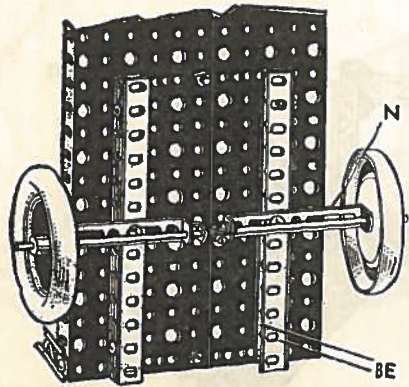


Detail View
Walking Beam Engine

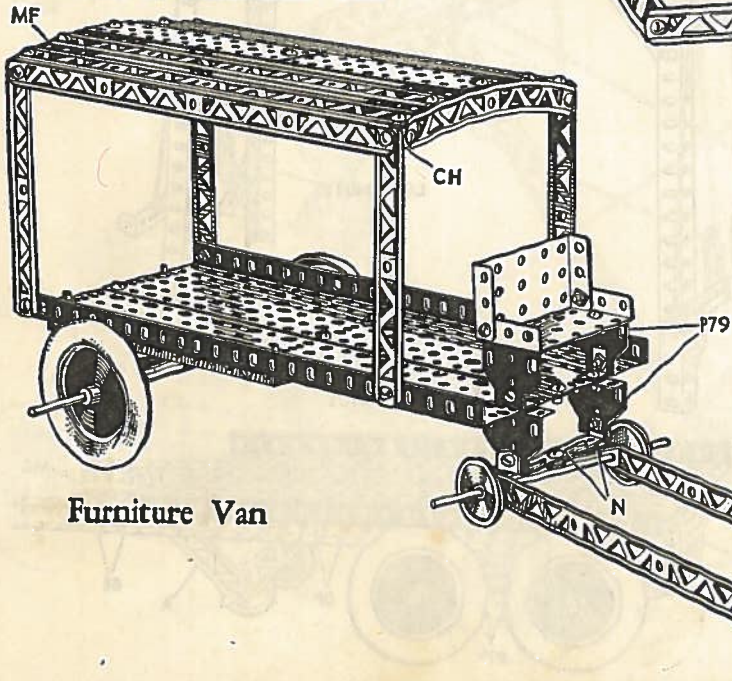


Heavy Duty Trailer

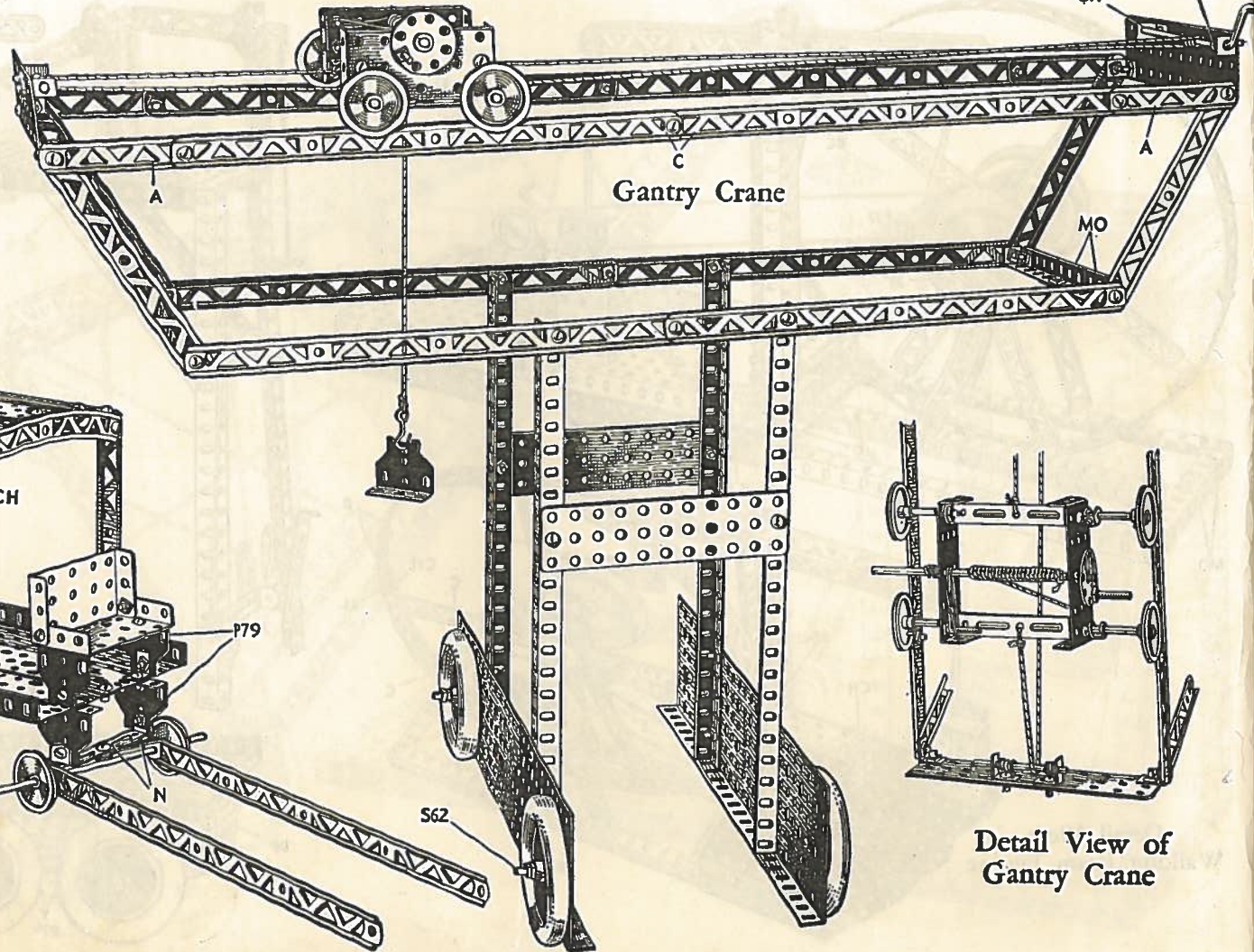
Models Built with No. 3½ Erector



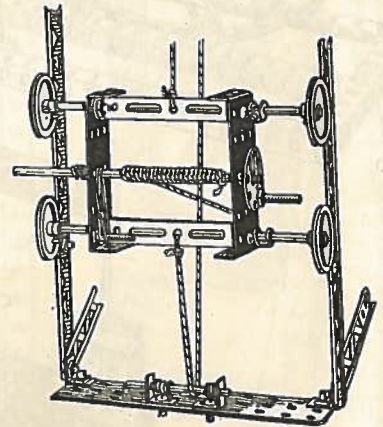
Detail of Furniture Van



Furniture Van

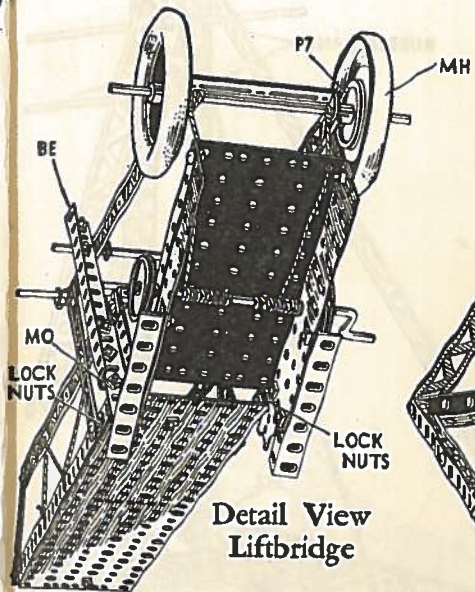


Gantry Crane

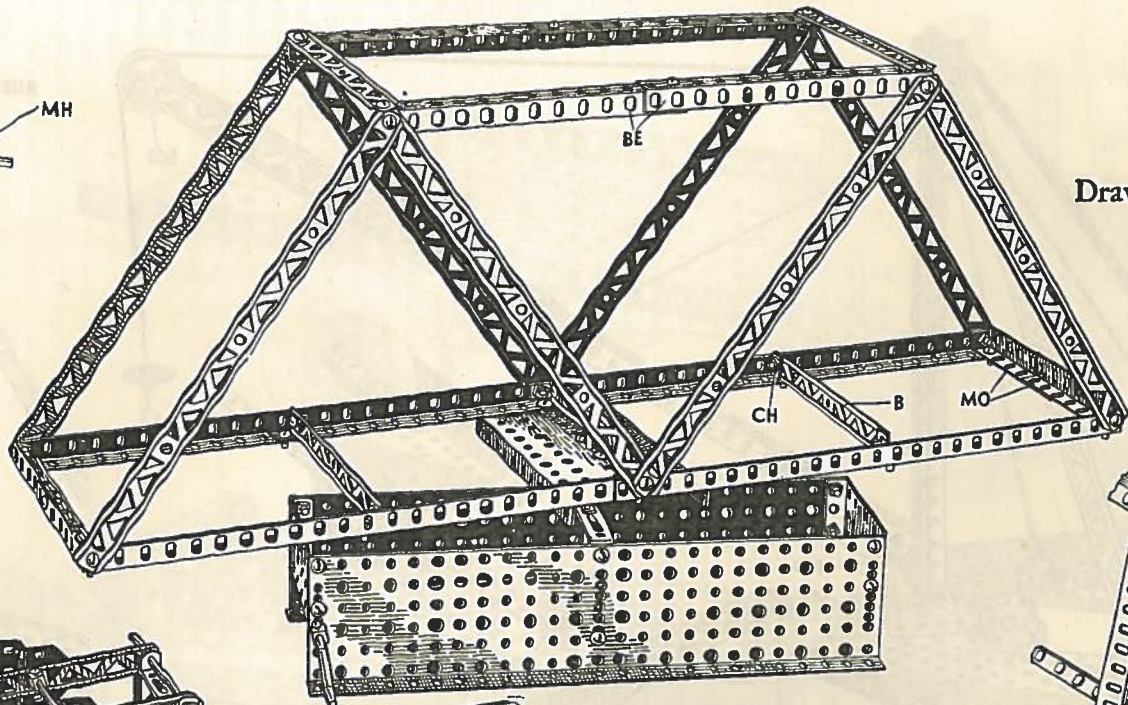


Detail View of Gantry Crane

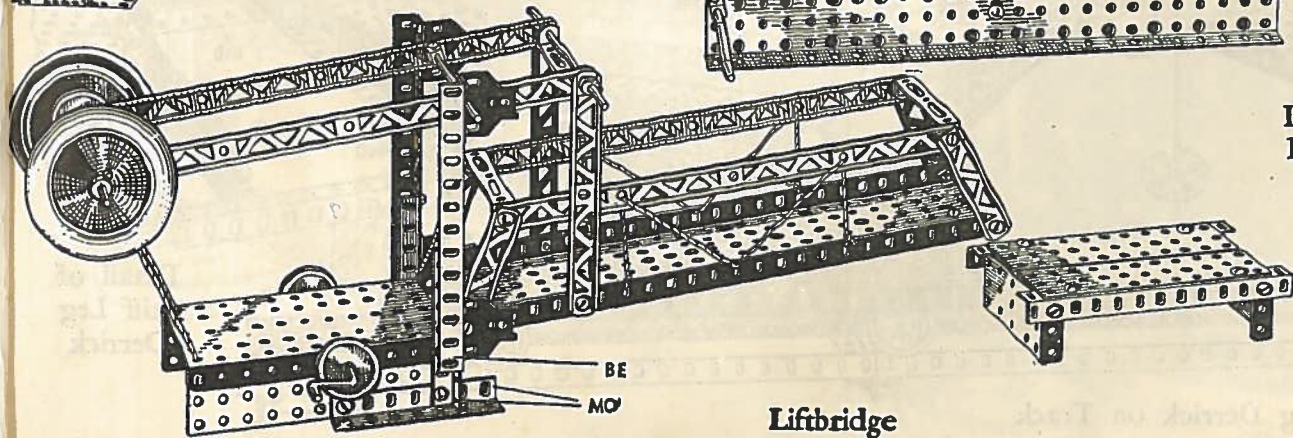
Models Built with No. 3½ Erector



Detail View
Liftbridge

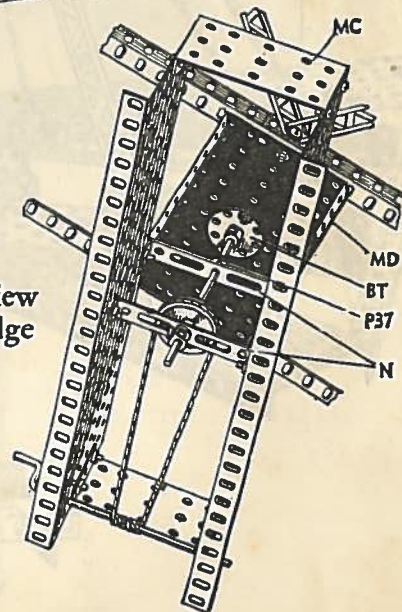


Drawbridge



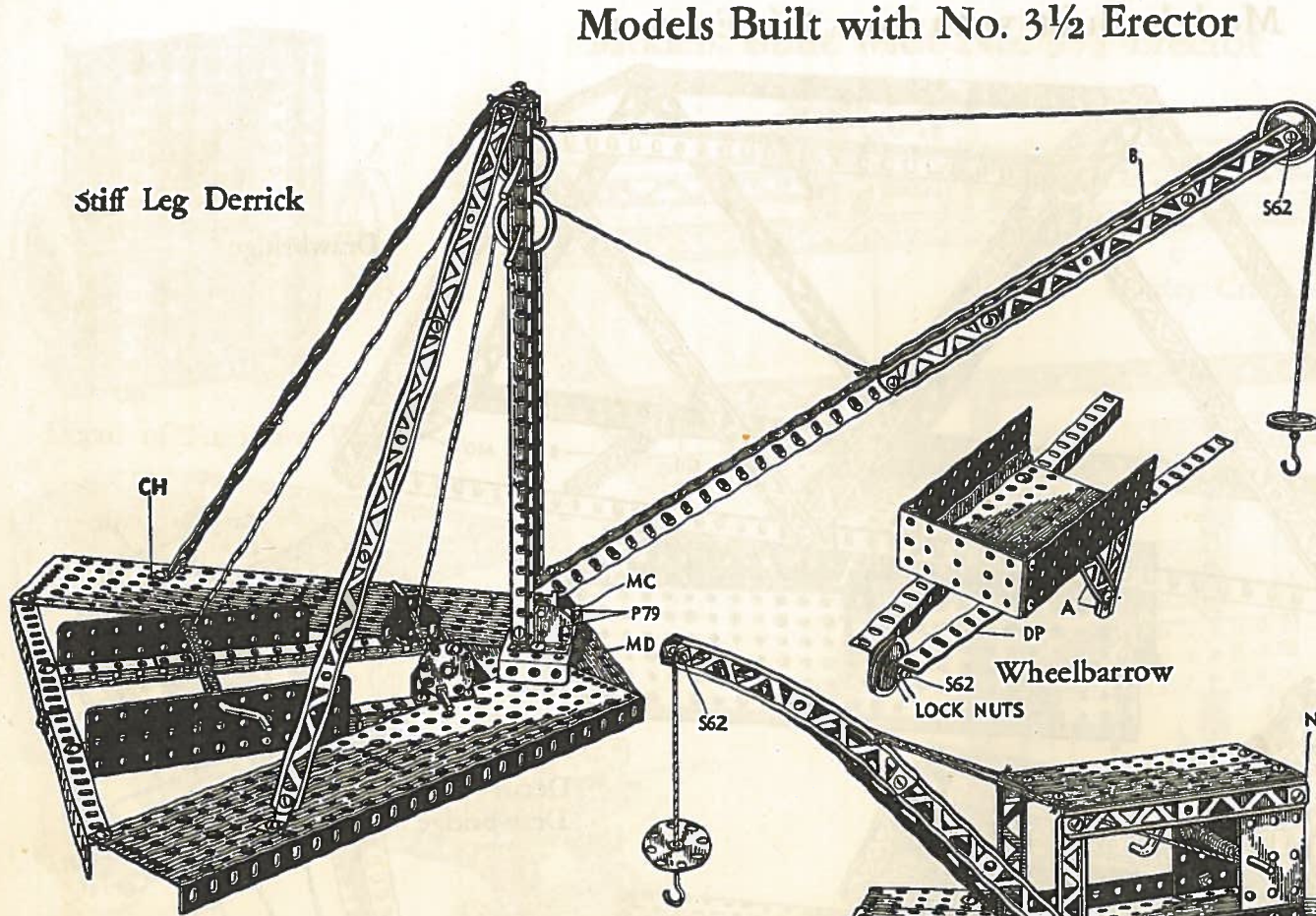
Liftbridge

Detail View
Drawbridge

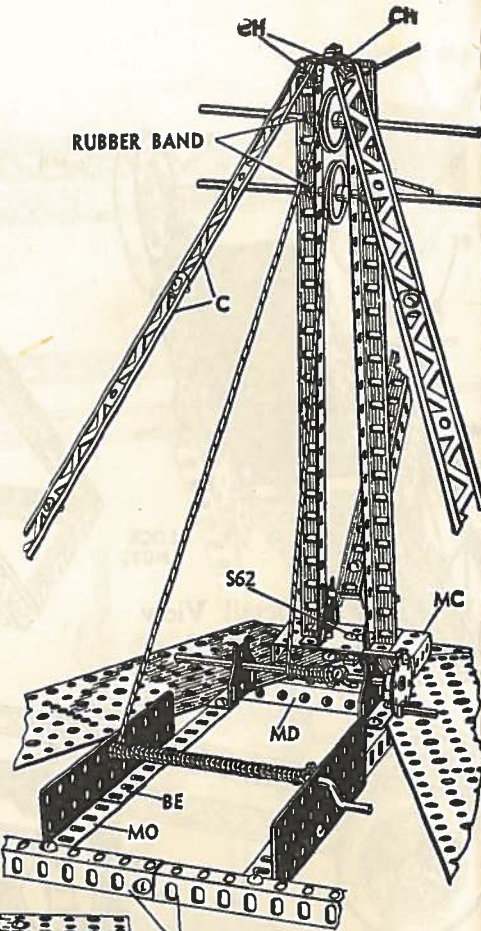


Models Built with No. 3½ Erector

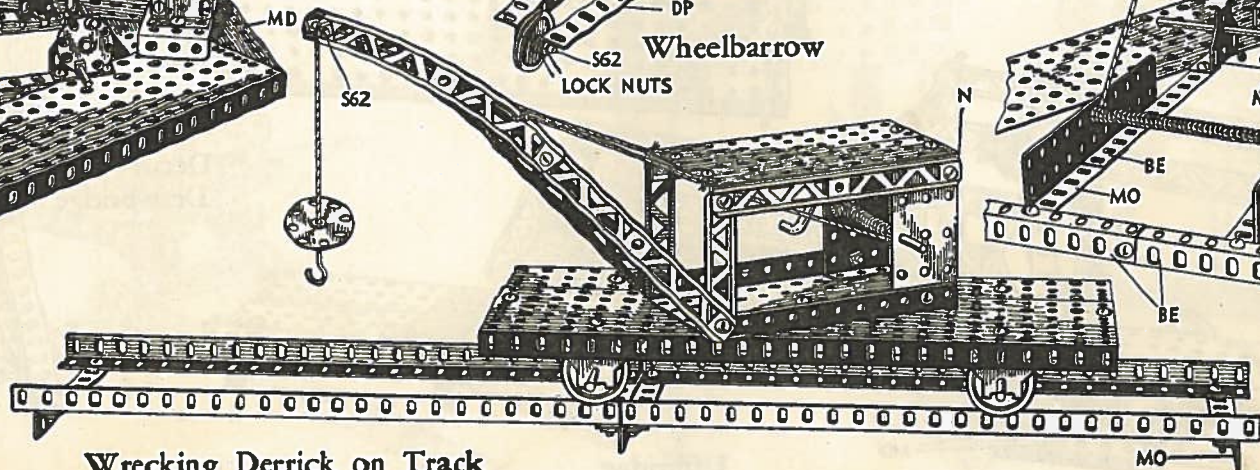
Stiff Leg Derrick



RUBBER BAND



Wheelbarrow
LOCK NUTS

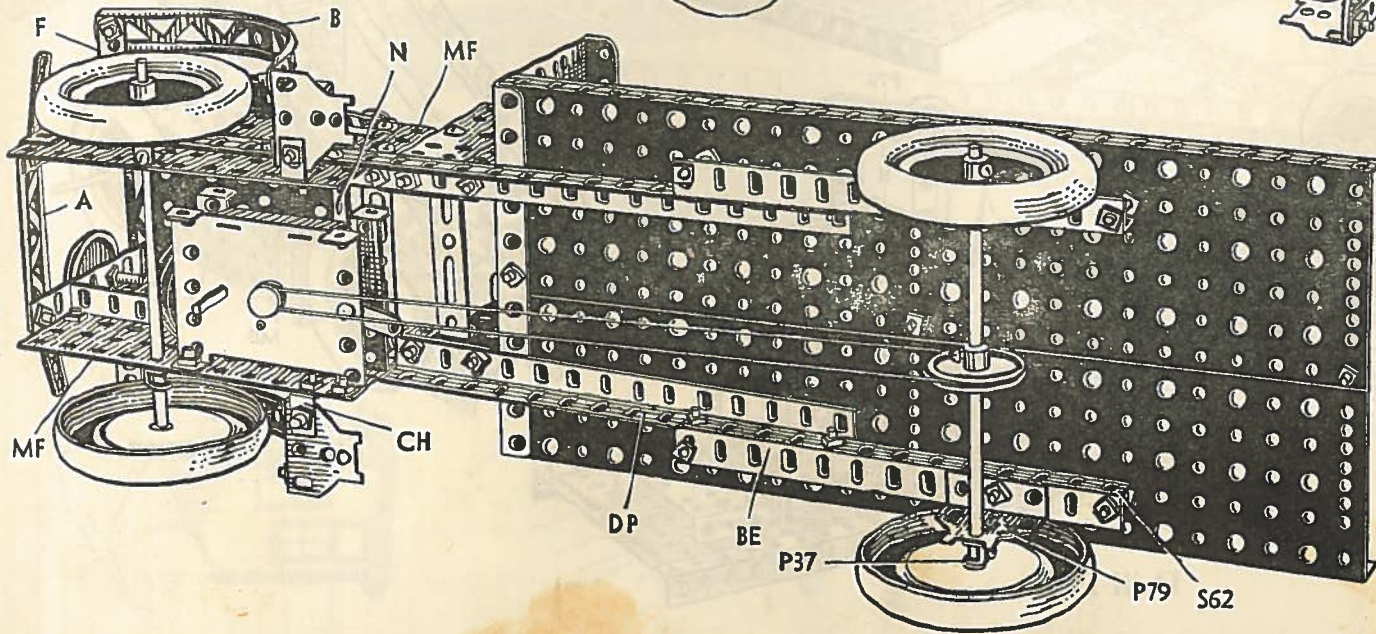
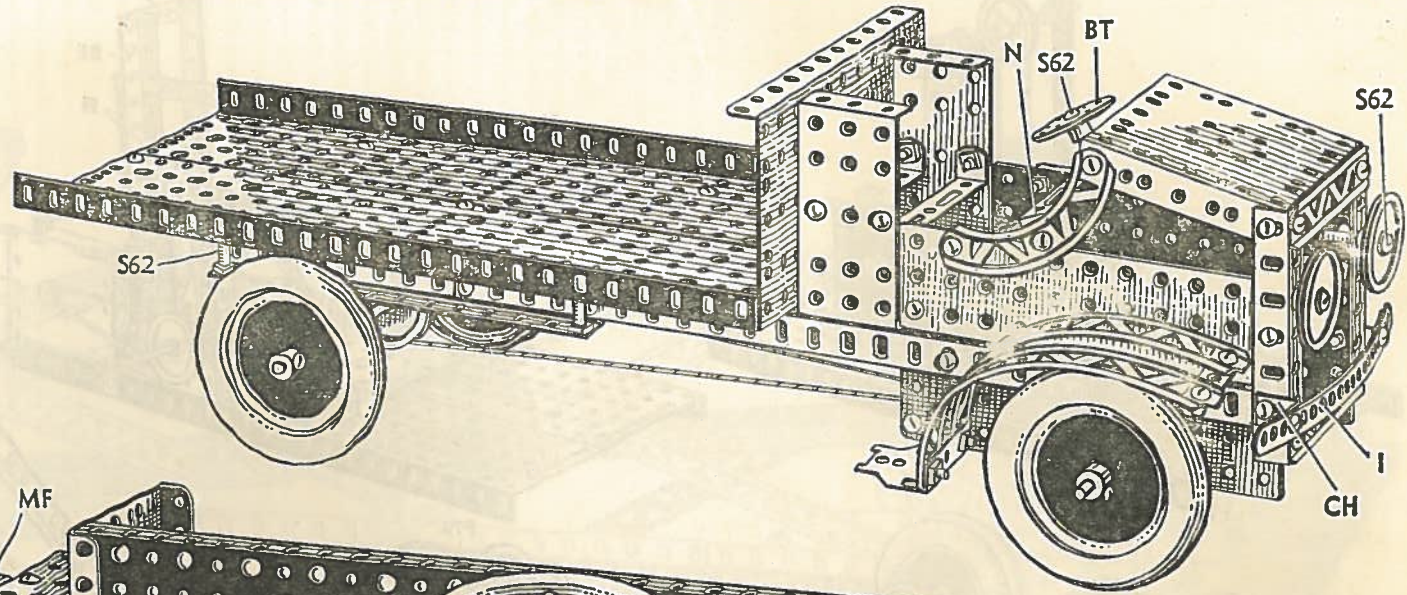


Wrecking Derrick on Track

Detail of
Stiff Leg
Derrick

Models Built with No. 4½ Erector

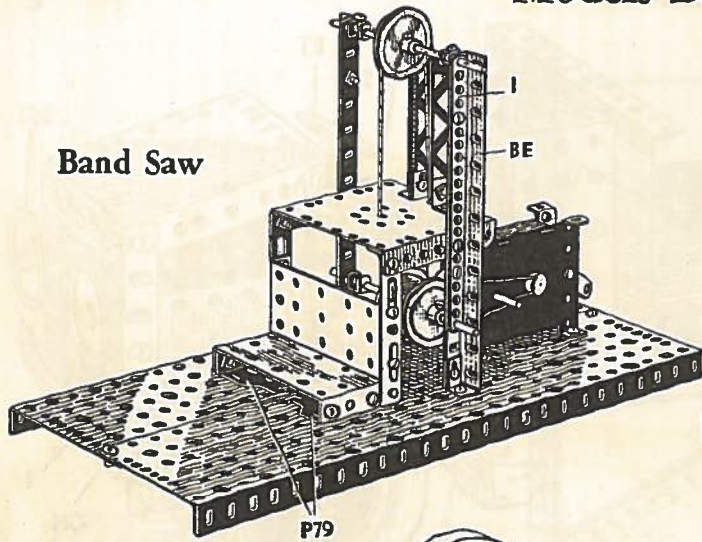
Heavy
Flat Truck



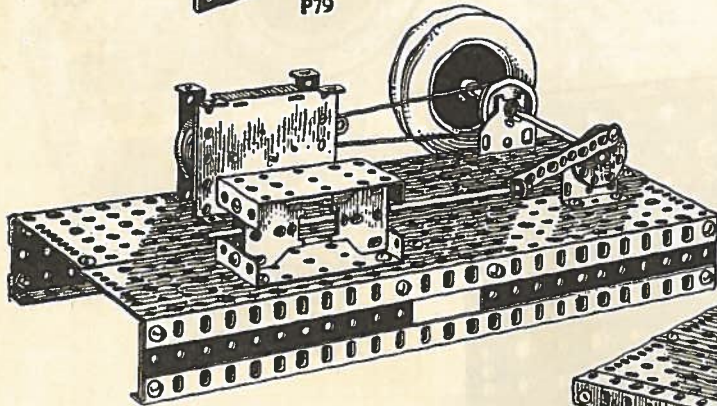
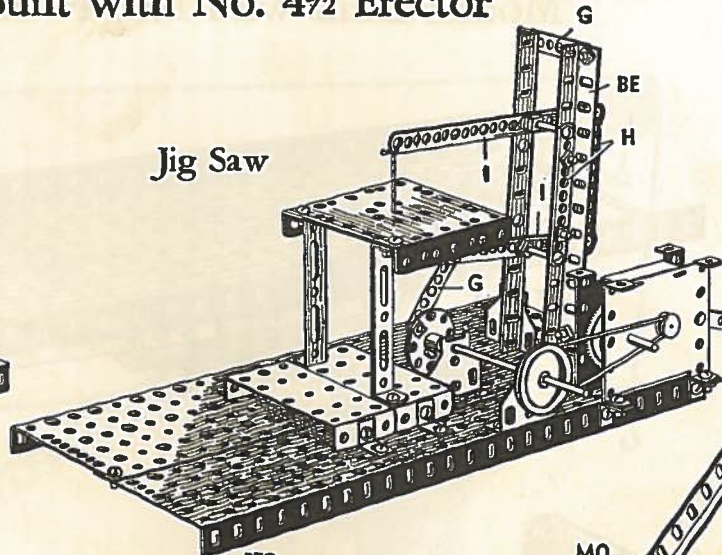
Heavy
Flat Truck
Bottom View

Models Built with No. 4½ Erector

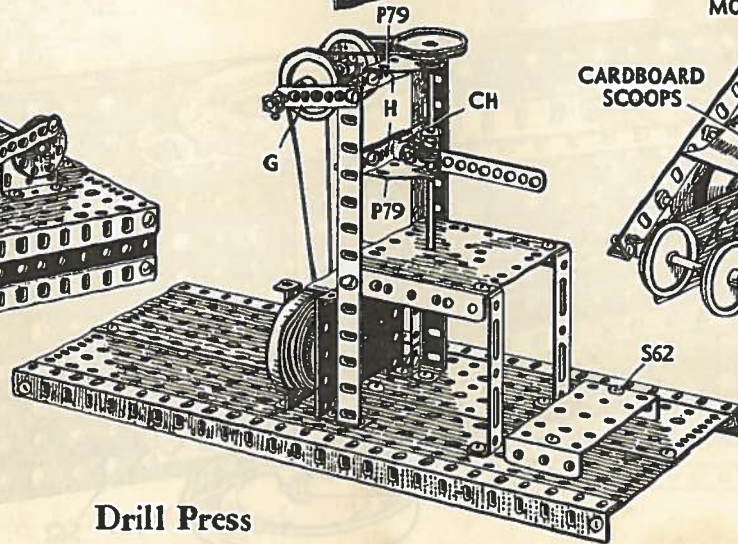
Band Saw



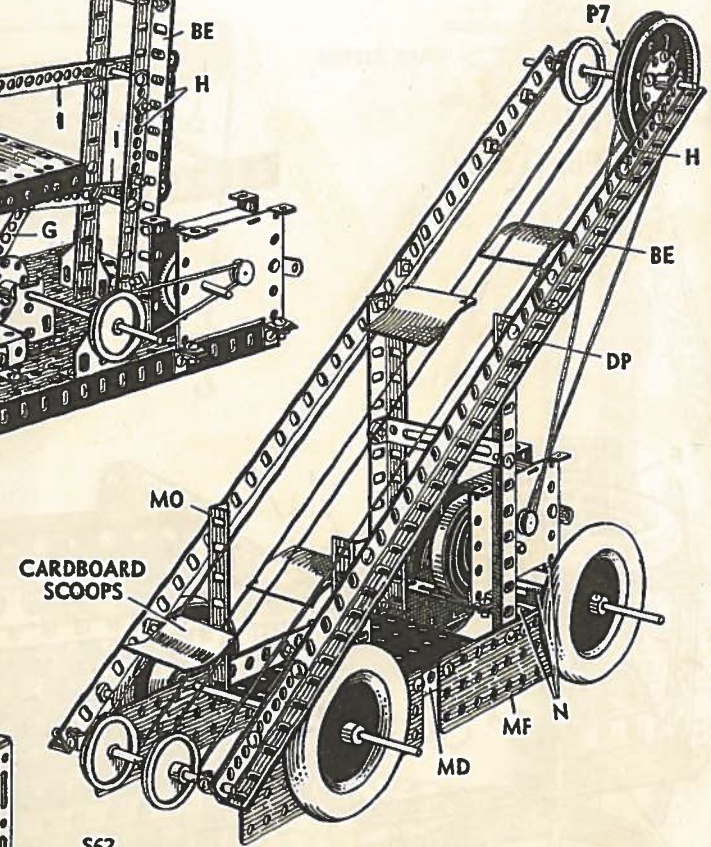
Jig Saw



Horizontal Engine

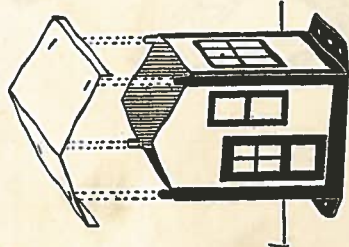
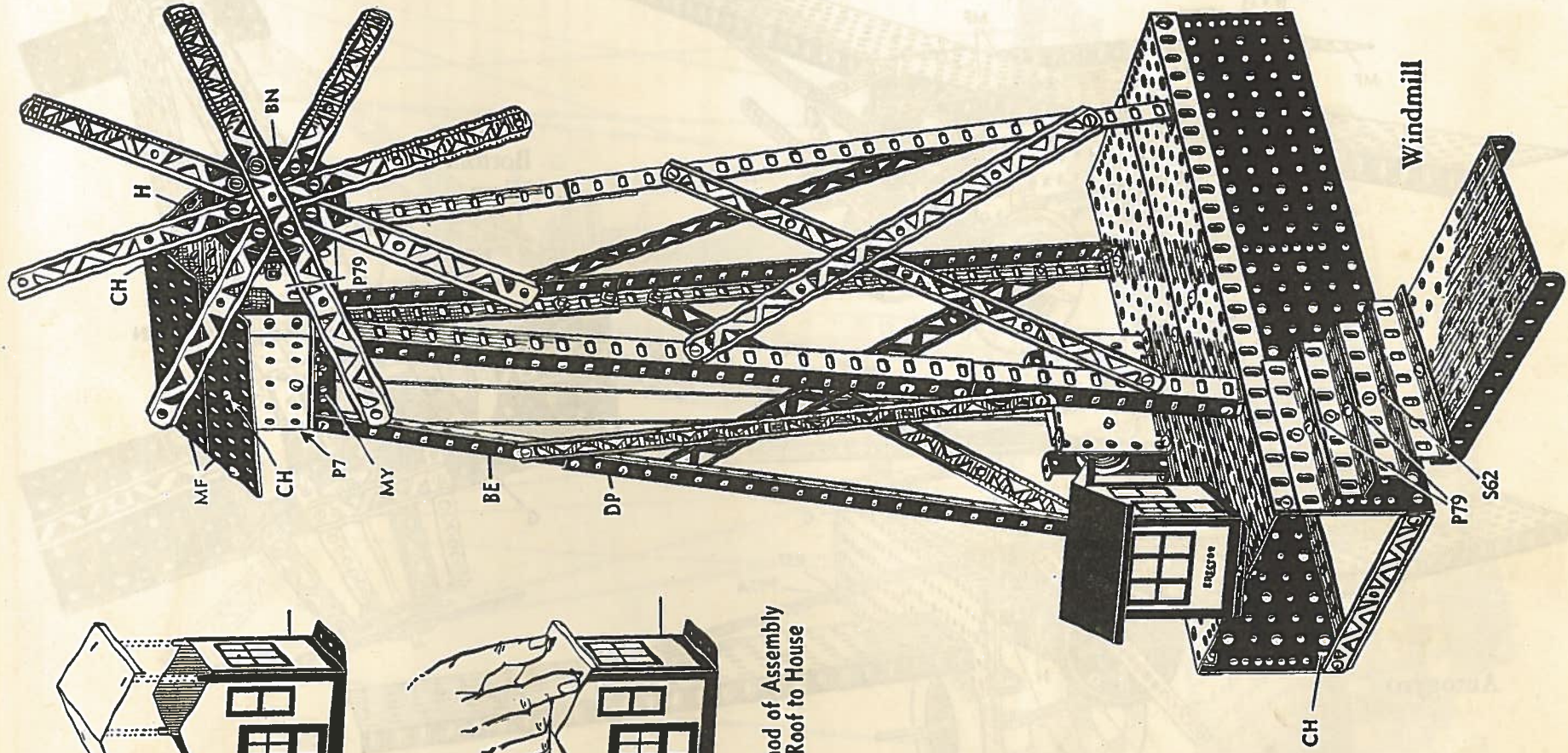


