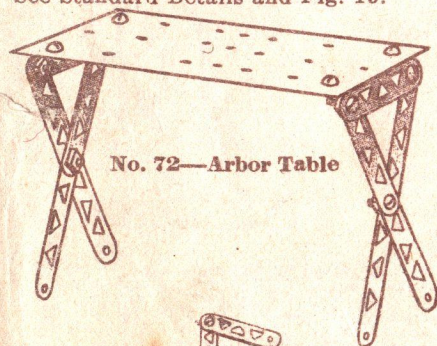
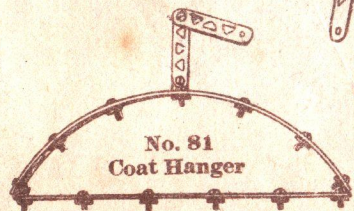


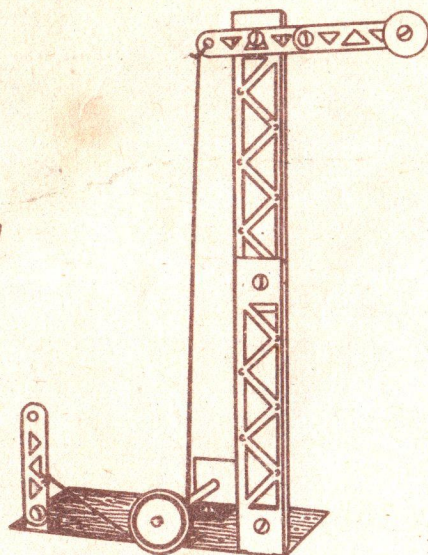
No. 66—Truck
See Standard Details and Fig. 13.



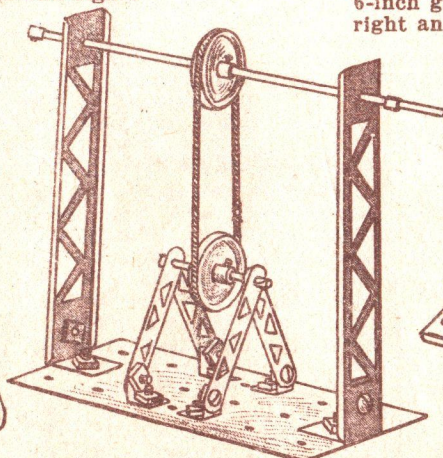
No. 72—Arbor Table



No. 81
Coat Hanger



No. 67—Railroad Signal



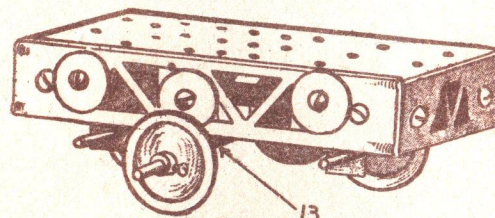
No. 73—Counter Shafting



No. 80—Row Boat



No. 70—Grindstone

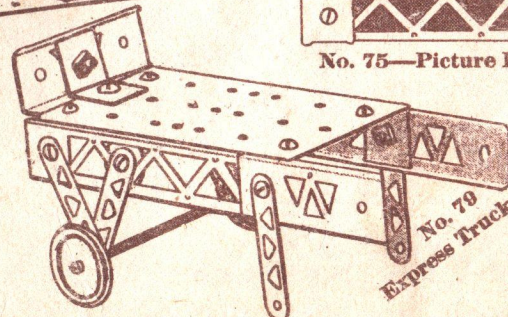


No. 71—Factory Truck

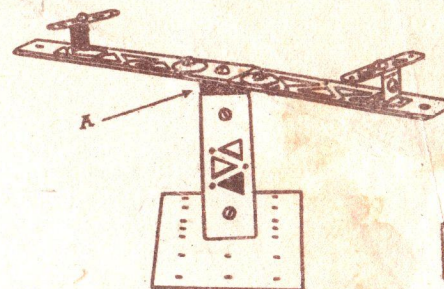
See Standard Details and Fig. 13 for Axle Bearing on sides. For front and rear wheels attach right angle with washer to 6-inch girder and put small angle on large right angle for bearing.



No. 74—Teeter Totter
Attach right angle where two 6-inch girders join, to pivot on 3-inch upright girder stand.



No. 79
Express Truck



No. 68—Flying Dutchman



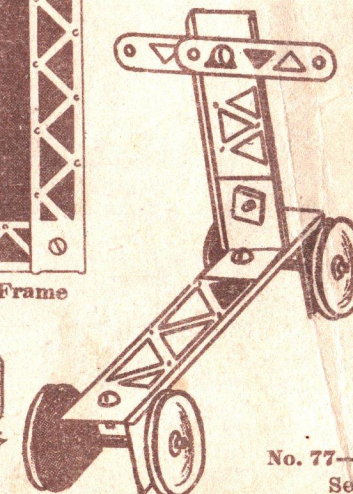
No. 75—Picture Frame



No. 76—Round Table



No. 69—6-inch Girder

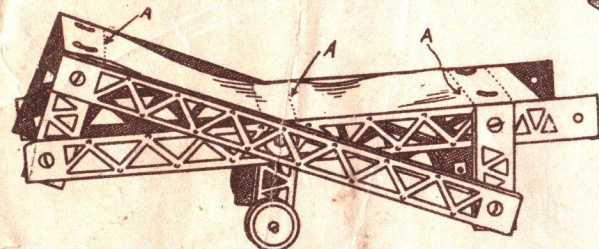


No. 77—12-inch Girder
See Fig. 14, Standard Details.

No. 78—Easy Glider

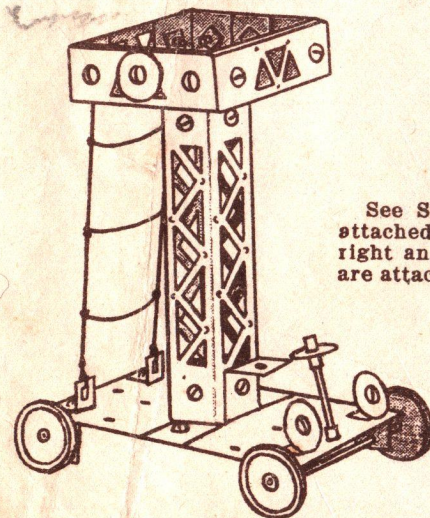


No. 89—Old Fashioned Pung

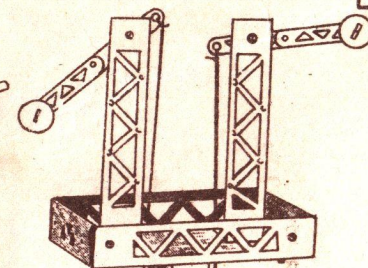


No. 90—Baggage Truck

(A), represents perforated strips to which cardboard is attached with paper fasteners.

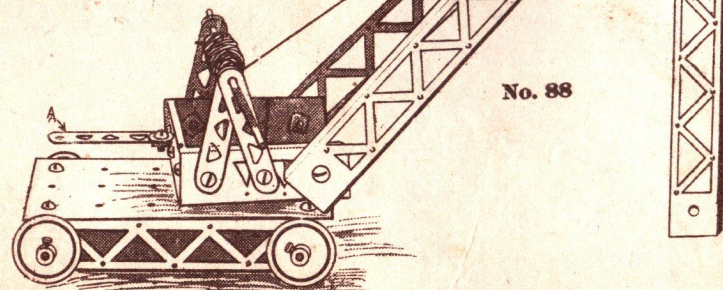


No. 82—Emergency Truck

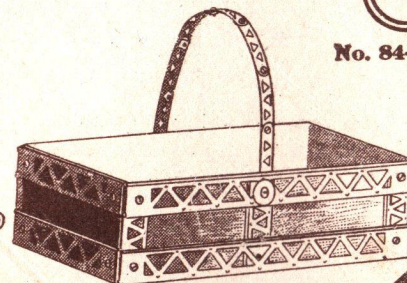


No. 83—Semaphore

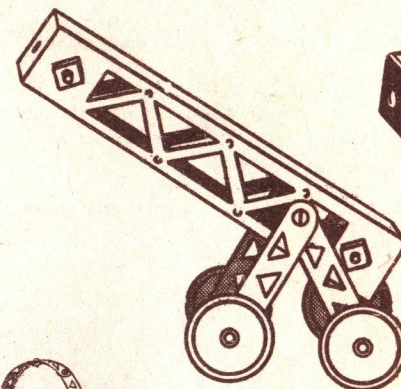
See Standard Details; square girder is attached at its top to base plate using right angles, (A); washers on signal arms are attached with paper fasteners.



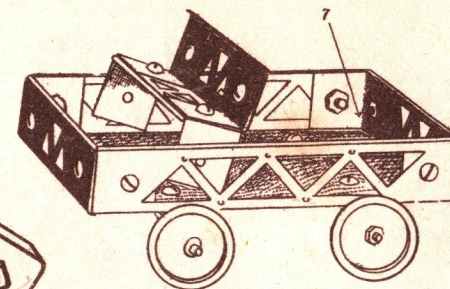
No. 88



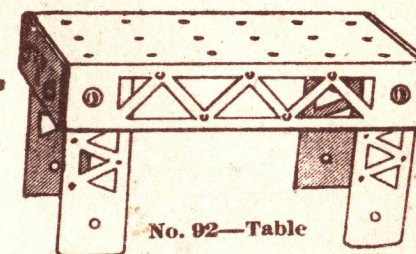
No. 91—Market Basket



No. 84—Mortar Cannon



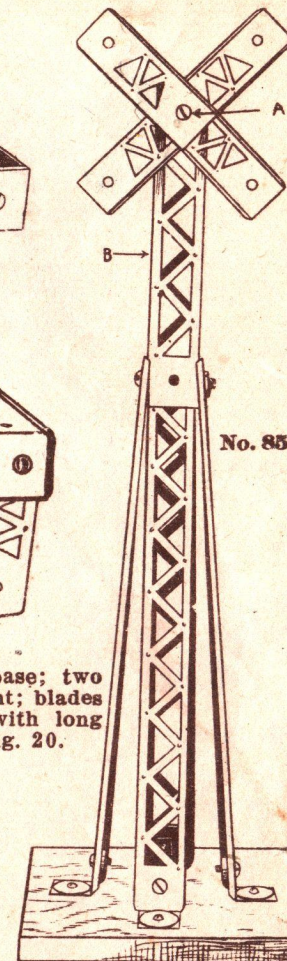
No. 87—Wagon



No. 92—Table

No. 85—Windmill

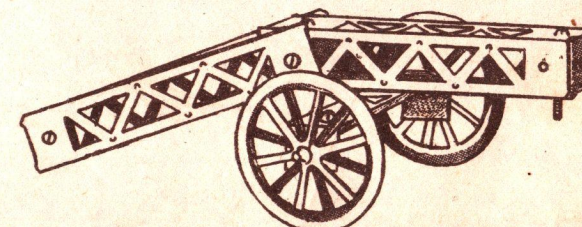
Square girder spread forms base; two 6-inch girders (B), come to a point; blades are fastened to these girders, with long screw and check-nut (A). See Fig. 20.



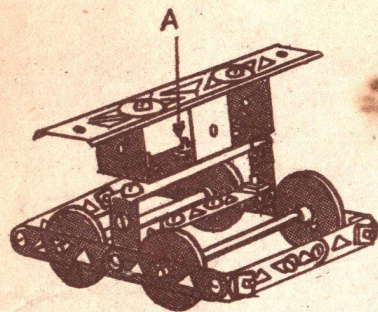
No. 85

No. 88—Small Revolving Crane

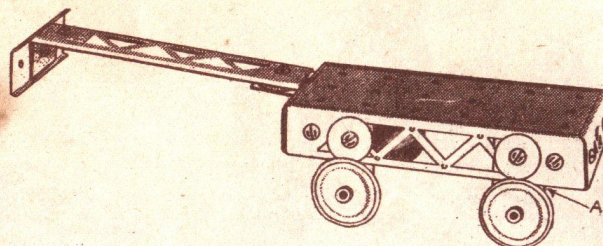
Made in two parts, boom, crank and base, one part; truck, another. The base of boom has 3-inch girder running across it, through which a long screw passes into top of base plate on truck and held in place by a check nut. See Fig. 20.



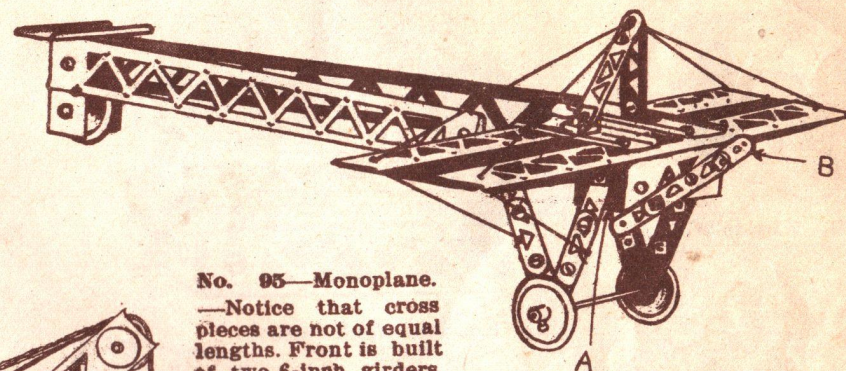
No. 86—Mortar Cannon



No. 93—Railroad Truck.—Make in two sections and fasten together at the center (A), which allows the lower section to turn, the center screw acts as a king bolt.

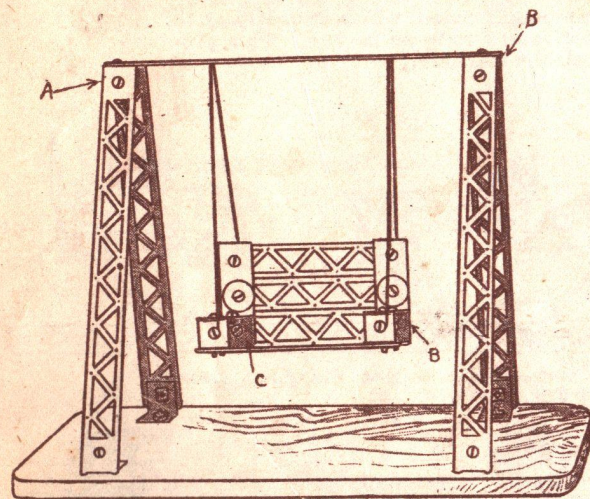


No. 94—Platform Truck.—See Standard Details, Fig. 13 for construction at (A).

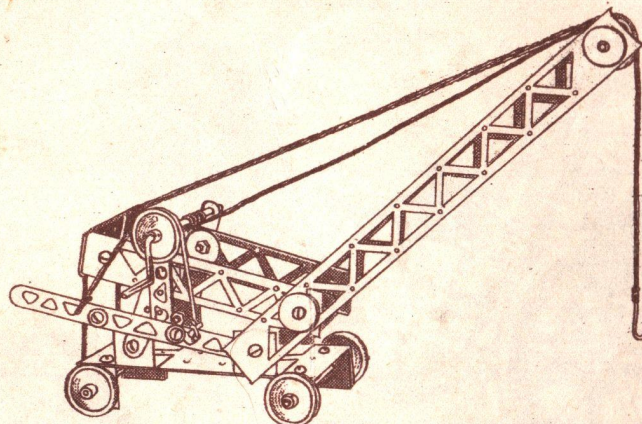


No. 95—Monoplane.

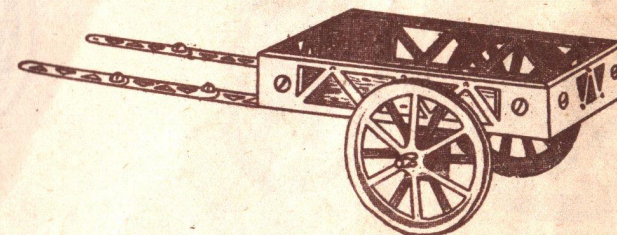
—Notice that cross pieces are not of equal lengths. Front is built of two 6-inch girders. The back of one 12-inch girder, connected with 3-inch girders at right angles. (A) is a right angle. (B) represents propeller made of perforated strips. Cardboard is used for the wings. 12-inch girders running to the tail of the monoplane, do not fasten directly to the body, but a straight angle is used to make the connection.



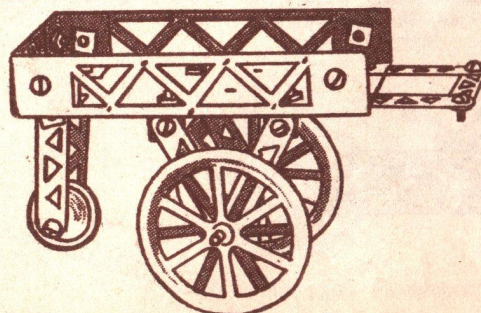
No. 98—Veranda Swing.—Double angle at (A). Two right angles at (B). Fasten with long screw. Use base plate for seat. Point (C) is a right angle.



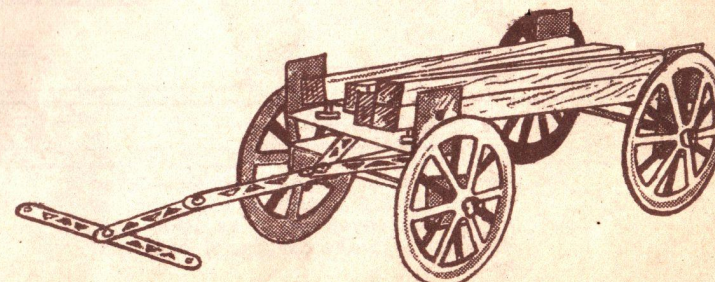
No. 97—Stationary Boom Derrick.



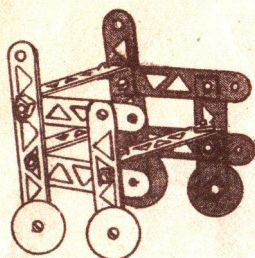
No. 96—One-Horse Dump Wagon.



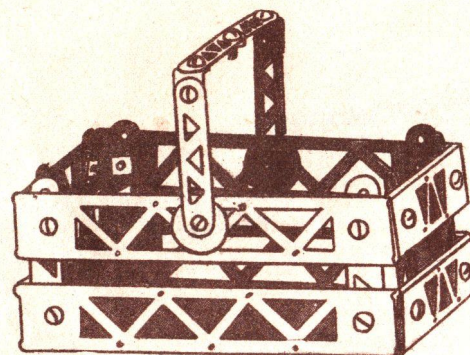
No. 99—Push Cart.



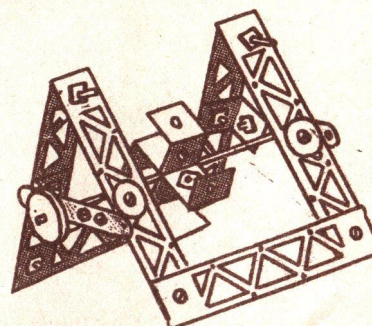
No. 101—Lumber Wagon. See Standard Details, Fig. 33.



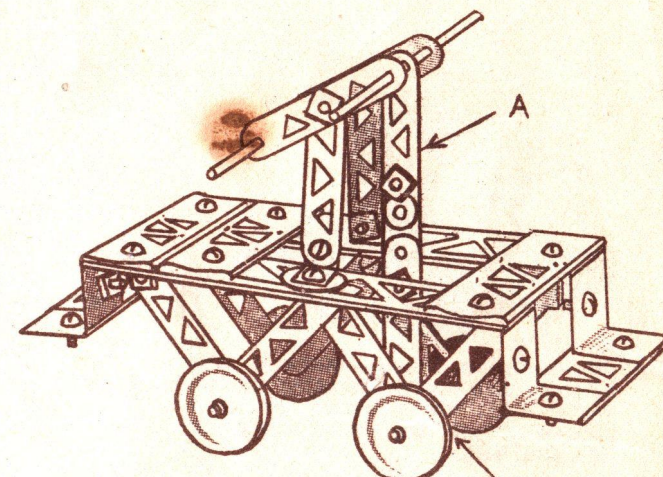
No. 102—Wheeled Chair.



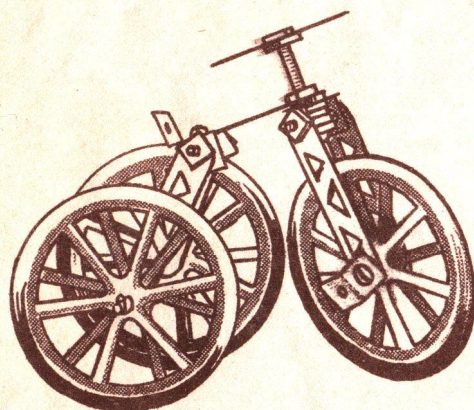
No. 103—Fruit Basket.



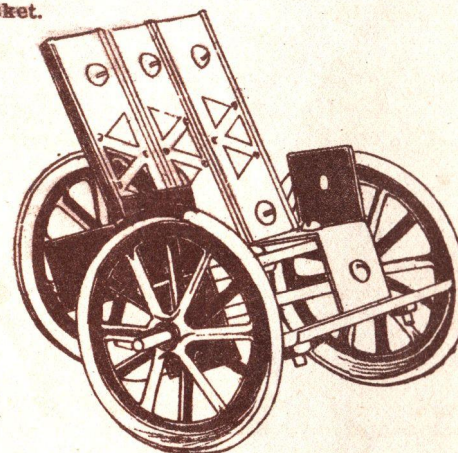
No. 104—Water Motor.



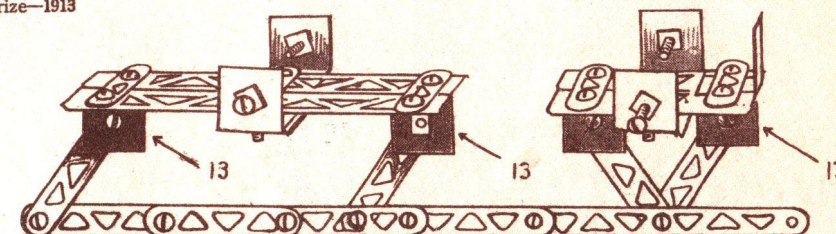
No. 105—Hand Car.—Use "special crank" for one of axles, which is fastened to perforated strip as in (A). This propels the machine.

CLAYTON B. FRYE
New York
4th Prize—1913

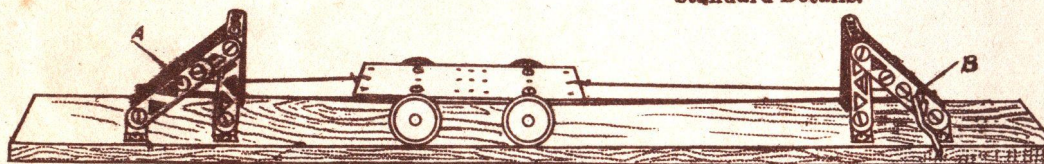
No. 106—Velocipede.



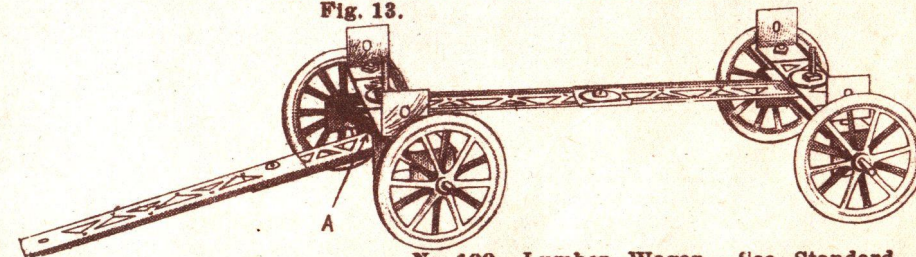
No. 107—Invalid Chair.—Rear wheel is held in position as in Figure 21, Standard Details.



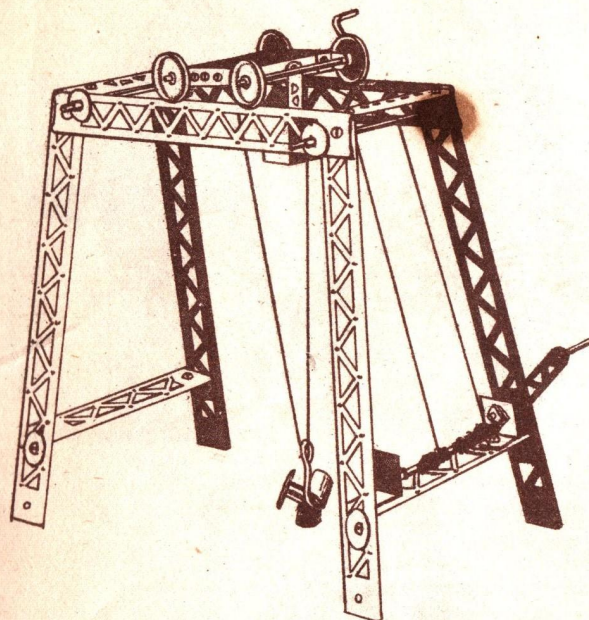
No. 108—Skate.—See Standard Details, Fig. 13.



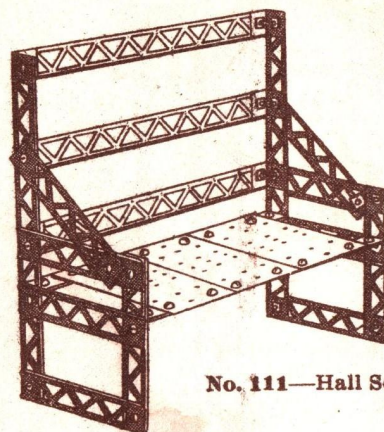
No. 109—Endless Rope Railway.—Wind string around Crank B a number of times, then over rod A at other end, in order to make car travel back and forth.



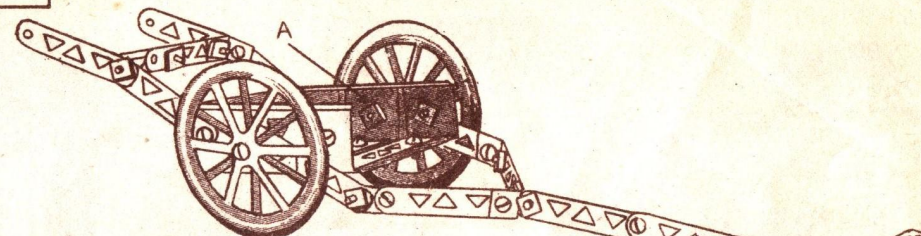
No. 110—Lumber Wagon.—See Standard Details, Fig. 33. Connect tongue to long center screw.



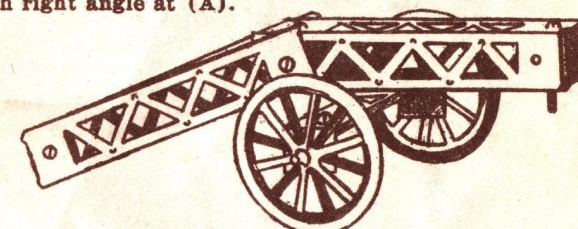
No. 110—Overhead Traveling Crane.



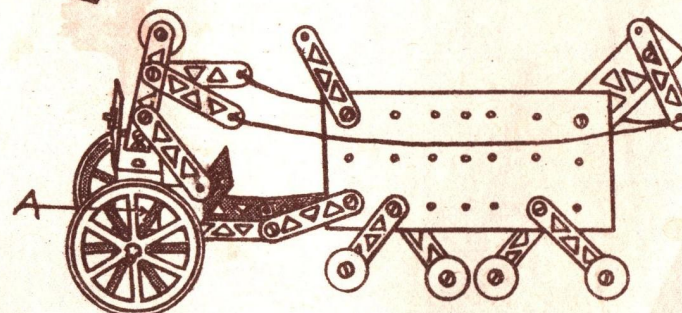
No. 111—Hall Seat.



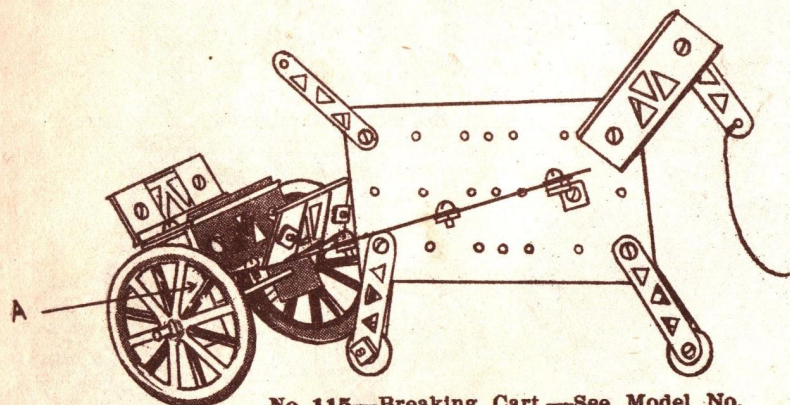
No. 112—Road Scraper.—The bottom and sides and back are made of 3-inch girders. Fasten wheels with long screws, through right angle at (A).



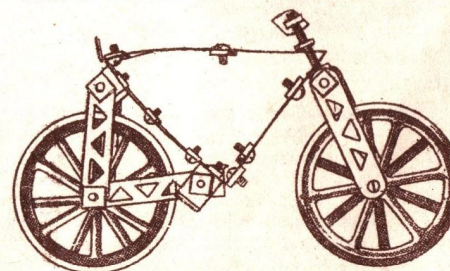
No. 113—Field Cannon.—See Standard Details, Fig. 33. Tail piece of cannon is made of two girders coming to a point at left.



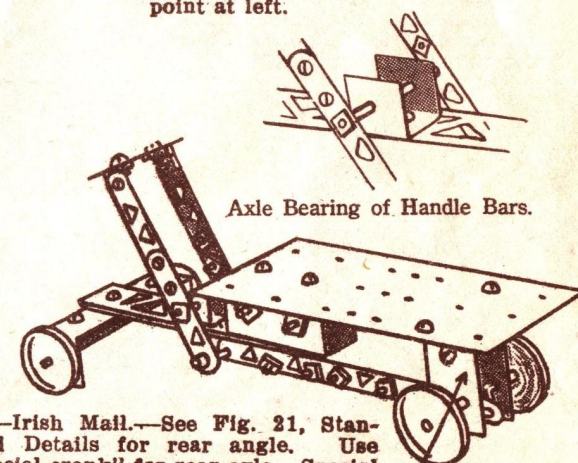
No. 114—Sulky and Driver.—For point "A" see Standard Details, Fig. 8. Use collars to hold wheels onto axle.



No. 115—Breaking Cart.—See Model No. 114; Similar construction.

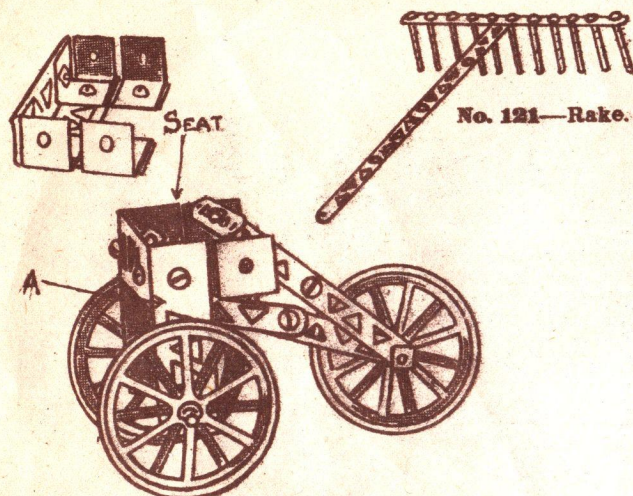


No. 116—Modern Bicycle.

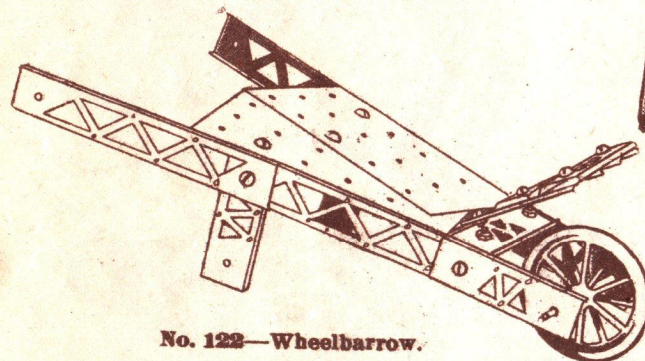


No. 117—Irish Mail.—See Fig. 21, Standard Details for rear angle. Use "special crank" for rear axle. Special crank attached to lower end of handle with perforated strips. See figure above for construction of axle bearing of handle bars, which propel the car.

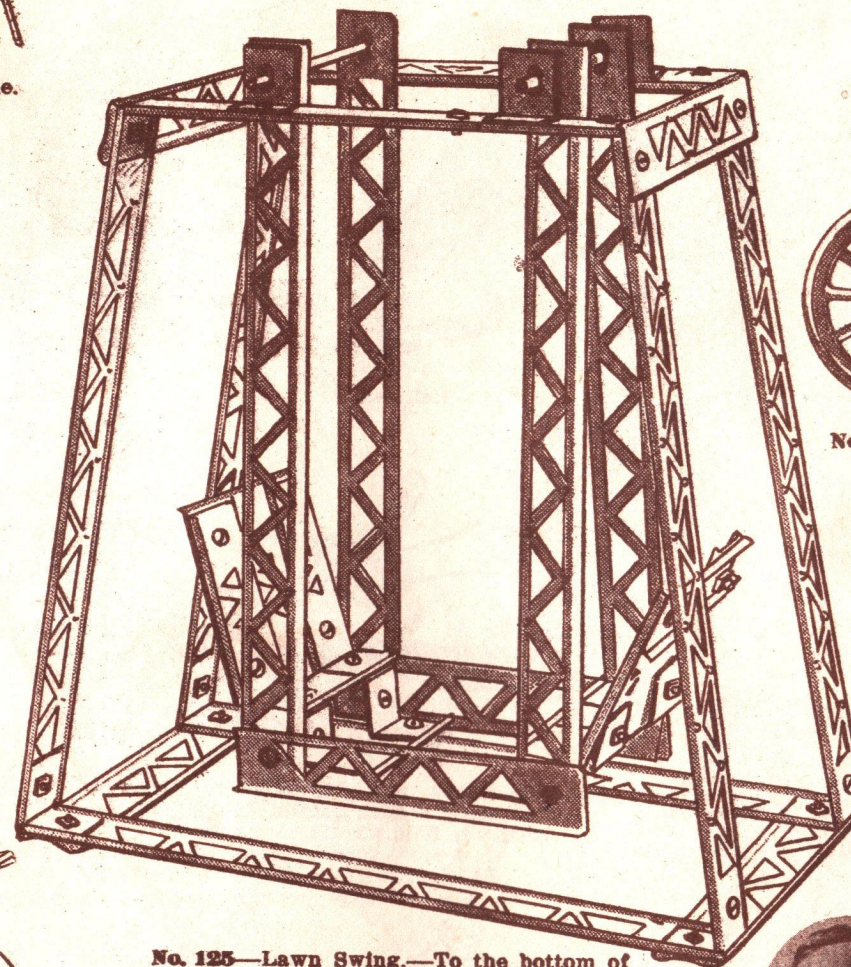
Axle Bearing of Handle Bars.



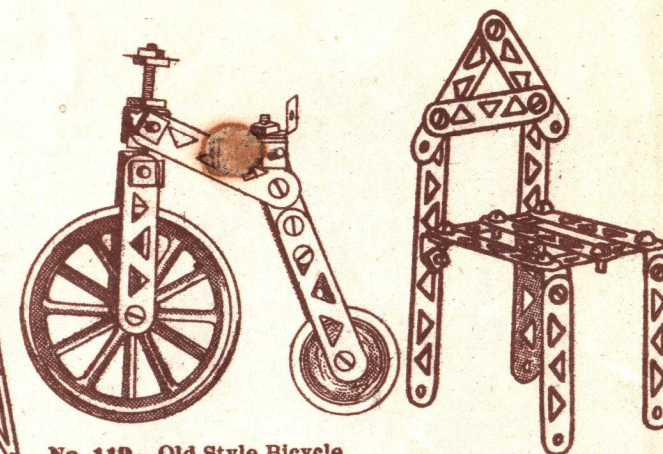
No. 118—Girl's Tricycle.—See illustration above for construction (A) of seat. Perforated strips which form a bearing for front wheel are fastened to underside of seat by means of right angles. There are two of these strips which straddle the wheel. The handle is separate. See Fig. 8, Standard Details for seat construction.



No. 122—Wheelbarrow.

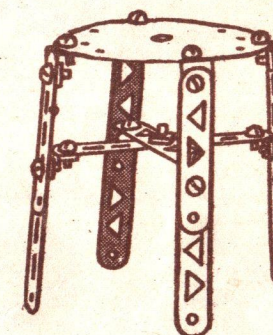


No. 125—Lawn Swing.—To the bottom of the seat of the swing at each corner is attached right angles through which a long screw is passed to act as axle, so that the swing will freely move back and forth. Washers should also be used at this point to avoid friction.



No. 119—Old Style Bicycle.

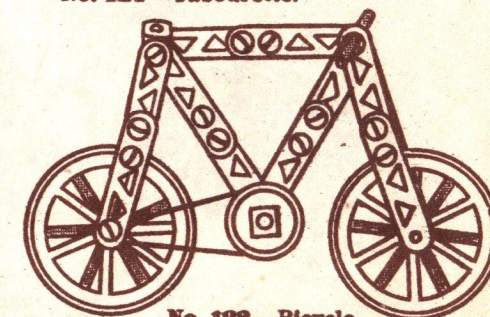
No. 120—Pulpit Chair.



No. 124—Tabourette.



