

# New Meccano Models

## Climbing Monkey—Three-Wheel Car

AN opportunity for model-builders to indulge in the lighter kind of Meccano construction is provided by the amusing model shown in Fig. 1. It is a small "monkey" that can be made to climb vigorously up or down a piece of Cord, simply by jerking the Cord. The body of the monkey consists of two  $3\frac{1}{2}$ " Strips joined by Double Brackets at 1 and 2. The Bolt 2 that fixes one of the Double Brackets in position holds also the monkey's arms, and a third Double Bracket is held in position by the 1" Screwed Rod 3. The nuts are left sufficiently loose on the Rod to allow the legs to pivot freely. The legs are made from 2" Strips, with feet consisting of Fishplates, and they are connected at 4 by a  $\frac{3}{4}$ " Bolt lock-nutted in position. The ends of the Spring 5 are looped over the Screwed Rod 3 and  $\frac{3}{4}$ " Bolt 4, and the  $\frac{3}{4}$ " Bolt 6 passes through the loop so formed. Two  $\frac{3}{4}$ " Bolts are pushed through the Fishplates forming the feet and are fitted in place by lock-nuts, one of the Bolts 7 carrying six Washers.

The back of the body is a 3" Strip, which supports a stepped Bent Strip 8. The  $\frac{1}{2}$ " Bolt 9 carries a  $\frac{1}{2}$ " loose Pulley, around which a Spring is looped, the ends of the Spring being anchored on the  $\frac{3}{4}$ " Bolt 10.

The monkey is completed by fitting its head and by joining the ends of its arms with a Double Bracket. A piece of Meccano Cord is now threaded through the Double Bracket, then around the  $\frac{3}{4}$ " Bolt 7 connecting the feet, and up over the second  $\frac{3}{4}$ " Bolt. The Cord is fitted at each end with a 1" Pulley.

To make the monkey climb, the Cord is pulled taut, thus causing the legs to

straighten and move the body upward and forward. As it does so the Cord is gripped between the coils of the upper Spring. On releasing the tension of the Cord the legs move up under the influence of the lower Spring, ready for the next movement.

Parts required to build the Climbing Monkey: 2 of No. 3; 1 of No. 4; 4 of No. 6; 3 of No. 10; 4 of No. 11; 2 of No. 22; 1 of No. 22a; 1 of No. 23; 9 of No. 37; 23 of No. 37a; 8 of No. 38; 1 of No. 40; 2 of No. 43; 1 of No. 44; 1 of No. 82; 2 of No. 90; 4 of No. 111; 1 of No. 111a; 1 of No. 111c.

### Three-Wheel Sports Car

The natty three-wheel sports car shown in Figs. 2 and 3 is quite simple in construction. The chassis consists of two  $5\frac{1}{2}$ " Strips 1, connected by a  $1\frac{1}{2} \times \frac{1}{2}$ " Double Angle Strip 2 and attached by Angle Brackets to a  $2\frac{1}{2} \times \frac{1}{2}$ " Double Angle Strip 3. A

Magic Clockwork Motor is bolted to the chassis as shown in Fig. 3, and the Motor pulley is connected by a Driving Band to a 1" Pulley on the rear axle. The axle is a 2" Rod held in place by a Spring Clip. The Motor brake lever is extended by a 1" Rod held in a Rod and Strip Connector fixed to the lever.

Each side of the body is assembled on a  $5\frac{1}{2}$ " Strip 4 bolted to the lugs of Double Angle Strip 3 and joined to the chassis by  $\frac{1}{2}$ " Reversed Angle Brackets 5. The side is plated by a  $2\frac{1}{2} \times 1\frac{1}{2}$ " Flexible Plate and by a  $5\frac{1}{2} \times 1\frac{1}{2}$ " Flexible Obtuse Angle Brackets to the rear end of  $5\frac{1}{2} \times 1\frac{1}{2}$ " Flexible the Brackets on each side are bolted together.

Plate. Two are fixed each side are bolted together.

A  $2\frac{1}{2} \times 1\frac{1}{2}$ " Flanged Plate is bolted between the front ends of Strips 4, and it projects one hole in front of the Strips. Two  $2\frac{1}{2}$ " Strips 6 placed face to face, are fixed to the Flanged Plate, and these support a  $3\frac{1}{2}$ " Strip 7 that forms the front axle beam.