Drill Press



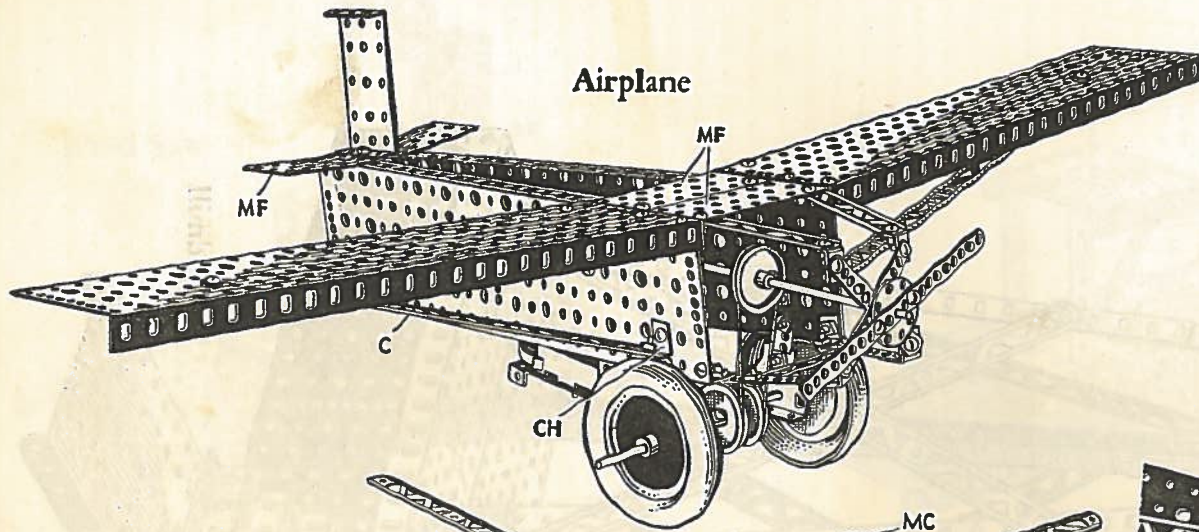
Snow Remover

Models Built with No. 4½ Erector

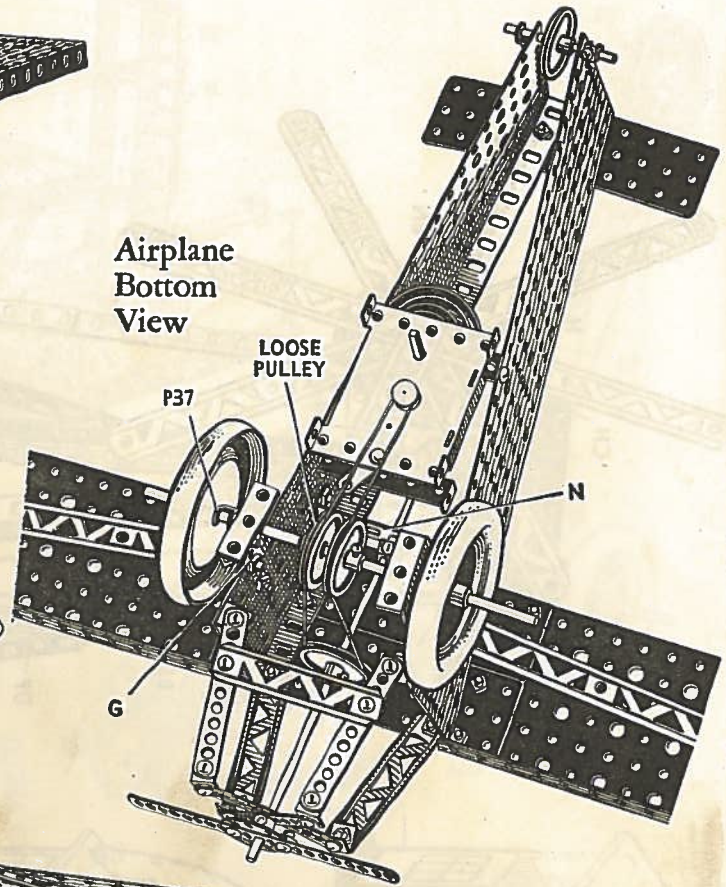


Method of Assembly
of Roof to House

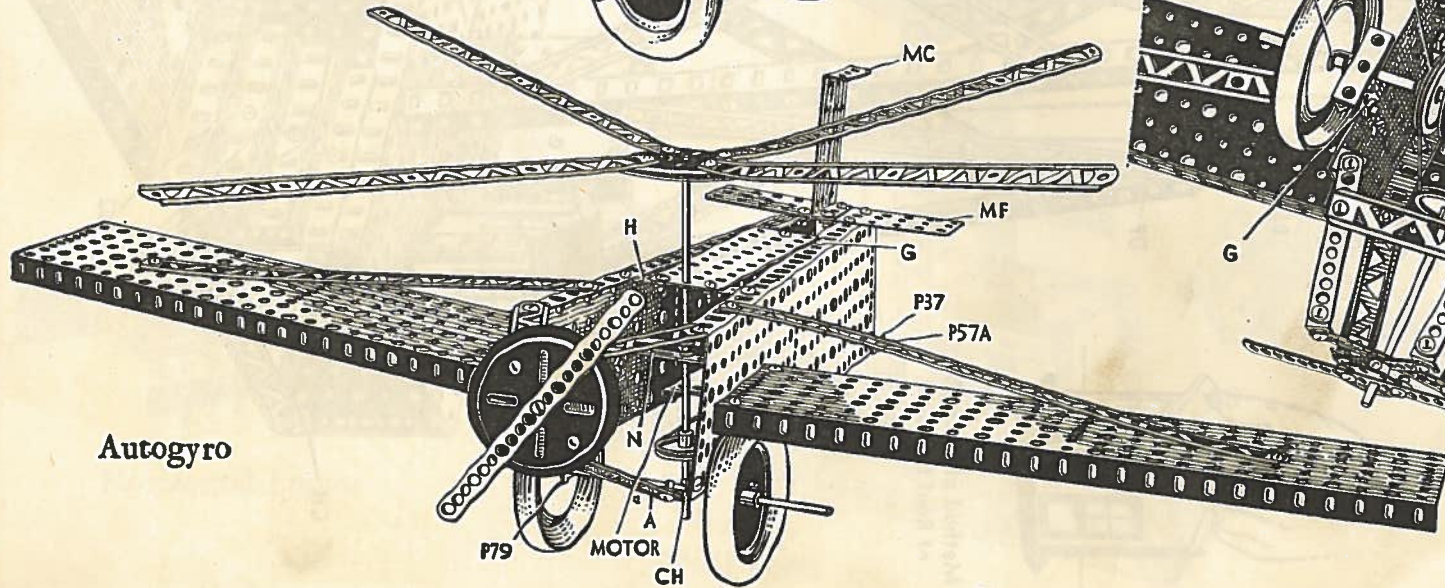
Models Built with No. 4½ Erector



Airplane

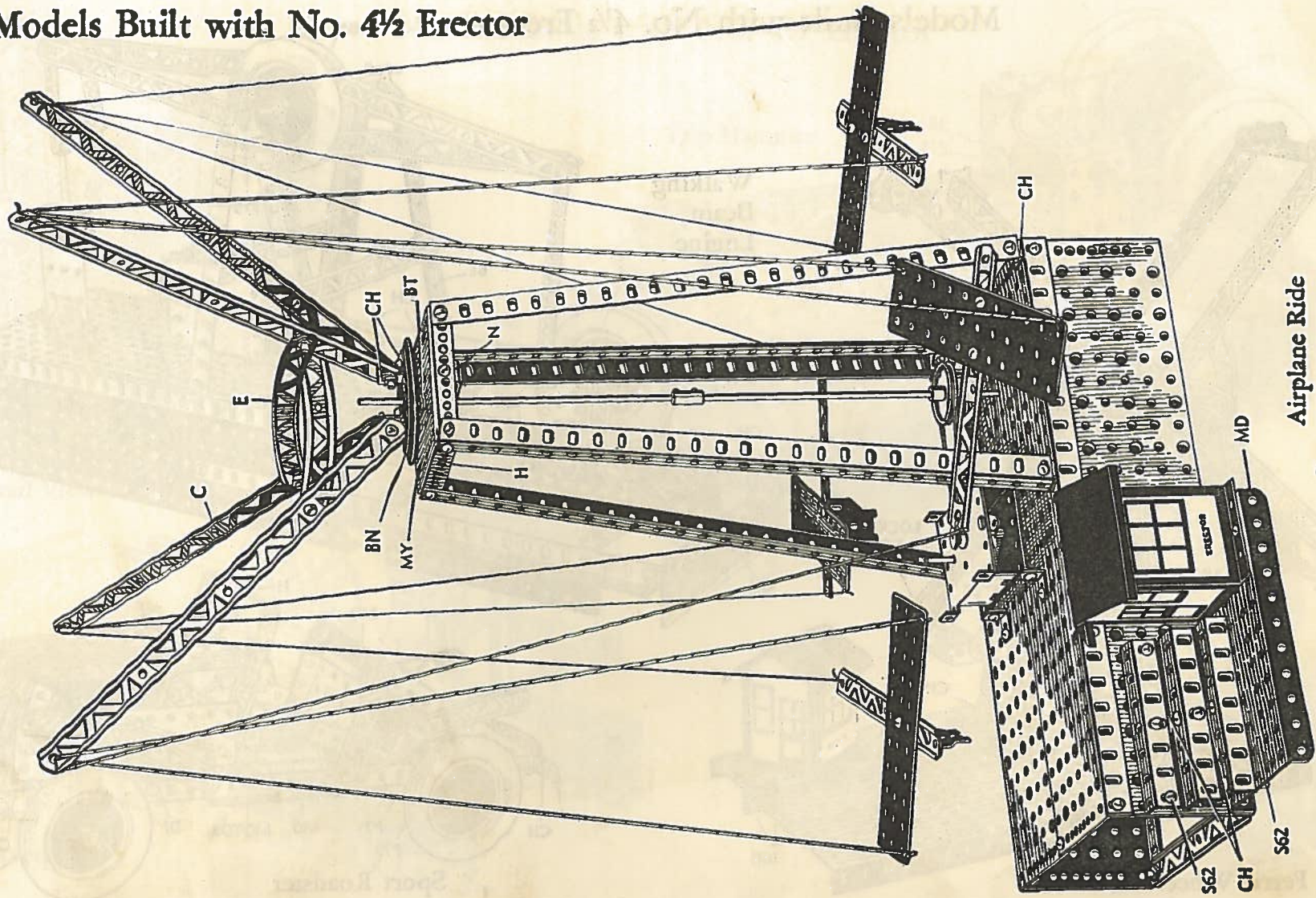


Airplane
Bottom
View

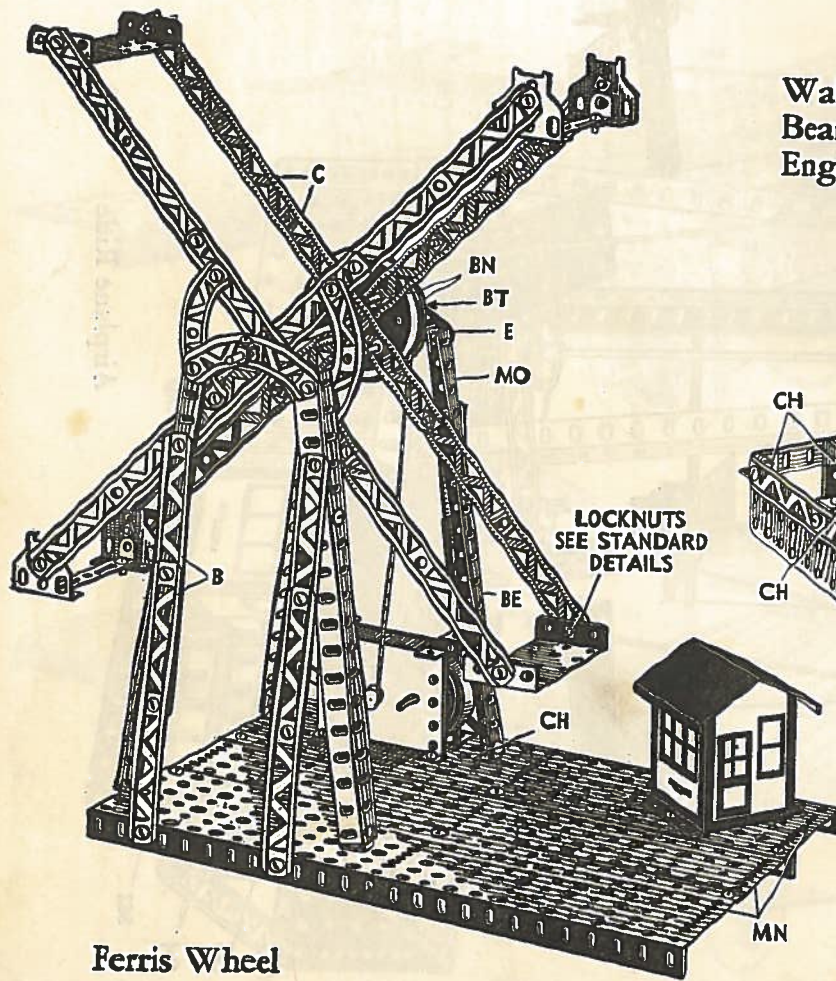


Autogyro

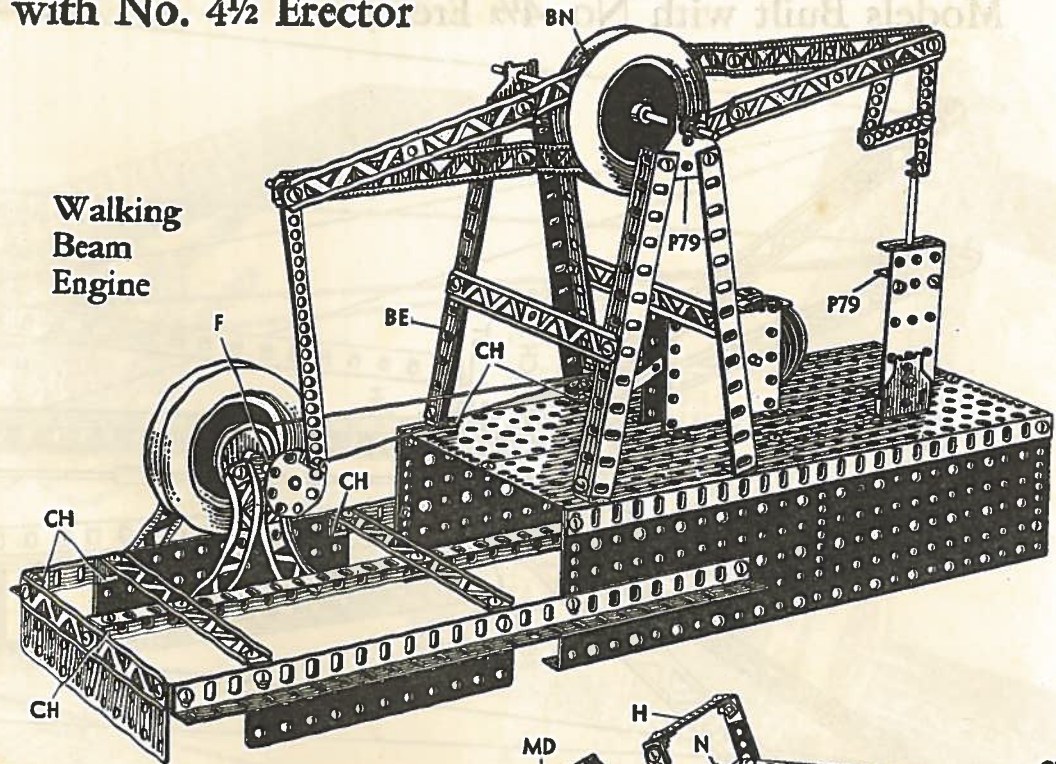
Models Built with No. 4½ Erector



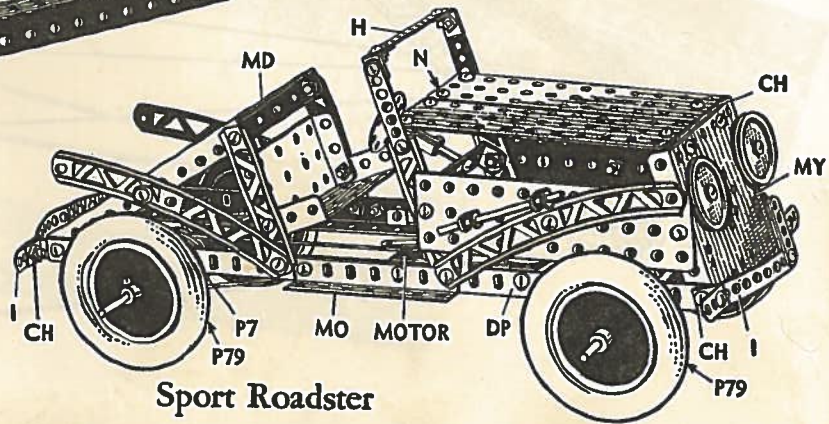
Models Built with No. 4½ Erector



Ferris Wheel

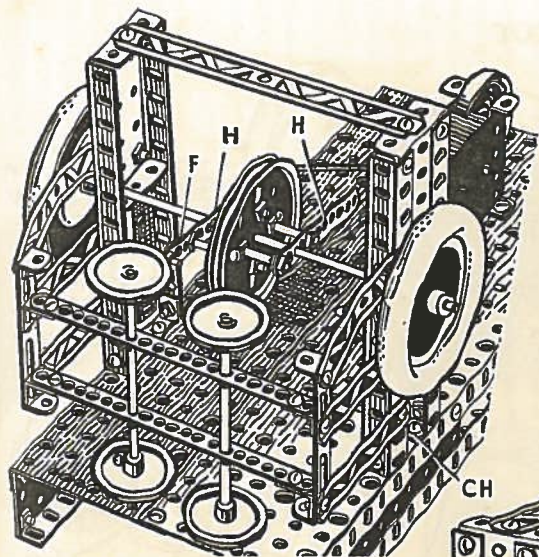


Walking Beam Engine

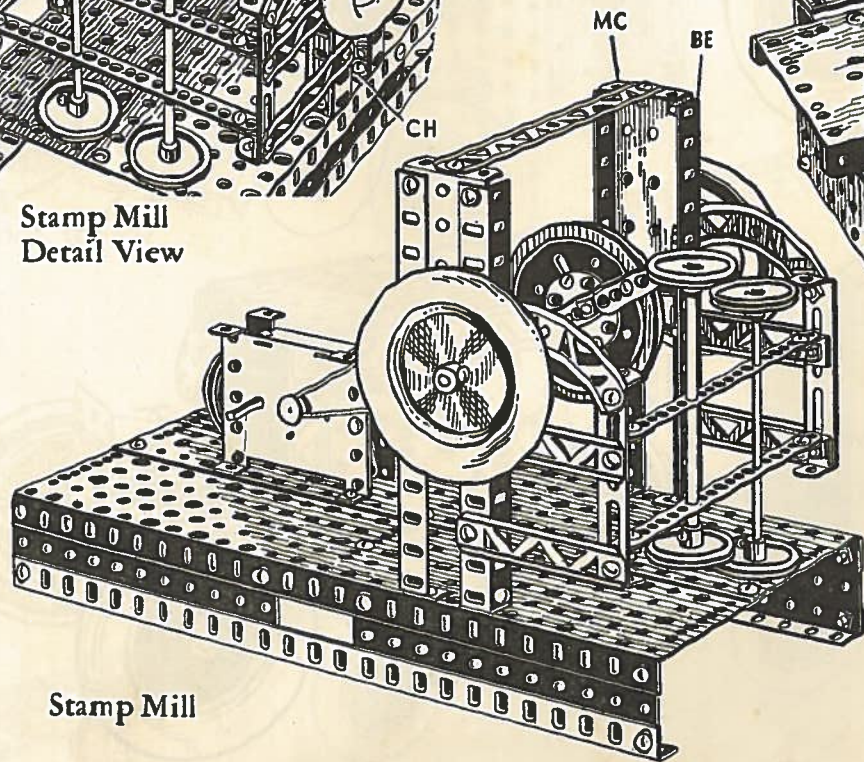


Sport Roadster

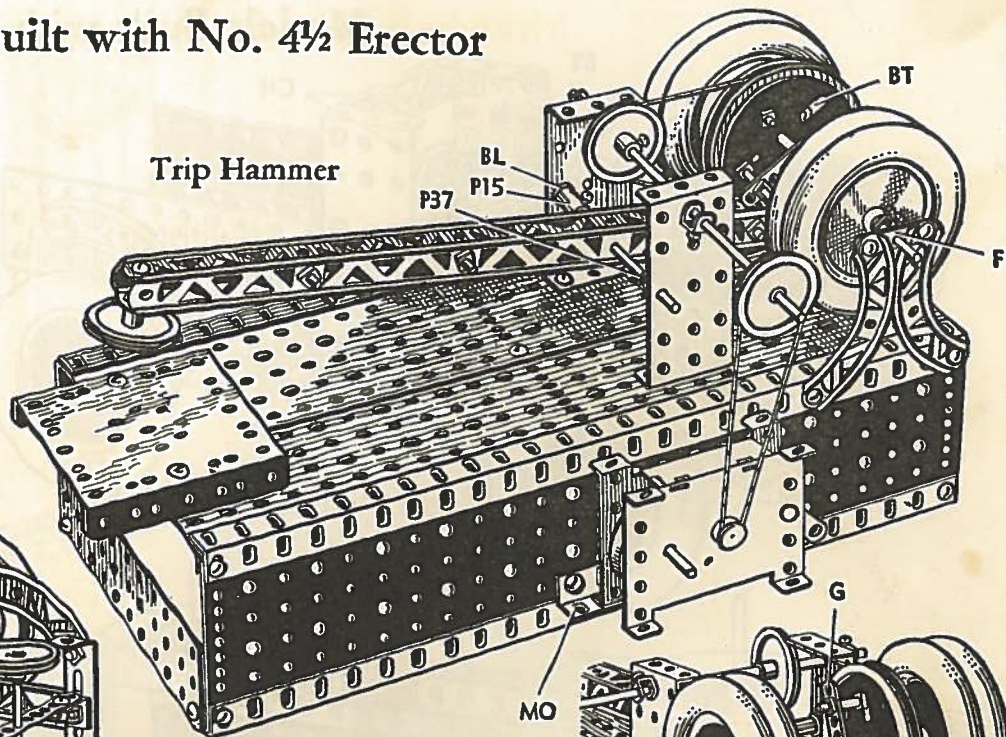
Models Built with No. 4½ Erector



Stamp Mill
Detail View

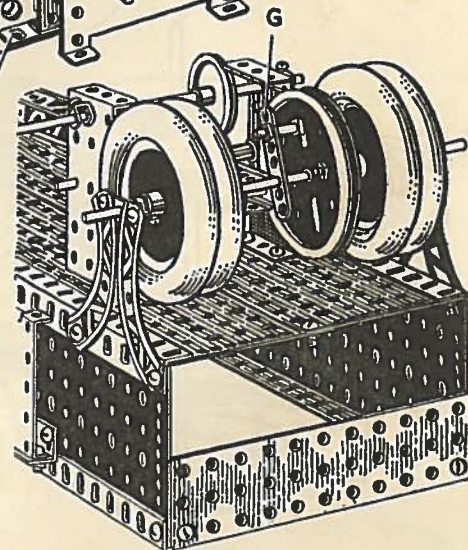


Stamp Mill

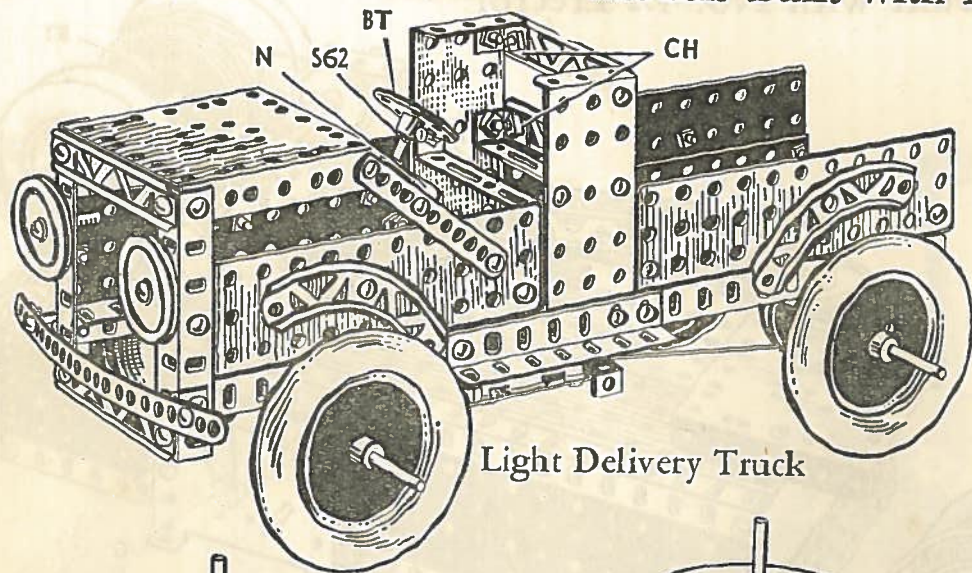


Trip Hammer

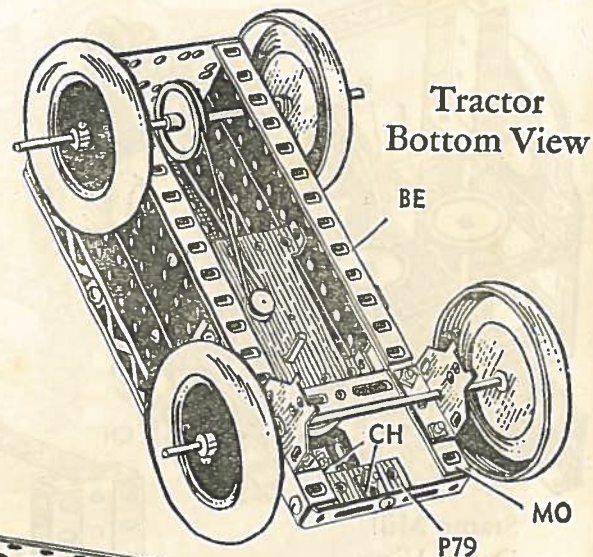
Trip
Hammer
End View



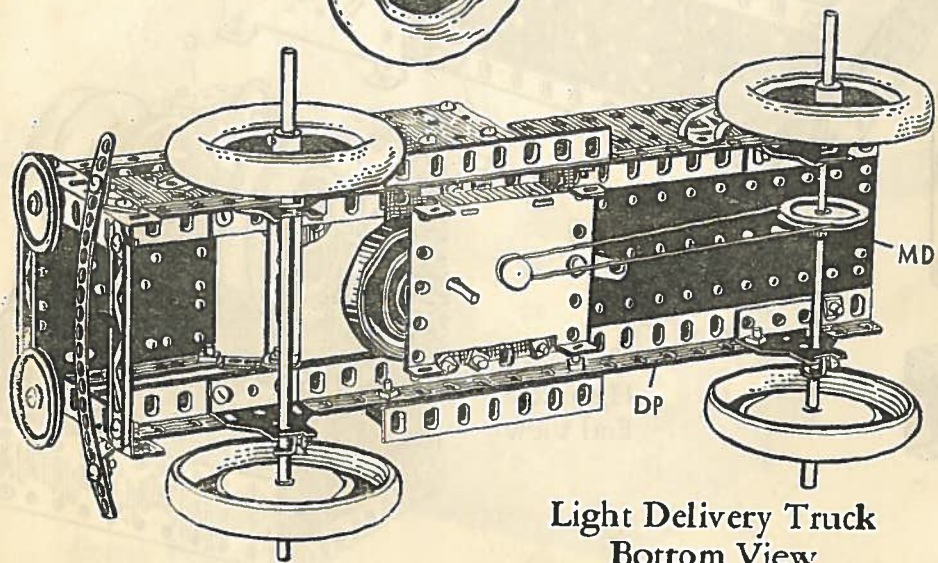
Models Built with No. 4½ Erector



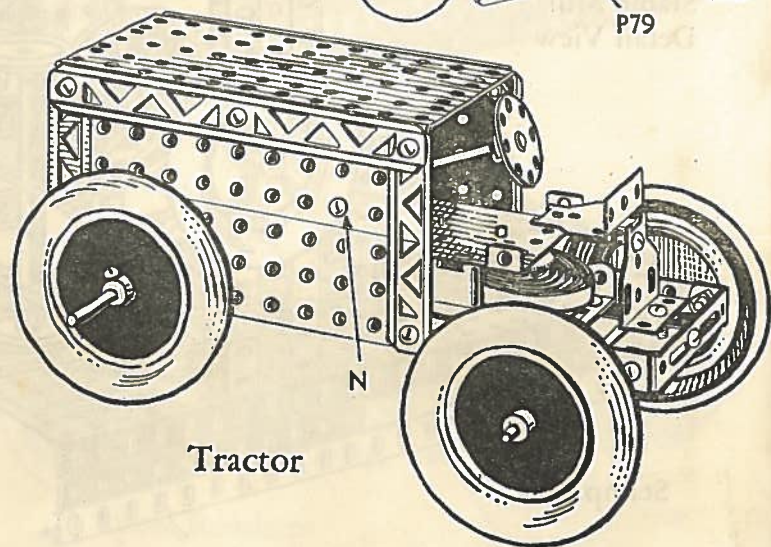
Light Delivery Truck



Tractor
Bottom View

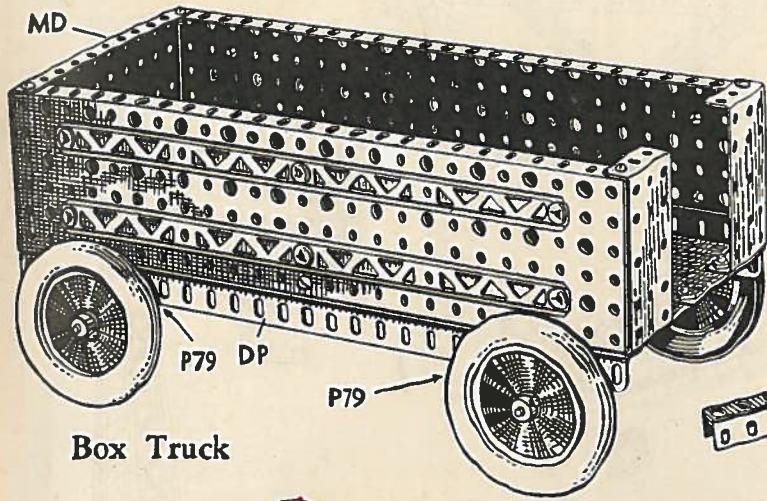


Light Delivery Truck
Bottom View

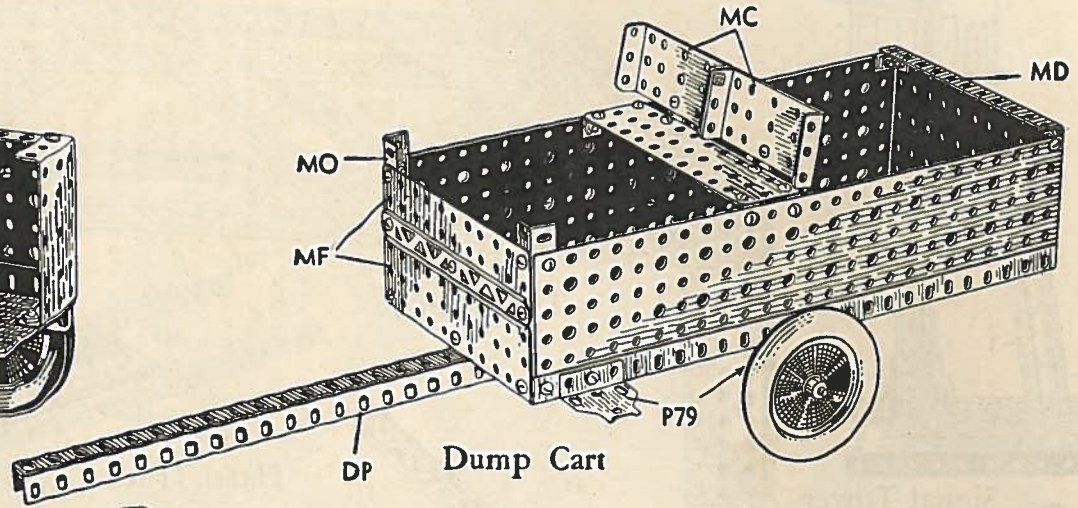


Tractor

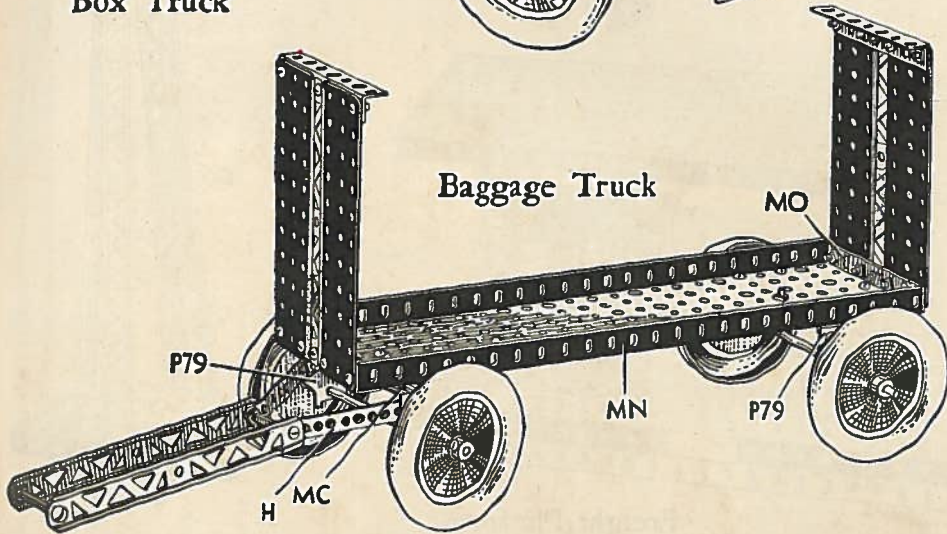
Models Built with No. 4½ Erector



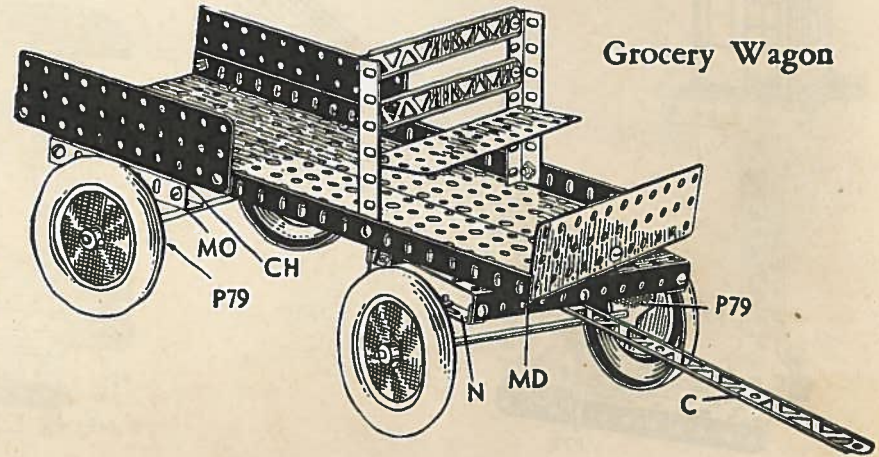
Box Truck



Dump Cart

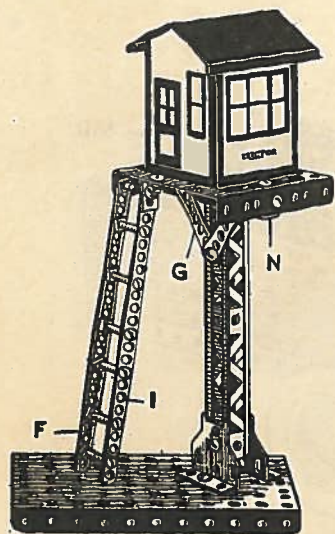


Baggage Truck

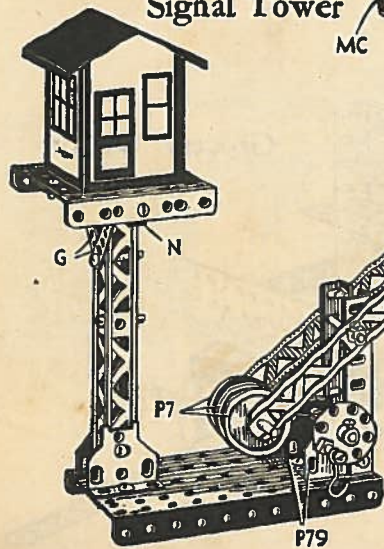


Grocery Wagon

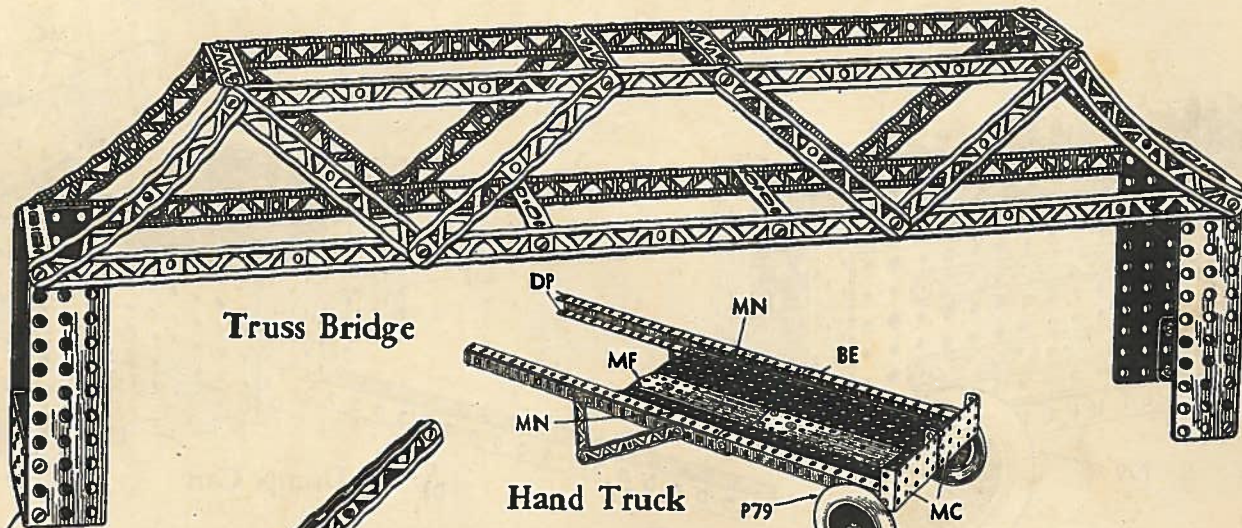
Models Built with No. 4½ Erector



Signal Tower

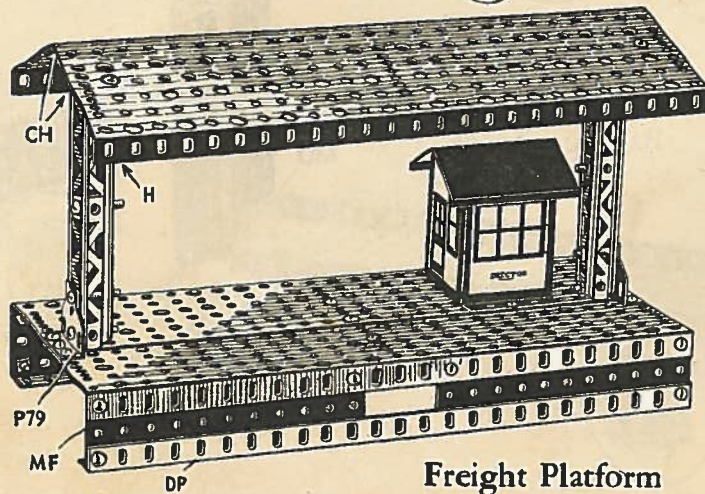


Crossing Gate



Truss Bridge

Hand Truck



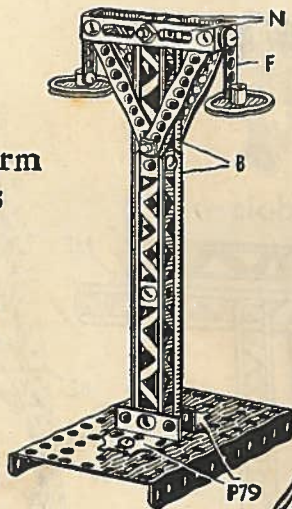
Freight Platform



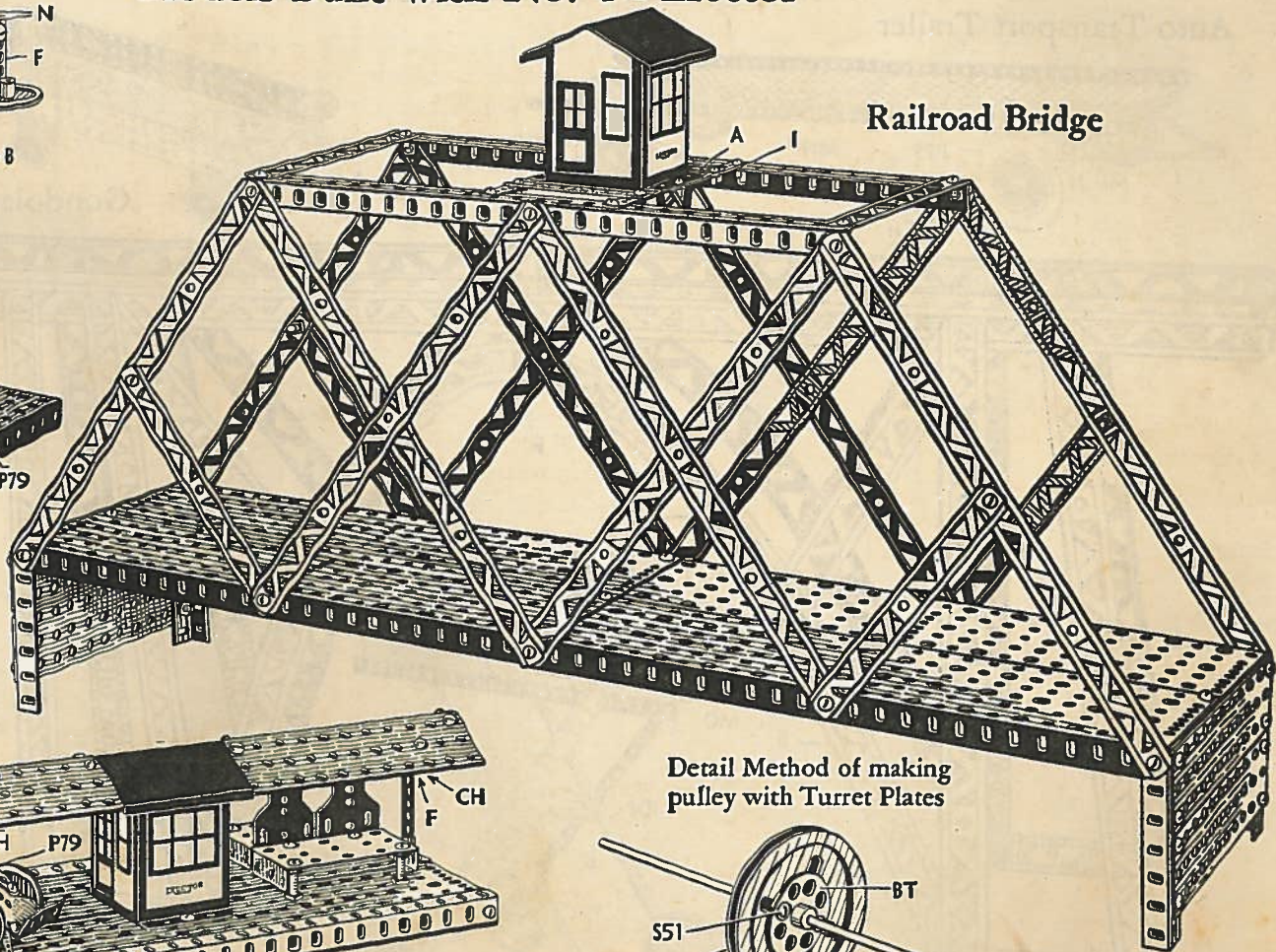
Floodlight Tower

Models Built with No. 4½ Erector

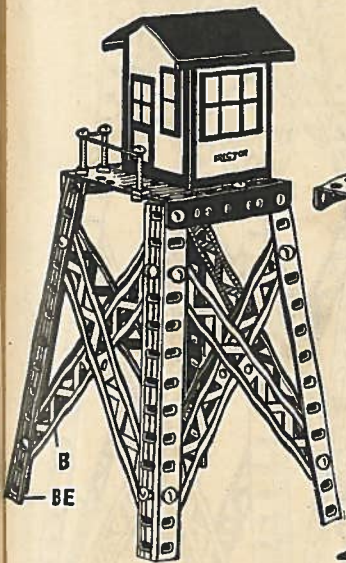
Platform Lights



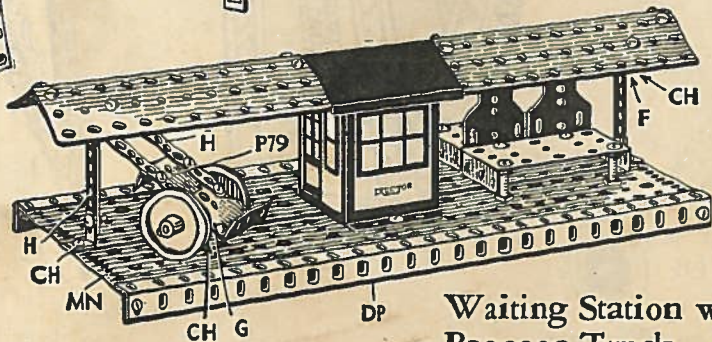
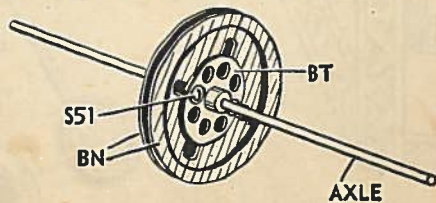
Railroad Bridge



Switch Tower



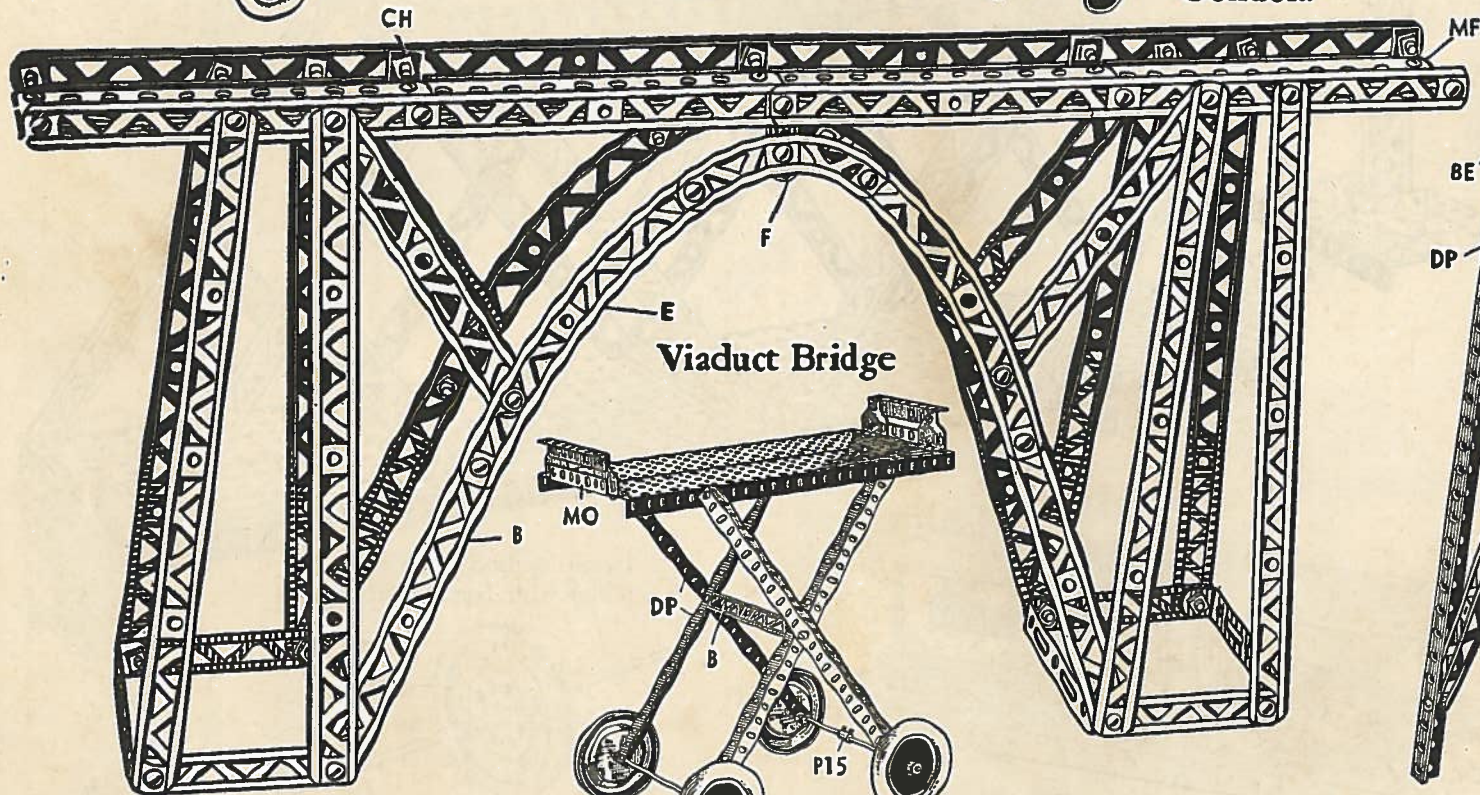
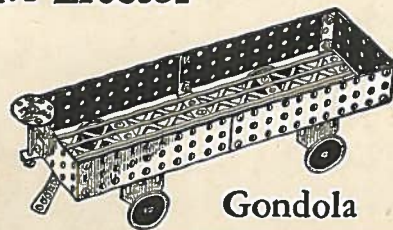
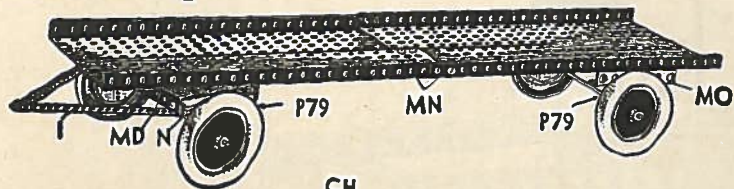
Detail Method of making pulley with Turret Plates



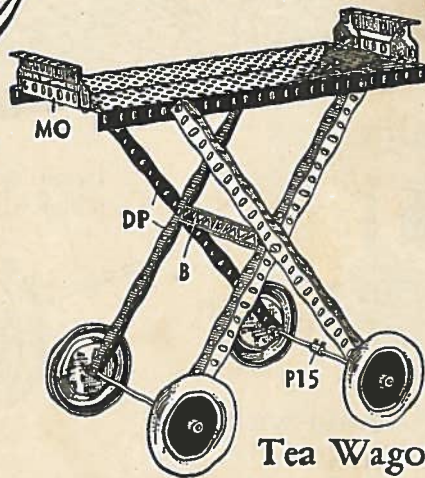
Waiting Station with Baggage Truck

Models Built with No. 4½ Erector

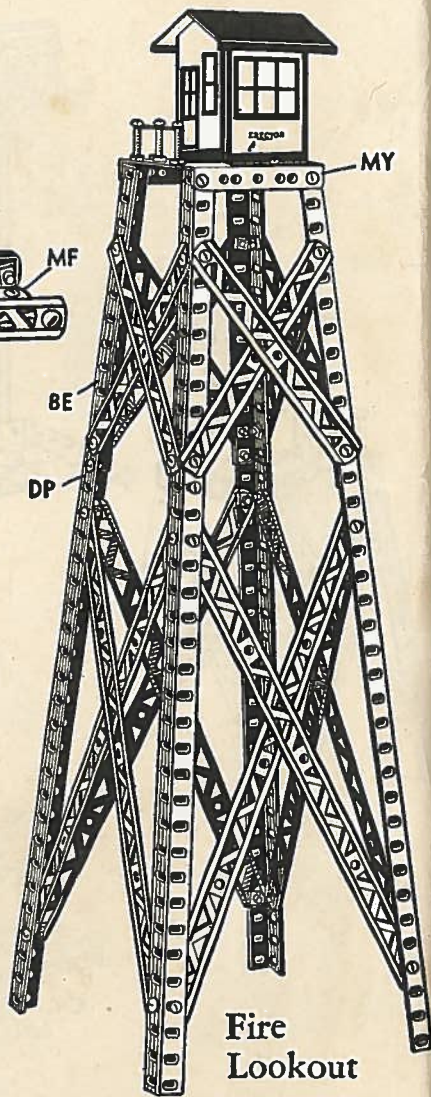
Auto Transport Trailer



Viaduct Bridge



Tea Wagon



Fire Lookout

Models Built with No. 6½ Erector

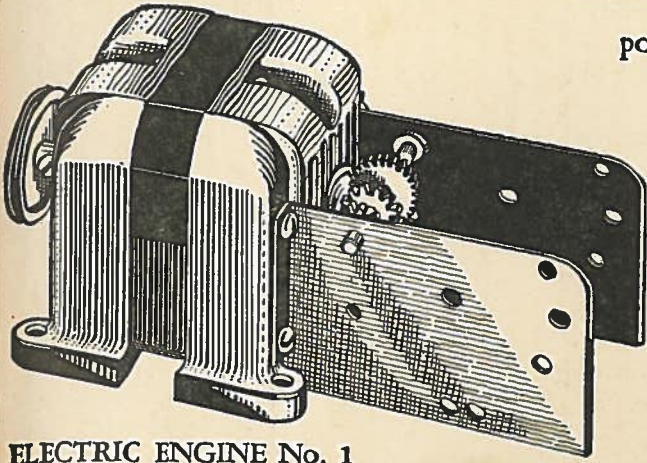
INTRODUCTION — ELECTRIC ENGINE POWER UNITS

Gears and pulley provide a means for transmitting power, increasing power and regulating speed. If power is desired, speed must be sacrificed.

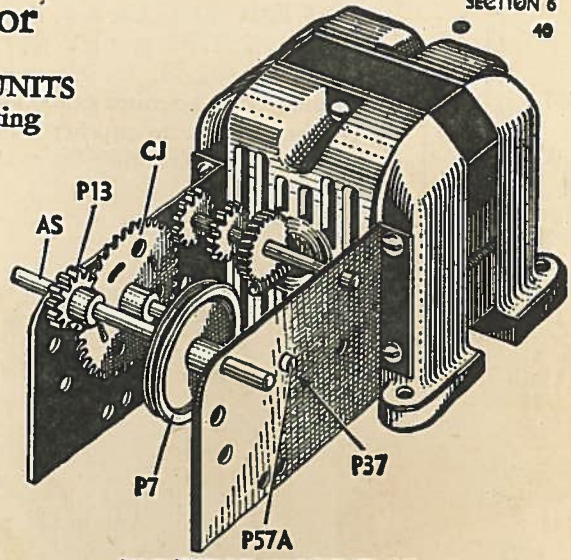
If speed is desired, power must be sacrificed.

A worm drive gives the greatest single reduction. A worm meshing with a 24 tooth gear, as in the countershaft of the Electric Engine, gives a 1:24 reduction, increasing the power 24 times.

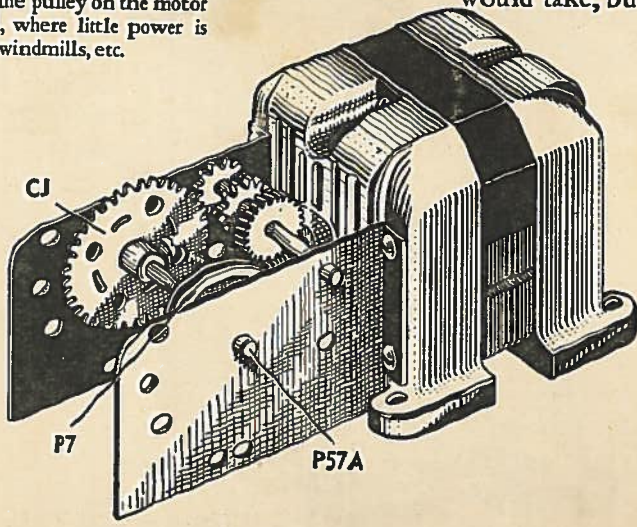
A 12 tooth gear meshed with a 36 tooth gear must turn 3 revolutions to make the latter complete 1 revolution, thus the gear ratio is 1:3 and the driven shaft is capable of handling 3 times the load that the driver would take, but at 1/3 the speed.



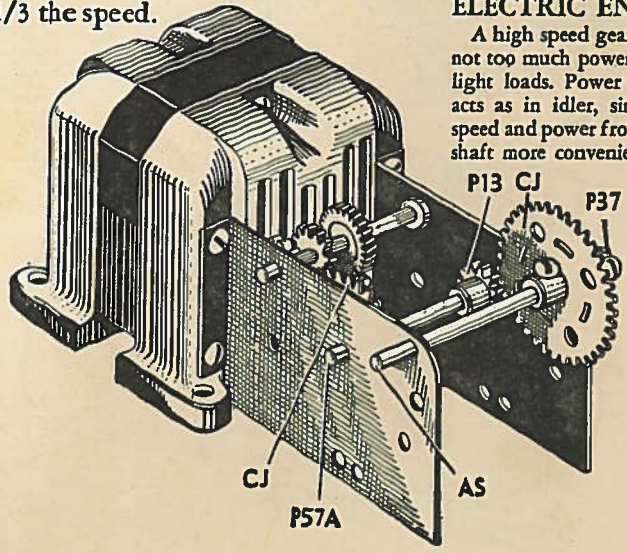
ELECTRIC ENGINE No. 1
A direct drive, as from the pulley on the motor shaft, gives a high speed, where little power is required, as in the case of windmills, etc.



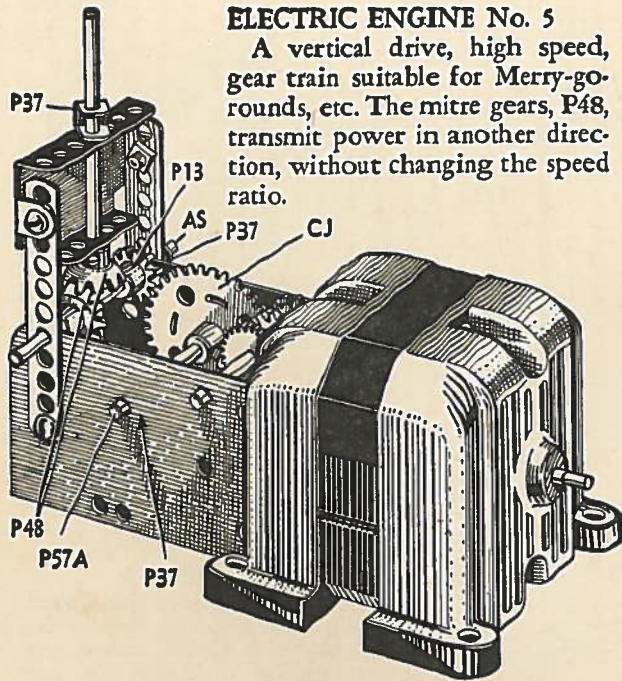
ELECTRIC ENGINE No. 3
A high speed gear train where a little pep and not too much power is desired for working with light loads. Power ratio 1:1, the 36 tooth gear acts as in idler, simply transforming the same speed and power from the countershaft to a driven shaft more conveniently located.



ELECTRIC ENGINE No. 2
A medium speed gear train capable of running all ordinary models. Power ratio of driven shaft to counter shaft, 3:1.



ELECTRIC ENGINE No. 4
A powerful, slow speed gear train, ratio 9:1. A fine gear box where great power is required, or a very slow speed is desired.



ELECTRIC ENGINE No. 5

A vertical drive, high speed, gear train suitable for Merry-go-rounds, etc. The mitre gears, P48, transmit power in another direction, without changing the speed ratio.

Models Built with No. 6½ Erector

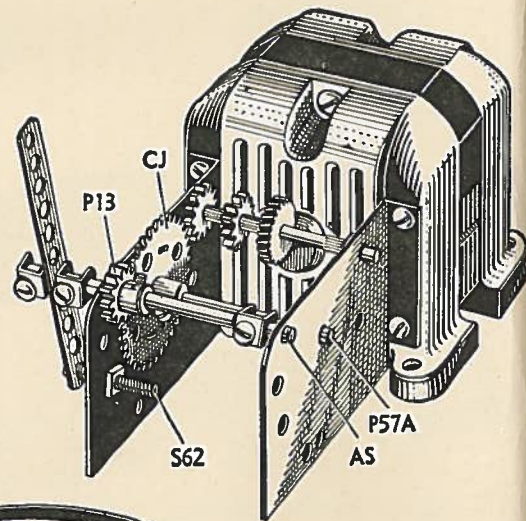
ELECTRIC ENGINE POWER UNITS (cont'd)

TO REVERSE A LOAD

Gear boxes used for hoisting as in elevators, derricks, etc., should have the axle, on which the string is wound, loose enough so that it may be pushed back and forth endwise. This end play should permit the gear on this axle to be in or out of mesh with the gear driving it.

When the gears are in mesh the load will be raised. When they are not, the axle will be free and the load, acted upon by gravity, will drop. The load may be slowed or stopped in its downward journey by applying friction to the free axle.

A gear shift lever may be constructed as shown in Electric Engine No. 7 to control these operations.

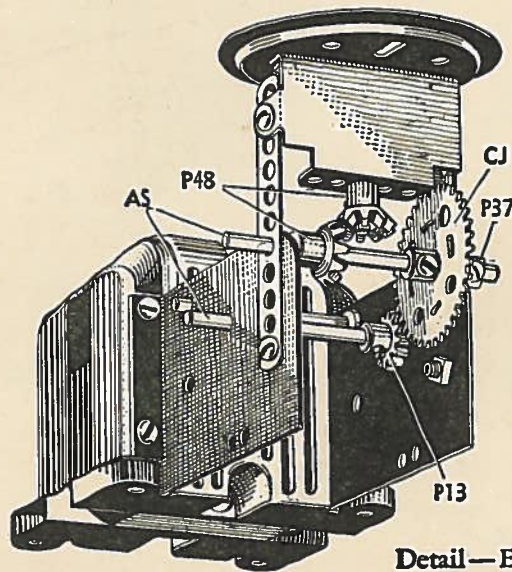
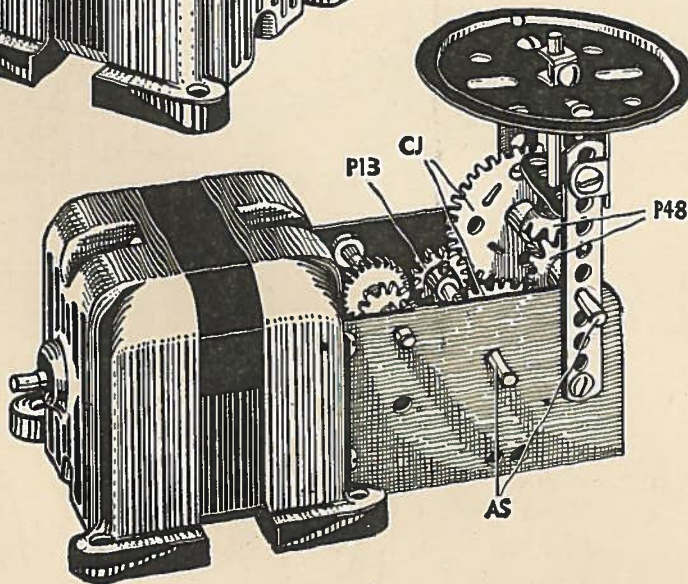


ELECTRIC ENGINE No. 7

A gear shift lever added to Electric Engine No. 3. Leave end play in the driven shaft for throwing gears out of mesh.

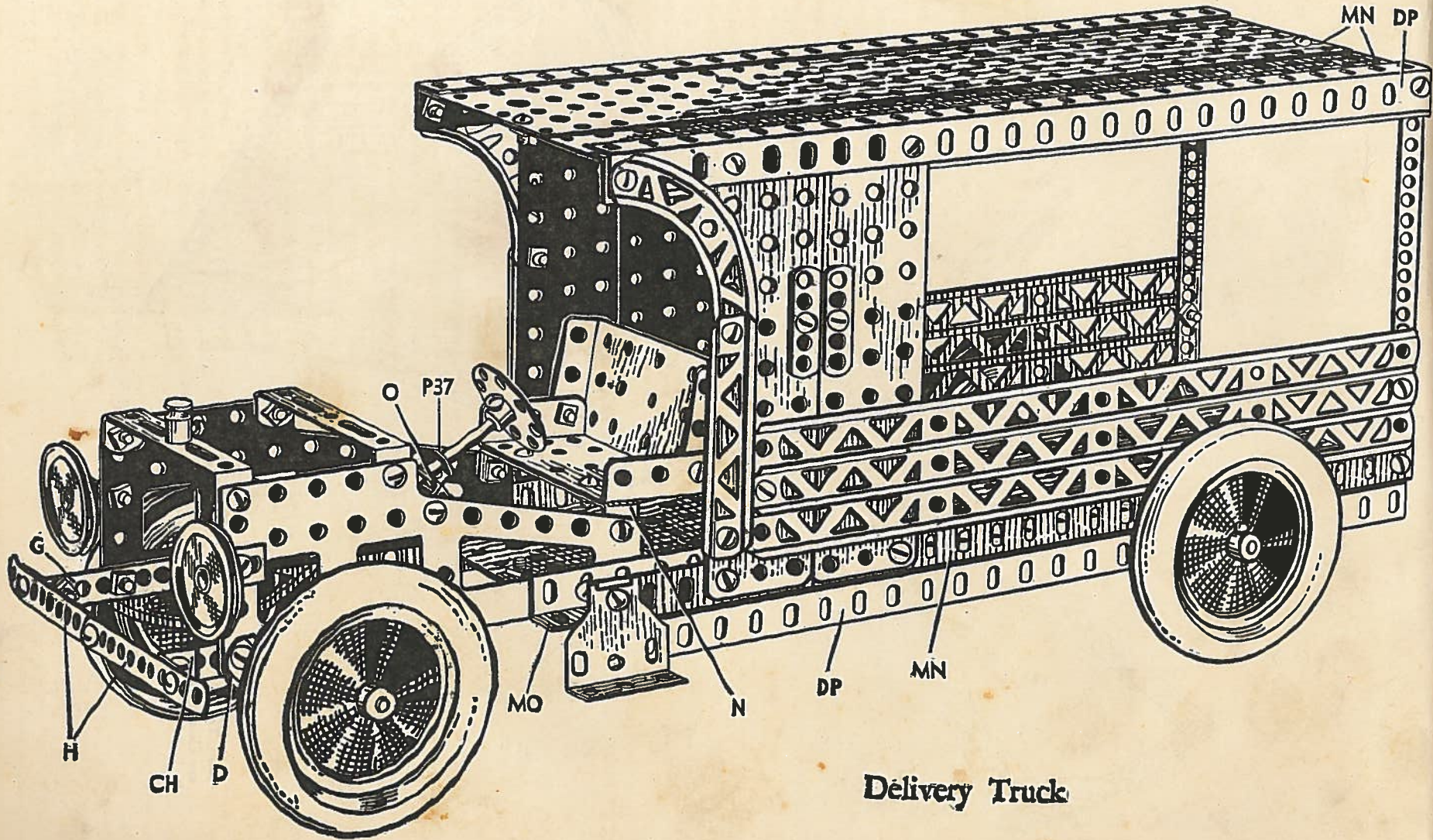
ELECTRIC ENGINE No. 6

A vertical drive, slow speed, gear train, with plenty of power, suitable for drawbridges, airplane beacons, etc.



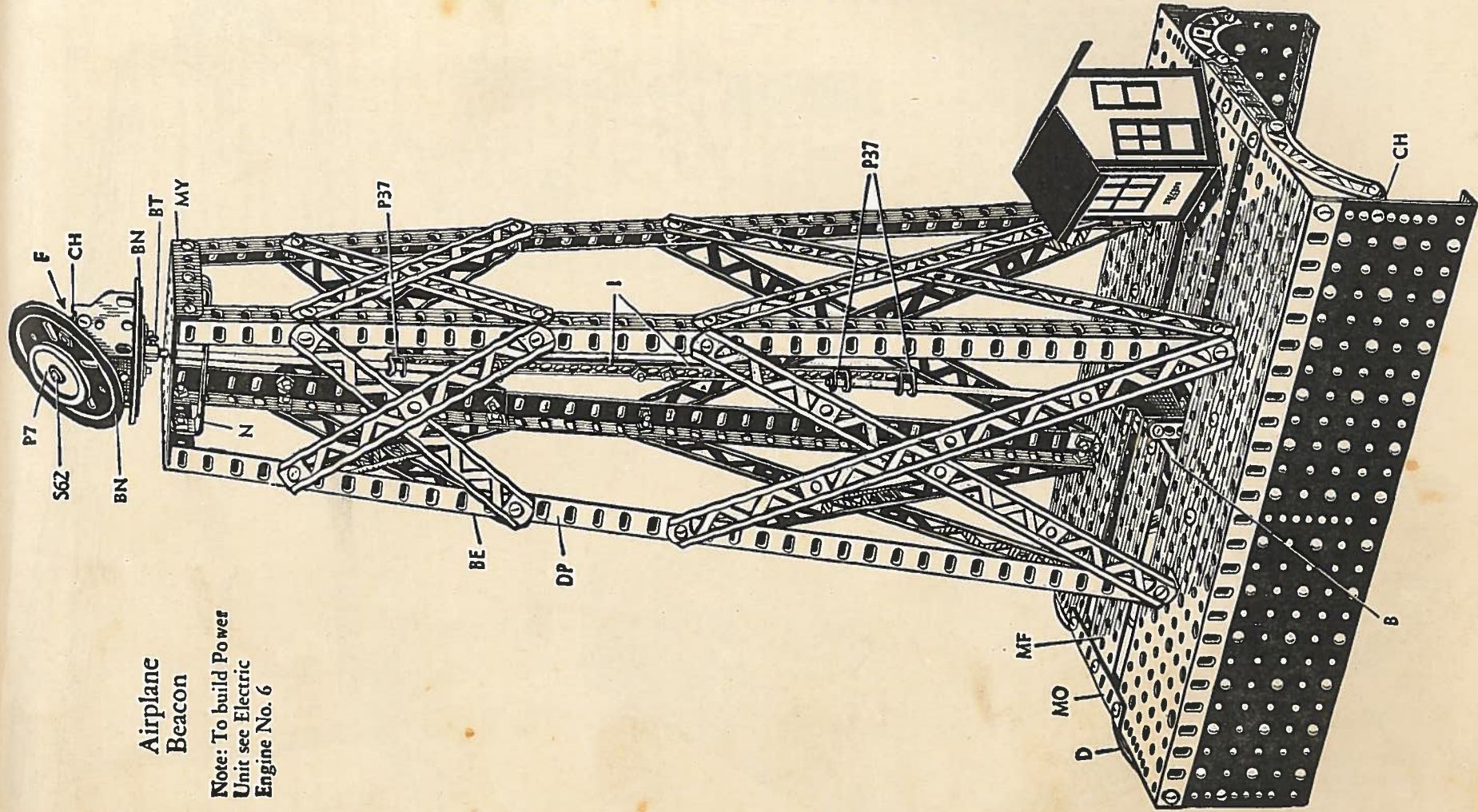
Detail—ELECTRIC ENGINE No. 6—

Models Built with No. 6½ Erector



Delivery Truck

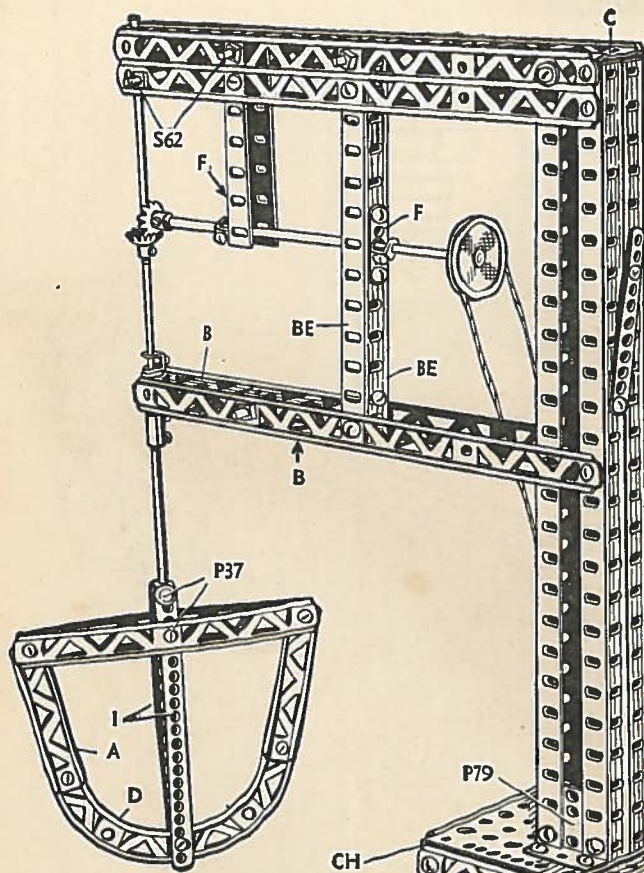
Models Built with No. 6½ Erector



Airplane Beacon

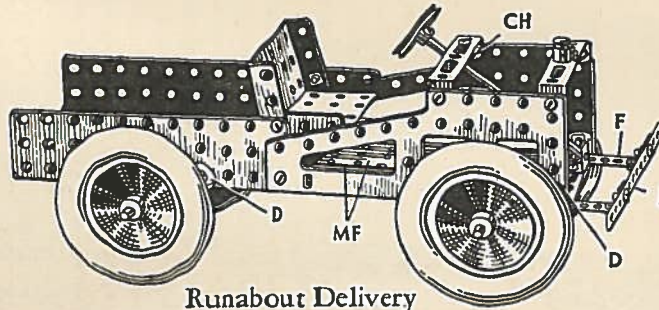
Note: To build Power
Unit see Electric
Engine No. 6

Models Built with No. 6½ Erector



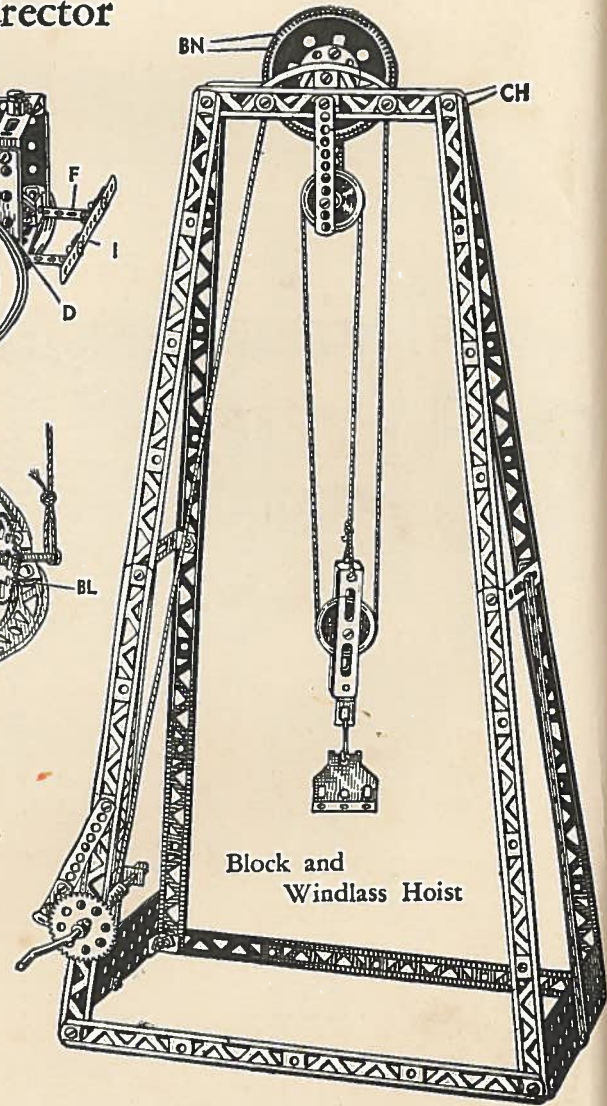
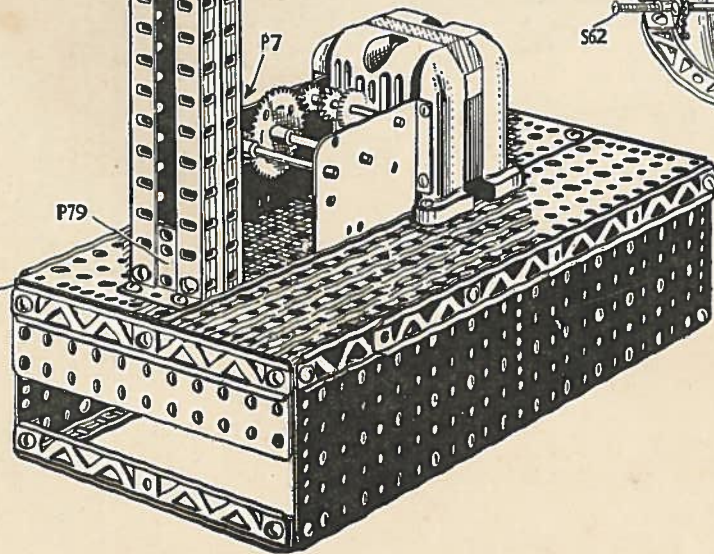
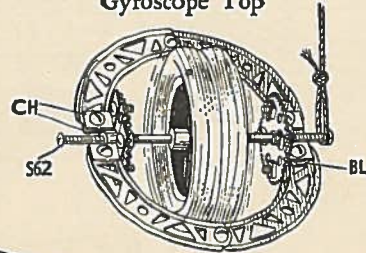
Fodder Mixer