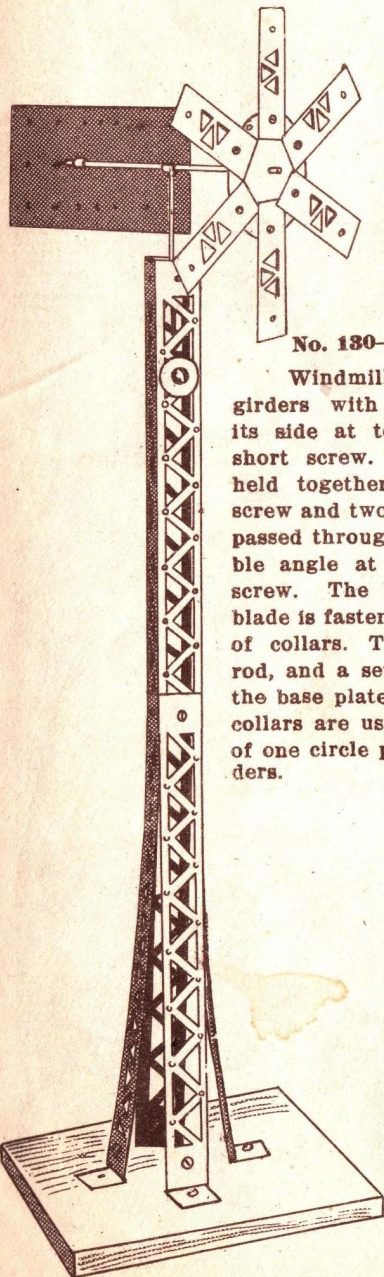
FRED. P. MERTZ, Jr.
 Indiana
 3rd Prize—1913



No. 123—Bicycle.

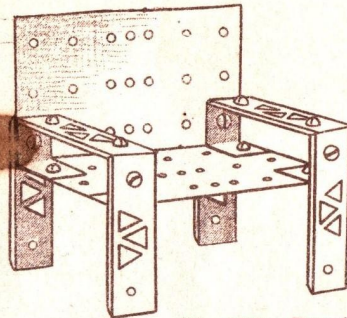
MODELS 1 TO 120 MADE WITH ERECTOR OUTFIT NO. 2 OR (NO. 1 AND NO. 1A)
MODELS 1 TO 176 MADE WITH ERECTOR OUTFIT NO. 3 OR (NO. 2 AND NO. 2A)

The Myster ERECTOR

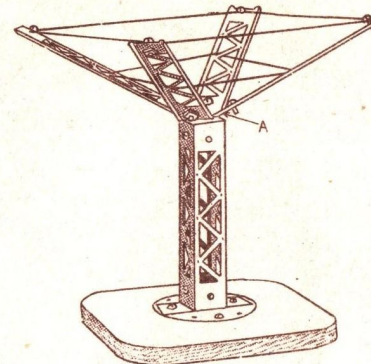


No. 130—

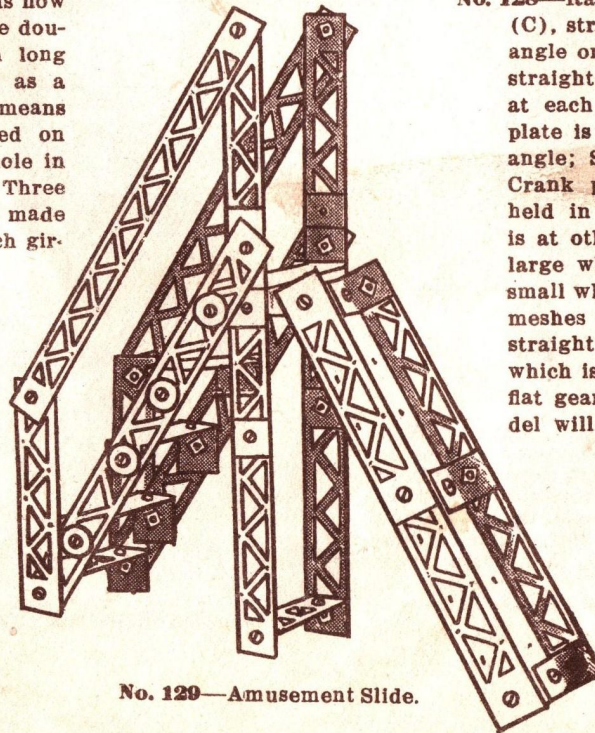
Windmill.—Two 12-inch column girders with double angle laid on its side at top, held in place with short screw. The four girders are held together by means of a long screw and two washers. A rod is now passed through both holes of the double angle at top and rests on long screw. The base plate, acting as a blade is fastened to the rods by means of collars. The collar is placed on rod, and a set screw through hole in the base plate into the collar. Three collars are used. The wheel is made of one circle plate, and six 3-inch girders.



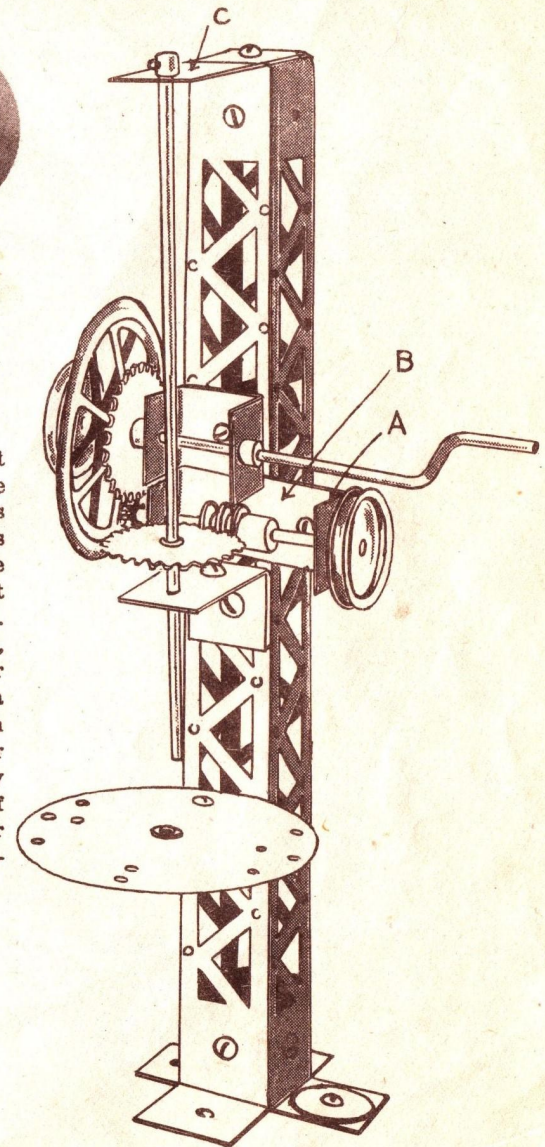
No. 126—Bench.



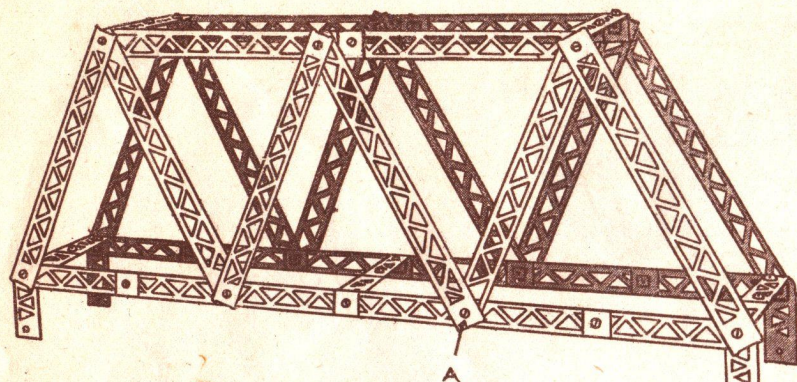
No. 127—Clothes Dryer.—At (A) put double angle in top of girder. Use four obtuse angles for connecting 6-inch arms with central screws on which they revolve.



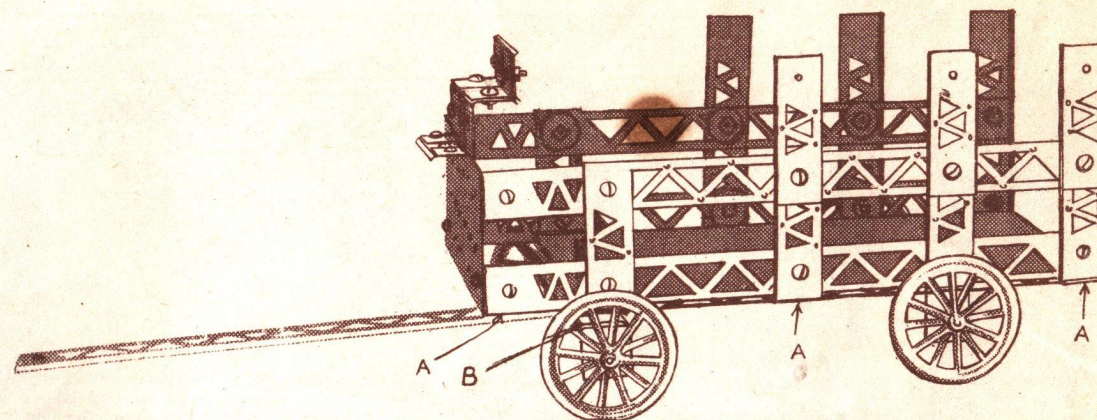
No. 129—Amusement Slide.

C. COOPER
Illinois
2nd Prize—1913

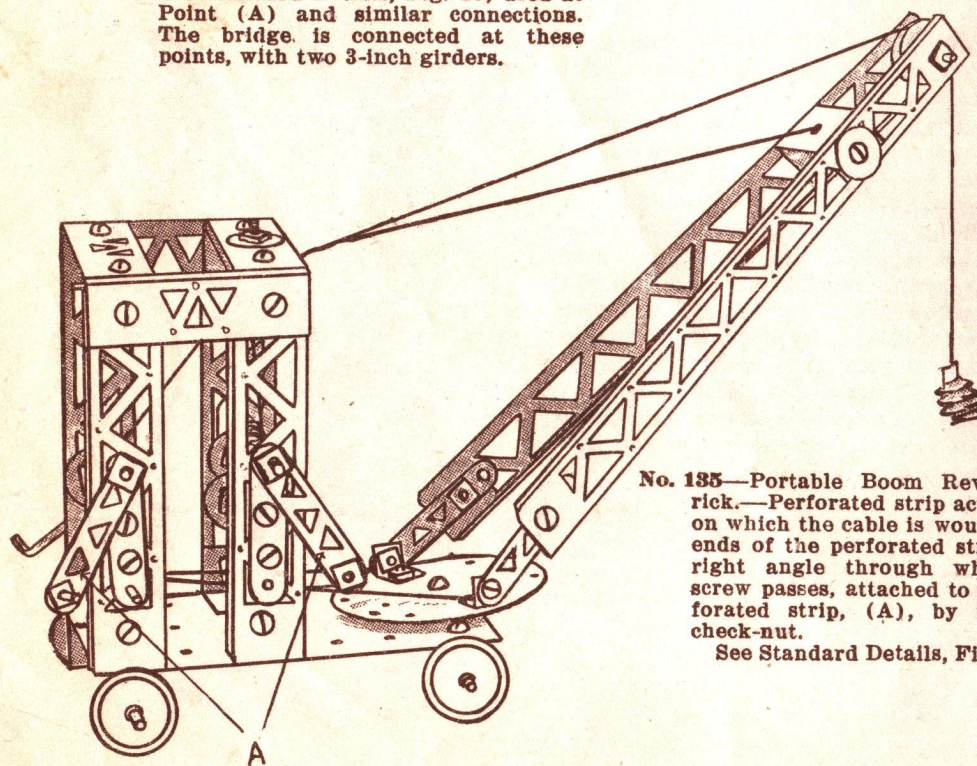
No. 128—Radial Drill Press.—Note point (C), straight angle attached to double angle on top of girder. Point (B) is straight angle, with two right angles at each end as (A). Circular base plate is attached to girder with right angle; See Standard Details, Fig. 17. Crank passes through double angle, held in place with collars; flat gear is at other end outside of which is a large wheel acting as fly wheel with small wheel on further end. Flat gear meshes with pinion held in place by straight angle (B), in the center of which is a worm gear driving another flat gear. If carefully built this model will work perfectly.



No. 131—Single Girder Bridge (Three Foot).—Build sides of bridge first. See Standard Details, Fig. 19, used at Point (A) and similar connections. The bridge is connected at these points, with two 3-inch girders.

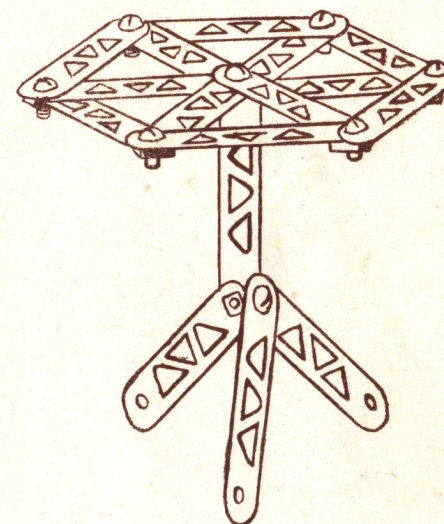


No. 132—Barrel Truck.—See Standard Details, Fig. 33 for axle. Point (B). Points A,A,A, are right angles connecting sides of wagon with cross girder. Use cardboard for bottom.

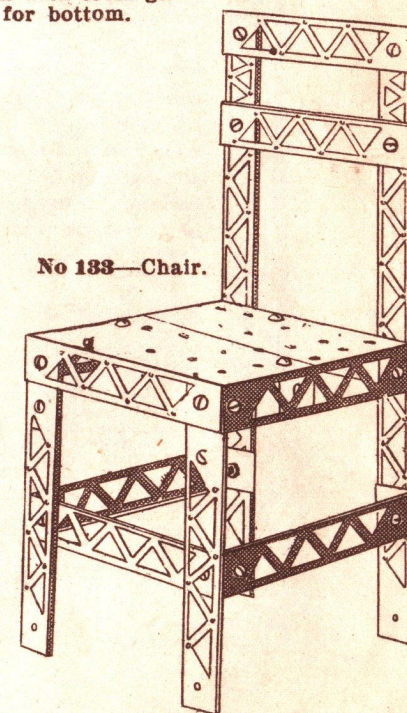


No. 135—Portable Boom Revolving Derrick.—Perforated strip acts as a drum on which the cable is wound. At both ends of the perforated strips, a small right angle through which a long screw passes, attached to another perforated strip, (A), by means of a check-nut.

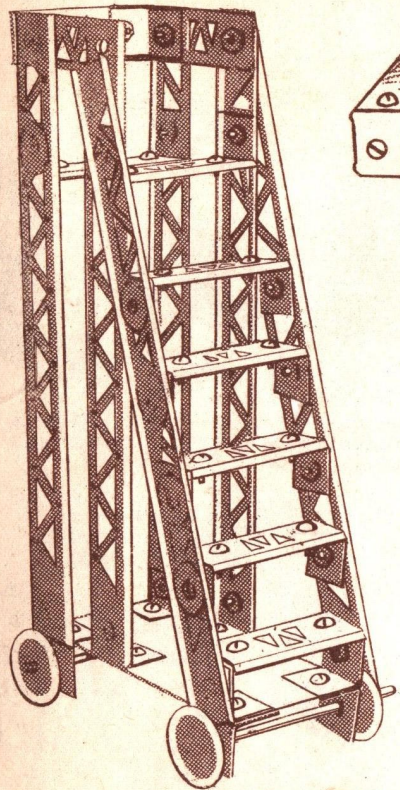
See Standard Details, Fig. 20.



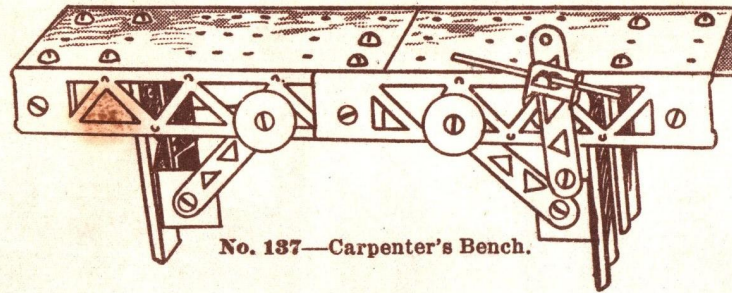
No. 134—Fancy Table.



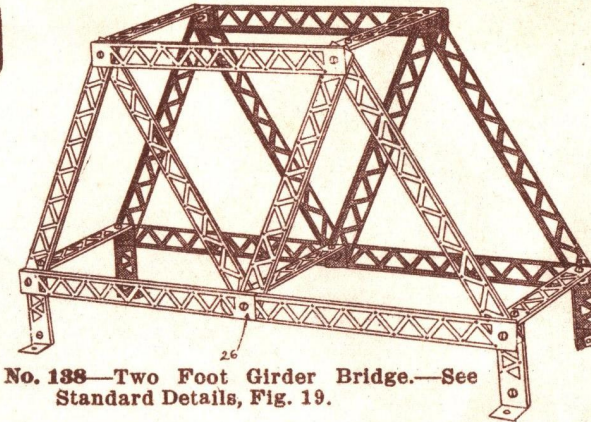
No. 133—Chair.



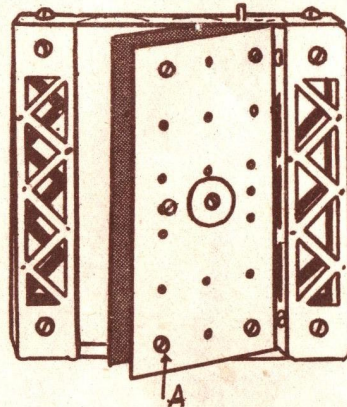
No. 136—Portable Step Ladder.



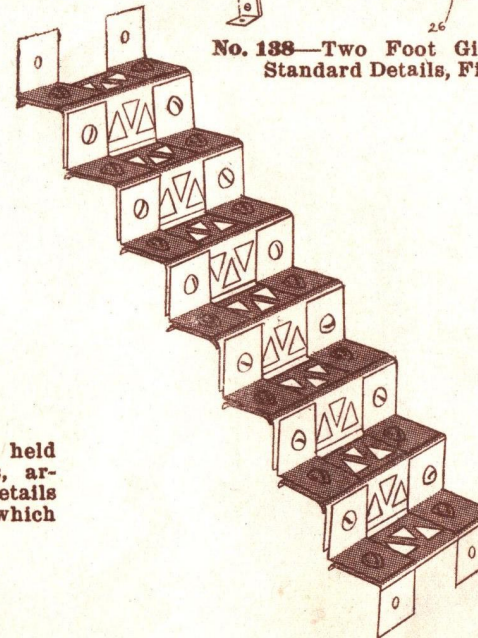
No. 137—Carpenter's Bench.



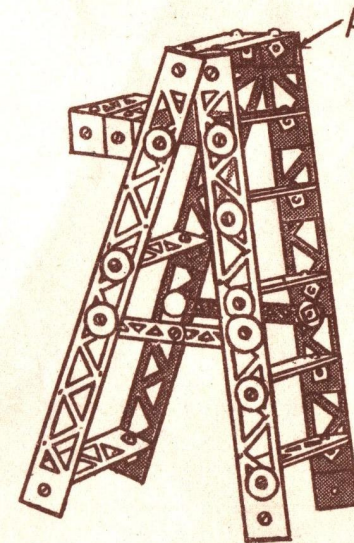
No. 138—Two Foot Girder Bridge.—See Standard Details, Fig. 19.



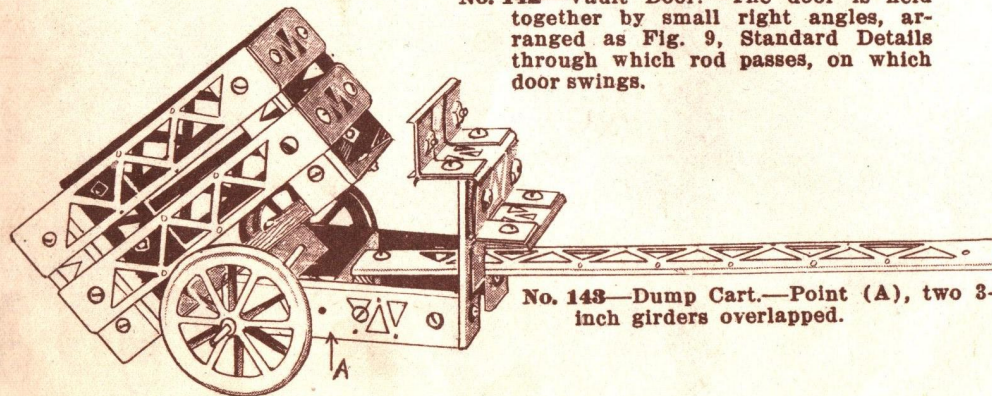
No. 142—Vault Door.—The door is held together by small right angles, arranged as Fig. 9, Standard Details through which rod passes, on which door swings.



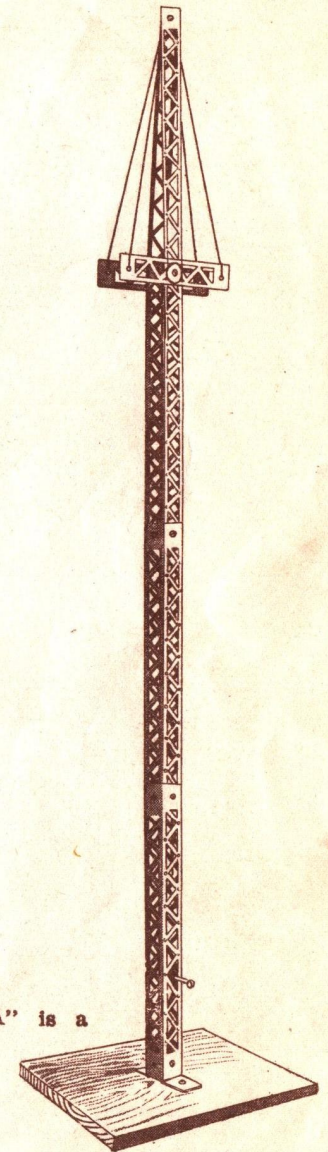
No. 141—Stairway.



No. 140—Step Ladder.—Point "A" is a straight angle.

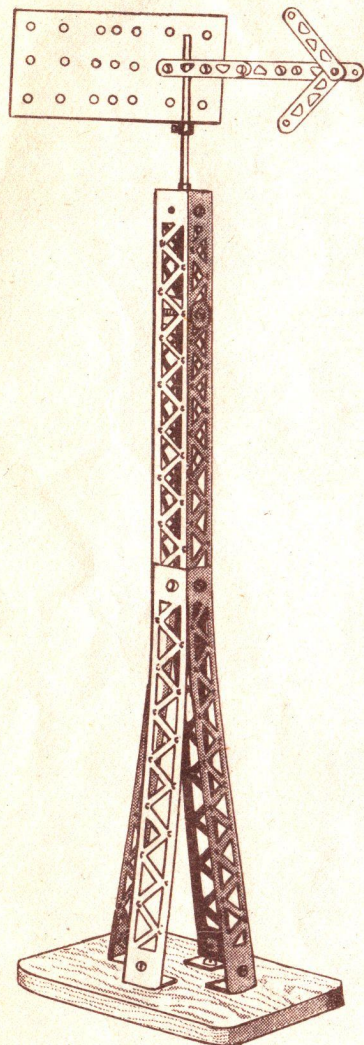


No. 143—Dump Cart.—Point (A), two 3-inch girders overlapped.



No. 139—Flag Pole.

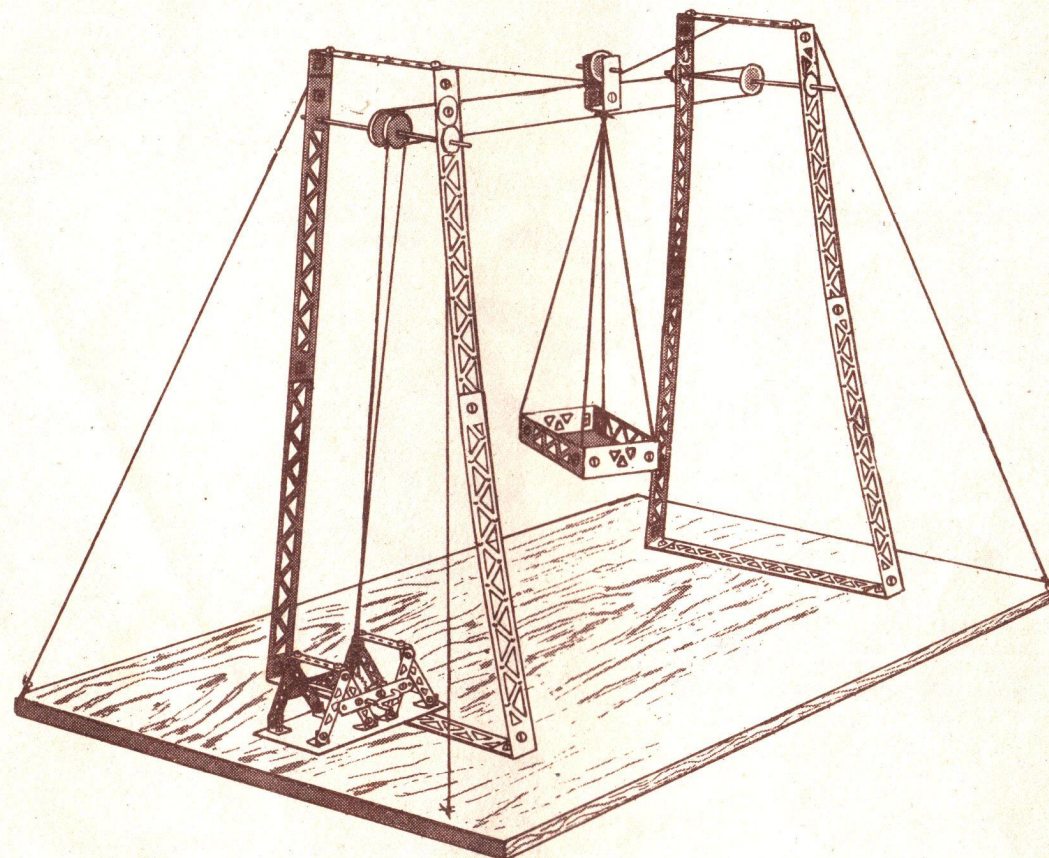
The *Mysto* ERECTOR



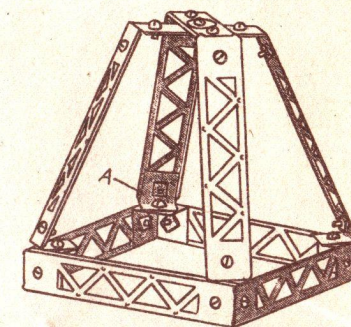
No. 144—Weather Vane.—See description of windmill, Model 131, for arrangement of rods.



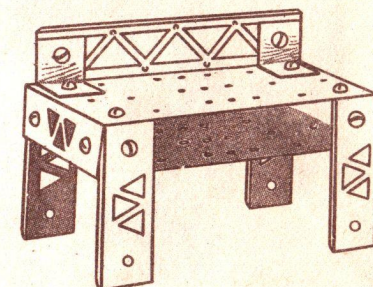
No. 145—Gun.—Trigger of gun is made of straight angle and two right angles.



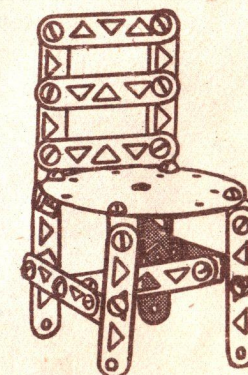
No. 149—Telepher Conveyor.—See Standard Details, Fig. 31 and gear box, Model 172.



No. 146—Candle Shade.—Point (A) is a combination of two right angles and one acute angle.

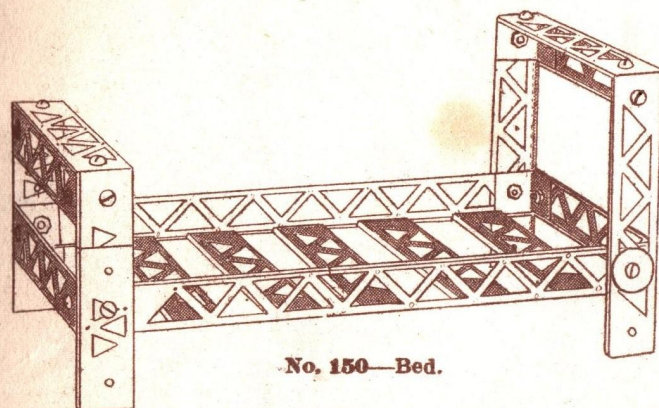


No. 147—Child's Desk.



No. 148—Chair.

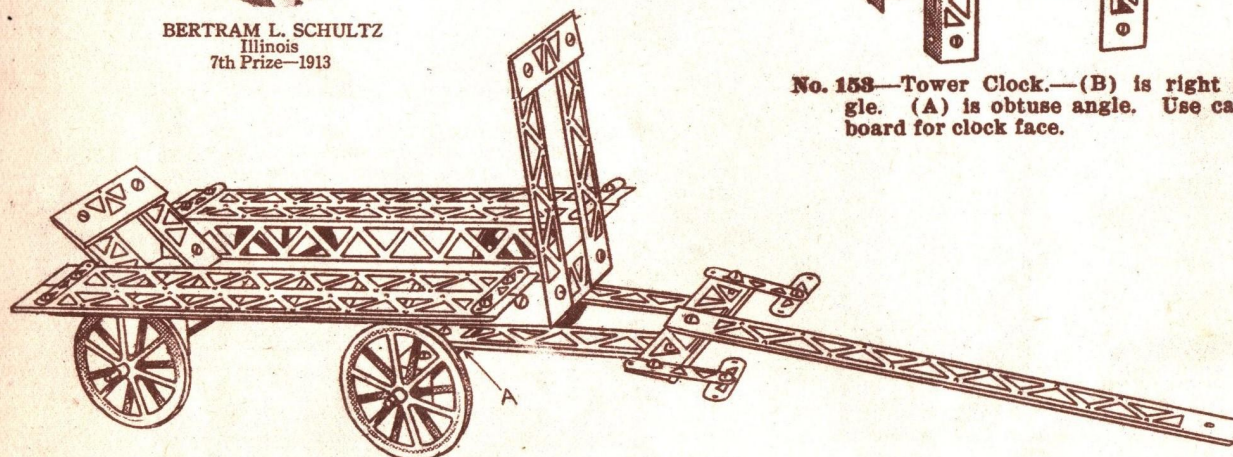
MODELS 1 TO 176 MADE WITH ERECTOR OUTFIT NO. 3 OR (NO. 2 AND NO. 2A)



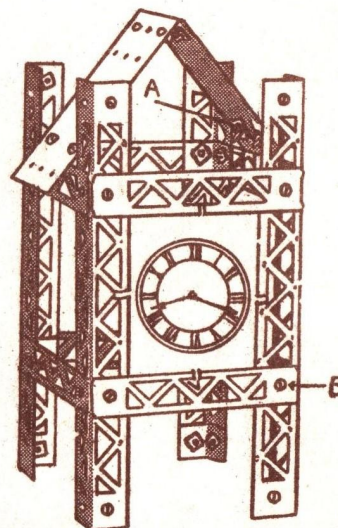
No. 150—Bed.



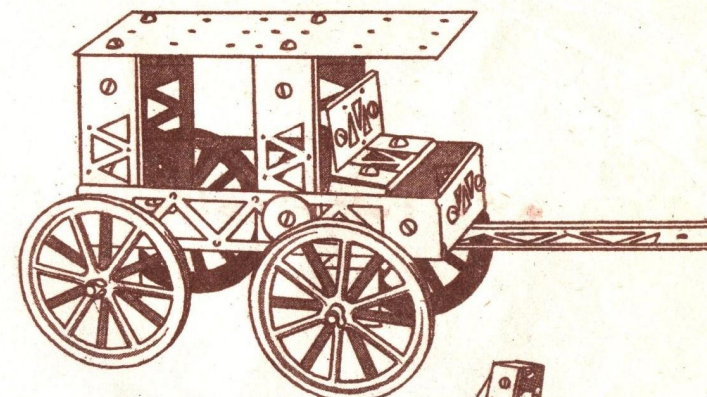
BERTRAM L. SCHULTZ
Illinois
7th Prize—1913



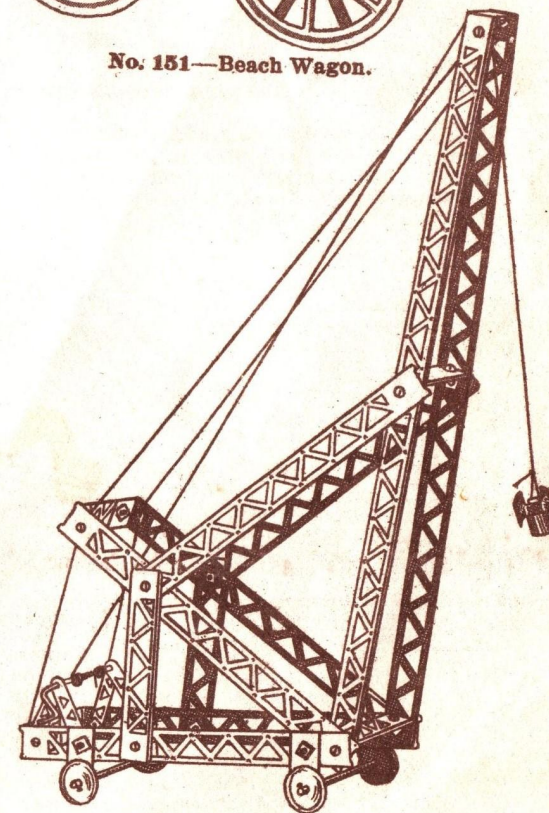
No. 154—Hay Wagon.—See Standard Details, Fig. 33, for wheel construction. Use two base plates for bed. Rest of construction very simple.



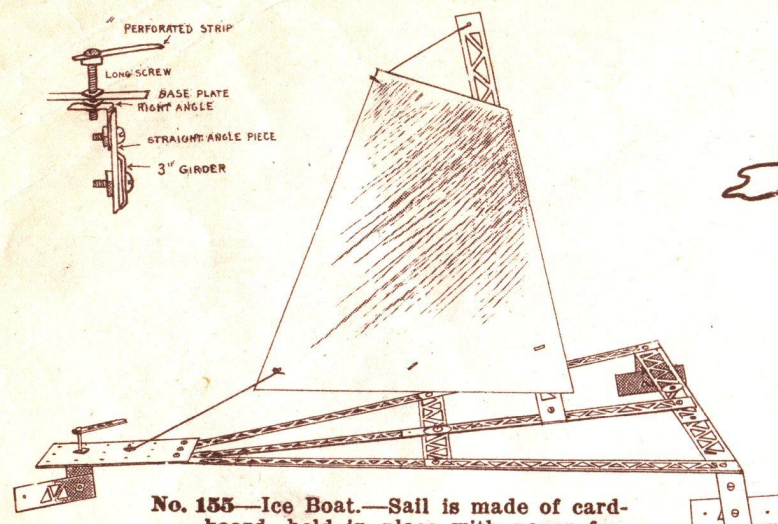
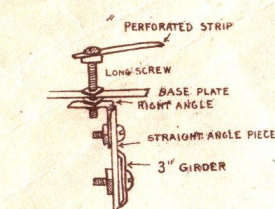
No. 153—Tower Clock.—(B) is right angle. (A) is obtuse angle. Use cardboard for clock face.



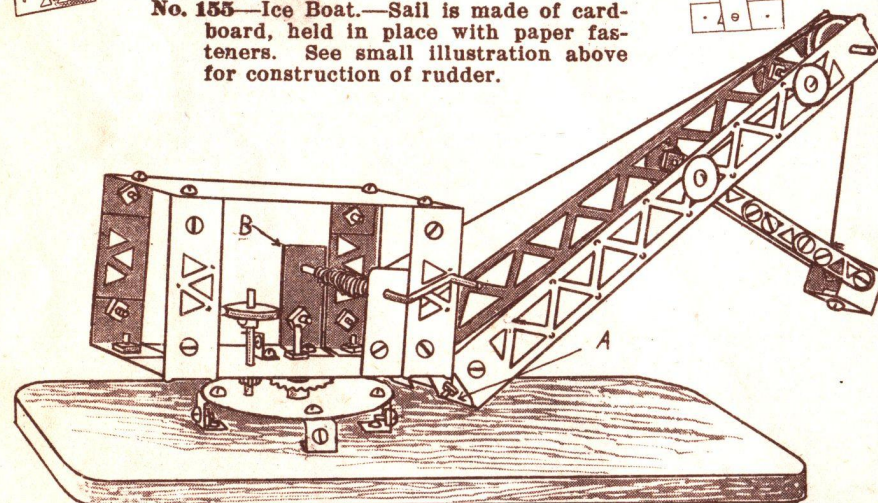
No. 151—Beach Wagon.



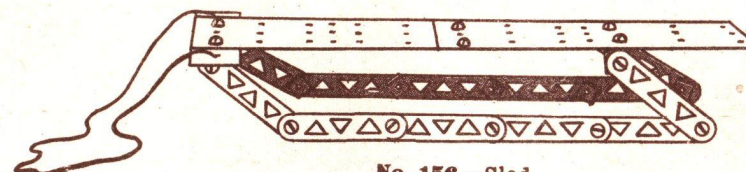
No. 152—Portable Crane.



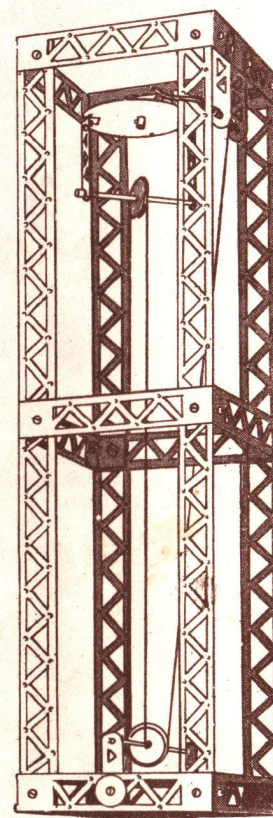
No. 155—Ice Boat.—Sail is made of cardboard, held in place with paper fasteners. See small illustration above for construction of rudder.



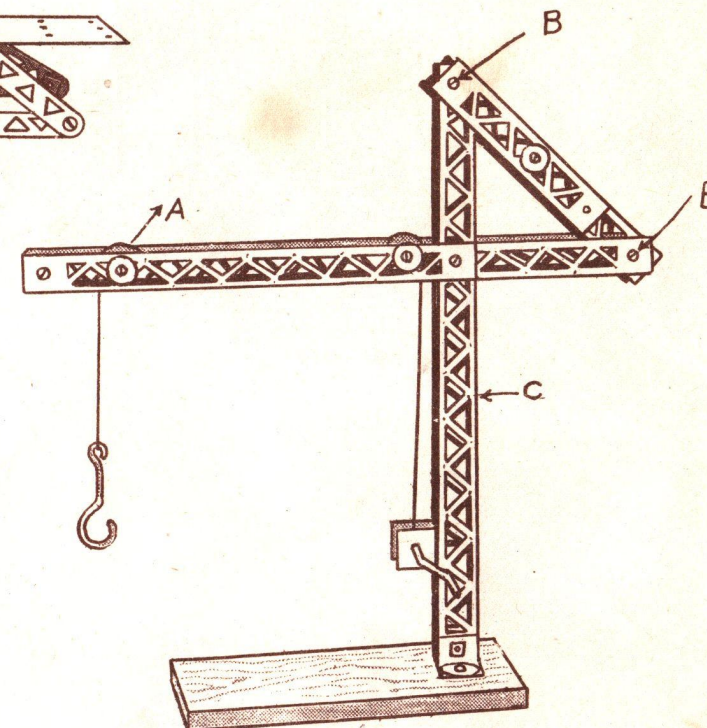
No. 160—Stationary Boom Steam Shovel. (B) is a straight angle. (A) is obtuse angle attached to base plate. Circle plate has a large screw passing up from the bottom through flat gear, washer between. Base plate with nut on top holding them tight together. Small pinion with wheel on top as handle, revolves the car on the base.



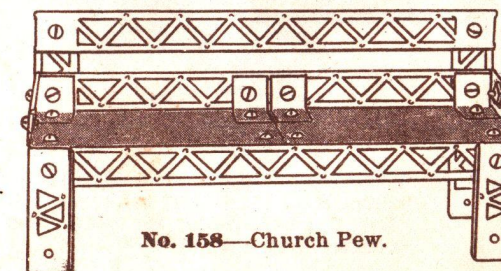
No. 156—Sled.



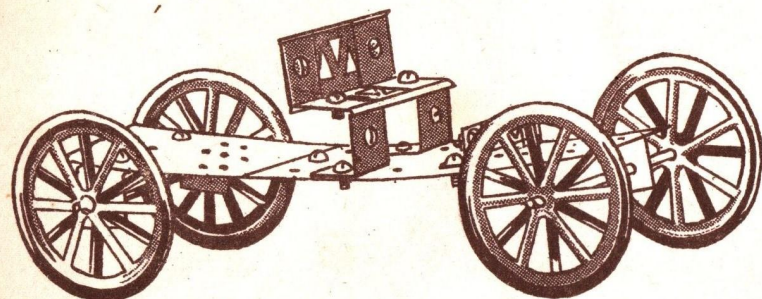
No. 159—Single Car Elevator.



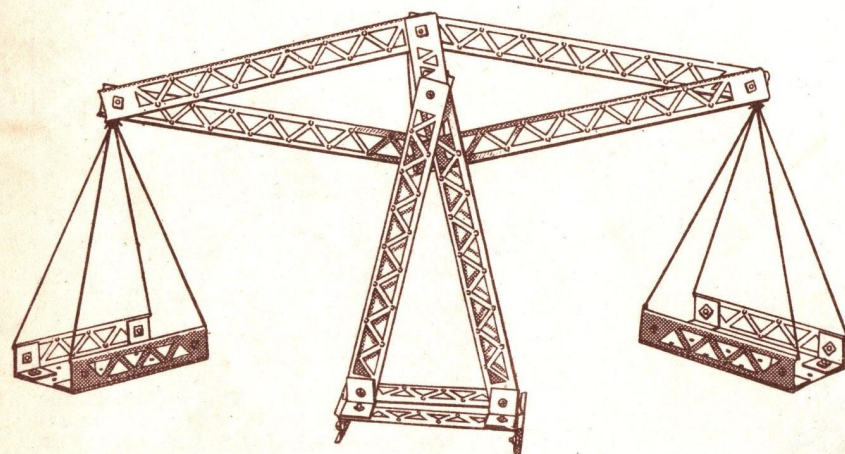
No. 157—Stationary Derrick.—(C) is a 12-inch square column girder, with 6-inch square column girder on top. The other parts are made of single strips held apart by double angles. Two pulleys as (A) take care of the cable with a double angle for a crank for hoisting.



No. 158—Church Pew.



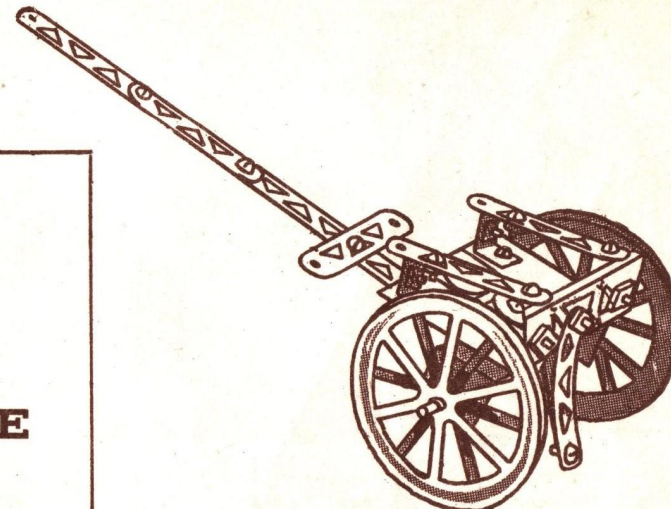
No. 161—Buckboard.



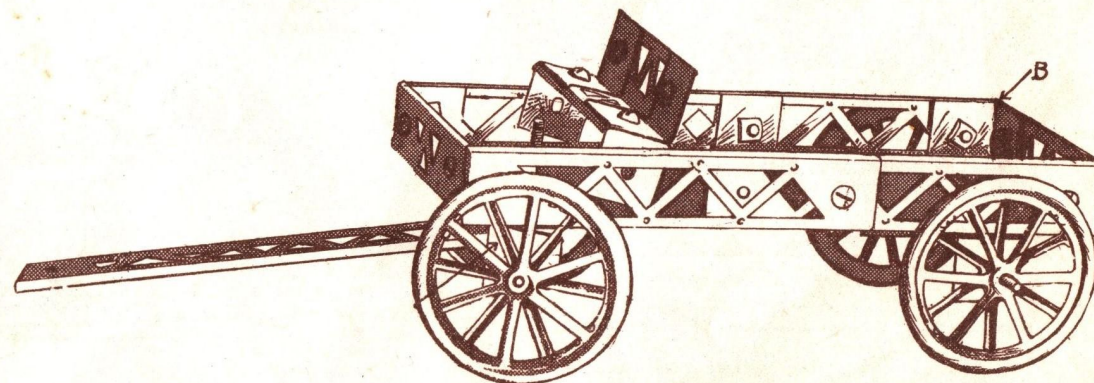
No. 165—Apothecary's Balance.

GET IN
ON
OUR PRIZE
CONTEST

NOW GOING ON

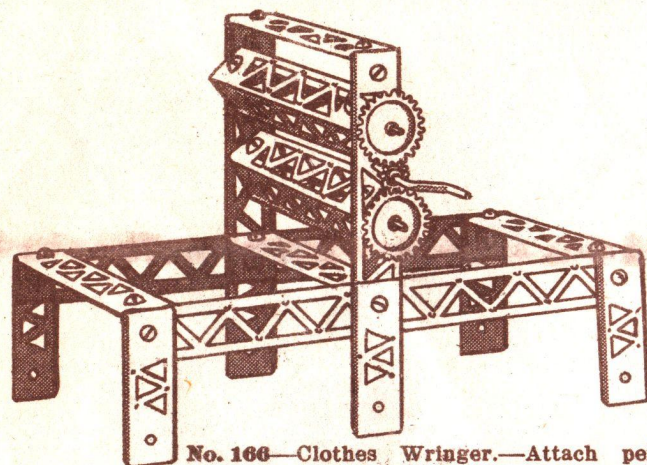


No. 162—Never Tip Baby Cart. The 3-inch girder, with right angle on each end forms bearing for axle. To this, right angles attached from back of seat and hand rails are made of perforated strips held in place with small angle. Use cardboard for seat, fastened with paper fasteners.

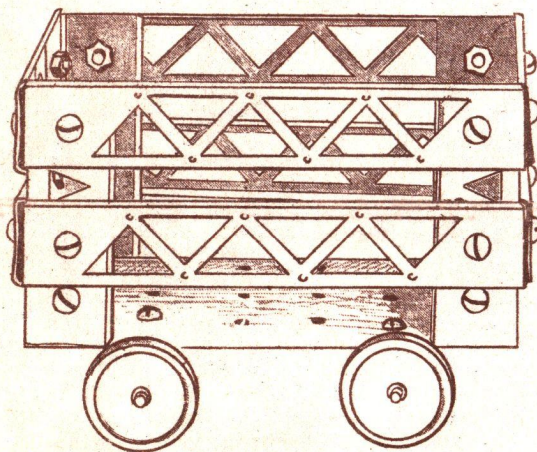


No. 163—Farm Wagon.—See Standard Details, Fig. 33 for front axle construction. Fig. 11, Standard Details for corner construction, for attaching base plate.

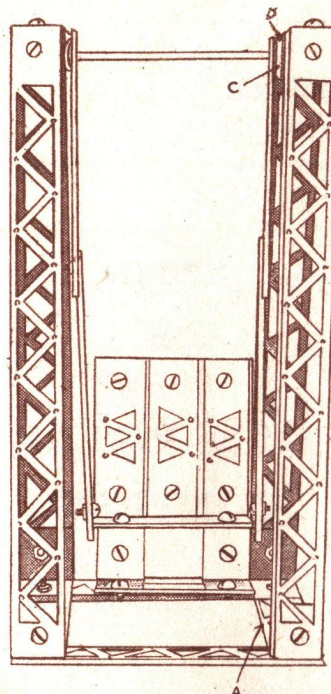
MODELS 1 TO 176 MADE WITH ERECTOR OUTFIT NO. 3 OR (NO. 2 AND NO. 2A)



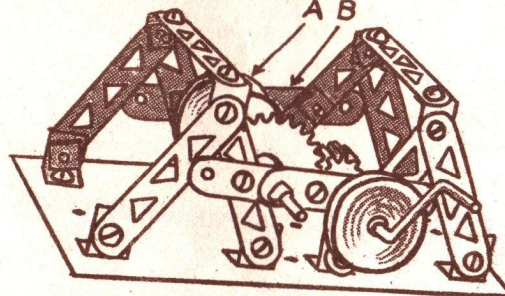
No. 166—Clothes Wringer.—Attach perforated strips on inside of 6-inch upright girders for bearing for square girders which represent the wringer. A screw is fastened to the double angle which is at the end of each of the square girders, to which the gears are fastened. The pinion gear is fastened to the crank which is then placed in between the two gears. When the crank is turned the pinion will drive the gears which will turn the wringer.



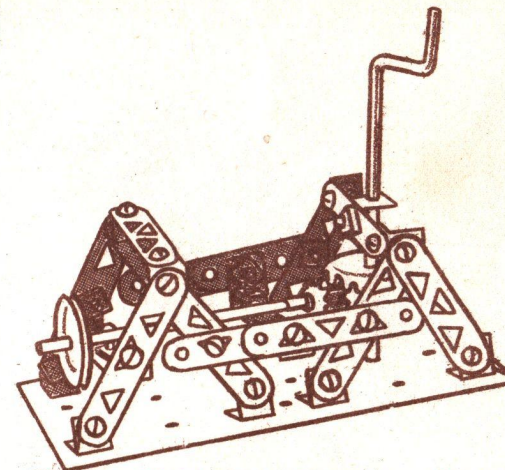
No. 171—Box Truck.



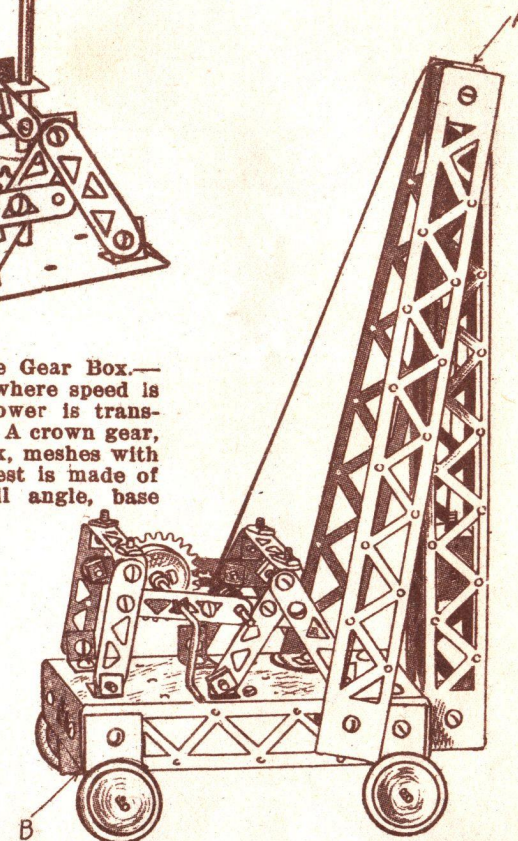
No. 167—Swing.—(B) is a 3-inch girder with right angle. (C) attached to center for bearing. (A) is 6-inch girder.



No. 170—Drum Gear Box.—This style of gear box is used on hoists to wind a cable. Small pinion on shaft with crank and wheel drives the flat gear, on which are two pulley wheels, about one inch apart between which the cable winds up, acting as a drum.



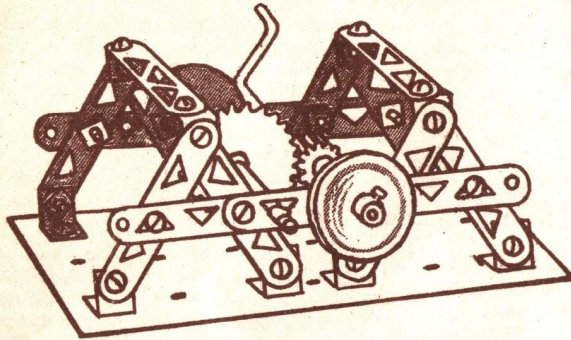
No. 168—Right Angle Drive Gear Box.—This gear box is used where speed is required and where power is transmitted, at right angles. A crown gear, held in place with crank, meshes with pinion on axle. The rest is made of perforated strips, small angle, base plates and pulleys.



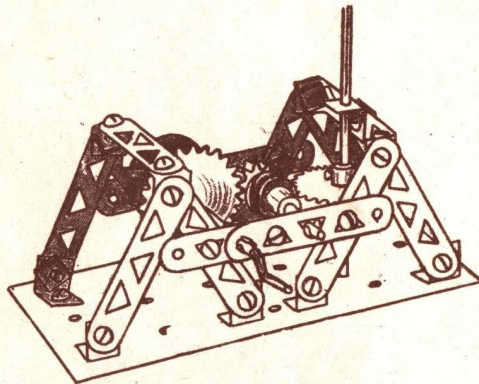
No. 169—Pile Driver.—The weight on the pile driver is made of two double angles, meshed together and filled with washers. The string attached to the weight passes over point (A) down to axle on which is a small pinion. This is driven by a flat gear on crank. Wind the weight up by turning the crank, then draw crank to one side which releases it from the pinion and the weight will drop as a pile driver.

The Mysto ERECTOR

GEARS AND PULLEYS

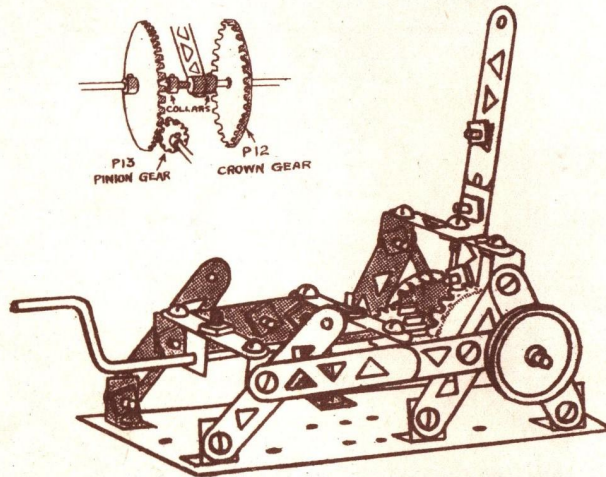
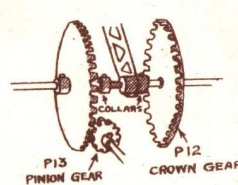


No. 172—Low Speed Gear Box.—The small pinion is the driver and the large gear the driven. In this type the power is increased and the speed decreased, and is designed to lift heavy weights. Note—Operated by hand or Mysto Erector Motor.



No. 176—Horizontal Worm Drive Gear Box.—This is used for revolving bridges, etc. The flat gear drives the small pinion on the same shafting with worm gears which meshes with another flat gear on perpendicular shafting. By turning the crank perpendicular shaft will revolve very slowly.

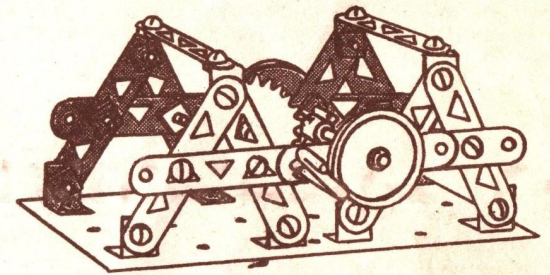
Gears and pulleys provide a means for transmitting power, increasing power, and regulating speed. If power is desired speed must be sacrificed. If speed is desired power must be sacrificed. The driving wheel is called the driver and the driven wheel the driven. These different styles of gear boxes are shown together to illustrate and treat practical mechanics. They also offer the builder a variety of different kinds of power from which he can select the most practical for any particular model.



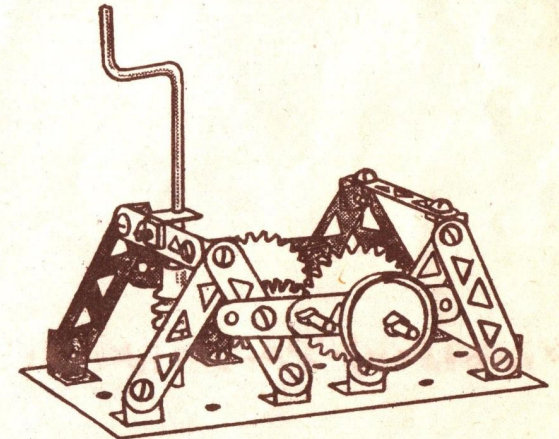
No. 174—Reversing Gear Box.—This type of gear box enables the operator to change the direction of motion of the shaft from which the power is transmitted without stopping the power.

See Illustration above.

The lever is attached to the rod or shafting by placing three collars between two crown gears, and then attaching a small angle by means of the set screw, but allowing the rod to rotate freely, not tightening up on the set screw, but do tighten the outside ones. The lever which is made of a 3-inch perforated strip is attached to the small angle by a screw and nut. The wheel is then placed upon the shafting which will act as drum, to which to fasten cable.



No. 173—High Speed Gear Box.—The large gear is the driver and the small pinion the driven. In this type the speed is increased and the power diminished, and is designed for a gear box where high speed is wanted, not power.



No. 175—Vertical Worm Drive Gear Box.—The worm is the driver and the gear the driven. The power cannot be reversed. This style gear box is used where power is required and not speed, and also where power is to be transmitted at right angles.

THE MYSTO ERECTOR MOTOR

THE 1914 MYSTO ERECTOR MOTOR.

The Mysto Erector motor is designed especially for use with Mysto Erector outfits. It is very powerful and much more efficient than the ordinary battery motor. It operates equally well on either direct or alternating current of low voltage. It is provided with holes in the base for attaching it to Erector models like the other parts of the outfits.

Battery Current.

To operate on direct current it requires one to four dry cells according to power wanted. If used on storage battery one or two cells of two volts each or a 4-volt battery will do nicely.

House Current and Transformer.

To operate on house current, it will be necessary to use a transformer to reduce the voltage, to from six to twelve volts according to size of transformer.

Warning.—Do not connect the motor to the house current without a trans-

former or reducer of some kind, as the voltage is too high and will destroy the motor and perhaps do some damage to the house circuit.

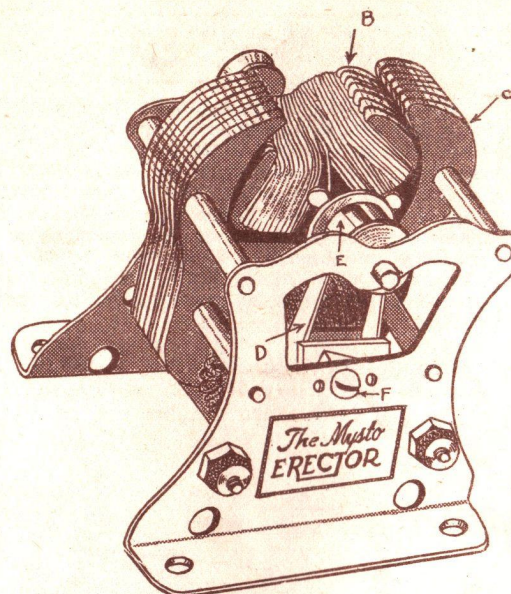
Transformer and Reducer.

Do not purchase a transformer or reducer for the house current until you find out what current is used; as it is direct current in some places and alternating current in others. A transformer for alternating current would be destroyed if connected to direct current. This is also true for direct current transformers on alternating current.

Efficiency.

Our motor is highly efficient because it has a short magnetic circuit; a small air space between armature (B) and magnet poles (C). It is made of high grade steel laminations; has thoroughly insulated windings; has large pole surface; has low friction brushes (D); has well proportioned windings; and is perfectly constructed throughout.

The Mysto
ERECTOR



No. 177—Motor.

FUN? — I SHOULD SAY SO!

Testing.

Each motor is properly adjusted and thoroughly tested with load before being shipped.

Operation With Models.

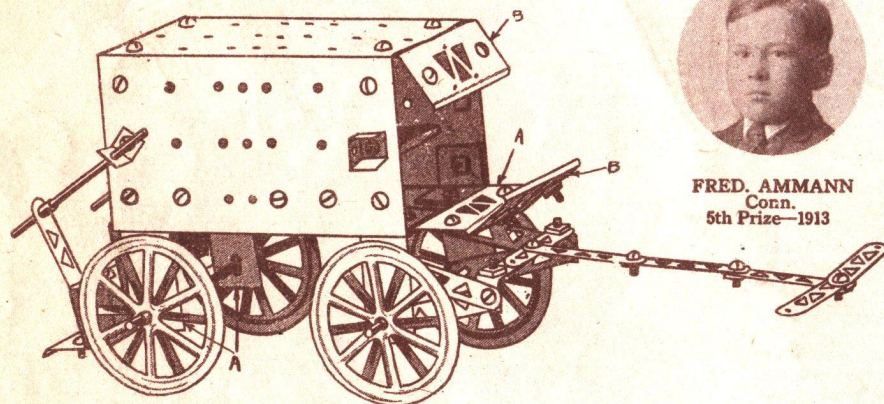
In operating models it is advisable to belt from the motor to a large pulley as the power of the motor is in proportion to its speed. For intermittent use where considerable power is required the motor can be forced by increasing the current but this should not be done very often as it strains the motor in many ways. Be sure to keep the bearings and commutator oiled sufficiently to prevent wearing them out.

Brushes and their adjustment to Commutator.

We use strip brushes in preference to the gauze brush commonly used on battery motors, because they save power by less friction on the commutator and are much more easily adjusted to the proper finger.

The adjustment is made to both brushes at the same time by slightly loosening the brush-holder screw (F) pressing both brushes at the same time sufficiently to give the desired tension, and then tightening the screw. The pressure to brushes should be applied about half way between brush-holder and commutator with the thumb and forefinger.

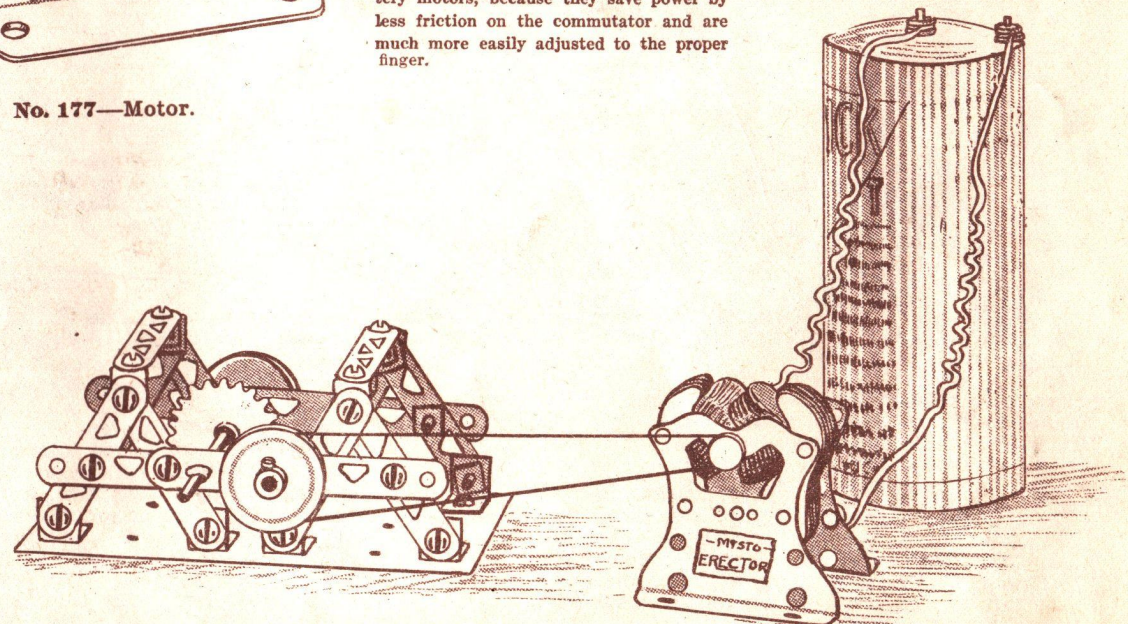
The brushes are so located that the possibility of getting out of adjustment is reduced to a minimum. With just sufficient tension in the brushes and a small drop of oil occasionally on the commutator (E) the brushes will last a long time and should they wear out can be replaced. (See price list of parts on page 64).



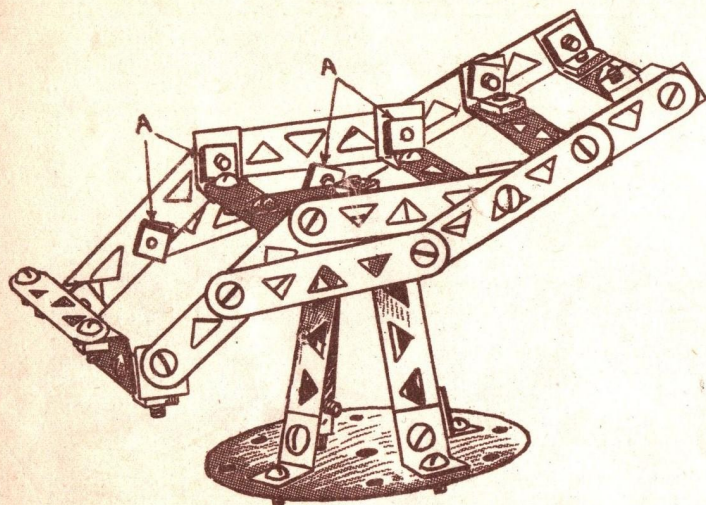
No. 178 —Police Patrol.—Build body first out of four base plates. Bearings for wheels are made of straight angles, see (A), also see Standard Details, Fig. 8. Hold wheels on shafting with collars. (B) is obtuse angle. Build steps separately, (see Model No. 141, Set No. 3), and attach to wagon. Foot rest is attached to body with straight angle, see (A). Side lamps made by forming three small angles.



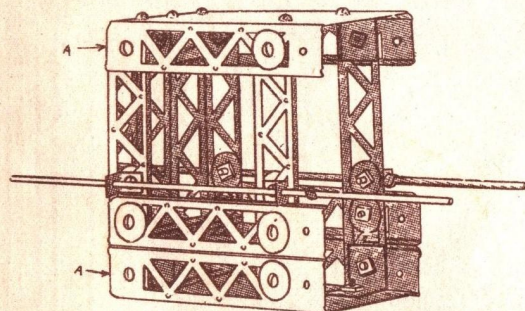
FRED. AMMANN
Conn.
5th Prize—1913



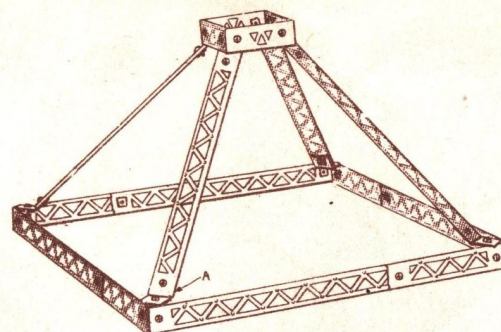
No. 179—Low Speed Gear Box-Motor Driven.—See Model No. 172, Set No. 3 for construction of gear box.



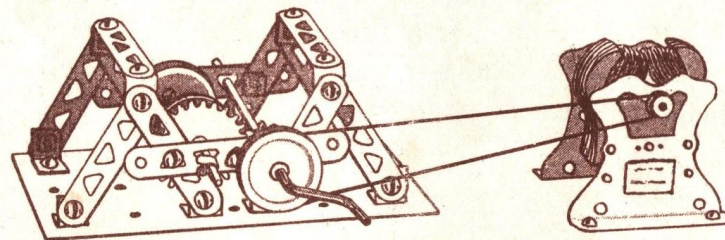
No. 180—Barber's Chair.—This chair requires no description other than to say if all screws marked (A) are not fastened tight, this chair can be raised and lowered as a regular barber chair. It revolves on a central screw.



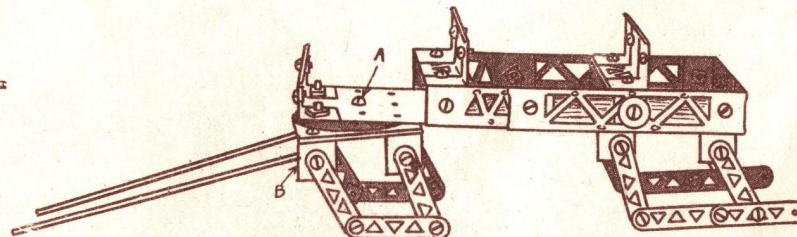
No. 185—Sedan Chair.—For construction at point (A) see Standard Details, Fig. 11.



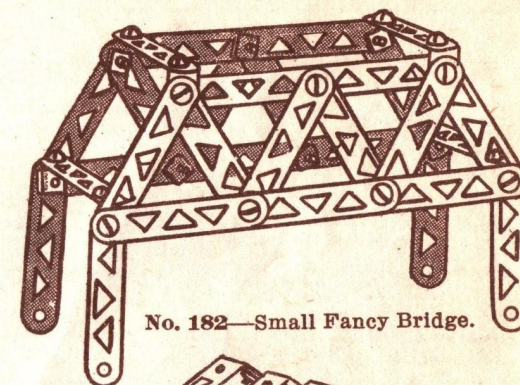
No. 181—Lamp Shade.—Corners of this shade are constructed as shown in Fig. 12 of Standard Details.



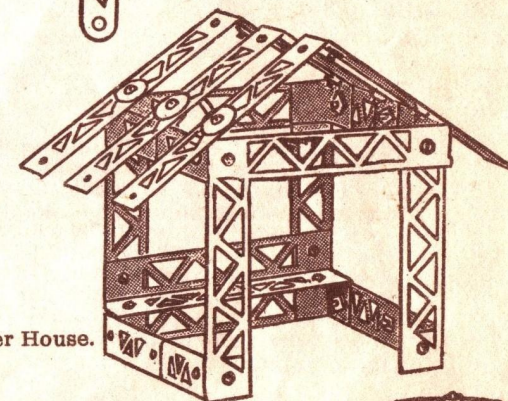
No. 184—Drum Gear Box—Motor Driven.—See Model 170, Set No. 3 for construction.



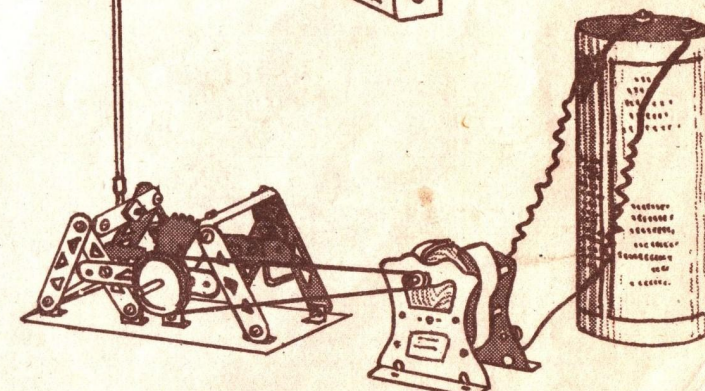
No. 186—Sleigh.—For body of sleigh use base plates. Front sled is made of three 3-inch girders fastened to circle plate. (B) is a right angle. (A) is check-nut allowing front to turn easily.



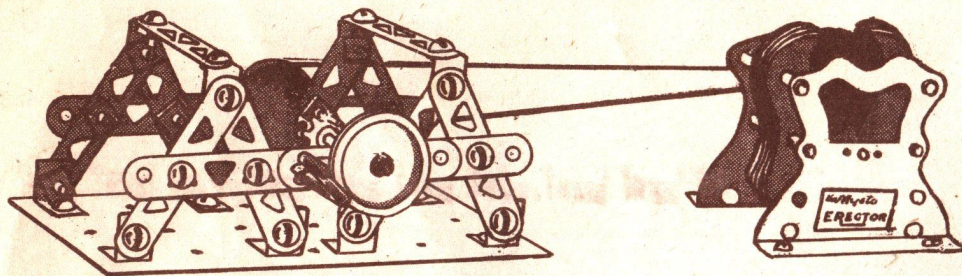
No. 182—Small Fancy Bridge.



No. 183—Summer House.

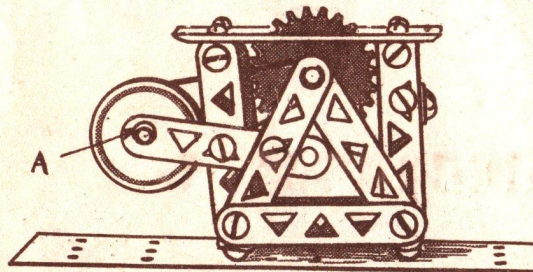
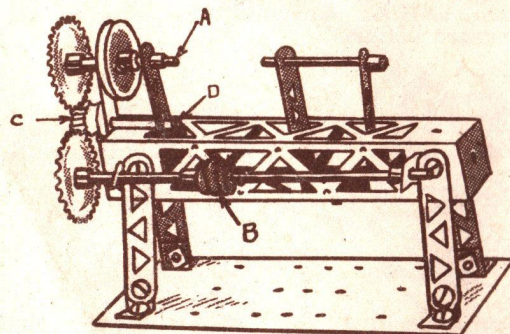


No. 187—Horizontal Worm Right Angle Drive G. B.—Motor Driven.—See Model 176, Set No. 3 for construction of Gear Box.

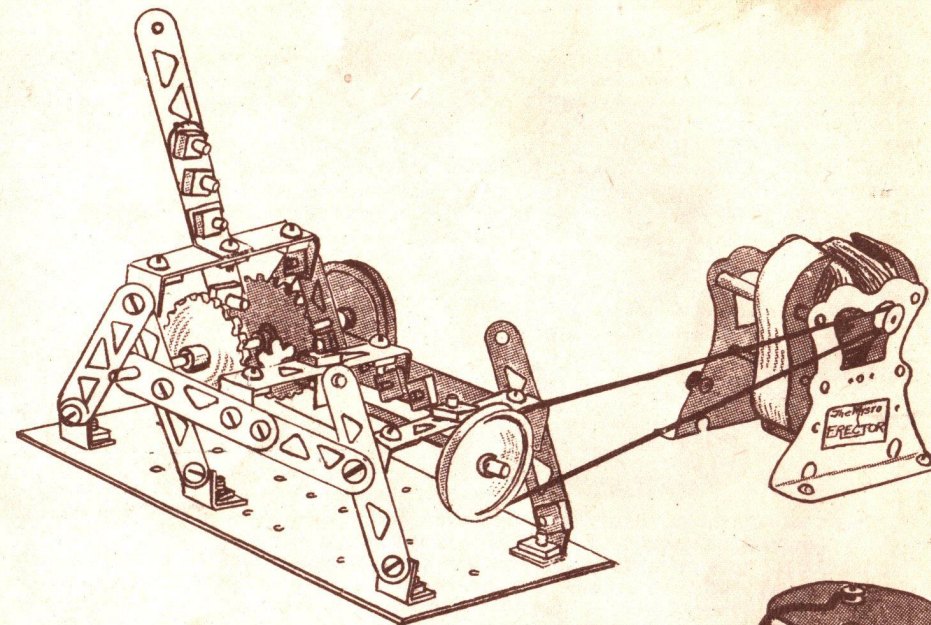


No. 188—High Speed Gear Box—Motor Driven.—See Model No. 173, Set No. 3.

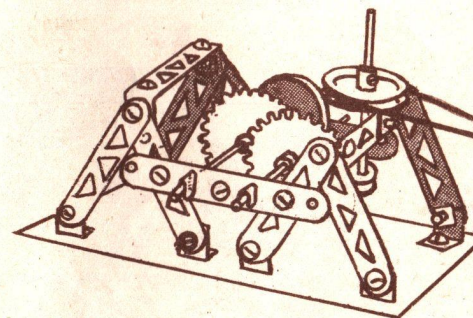
No. 189—Lathe.—Build 6-inch square girder first. On the head piece there are two shafts, one to which the pulley is attached (Shaft A), for belt driving, and the other which supports the pinion gear, (Shaft D). (C) is the pinion. The object of the worm gear (B) on the lathe is for the adjustment of the feed, the worm gear being driven at the desired speed by changing gears on the head stop:



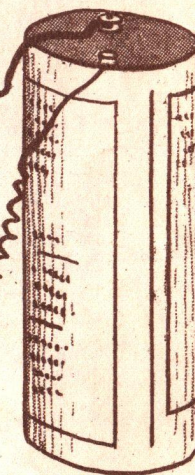
No. 192—Buzz Saw.—Top of table is made of two 3-inch girders, placed side by side and held together with perforated strips; large flat gear is used as saw which is placed between the two 3-inch girders. There are two pulleys on the rear shaft (A), one to which the belt is attached to drive the saw and the other, a belt is attached from the driving shaft or motor.