Note: To build Power Unit
see Electric Engine No. 3



Runabout Delivery

Gyroscope Top

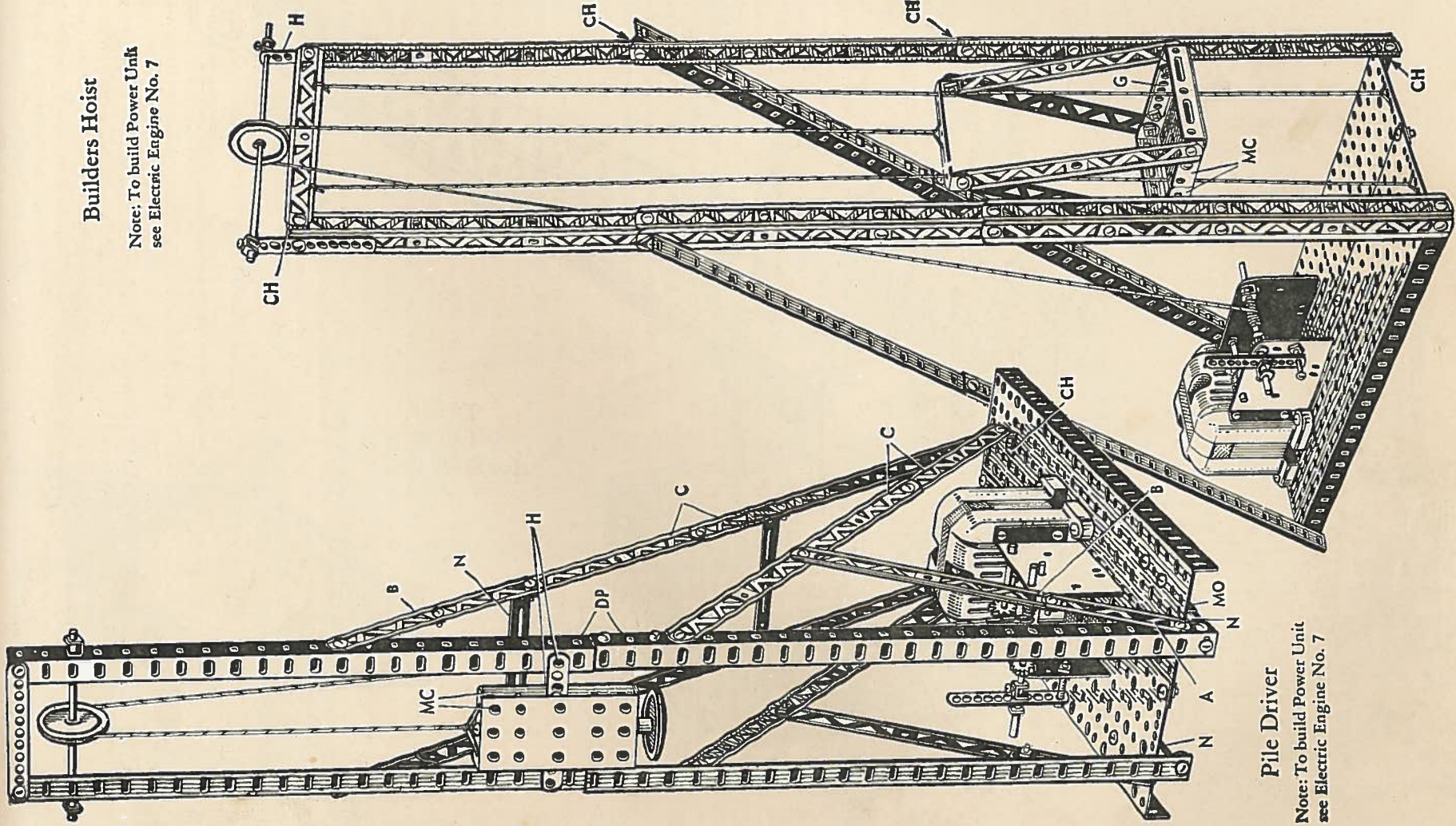


Block and
Windlass Hoist

Models Built with No. 6½ Erector

Builders Hoist

Note: To build Power Unit
see Electric Engine No. 7



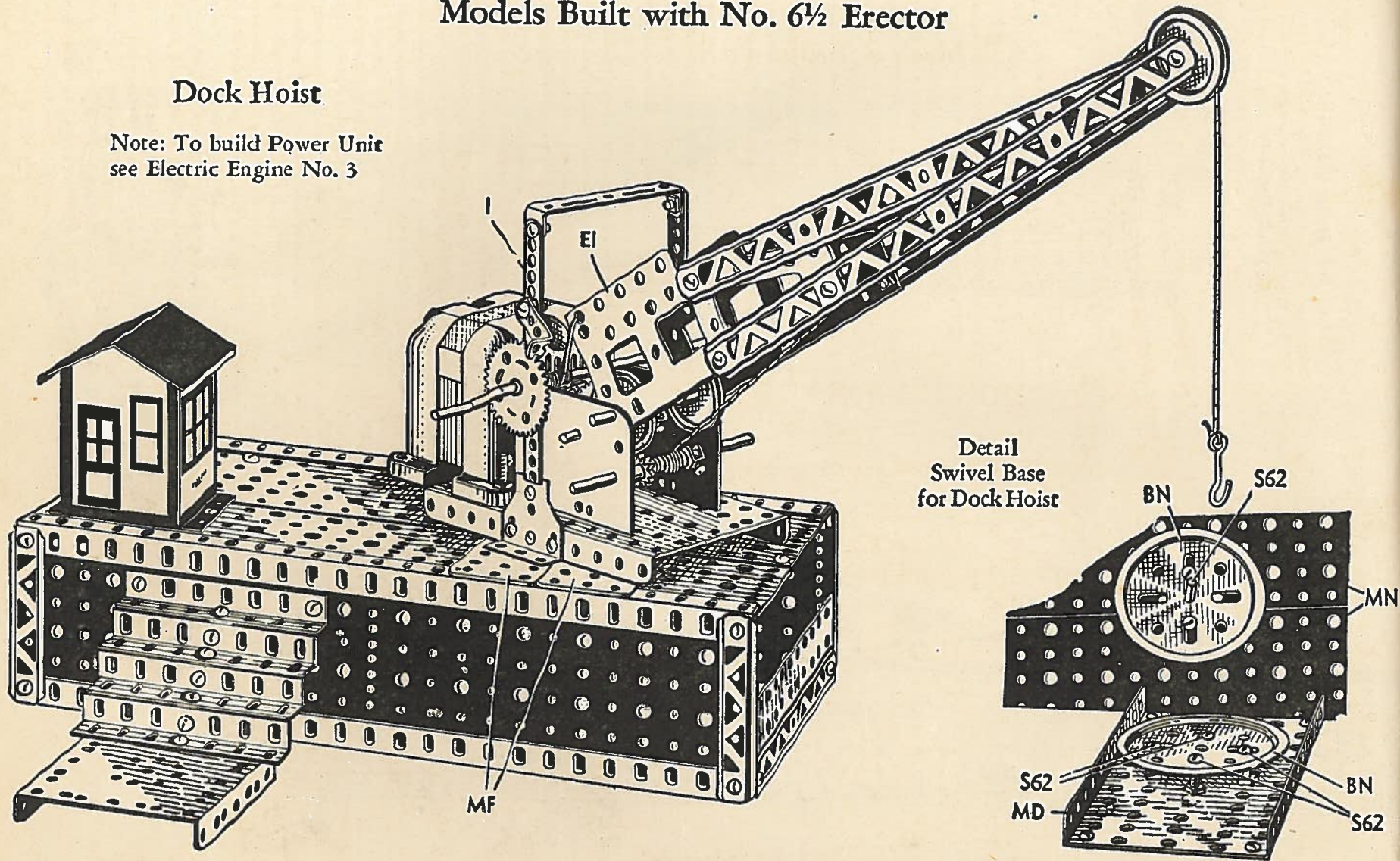
Pile Driver

Note: To build Power Unit
see Electric Engine No. 7

Models Built with No. 6½ Erector

Dock Hoist

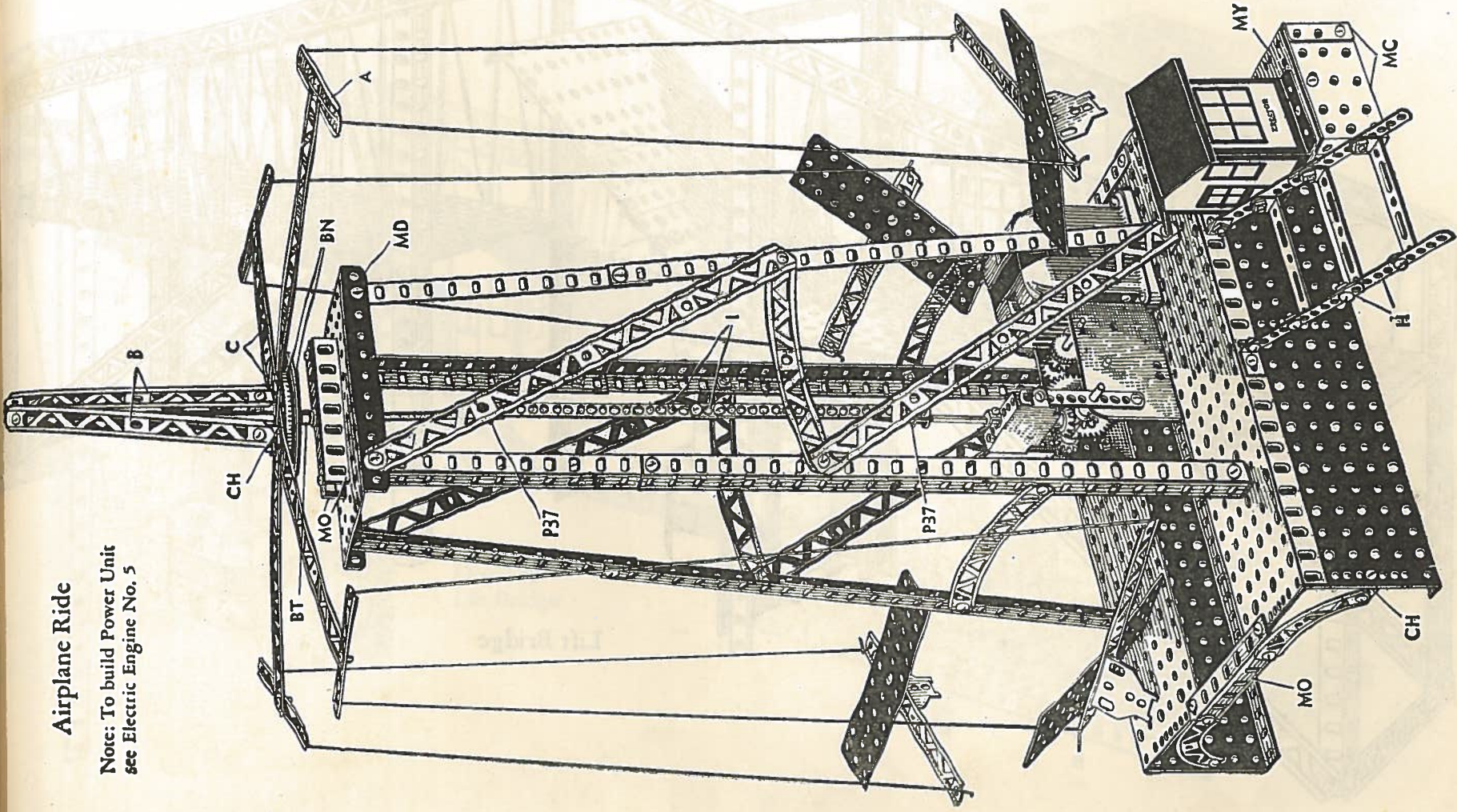
Note: To build Power Unit
see Electric Engine No. 3



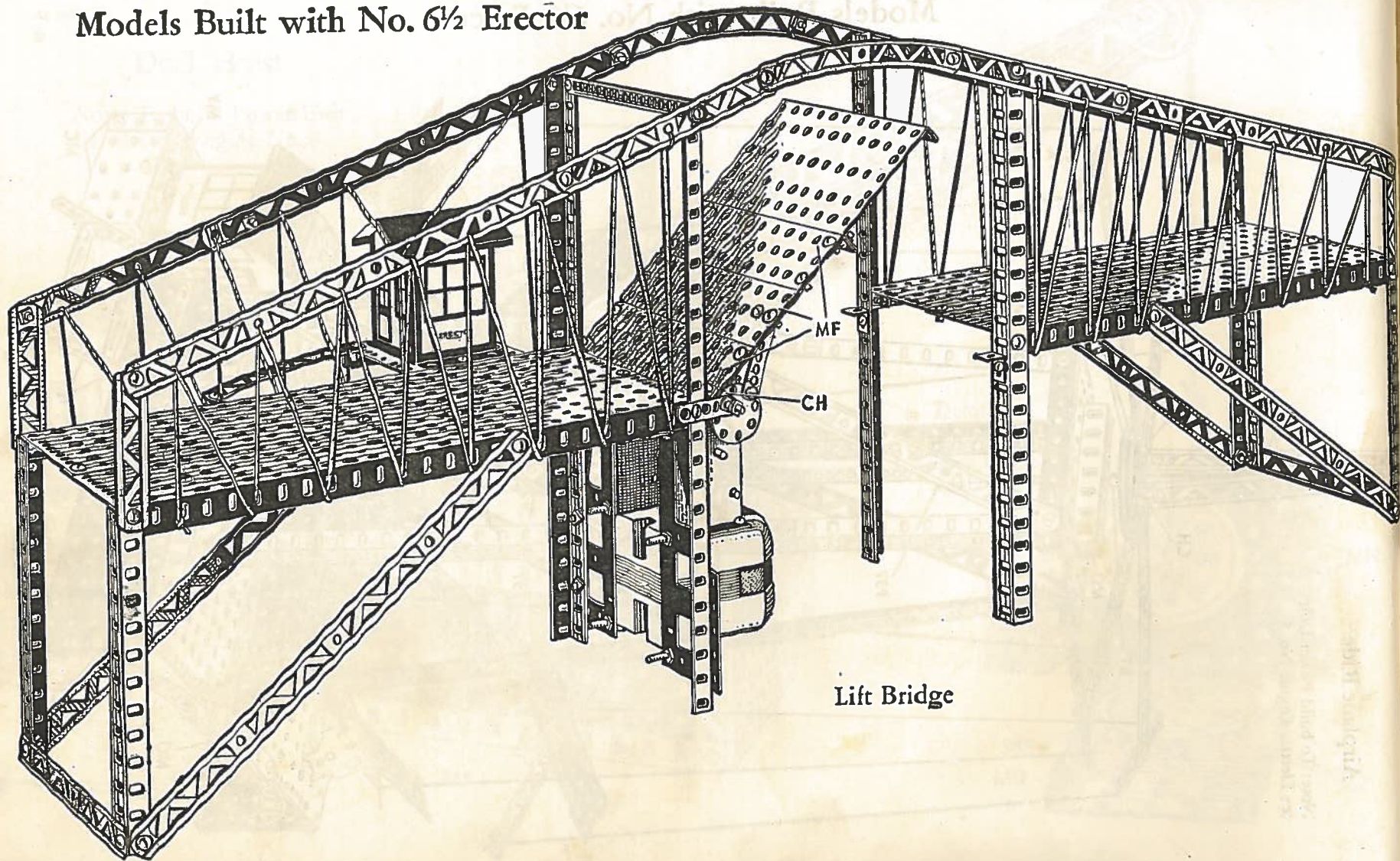
Models Built with No. 6½ Erector

Airplane Ride

Note: To build Power Unit
see Electric Engine No. 5



Models Built with No. 6½ Erector

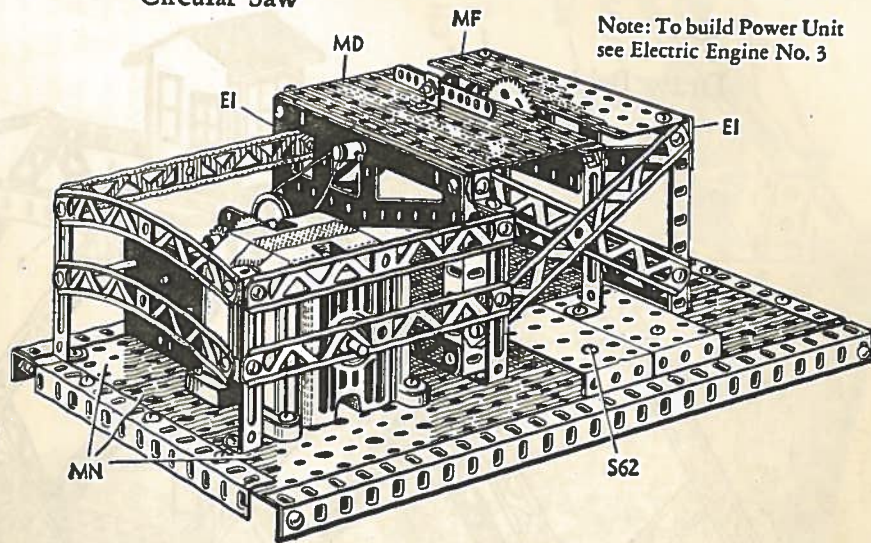


Lift Bridge

Models Built with No. 6½ Erector

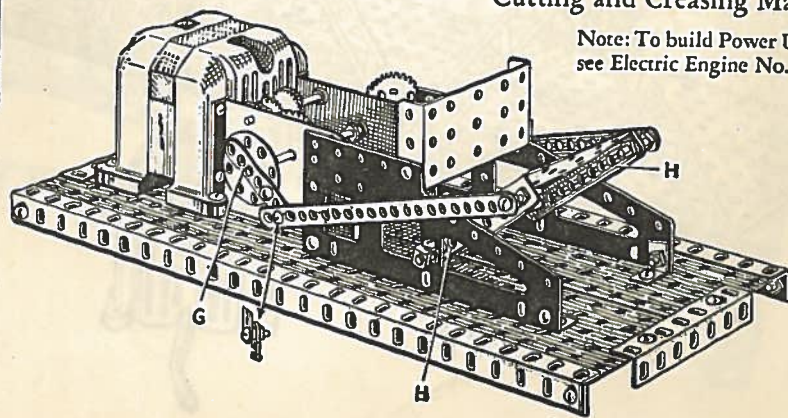
Circular Saw

Note: To build Power Unit see Electric Engine No. 3

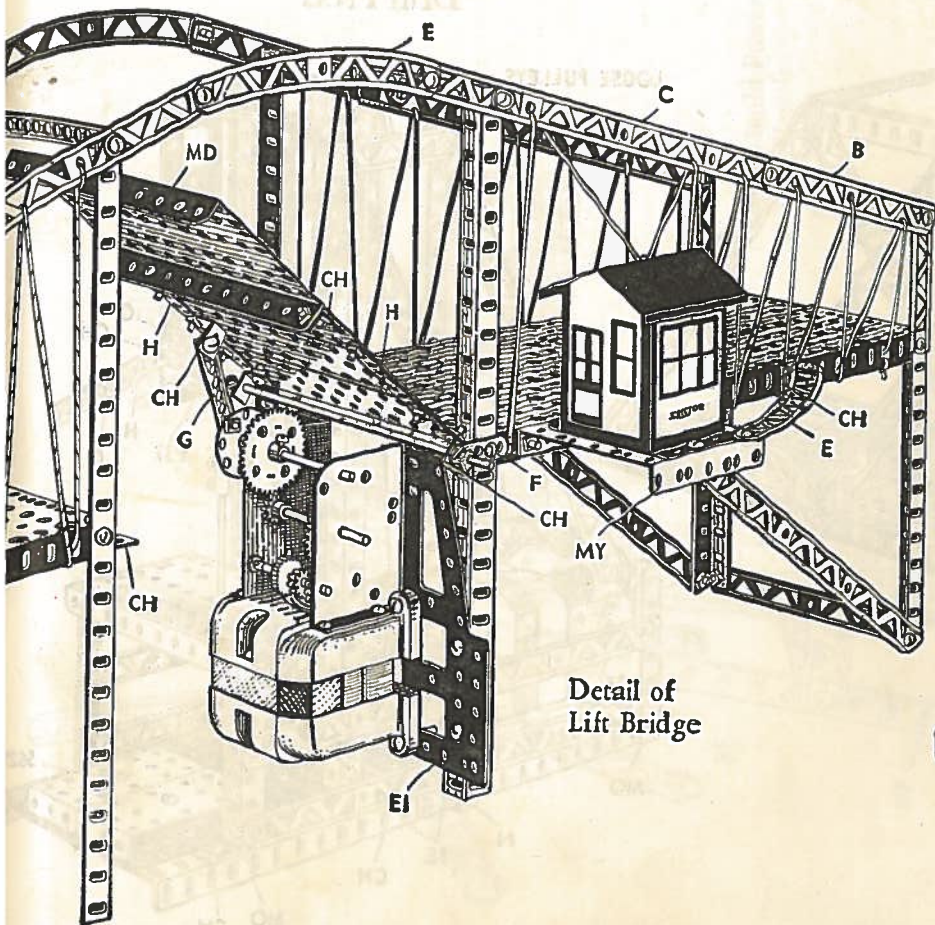


Cutting and Creasing Machine

Note: To build Power Unit see Electric Engine No. 2

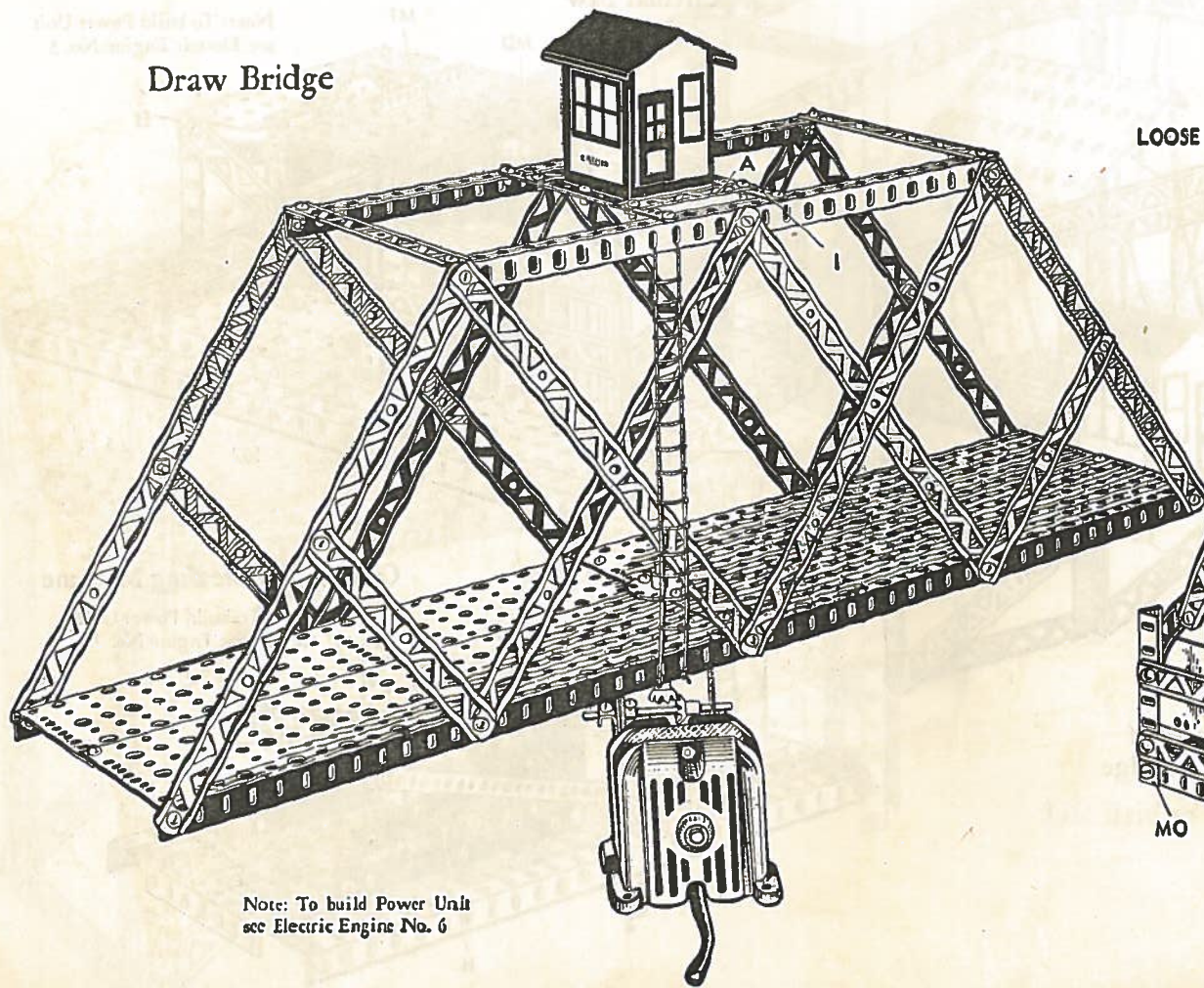


Detail of Lift Bridge



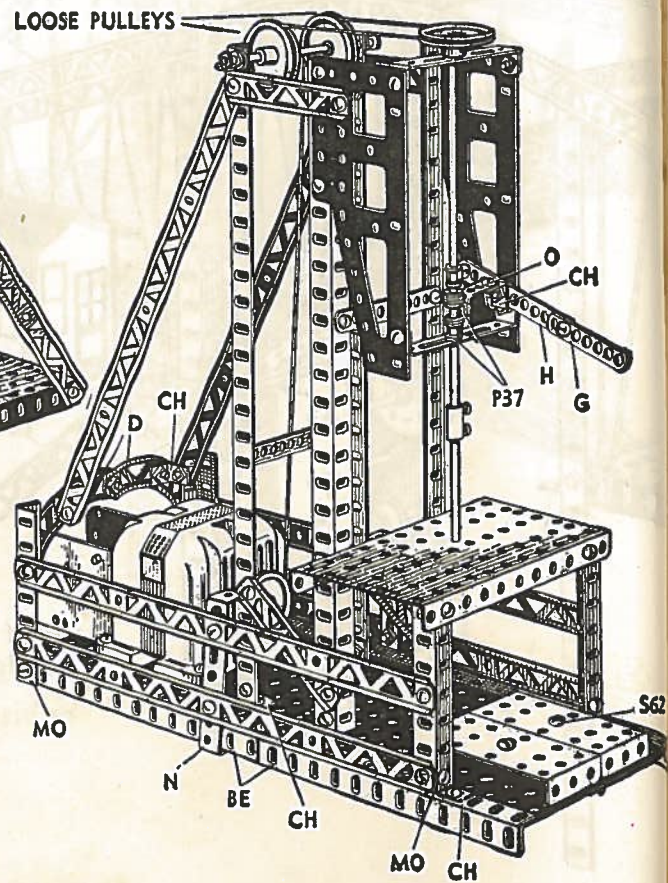
Models Built with No. 6½ Erector

Draw Bridge



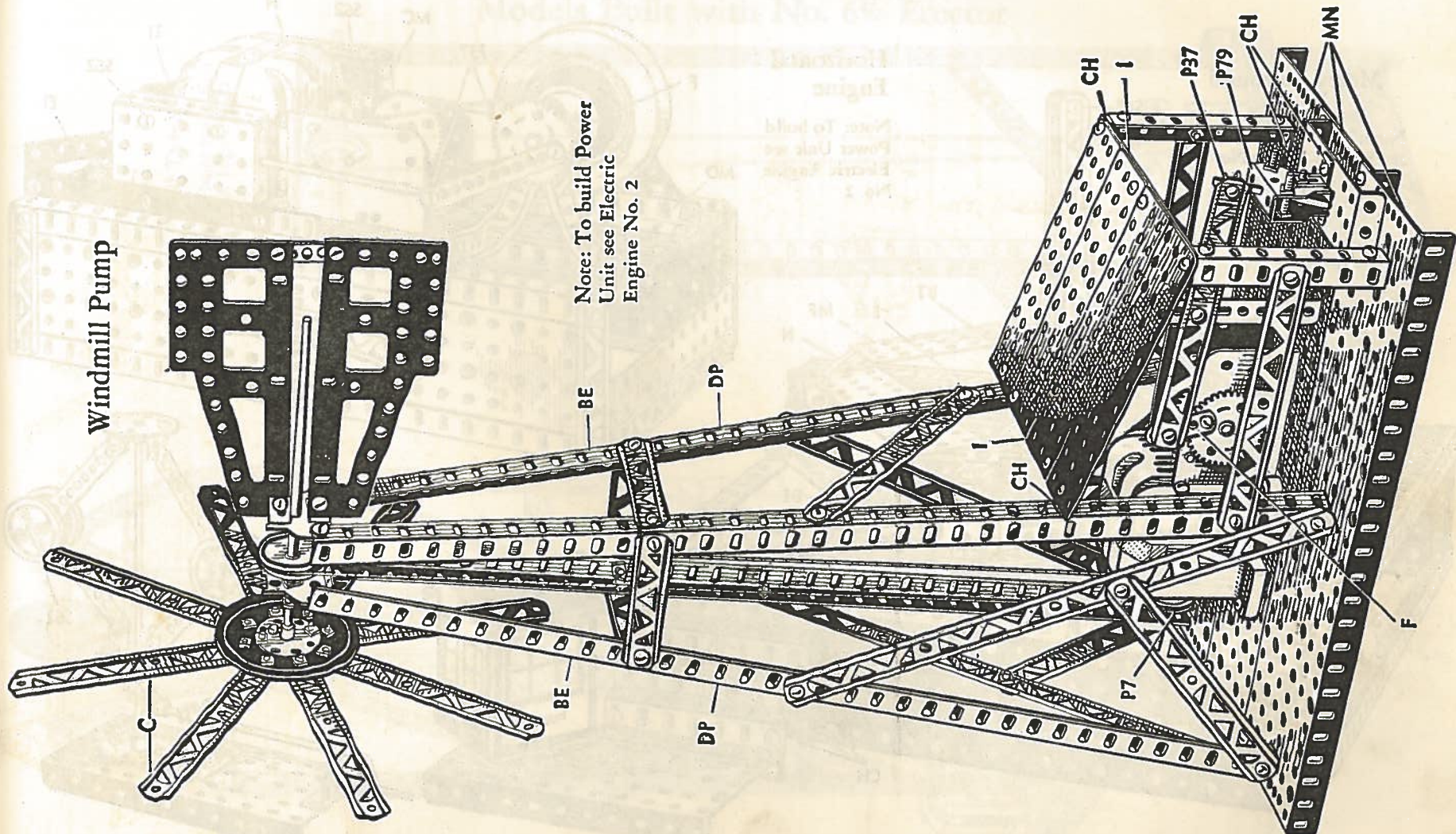
Note: To build Power Unit
see Electric Engines No. 6

Drill Press



Models Built with No. 6½ Erector

Windmill Pump

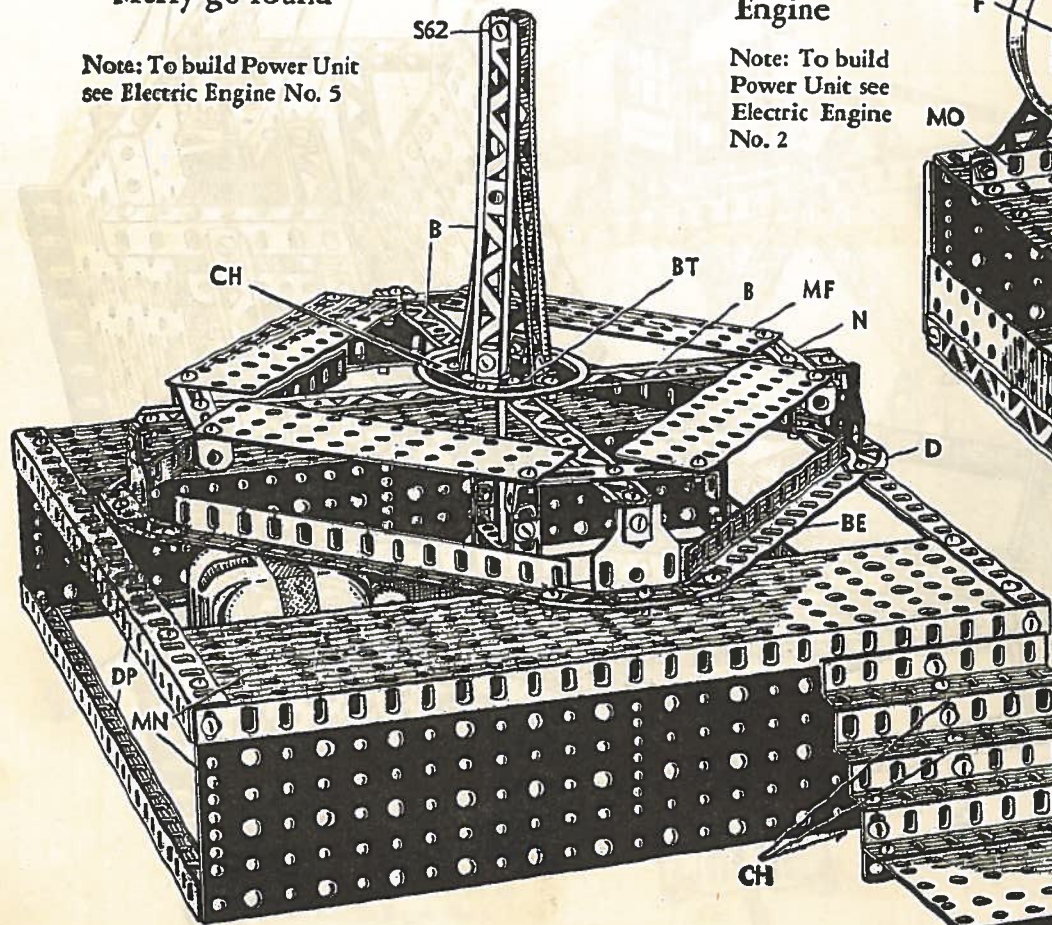


Note: To build Power
Unit see Electric
Engine No. 2

Models Built with No. 6½ Erector

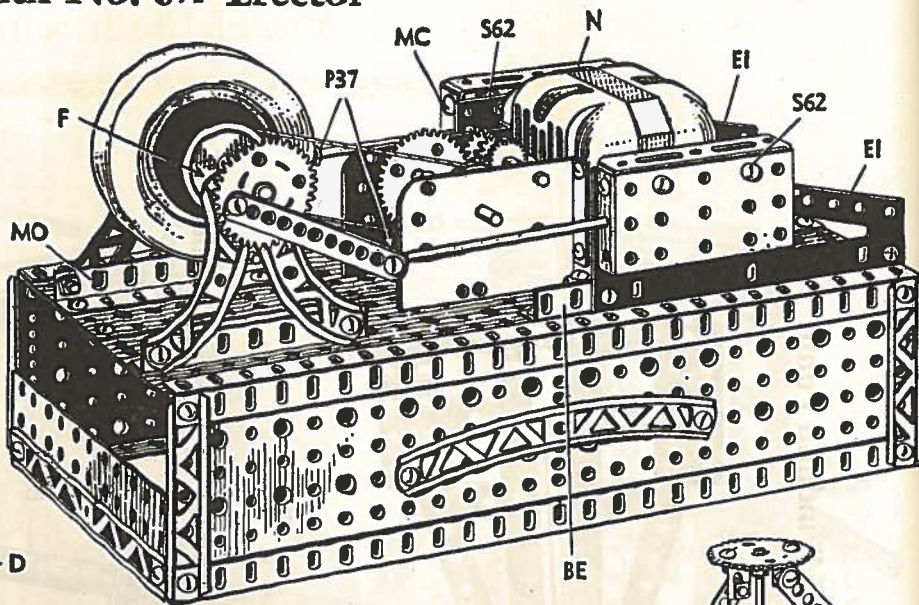
Merry-go-round

Note: To build Power Unit see Electric Engine No. 5

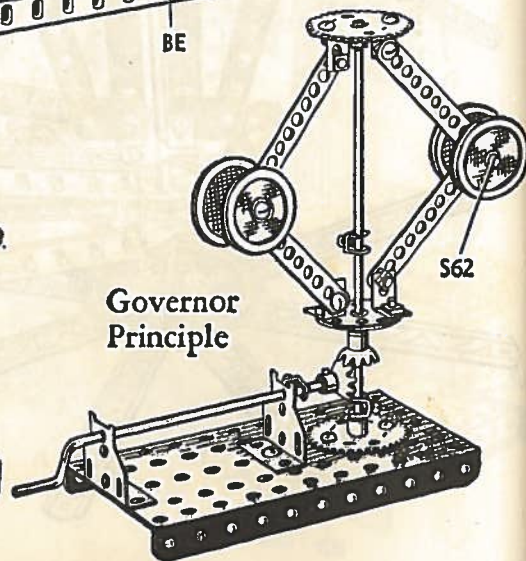


Horizontal Engine

Note: To build Power Unit see Electric Engine No. 2



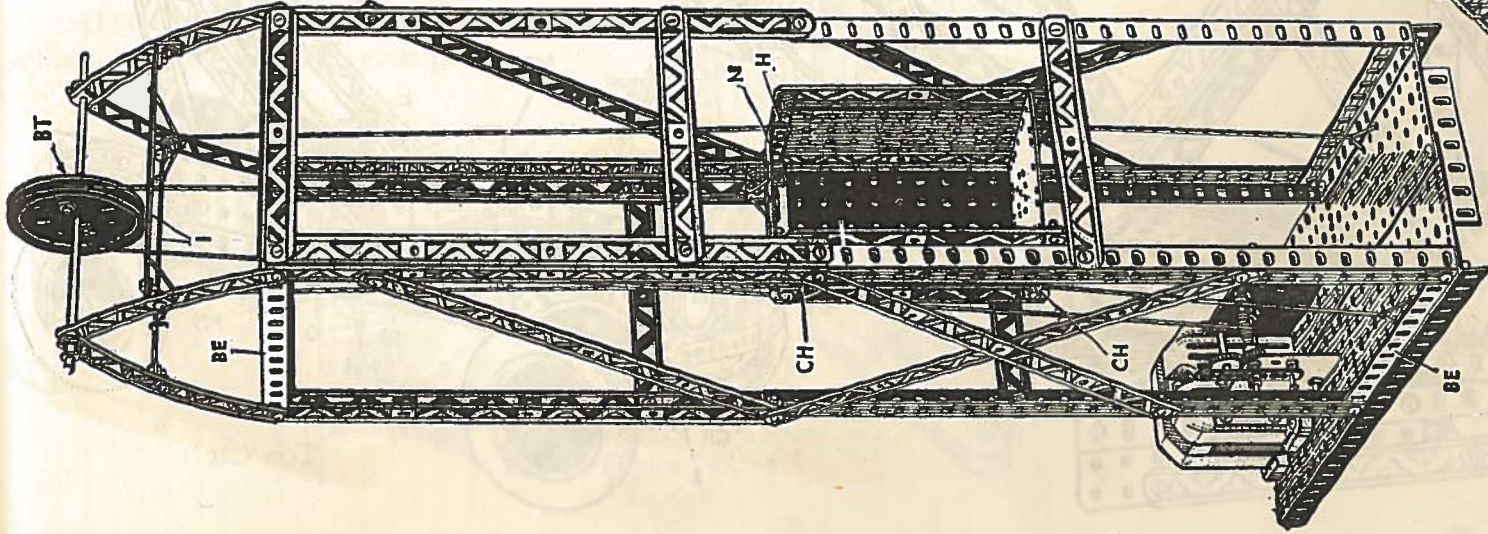
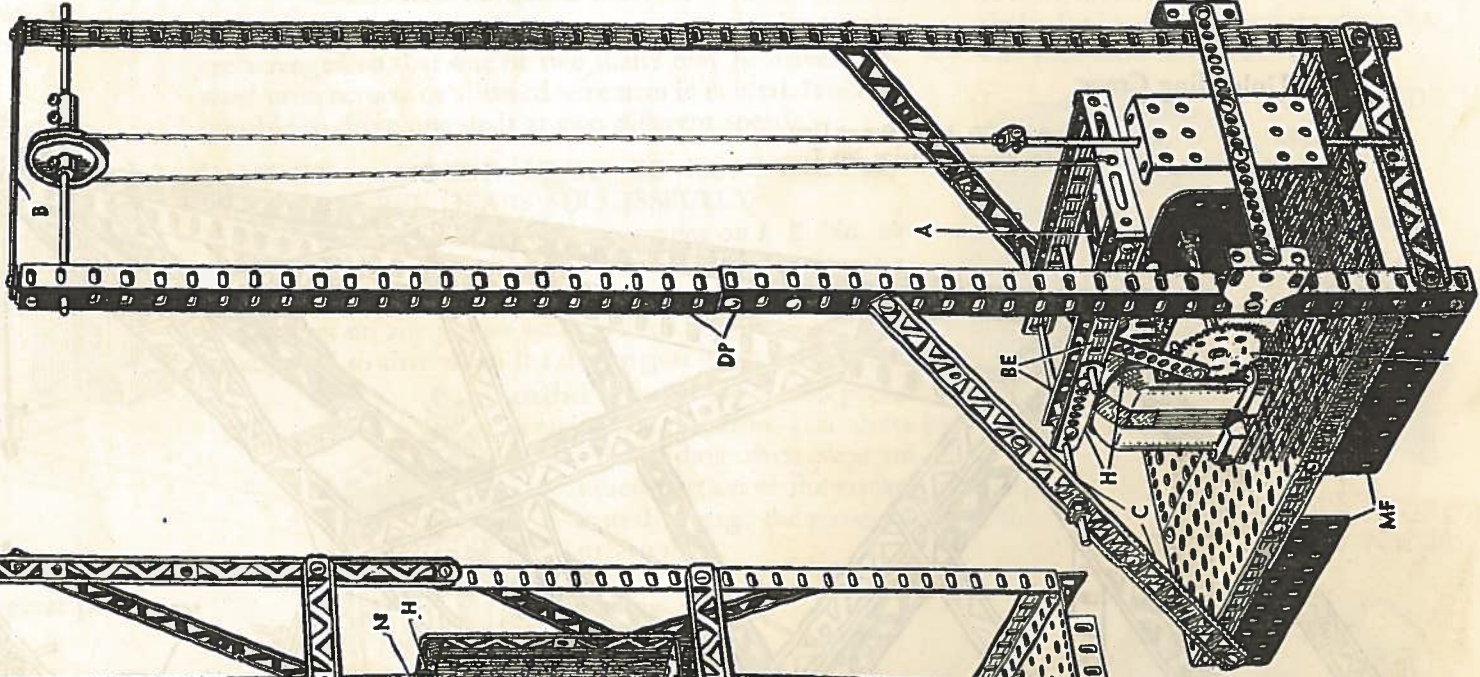
Governor Principle



Models Built with No. 6½ Erector

Well Driver

Note: To build Power Unit
see Electric Engine No. 2



Elevator

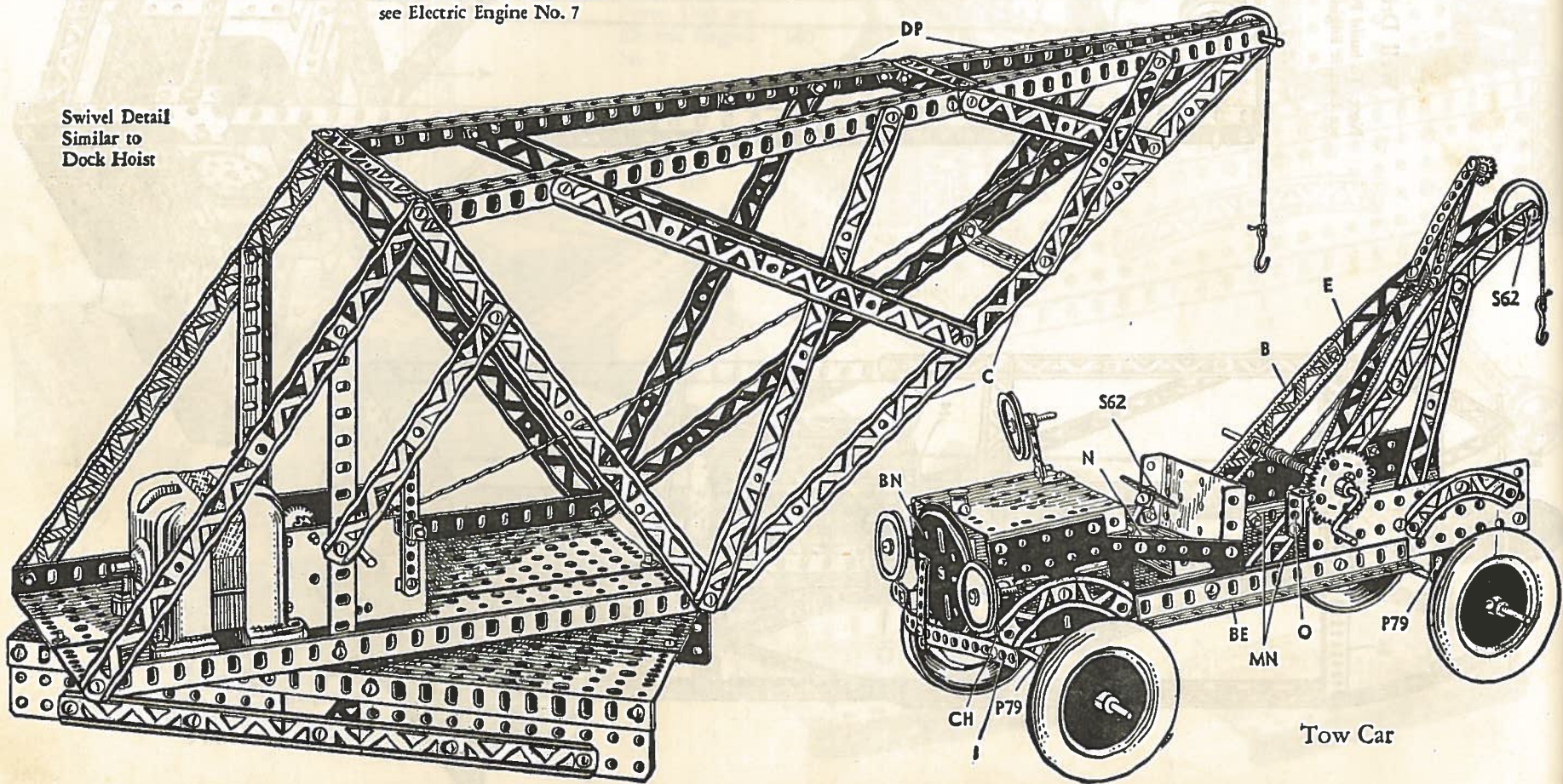
Note: To build Power Unit
see Electric Engine No. 7

Models Built with No. 6½ Erector

Unloading Crane

Note: To build Power Unit
see Electric Engine No. 7

Swivel Detail
Similar to
Dock Hoist

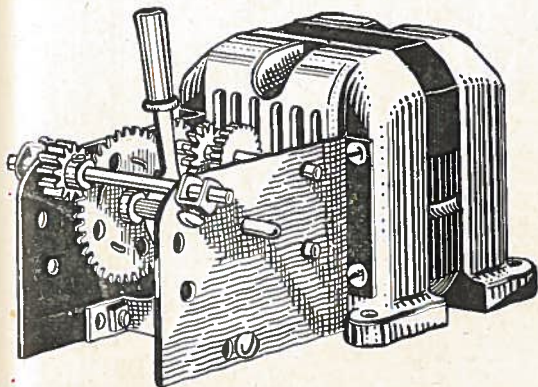


Tow Car

Models Built with No. 7½ Erector

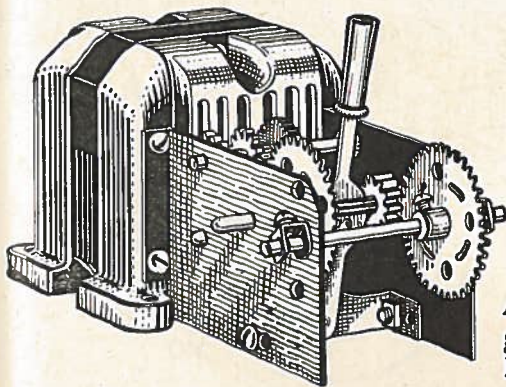
ELECTRIC ENGINE No. 8

A high speed gear train



ELECTRIC ENGINE No. 9

A low speed gear train with great power



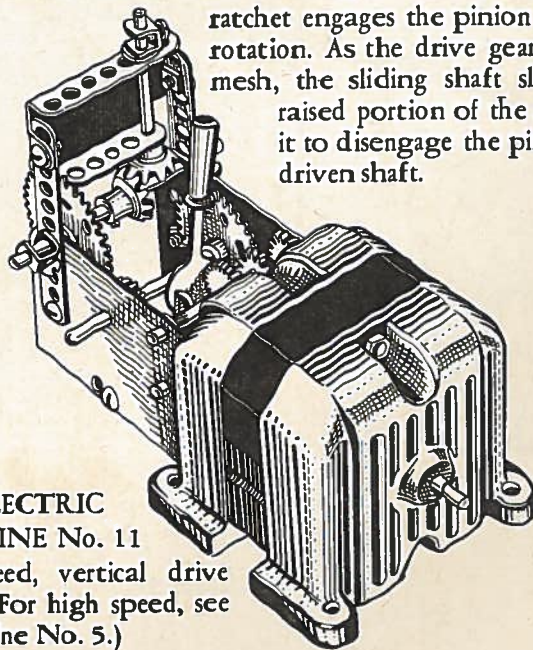
ELECTRIC ENGINE POWER UNITS

The gear shift lever and gears in the ELECTRIC ENGINE are arranged so that one or two shafts may be driven forward or in reverse or allowed to remain in neutral. It is also possible to drive one shaft at two different speeds.

CAUTION — MOTOR MUST BE RUNNING TO SHIFT GEARS SUCCESSFULLY

THE RATCHET and pinion arrangement on E. E. No. 10 are only needed when the load, such as an elevator or derrick, would run down when in neutral. This ratchet may be put on any power unit used for hoisting. It should be adjusted so that when the driven gear is not in mesh the

ratchet engages the pinion preventing rotation. As the drive gear shifts into mesh, the sliding shaft slips off the raised portion of the ratchet, allowing it to disengage the pinion and free the driven shaft.



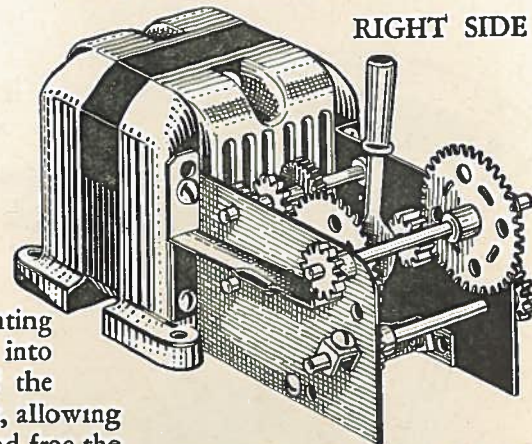
ELECTRIC ENGINE No. 11

A slow speed, vertical drive gear train. (For high speed, see Electric Engine No. 5.)

ELECTRIC ENGINE No. 10, 40

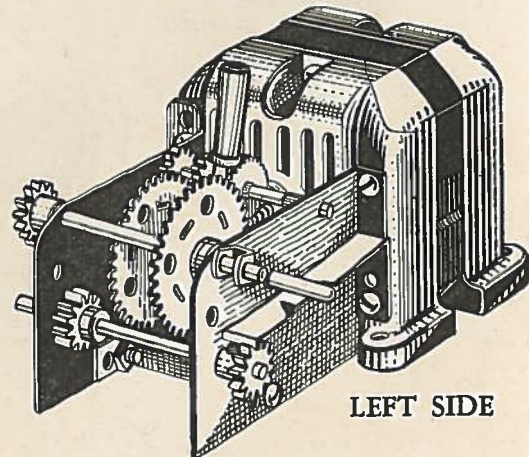
A combination of high and low speed shafts for load and boom on derricks, etc. (See note on RATCHETS.)

RIGHT SIDE



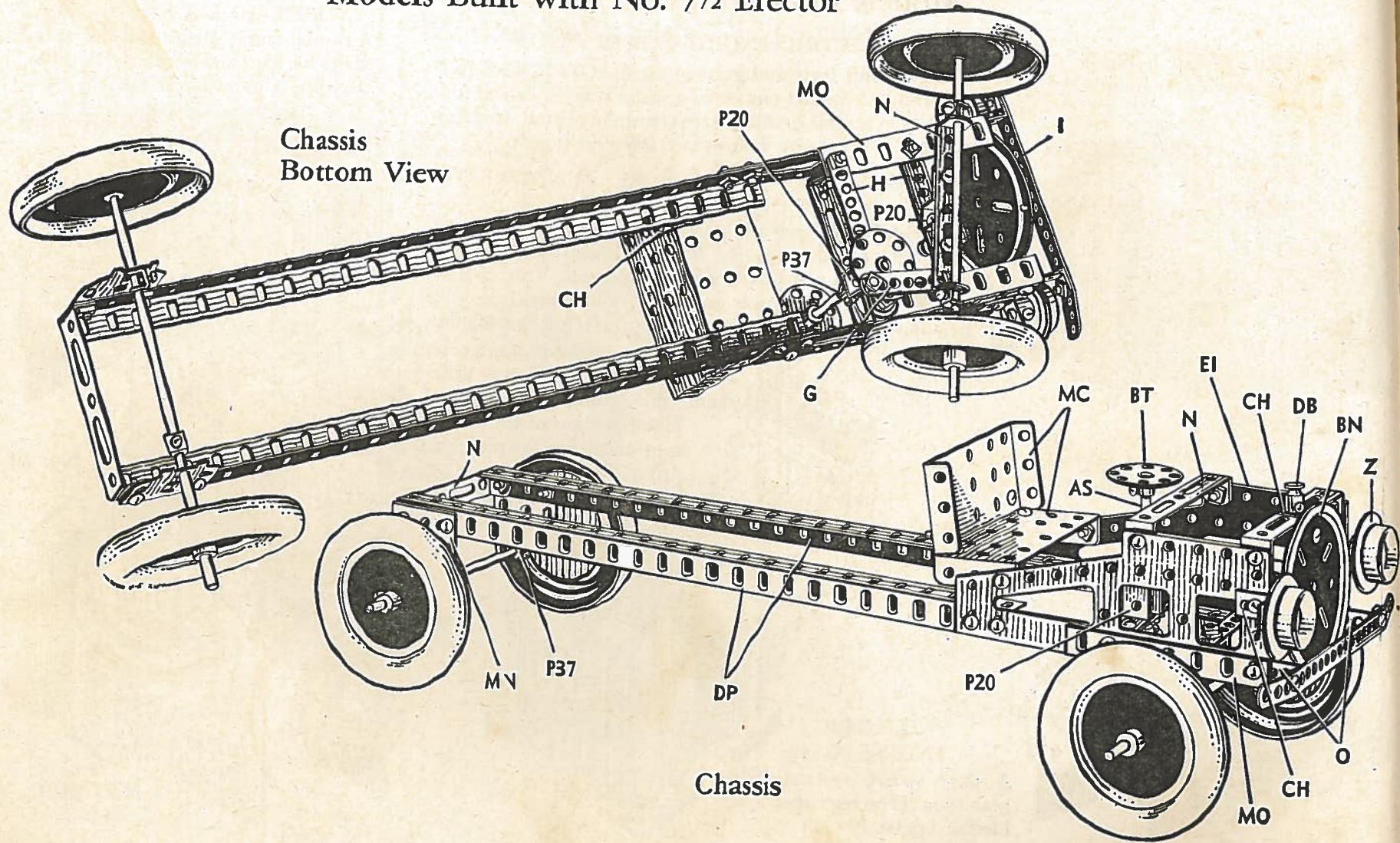
ELECTRIC ENGINE No. 10

LEFT SIDE



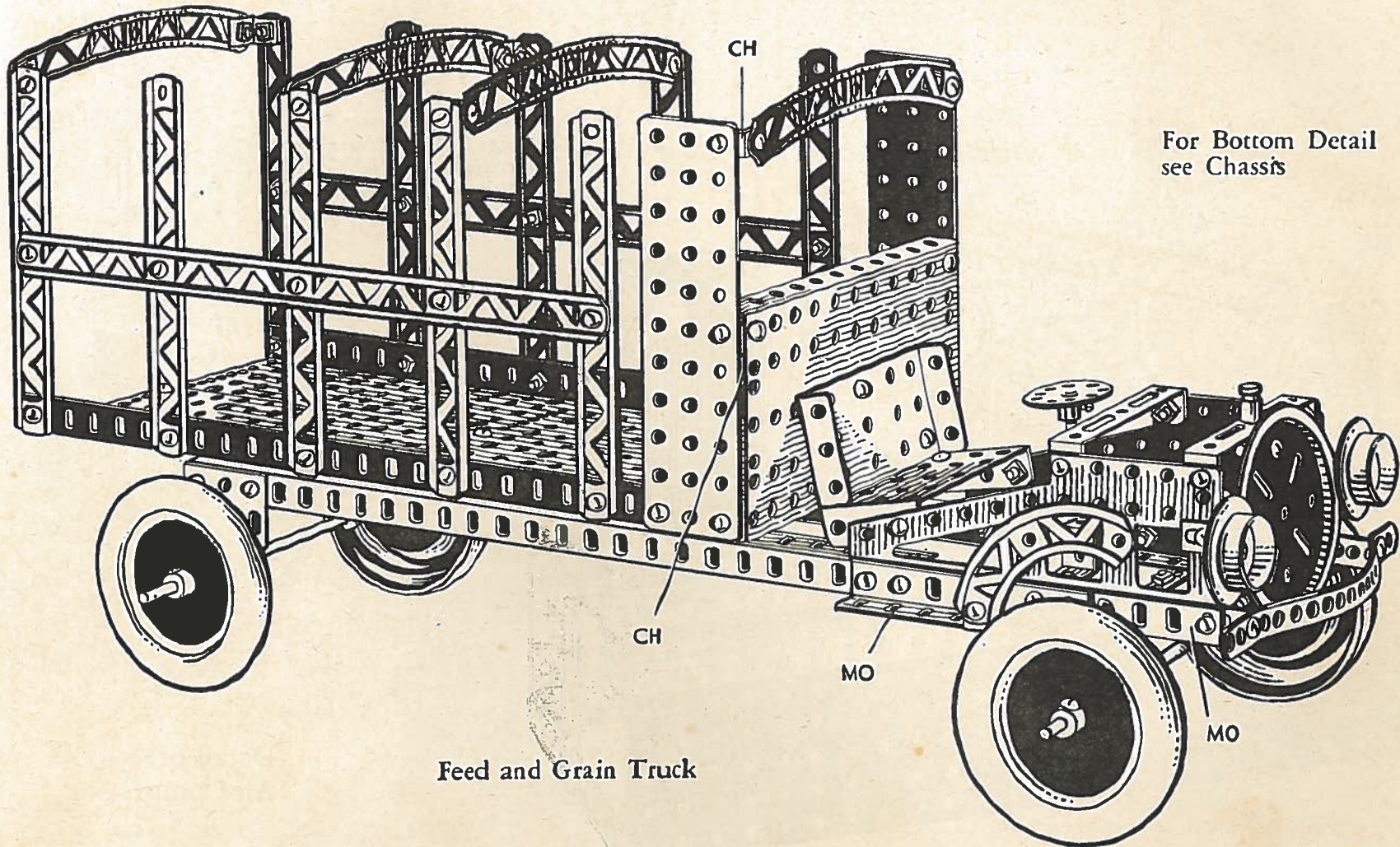
Models Built with No. 7½ Erector

Chassis
Bottom View



Chassis

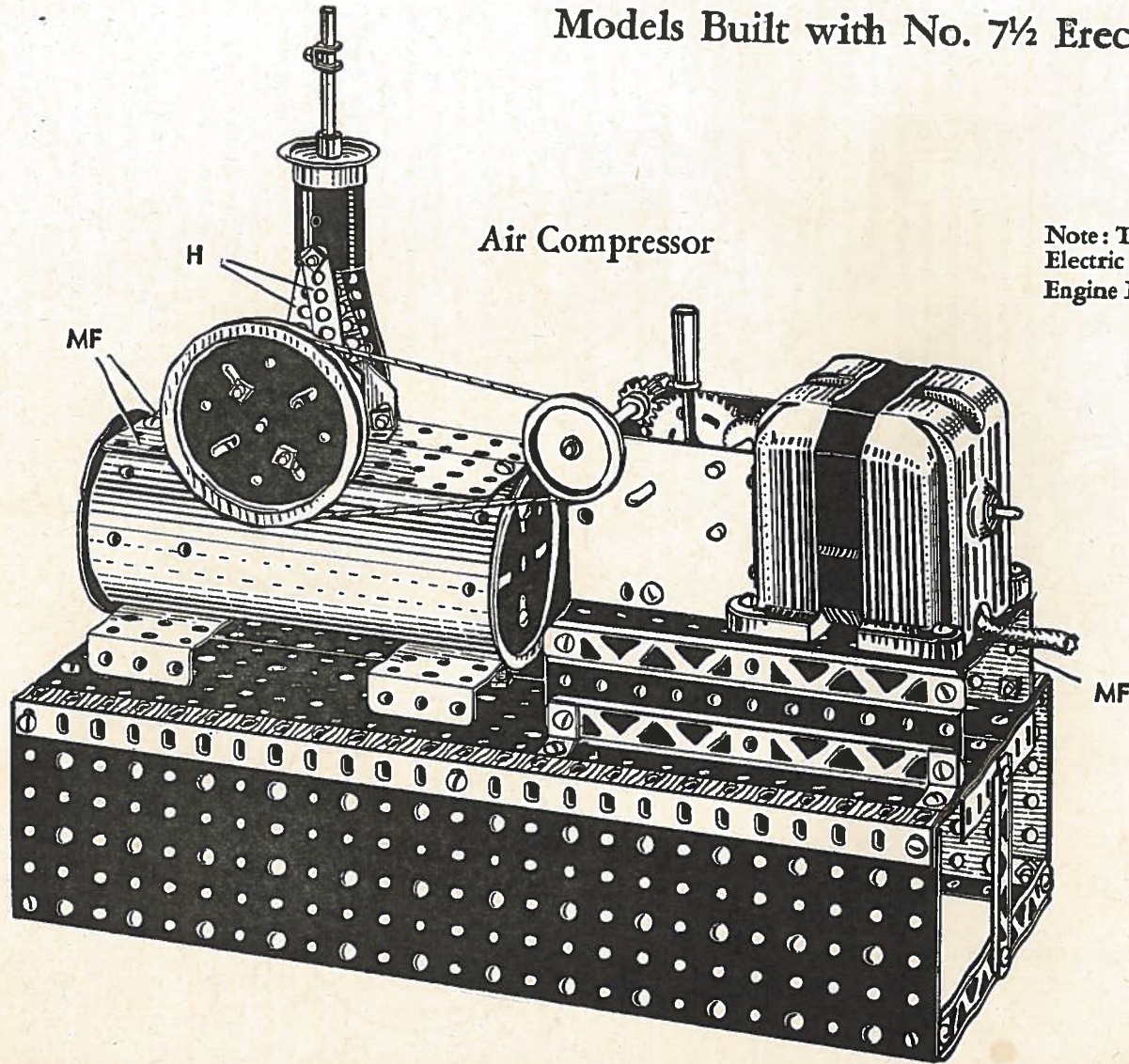
Models Built with No. 7½ Erector



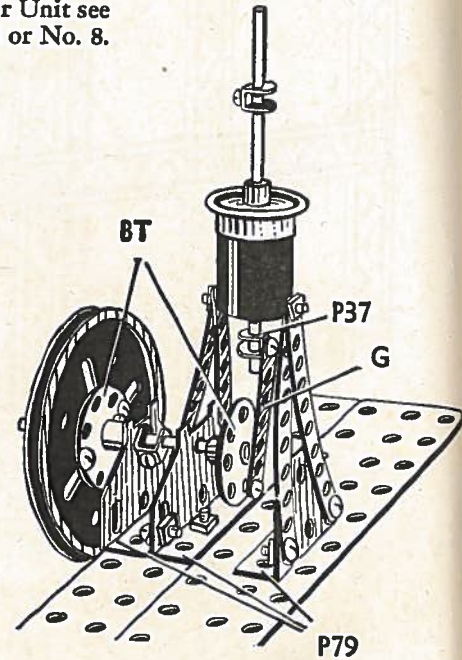
Feed and Grain Truck

Models Built with No. 7½ Erector

Air Compressor

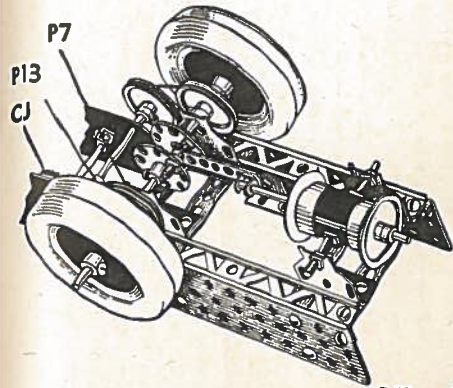


Note: To build Power Unit see
Electric Engine No. 3 or No. 8.
Engine No. 8 shown.