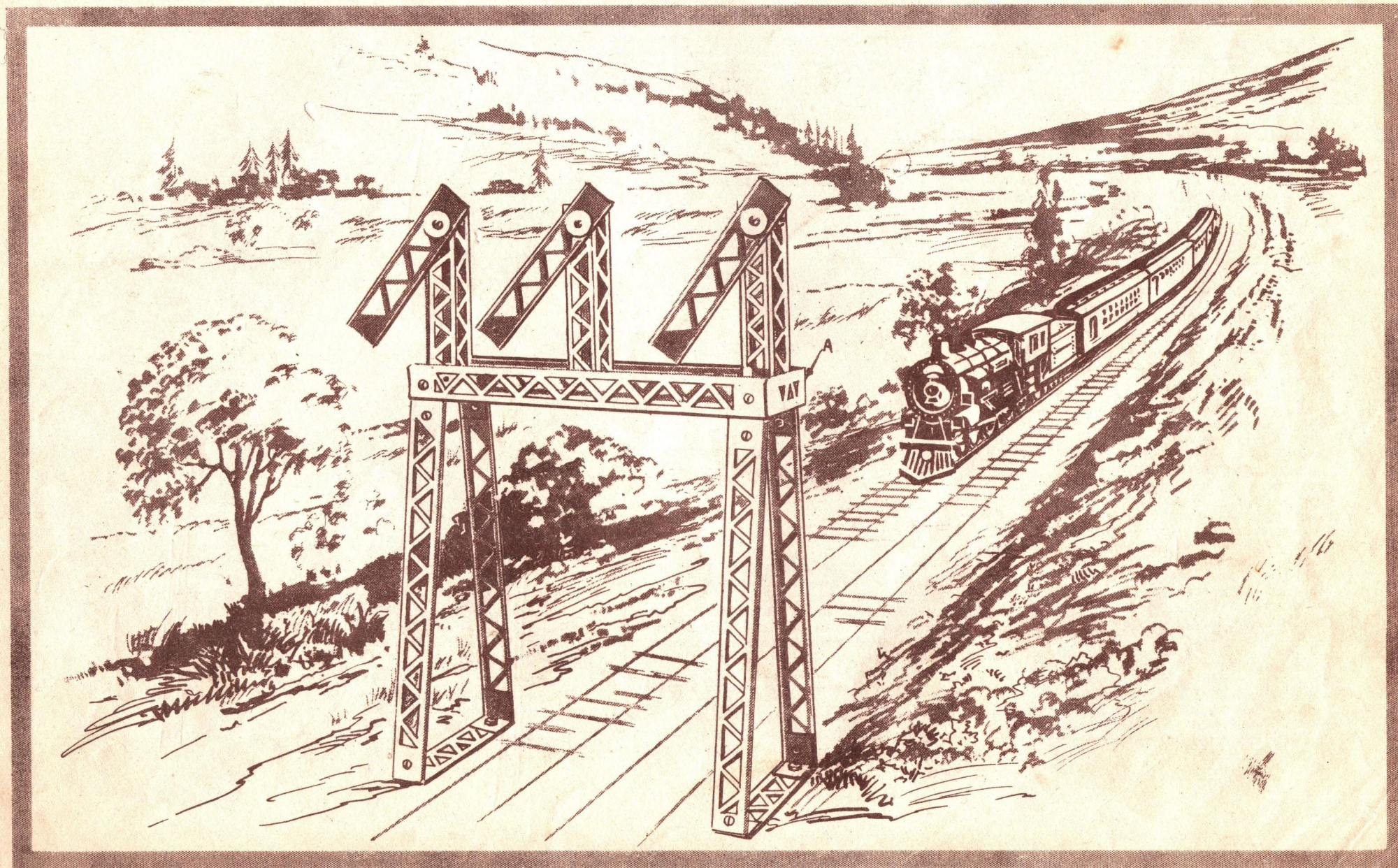


No. 190—Reversing Gear Box—Motor Driven.—See Model 174, Set No. 3 for construction.



No. 191—Vertical Worm Drive Gear Box—Motor Driven.—See similar Model 175, Set No. 3 for construction.





No. 193—Triple Semaphore.—Use base plates for three Signals to rest on. For connections at point (A) see Fig. 11, Standard Details.

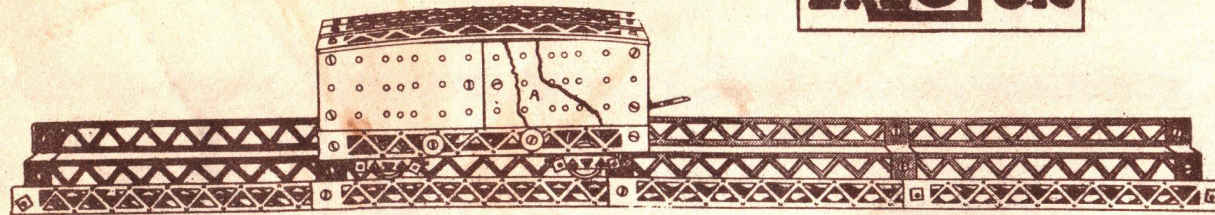


Fig. 1

THIRD RAIL MOTOR CAR Model No. 194

The Car.—The construction of the car itself is simple and needs no other description than the illustrations themselves, Fig. 4.

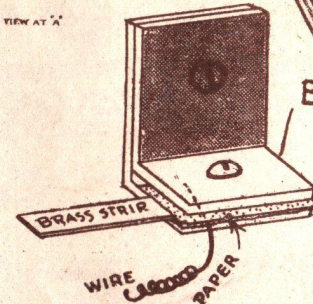
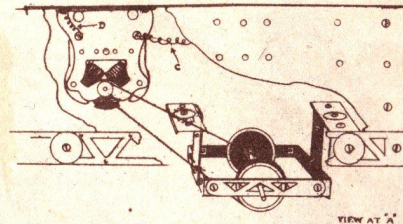
Contact Strip.—The method of attaching and insulating the contact strip is shown in Fig. 2. One wire from the motor is clamped with the contact strip as shown, between two angles. The wire and strip must touch each other but are insulated from the angles by a piece of thin card or heavy paper folded as shown.

The other wire from the motor is fastened under any screw head in the car, it only being necessary to make an electrical connection with body of the car.

Track and Third Rail.—Fig. 4 shows the general appearance of the track and how the third rail is supported above and to one side of the main track.

Insulation.—A piece of thin card five-eighths inches wide and one inch long is folded along its length into three parts, two of which enclose the edge of the girder, the third standing up as shown in Fig. 3 to prevent the end of an angle from touching the face of the girder. These supports are attached at every lap joint of the third rail and attached as shown at every lap joint of the main track, the rails of which are spaced the proper distance apart by means of 6-inch girder.

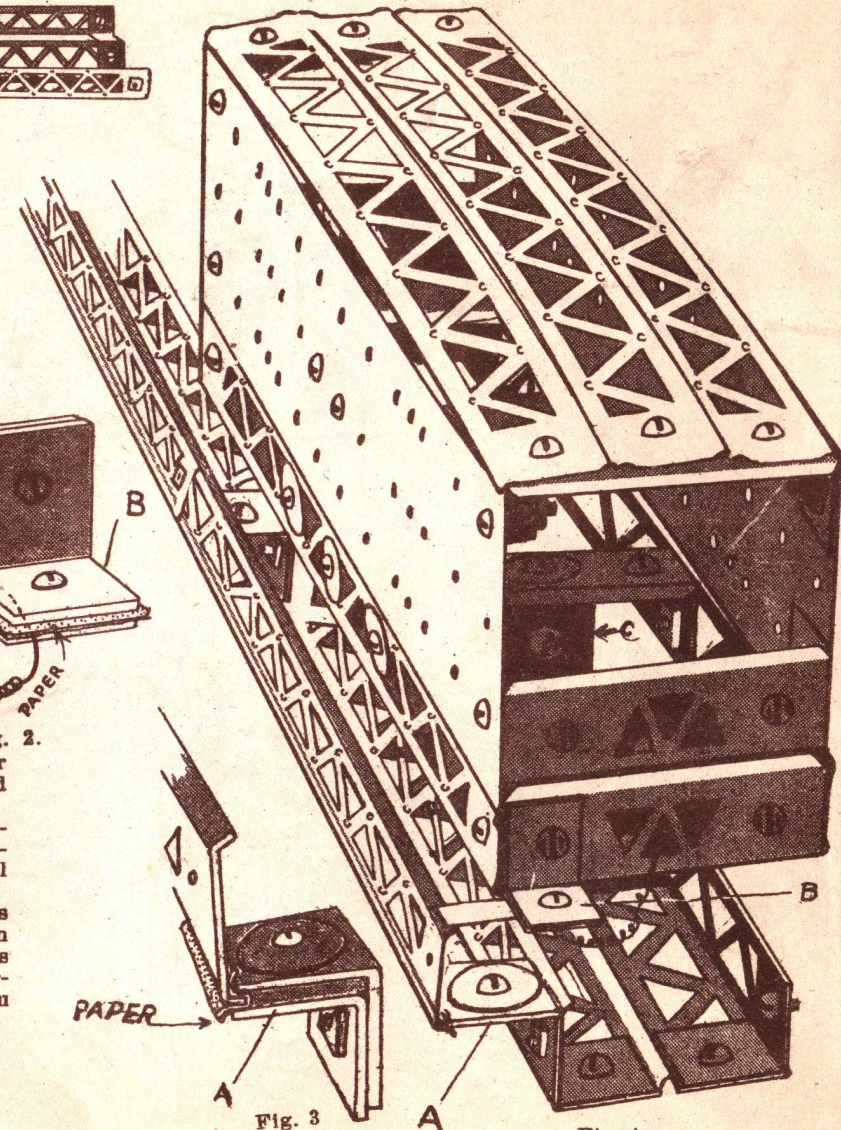
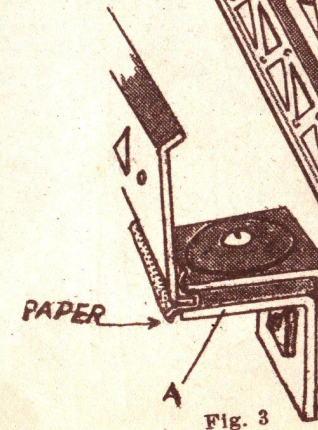
When track is complete, if directions are carefully followed, the third rail will be entirely insulated electrically from the rest of the track.



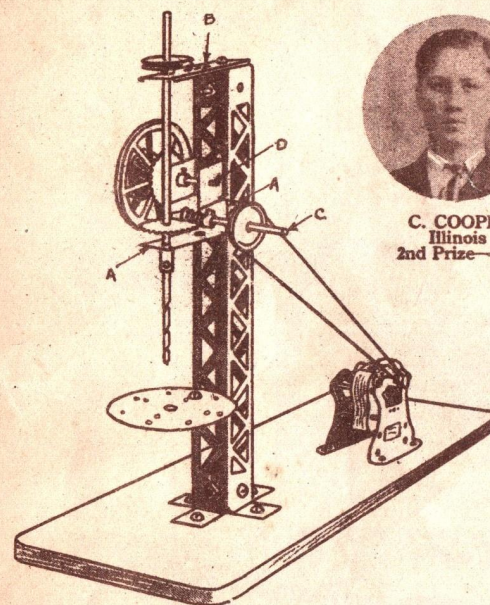
Power.—Now attach one wire of your battery anywhere to the main track and the other to your third rail.

If care is taken throughout the construction of this model, to insulate perfectly as described, this car cannot fail to operate.

Write us.—Remember we are always willing and ready to give any information desired—do not be afraid to write us about any models that you cannot understand. Be sure to study them before you write.



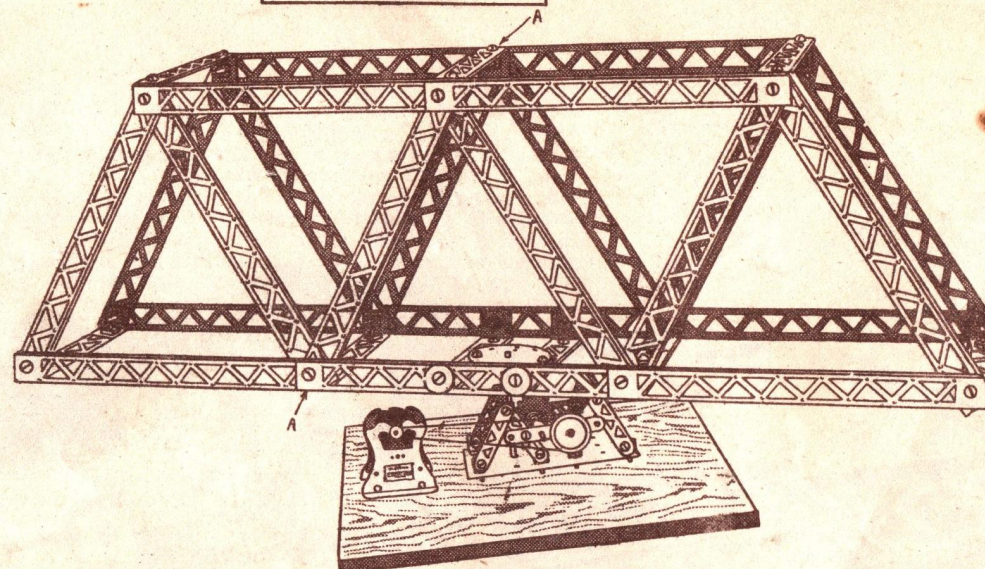
The Mysto ERECTOR



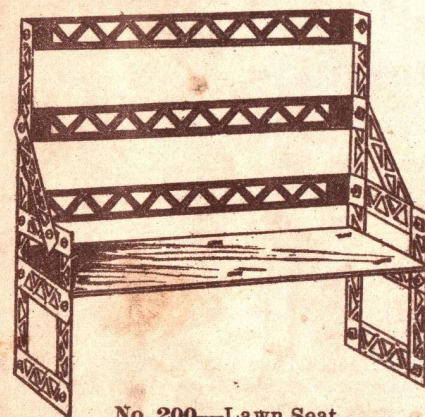
No. 195—Radial Drill Press—See Model No. 128 for description to build.



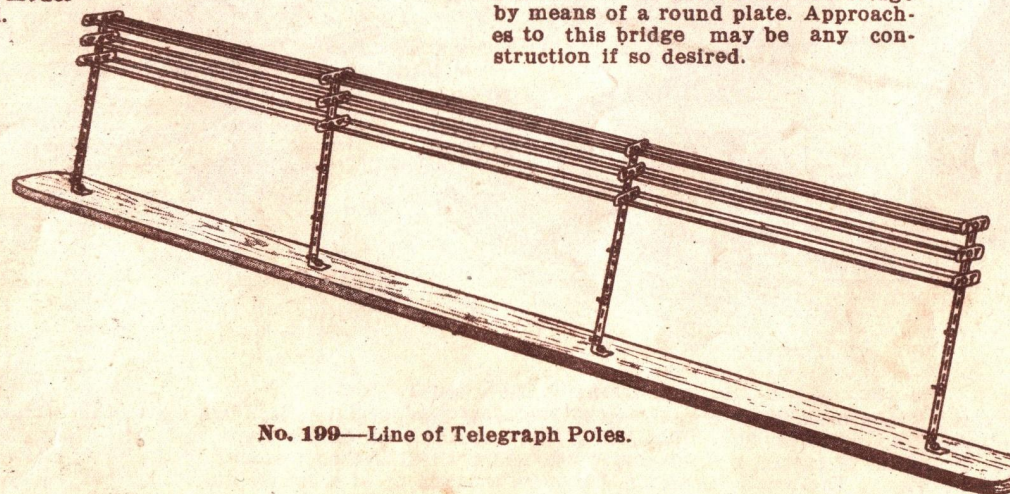
C. COOPER
Illinois
2nd Prize—1913



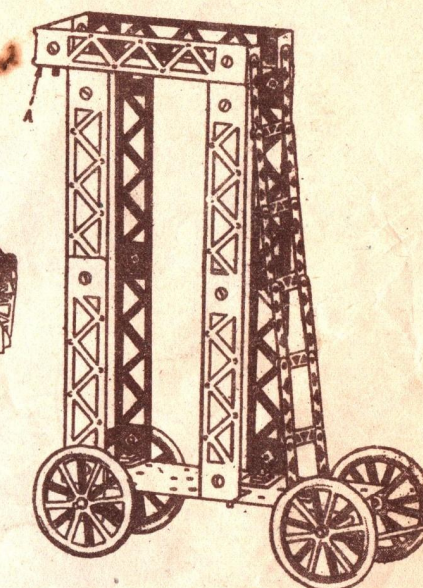
No. 196—Revolving Bridge.—See Model 131, for construction of bridge. See Gear Box Model 172, for construction. The vertical rod in the gear box is attached to the bottom of the bridge by means of a round plate. Approaches to this bridge may be any construction if so desired.



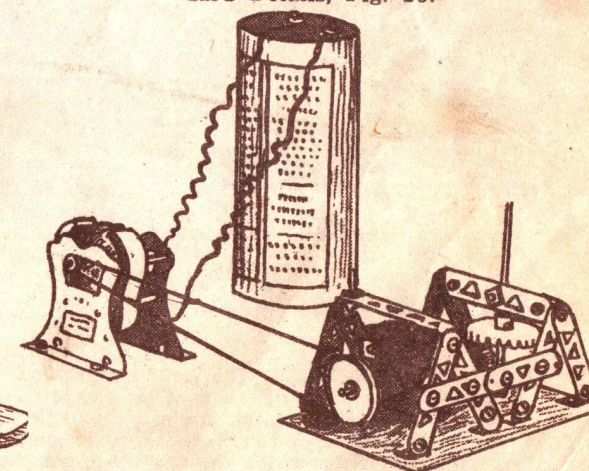
No. 200—Lawn Seat.



No. 199—Line of Telegraph Poles.

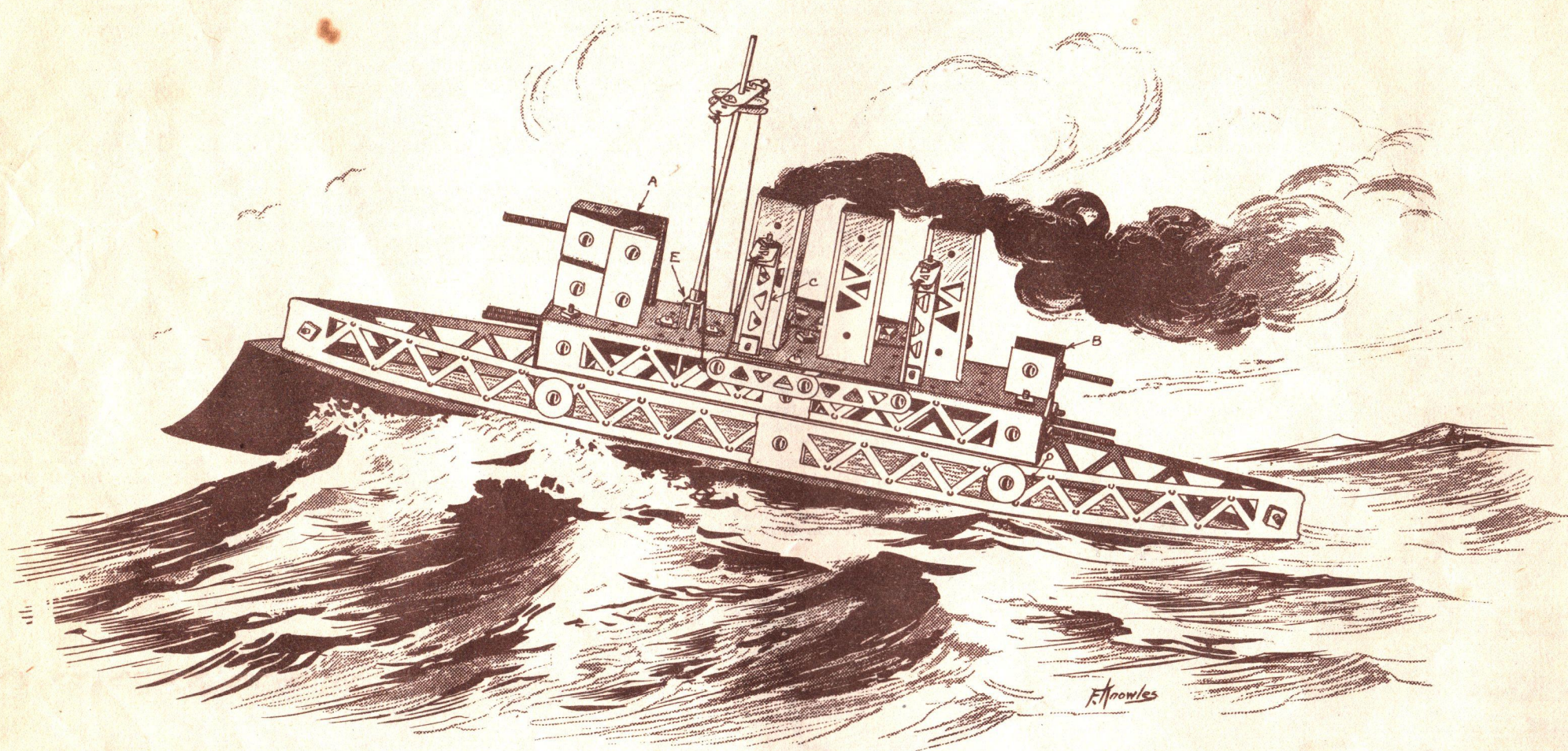


No. 197—Trolley Repair Wagon.—For point (A) see Standard Details, Fig. 11; for wheel construction see Standard Details, Fig. 28.



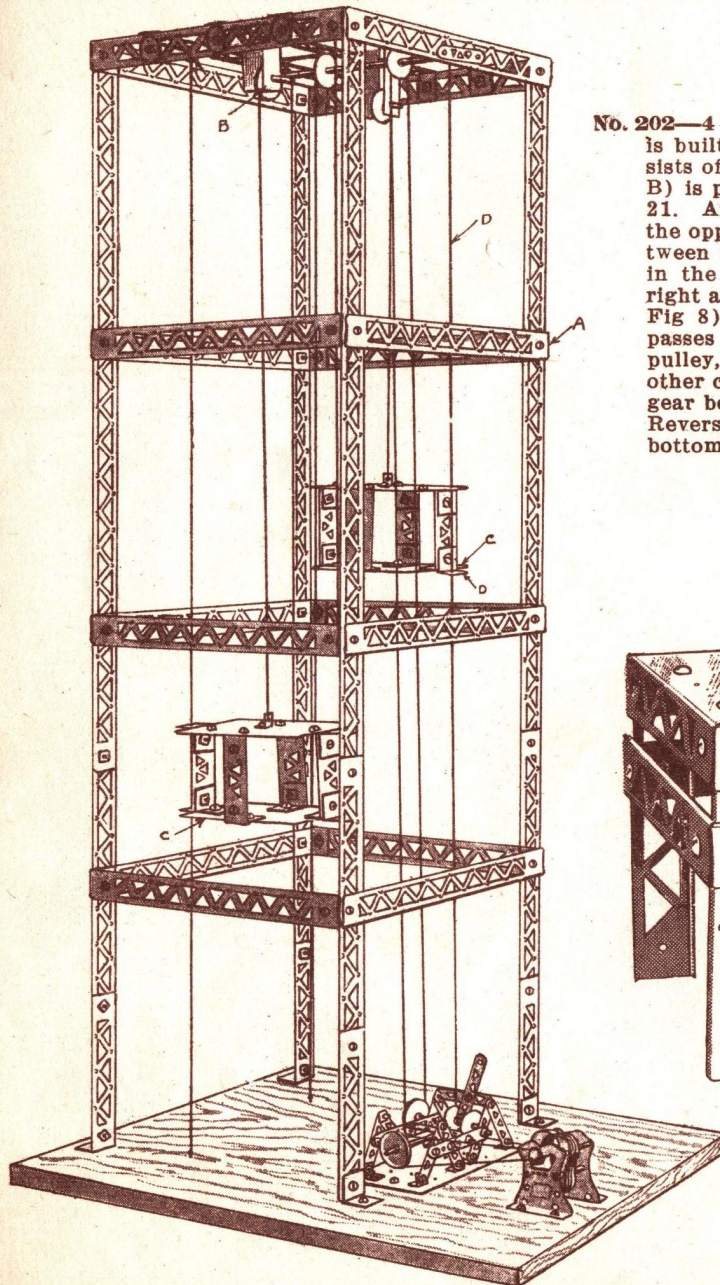
No. 198—Right Angle Drive Gear Box—Motor Driven.—See Model No. 168, for construction of Gear Box.

MODELS 1 TO 207 MADE WITH ERECTOR OUTFIT NO. 4 OR (NO. 3 AND NO. 3A)

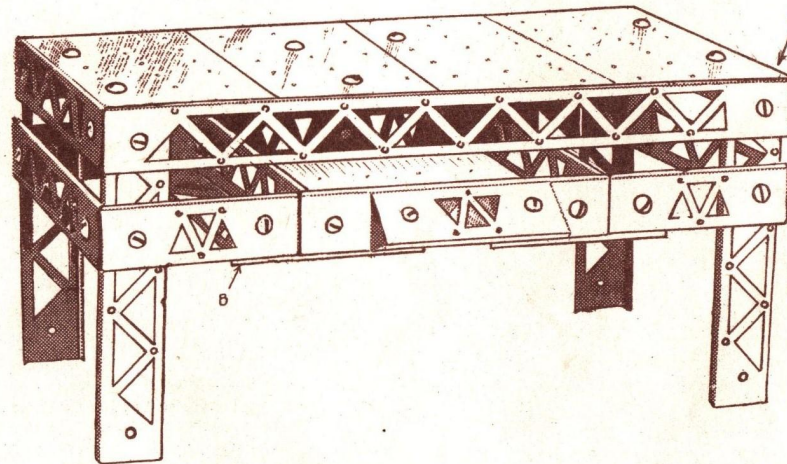


No. 201—Torpedo Boat.—The bow and stern of this model are constructed as shown in Fig. 4 of Standard Details. The upper deck which is made of base plates, is fastened to the sides of the boat by means of straight angle pieces, (D). The turret (A) is made with double angle in front, obtuse angles on the sides, connected vertically with straight angle pieces. To the front side of turret, a right angle is fastened which is then fastened to the deck, allowing it to revolve. Use a double bent (E) perforated strip to hold the mast in position. The small turret on the stern is made up of a double angle and two right angles placed as shown. The davits (C) from which the life boats hang are made of perforated strips and small right angles. The guns are made with long screws.

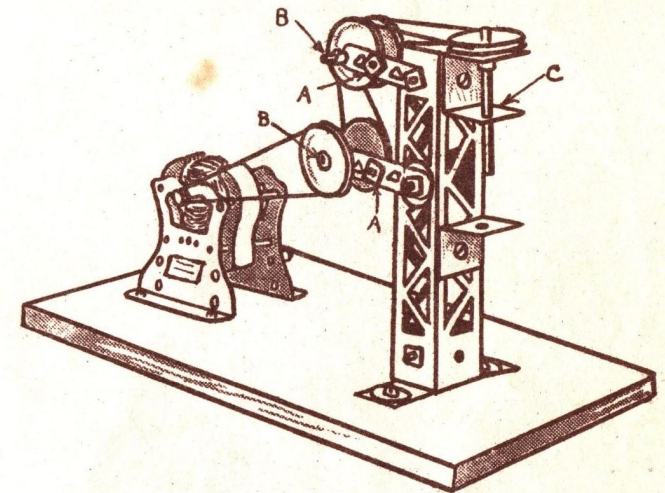
MODELS 1 TO 207 MADE WITH ERECTOR OUTFIT NO. 4 OR (NO. 3 AND NO. 3A)



No. 202—4 ft. Single Girder Elevator Tower.—The tower is built with single girders as shown. The top consists of three 12-inch girders, fastened to which (see B) is pulley constructed as in Standard Details, Fig. 21. Another pulley constructed exactly as (B) is at the opposite side, for the other car to swing on. Between these two is the center shafting, with a pulley in the center suspending from above by means of right angle and straight angle (See Standard Details, Fig 8). A string passes from the top of one car, passes over the pulley (B), once around the center pulley, then over the opposite pulley down to the other car. The driving belt attached directly over the gear box causes the cars to move up and down. See Reversing Gear box, Model 174. (C) is cardboard bottom. The top of each car is made of base plates.

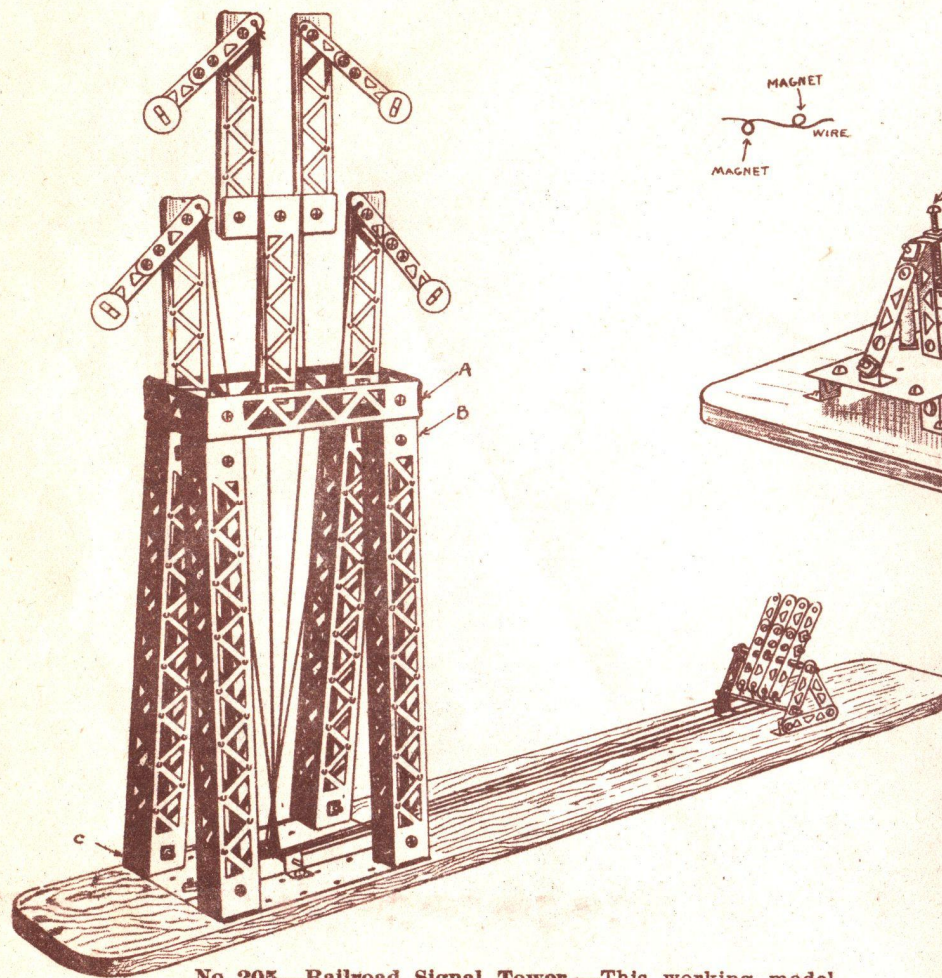


No. 204—Table With Drawer.—Top of table is made of four base plates or cardboard. For corner construction see Fig. 11, Standard Details. (B) is 6-inch strip to support drawer.

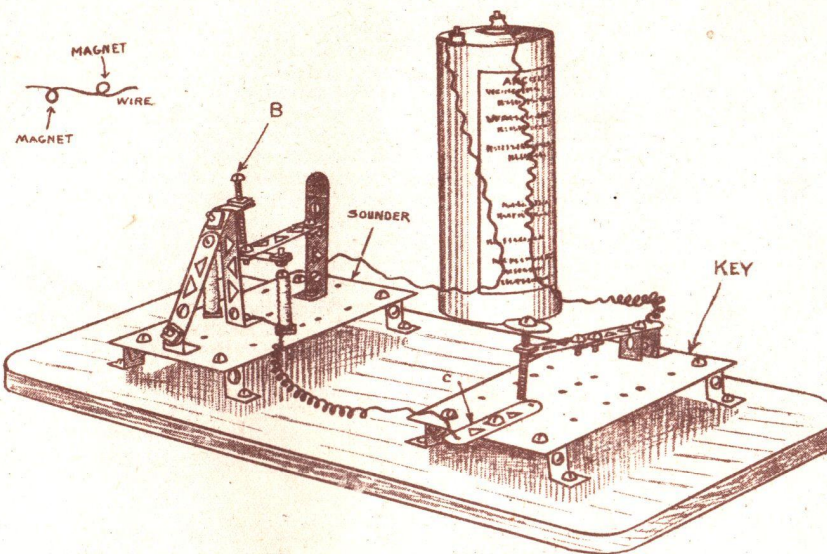


No. 203—Drill Press—Motor Driven.—In building this model a square 6-inch girder must first be constructed attaching a double angle (C) to the top of side with short screw. This double angle is to support the spindle. The bearing for shafting (B) which supports the pulleys is made with perforated strips as shown, (A). The belt which causes the spindle to revolve is an endless belt and runs from the pulley on spindle, over the top of one of the pulleys on upper shafting on rear of press, then around the pulley on the lower shaft, up and over the top and back to spindle. The motor is then attached to the short pulley on the lower shafting (B) on the rear of press. This style drill press is used for light drilling at great speed.

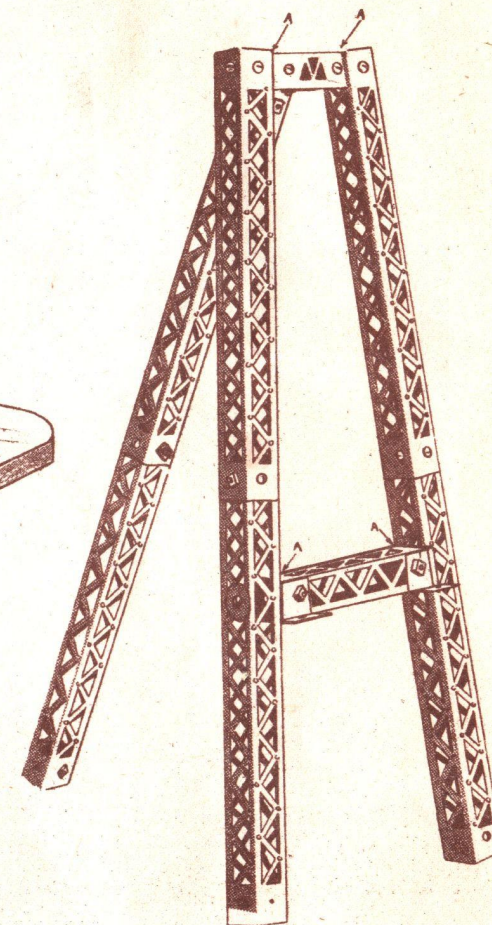
TELL
YOUR FRIENDS
ABOUT
THE ERECTOR



No. 205—Railroad Signal Tower.—This working model can be found on any railroad. See Standard Details, Fig. 11 for construction at (A). Double angles are inserted at such points at (B) and (C) for making connections. The levers are held apart at the desired distance by using collars and clips. Washers are fastened to the perforated strips by means of paper fasteners. If red and green cardboard are used on the signals the effect is more practical.



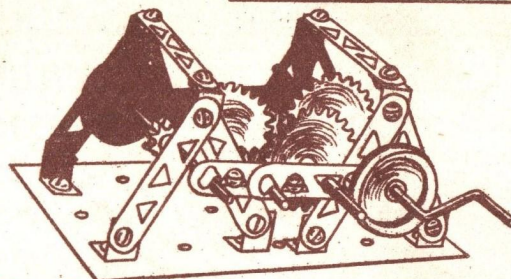
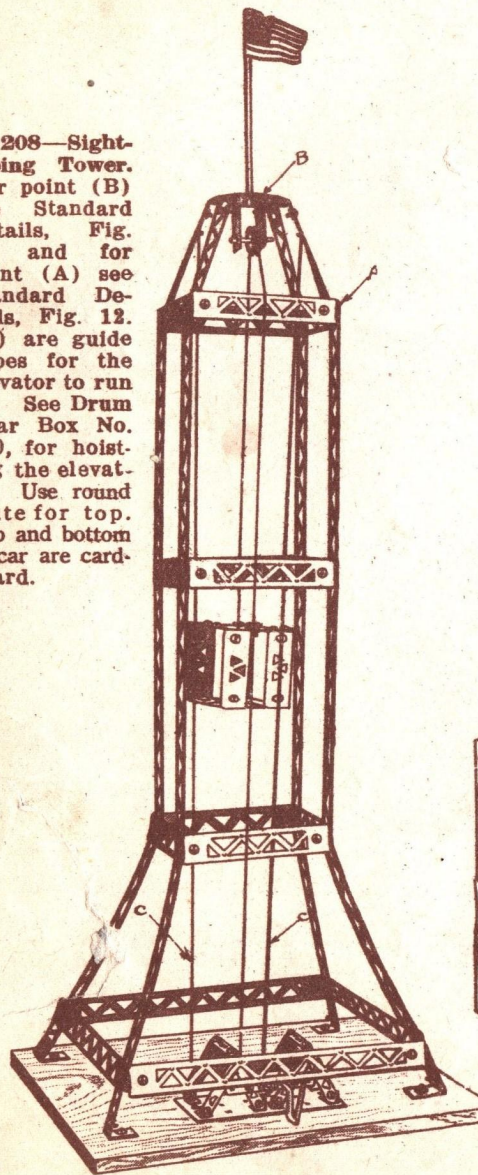
No. 206—Telegraph Instrument.—This has two parts, the sounder and the key. The sounder is the most difficult to make. Care must be exercised winding the magnets which are long screws with check-nuts. Use any ordinary insulated copper wire for winding magnets. When winding the magnets wind one and then the other in opposite directions, (see drawing above.) One end of wire is attached to battery, the other end to key. Note (B) a long screw with check-nut used to regulate length of sound. Note keyboard specially perforated strip (C) to which one end of wire is attached. This strip must be insulated from the base plate by using cardboard. It is surprising what a fine toy can be made by following these instructions.



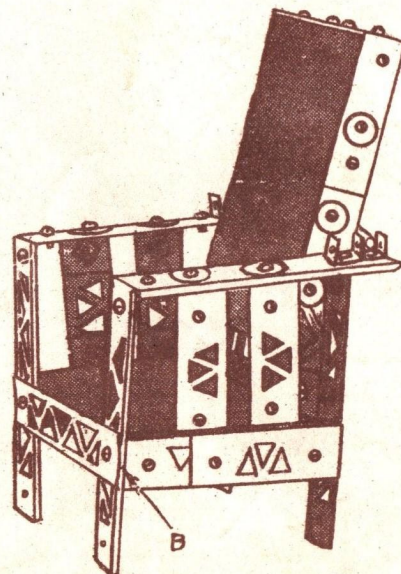
No. 207—Large Easel.—In making this model, attach the double angle, note point (A) to girder before making cross piece.

The Myster ERECTOR

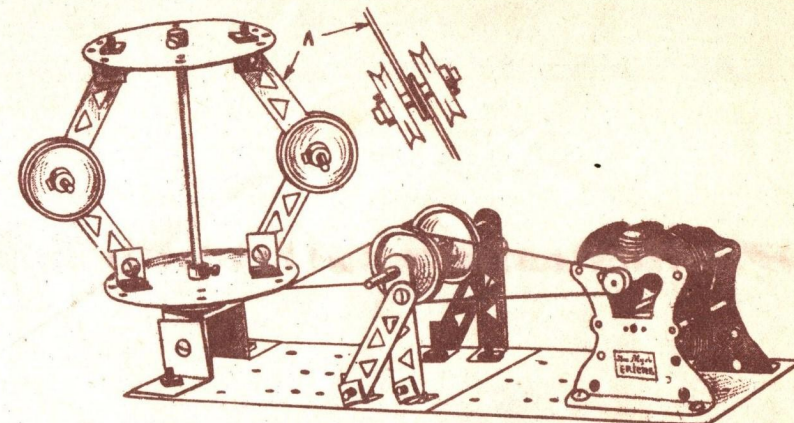
No. 208—Sight-seeing Tower. For point (B) see Standard Details, Fig. 21 and for point (A) see Standard Details, Fig. 12. (C) are guide ropes for the elevator to run on. See Drum Gear Box No. 170, for hoisting the elevator. Use round plate for top. Top and bottom of car are cardboard.



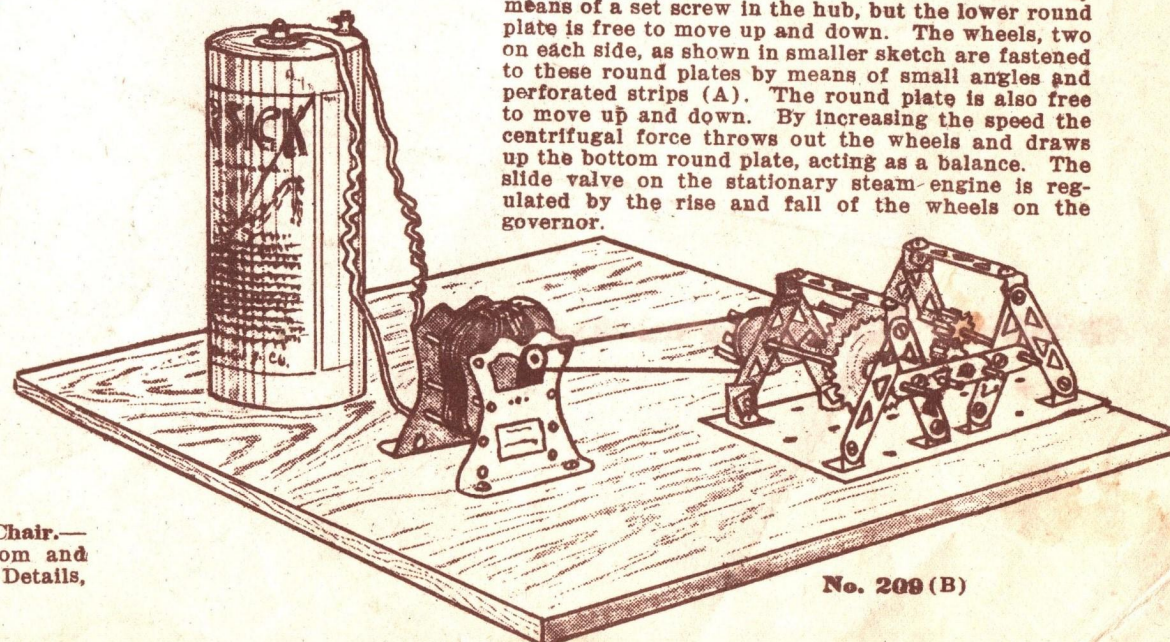
No. 209A—Train of Gears.—This type of gear box shows how the number of revolutions of the shaft may be increased or decreased by a series of gears and pinions. The power of the driven shaft increase or decrease in proportion. When the power is applied to the shafting with the large gear, the speed is greatly increased, but the power exerted by it is decreased. If the power is applied to the other shaft, using the pinion as the driver, the speed is greatly decreased but the power is much greater. Each flat gear drives the pinion or shaft ahead. In other words, three flat gears are used with three pinions.



No. 211—Doll's Morris Chair.—Use cardboard for bottom and back. See Standard Details, Fig. 6, for (A).



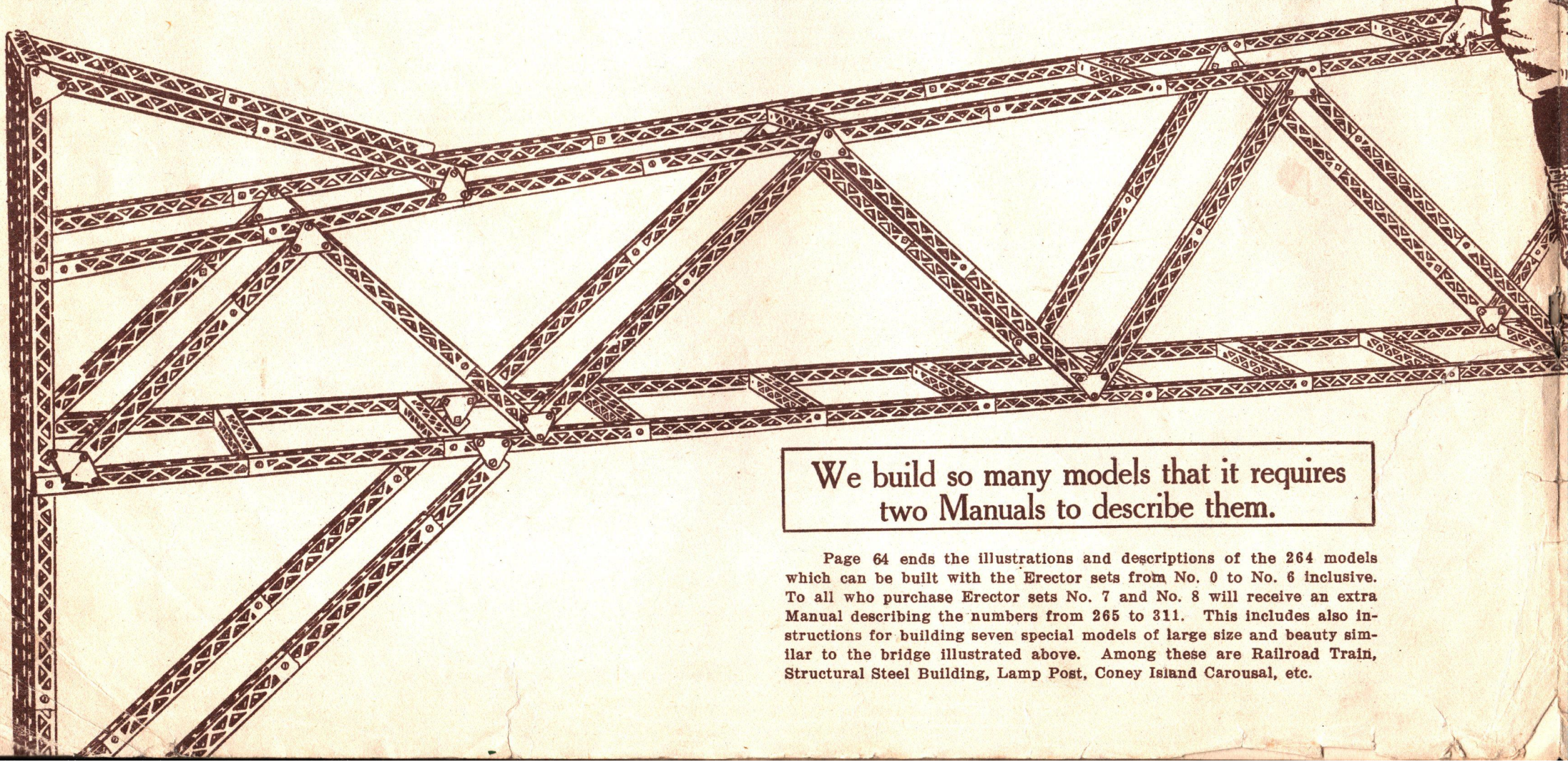
No. 210—Centrifugal Governor—Motor Driven.—This model shows the system of speed control as applied to an ordinary steam engine to regulate the opening and closing of the valve, admitting the steam to the cylinder. To construct this model, first build the counter shaft upon which the pulleys are fastened which drives this governor. The upright shafting is held into position by means of a double angle which is fastened to the base plate with two right angles. The upper round plate is fastened to the shaft by means of a set screw in the hub, but the lower round plate is free to move up and down. The wheels, two on each side, as shown in smaller sketch are fastened to these round plates by means of small angles and perforated strips (A). The round plate is also free to move up and down. By increasing the speed the centrifugal force throws out the wheels and draws up the bottom round plate, acting as a balance. The slide valve on the stationary steam engine is regulated by the rise and fall of the wheels on the governor.



No. 209 (B)

22 FOOT BRIDGE SUSTAINING WEIGHT OF AN

22-ft. Bridge Sustaining Weight of an Eighty Pound Boy.—This wonderful bridge is on exhibition at the Pennsylvania Terminal in New York City, 32nd St. and 7th Ave. It is located in the lobby near the beautiful transparent photographs showing scenes on the Pennsylvania System. The remarkable adaptability and wonderful strength of the Mysto Erector four square girder construction makes it the leader among all the construction toys now offered in America or Europe. Be sure to see this remarkable bridge structure when in New York.



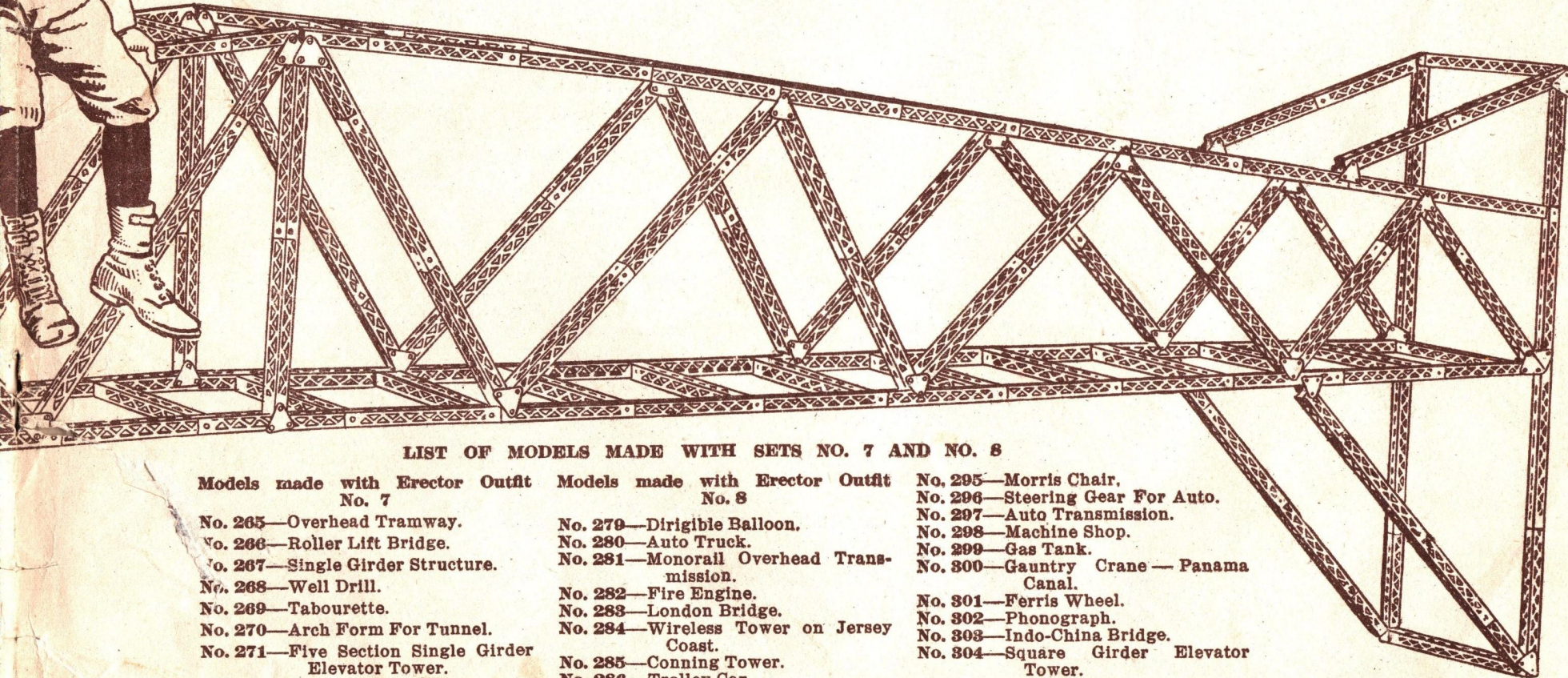
We build so many models that it requires
two Manuals to describe them.

Page 64 ends the illustrations and descriptions of the 264 models which can be built with the Erector sets from No. 0 to No. 6 inclusive. To all who purchase Erector sets No. 7 and No. 8 will receive an extra Manual describing the numbers from 265 to 311. This includes also instructions for building seven special models of large size and beauty similar to the bridge illustrated above. Among these are Railroad Train, Structural Steel Building, Lamp Post, Coney Island Carousal, etc.

EIGHTY POUND BOY. AN EXCEPTIONAL TEST OF STRENGTH

Made from Special Erector Set.

Complete directions for building this structure are given in our Manual of Directions—Part 2, which is included in No. 7 and No. 8 Erector outfits.



LIST OF MODELS MADE WITH SETS NO. 7 AND NO. 8

Models made with Erector Outfit No. 7

- No. 265—Overhead Tramway.
- No. 266—Roller Lift Bridge.
- No. 267—Single Girder Structure.
- No. 268—Well Drill.
- No. 269—Tabourette.
- No. 270—Arch Form For Tunnel.
- No. 271—Five Section Single Girder Elevator Tower.
- No. 272—Electrification Construction Work.
- No. 273—Sewing Machine.
- No. 274—Table.
- No. 275—Windmill.
- No. 276—Three Leg Derrick.
- No. 277—Inclined Railroad.
- No. 278—Merry-Go-Round.

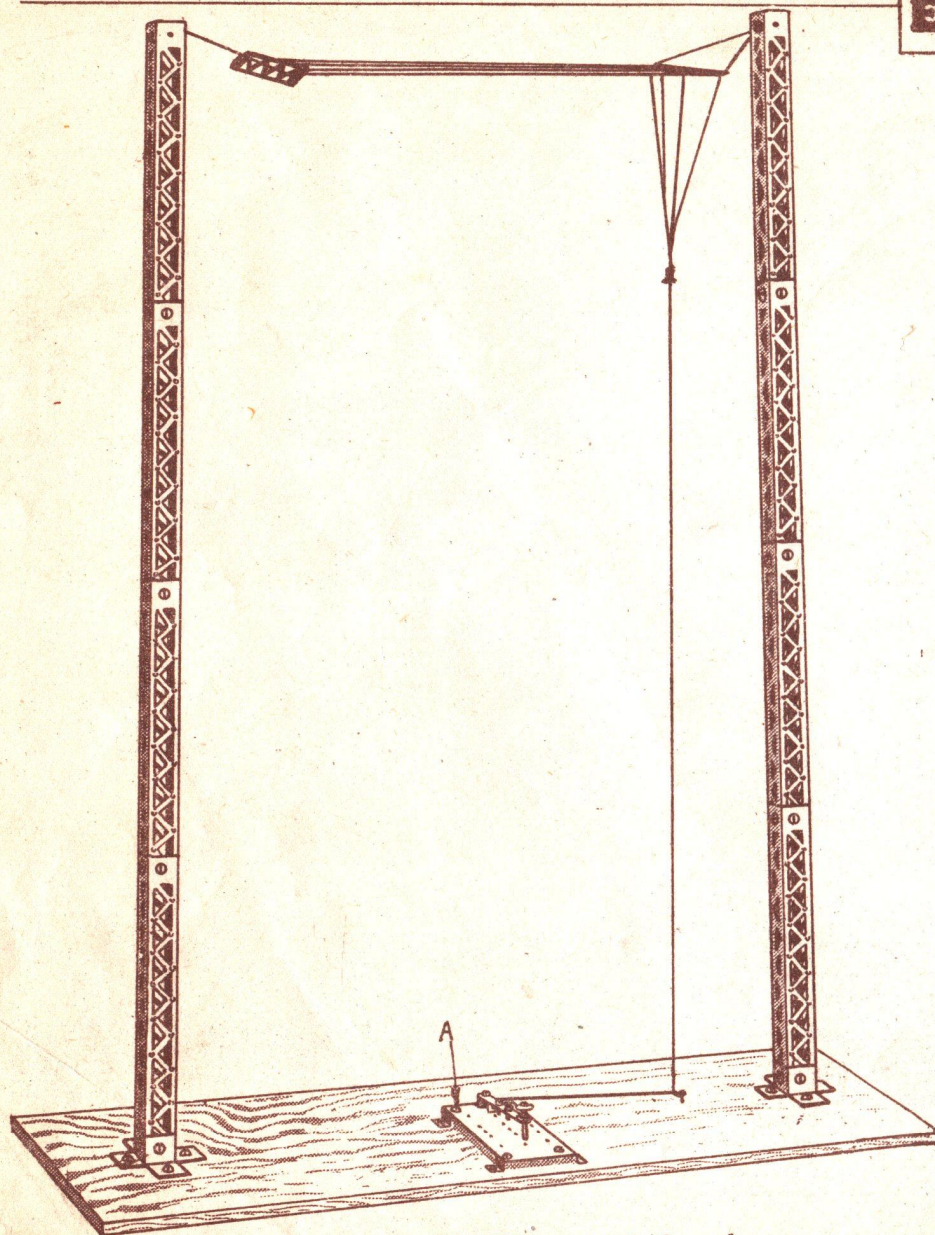
Models made with Erector Outfit No. 8

- No. 279—Dirigible Balloon.
- No. 280—Auto Truck.
- No. 281—Monorail Overhead Transmission.
- No. 282—Fire Engine.
- No. 283—London Bridge.
- No. 284—Wireless Tower on Jersey Coast.
- No. 285—Conning Tower.
- No. 286—Trolley Car.
- No. 287—Large House.
- No. 288—Hell Gate Bridge.
- No. 289—Ferry Bridge.
- No. 290—Niagara Falls Bridge.
- No. 291—Cape Charles Lighthouse.
- No. 292—Lift Bridge.
- No. 293—4 ft. Square Girder Bridge.
- No. 294—Victoria Bridge—Zambesi River—South Africa.

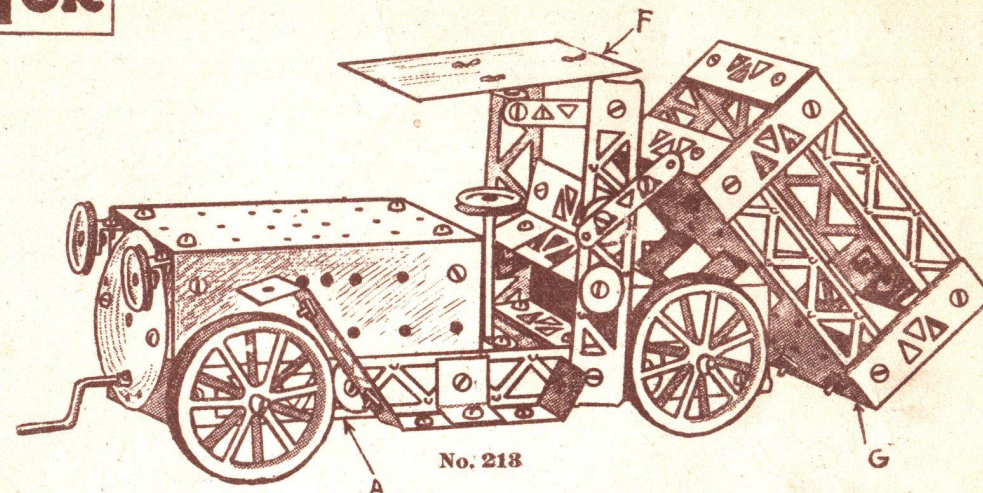
- No. 295—Morris Chair.
- No. 296—Steering Gear For Auto.
- No. 297—Auto Transmission.
- No. 298—Machine Shop.
- No. 299—Gas Tank.
- No. 300—Gantry Crane—Panama Canal.
- No. 301—Ferris Wheel.
- No. 302—Phonograph.
- No. 303—Indo-China Bridge.
- No. 304—Square Girder Elevator Tower.

Models made with Erector Special Set.

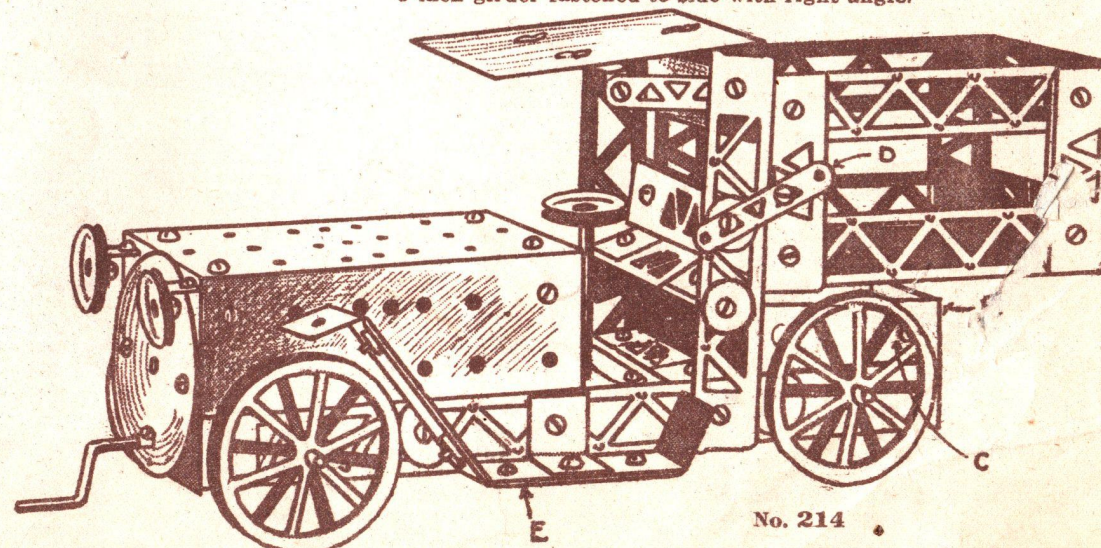
- No. 305—Lamp Post.
- No. 306—Structural Steel Building.
- No. 307—Suspension Bridge.
- No. 308—Freight Train.
- No. 309—Coney Island Carousal.
- No. 310—Square Girder Trestle.
- No. 311—21 ft. Girder Bridge.

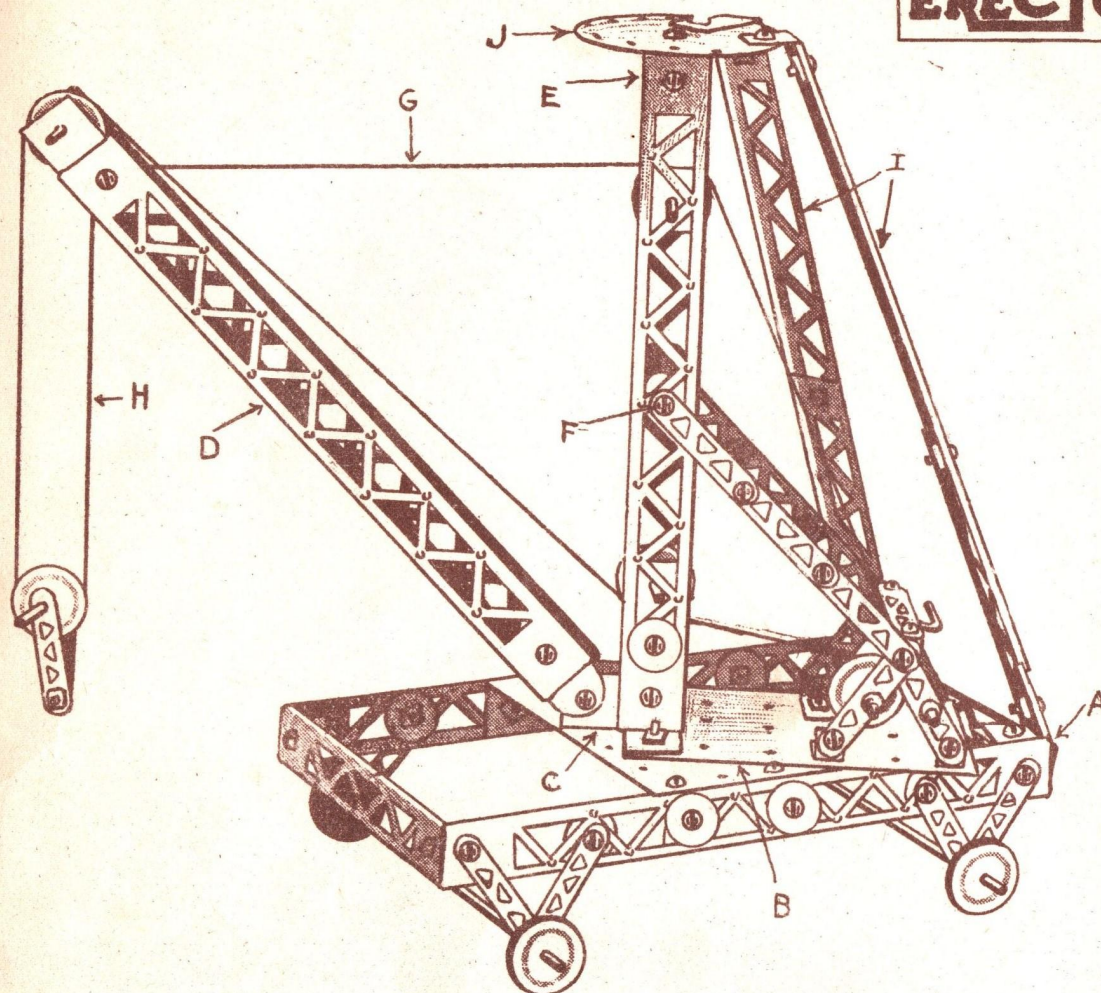


No. 212—Wireless Aerial.—To construct the poles, see Fig. 14, Standard Details.

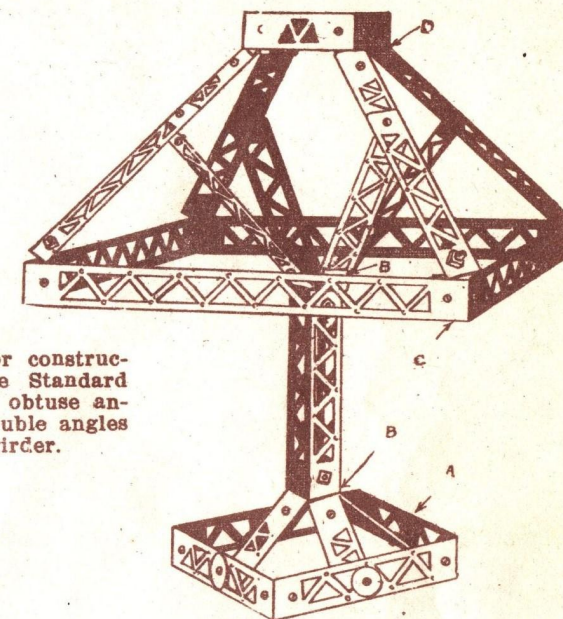


Auto Dump Wagon.—To build this model, attach 12-inch and 3-inch girders together. To the end (A), by means of screws and washers, attach base plate to form hood. Where the 12-inch and 3-inch girder join a straight angle is fastened to hold the 3-inch girder (B) in place. Through the end of this 3-inch girder, point (C) an axle passes through two double angles which are fastened to the bottom of base plate (G) or dump. This forms an axis. (F) is made of cardboard. (E) is a 3-inch girder fastened to side with right angle.

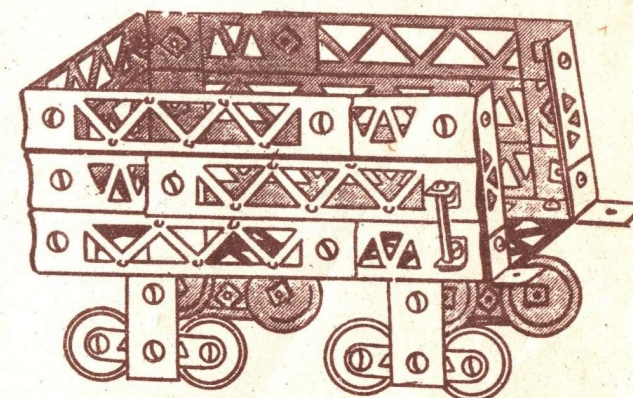




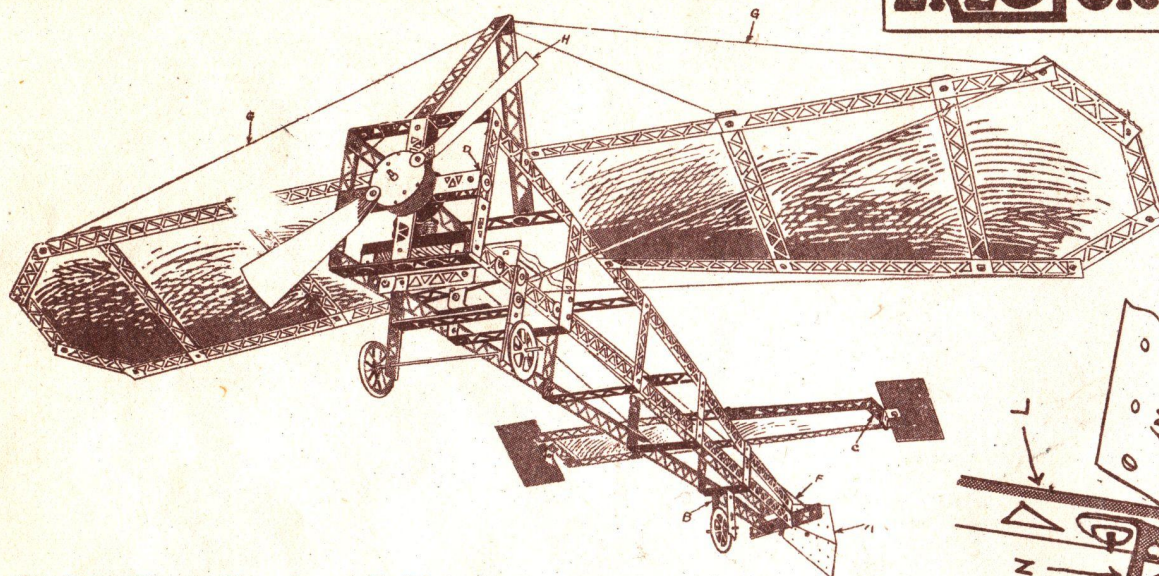
No. 215—Rotary Traveling Crane.—First build the car or platform. The corners (A) are fastened as in Fig. 3, Standard Details, to which is then fastened the crane itself. To build this crane first use the base plate (B) to which is fastened the upright girders by means of a double angle. The boom (D) is fastened to this double angle, with straight angle pieces (C). Then the double angle (E) is fastened to the circle plate (J) on top by a screw. The circle plate is held by the girders (I). Now we are ready to build the gear box, which is braced at (F). The gear box is merely one shaft and one crank mounted in the triangular frame, which is fastened to the base plate with small angles. The gearing consists of one small pinion fastened to the crank shaft and a large gear wheel fastened to the straight shaft. The crank shaft makes many more revolutions than the other, so to it is attached the cord that raises the pulley (H). To the straight shaft is attached the cord (G) which raises the boom (D). The base plate (B) is fastened to the body or truck with a long screw and check-nuts.



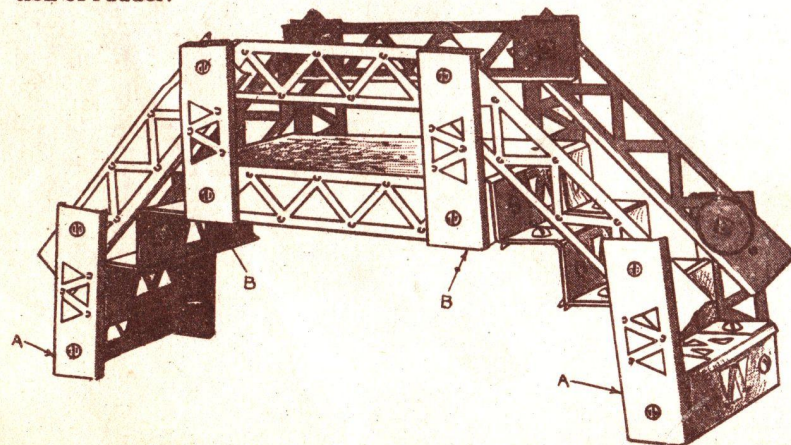
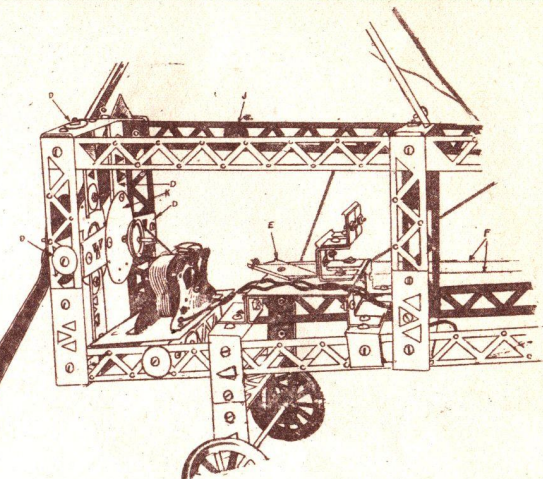
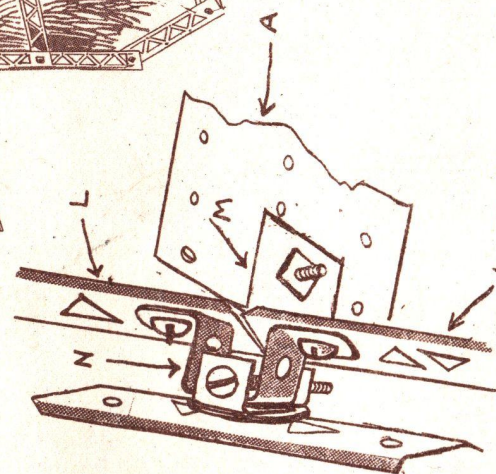
No. 216—Gas Lamp.—For construction at C and D see Standard Details, Fig. 12. Use obtuse angle at (B). Insert double angles at both ends of 6-inch girder.



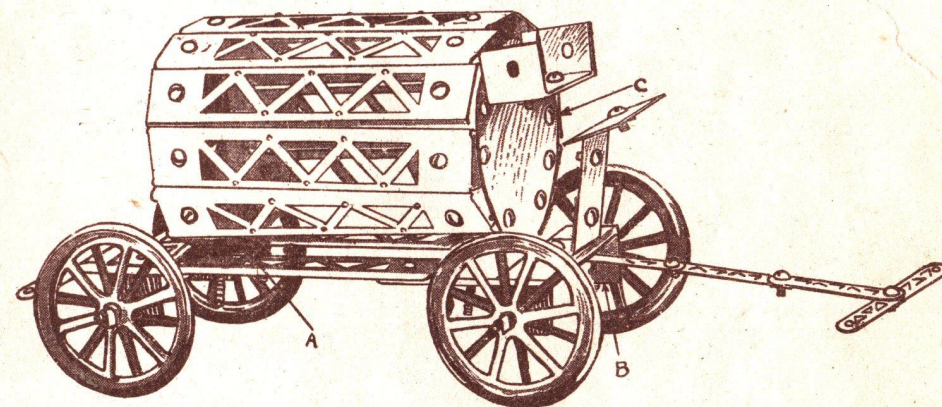
No. 217—Tender to Locomotive. (See page 62 for train).



No. 218—Bleriot Monoplane.—Build body first. See thumb sketch for forward construction. Circle plate (K) is held in position by 3-inch girders (D). Another circle plate is held in position in front, as illustrated, through which shafting passes. On one end of this is pulley driven by motor, resting on base plate; at other end of shafting are propellor blades. For (B) construction see Standard Details, Fig. 21. (G) is a string; (F) is a string operating from 3-inch girder, (E) which turns the rudder (A). See Thumb Sketch for construction of rudder.