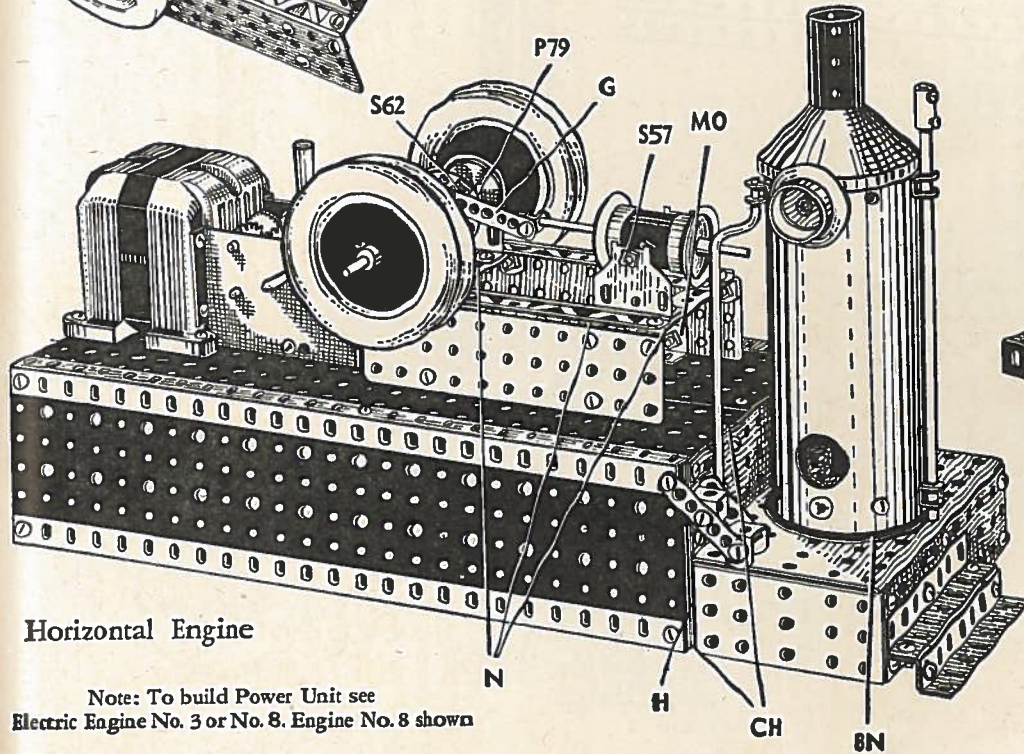


Detail of Air Compressor

Models Built with No. 7½ Erector

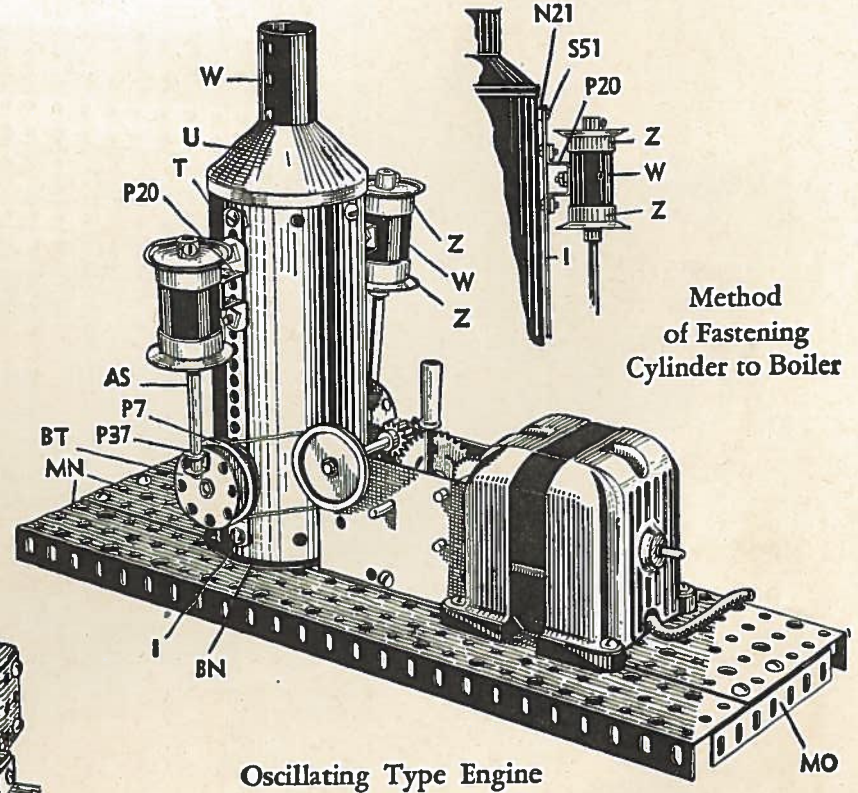


Detail of Drive and Crank
for Horizontal Engine



Horizontal Engine

Note: To build Power Unit see
Electric Engine No. 3 or No. 8. Engine No. 8 shown



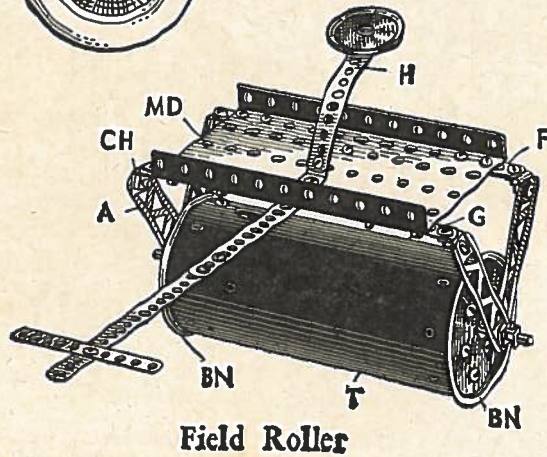
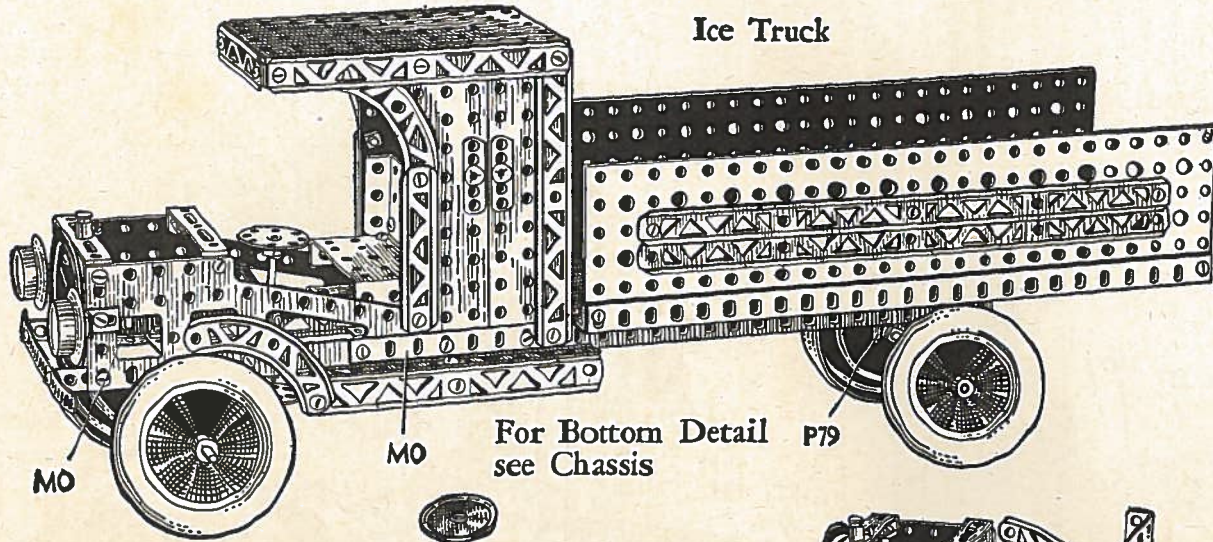
Method
of Fastening
Cylinder to Boiler

Oscillating Type Engine

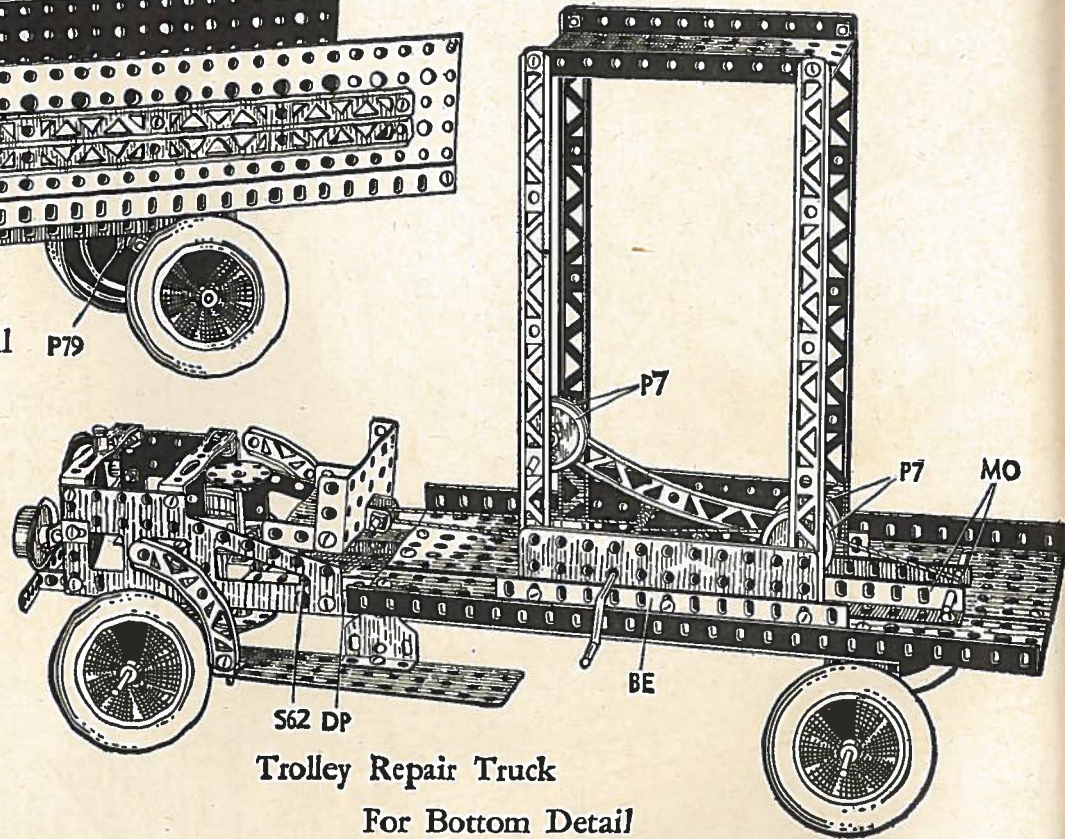
Note: To build Power Unit see
Electric Engine No. 3 or No. 8. Engine No. 8 shown

Models Built with No. 7½ Erector

Ice Truck



Field Roller

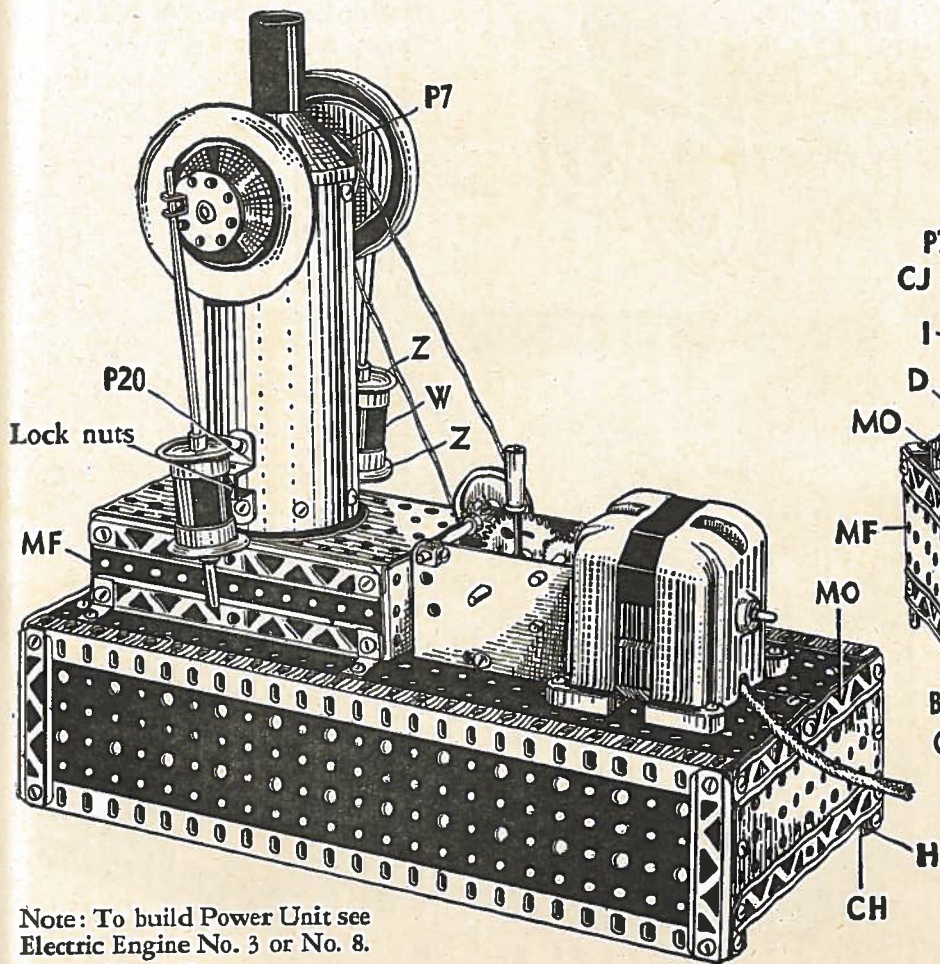


Trolley Repair Truck

For Bottom Detail see Chassis

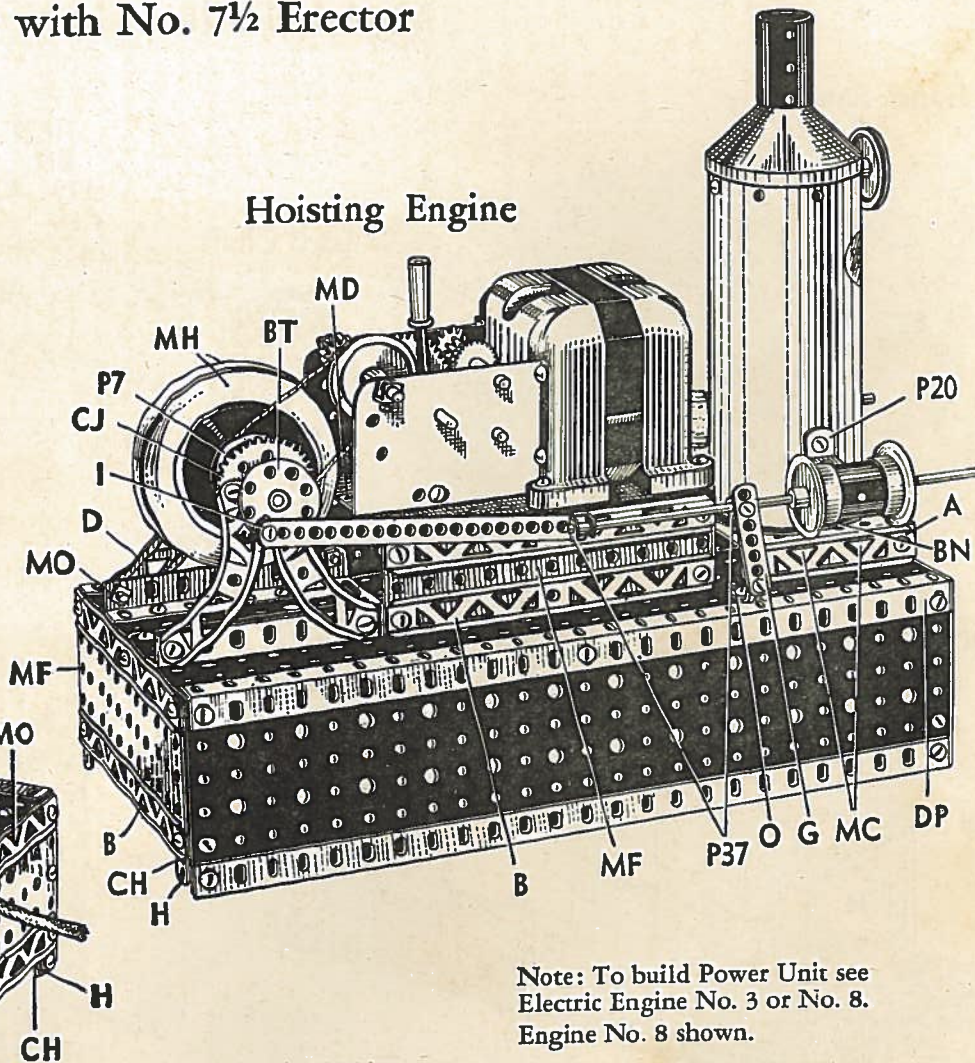
Models Built with No. 7½ Erector

Twin Cylinder Engine



Note: To build Power Unit see
Electric Engine No. 3 or No. 8.
Engine No. 8 shown.

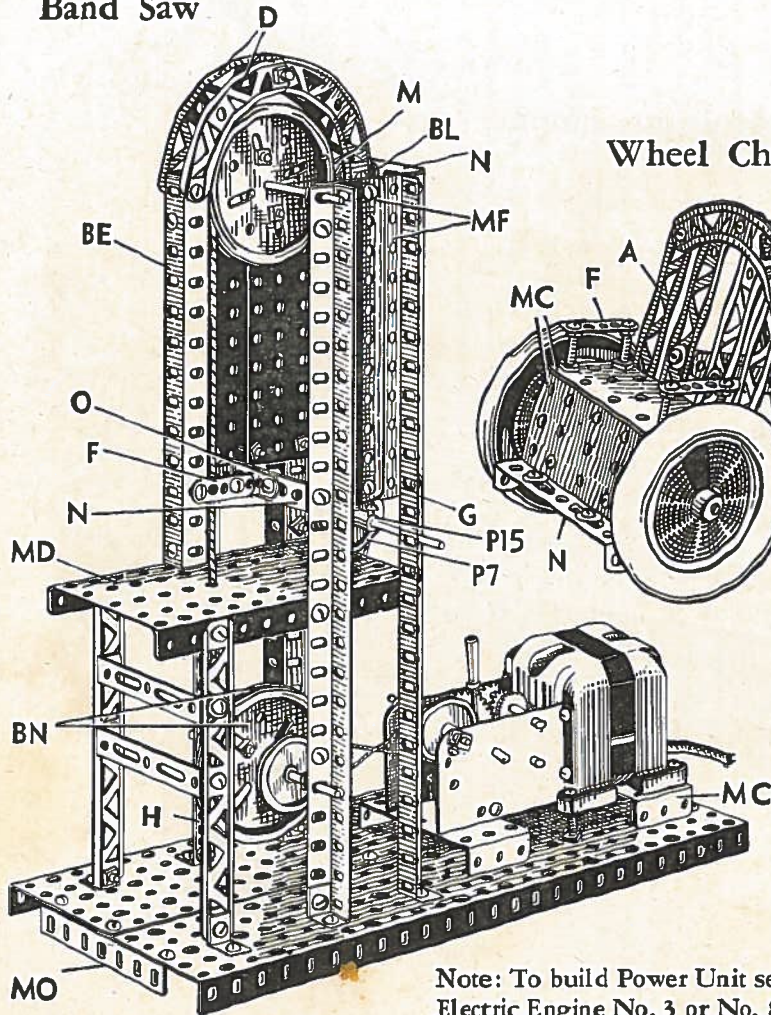
Hoisting Engine



Note: To build Power Unit see
Electric Engine No. 3 or No. 8.
Engine No. 8 shown.

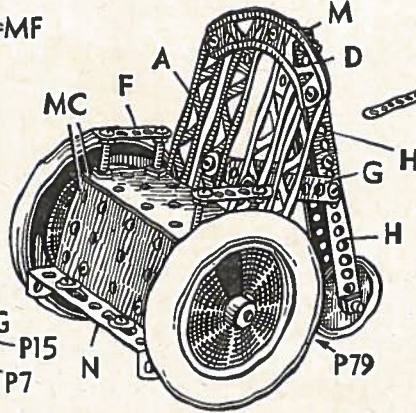
Models Built with No. 7½ Erector

Band Saw

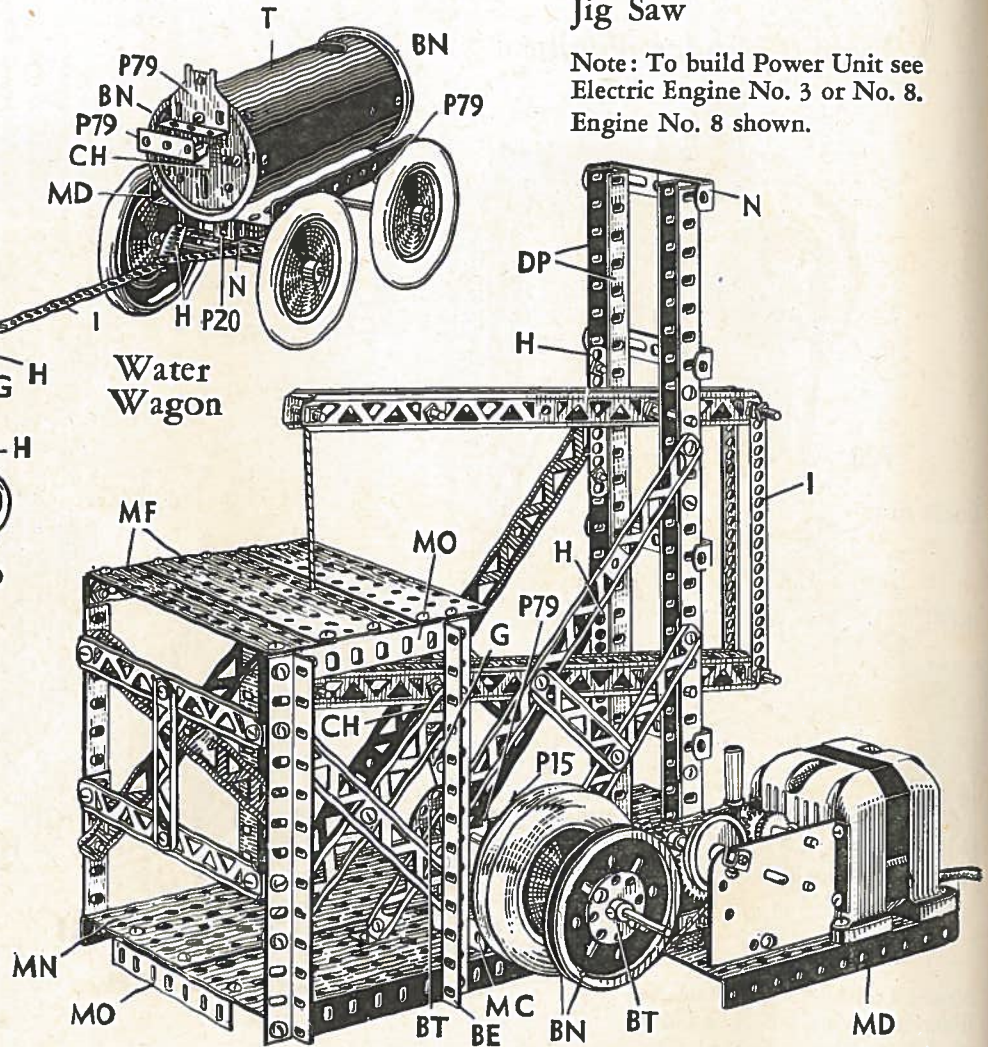


Note: To build Power Unit see Electric Engine No. 3 or No. 8. Engine No. 8 shown.

Wheel Chair



Water Wagon

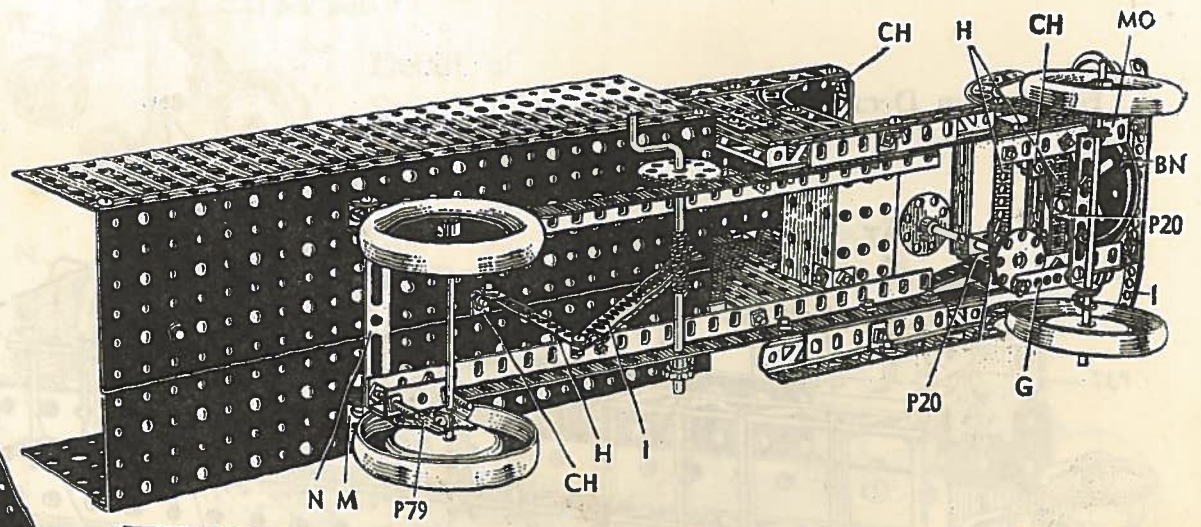
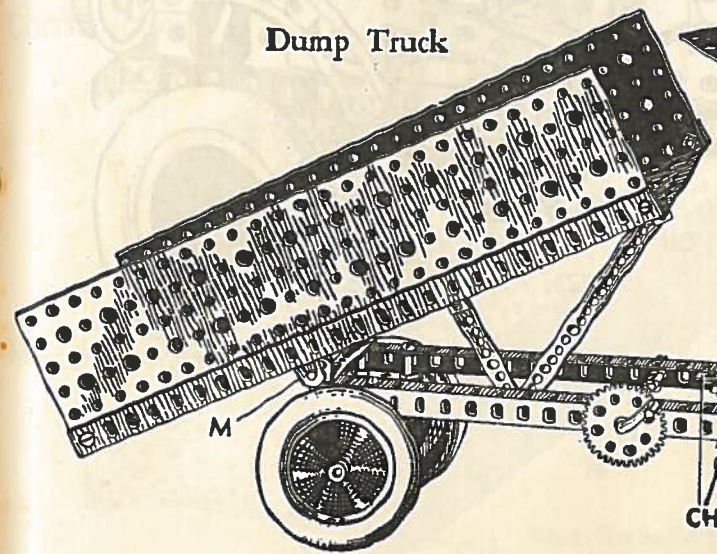


Jig Saw

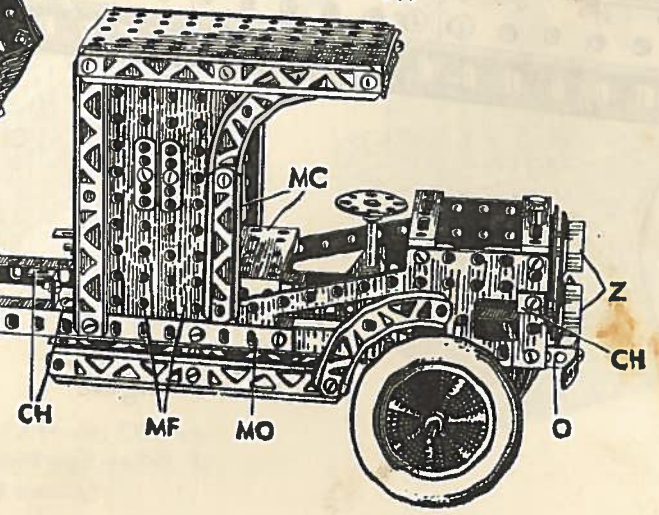
Note: To build Power Unit see Electric Engine No. 3 or No. 8. Engine No. 8 shown.

Models Built with No. 7½ Erector

Dump Truck

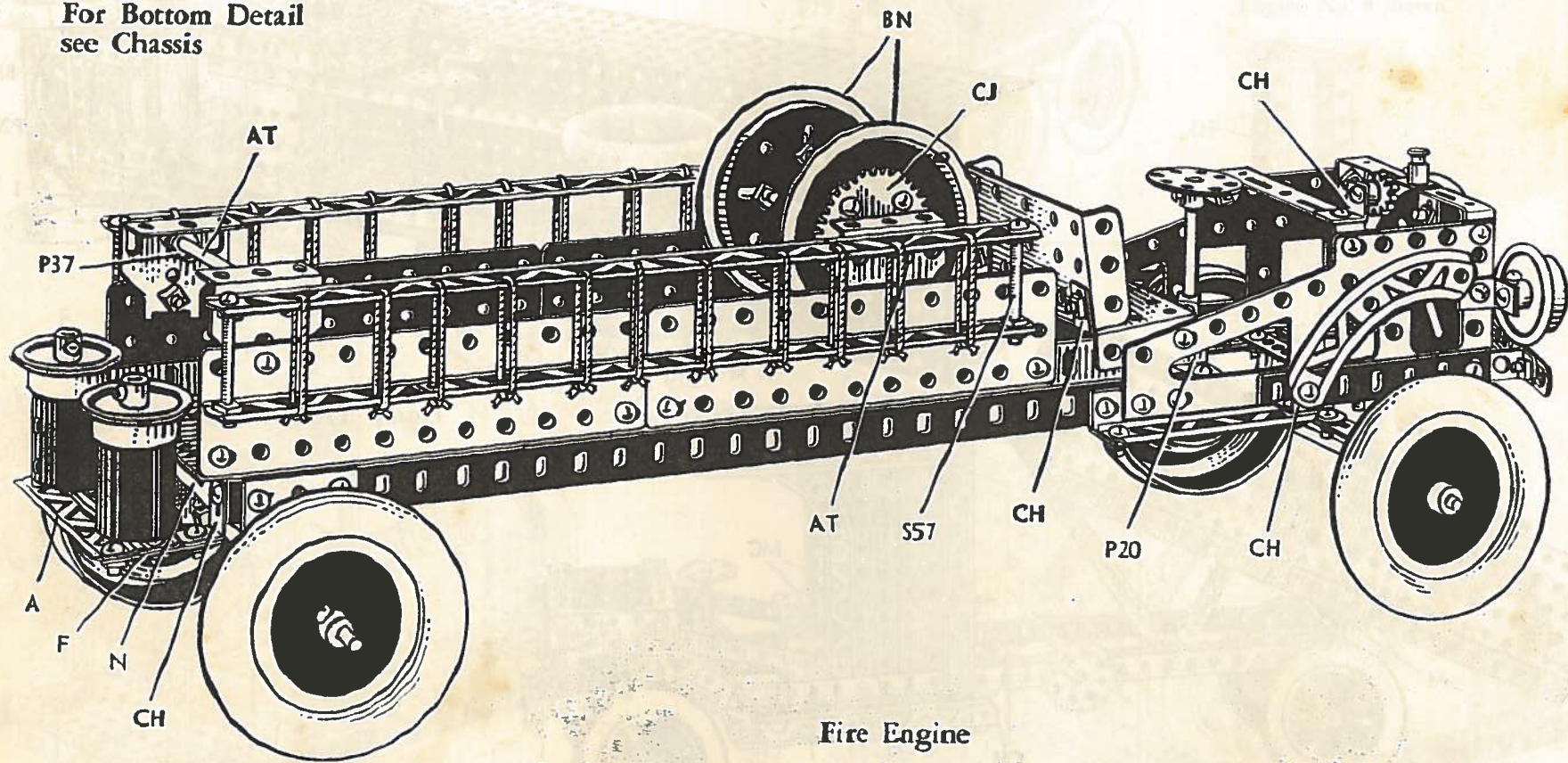


Dump Truck Bottom View



Models Built with No. 7½ Erector

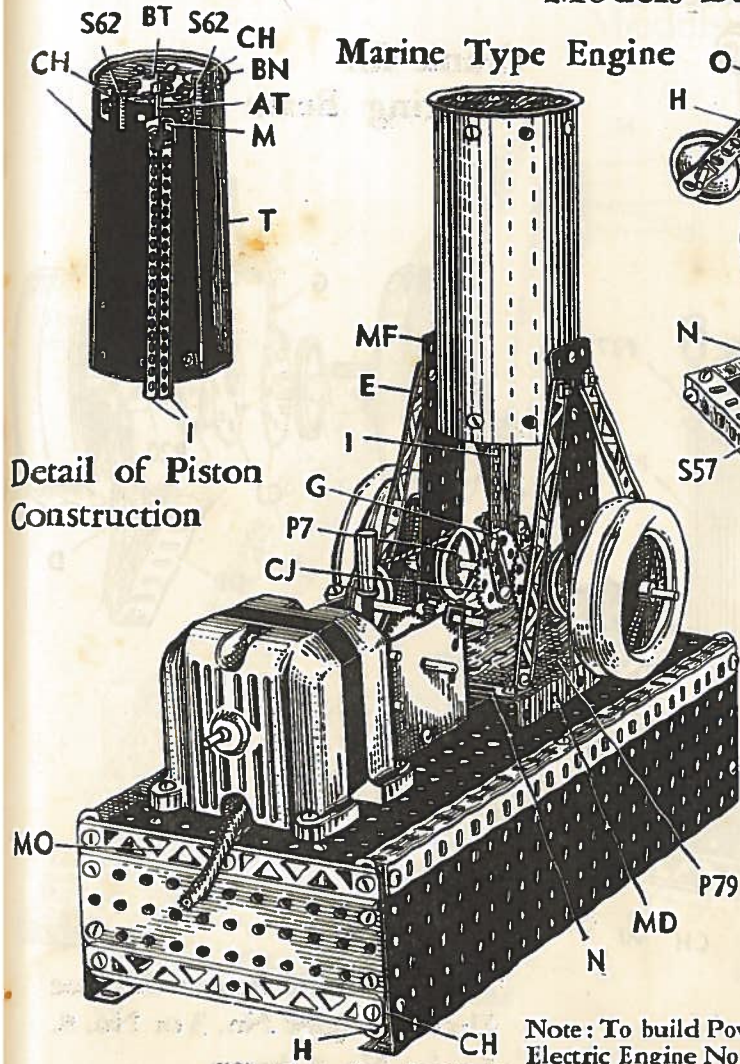
For Bottom Detail
see Chassis



Fire Engine

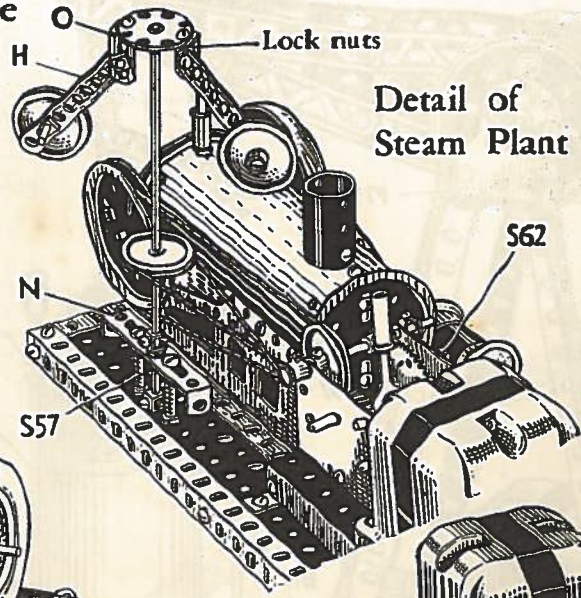
Models Built with No. 7½ Erector

Marine Type Engine

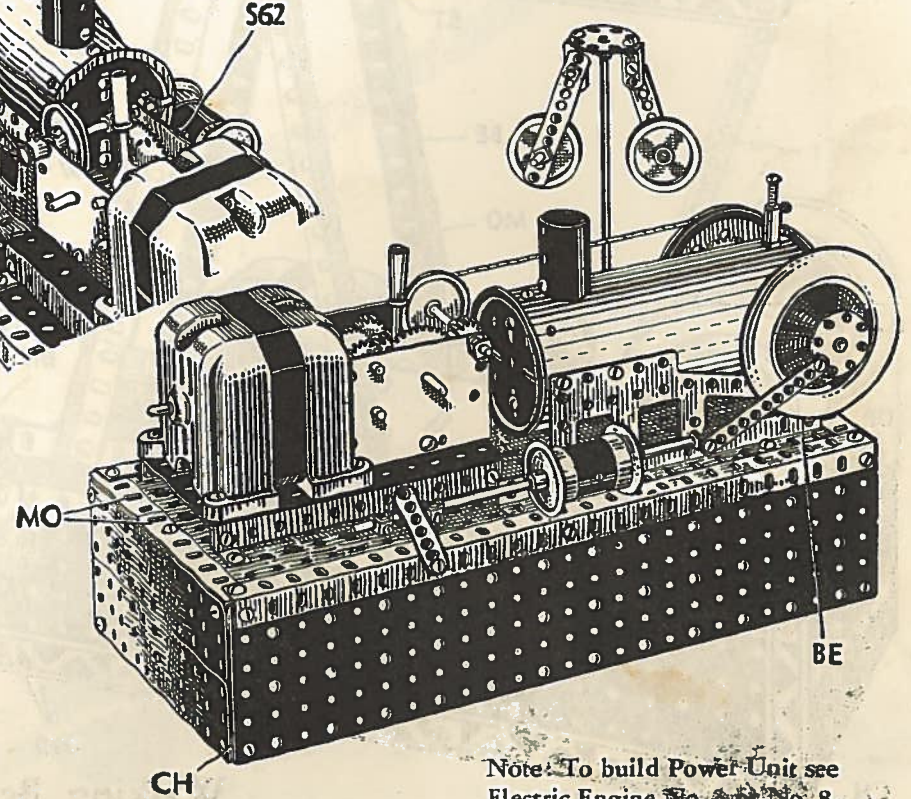


Note: To build Power Unit see Electric Engine No. 3 or No. 8. Engine No. 8 shown.

Detail of Steam Plant

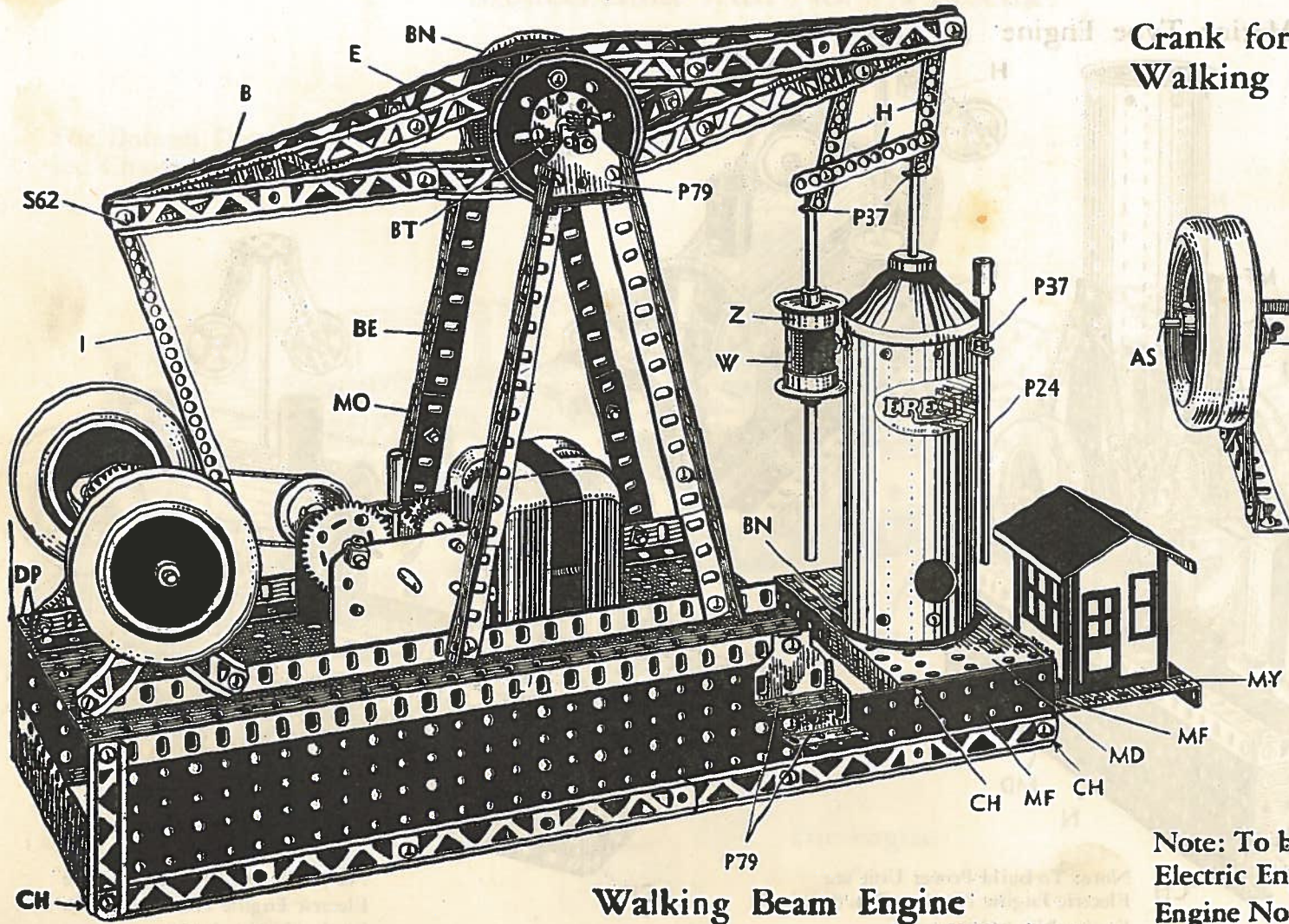


Steam Plant

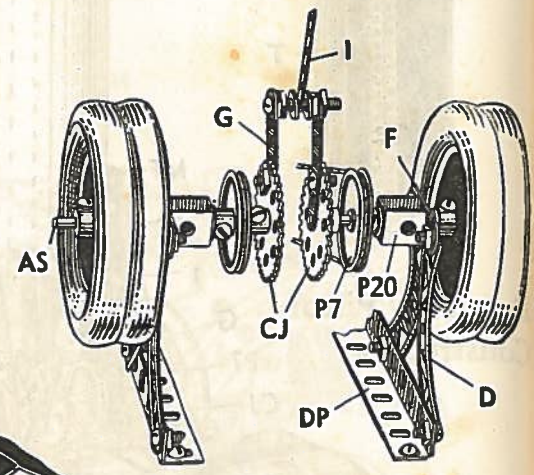


Note: To build Power Unit see Electric Engine No. 3 or No. 8. Engine No. 8 shown.

Models Built with No. 7½ Erector



Crank for Walking Beam Engine



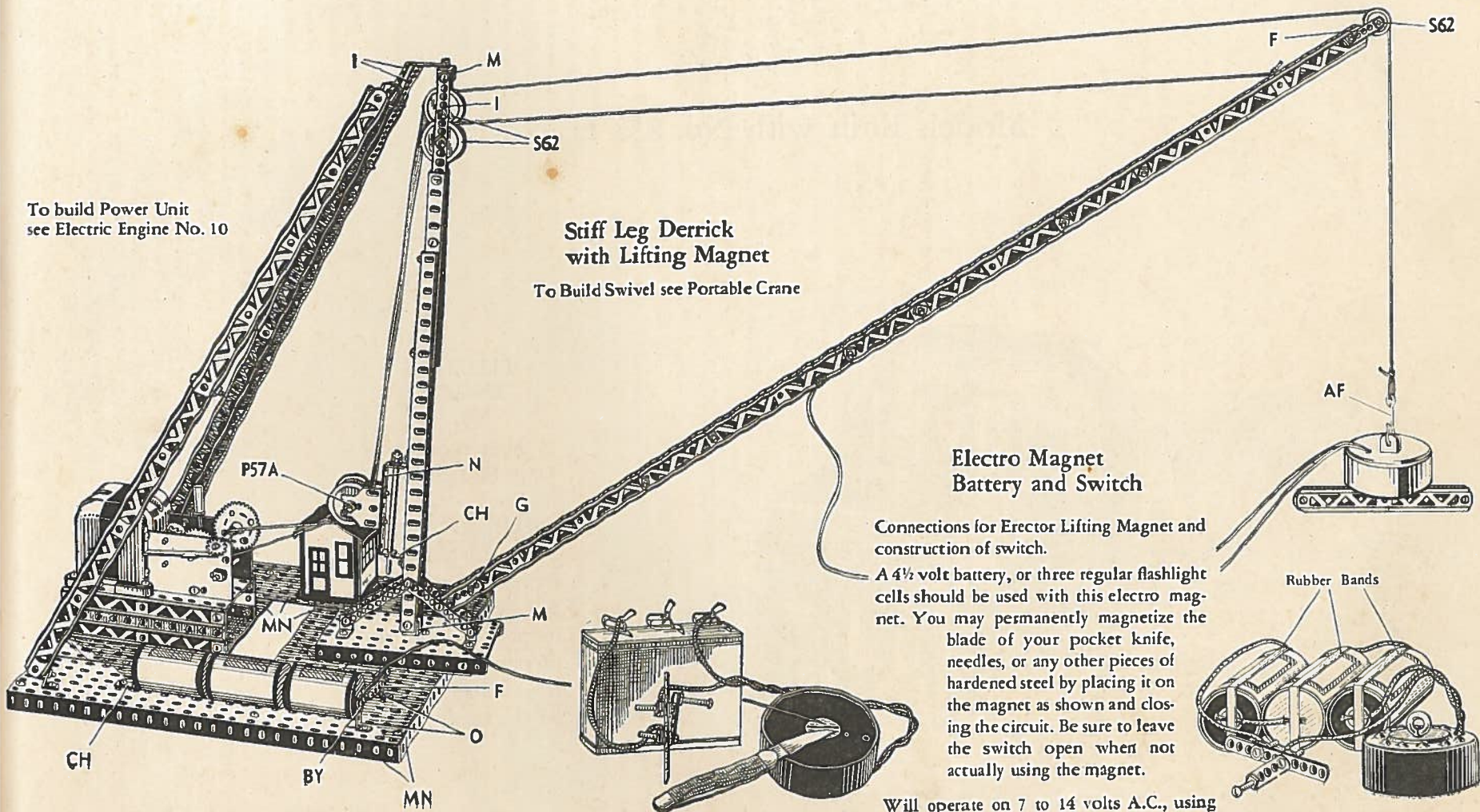
Walking Beam Engine

Note: To build Power Unit see Electric Engine No. 3 or No. 8. Engine No. 9 shown.

Models Built with No. 8½ Erector

To build Power Unit
see Electric Engine No. 10

**Stiff Leg Derrick
with Lifting Magnet**
To Build Swivel see Portable Crane

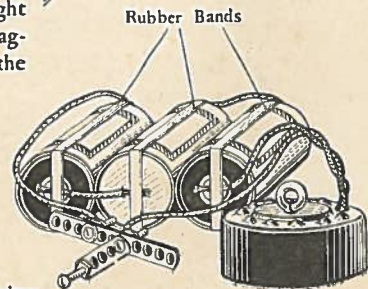


Electro Magnet Battery and Switch

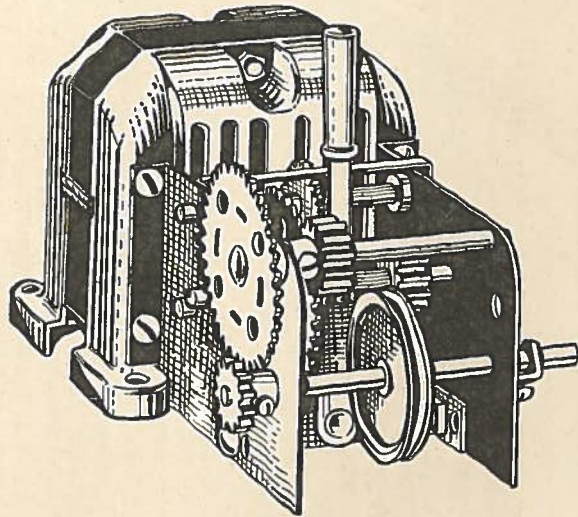
Connections for Erector Lifting Magnet and construction of switch.

A 4½ volt battery, or three regular flashlight cells should be used with this electro magnet. You may permanently magnetize the blade of your pocket knife, needles, or any other pieces of hardened steel by placing it on the magnet as shown and closing the circuit. Be sure to leave the switch open when not actually using the magnet.

Will operate on 7 to 14 volts A.C., using Transformer.



Models Built with No. 8½ Erector

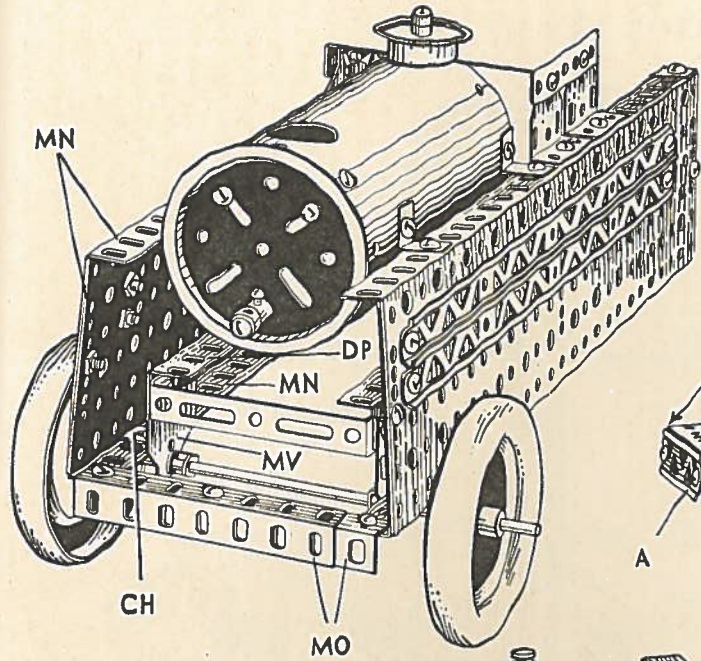


ELECTRIC ENGINE No. 12

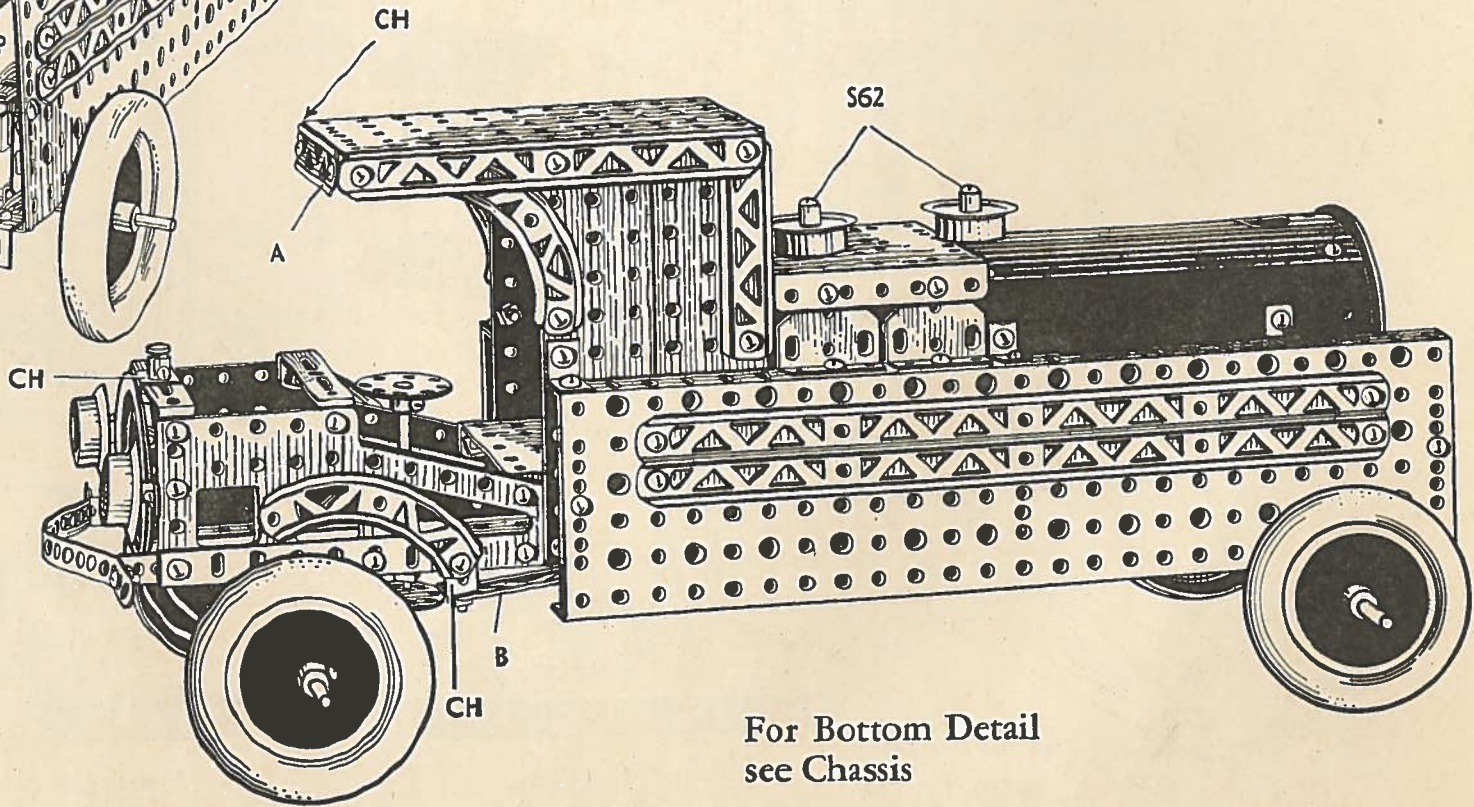
A high speed gear
train for light loads

This gear box is
used with the giant
fly wheel, because of
the great reduction
in speed and increase
of power when the
large wheel is driven
by the small pulley.