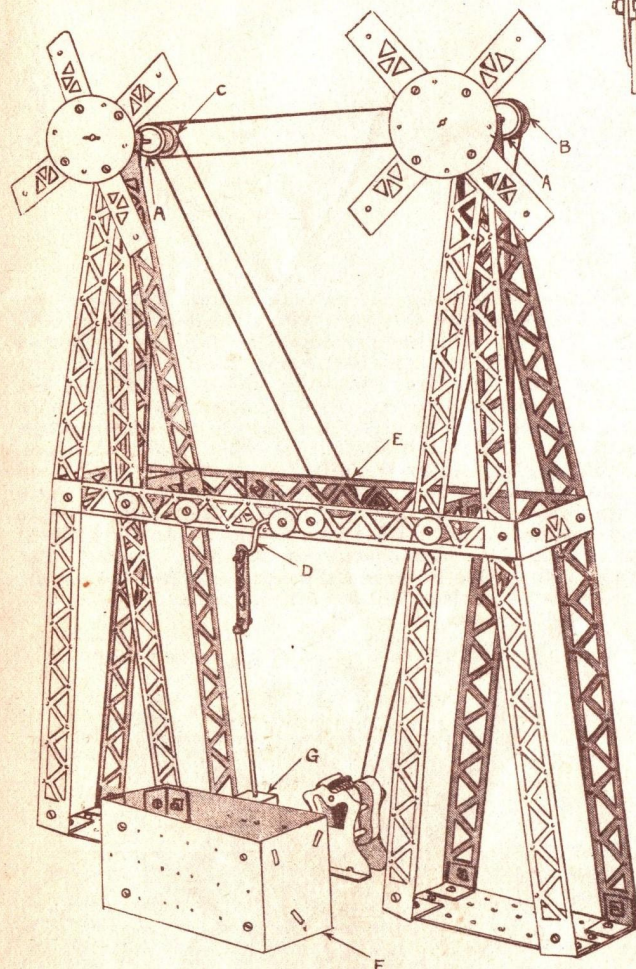


No. 220—Foot Bridge.—For construction (B) see Standard Details, Fig. 11. Use two right angles at point (A).



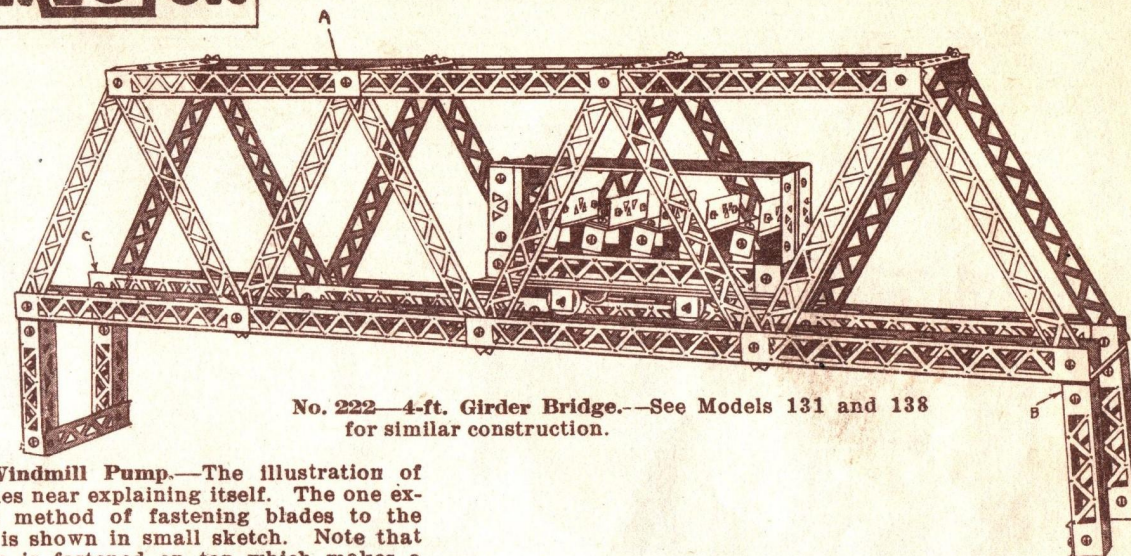
No. 219—Water Wagon.—The method of making the tank (C) of this wagon is shown in Fig. 35 of Standard Details. The body or the wagon itself is then made, to which the tank is attached by means of the acute angle (A). The front axle (B) is made as shown in Fig. 33 of Standard Details to which the shaft or pole is fastened.

The Myster ERECTOR

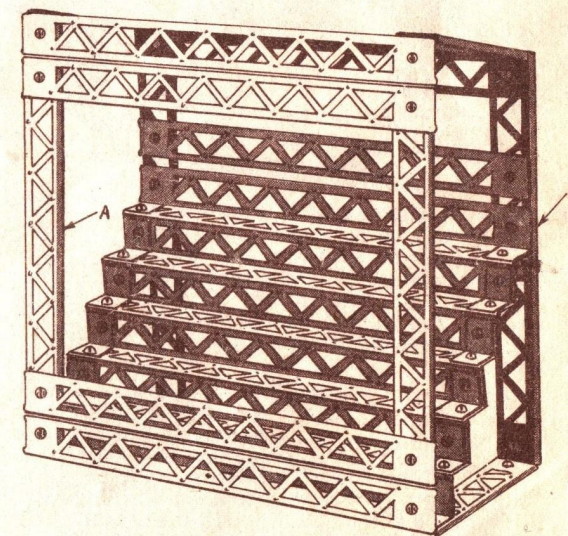


No. 221—Double Windmill Pump.

No. 221—Double Windmill Pump.—The illustration of this model comes near explaining itself. The one exception is the method of fastening blades to the towers, which is shown in small sketch. Note that a double angle is fastened on top which makes a bearing for this axle to which is attached blades and pulleys. The blades are made with 3-inch girders which are attached to round plates. Attach an endless belt to the pulley (B) then another from pulley (A) to (A) on opposite side. The bearing for crank (D) is made by using a perforated strip fastened to the side of the tank (F), which represents which runs down into a 3-inch girder (G), which is the cross girder and the crank (D). A rod is fastened the pump. The tank (F) is made with two base plates, the outside and ends are made of cardboard. From the pulley (C) to the pulley (E) which is fastened on the end of crank (D) attach an endless belt. You will then find by setting the motor in motion that it drives pulley (B) which in turn drives (BA) which then drives pulley (C) and (E), which work the crank (D) and represents the pump in motion.

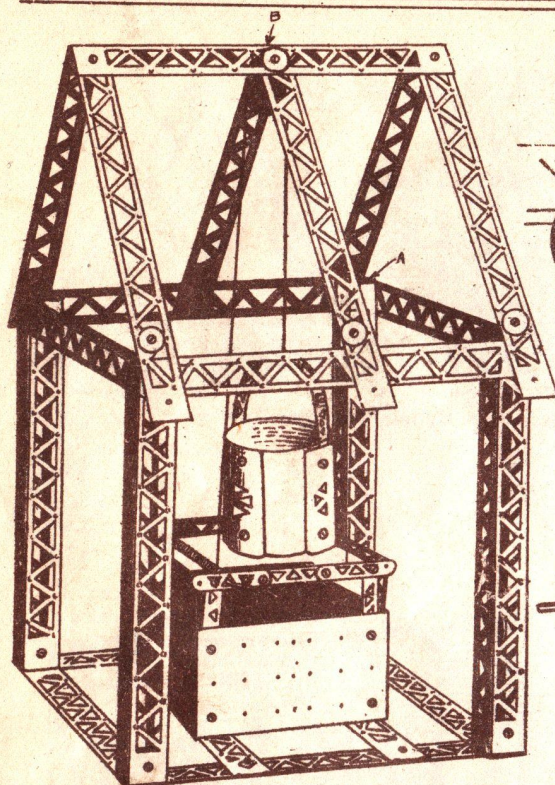


No. 222—4-ft. Girder Bridge.—See Models 131 and 138 for similar construction.

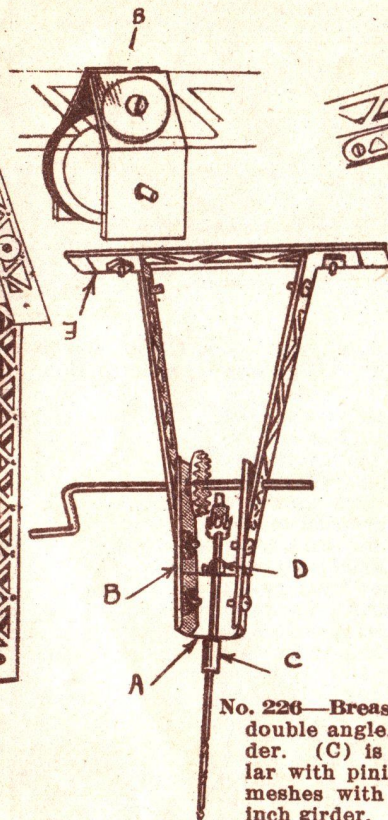


No. 223—Grand Stand.

The Myster ERECTOR

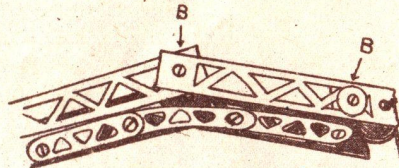


No. 224—Well-House.—A double angle at (A) with acute angle on top. (B) is acute angle with washer connection. For construction at (B) see thumb sketch above. For bucket use cardboard for sides and round plate for bottom.



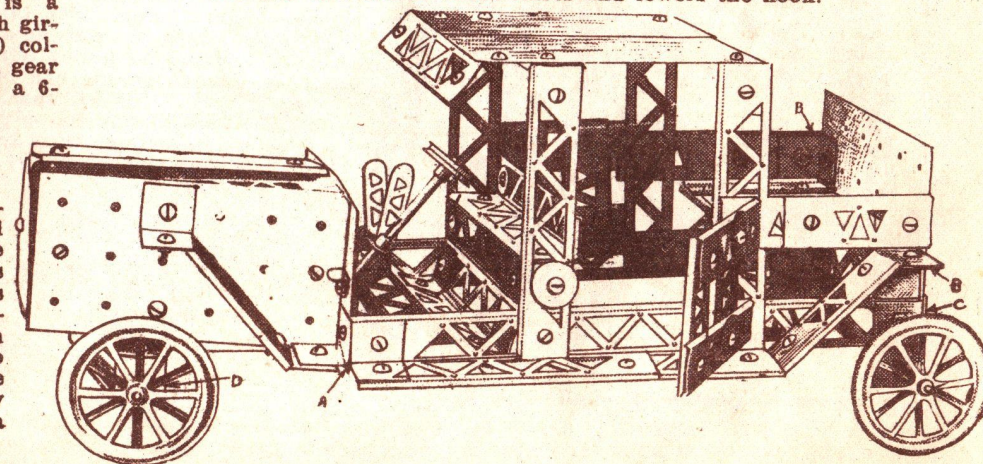
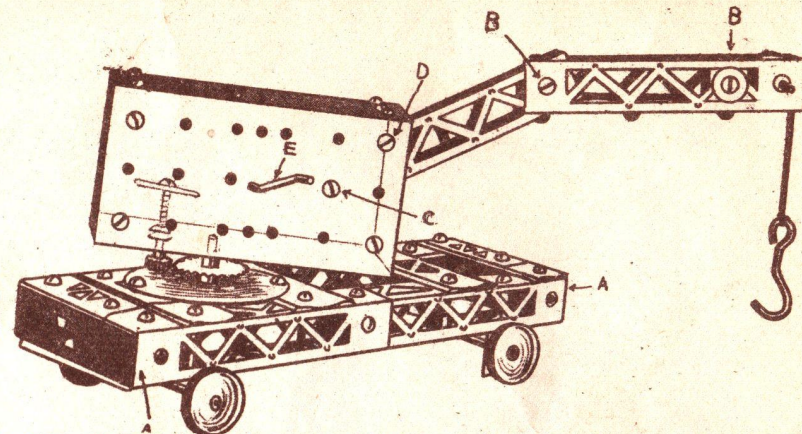
No. 226—Breast Drill.—(A) is a double angle. (B) is a 3-inch girder. (C) is a coupling. (D) collar with pinion above; crown gear meshes with pinion. (E) is a 6-inch girder.

No. 227—Limousine Auto Car.—This model represents the ordinary taxi-cab in use in our prominent cities. This car has no power applied to it as per illustration, but the motor can be easily attached in the rear of the body to drive the rear axle. Small flashlight batteries for power can be easily placed in the body of the car. Use base plates for hood with a round plate in front. Then starting at (A) and fasten 12-inch girder to hood. The mud guard (B) is fastened at (B) in manner shown. The rear axle (C) is made with right angles and two straight angle pieces. Then build the top of car. The doors are hinged by means of a pair of small angles, one fastened to the body and the other to the door and connected to each other loosely with a screw.

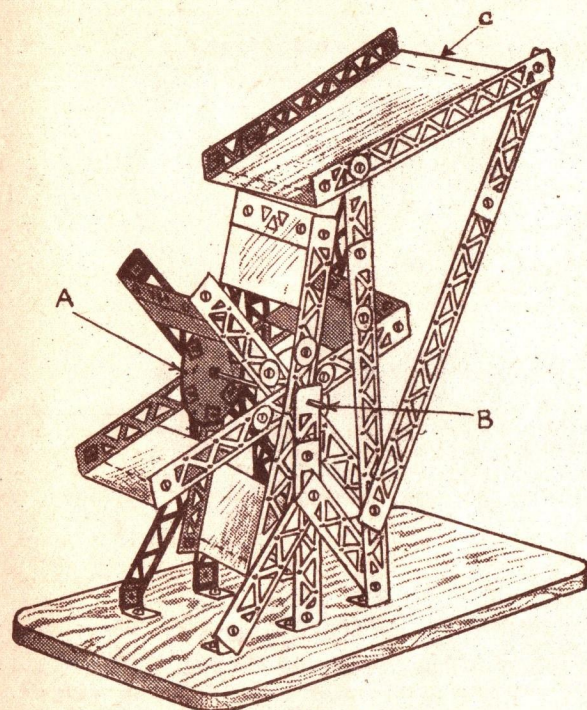


JOHN MCGRAW
W. Virginia
6th Prize—1913

No. 225—Railroad Wrecker.—Build in two parts, car first, and hood second. Attach two 6-inch girders together, with double angles at both ends. See (A). Two sides of car are identical and are connected with 3-inch girders as illustrated. Use round base plates on top. The hood is made with four base plates to which is fastened the boom. The boom is fastened to the hood at the point (C), with double angles. An acute angle at the top of boom holds it in place, under top base plate. See thumb sketch for construction of boom. (B) are two double angles holding the 6-inch strips apart. The hood is fastened to the car with 2-inch rod passing through round plate and flat gear into bottom of base plate, held in position with double angles top and bottom. The hood revolves upon pinion held in place at bottom of base plate with check-nuts and long screws. (See shadow drawing). When this is turned the hood will revolve on the car. (E) is a crank which raises and lowers the hook.

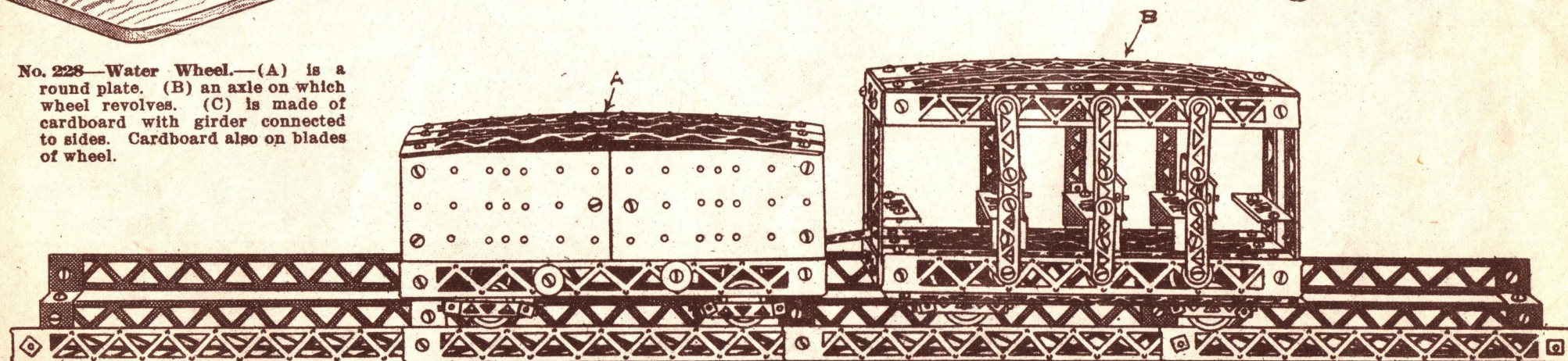
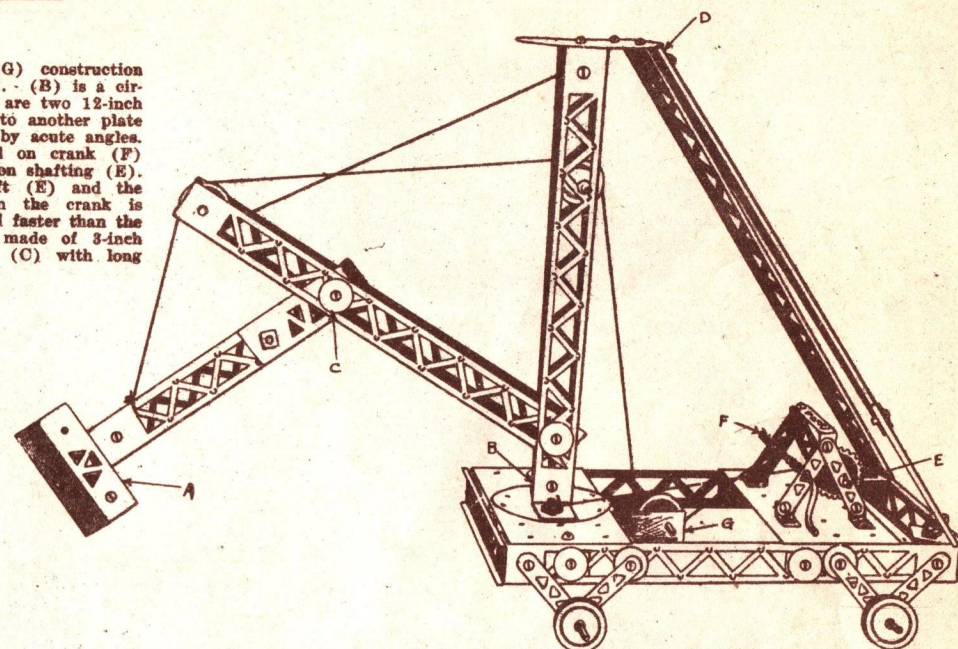


The *Mysto* ERECTOR



No. 228—Water Wheel.—(A) is a round plate. (B) an axle on which wheel revolves. (C) is made of cardboard with girder connected to sides. Cardboard also on blades of wheel.

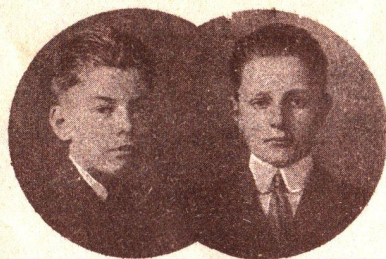
No. 229—Sand Shovel.—For (G) construction see Standard Details, Fig. 21. (B) is a circle plate connected to which are two 12-inch girder strips, which connect to another plate at the top, held in position by acute angles. (D) The pinion is arranged on crank (F) which meshes with flat gear on shafting (E). One string attaches to shaft (E) and the other to shaft (F). When the crank is turned the one cable will pull faster than the other. The shovel (A) is made of 3-inch girders and pivots at point (C) with long screw and washers.



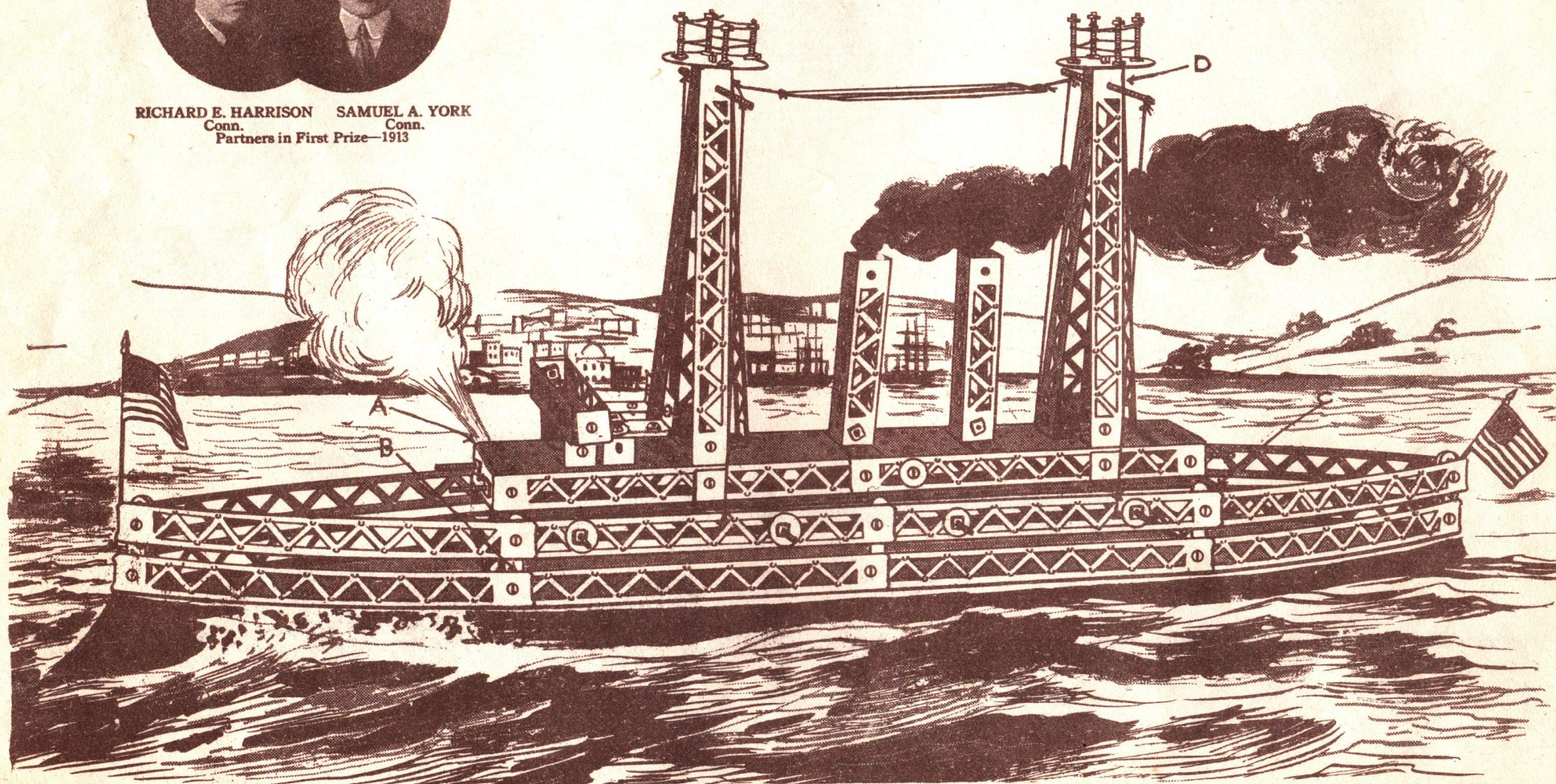
No. 230—Motor Car and Trailer.—See Model 194 for detailed construction of motor car. The trailer car is very simply constructed from 12-inch and 3-inch girders and perforated strips.

MODELS 1 TO 229 MADE WITH ERECTOR OUTFIT NO. 5 OR (NO. 4 AND NO. 4A)

MODELS 1 TO 264 MADE WITH ERECTOR OUTFIT NO. 6 OR (NO. 5 AND NO. 5A)

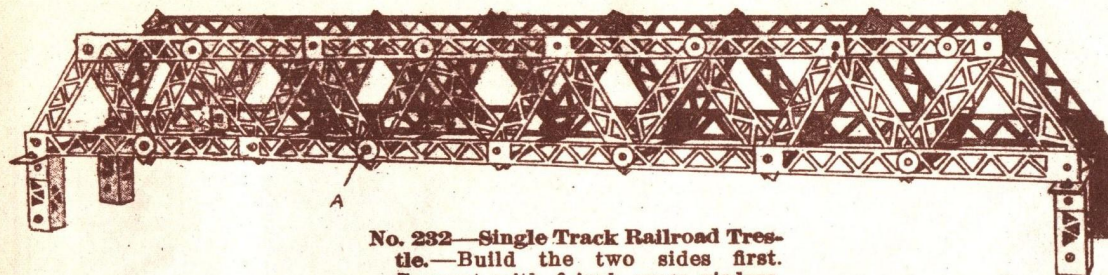


RICHARD E. HARRISON SAMUEL A. YORK
Conn. Conn.
Partners in First Prize—1913

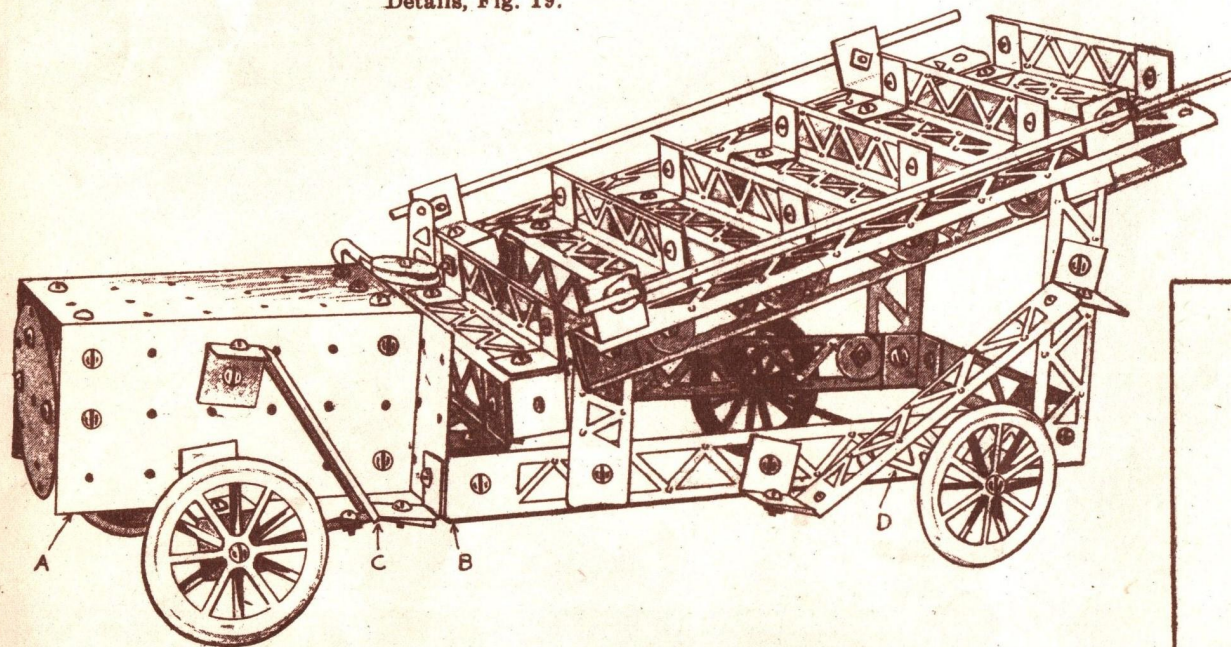


No. 231—Battle Ship.—Build body of battleship first. Bow and stern are connected with acute angles and perforated strips as in Fig. 4, Standard Details. (B) is perforated strips holding 12-inch girders apart and in place. The two sides of the boat are held apart with 6-inch girders, upon which rests neck which is constructed of base plates, 12-inch and 3-inch girders. For connection (A) see Standard Details, Fig. 11. Point (D) on masts is made with double angle attached to circle plate. The rod passing through holds 12-inch girder in place with collars.

MODELS 1 TO 264 MADE WITH ERECTOR OUTFIT NO. 6 OR (NO. 5 AND NO. 5A)

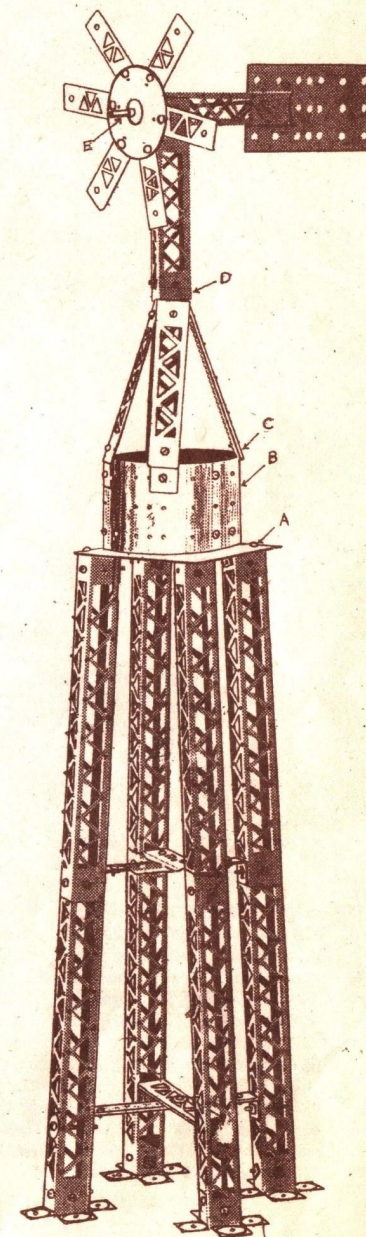


No. 232—Single Track Railroad Trestle.—Build the two sides first. Connect with 6-inch cross girders. For (A) construction, see Standard Details, Fig. 19.



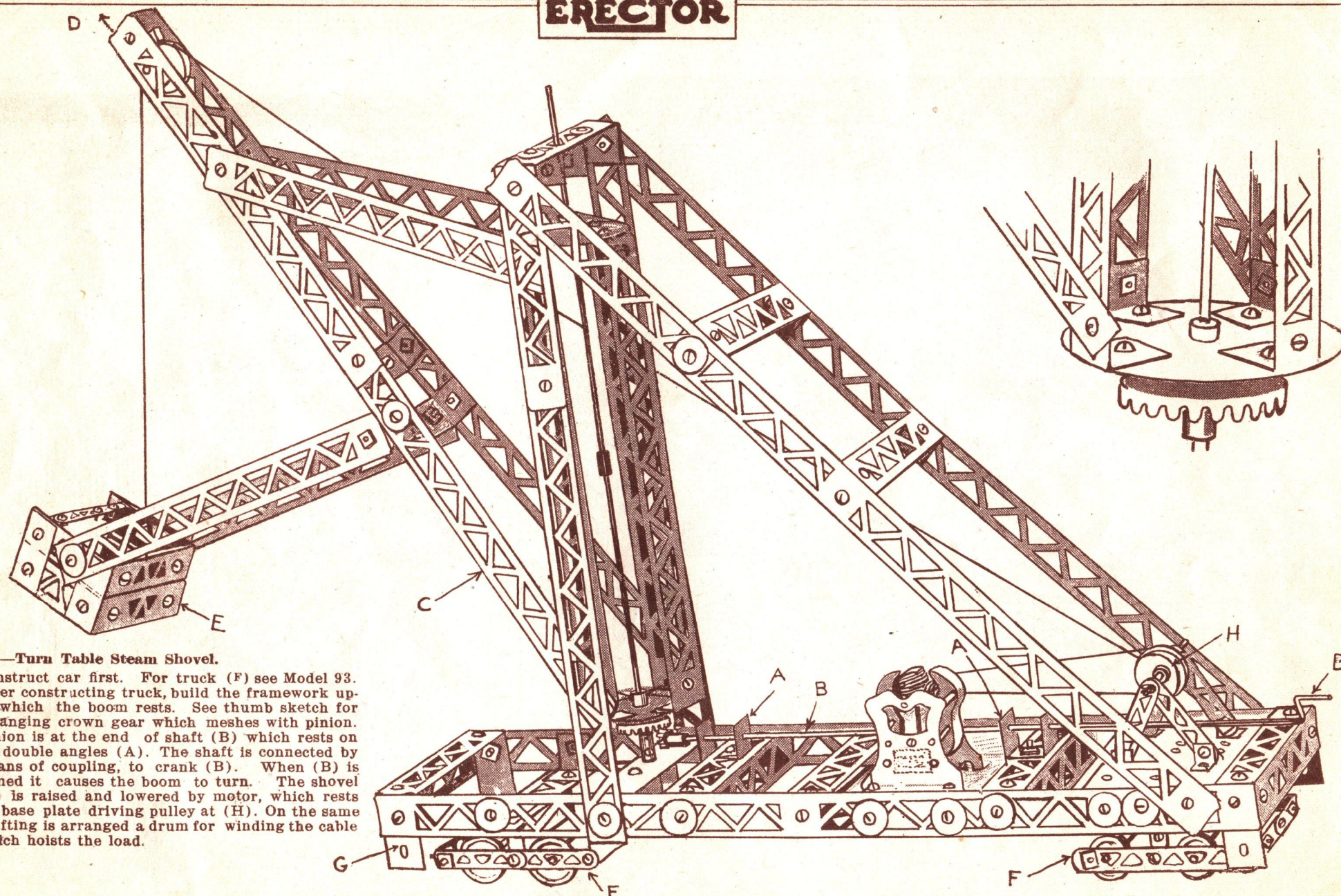
No. 233—Sight Seeing Car.—Build Hood (A) with three base plates. Use obtuse angle at (C) for mud guard connecting with 3-inch girders. For (B) construction, see Standard Details, Fig. 11. (D) is two perforated strips forming construction of rear wheels. The seats are made of two 6-inch girders, one forming seat and the other, the back, and attached onto a 12-inch girder by right angles and washers.

No. 234—Windmill and Water Tower.—Four double length square girders are connected with double angles to the top (A) and at the joints for connecting pieces. The water tank (B) is made of two base plates forming a circle. (C) is a 6-inch girder attached with an obtuse angle. (D) connection is accomplished by the use of two double angles. The windmill at (E) formed by a base plate, pivots on top of 6-inch girder by using two double angles.



**BE SURE TO
TRY
FOR
ONE OF OUR
PRIZES**

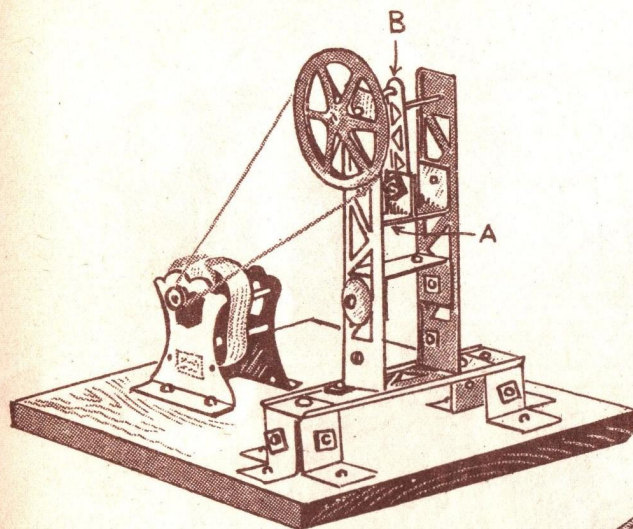
**CONTEST NOW ON
WRITE US**



No. 235—Turn Table Steam Shovel.

Construct car first. For truck (F) see Model 93. After constructing truck, build the framework upon which the boom rests. See thumb sketch for arranging crown gear which meshes with pinion. Pinion is at the end of shaft (B) which rests on two double angles (A). The shaft is connected by means of coupling, to crank (B). When (B) is turned it causes the boom to turn. The shovel (E) is raised and lowered by motor, which rests on base plate driving pulley at (H). On the same shafting is arranged a drum for winding the cable which hoists the load.

MODELS 1 TO 264 MADE WITH ERECTOR OUTFIT NO. 6 OR (NO. 5 AND NO. 5A).

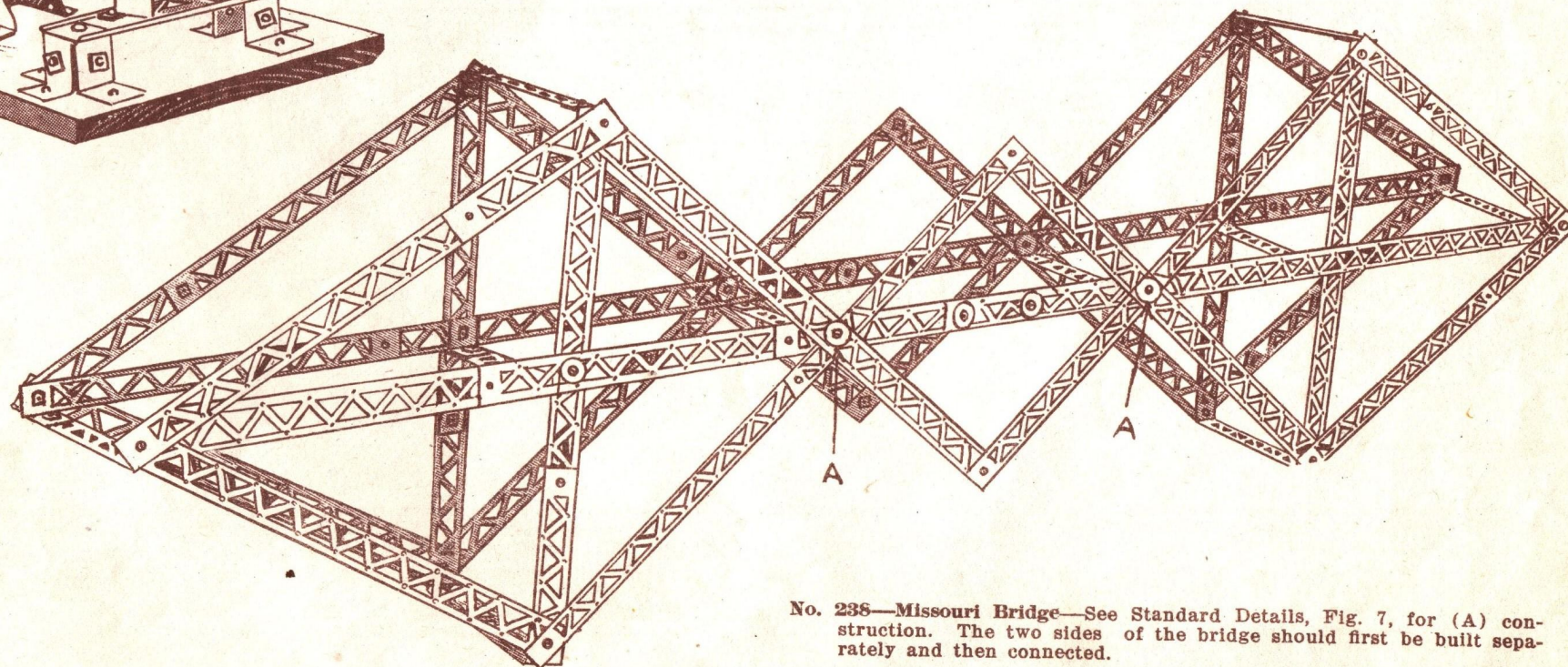


No. 236—Power Press—Motor Driven —

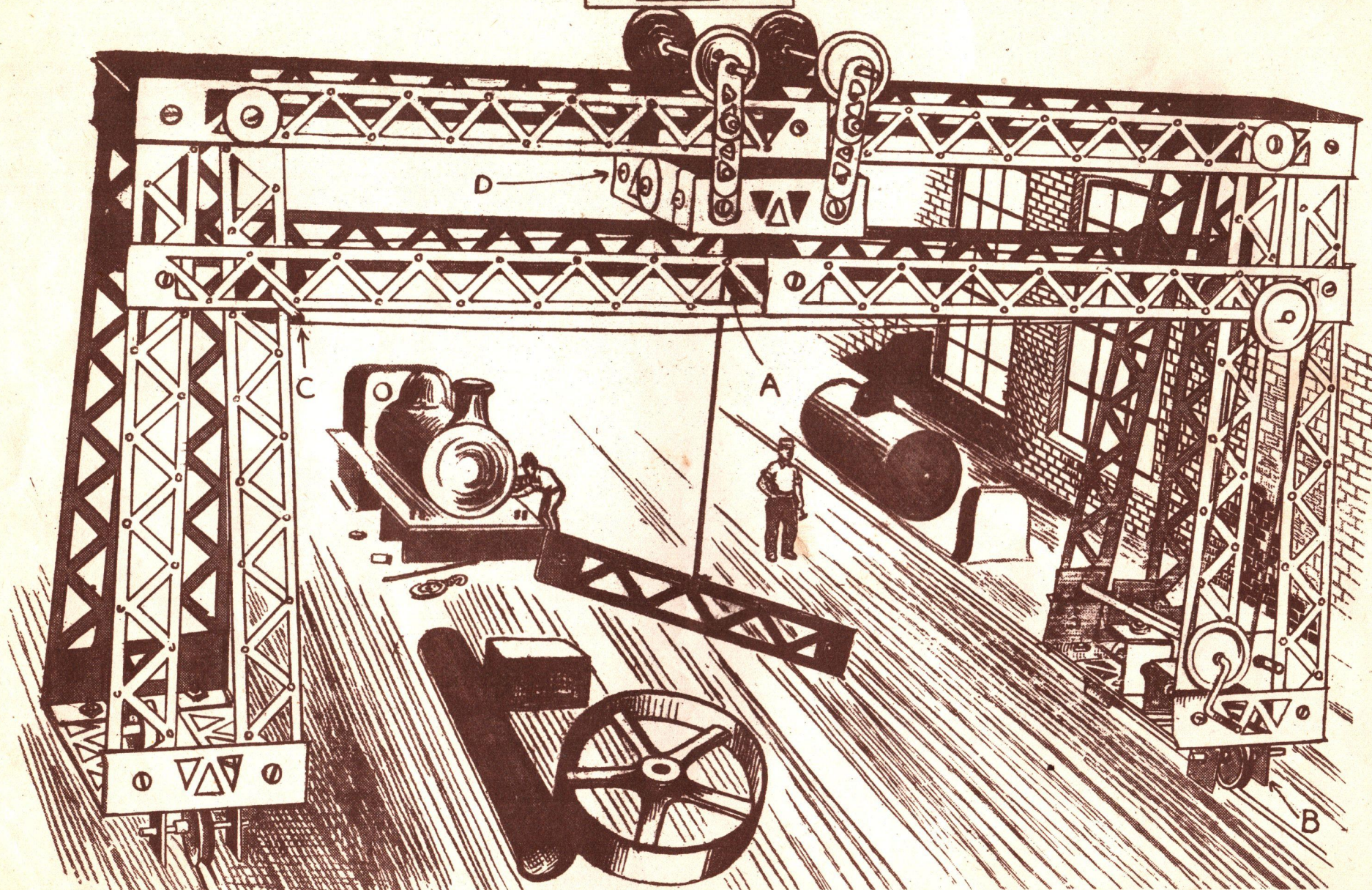
(A) is two double angles, between two 6-in. girders. (B) is perforated strip on a special crank. The two 6-in. girders are so arranged that when the wheel is turned the two double angles move up and down as the motor revolves the large grooved wheel.



No. 237—Double Ripper—(A) connection is accomplished by facing two bent perforated strips, one on top of the other forming an axis, on which the front sled rotates. Cardboard is used for the top of the sled. (B) is a double angle connection. The 12-in. girder forms the top of the sled and the base plate forms bottom.

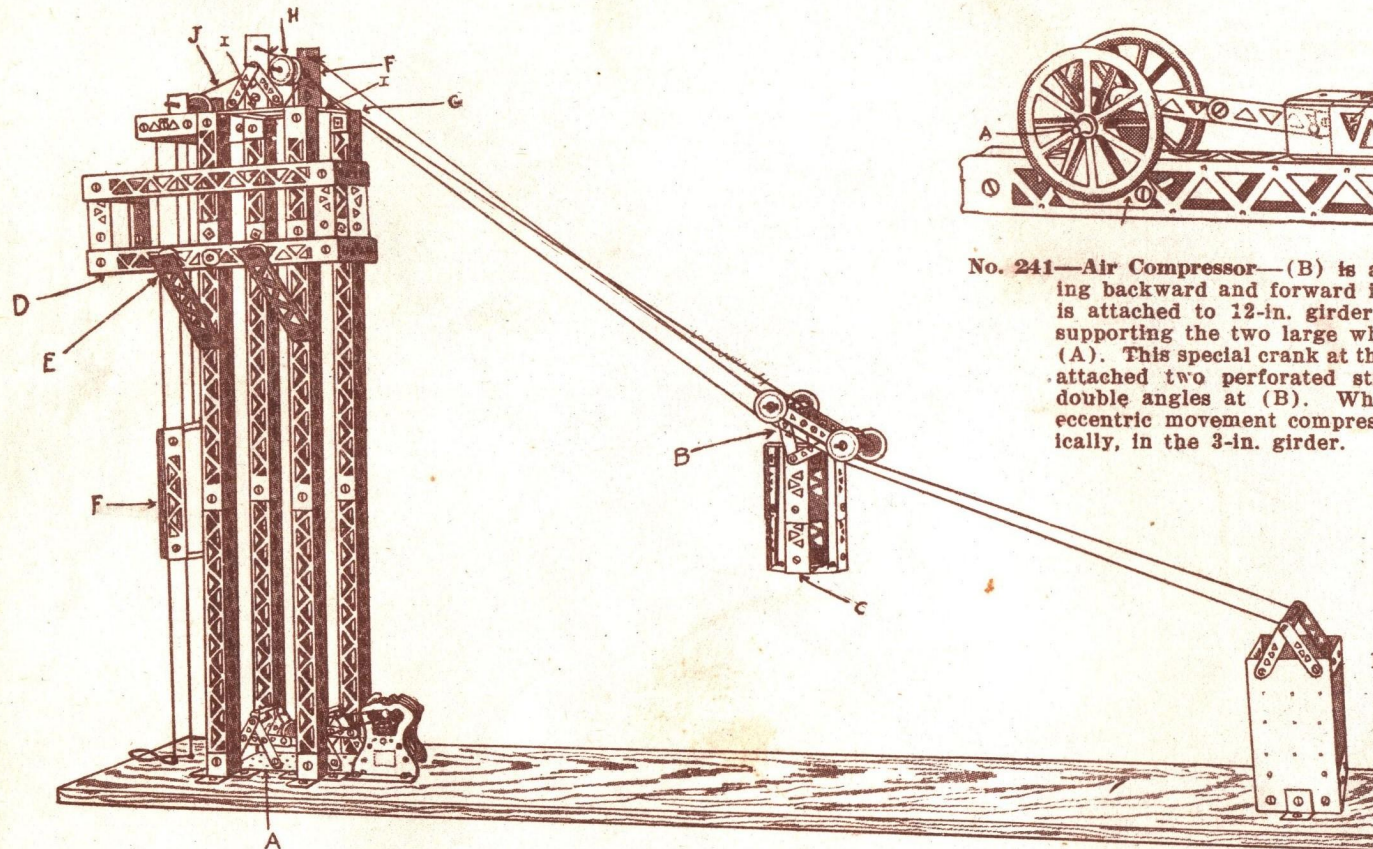


No. 238—Missouri Bridge—See Standard Details, Fig. 7, for (A) construction. The two sides of the bridge should first be built separately and then connected.

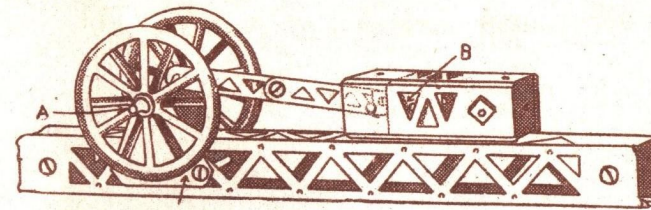


No. 239—Gantry Crane—Build frame work as illustrated. To the bottom of the car (D) attach pulley wheel at (A). See Standard Details, Fig. 21. A cable runs around this pulley to cable at the right hand end, which is attached to crank below. Two pulleys are also attached at both ends of the crane. See Cable (C), which starts at one end of the car (D), circling around pulley passing across crane on the pulley on opposite side and back to the other side of car. This pulley is likewise driven by endless cable on crank which when turned will cause the car to travel back and forth. This crane is used in factories where heavy machinery, etc., is to be carried about.

MODELS 1 TO 264 MADE WITH ERECTOR OUTFIT NO. 6 OR (NO. 5 AND NO. 5A)

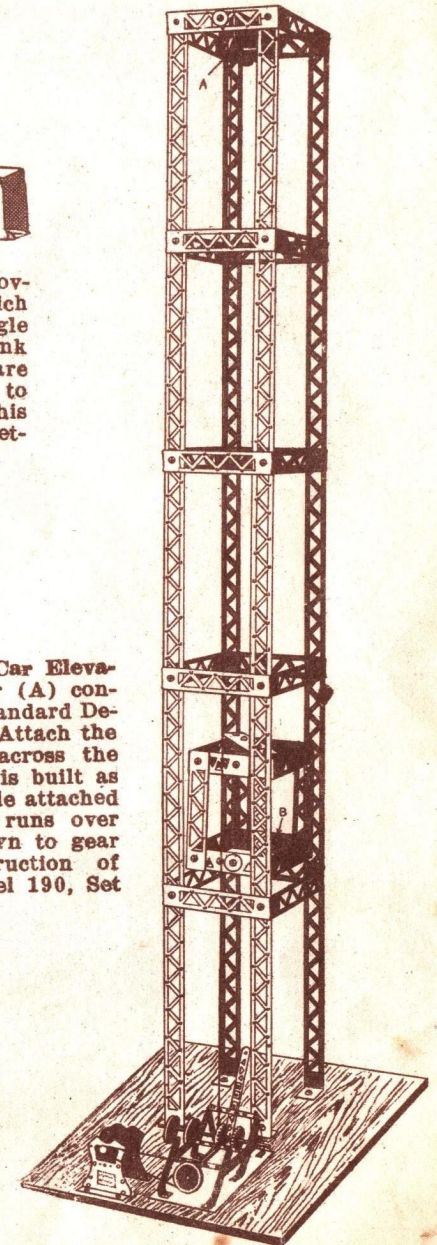


No. 240—Canyon Cable Railroad—Construct four double square column girders with 6-in. sq. column girder at top. These are connected with 3-in. girders (I) by means of right angles. (F) is 3-in. girder through which passes shafting, on which the pulleys (H) are arranged. (F) is an elevator which is guided up in back of the platform (D) by means of string cables. This string which hoists the elevator passes over pulley at (J), over one of the pulleys (H) down to the gear box (A). See model 170, for construction of this gear box, drum type. The cable car (B) is made up of circle plates top and bottom and 3-in. girders. The frame on which wheels rest is perforated strips. This is drawn by cable (G), over the top of one of the pulleys (H) down to the drum on gear box.

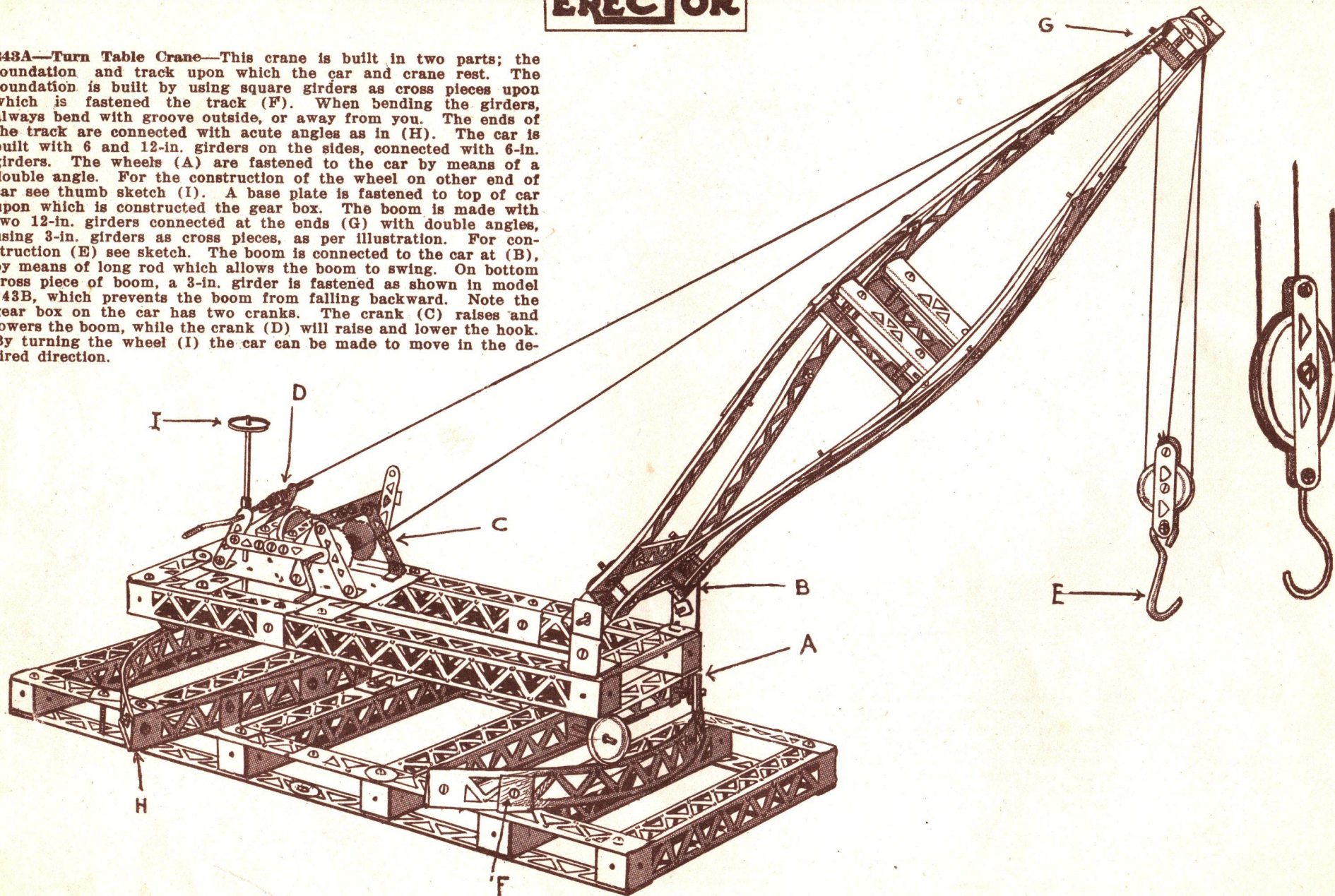


No. 241—Air Compressor—(B) is a double angle, moving backward and forward in 3-in. girder which is attached to 12-in. girder. (C) is a triangle supporting the two large wheels on special crank (A). This special crank at the center of which are attached two perforated strips, is attached to double angles at (B). When wheels turn this eccentric movement compresses the air, theoretically, in the 3-in. girder.

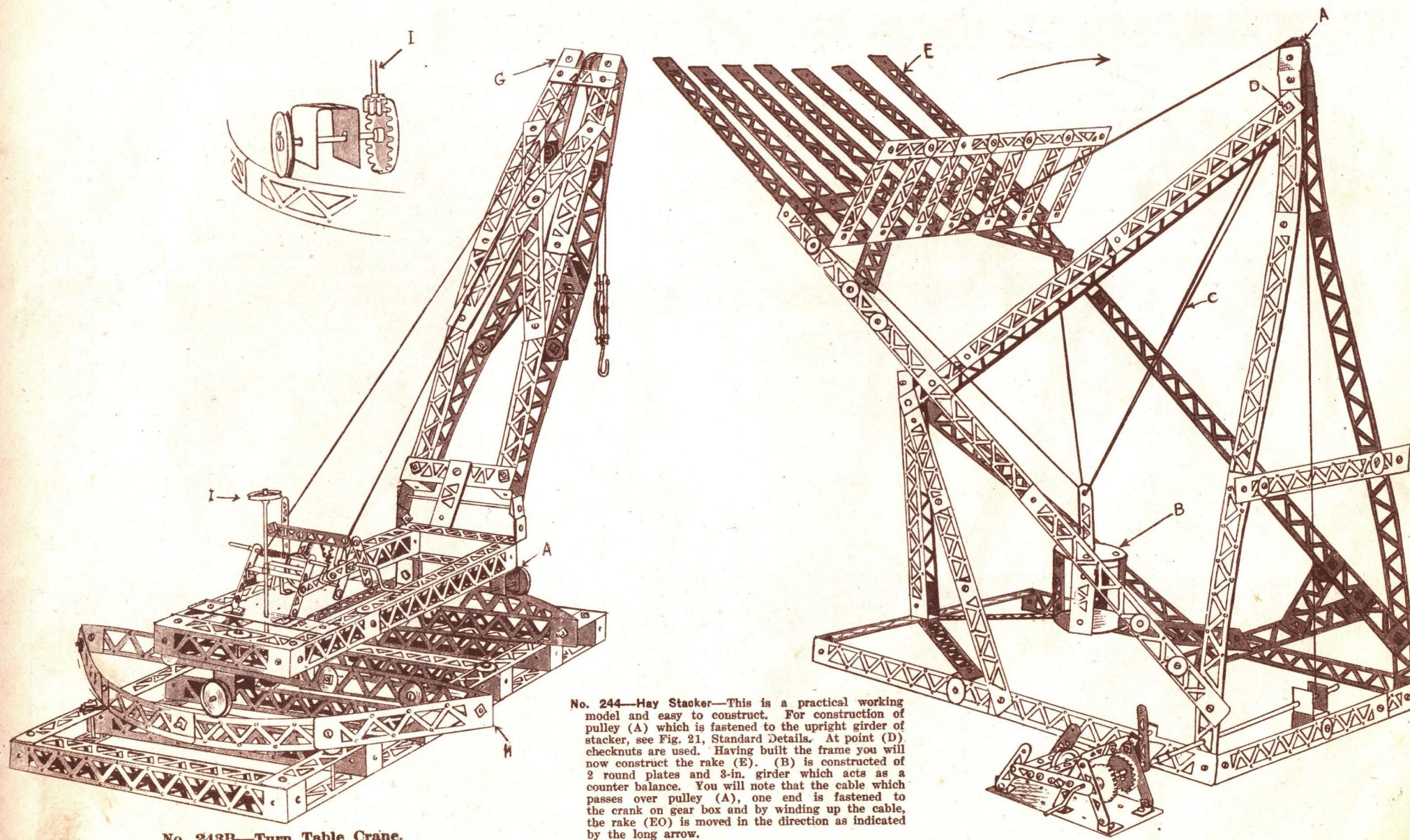
No. 242—Single Car Elevator Tower—For (A) construction see Standard Details, Fig. 21. Attach the 6-in. girders across the top. Car (B) is built as illustrated. Cable attached to top of car runs over pulley (A) down to gear box for construction of which see model 190, Set No. 4.



No. 243A—Turn Table Crane—This crane is built in two parts; the foundation and track upon which the car and crane rest. The foundation is built by using square girders as cross pieces upon which is fastened the track (F). When bending the girders, always bend with groove outside, or away from you. The ends of the track are connected with acute angles as in (H). The car is built with 6 and 12-in. girders on the sides, connected with 6-in. girders. The wheels (A) are fastened to the car by means of a double angle. For the construction of the wheel on other end of car see thumb sketch (I). A base plate is fastened to top of car upon which is constructed the gear box. The boom is made with two 12-in. girders connected at the ends (G) with double angles, using 3-in. girders as cross pieces, as per illustration. For construction (E) see sketch. The boom is connected to the car at (B), by means of long rod which allows the boom to swing. On bottom cross piece of boom, a 3-in. girder is fastened as shown in model 243B, which prevents the boom from falling backward. Note the gear box on the car has two cranks. The crank (C) raises and lowers the boom, while the crank (D) will raise and lower the hook. By turning the wheel (I) the car can be made to move in the desired direction.



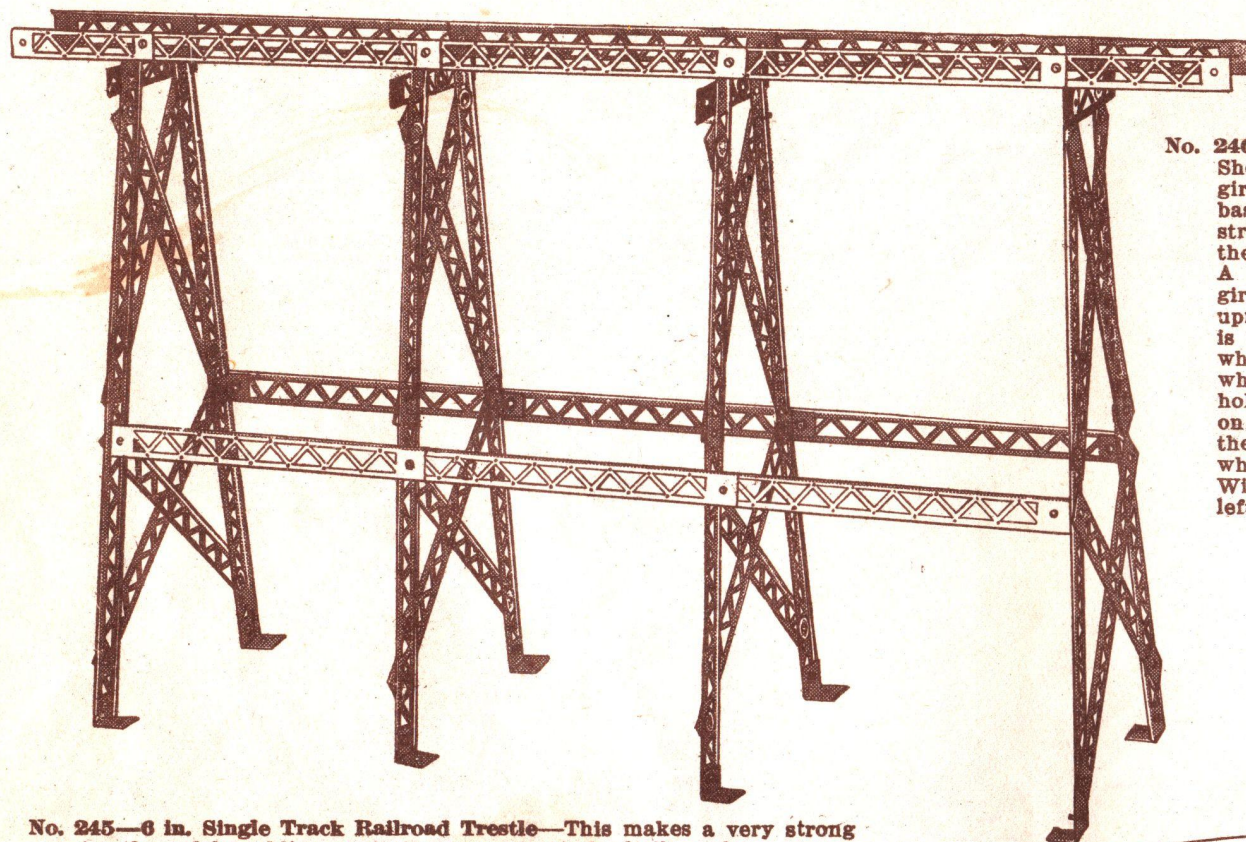
MODELS 1 TO 264 MADE WITH ERECTOR OUTFIT NO 6 OR (NO. 5 AND NO. 5A.)



No. 243B—Turn Table Crane.

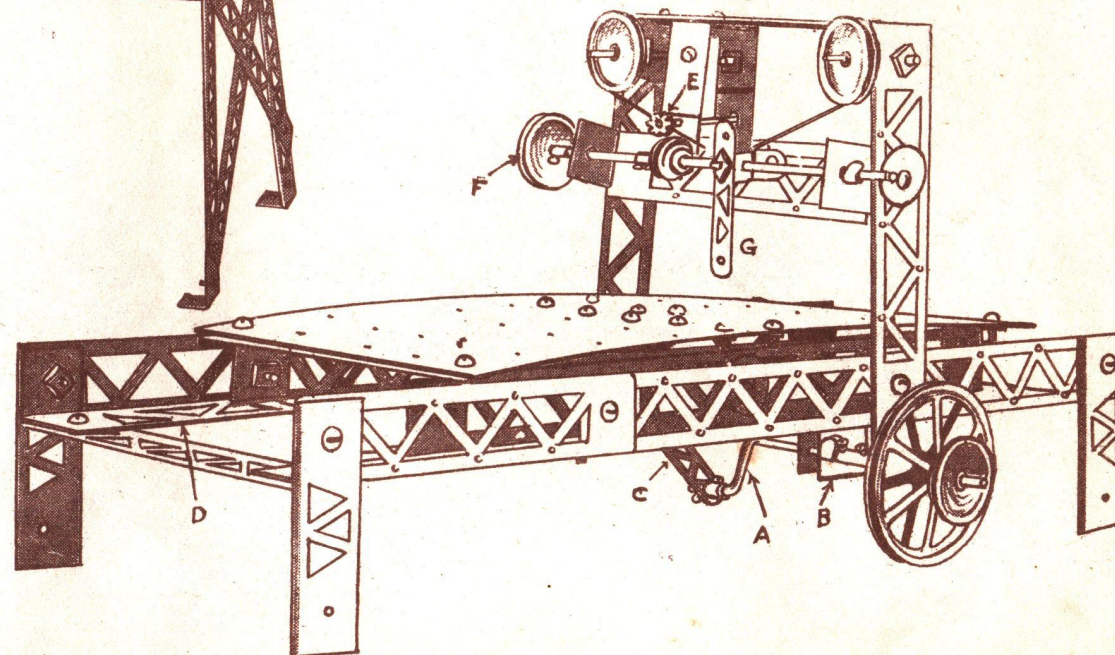
No. 244—Hay Stacker—This is a practical working model and easy to construct. For construction of pulley (A) which is fastened to the upright girder of stacker, see Fig. 21, Standard Details. At point (D) checknuts are used. Having built the frame you will now construct the rake (E). (B) is constructed of 2 round plates and 3-in. girder which acts as a counter balance. You will note that the cable which passes over pulley (A), one end is fastened to the crank on gear box and by winding up the cable, the rake (EO) is moved in the direction as indicated by the long arrow.

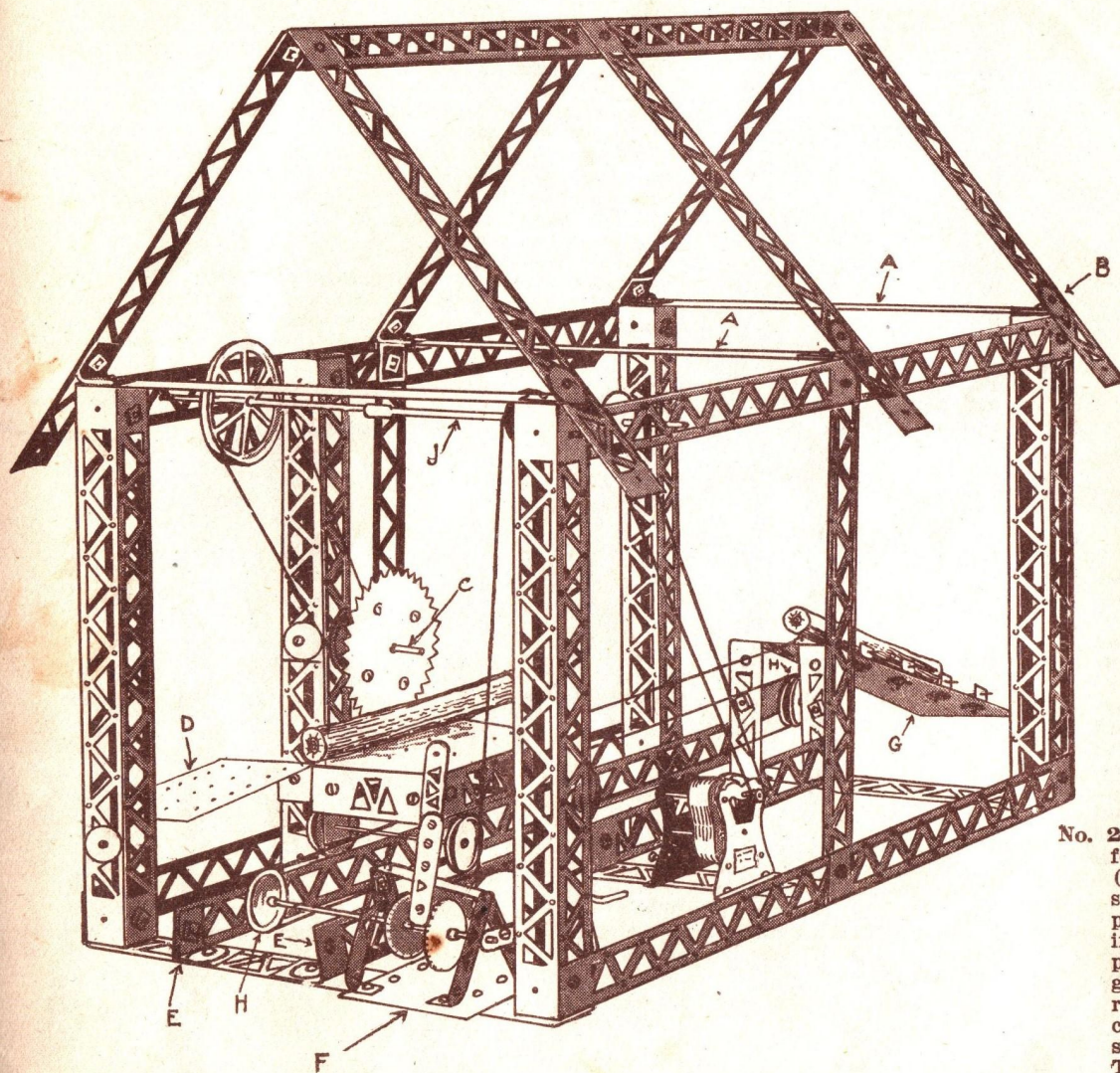
MODELS 1 TO 264 MADE WITH ERECTOR OUTFIT NO. 6 OR (NO. 5 AND NO. 5A)



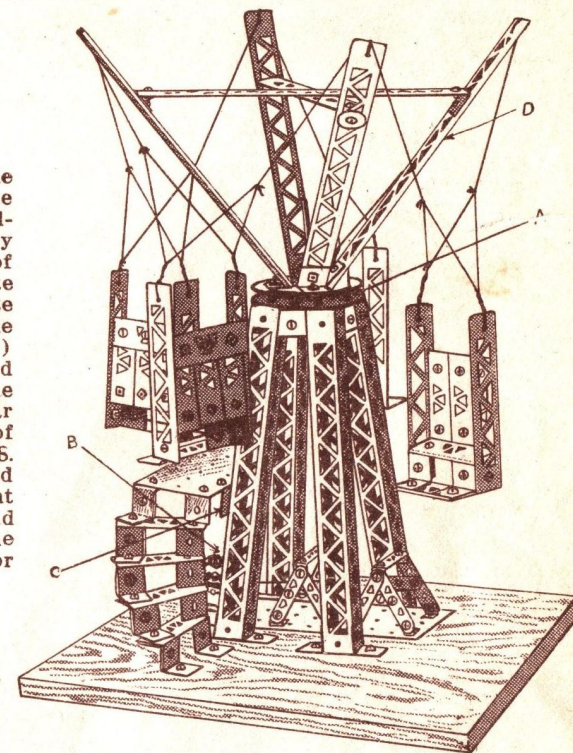
No. 245—6 in. Single Track Railroad Trestle—This makes a very strong trestle and by adding parts to your set can be built as long as you wish. No explanation is needed as it is very simple to put together and will be very strong.

No. 246—Planer—This model can be found in any up-to-date Machine Shop. The body is made with 12- and 6-in girders, with 3-in. girders as legs. The girders (D) are used as tracks upon which the base plates slide. On the under side of base plate the perforated strip (C) is fastened to the crank (A), which is held in position by the double angle (B) which is fastened to the body of the planer. A large pulley is then fastened to this crank (A) to which the girder is attached. Two 6-in. pieces are fastened to this in an upright position with 6-in. girder across the top. A double angle is fastened in each corner to form a bearing for the pulley (F), which is fastened to a rod, to which is fastened the worm gear, which acts as a tool holder. Fasten one end of string to this holder, then around the pulley on the right, across to the pulley on the left, then give several turns on a shafting of pinion (E), then fasten the end to the tool holder. By turning pulley (F) which in turn turns the worm gear, causes the pinion gear to turn. Winding or unwinding the string will move the tool-holder to the left or right.



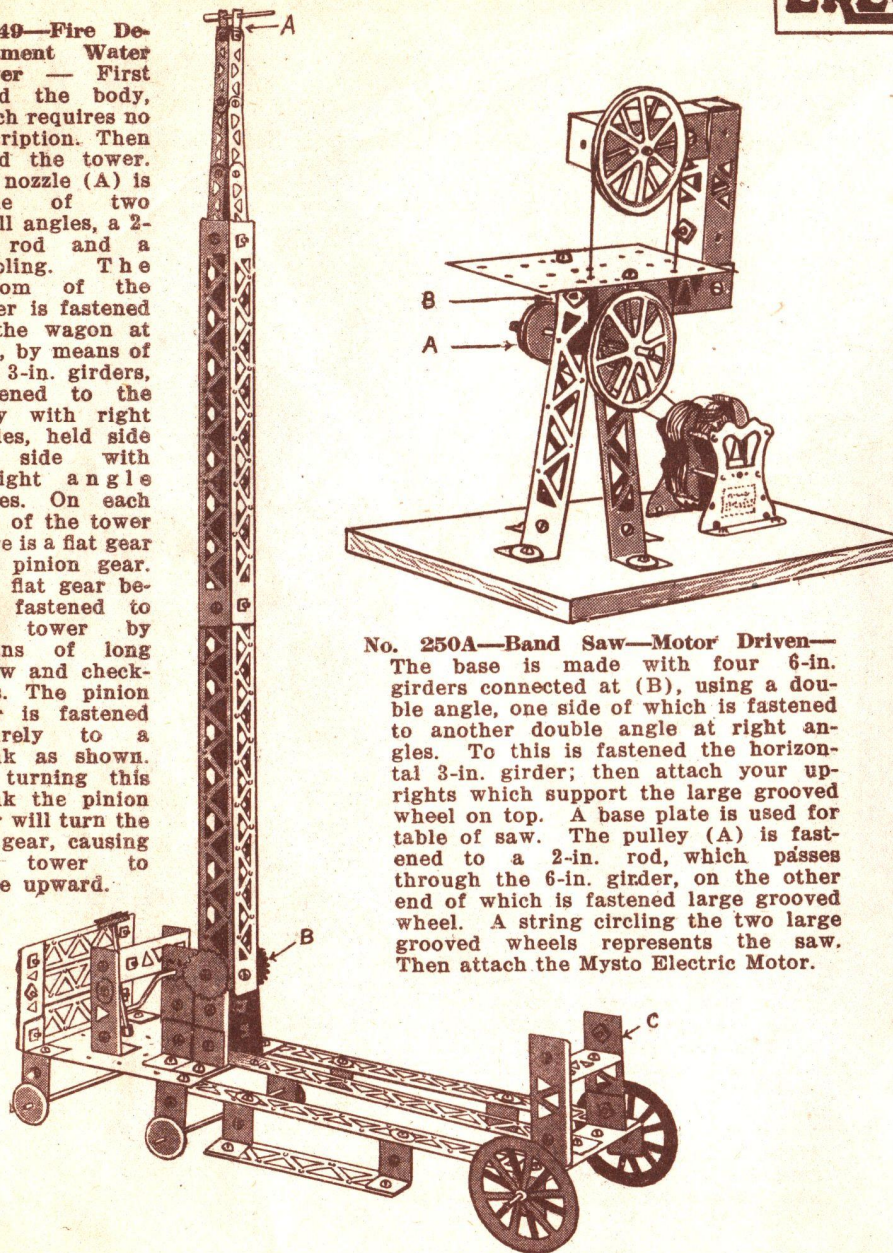


No. 248—Revolving Circle Swing — Construct the four square 12-in. girders, connected at top by right angles. On top of which rests circle plate (A). Another circle plate faces this, to which the arms of the swing (D) are attached. A long rod runs through both circle plates down to the gear box, construction of which see gear box 176. The stairway is connected to 12-in. girders at point (C) with right angles and base plate. (B) is the motor in position for driving swing.