Models Built with No. 8½ Erector



Rear View
Oil Truck

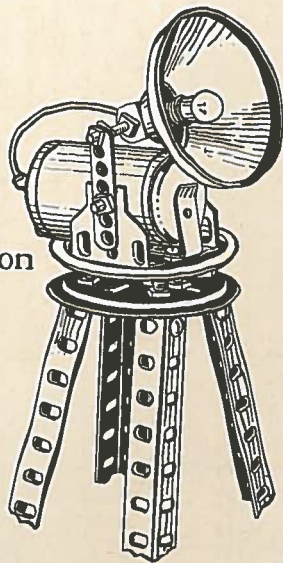


Oil Truck

For Bottom Detail
see Chassis

Models Built with No. 8½ Erector

Use Regular
Flashlight Battery



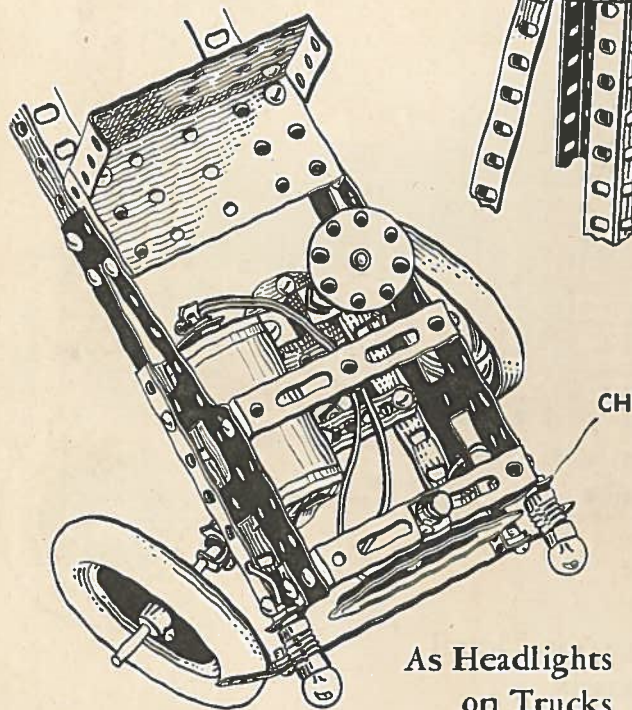
In Airplane Beacon

Suggested Methods
for Using Lights

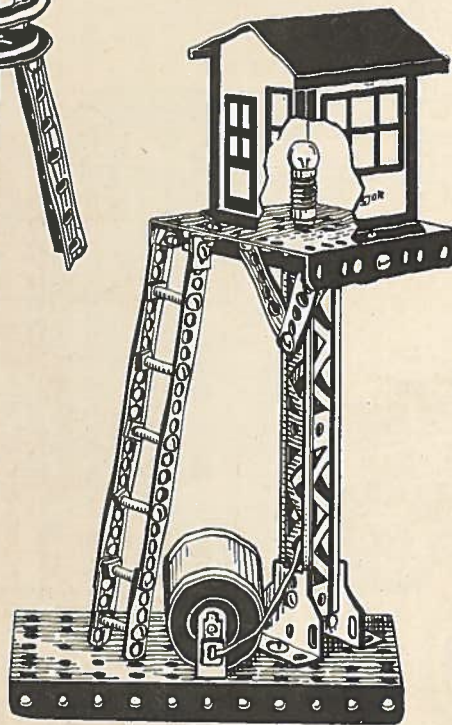
Use Regular Flashlight
Batteries as Shown



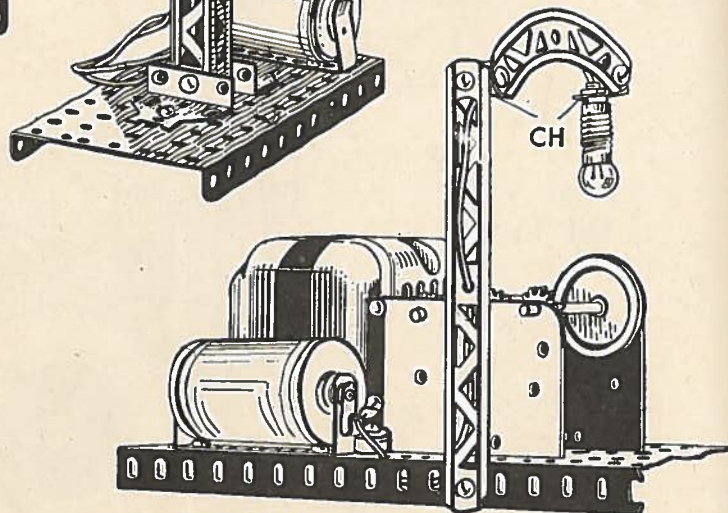
For Street Lights



As Headlights
on Trucks



Inside House

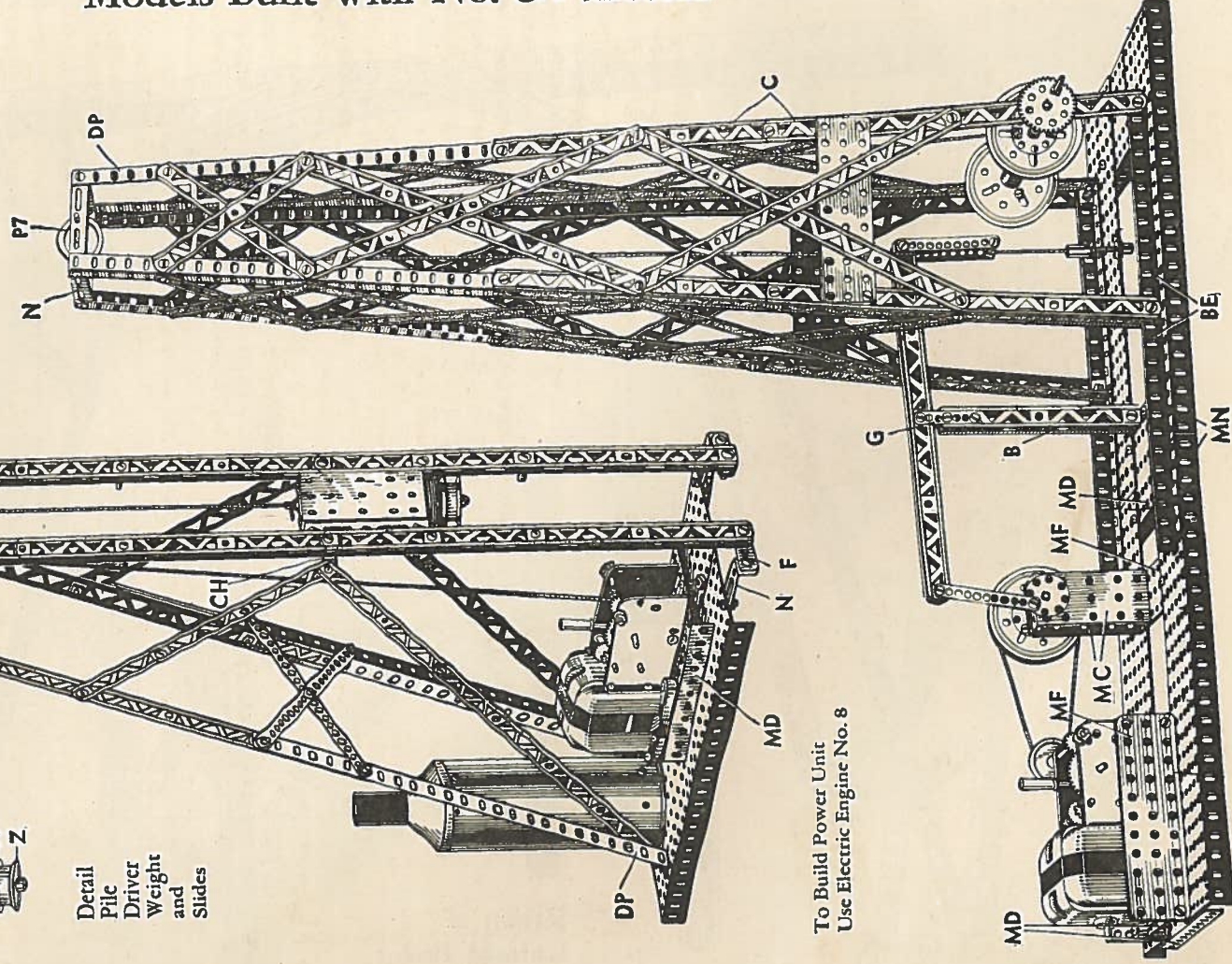


For Light over Machinery

Models Built with No. 8½ Erector

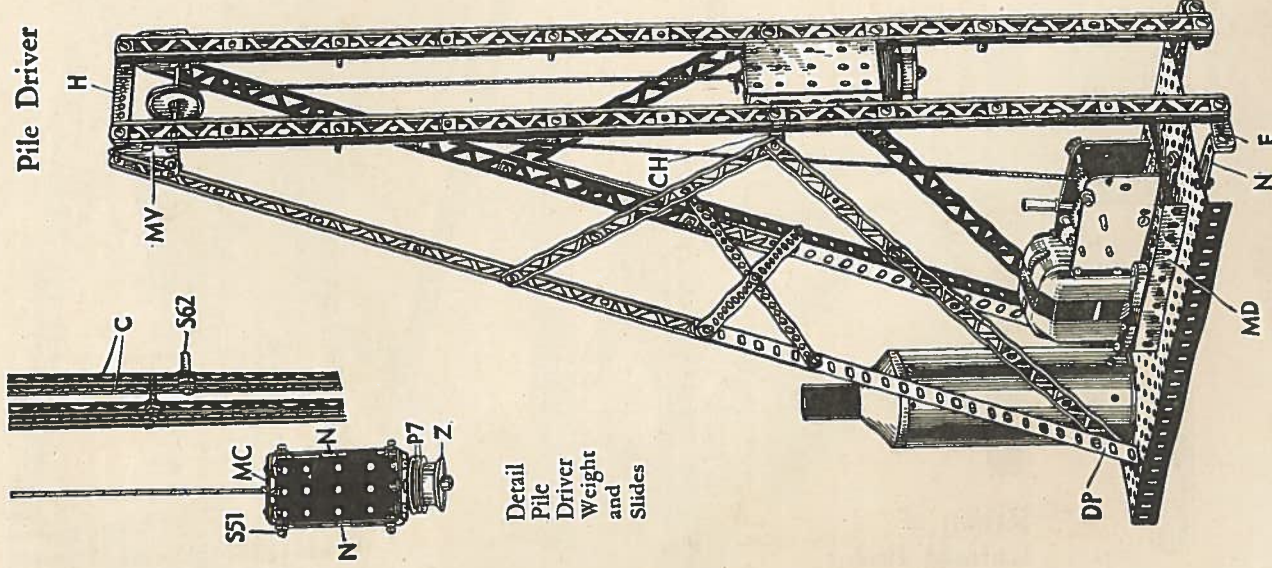
Oil Drilling Rig

To Build Power Unit
Use Electric Engine No. 8

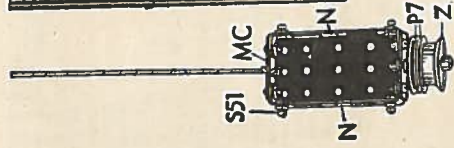


To Build Power Unit
Use Electric Engine No. 8

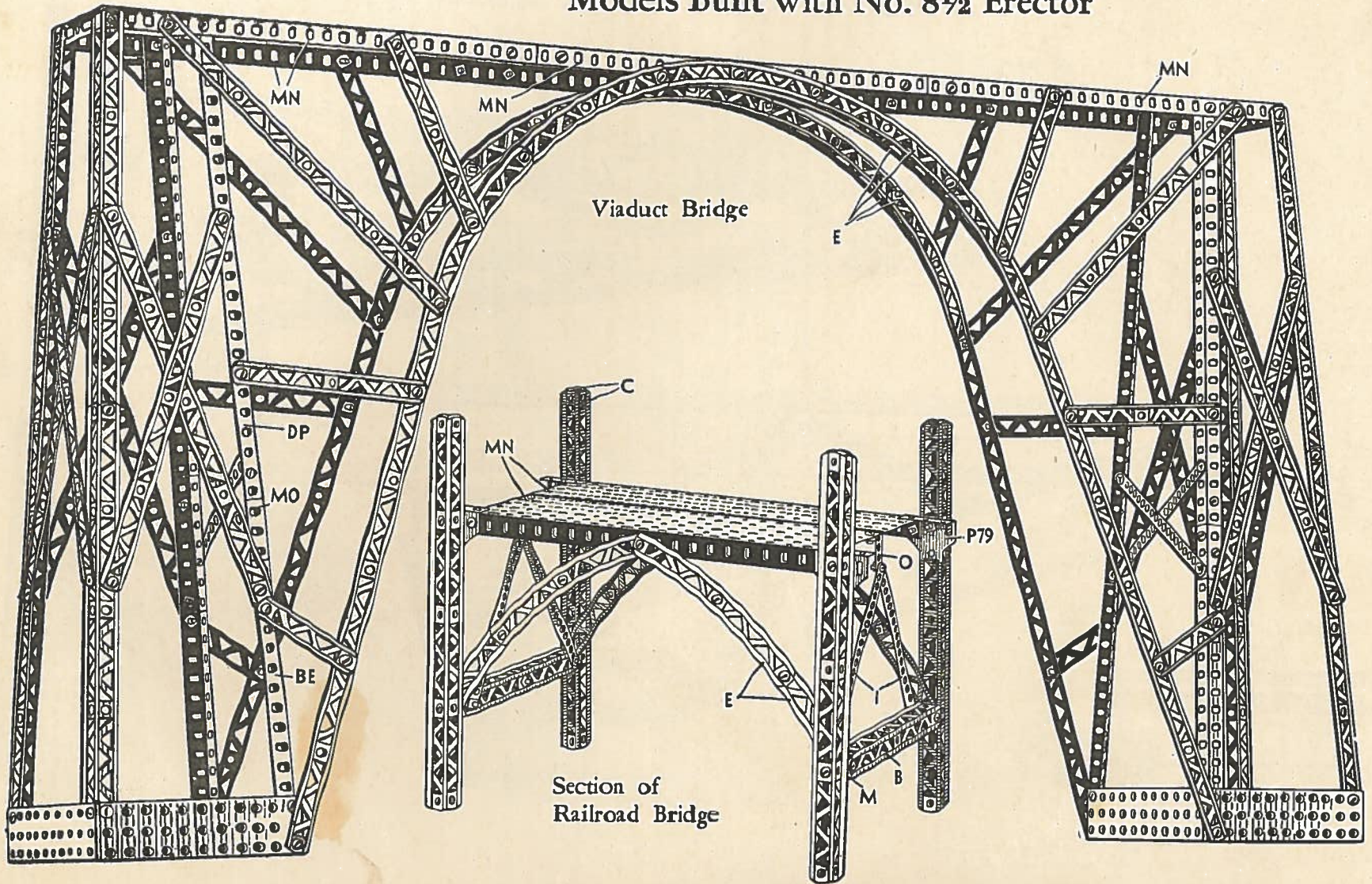
Pile Driver



Detail
Pile
Driver
Weight
and
Slides

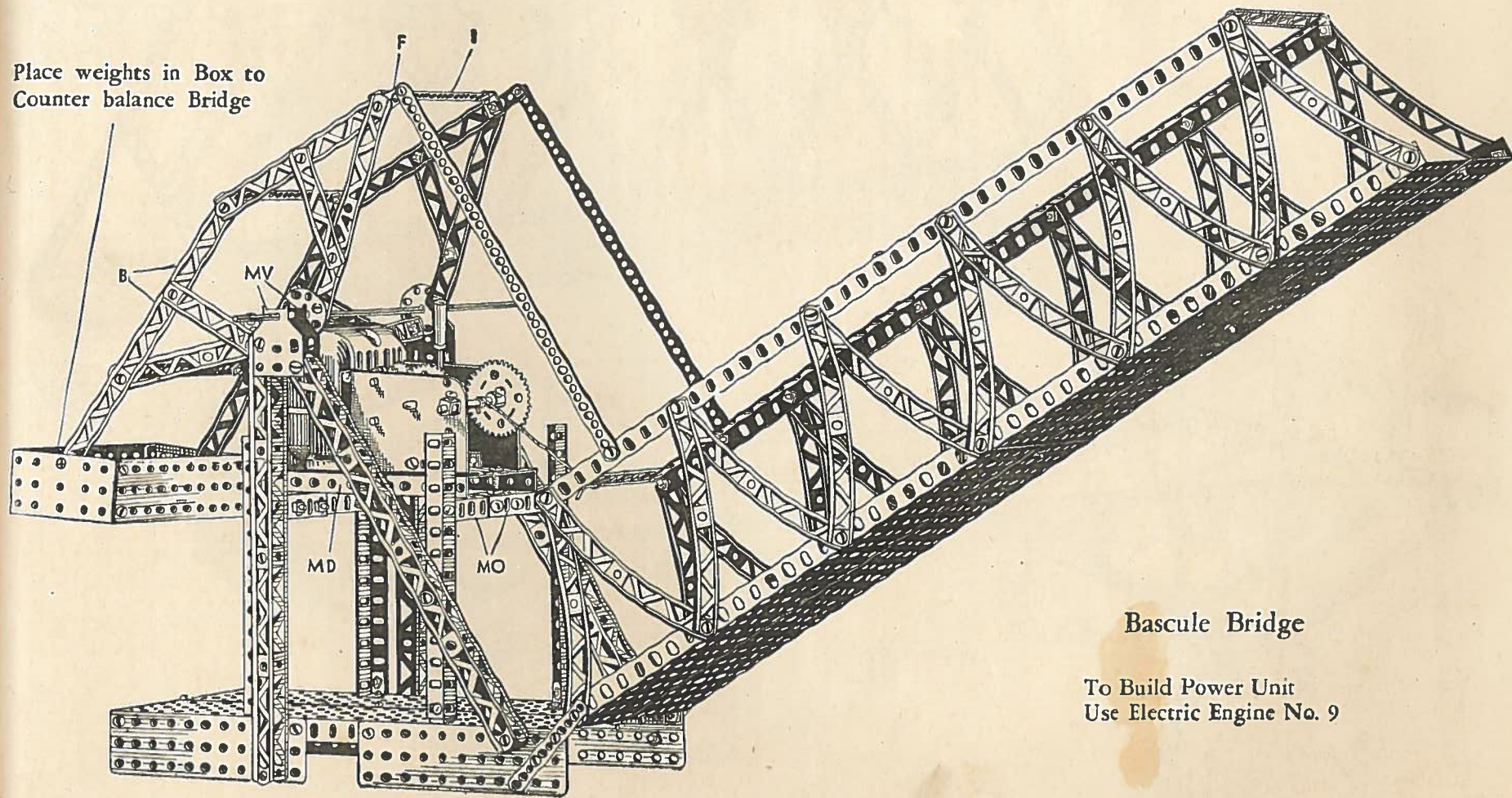


Models Built with No. 8½ Erector



Models Built with No. 8½ Erector

Place weights in Box to
Counter balance Bridge

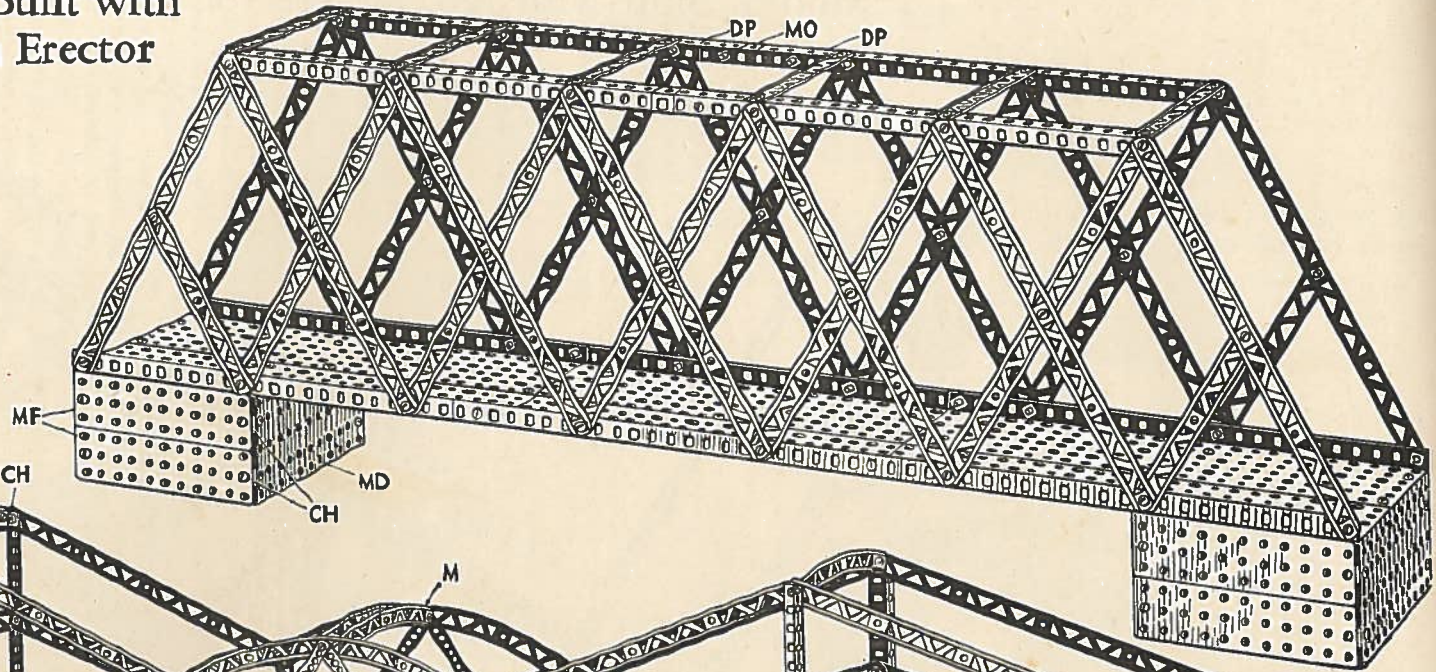


Bascule Bridge

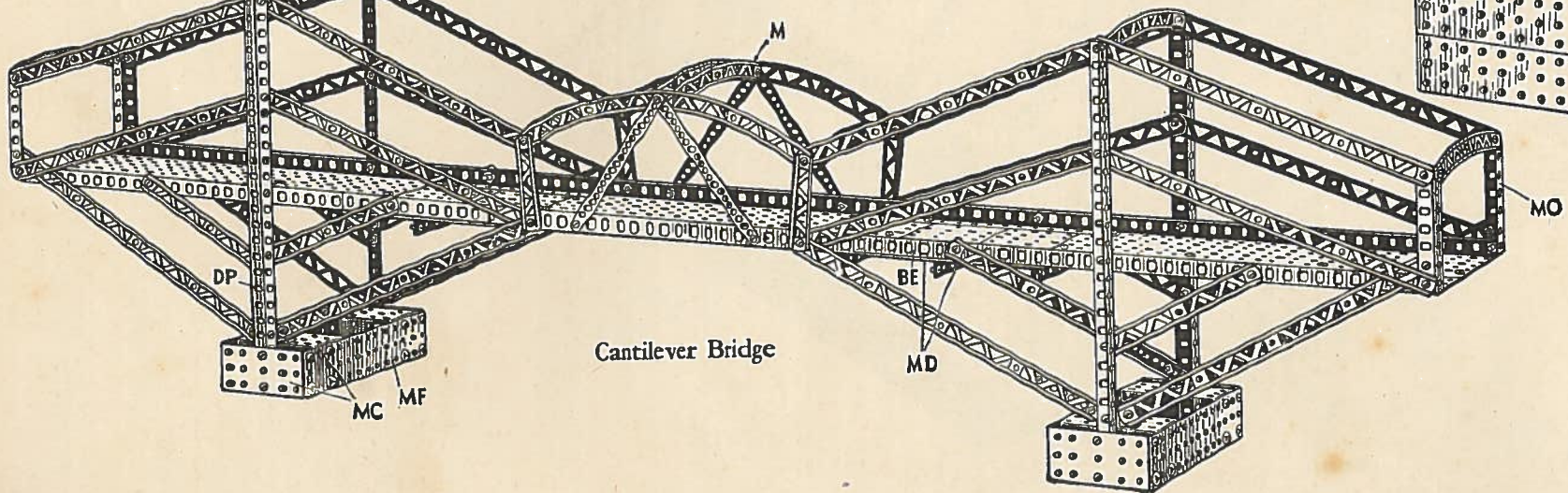
To Build Power Unit
Use Electric Engine No. 9

Models Built with No. 8½ Erector

Truss Bridge

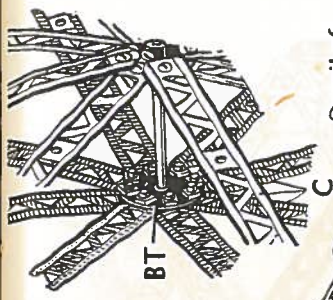


Cantilever Bridge

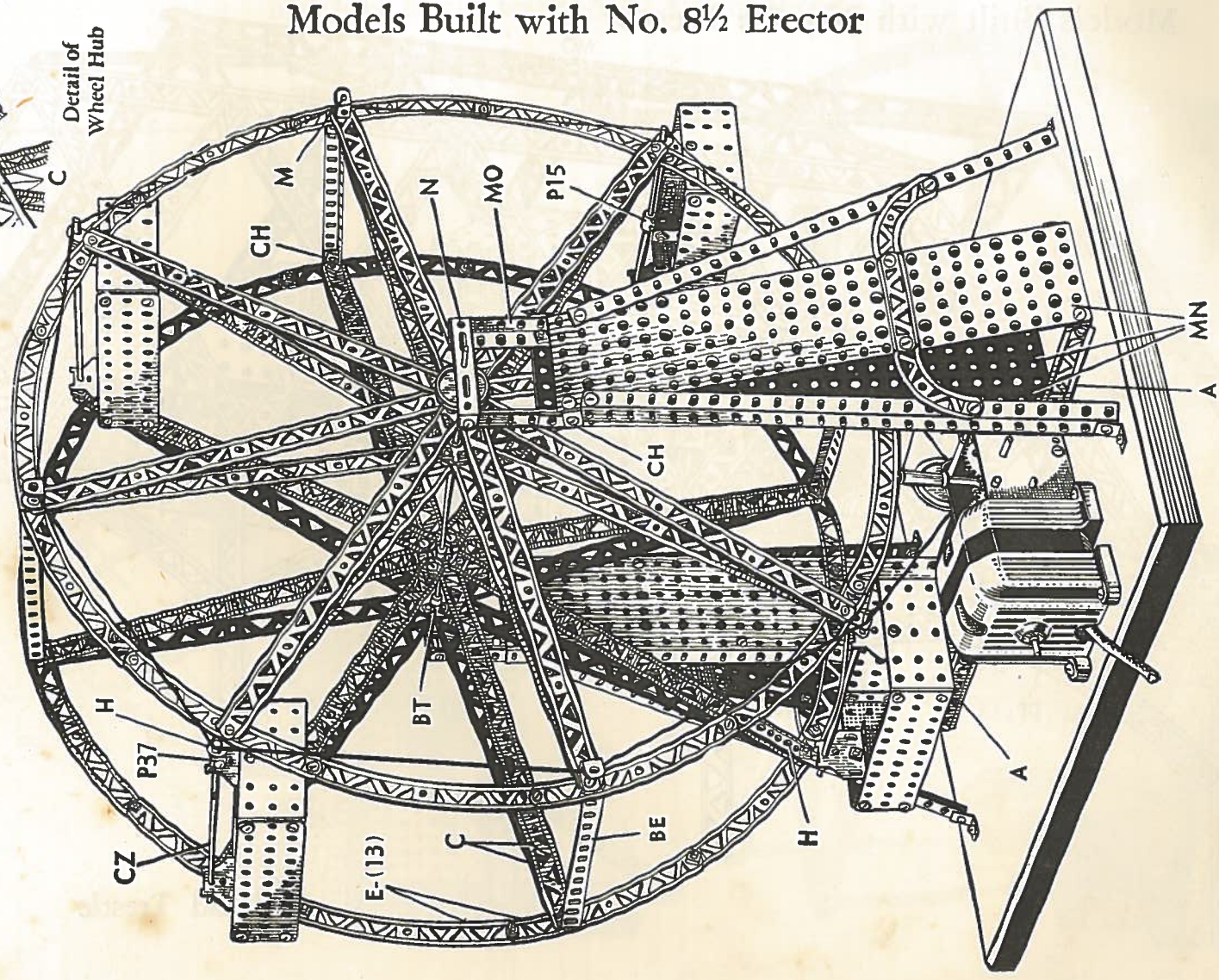


Models Built with No. 8½ Erector

Ferris Wheel

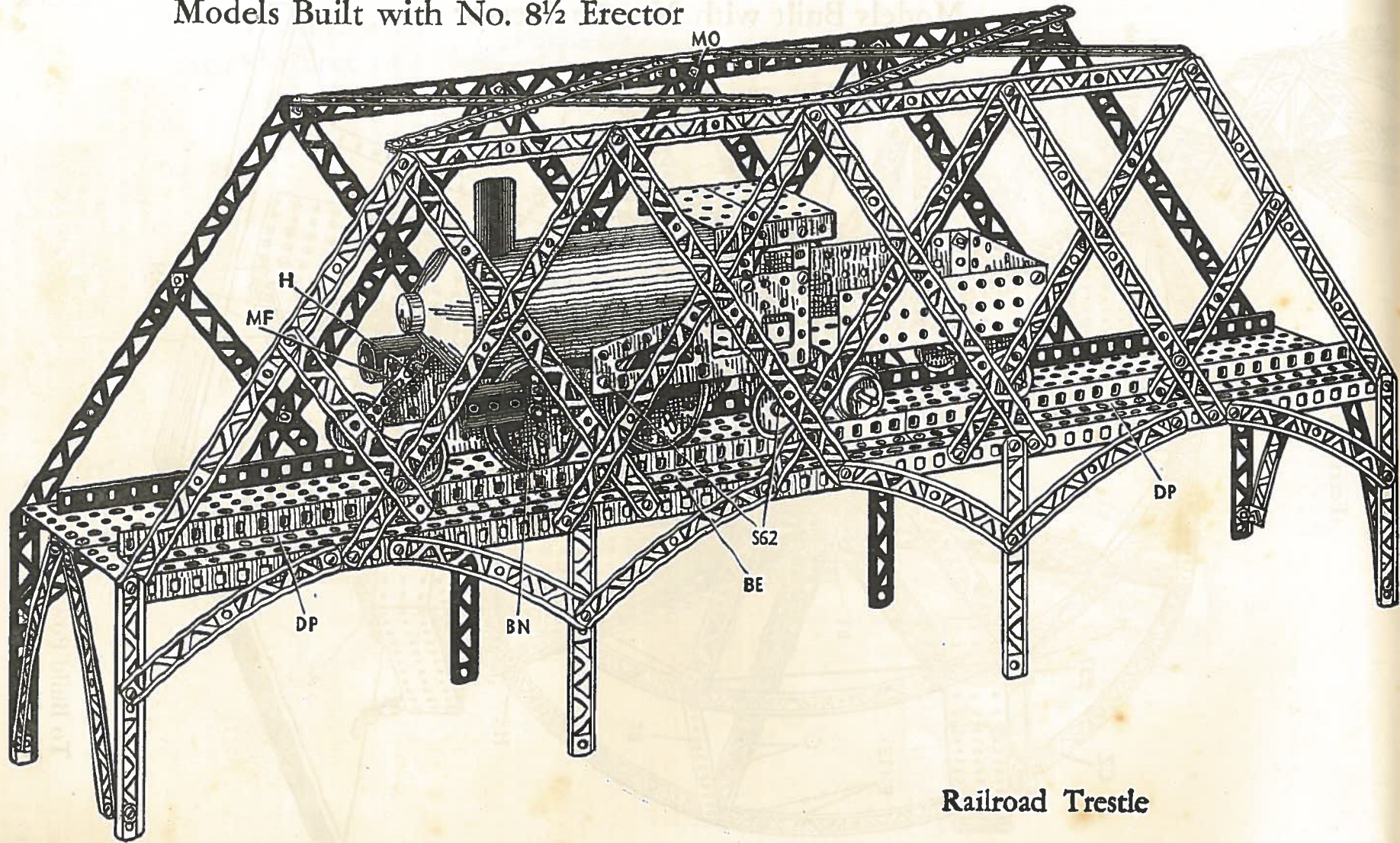


Detail of Wheel Hub



To Build Power Unit
Use Electric Engine No. 8

Models Built with No. 8½ Erector

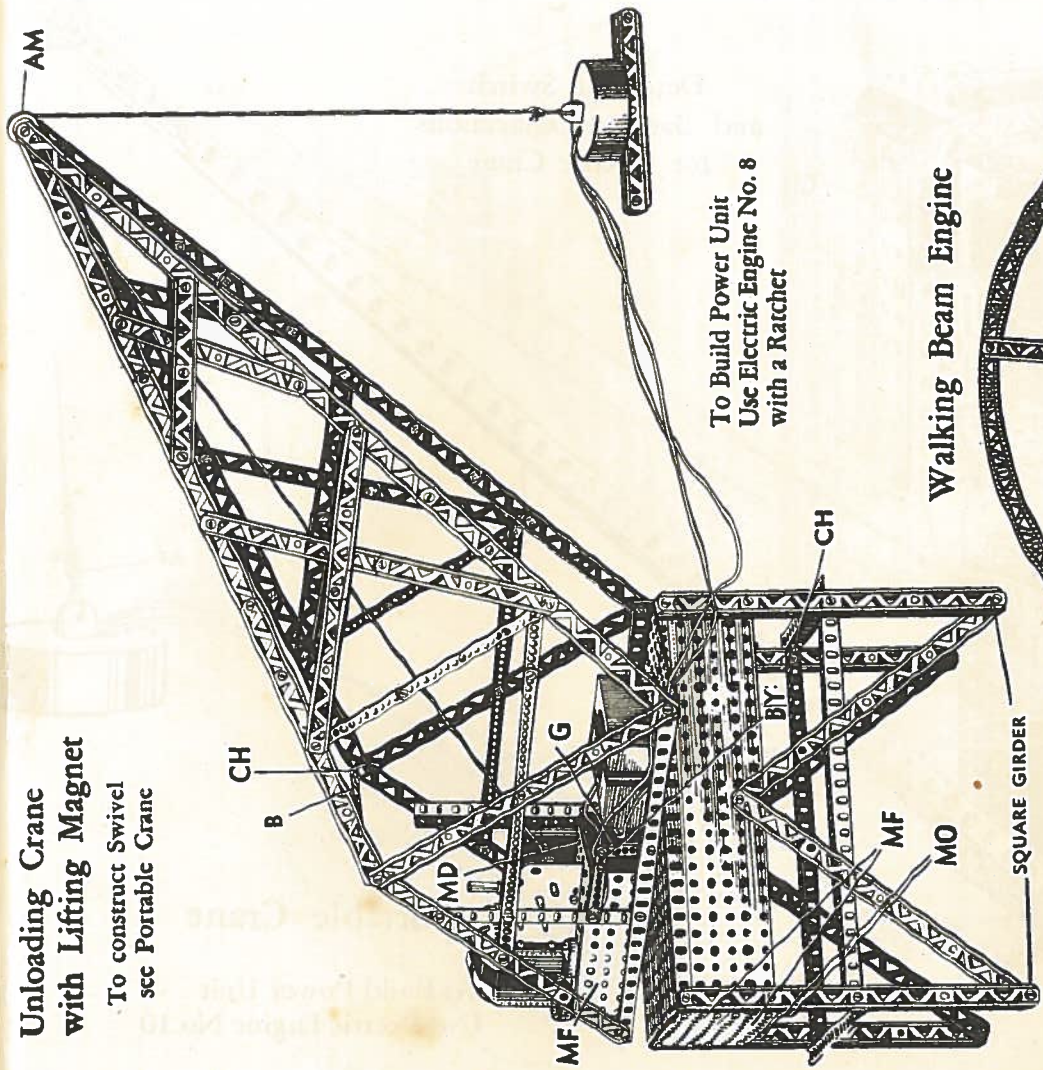


Railroad Trestle

Models Built with No. 8½ Erector

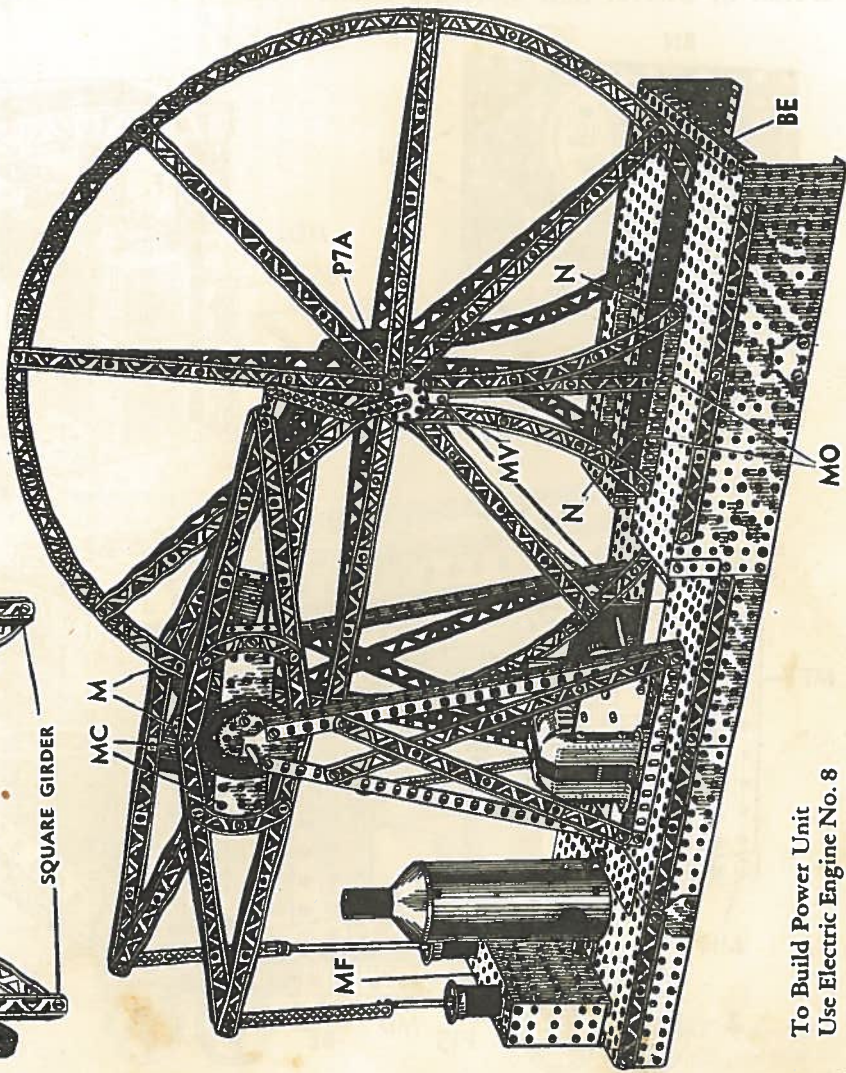
Unloading Crane with Lifting Magnet

To construct Swivel see Portable Crane



To Build Power Unit Use Electric Engine No. 8 with a Ratchet

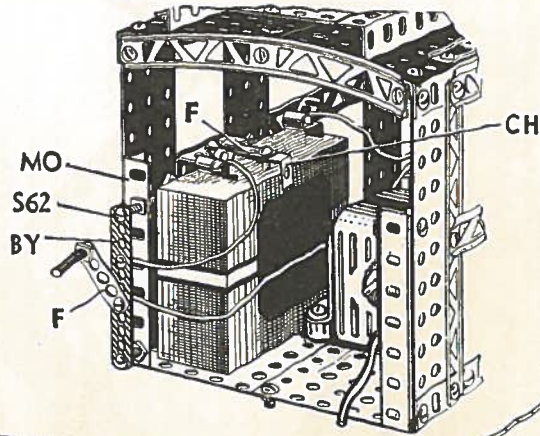
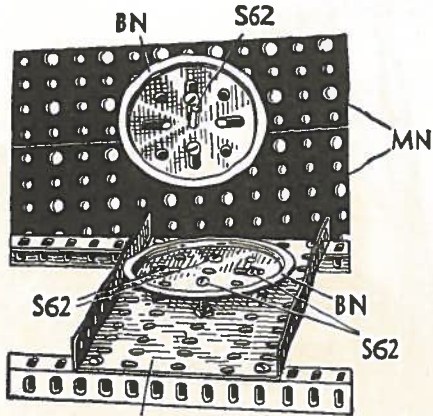
Walking Beam Engine



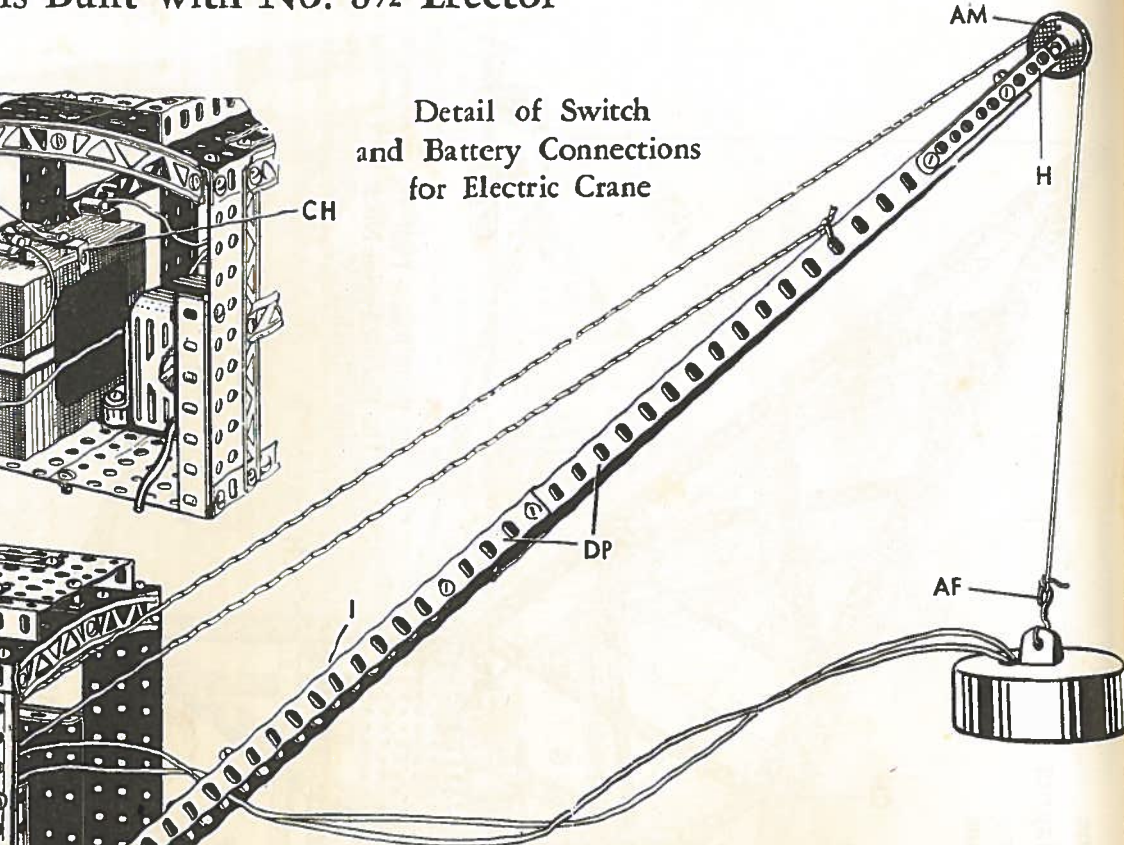
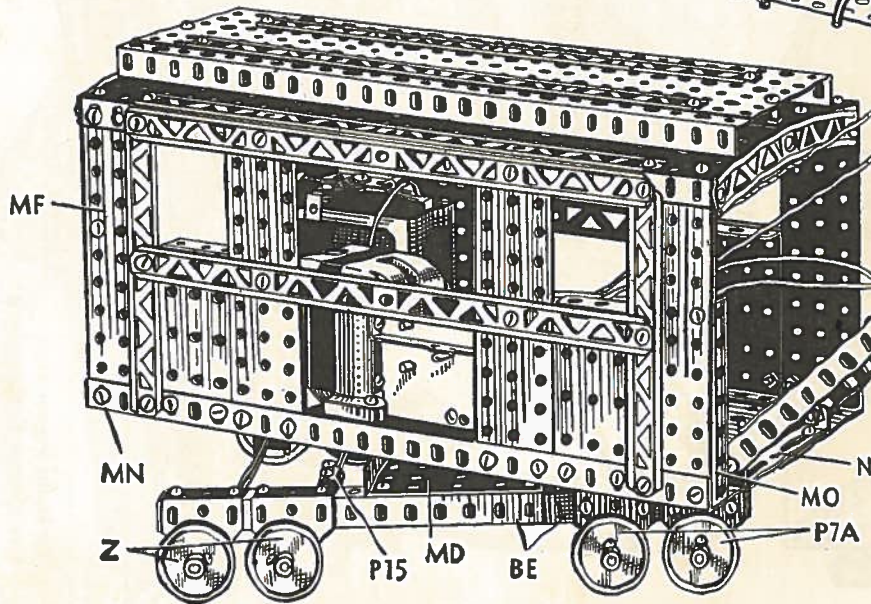
To Build Power Unit Use Electric Engine No. 8

Detail of Swivel Base Portable Crane

Models Built with No. 8½ Erector



Detail of Switch and Battery Connections for Electric Crane

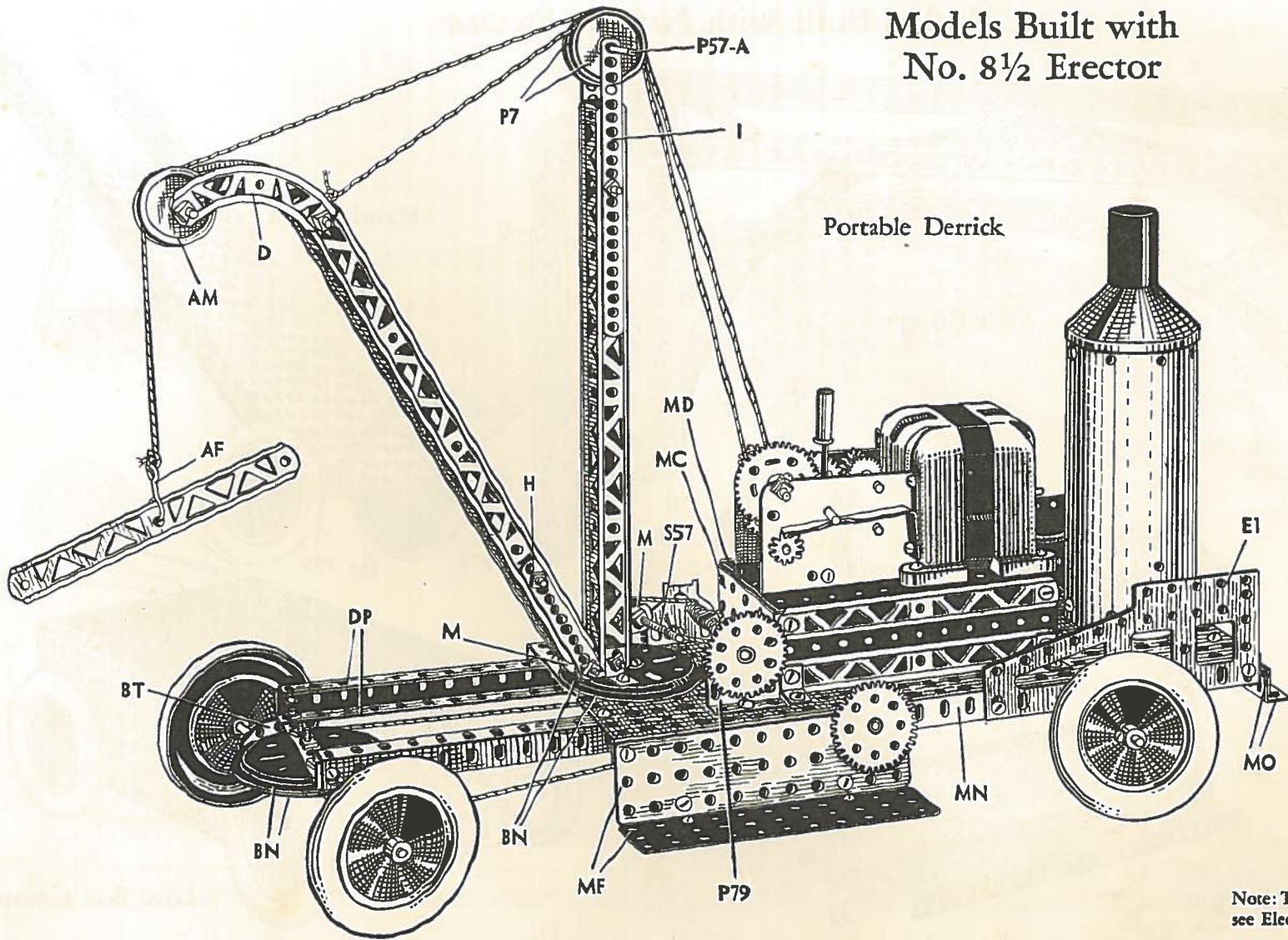


Portable Crane

To Build Power Unit Use Electric Engine No.10

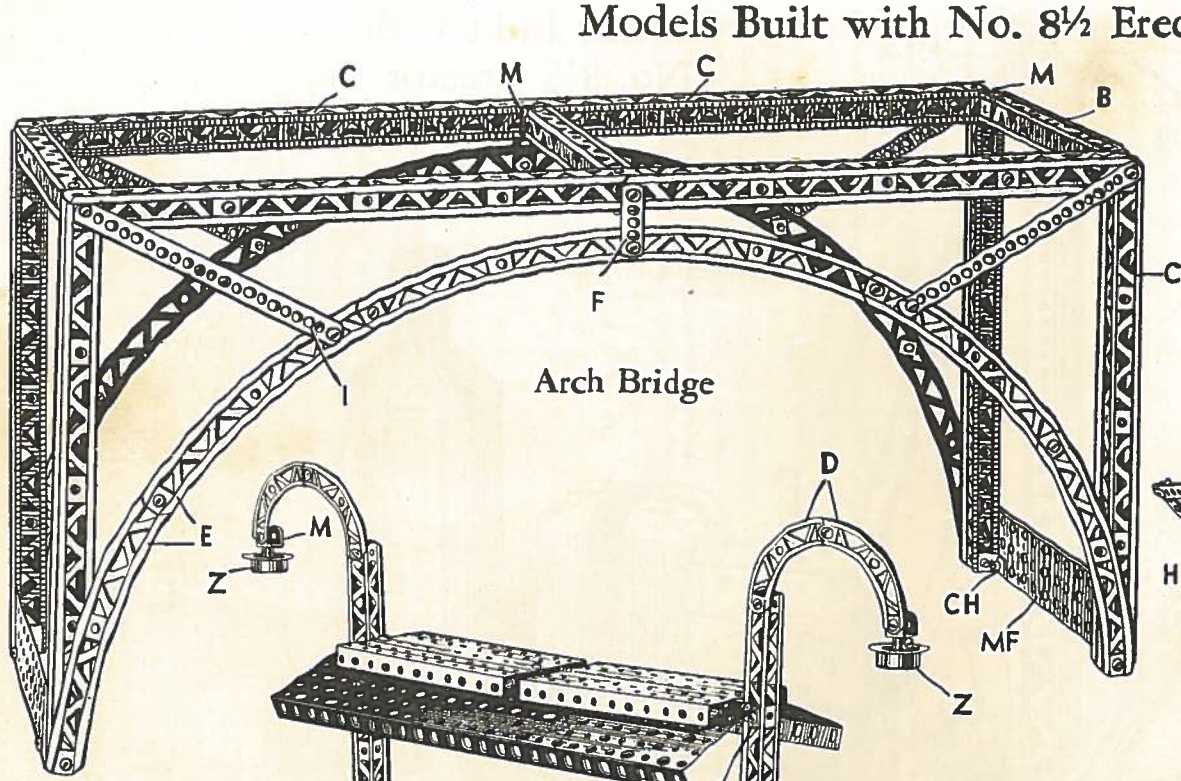
Models Built with No. 8½ Erector

Portable Derrick

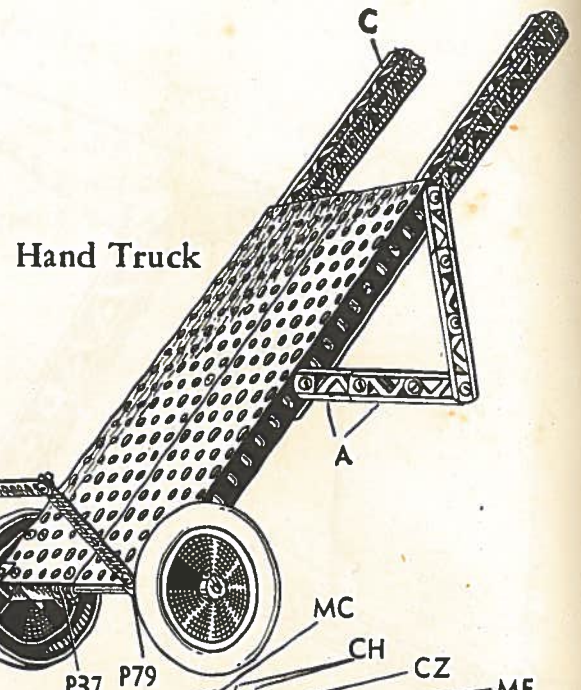


Note: To build Power Unit
see Electric Engine No. 10

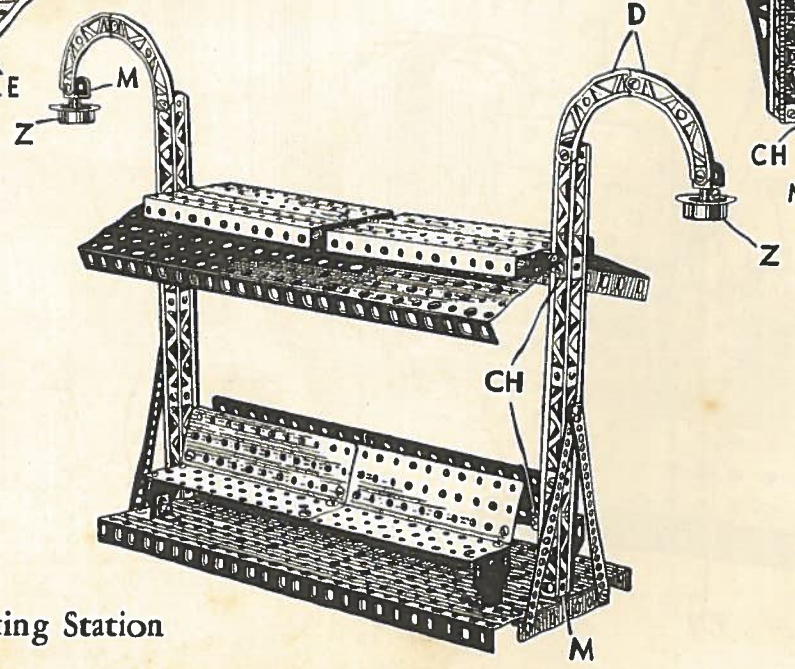
Models Built with No. 8½ Erector



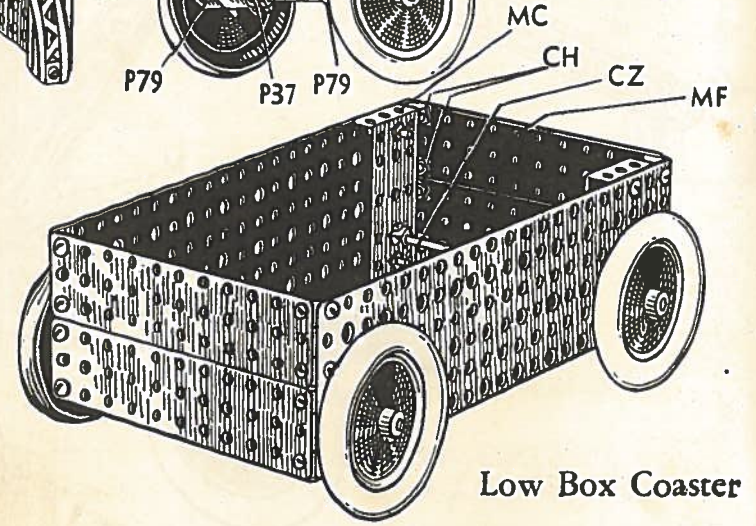
Arch Bridge



Hand Truck



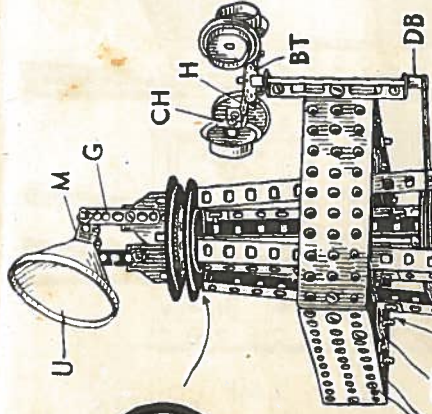
Waiting Station



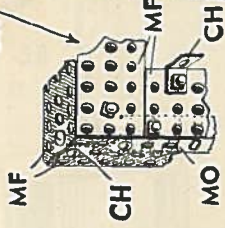
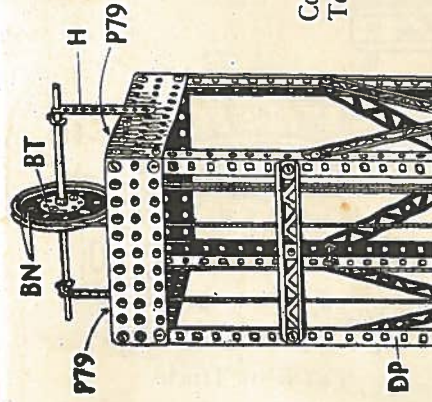
Low Box Coaster

Models Built with No. 8½ Erector

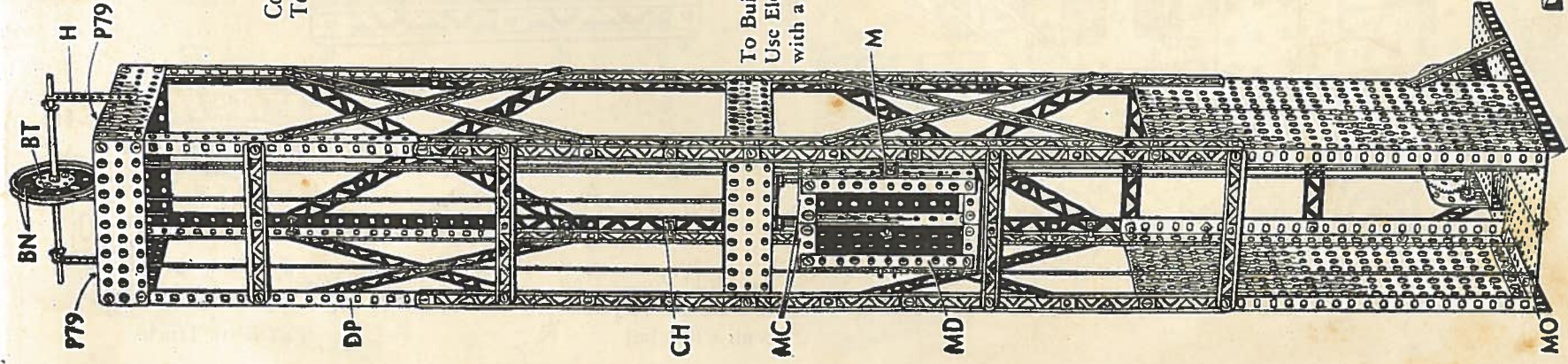
To Build Power Unit
see Electric Engine
No. 11



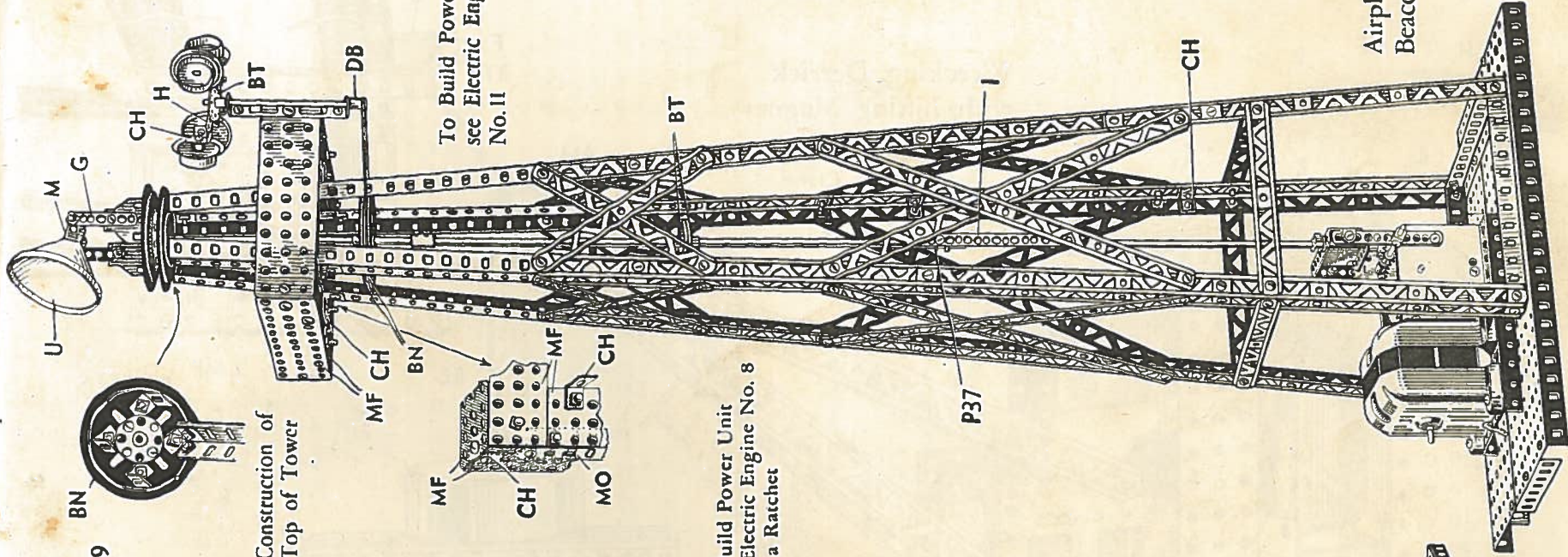
Construction of
Top of Tower



To Build Power Unit
Use Electric Engine No. 8
with a Ratchet



Elevator



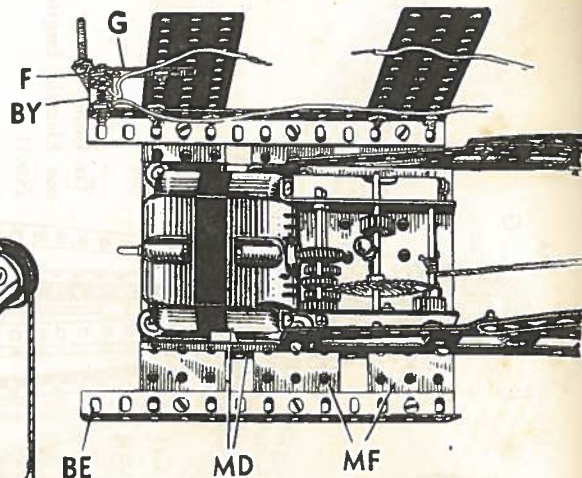
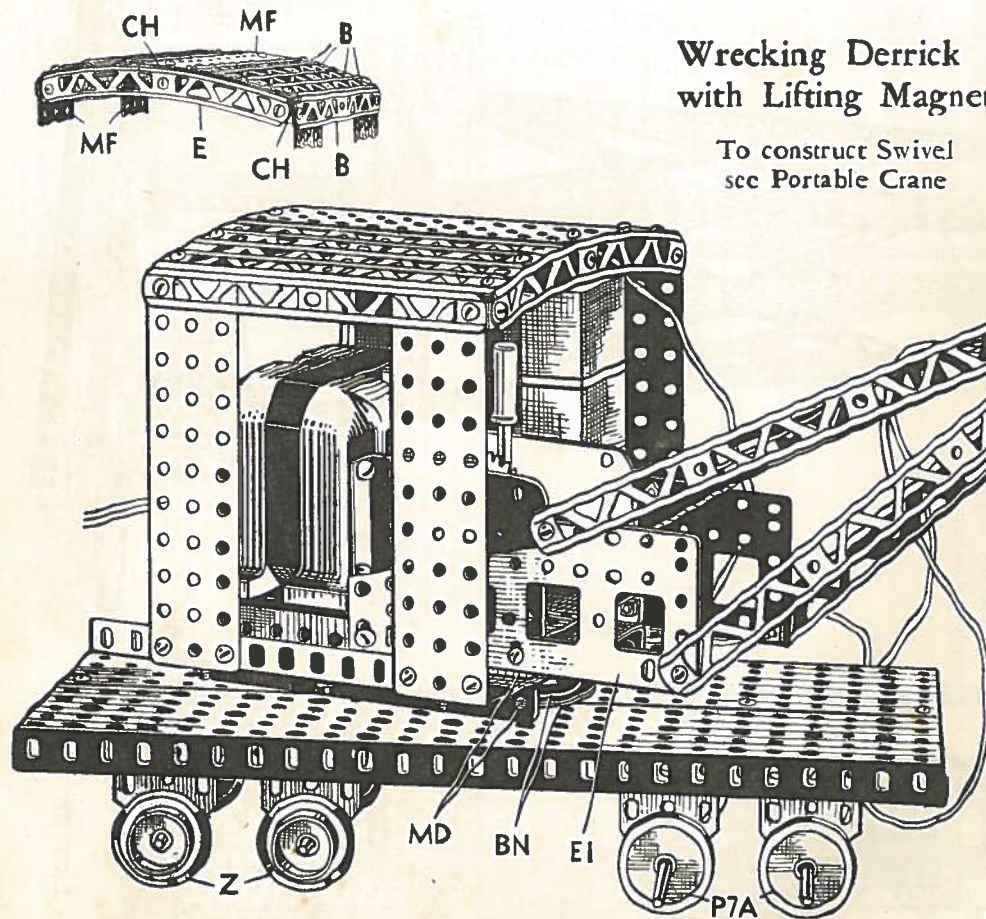
Airplane
Beacon

Detail of Roof
Wrecking Derrick

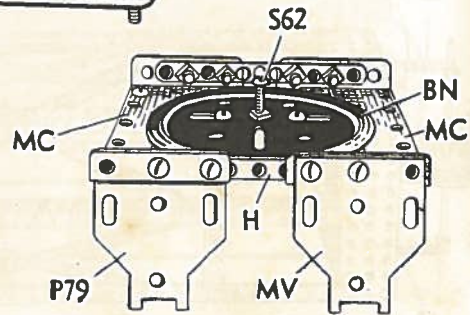
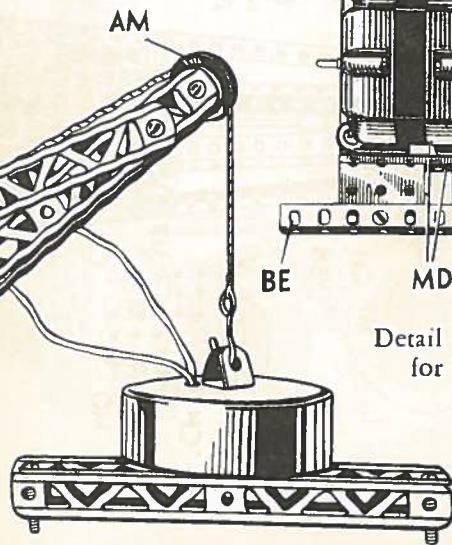
Models Built with No. 8½ Erector

Wrecking Derrick
with Lifting Magnet

To construct Swivel
see Portable Crane



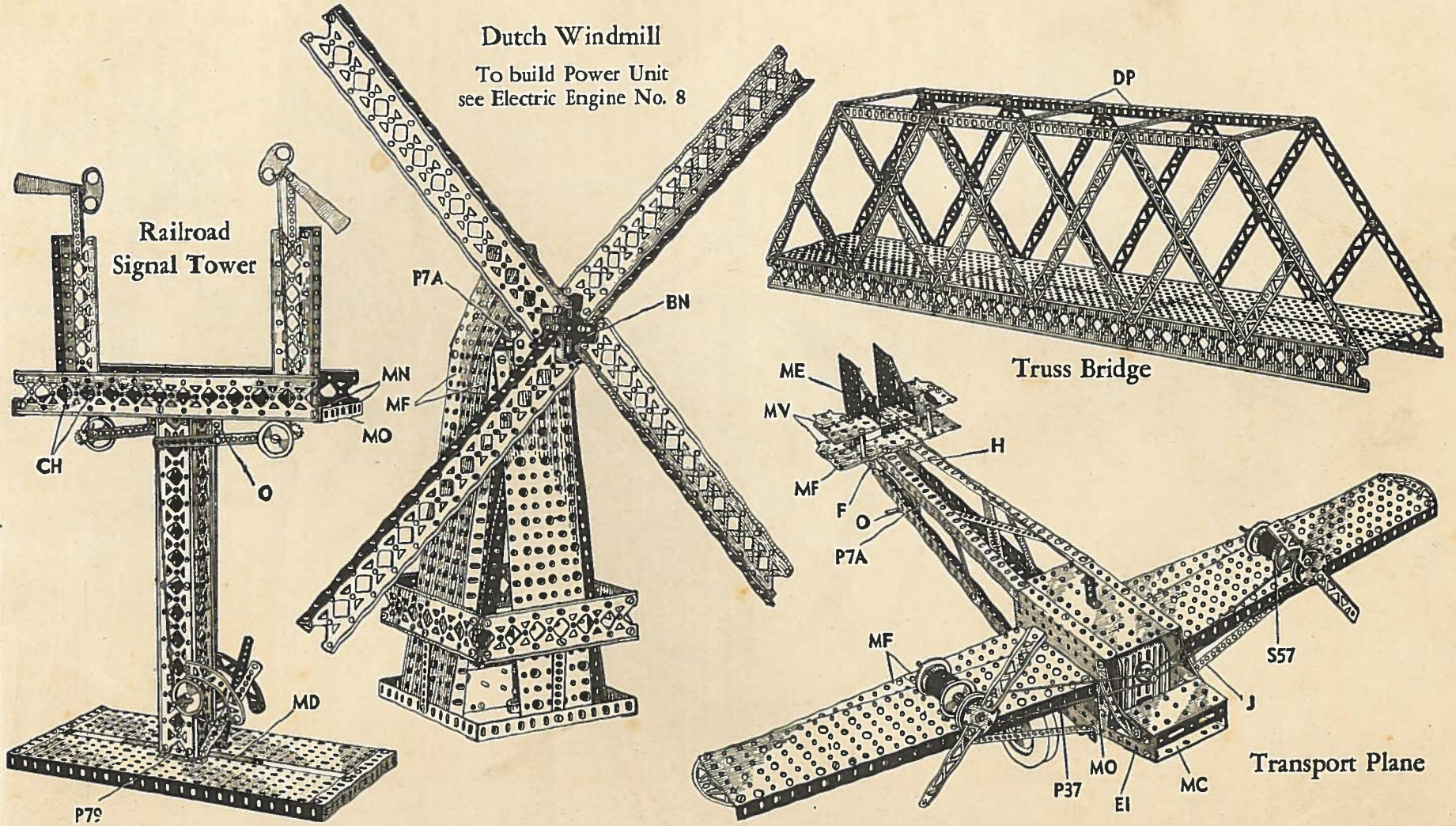
Detail of Cab Construction
for Wrecking Derrick



Detail of Trucks

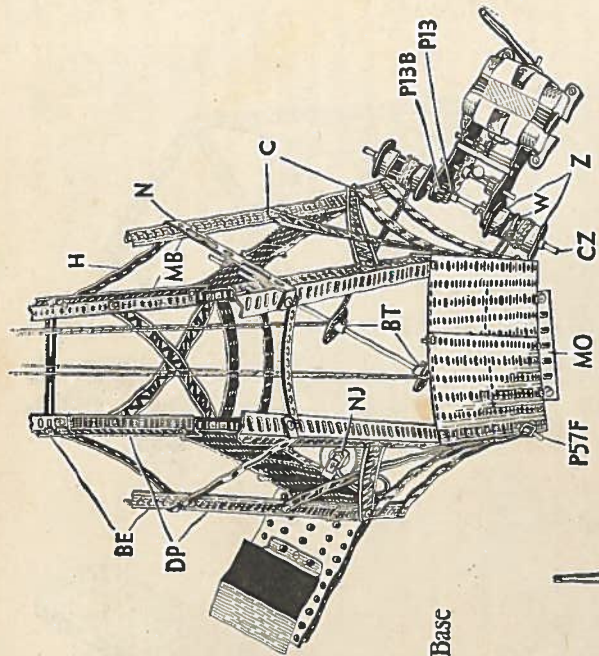
To Build Power Unit
Use Electric Engine No. 8
with a Ratchet

Models Built with No. 9½ Erector



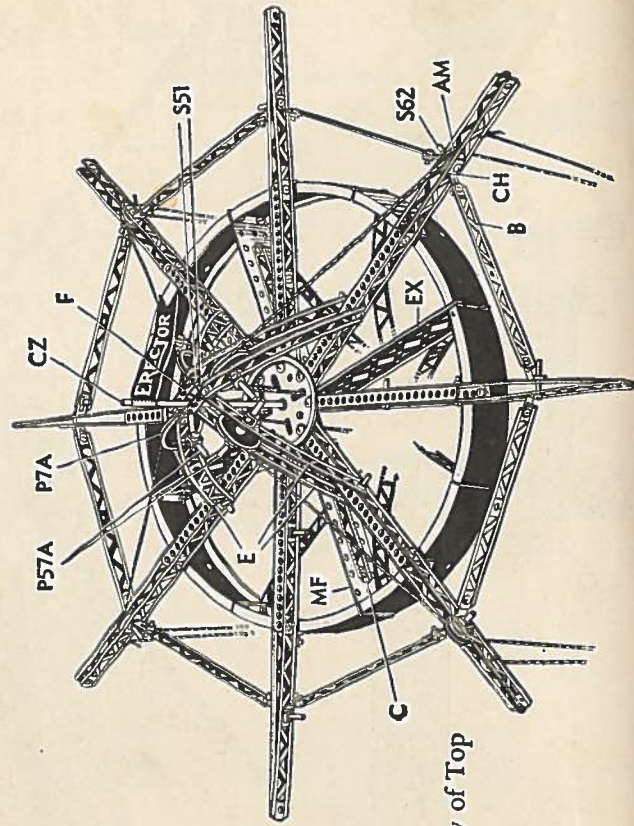
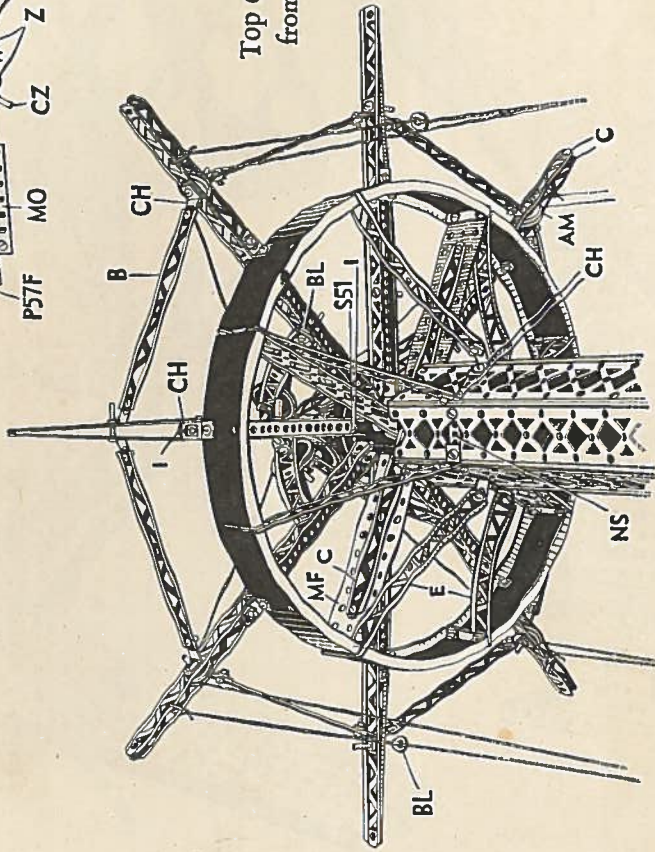
Models Built with No. 9½ Erector

Details of
Parachute Jump



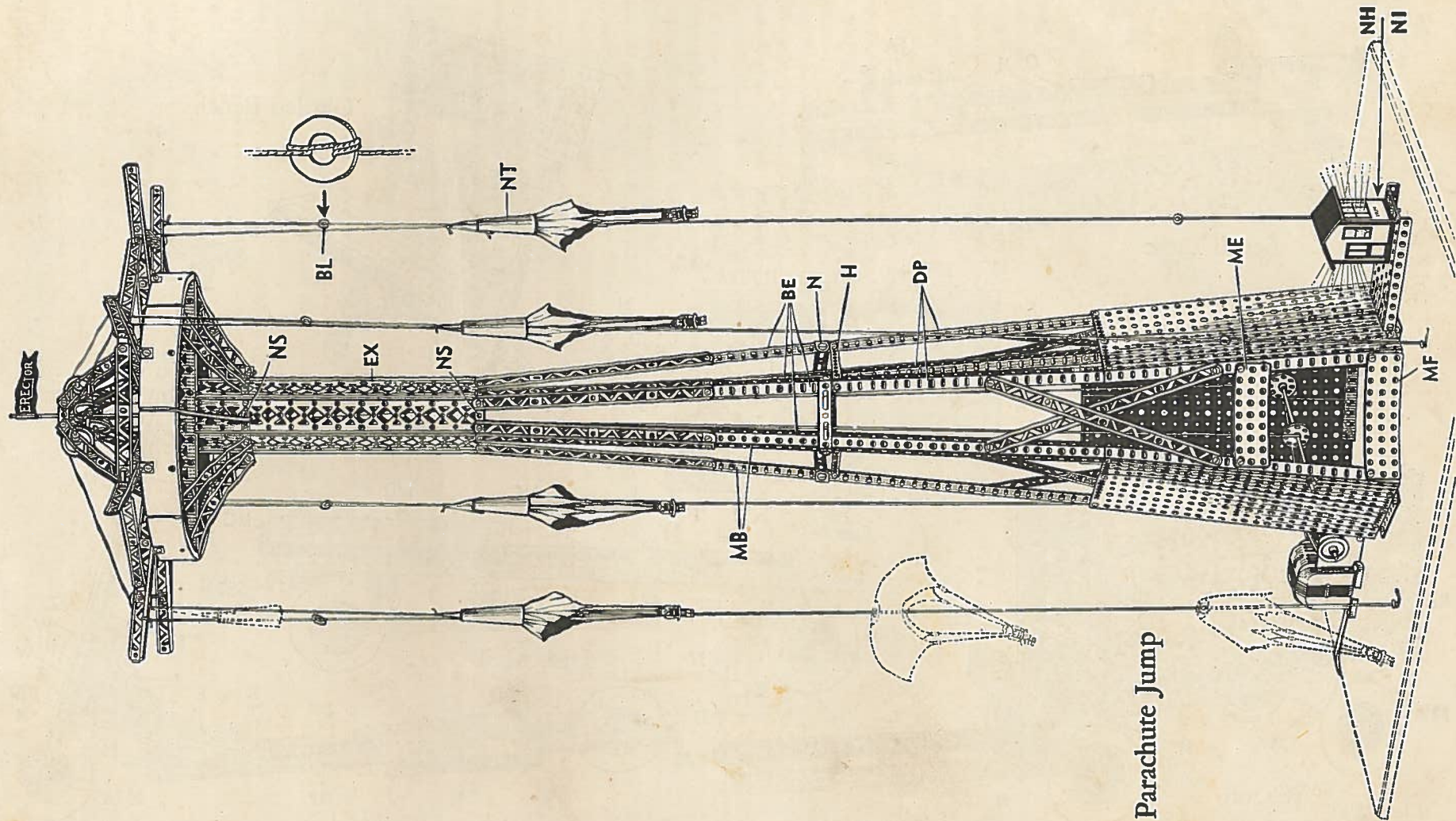
Airplane View of Base

Top of Tower
from Below



Airplane View of Top

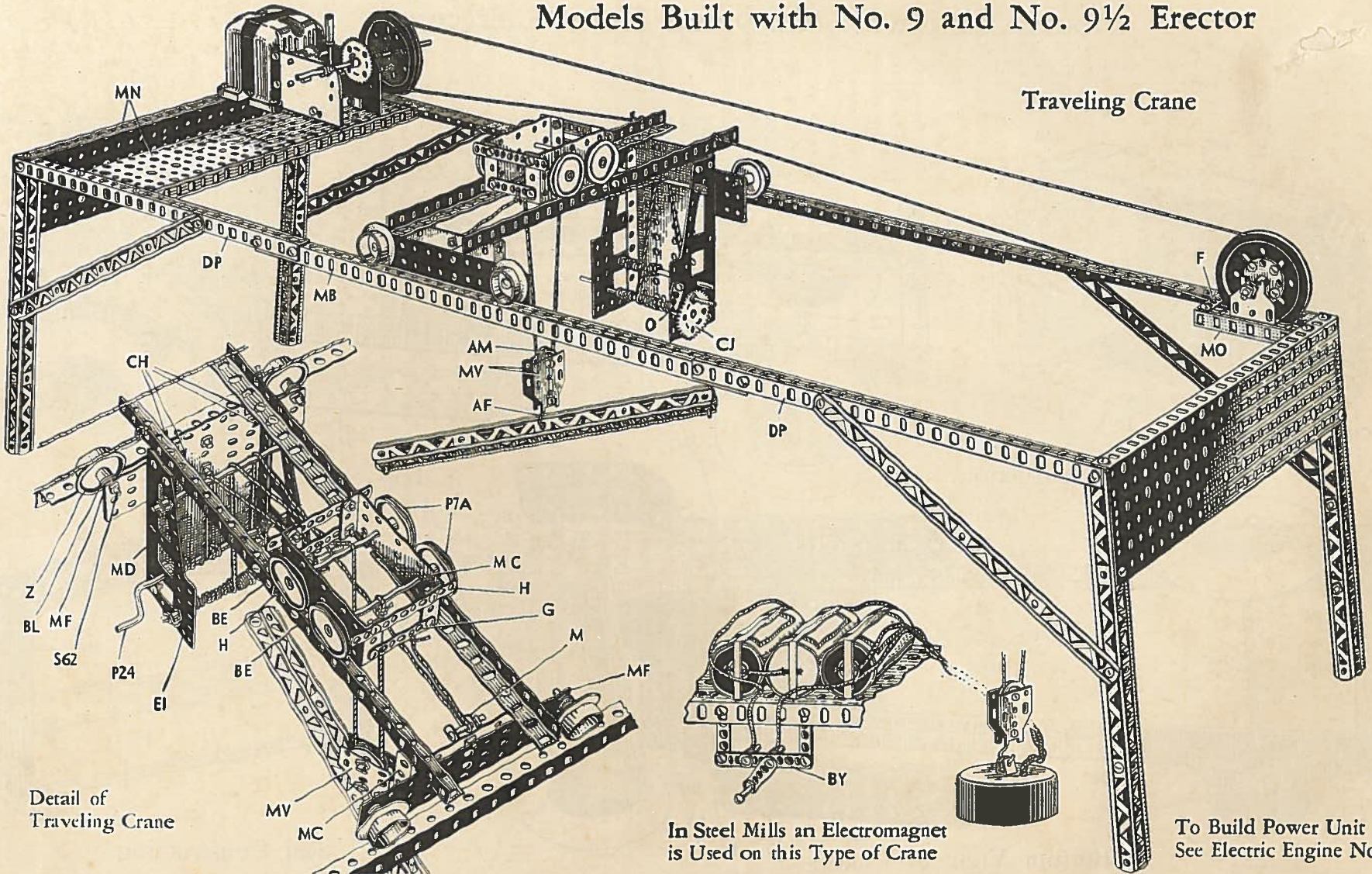
Models Built with No. 9½ Erector



Parachute Jump

Models Built with No. 9 and No. 9½ Erector

Traveling Crane

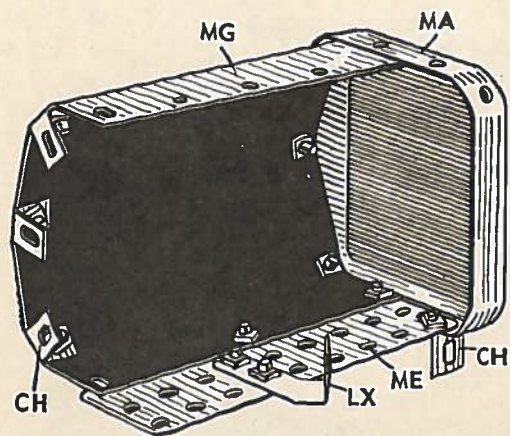


Detail of
Traveling Crane

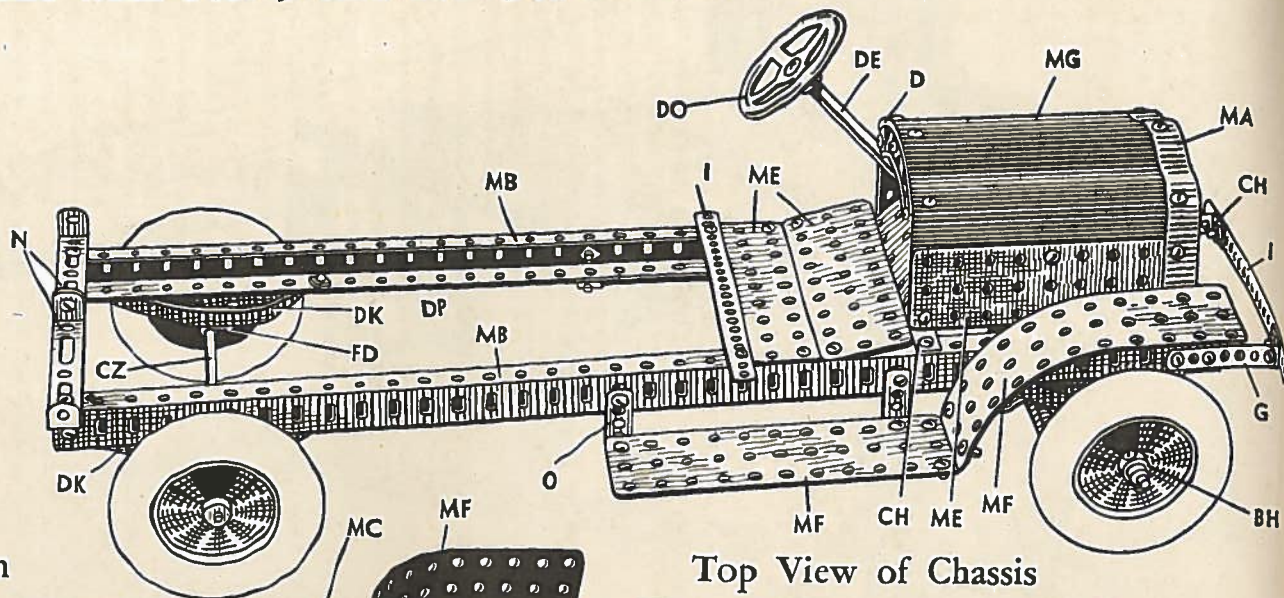
In Steel Mills an Electromagnet
is Used on this Type of Crane

To Build Power Unit
See Electric Engine No. 9

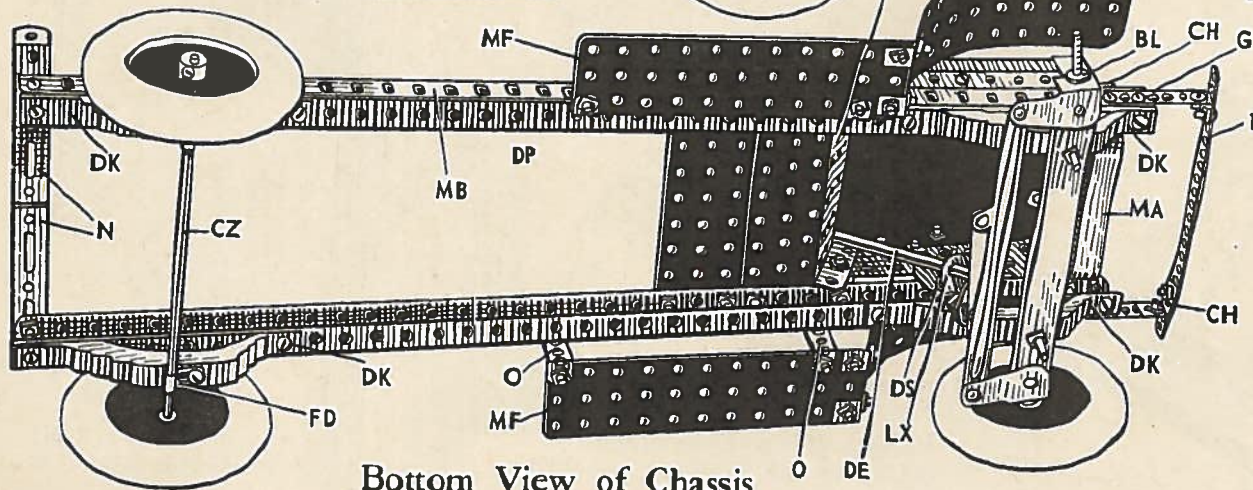
Models Built with No. 9 and No. 9½ Erector



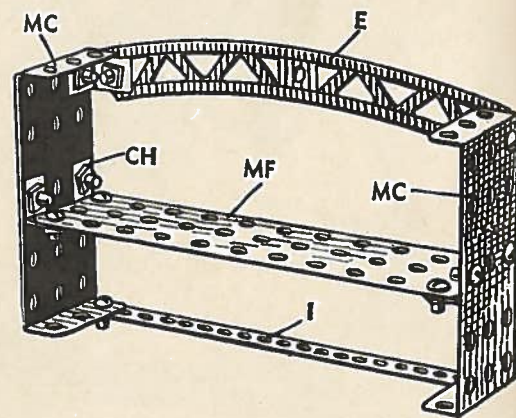
Hood Construction



Top View of Chassis

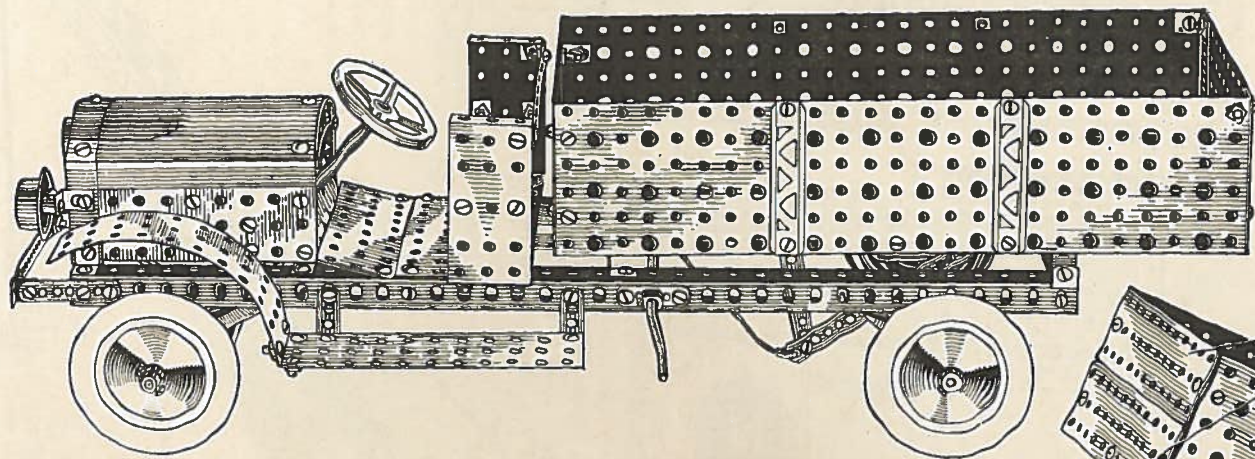


Bottom View of Chassis

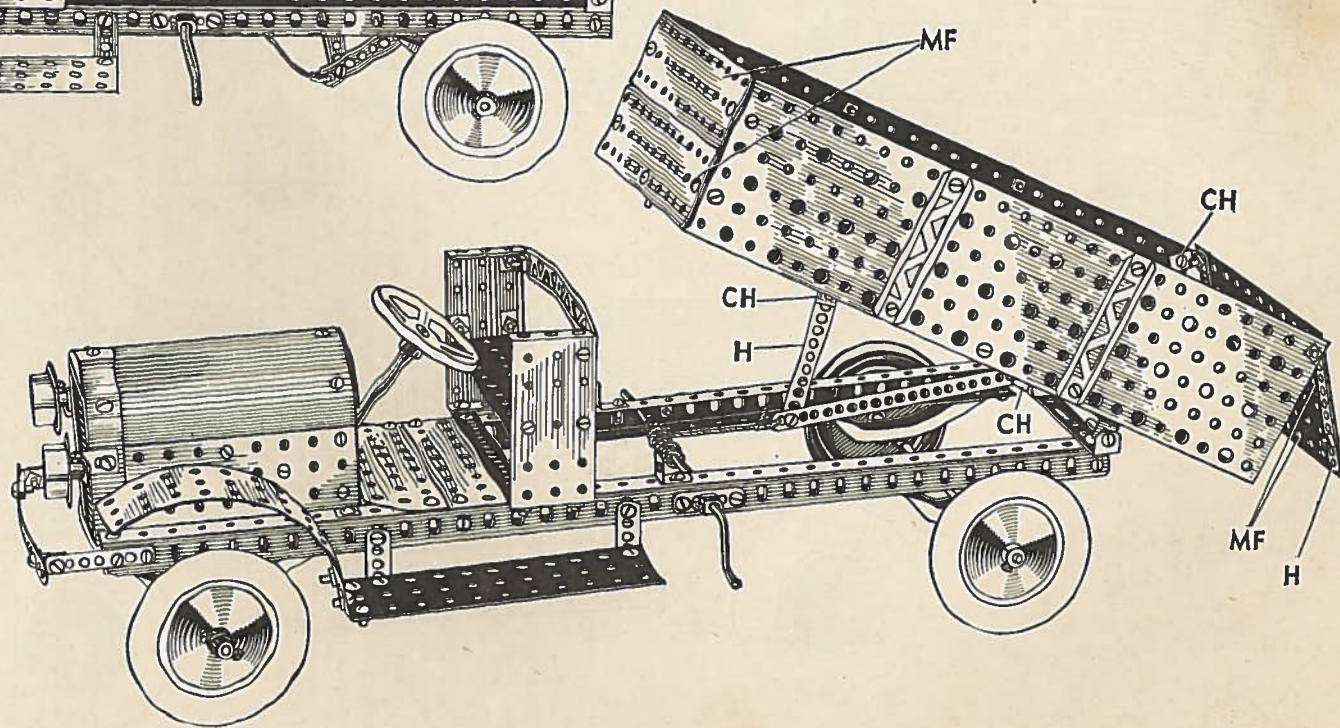


Seat Construction

Models Built with No. 9 and No. 9½ Erector



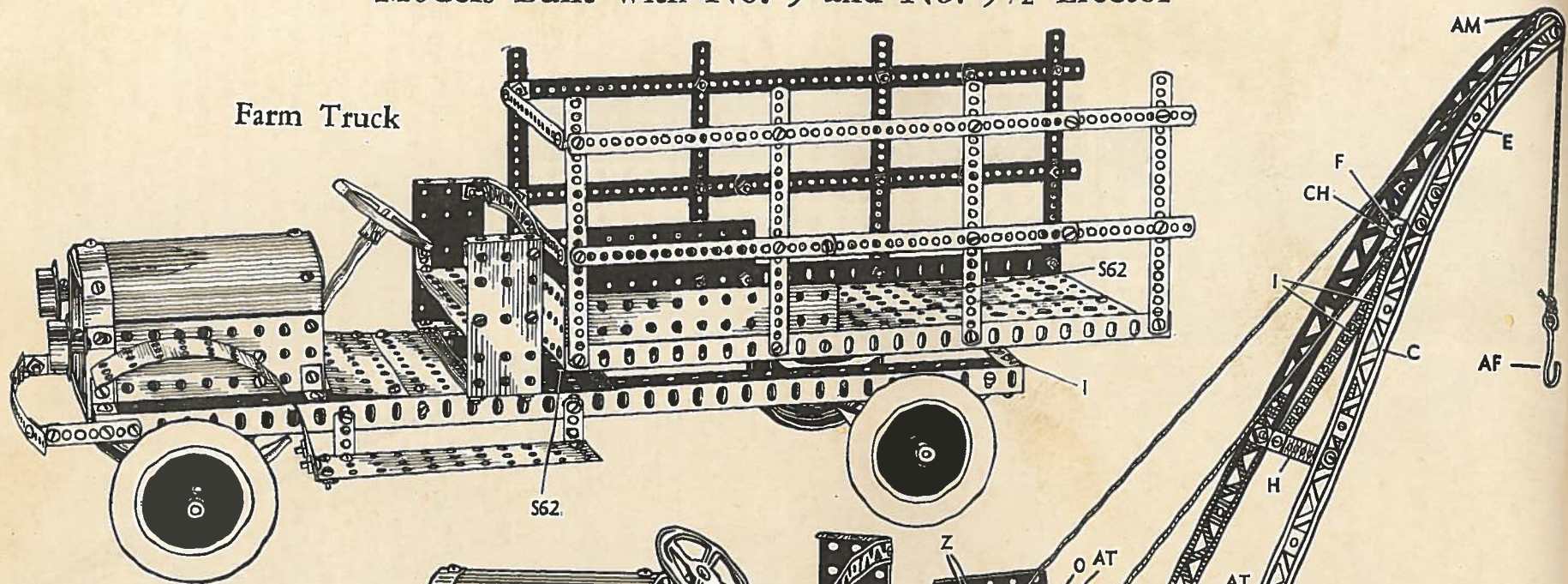
Dump Truck



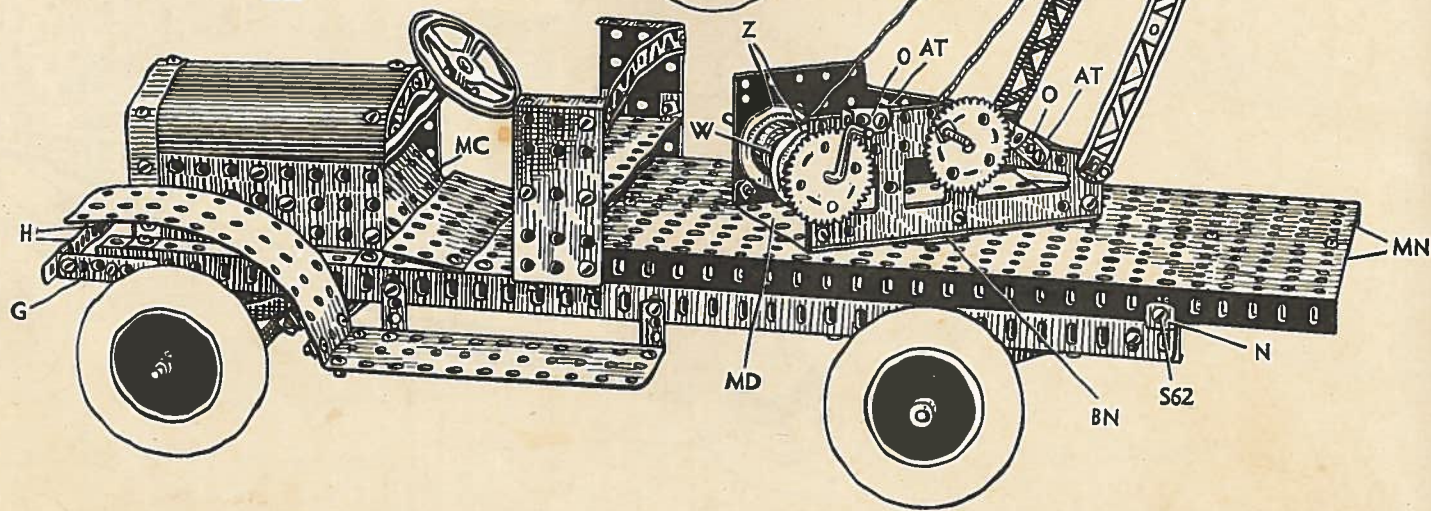
Dump Truck
Raised Position

Models Built with No. 9 and No. 9½ Erector

Farm Truck

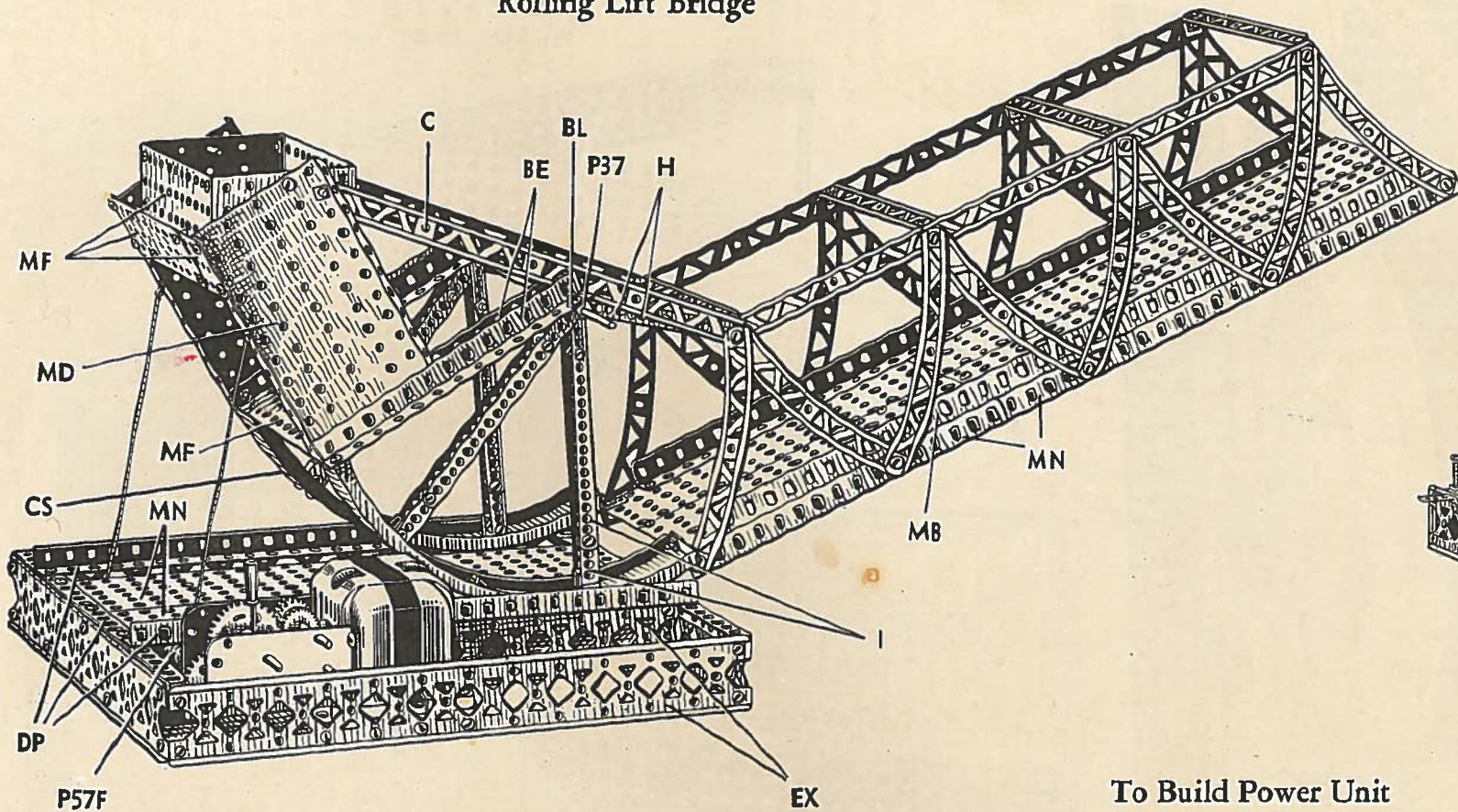


Derrick Truck



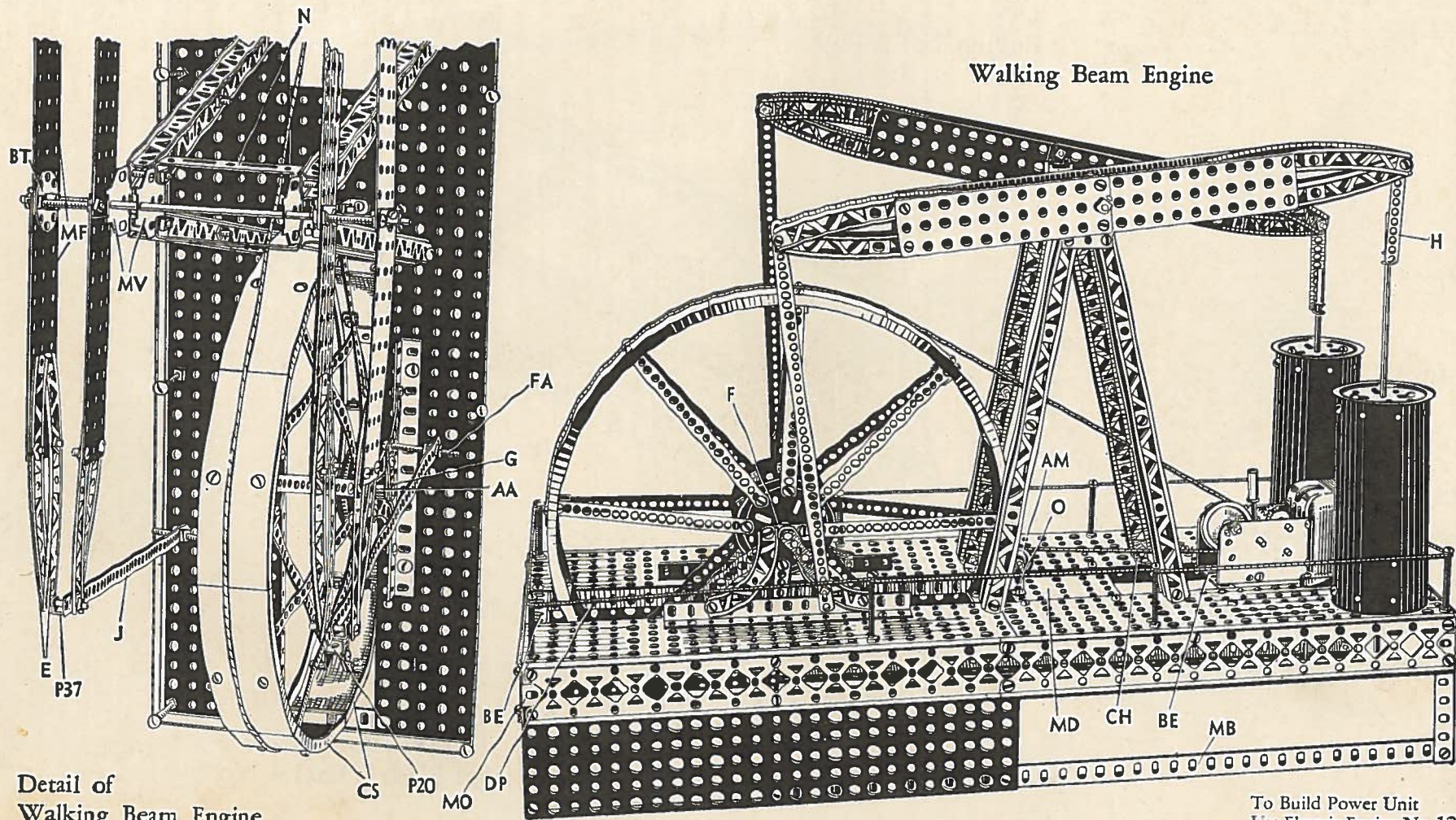
Models Built with No. 9 and No. 9½ Erector

Rolling Lift Bridge



To Build Power Unit
See Electric Engine No. 9

Models Built with No. 9 and No. 9½ Erector

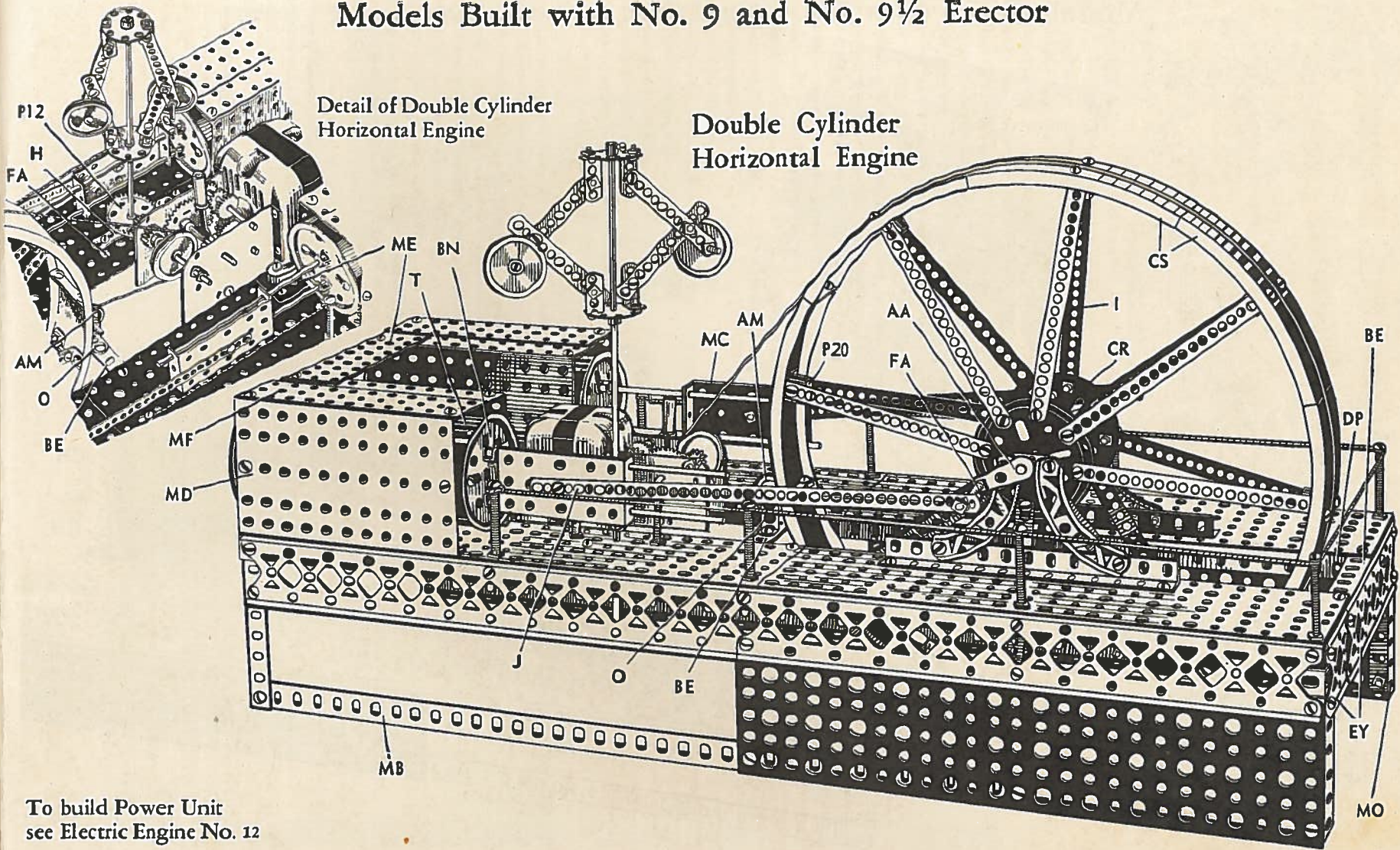


Detail of Walking Beam Engine

Walking Beam Engine

To Build Power Unit
Use Electric Engine No. 12

Models Built with No. 9 and No. 9½ Erector

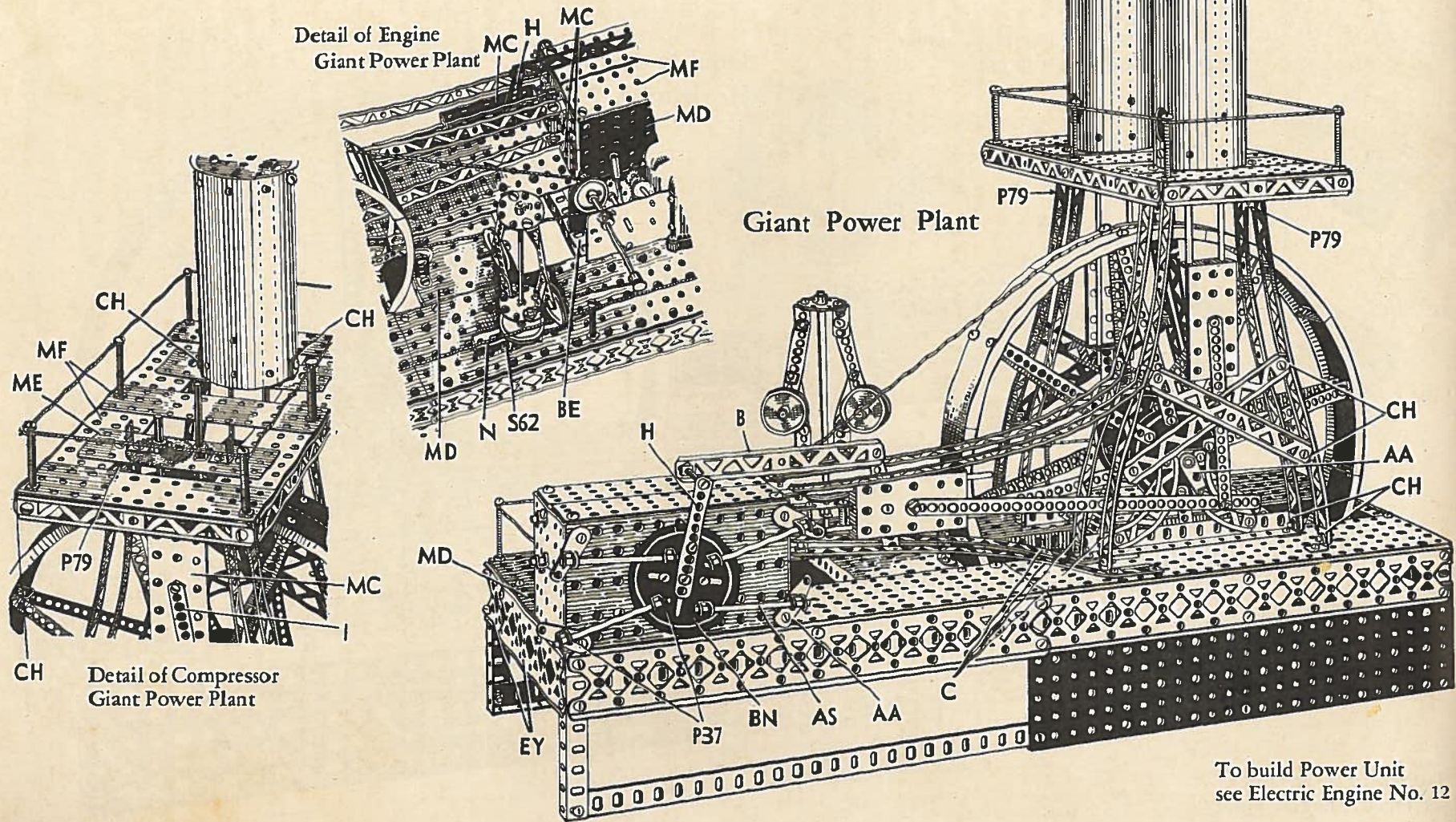


Detail of Double Cylinder Horizontal Engine

Double Cylinder Horizontal Engine

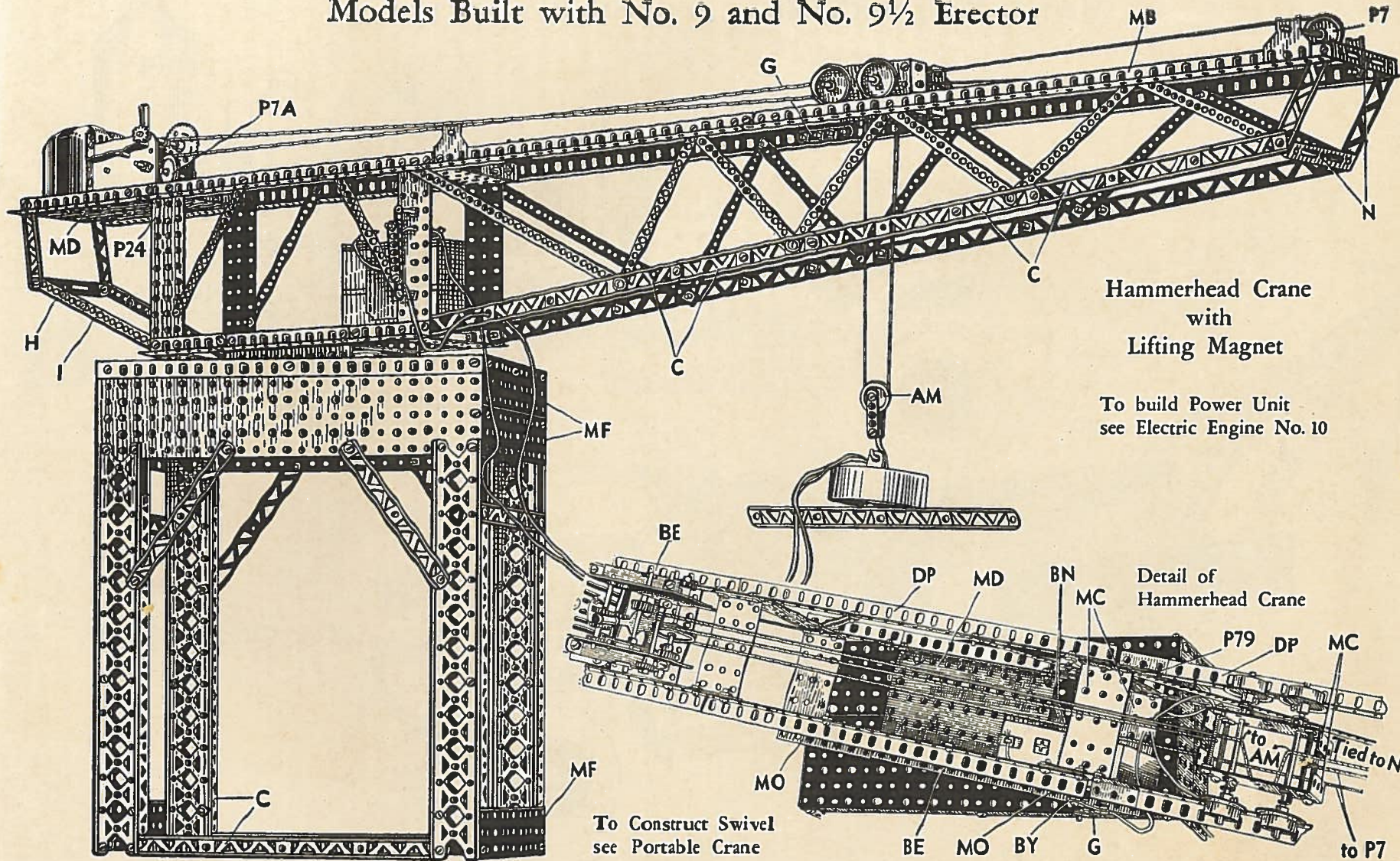
To build Power Unit see Electric Engine No. 12