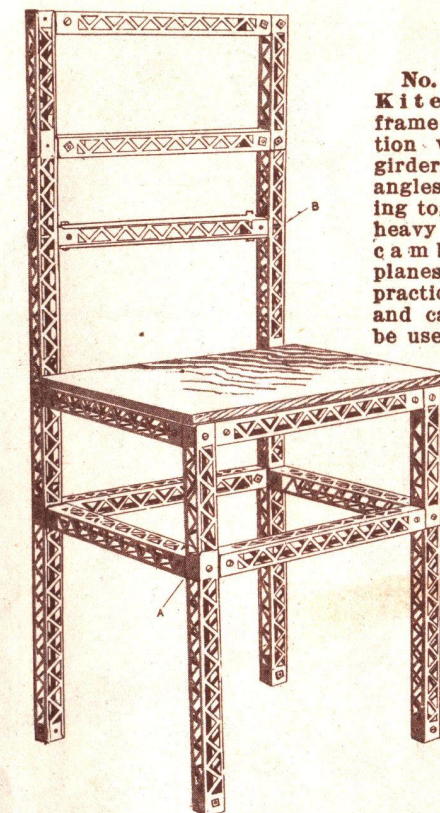
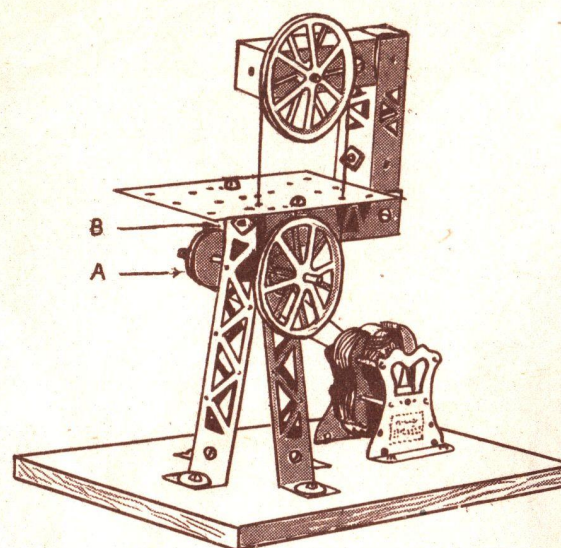
No. 247—Saw Mill—First build the house, using 12-in. square girders for the corners, with 12-in. girders (A) as cross pieces. The roof (B) is attached as shown in Figure 12, of Standard Details. The saw (C) is a round plate fastened to shafting upon which is the pulley which is driven from the shafting (J). Use double angle inside of square girder to support shafting (C). (D) is a base plate. (E) two tracks upon which the car runs. (F) is a reversing gear box model 174. Upon the platform (G) are mounted small right angles, with 2-in. rods run through them, to act as rollers, to carry logs. The motor is attached to shed with a belt running to shafting (J), then a belt running from shafting (J) to gear box. The car or carrier is made similar to model 65. Fasten one end of cable to car, circling the pulley (HH), thence back to the other side of car. When applied to the car it will cause it to travel back and forth upon the track.

No. 249—Fire Department Water Tower—First build the body, which requires no description. Then build the tower. The nozzle (A) is made of two small angles, a 2-in. rod and a coupling. The bottom of the tower is fastened to the wagon at (B), by means of two 3-in. girders, fastened to the body with right angles, held side by side with straight angle pieces. On each side of the tower there is a flat gear and pinion gear. The flat gear being fastened to the tower by means of long screw and check-nuts. The pinion gear is fastened securely to a crank as shown. By turning this crank the pinion gear will turn the flat gear, causing the tower to move upward.



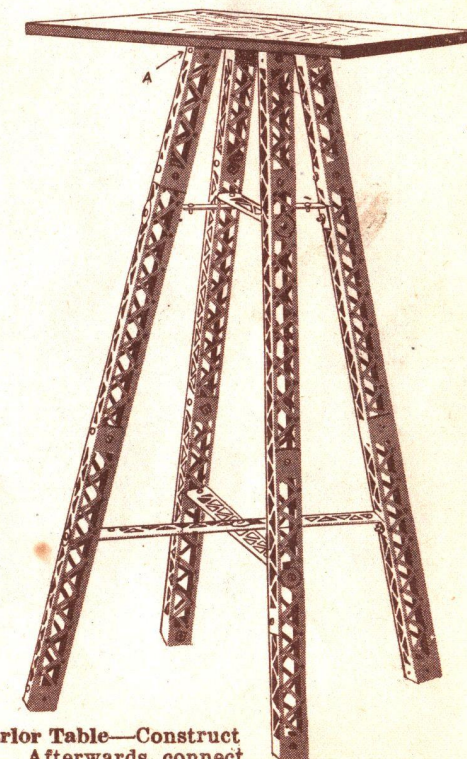
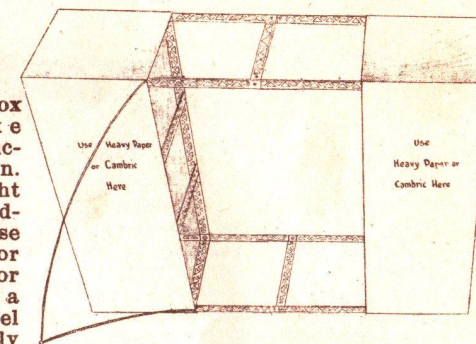
No. 250A—Band Saw—Motor Driven—

The base is made with four 6-in. girders connected at (B), using a double angle, one side of which is fastened to another double angle at right angles. To this is fastened the horizontal 3-in. girder; then attach your uprights which support the large grooved wheel on top. A base plate is used for table of saw. The pulley (A) is fastened to a 2-in. rod, which passes through the 6-in. girder, on the other end of which is fastened large grooved wheel. A string circling the two large grooved wheels represents the saw. Then attach the Mysto Electric Motor.

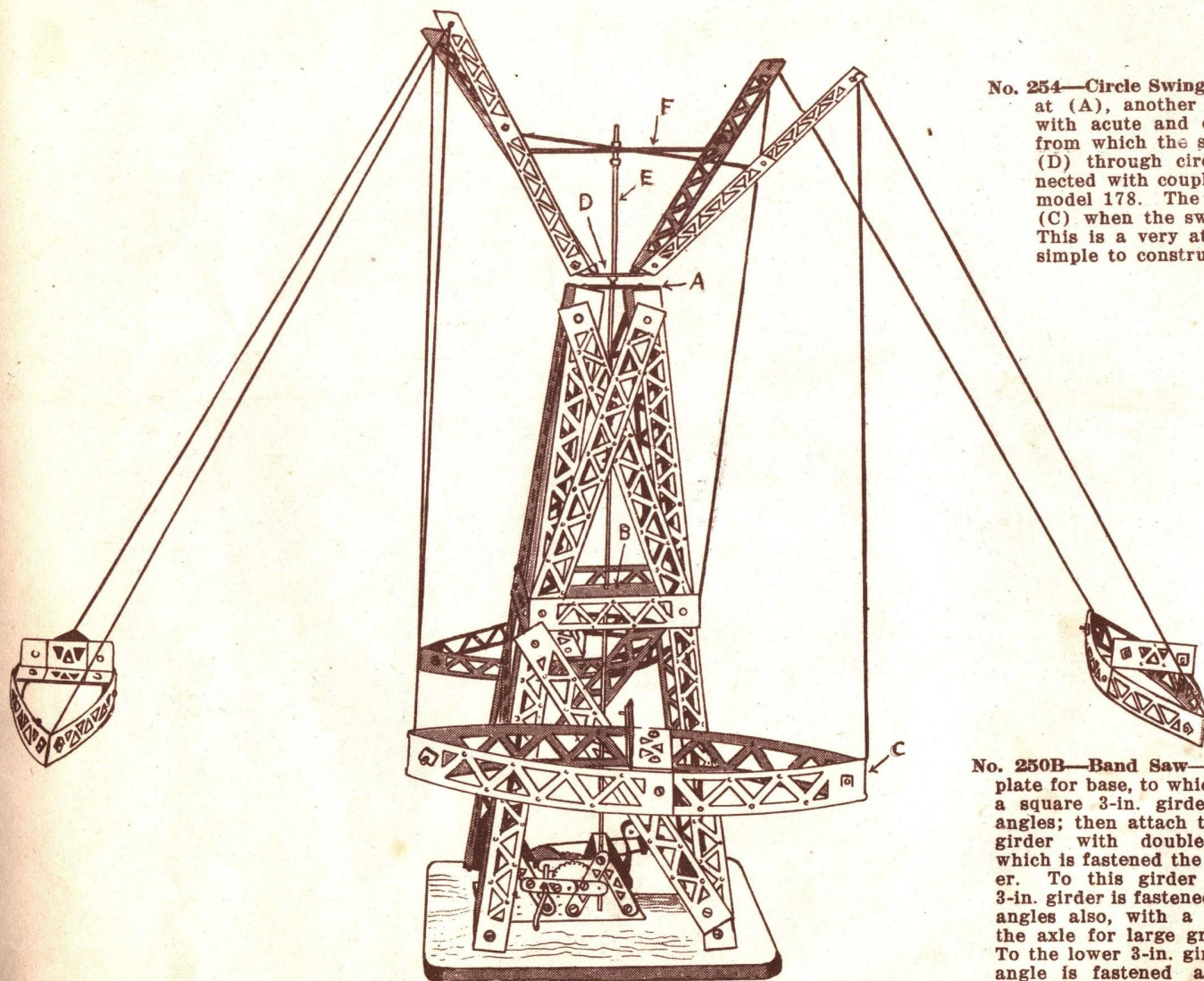


No. 251—Straight Back Chair—For (A) construction see Fig. 15, Standard Details. For (B) construction see Standard Details, Fig. 18. We would advise building the legs first, which consist of 12-in. square girders connected with 6-in. square girders.

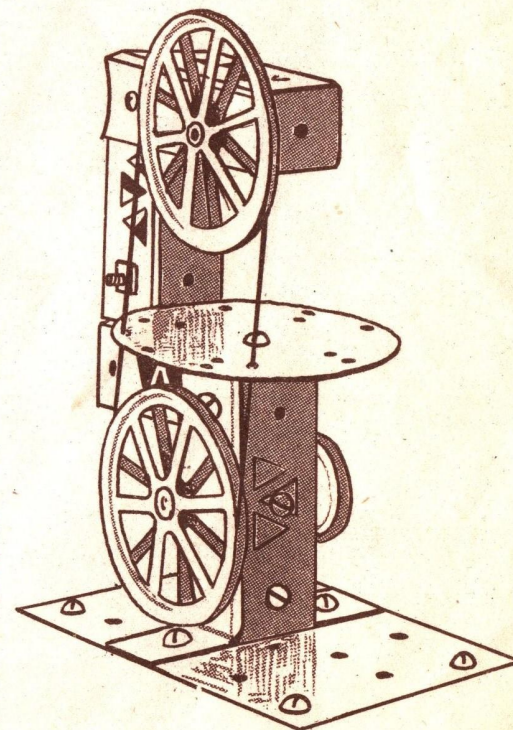
No. 252—Box Kite—Make frame construction with 12-in. girders and right angles, for binding together. Use heavy paper or cambric for planes. This is a practical model and can actually be used.



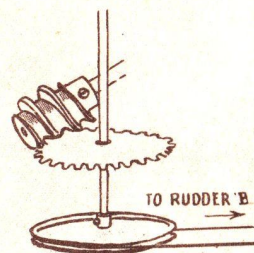
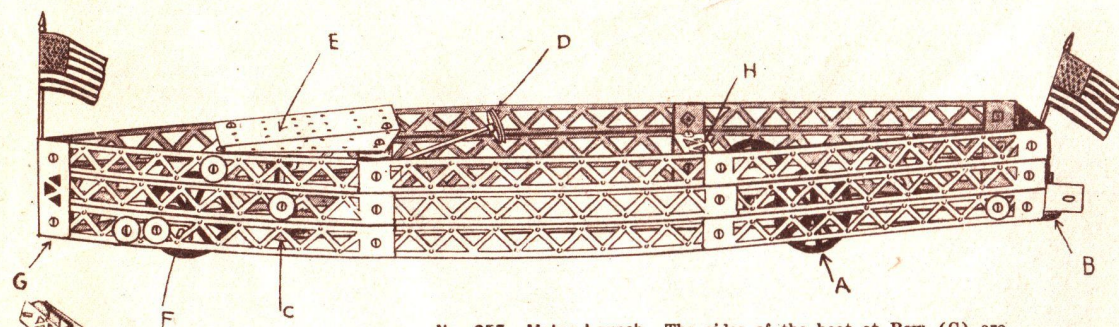
No. 253—Parlor Table—Construct legs first. Afterwards connect with girders. Use board for top.



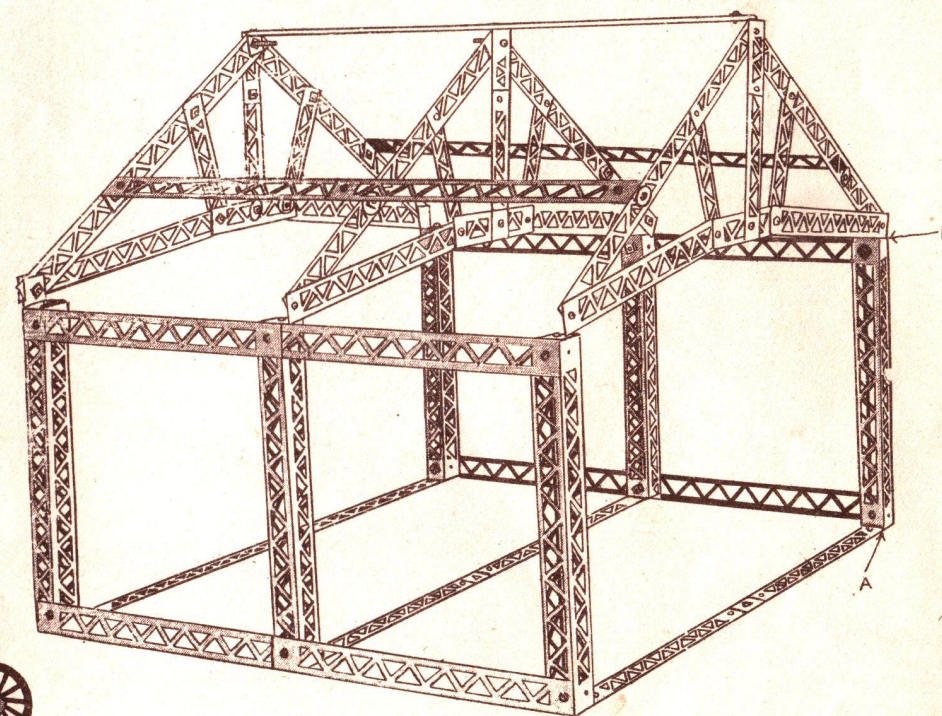
No. 254—Circle Swing—Build frame work first. Attach circle plate at (A), another circle plate (D) holding the arms in place with acute and obtuse angles. (F) represents cross girders from which the shafting rod passes down through circle plate (D) through circle plate (A), through base plate (B) connected with couplings down to gear box. For construction see model 178. The gear box is driven by a motor, and the boats (C) when the swing gets in motion, will fly out into the air. This is a very attractive model and works beautifully. Very simple to construct.



No. 250B—Band Saw—Use a base plate for base, to which is fastened a square 3-in. girder with right angles; then attach the horizontal girder with double angles, to which is fastened the upright girder. To this girder a horizontal 3-in. girder is fastened with double angles also, with a 2-in. rod for the axle for large grooved wheel. To the lower 3-in. girder a double angle is fastened as shown, as bearing for axle which carries large grooved wheel and small pulley wheel.

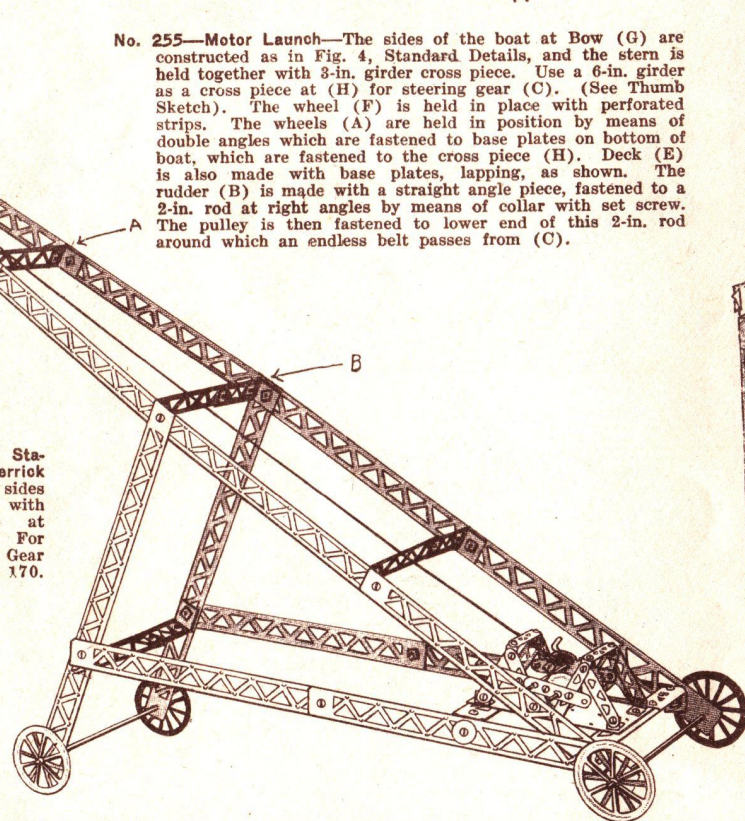


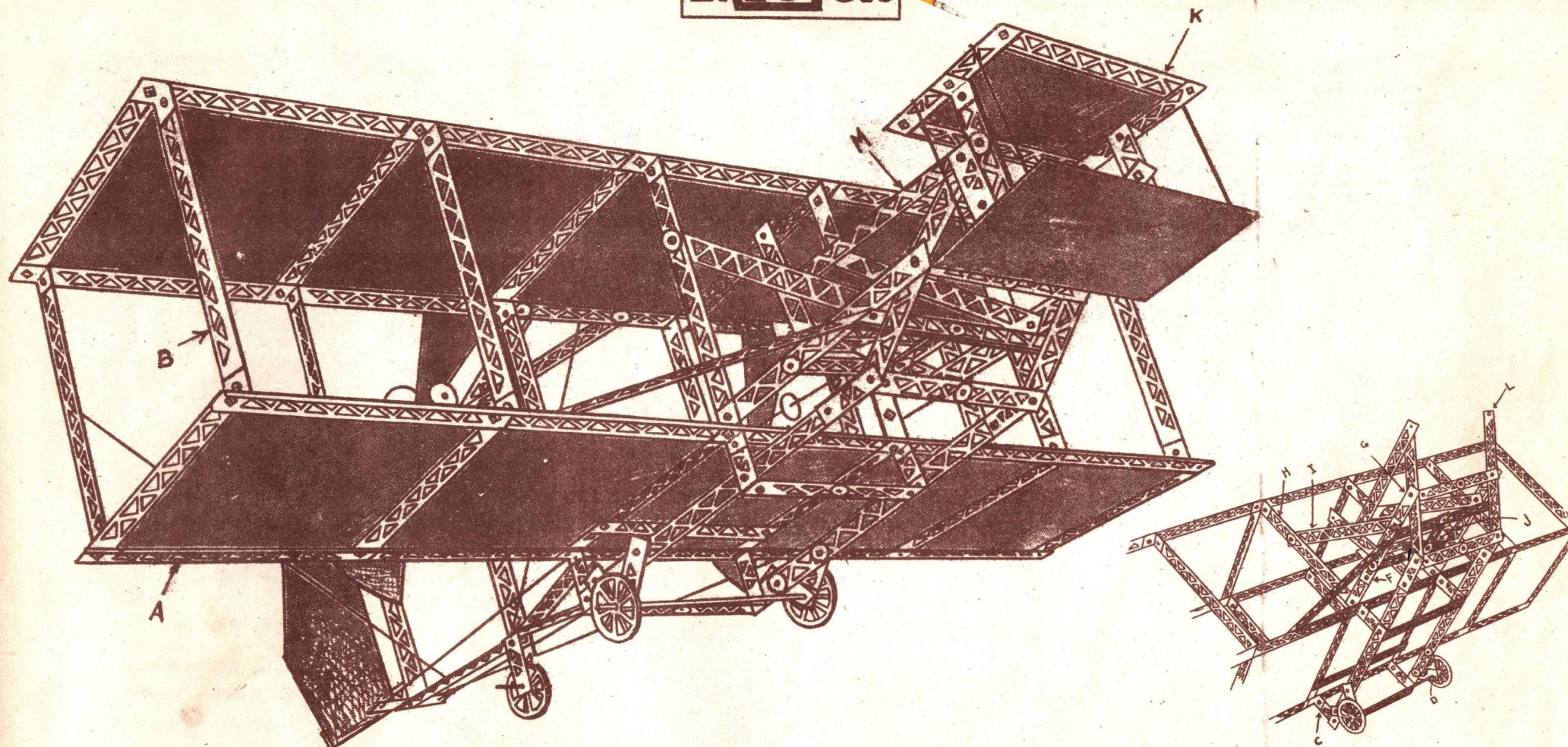
No. 255—Motor Launch—The sides of the boat at Bow (G) are constructed as in Fig. 4, Standard Details, and the stern is held together with 3-in. girder cross piece. Use a 6-in. girder as a cross piece at (H) for steering gear (C). (See Thumb Sketch). The wheel (F) is held in place with perforated strips. The wheels (A) are held in position by means of double angles which are fastened to base plates on bottom of boat, which are fastened to the cross piece (H). Deck (E) is also made with base plates, lapping, as shown. The rudder (B) is made with a straight angle piece, fastened to a 2-in. rod at right angles by means of collar with set screw. The pulley is then fastened to lower end of this 2-in. rod around which an endless belt passes from (C).



No. 257—Barn Structure—Build base of structure, of square girders. The roof is connected to these at point (B) with straight angles. This is a very strong, practical model.

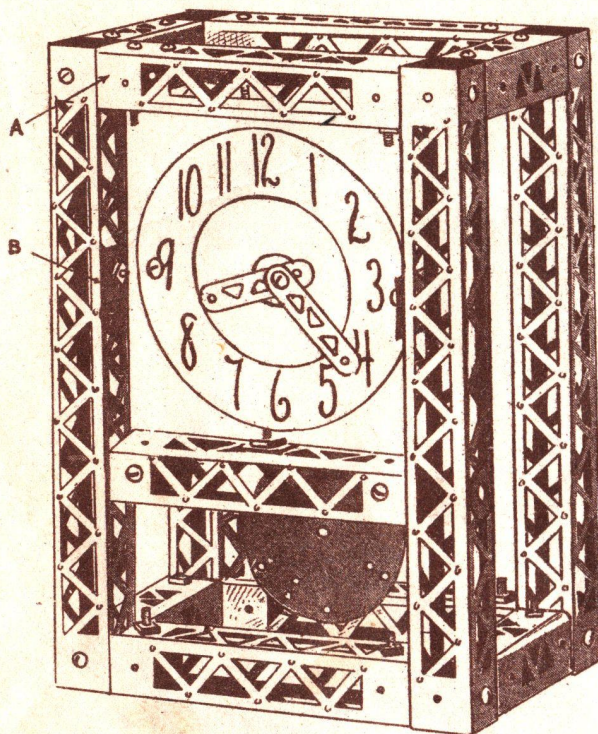
No. 256—High Stationary Arm Derrick—Build two sides and connect with cross girders at (A), (B), etc. For construction of Gear box see Model 170.



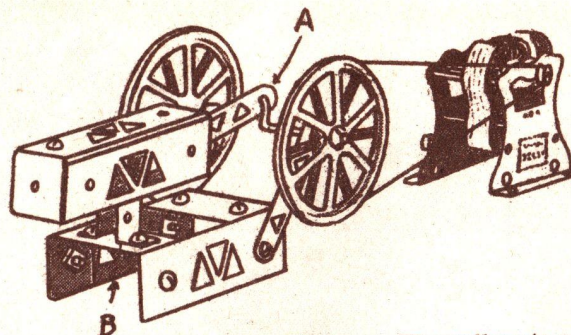


No. 258—Wright Biplane—First build the lower plane (A). Top is made similar, connected with 12-in. girders (B). The hangers for wheels (C) are attached to lower plane with 3-in. girders. Fasten the wheels as shown in (D). Front end of hanger is attached same as back, but projects out beyond, with a 6-in. and 3-in. girder, to which is fastened a 12-in. girder (G). The 12-in. and 3-in. girder (F) are then connected with (G) at one end and the other end to the lower plane at bottom of girder (H). A 12-in. girder (I) is connected with (F) and (H). To keep this frame from swaying sideways a 12-in. girder must be fastened at an angle to the lower plane and girder (F). At the intersection of this girder and the girder (F) another 12-in. girder is connected at right angles, to which is fastened the steering bar (J) with which to regulate the rudder. For rudder construction, see thumb sketch. The guides (K) are fastened to the Biplane at (L), allowing them to swing freely, as they are operated with the lever (M) which is fastened directly in front of the seat. The four propeller blades are fastened to round plates which are attached to body of Biplane as shown in Model 218. The motor is in the center and rear of the lower plane connected to the driving pulley on the propeller shafting. We recommend rubber bands to be used as belts.

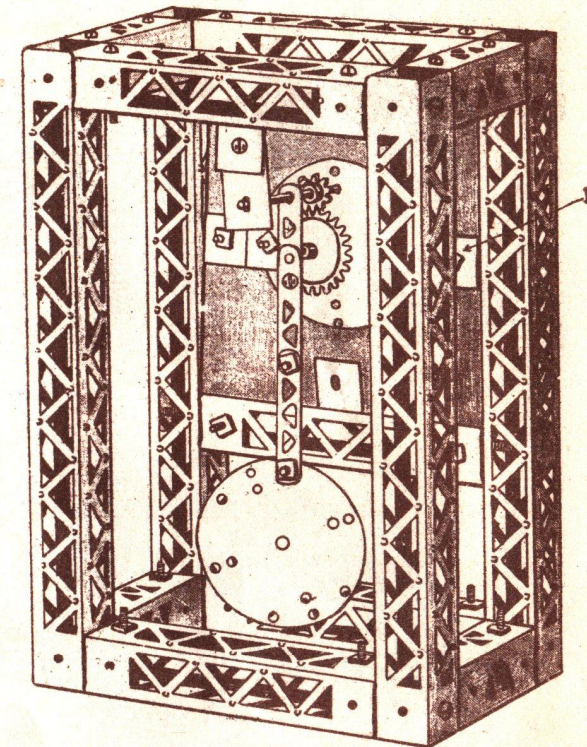
MODELS 1 TO 264 MADE WITH ERECTOR OUTFIT NO. 6 OR (NO. 5 AND NO. 5A)



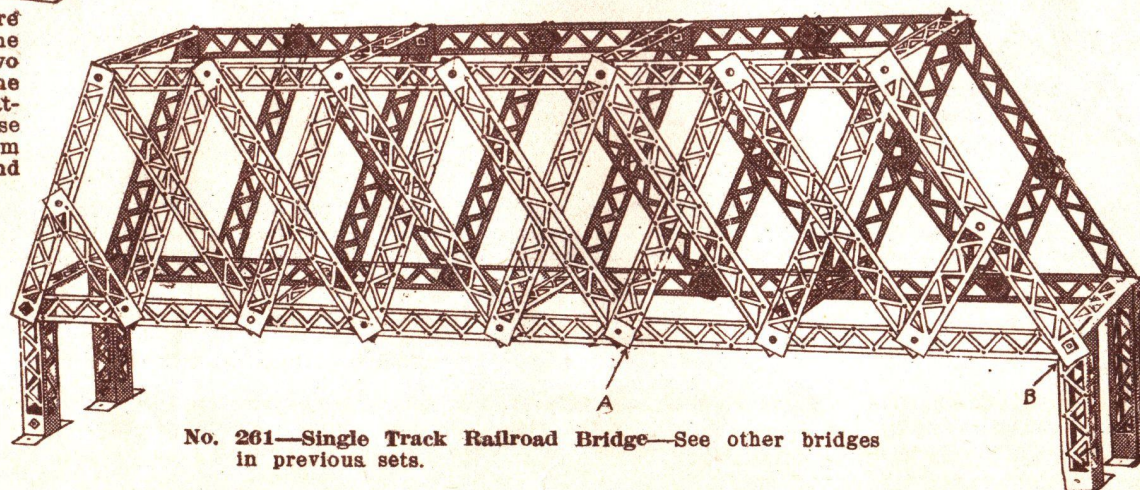
No. 259A—Clock—Use 12-in. square girders for corner posts. To the top of which are fastened two double angles for cross pieces. The right angles (B) are used for attaching the face. For hands use perforated strips. The pendulum is made with perforated strips and round plate.



No. 260—Air Compressor—Motor Driven—The pulleys to which the motor is attached are fastened on each end of the crank shaft (A), using a perforated strip as a piston rod, to the other end of which is fastened a double angle, which travels inside of the 3-in. square girder, which is fastened to the point (B), by means of a bent perforated strip. Perforated strips are also used for bearing for crank shaft (A).



No. 259B—Clock.



No. 261—Single Track Railroad Bridge—See other bridges in previous sets.

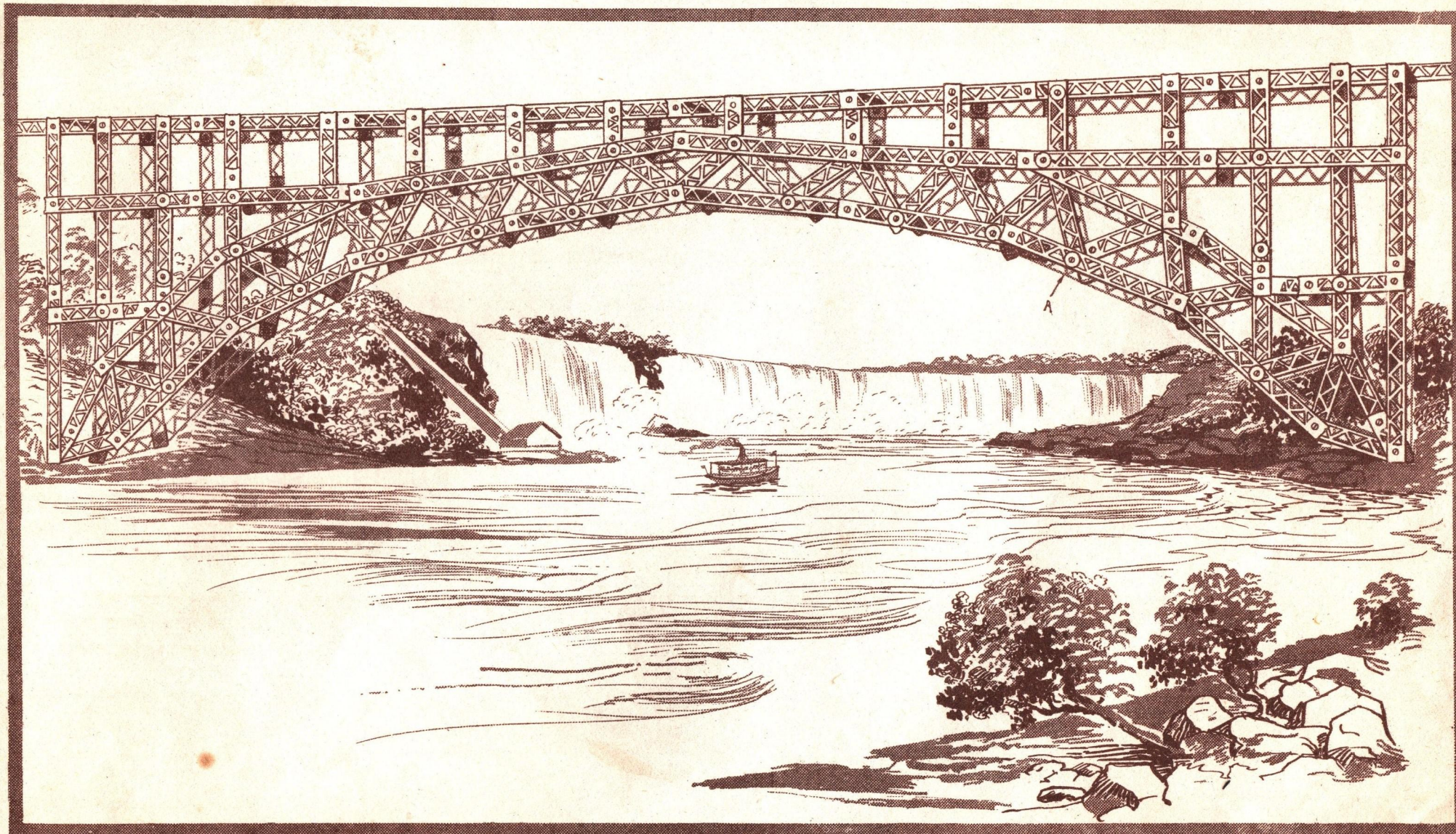
- Model 262—Locomotive.
- Model 263—Caboose.
- Model 264—Coal Car.

Note.

The above models are quite difficult to construct and belong to the railroad train shown further on in this Manual.

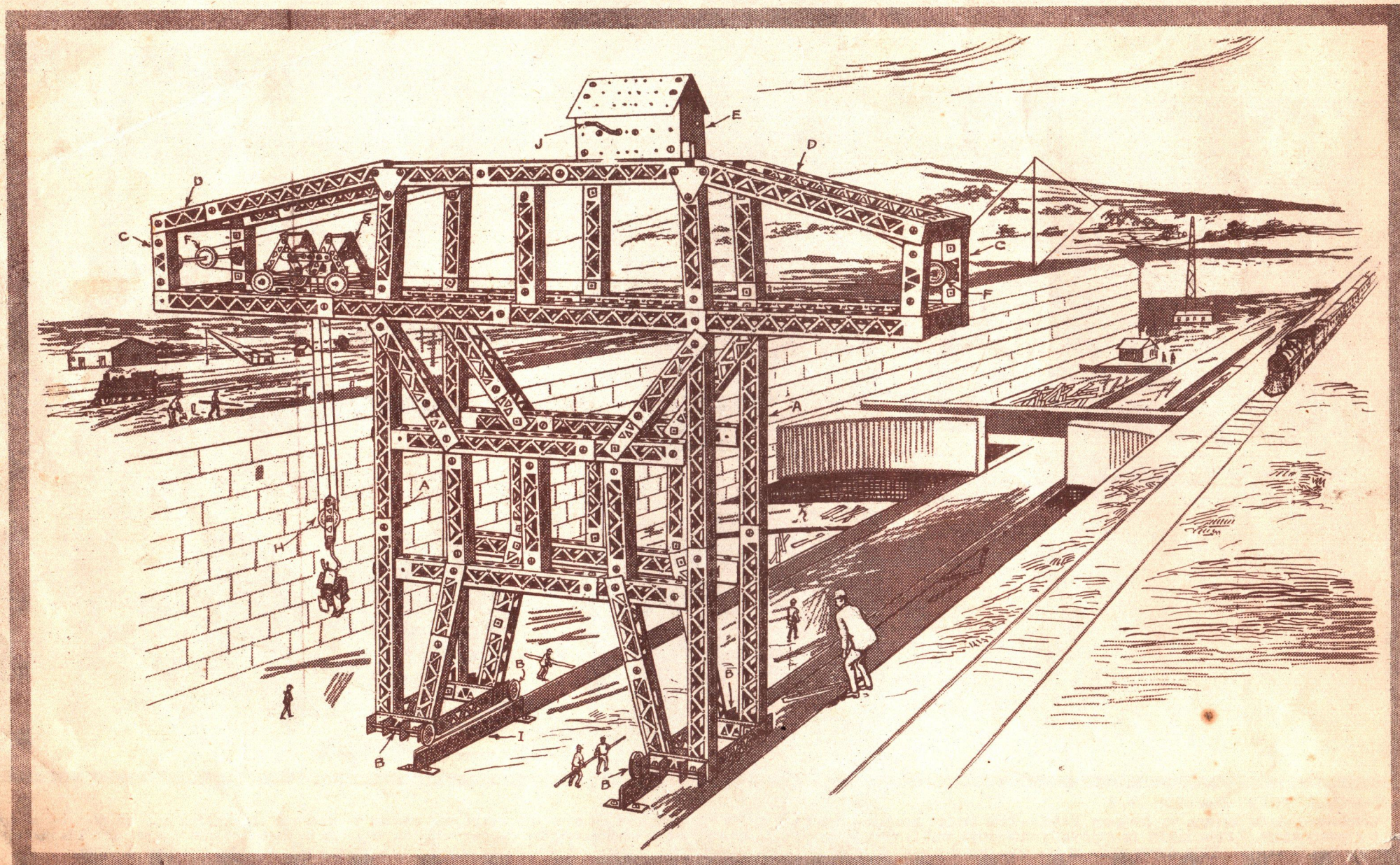
Any one who desires to build these models will be sent a copy of Part 2 of this Manual of Directions on receipt of request.

MODELS 1 TO 264 MADE WITH ERECTOR OUTFIT NO 6 OR (NO. 5 AND NO. 5A.)



No. 290—Made with Erector outfit No. 8.

Celebrated Arch Bridge at Niagara Falls.—This bridge needs no description. It is celebrated all over the world, and shown in millions of pictures and on post cards distributed everywhere. This model is especially attractive and is very instructive to build. Full description for its construction is given in Part 2 of this Manual which is included in outfits Nos. 7 and 8. This shows some of the wonderful possibilities of the Mysto Erector as a large model constructor. This bridge is 9 ft. long and 3½ ft. high.



No. 300—Made with Erector Outfit No. 8.

Gantry Crane—Panama Canal.—This crane was used in constructing the locks on the Panama Canal. This is one of the most handsome and instructive models which we make. It is made of square girders and imitates very successfully this wonderful crane. This model is 2 ½ ft. high and 4 ft. wide. Complete description for its construction is given in Part 2 of the Manual which is included in outfits Nos. 7 and 8.