Models Built with No. 9 and No. 9½ Erector



To build Power Unit
see Electric Engine No. 12

Models Built with No. 9 and No. 9½ Erector



Hammerhead Crane
with
Lifting Magnet

To build Power Unit
see Electric Engine No. 10

Detail of
Hammerhead Crane

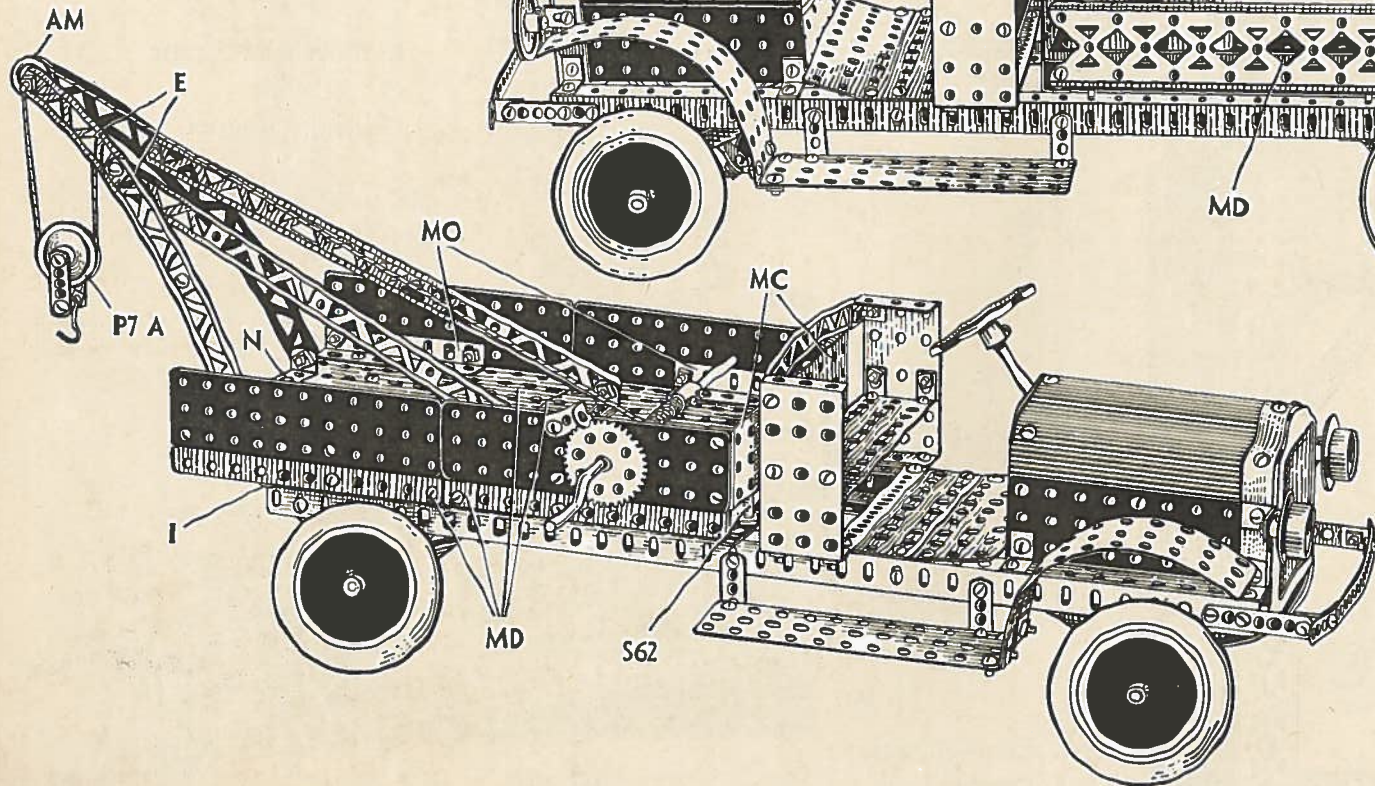
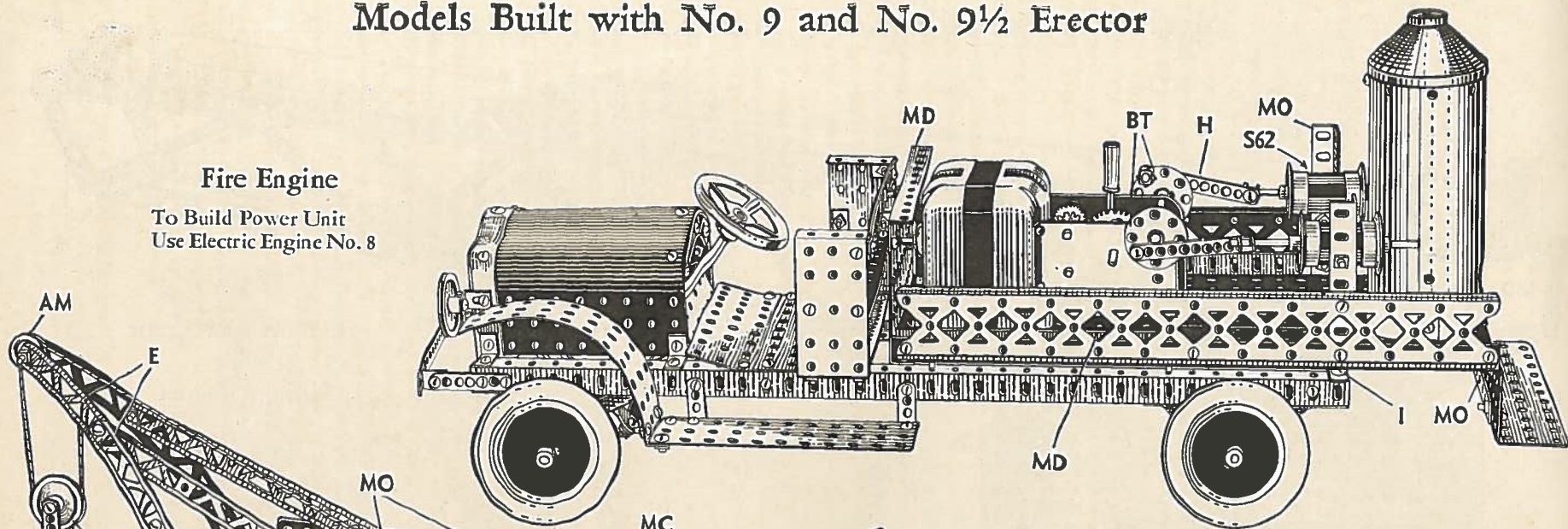
To Construct Swivel
see Portable Crane

to P7

Models Built with No. 9 and No. 9½ Erector

Fire Engine

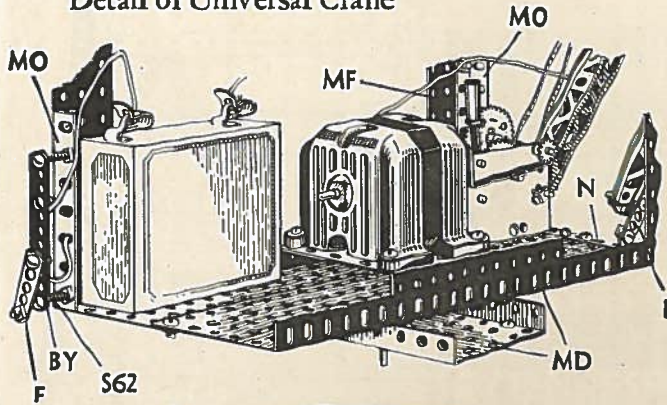
To Build Power Unit
Use Electric Engine No. 8



Tow Car

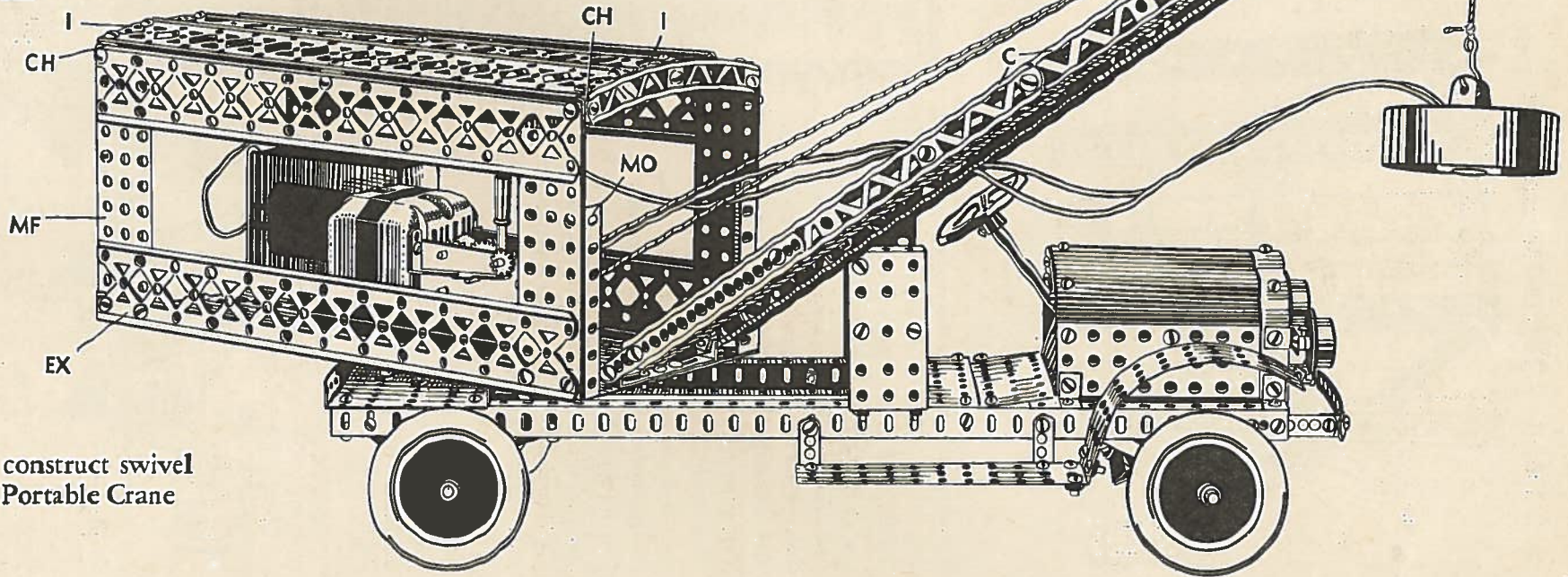
Models Built with No. 9 and No. 9½ Erector

Detail of Universal Crane



Universal Crane with Lifting Magnet

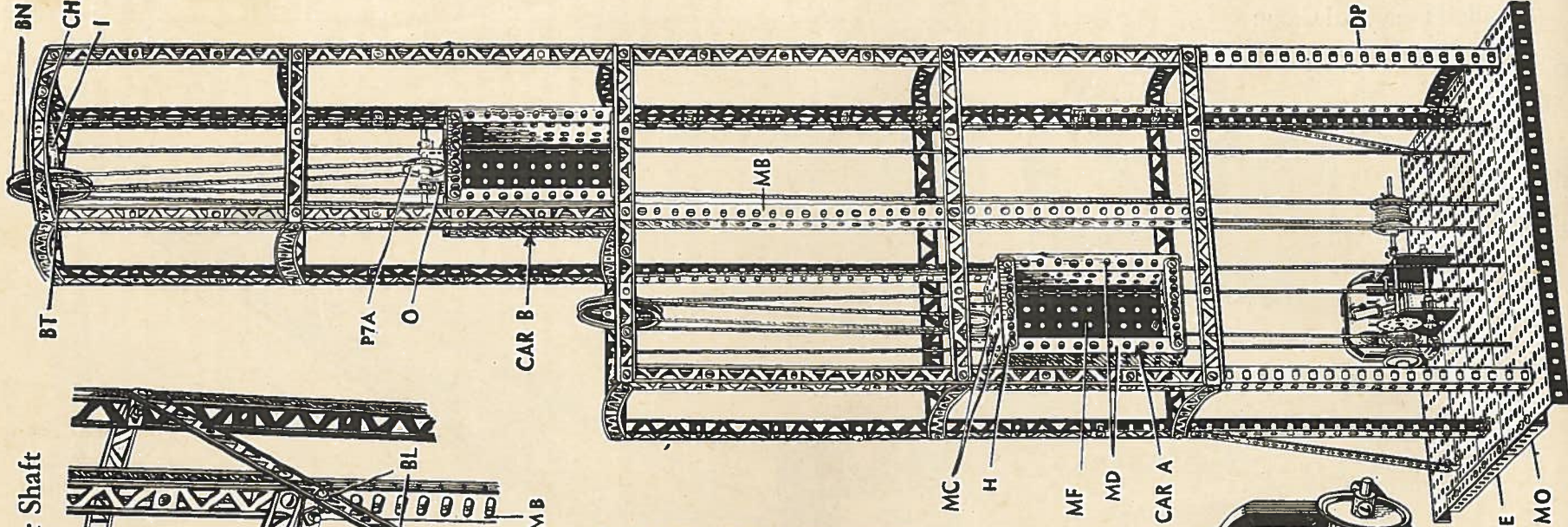
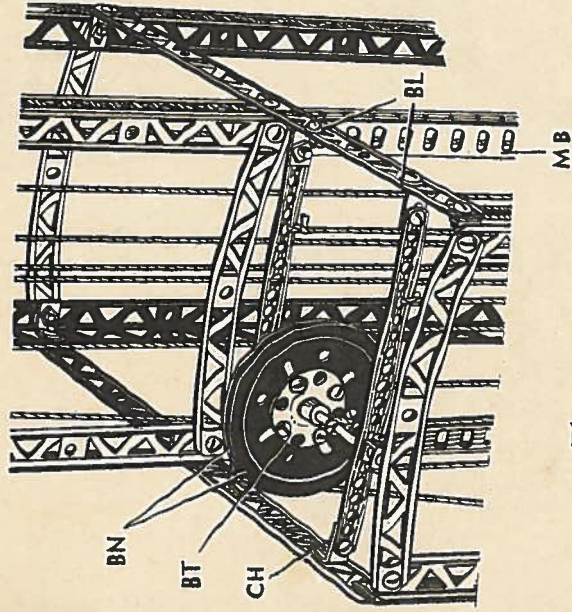
To build Power Unit
see Electric Engine No. 10



To construct swivel
see Portable Crane

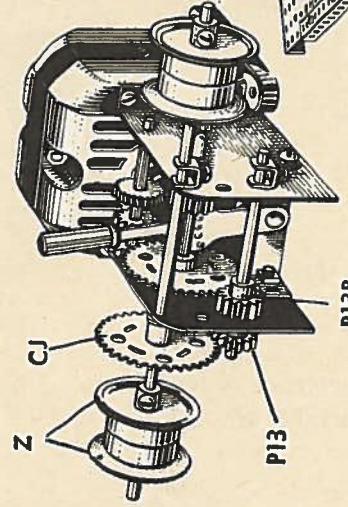
Models Built with No. 9 and No. 9½ Erector

Detail — Top of Elevator Shaft



Elevator

Considerable care is necessary in adjusting this elevator to make it operate correctly. First see that the string hoisting car A is just long enough when tied to the drum to allow the car to touch the base. Wind this string on its drum until the car is at the top with the rotation such that when the motor is started the car will start down. With Car A in this position let Car B rest on the base and fasten its string so that when the motor starts this car will go up. When Car B reaches the top throw the gears into reverse until Car B reaches the bottom. Shift gears each time Car B arrives at the top or bottom. If the string on Car A is the proper length Car A goes up and down once for each trip of Car B and should need no attention.



Detail of Elevator Hoisting Unit

Models Built with No. 12½ Erector

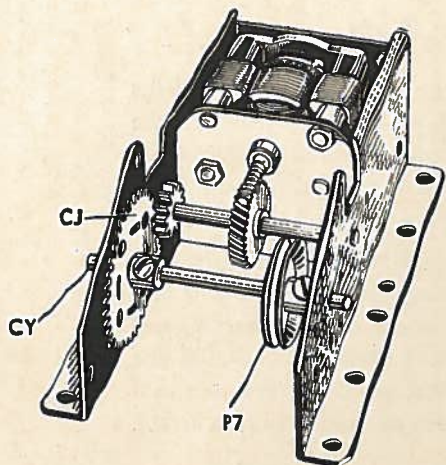
The Set that Builds the Mysterious Walking Giant

INTRODUCTION — P55 ELECTRIC ENGINE

The P55 engine is a 7 to 15 volt, worm-driven, reversing, remote-controlled engine. Because of its size, it can be used in many places where the A49 Electric Engine will not fit.

The worm drive is used in the engine to allow a smooth, even operation, and because it gives a great speed reduction. The worm is double threaded to give a good operating efficiency. The double thread worm meshing with the 36 tooth gear gives an 18 to 1 reduction which decreases the speed of the gear 18 times but increases the torque.

The 12 tooth pinion gear on the driving shaft when meshing with the 36 tooth gear on the driven shaft gives a gear reduction of 3 to 1. This means that the driven shaft can handle 3 times the load of the driver shaft but at 1/3 of the speed.

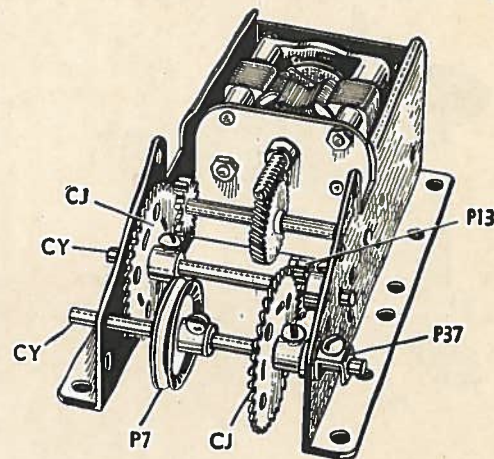
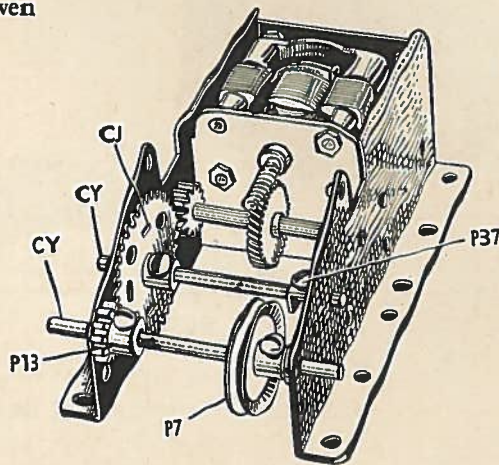


REMOTE CONTROLLED
ENGINE — A

This is a medium speed gear train capable of running all ordinary models. Speed ratio of armature shaft to driven shaft is 54 to 1.

REMOTE CONTROLLED
ENGINE — B

This gear train is used where a little pep and higher speed is desired for handling light loads. Speed ratio is 18 to 1. The 36 tooth gear acts as an idler which transmits the same speed as that of the worm gear.

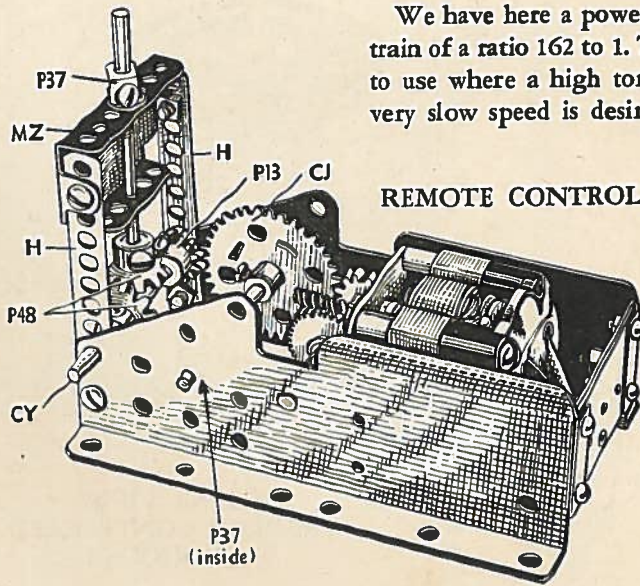


REMOTE CONTROLLED ENGINE — C

We have here a powerful, slow speed gear train of a ratio 162 to 1. This is a fine gear box to use where a high torque is required or a very slow speed is desired.

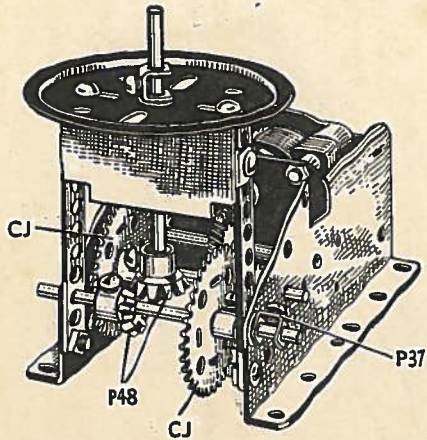
REMOTE CONTROLLED ENGINE — D

This vertical drive, high speed gear train has many uses. Mitre gears are used to transmit power and direction without changing speed.



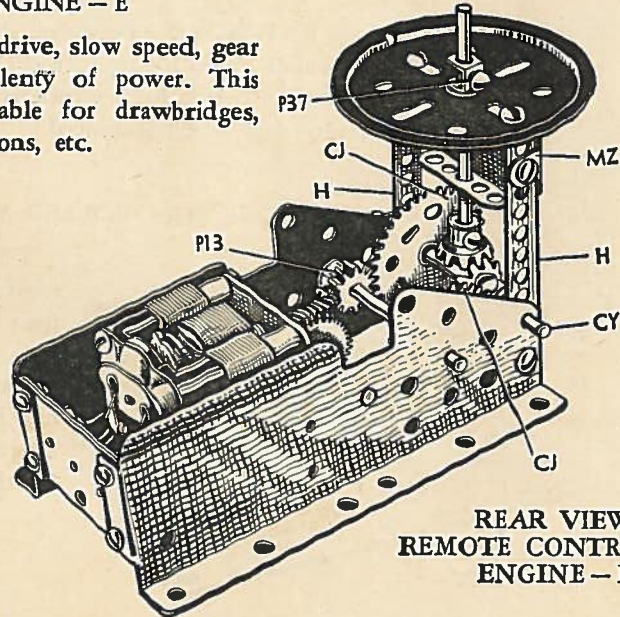
Models Built with No. 12½ Erector

The Set that Builds the Mysterious Walking Giant



REMOTE CONTROLLED
ENGINE - E

A vertical drive, slow speed, gear train with plenty of power. This drive is suitable for drawbridges, airplane beacons, etc.



REAR VIEW
REMOTE CONTROLLED
ENGINE - E

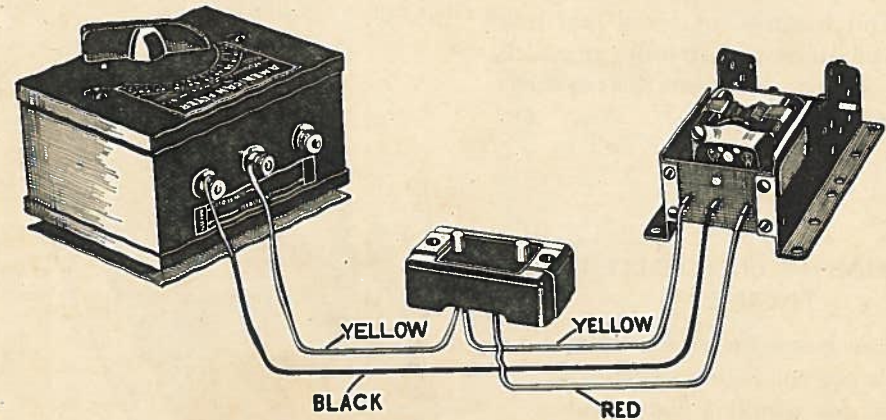
The electrical wiring necessary for operating the P55 remote-controlled engine is shown in the diagram below.

You will find in your set a two-button push button. Attached to it are three wires. Two of these have a metal tip on one end. These fit in either of the two outside holes on back panel of the remote-controlled engine according to their color. The other single wire from the push button is attached to the 7-15 volt post, middle post, of the transformer.

The long single black wire you will find also

has a metal tip on one end. This metal end fits into the middle hole on the back panel of the remote-controlled engine. The other end of the wire is to be attached to the base post of the transformer.

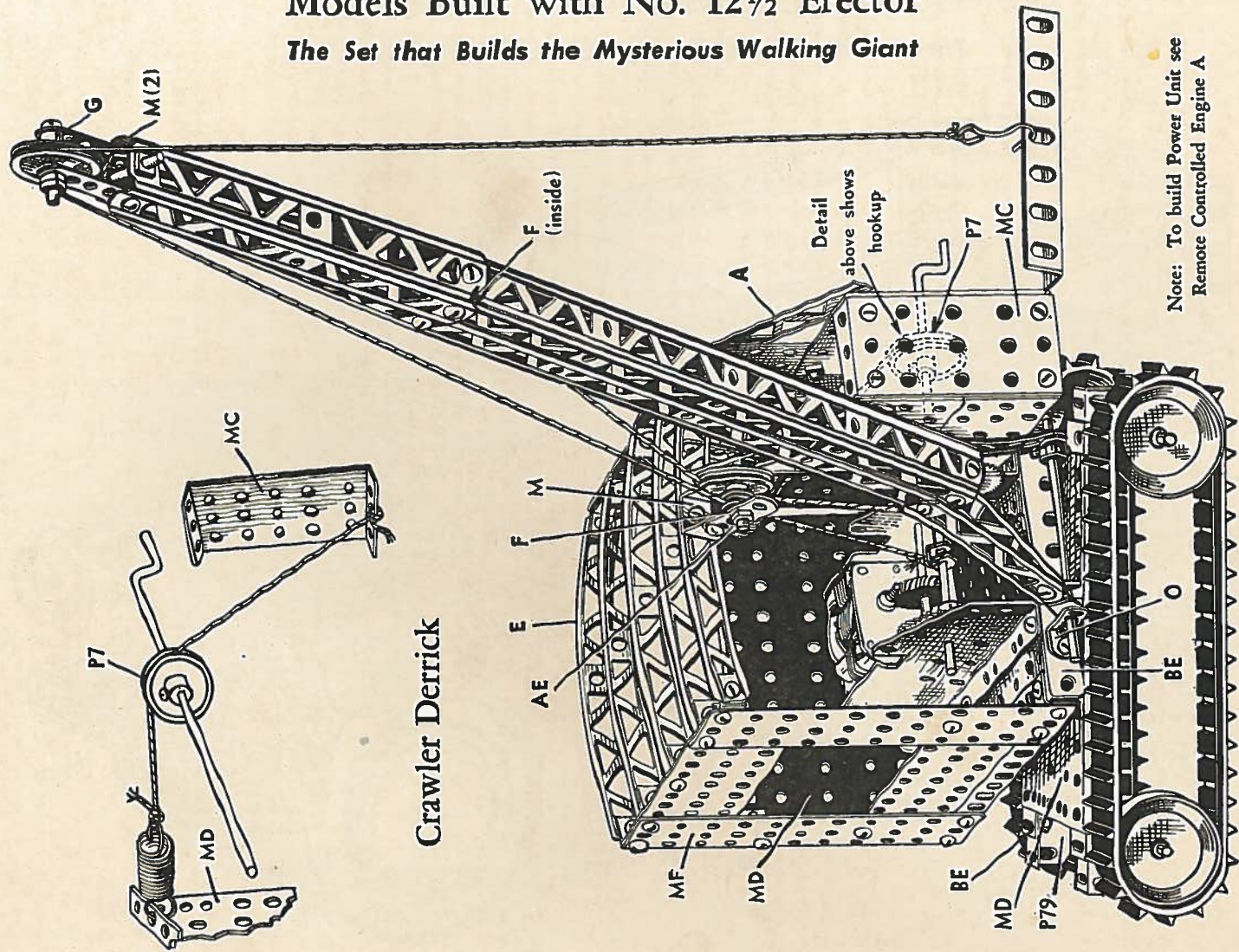
Now, to operate the P55 engine, simply plug in the cord of the transformer into any 110 volt A.C. receptacle, push one of the push buttons and your engine will hum with action. To stop the engine, release the button. To reverse the motion of the engine, push the second button on the push button.



How to hook up Remote-Controlled Engine
with Push Button Control Box and Transformer

Models Built with No. 12½ Erector

The Set that Builds the Mysterious Walking Giant

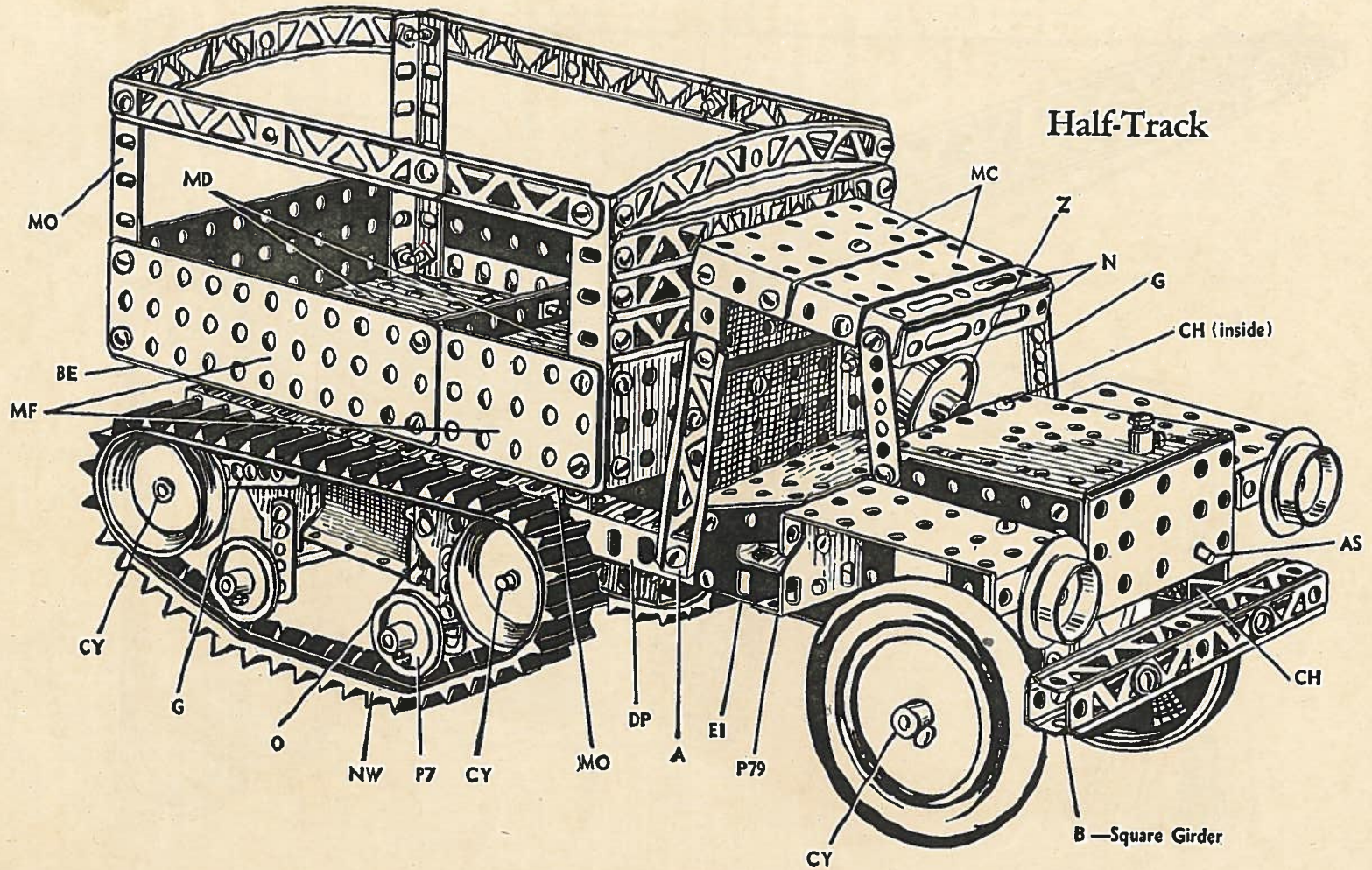


Crawler Derrick

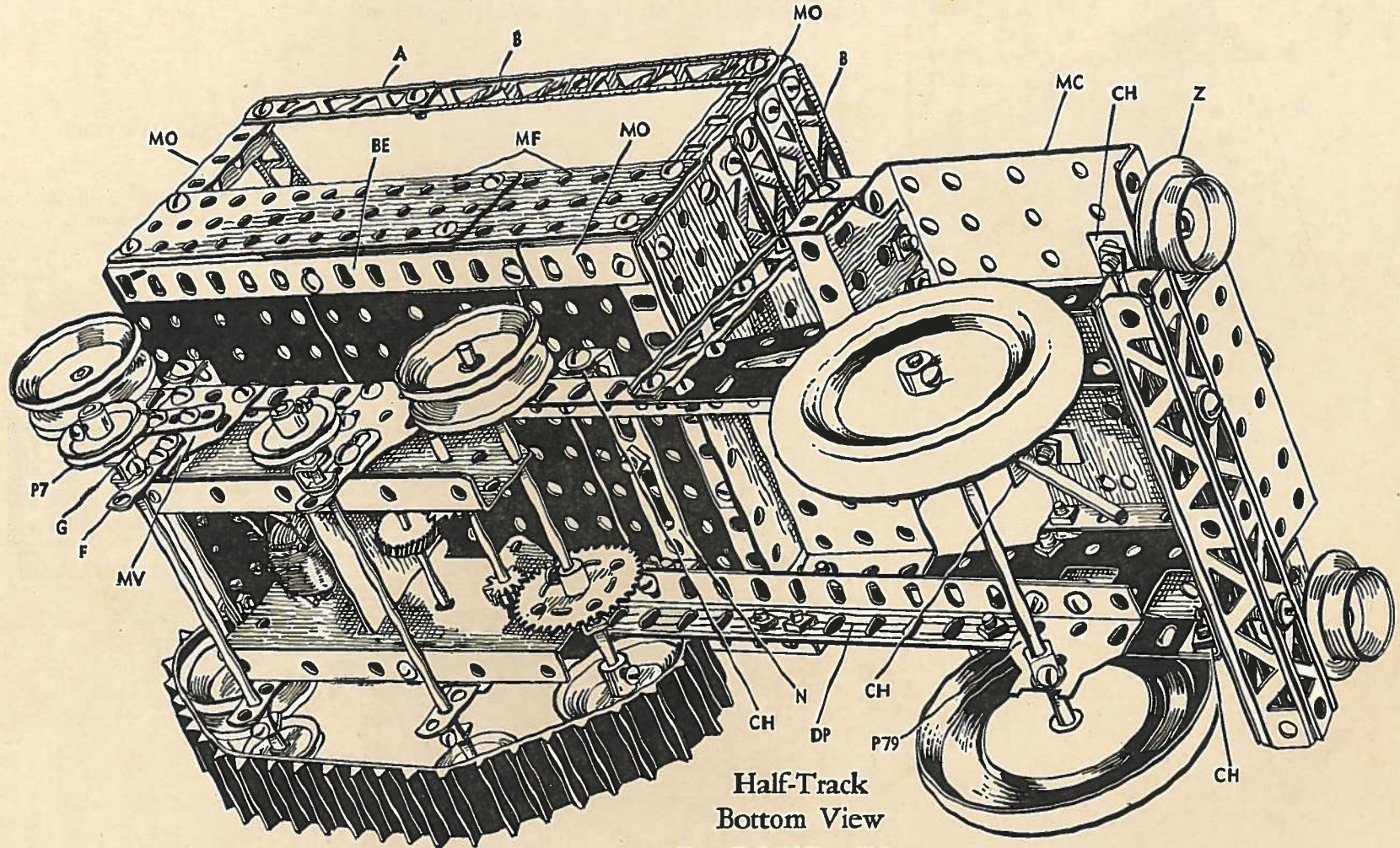
Note: To build Power Unit see Remote Controlled Engine A

Models Built with No. 12½ Erector

The Set that Builds the Mysterious Walking Giant



Models Built with No. 12½ Erector
The Set that Builds the Mysterious Walking Giant



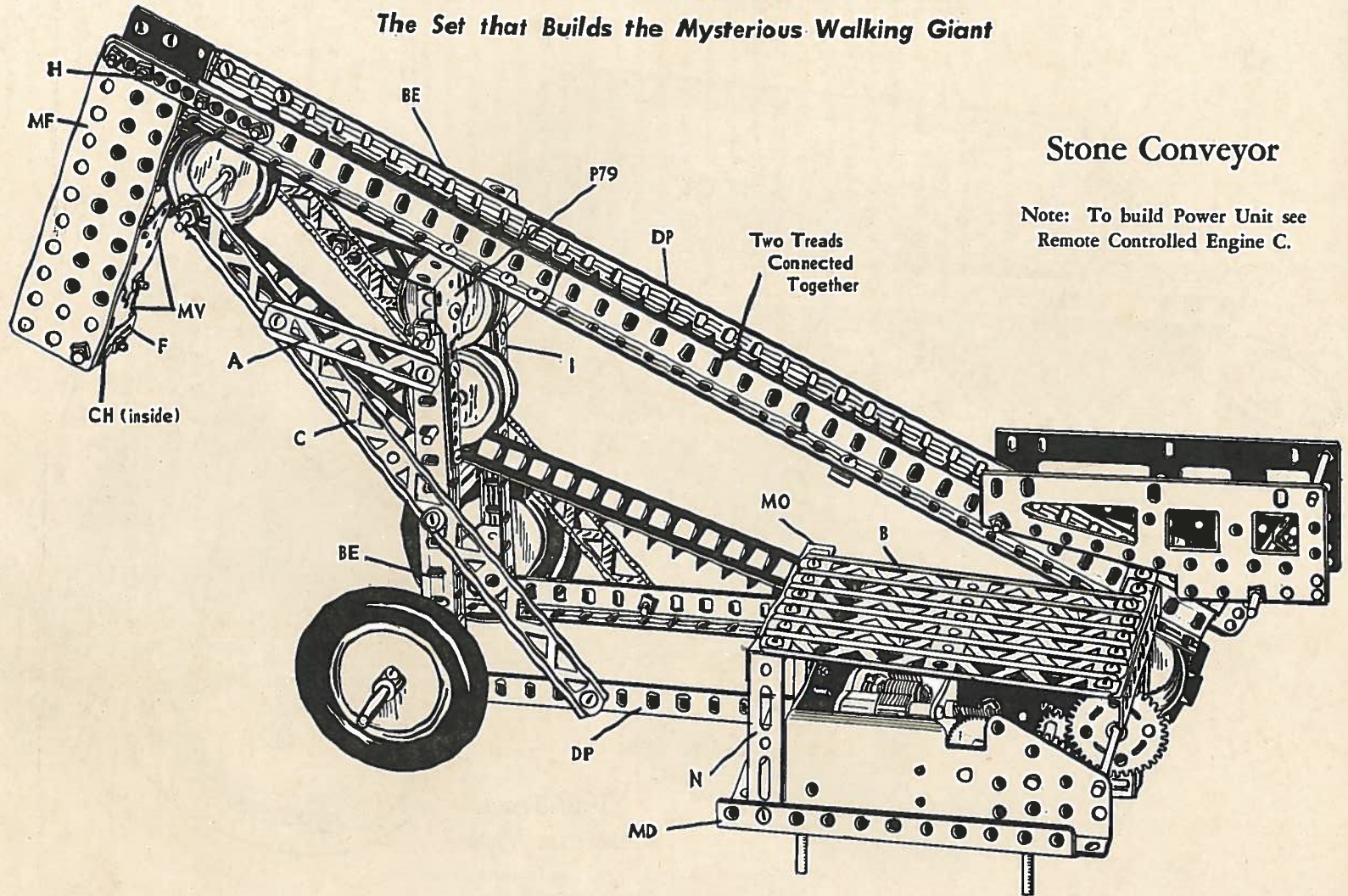
Half-Track
Bottom View

Note: To build Power Unit see
Remote Controlled Engine C.

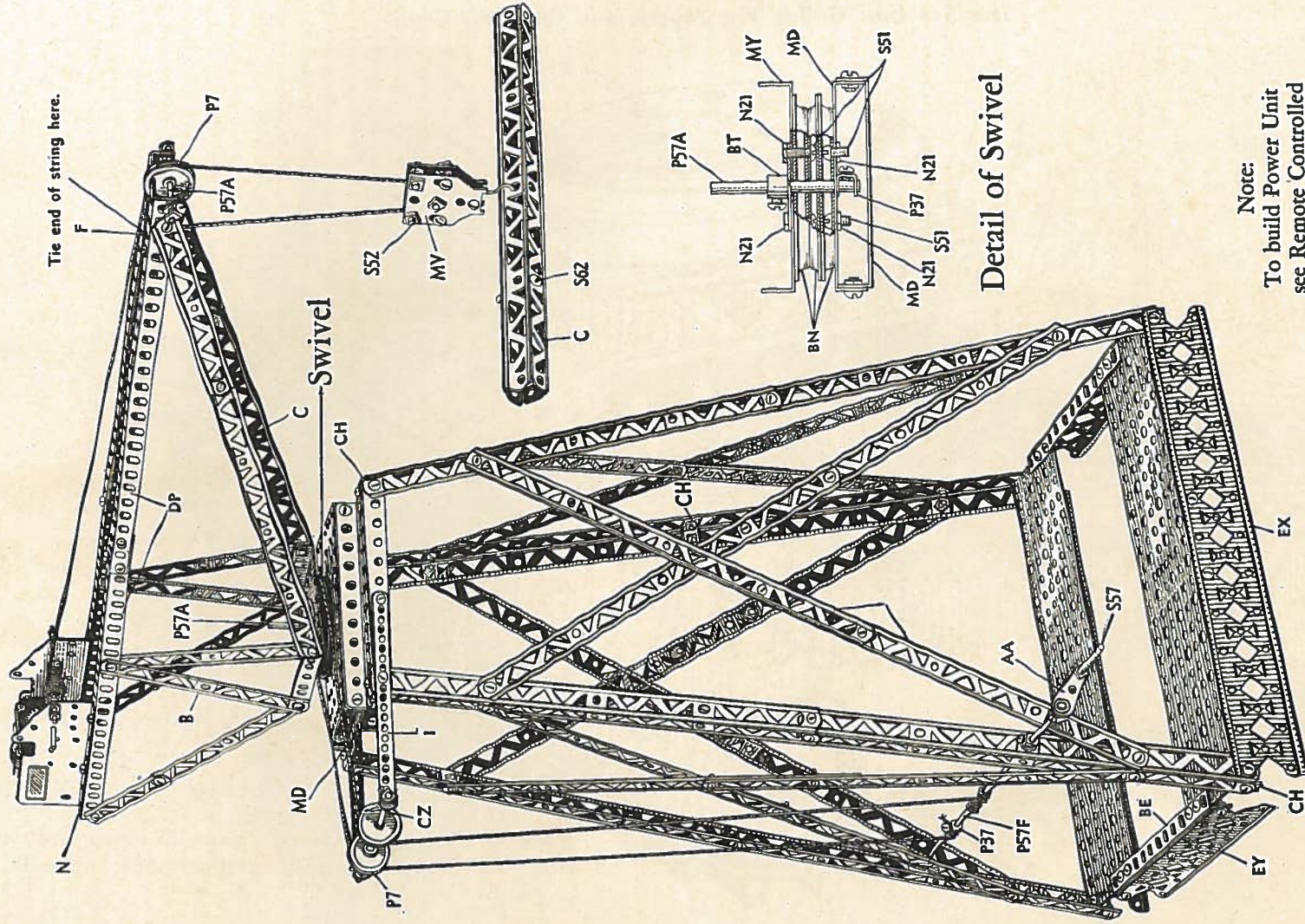
Models Built with No. 12½ Erector
The Set that Builds the Mysterious Walking Giant

Stone Conveyor

Note: To build Power Unit see
Remote Controlled Engine C.

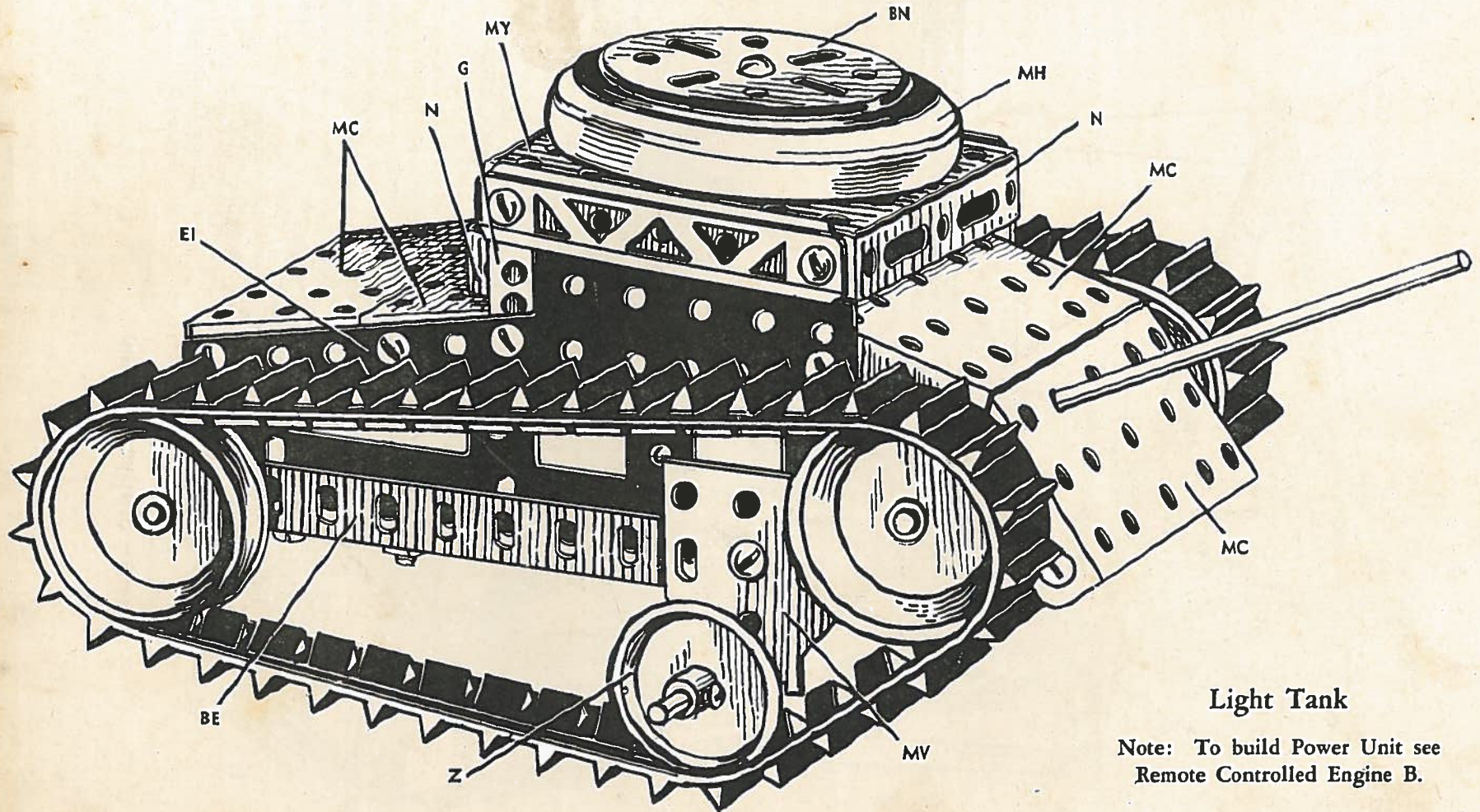


Models Built with No. 12½ Erector — The Set that Builds the Mysterious Walking Giant



Shipyard Crane

Models Built with No. 12½ Erector
The Set that Builds the Mysterious Walking Giant

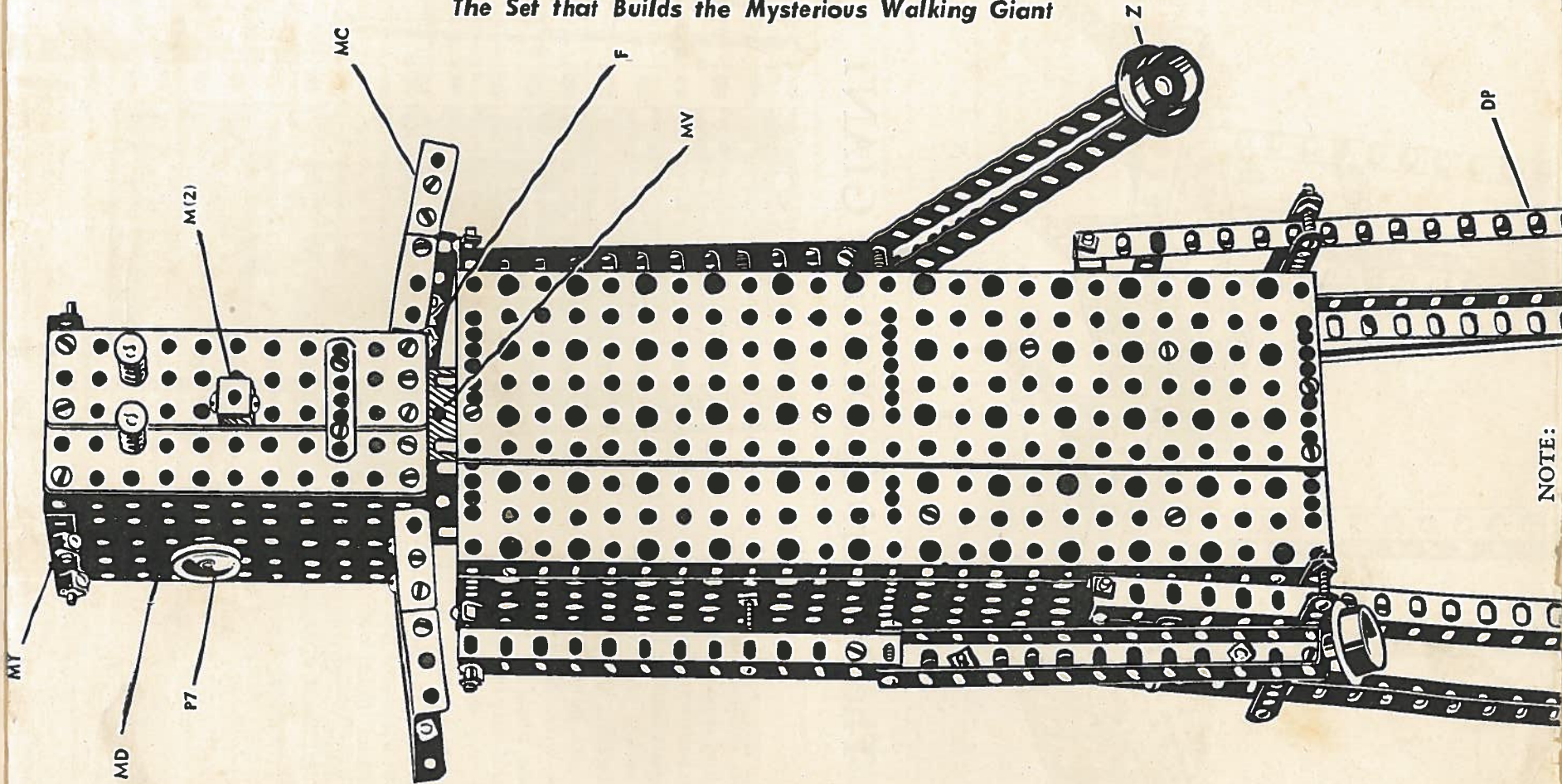


Light Tank

Note: To build Power Unit see
Remote Controlled Engine B.

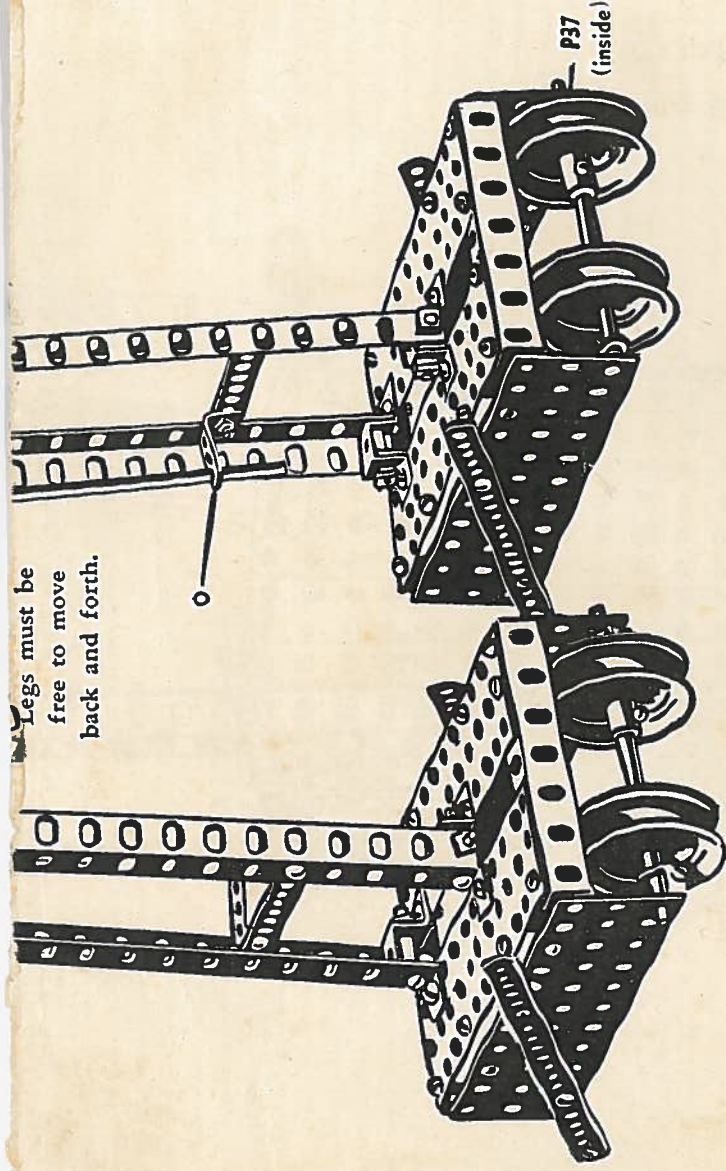
Models Built with No. 12½ Erector

The Set that Builds the Mysterious Walking Giant



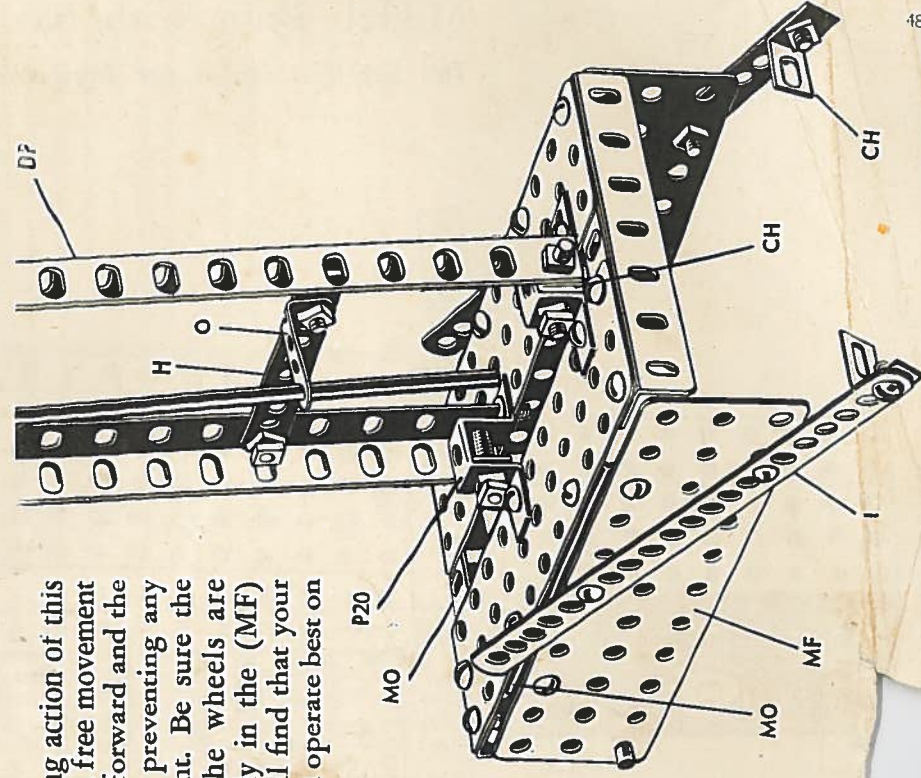
NOTE:

Legs must be
free to move
back and forth.



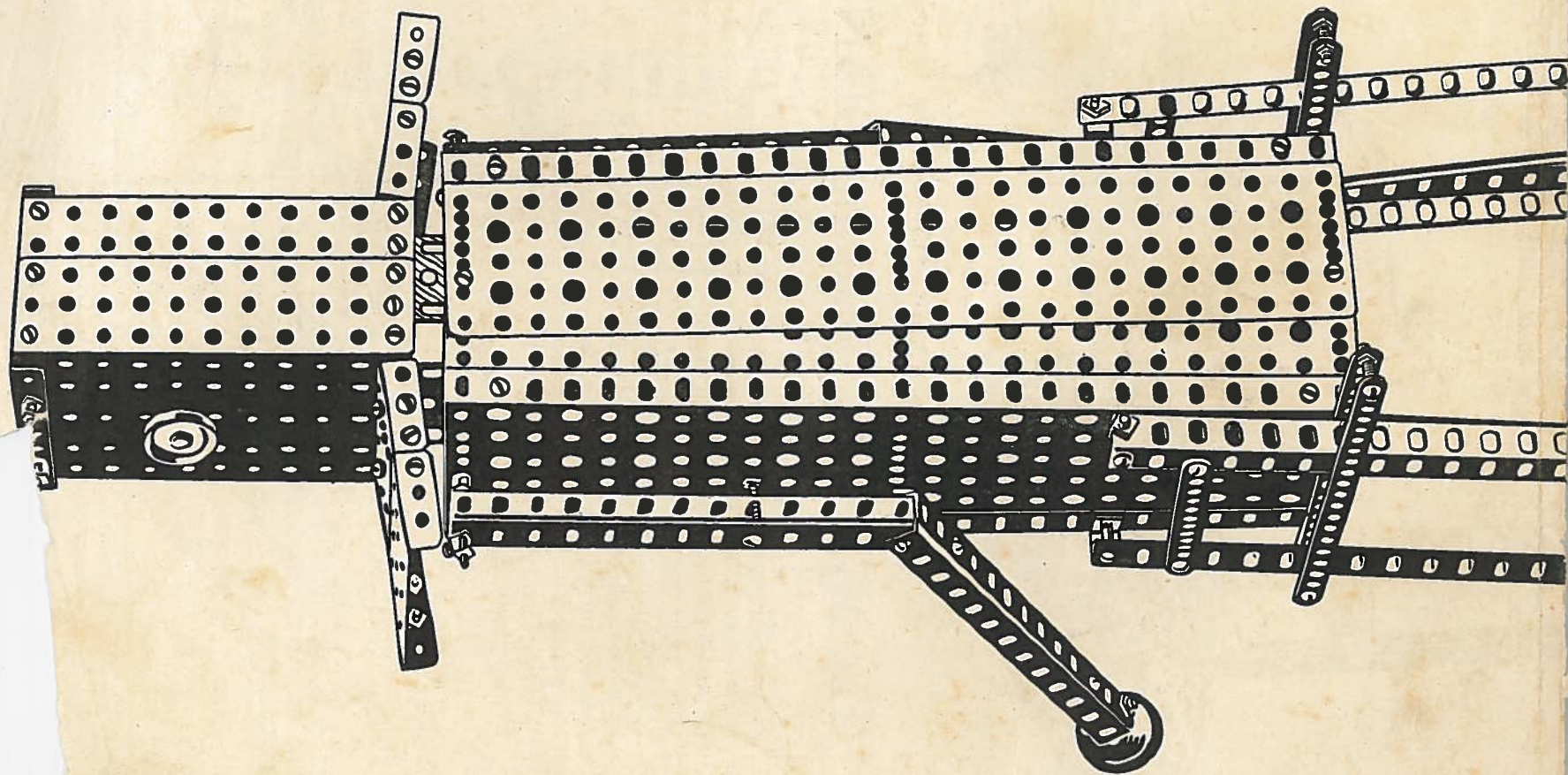
The Mysterious Walking GIANT

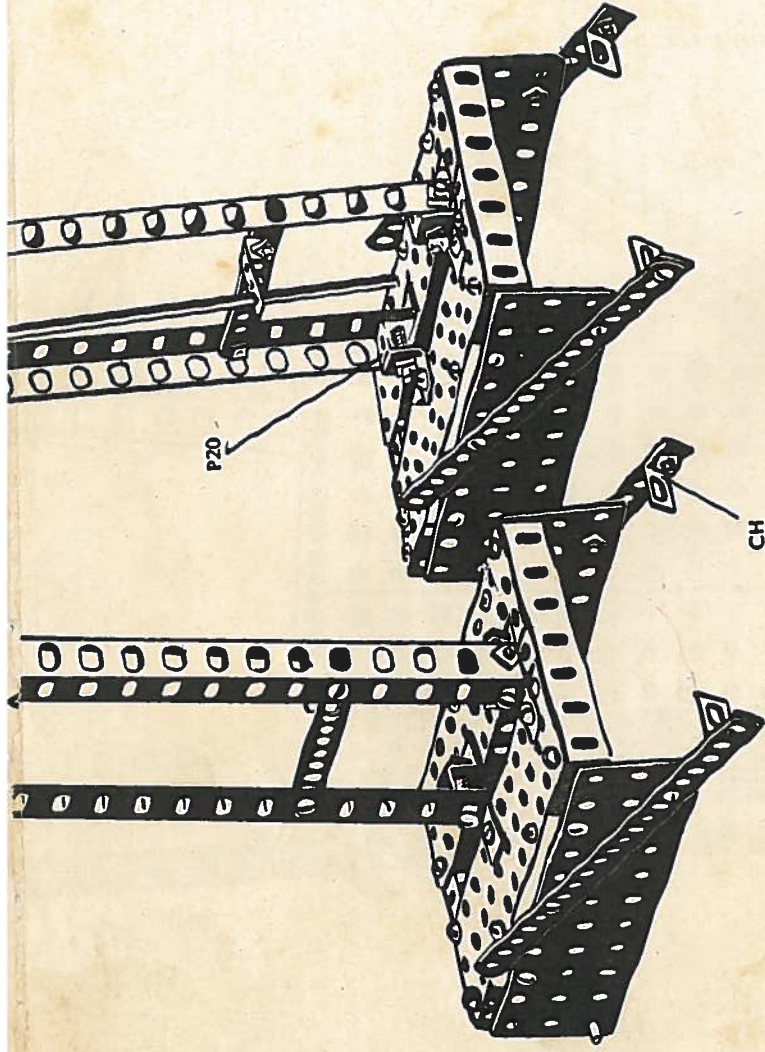
NOTE: The walking action of this model is made by a free movement of the foot rolling forward and the (CH) right angles preventing any backward movement. Be sure the axles on which the wheels are fastened turn freely in the (MF) flat plates. You will find that your Walking Giant will operate best on linoleum.



Models Built with No. 12½ Erector

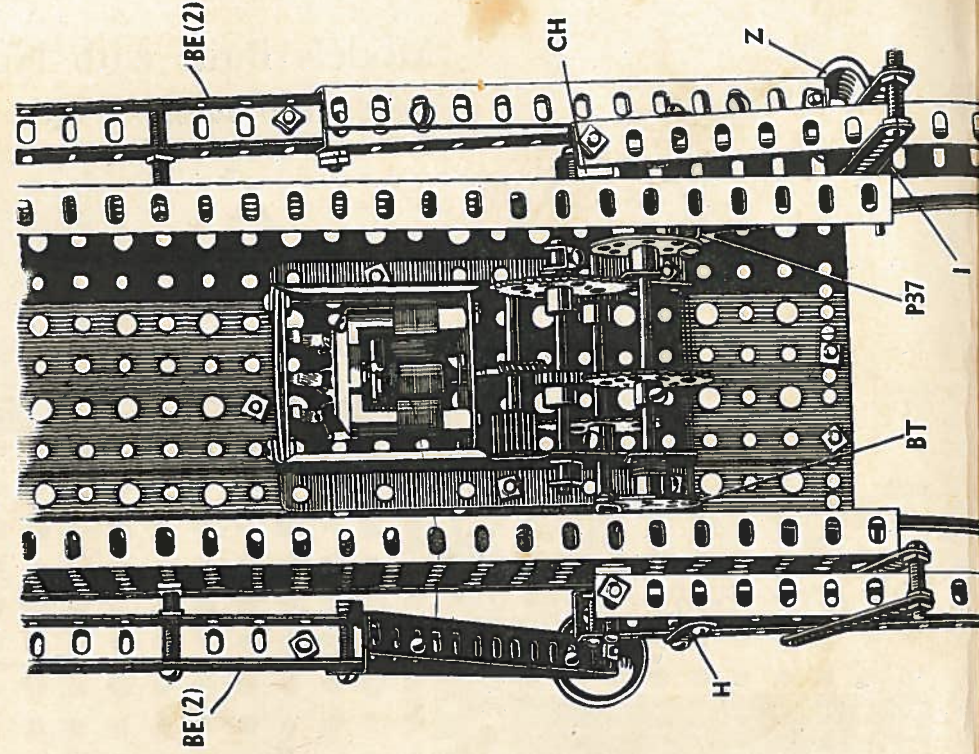
The Set that Builds the Mysterious Walking Giant





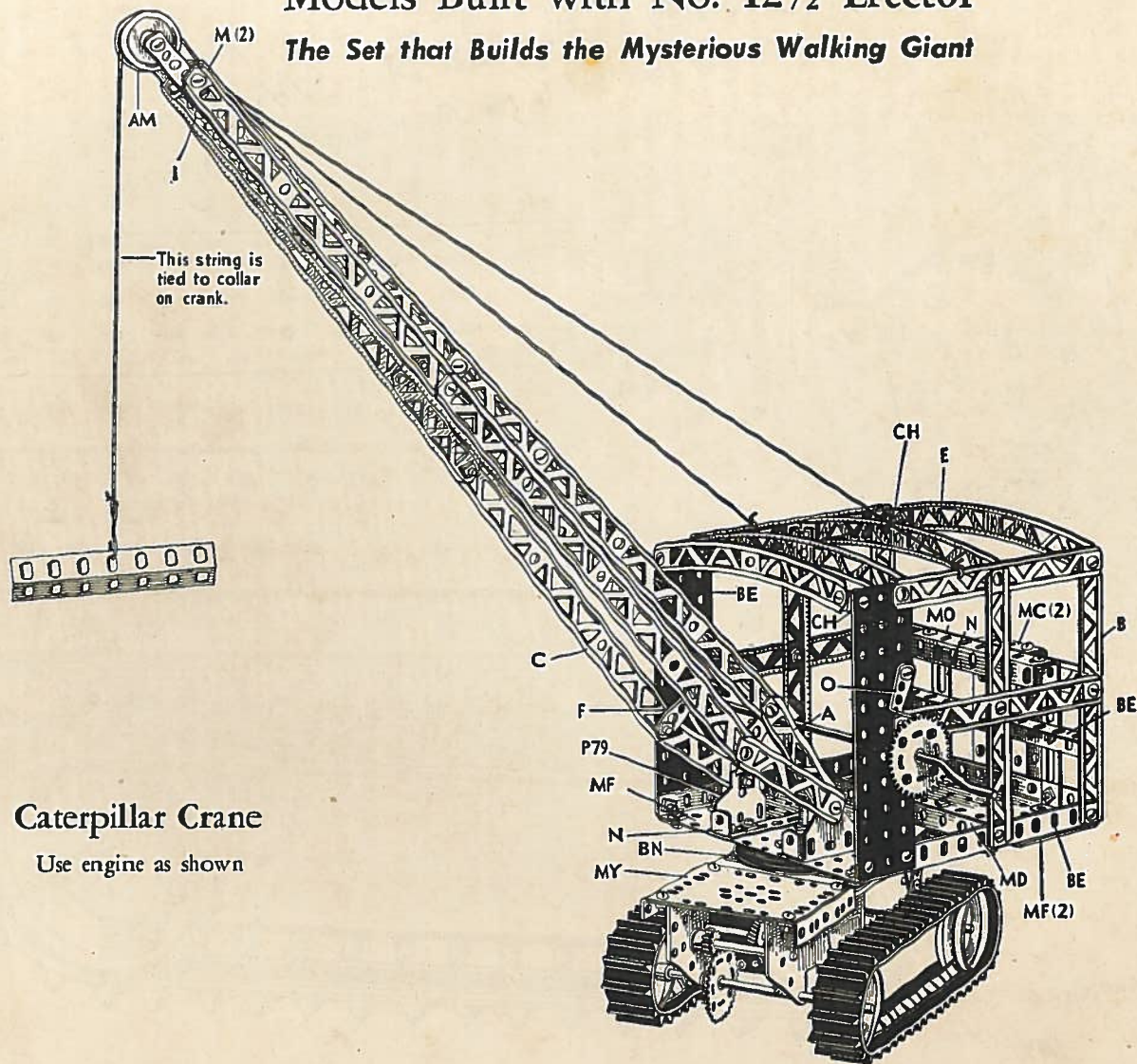
The Mysterious Walking GIANT

NOTE: To make lights operate, they should be hooked up as follows: Take each single wire leading from the light socket and twist the ends together and place this in the jack panel hole with yellow wire. Next, take a separate piece of wire 6" long and bare one end of it, which you attach under a nut near the head of the model. Bare the other end of this wire and place in jack panel hole with the black wire. When you press a push button to operate the model the lights will light.

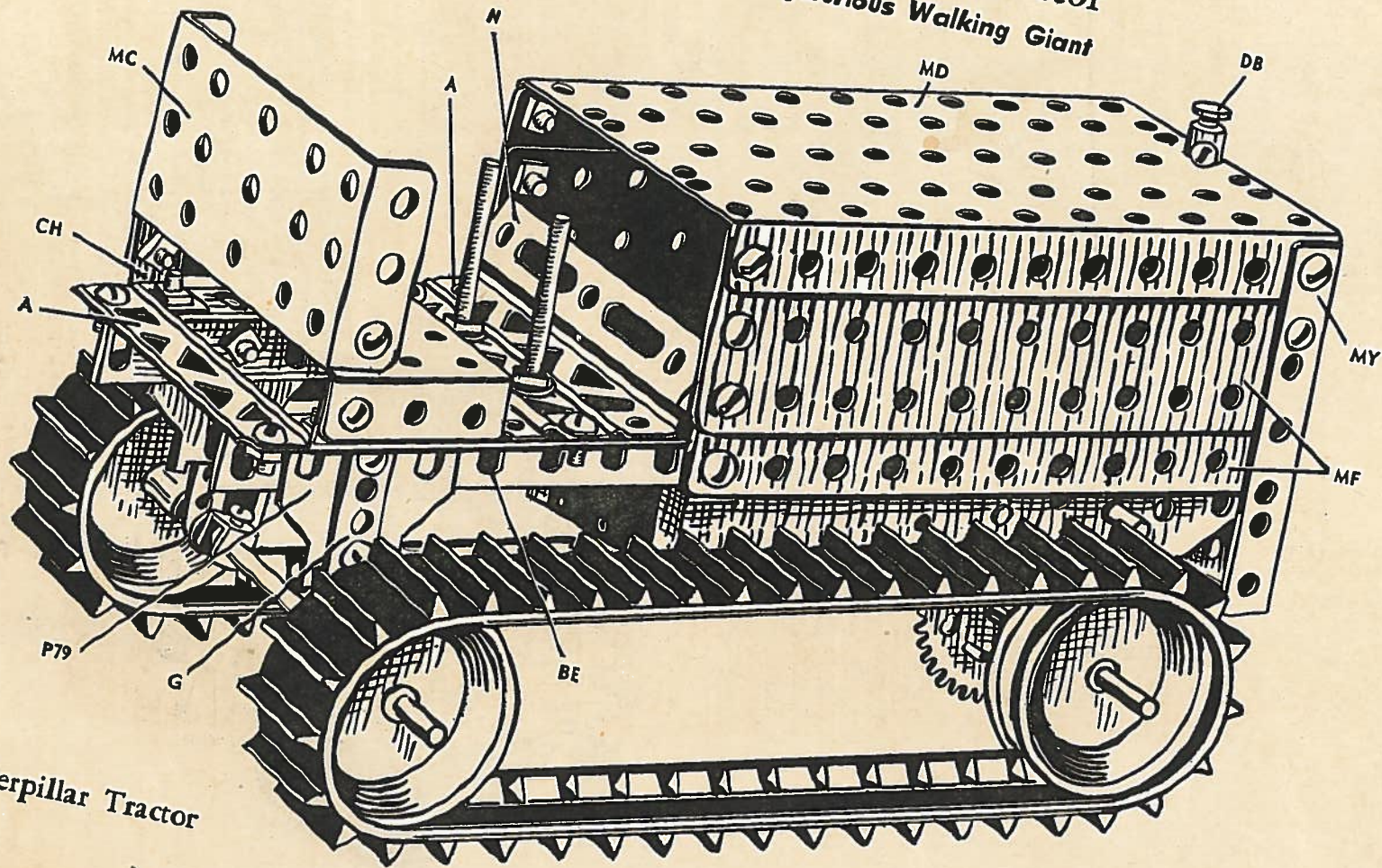


Models Built with No. 12½ Erector

The Set that Builds the Mysterious Walking Giant



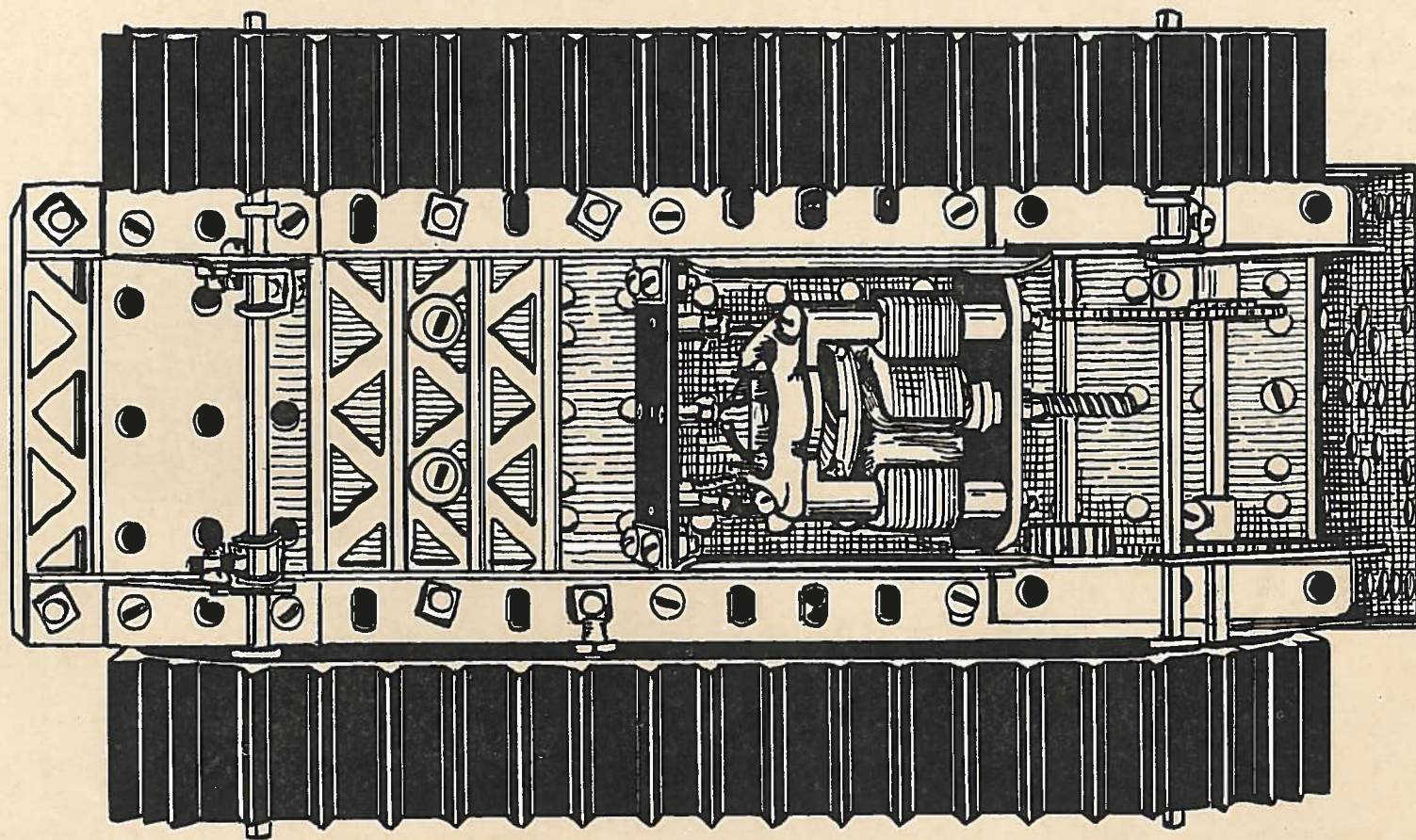
Models Built with No. 12½ Erector
The Set that Builds the Mysterious Walking Giant



Caterpillar Tractor

Models Built with No. 12½ Erector

The Set that Builds the Mysterious Walking Giant

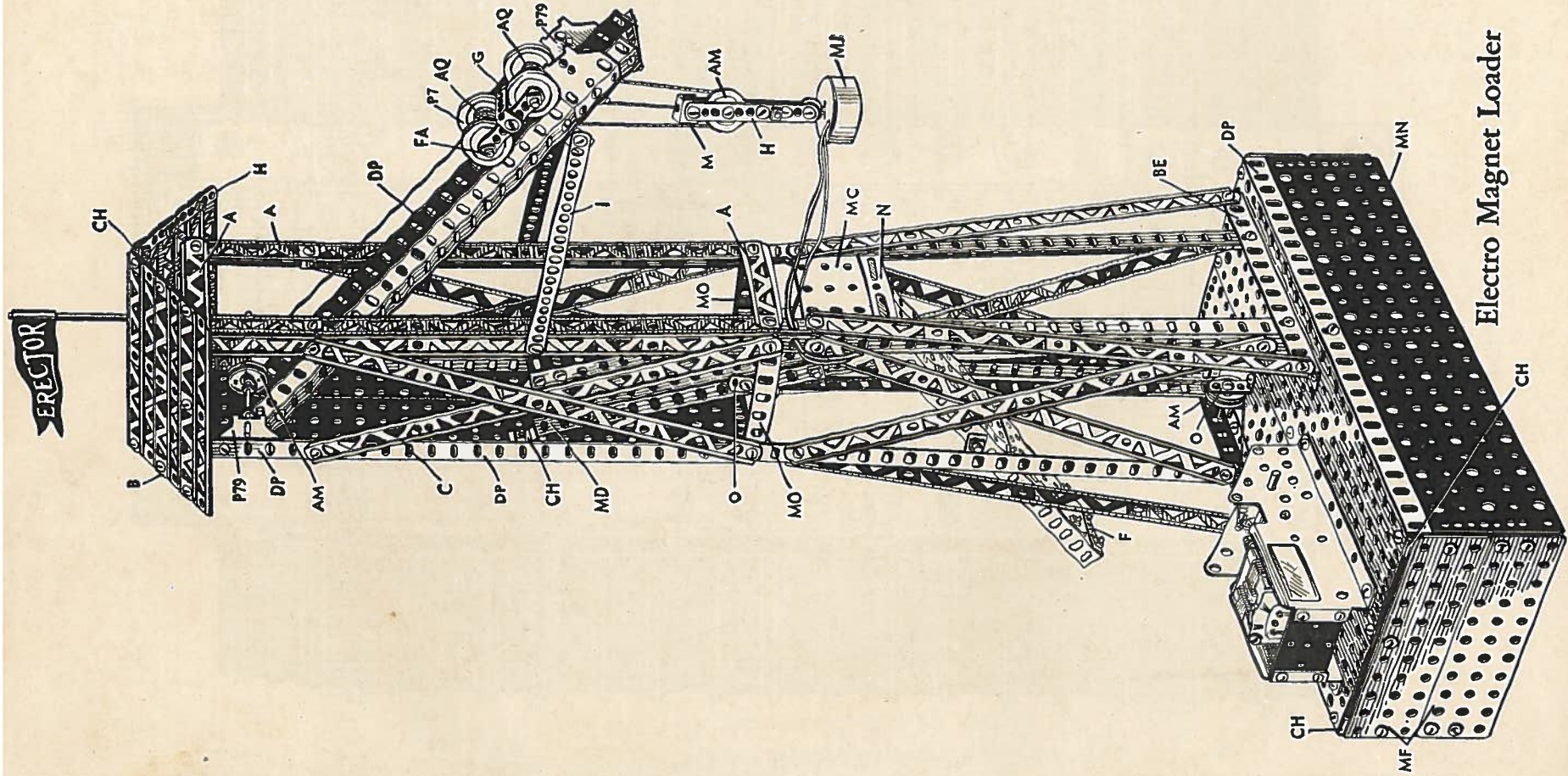


Bottom View — Caterpillar Tractor

Use engine as shown

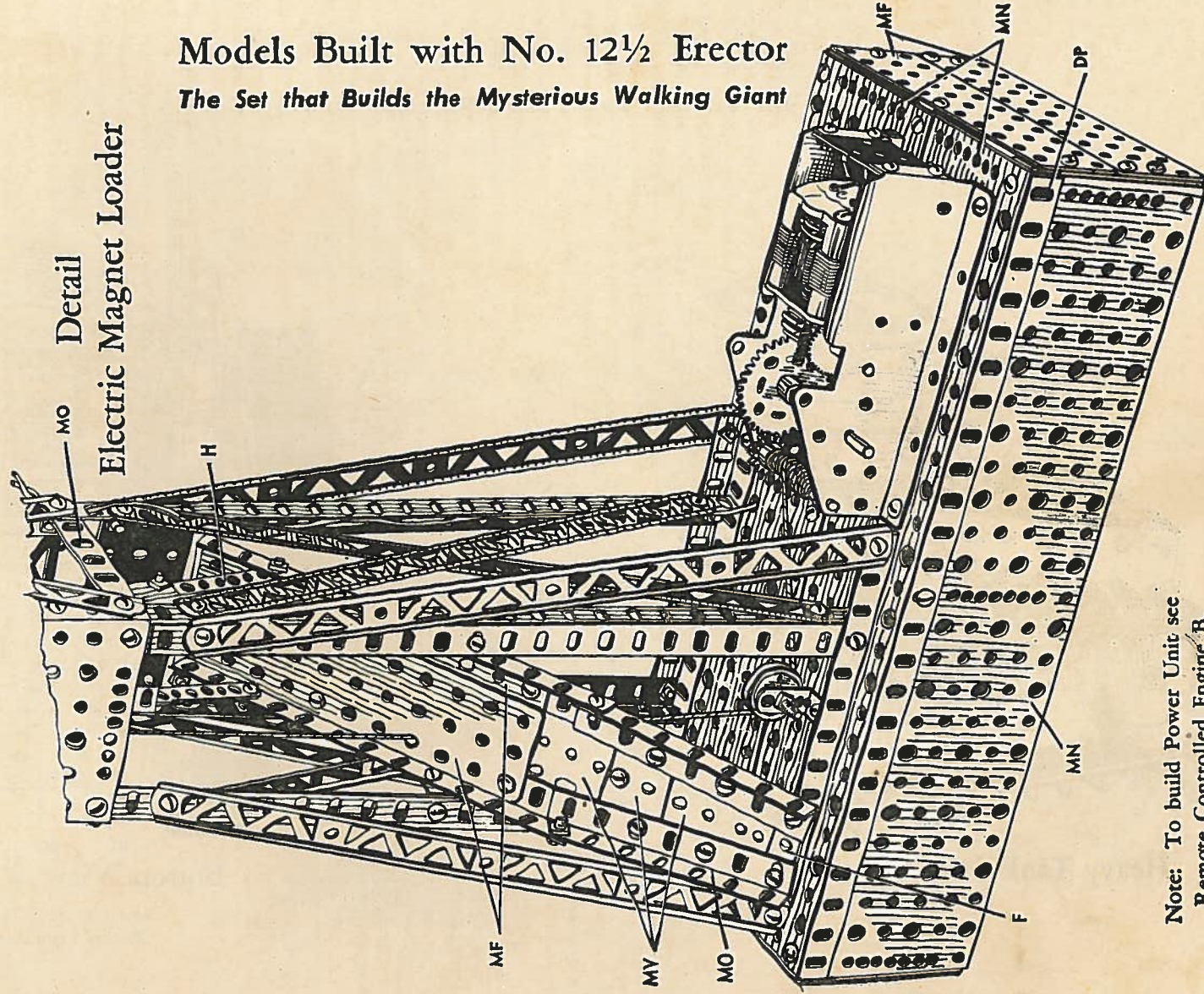
Models Built with No. 12½ Erector

The Set that Builds the Mysterious Walking Giant



OPERATION OF ELECTRO-MAGNET

Place end of one wire from magnet to center hole in back panel of motor. Place end of second wire from magnet into one of the end holes in the back panel of the motor. Enter the three jack plugs connected to the push button into their respective places in the panel. When button is pressed, magnet will be in operation: To release parts from magnet, remove finger from button.



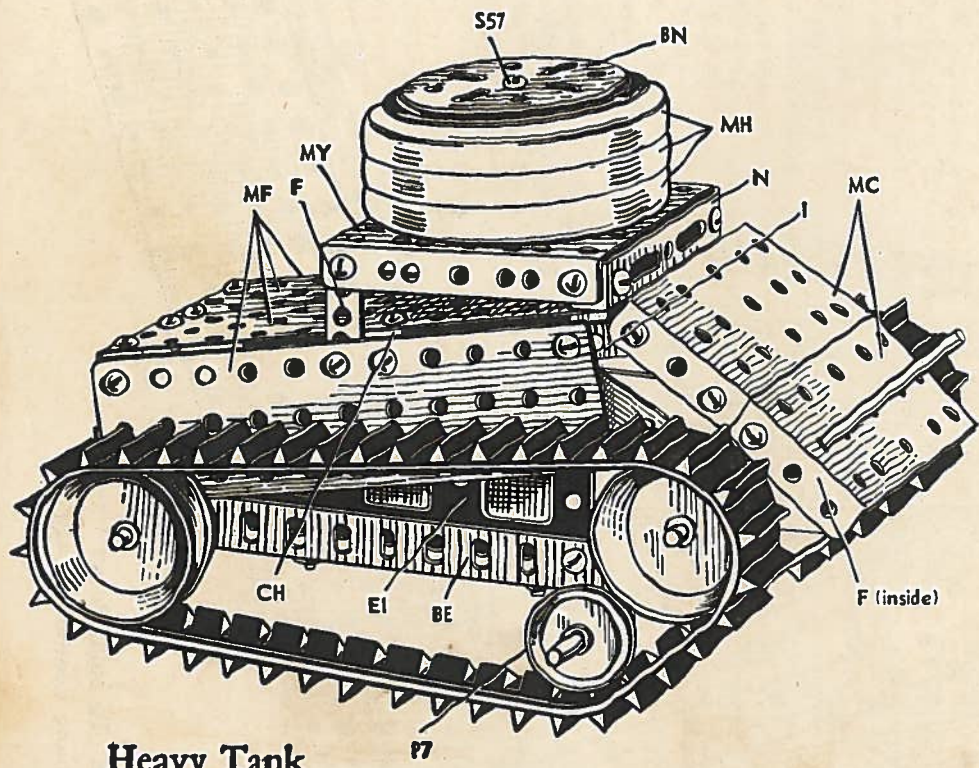
Models Built with No. 12½ Erector

The Set that Builds the Mysterious Walking Giant

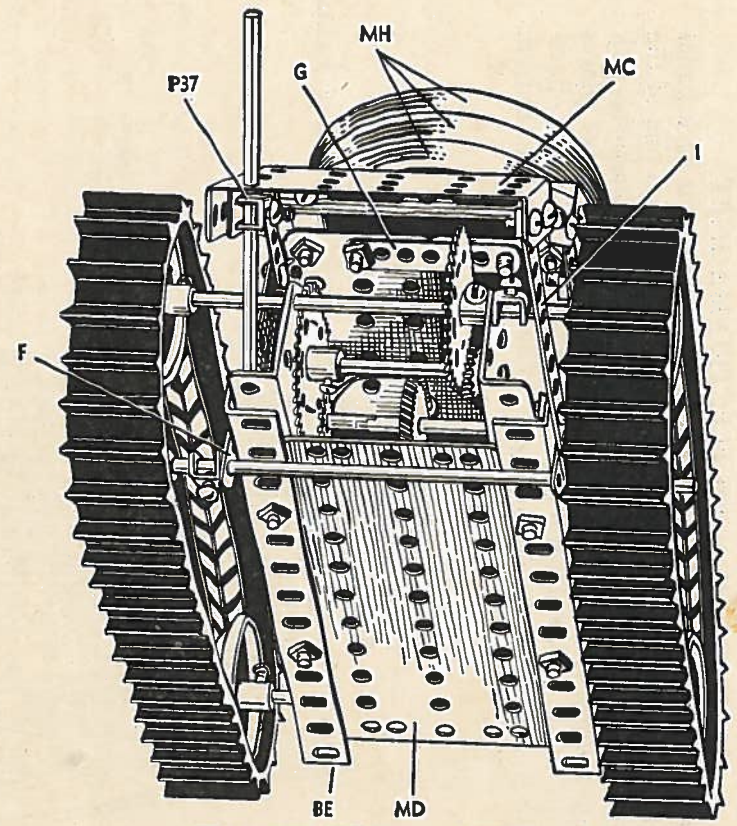
Note: To build Power Unit, see
Remote Controlled Engine 'B.'

Models Built with No. 12½ Erector

The Set that Builds the Mysterious Walking Giant



Heavy Tank

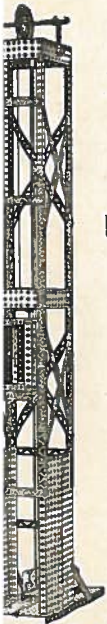


Bottom View — Heavy Tank

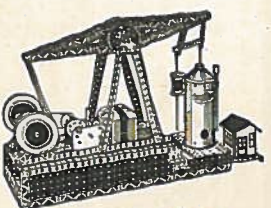
Note: To build Power Unit see
Remote Controlled Engine C.

Models Built with Famous ERECTOR Sets

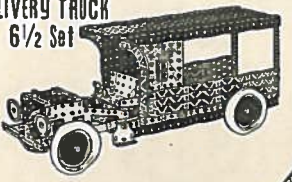
SEC. X



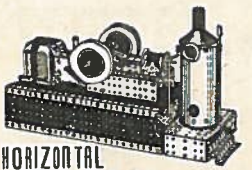
RADIO TOWER 8 1/2 Set



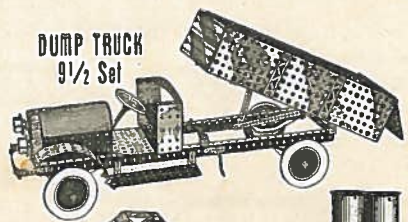
DELIVERY TRUCK 6 1/2 Set



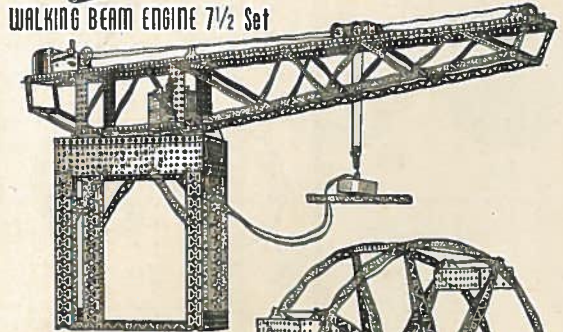
UNLOADING CRANE 6 1/2 Set



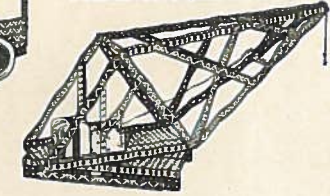
HORIZONTAL ENGINE 7 1/2 Set



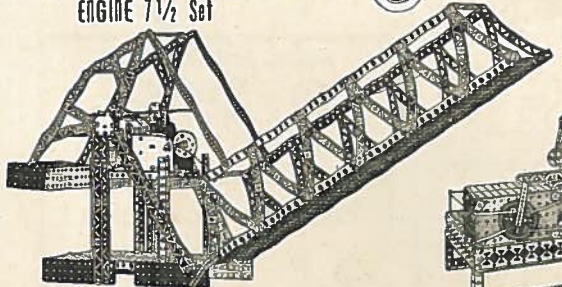
DUMP TRUCK 9 1/2 Set



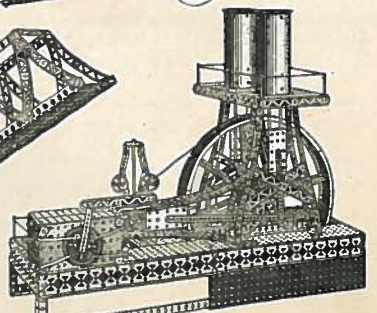
WALKING BEAM ENGINE 7 1/2 Set



PARACHUTE JUMP 9 1/2 Set

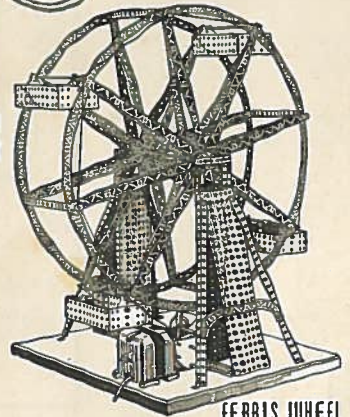


BASCULE BRIDGE 8 1/2 Set

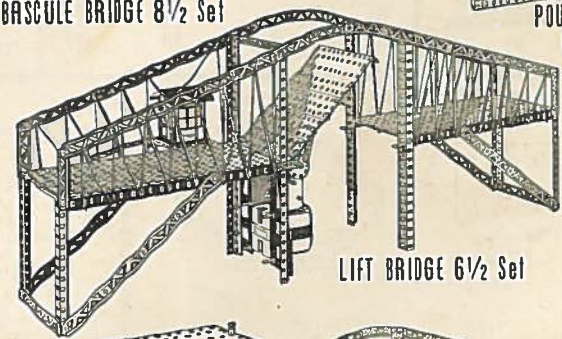
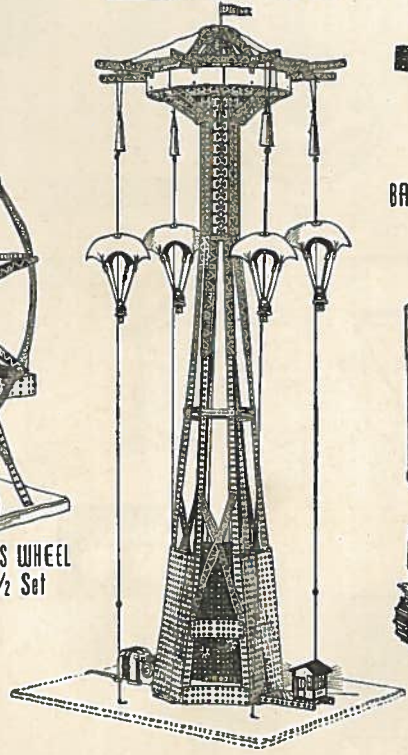


POWER PLANT 9 1/2 Set

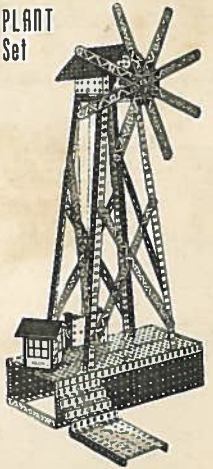
HAMMERHEAD CRANE with LIFTING MAGNET 9 1/2 Set



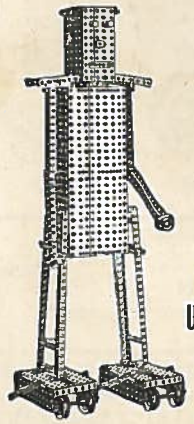
FERRIS WHEEL 8 1/2 Set



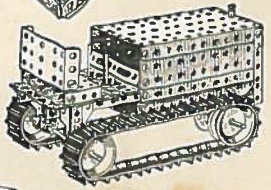
LIFT BRIDGE 6 1/2 Set



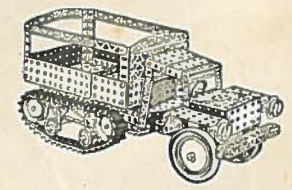
WINDMILL 4 1/2 Set



MYSTERIOUS WALKING GIANT 12 1/2 SET



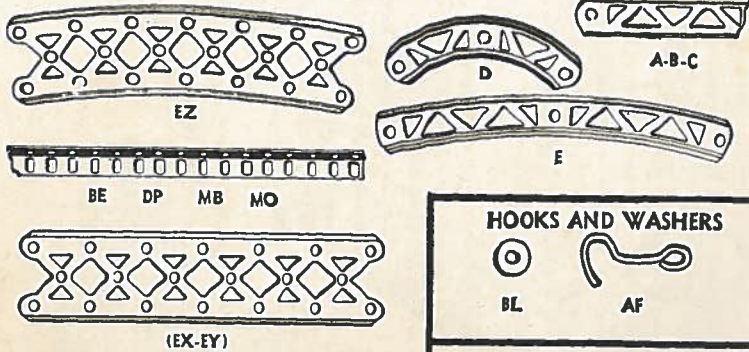
CATERPILLAR TRACTOR 12 1/2 SET



HALF TRACK 12 1/2 SET

ERECTOR SEPARATE PARTS

GIRDERS



HOOKS AND WASHERS



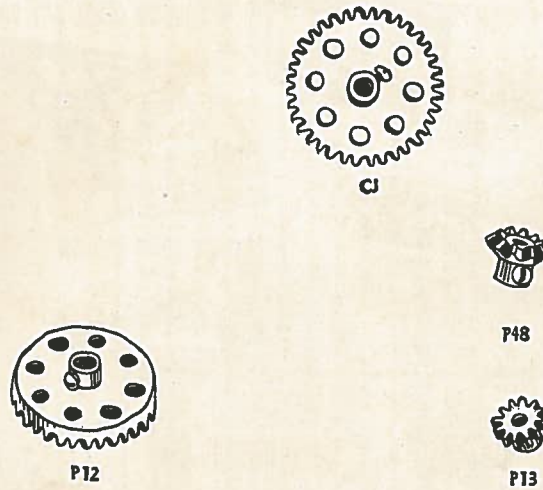
COLLARS AND COUPLINGS



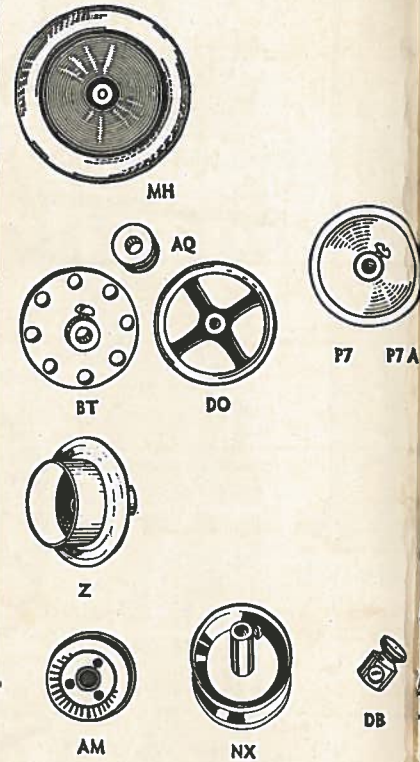
PERFORATED STRIPS



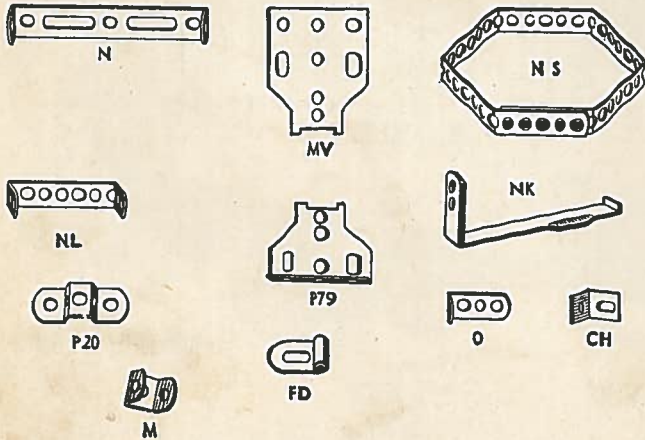
GEARS



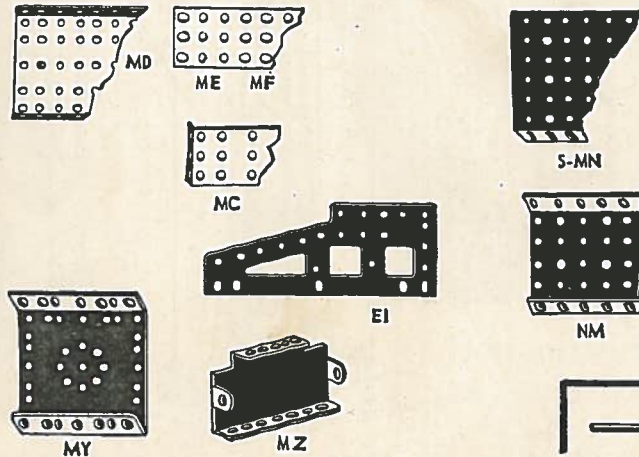
WHEELS, DRUMS, DISCS AND PULLEYS



ANGLES AND ANGLE PIECES



BASE PLATES



CRANK

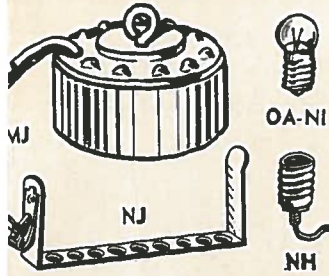


AXLE RODS AND SHAFTING

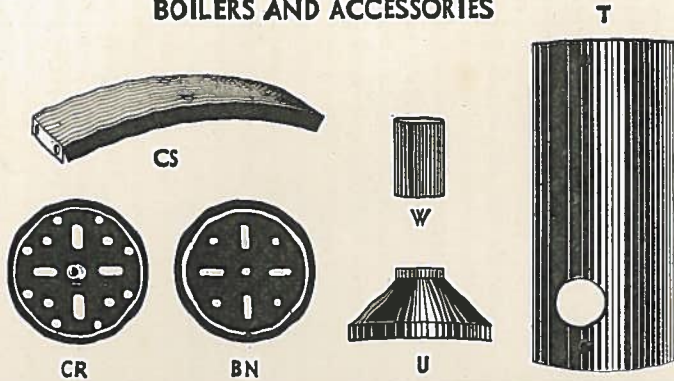
NY-CX-P57A-AS-AT-CY-P57D-CZ-P57E-DA-P57F-AX

ERECTOR SEPARATE PARTS

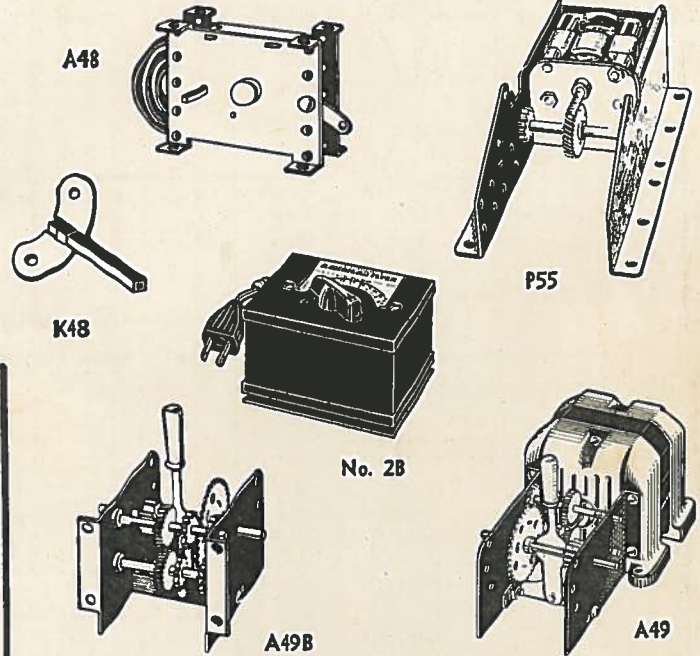
ELECTRICAL ACCESSORIES



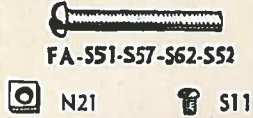
BOILERS AND ACCESSORIES



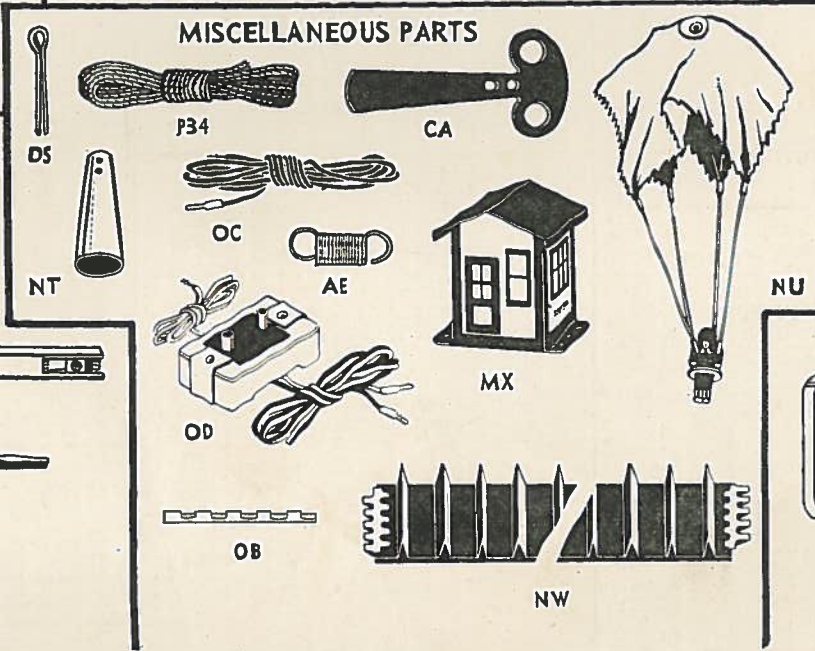
MOTORS AND HOISTING UNITS



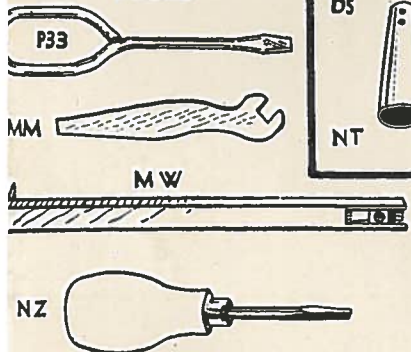
SCREWS AND NUTS



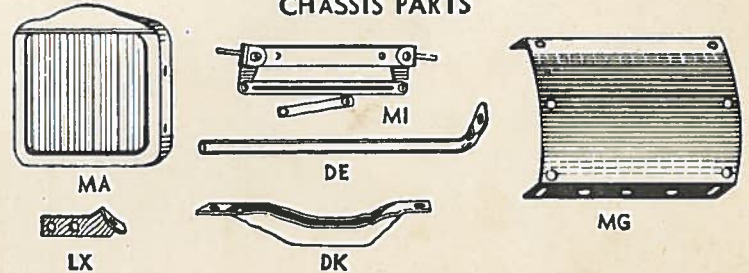
MISCELLANEOUS PARTS



TOOLS



CHASSIS PARTS



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*N21	8-32 Square Nut.....	3..	.10 doz.	BL	Small Washer.....	2..	.05 doz.	NJ	Battery Holder.....	3..	.15 ea.
P7	Small Wheel, 7/8" Dia.....	2..	.10 ea.	BN	Regular Turret Plate.....	3..	.15 ea.	NK	Ratchet.....	2..	.05 ea.
P7A	Small Wheel, 1 1/8" Dia.....	2..	.10 ea.	BT	Pierced Disc.....	2..	.10 ea.	NL	Bolster Bracket.....	2..	2 for .05
P12	Crown Gear.....	2..	.15 ea.	BY	11-Hole Fibre Strip.....	2..	.05 ea.	NM	10" x 2" Flange Plate.....	2..	.40 ea.
P13	12-Tooth Pinion Gear, 1/8".....	2..	.10 ea.					NS	41 Hole strip—formed.....	2..	.10 ea.
P13B	12-Tooth Pinion Gear, 1/16".....	2..	.10 ea.					NT	Cone.....	3..	.10 ea.
P15	Coupling.....	2..	.10 ea.	CA	Signal Arm.....	3..	.10 ea.	NU	Parachute.....	3..	.35 ea.
P20	Five Hole Strip—formed.....	2..	.10 ea.	CH	Right Angle.....	2..	.10 doz.	NW	Belt and Clip Unit.....	3..	.25 ea.
P24	Crank.....	2..	.10 ea.	CJ	36-Tooth Gear.....	2..	.20 ea.	NX	Tread Pulley.....	2..	.20 ea.
P33	Small Screw Driver.....	3..	.10 ea.	CR	Special Turret Plate with hub.....	3..	.20 ea.	NY	3 1/8" Axle Rod.....	2..	.03 ea.
P34	Hank of String.....	3..	.10 ea.	CS	Wheel Segment.....	3..	.15 ea.	NZ	Wood Handle Screwdriver.....	3..	.20 ea.
P37	Collar.....	2..	.25 doz.	CZ	7" Axle Rod.....	2..	.07 ea.				
P48	Mitre Gear.....	2..	.20 ea.					OA	Bulb—18 Volt.....	3..	.20 ea.
P57A	2 1/8" Axle.....	2..	.02 ea.	DA	10" Axle Rod.....	2..	.10 ea.	OB	Tread Pin.....	3..	.10 ea.
P57D	6" Axle.....	2..	.06 ea.	DB	Motor Pulley.....	2..	.10 ea.	OC	Single Wire and Plug Unit.....	3..	.10 ea.
P57E	8" Axle.....	2..	.08 ea.	DE	Steering Column.....	3..	.15 ea.	OD	Control Box with wires.....	3..	1.50 ea.
P57F	12" Axle.....	2..	.12 ea.	DK	Flat Spring.....	3..	.10 ea.				
P79	Car Truck.....	2..	.05 ea.	DO	Steering Wheel with Hub.....	2..	.15 ea.	A48	Mechanical Motor.....	3..	1.75 ea.
				DP	12" Angle Girder.....	2..	6 for .50	K48	Key for Mechanical Motor.....	3..	.20 ea.
				DS	Cotter Pin.....	3..	.05 doz.				
*S11	Set Screw.....	3..	.05 doz.	EI	Standard Gear Box Side Plate.....	2..	.15 ea.	A49	Electric Engine, gear shift 110v. A.C. only.....	3..	5.95 ea.
*S51	1/4" x 8-32 Screw.....	3..	.10 doz.	EX	Big Channel Girder 12".....	2..	6 for .50	A49A	Electric Engine—No Gear Shift.....	3..	4.95 ea.
*S52	1/2" x 8-32 Screw.....	3..	.10 doz.	EY	Big Channel Girder 6".....	2..	.05 ea.				
*S57	1 1/8" x 8-32 Screw.....	3..	.15 doz.	EZ	Big Channel Curved Girder 6".....	2..	.10 ea.	A49B	Electric Engine Conversion Unit. Convert A49A to A49.....	3..	1.25 ea.
*S62	7/8" x 8-32 Screw.....	3..	.10 doz.	FD	Hinged Loop.....	2..	2 for .10				
*FA	1 3/4" x 8-32 Screw.....	3..	.15 doz.	LX	Steering Column Bracket.....	3..	.10 ea.	P55	7-15 Volt Erector Motor A.C. or D.C.....	3..	4.50 ea.
A	2 1/2" Girder.....	2..	.20 doz.	MA	Radiator.....	3..	.25 ea.	2-B	Transformer with Circuit Breaker.....	3..	7.95 ea.
B	5" Girder.....	2..	.35 doz.	MB	18 1/2" Angle Girder.....	2..	.25 ea.				
C	10" Girder.....	2..	.50 doz.	MC	Base Plate 1" x 2 1/2".....	2..	.10 ea.				
D	2 1/2" Curved Girder.....	2..	.25 doz.	MD	Base Plate 2 1/2" x 3".....	2..	.10 ea.				
E	5" Curved Girder.....	2..	.40 doz.	ME	Base Plate 1" x 4".....	2..	.05 ea.				
F	5 Hole Strip.....	2..	.10 doz.	MF	Base Plate 1" x 5".....	2..	.05 ea.				
G	7 Hole Strip.....	2..	.10 doz.	MG	Radiator Hood.....	3..	.20 ea.				
H	11 Hole Strip.....	2..	.15 doz.	MH	Nickle Rim, 3/8" Disc Wheel.....	2..	.25 ea.				
I	21 Hole Strip.....	2..	.20 doz.	MI	Front Axle Unit.....	3..	.45 ea.				
J	41 Hole Strip.....	2..	.50 doz.	MJ	Electro Magnet with Cord.....	3..	1.10 ea.				
M	Small Double Angle.....	2..	.25 doz.	MM	Wrench.....	3..	.05 ea.				
N	Long Double Angle.....	2..	.05 ea.	MN	12" Base Plate.....	2..	.40 ea.				
O	Pawl.....	2..	.05 ea.	MO	3" Angle Girder.....	2..	.30 doz.				
S	Large Base Plate—21 holes.....	2..	.40 ea.	MV	Flat Car Truck.....	2..	.05 ea.				
T	Boiler.....	3..	.30 ea.	MW	Nut Holder.....	3..	.10 ea.				
U	Boiler Top.....	3..	.20 ea.	MX	House.....	3..	.35 ea.				
W	Stack.....	3..	.05 ea.	MY	2 1/2" x 2 1/2" Base Plate.....	2..	.05 ea.				
Z	Flanged Wheel 1 1/8" Dia.....	2..	.15 ea.	MZ	Bearing Block.....	2..	.10 ea.				
AA	Eccentric Crank.....	2..	.10 ea.	NH	Lamp Socket Unit.....	3..	.20 ea.				
AE	Spiral Spring.....	3..	.05 ea.	NI	Bulb—1 1/2 Volt.....	3..	.10 ea.				
AF	Small Hook.....	2..	.15 doz.								
AM	Special Pulley—Metal.....	2..	.05 ea.								
AQ	Sheave Pulley.....	2..	.05 ea.								
AS	2 7/8" Axle Rod.....	2..	.03 ea.								
AT	4" Axle Rod.....	2..	.04 ea.								
BE	6" Angle Girder.....	2..	.50 doz.								
BH	Solid Collar.....	2..	2 for .10								

**ERECTOR
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Same as copy included in Sets

No. 2 1/2	Erector How To Make 'Em Book...	.25 ea.
No. 4 1/2	Erector How To Make 'Em Book...	.25 ea.
No. 6 1/2	Erector How To Make 'Em Book...	.35 ea.
No. 7 1/2	Erector How To Make 'Em Book...	.40 ea.
No. 8 1/2	Erector How To Make 'Em Book...	.50 ea.
No. 9 1/2	Erector How To Make 'Em Book...	.50 ea.
No. 12 1/2	Erector How To Make 'Em Book...	.75 ea.

NOTE

*N21 Nut used with screws S51, S52, S57, S62, FA
*S11 Set Screw used with pulleys, couplings, etc.

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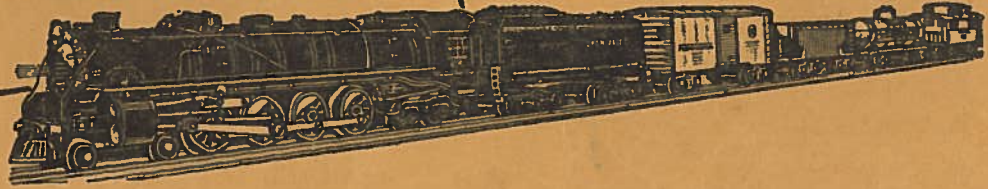
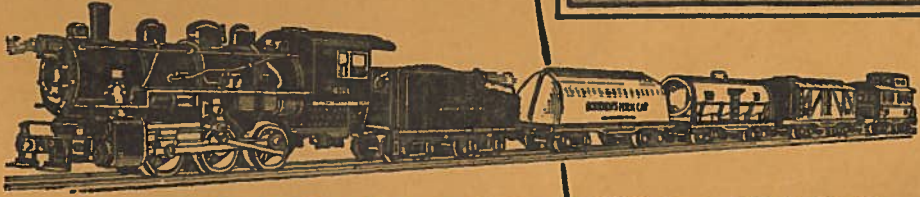
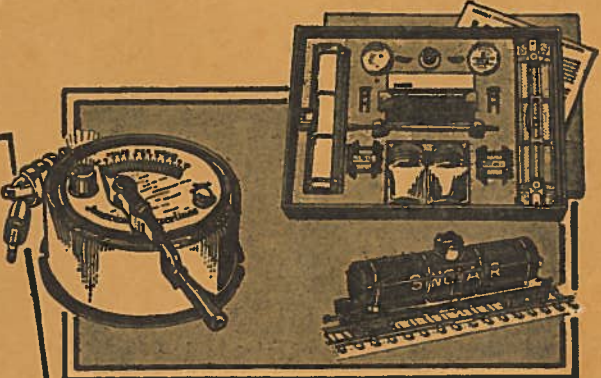
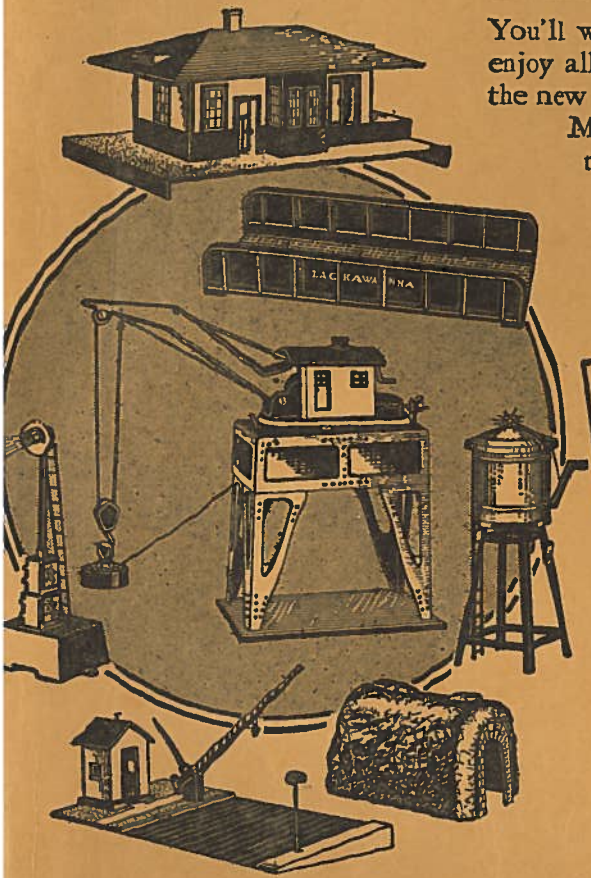
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ELECTRICAL SETS



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