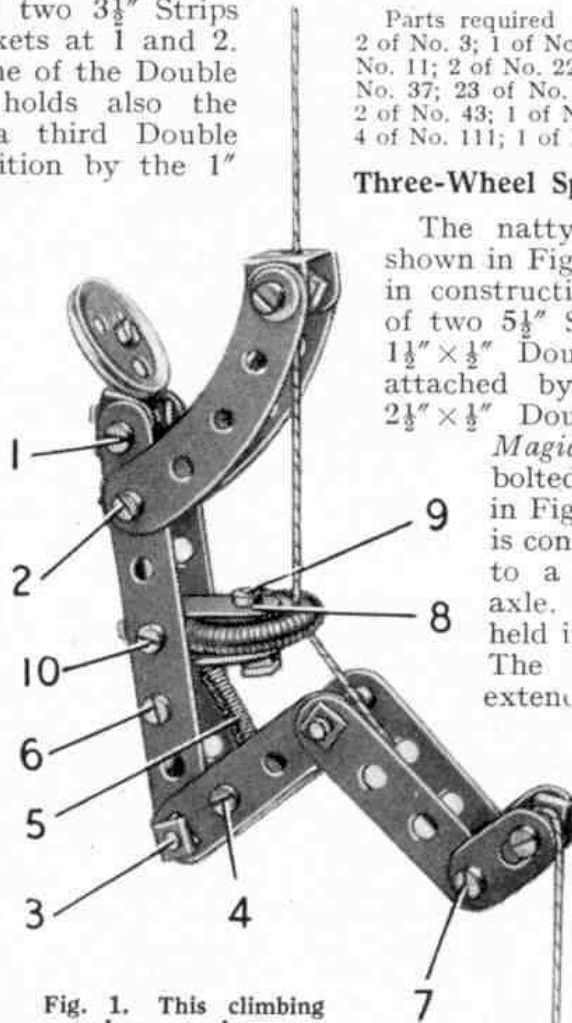


Fig. 1. This climbing monkey makes an amusing toy for the younger members of the family.

The front wheels are each fixed on a  $1\frac{1}{2}$ " Rod mounted in a Double Bracket and held in place by a Spring Clip. A  $\frac{3}{8}$ " Bolt is passed through a Fishplate and the Double Bracket, and these parts are clamped tightly together by a nut. The Bolt is then passed through one of the end holes of the Strip 7, and is fitted with lock-nuts, so that the Bolt, Double Bracket and Fishplate pivot freely in the Strip. The Fishplates are linked by a second  $3\frac{1}{2}$ " Strip attached by lock-nutted bolts, and two Angle Brackets are fixed to this Strip by a Bolt 8 to form a U-shaped piece.

The upper edges of the Flexible Plates that form the sides of the body are braced by  $5\frac{1}{2}$ " Strips. The top of the bonnet is a  $4\frac{1}{2}$ "  $\times$   $2\frac{1}{2}$ " Flexible Plate curved as shown in Fig. 2, and the Bolts 9 and 10 that fix the Flexible Plate in position attach also two  $2\frac{1}{2}$ "  $\times$   $1\frac{1}{2}$ " Double Angle Strips placed between the sides of the body. The bonnet is completed by four Formed Slotted Strips.

The radiator cap is a  $\frac{1}{2}$ " loose Pulley held by a  $\frac{3}{8}$ " Bolt 11 that fixes also an Angle Bracket placed inside the bonnet. This Angle Bracket is used later to fix the radiator in position.

The steering column is a Crank Handle, which is passed through the Double Angle Strip held by Bolts 9 and through a Fishplate bolted to the Double Angle Strip

held by Bolts 10. The grip of the Crank Handle engages between the Angle Brackets fixed by Bolt 8 to the  $3\frac{1}{2}$ " Strip of the steering mechanism.

The radiator and front cowl consists of a Semi-Circular Plate bolted to a  $2\frac{1}{2}$ "  $\times$   $2\frac{1}{2}$ " Flexible Plate shaped as shown in Fig. 2. Two 1" Pulleys on  $\frac{3}{8}$ " Bolts represent headlamps, and the assembly is fixed to the Angle Bracket attached to the bonnet by  $\frac{3}{8}$ " Bolt 11. The rear cowl

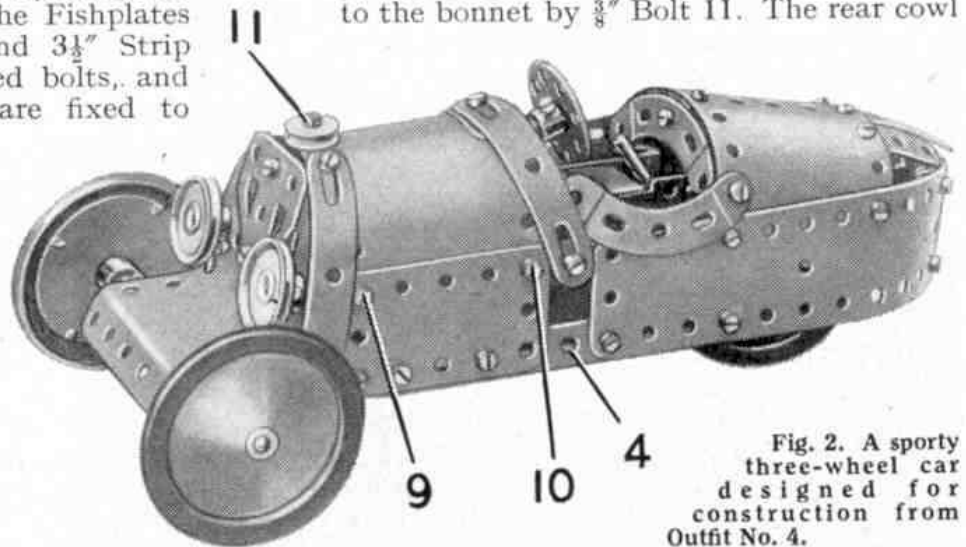


Fig. 2. A sporty three-wheel car designed for construction from Outfit No. 4.

of the car consists of two  $1\frac{1}{16}$ " radius Curved Plates bolted at an angle to the  $5\frac{1}{2}$ "  $\times$   $1\frac{1}{2}$ " Flexible Plates and connected together at the centre. The tail is completed by three  $2\frac{1}{2}$ " Strips bolted to the  $1\frac{1}{16}$ " radius Curved Plates.

Three  $2\frac{1}{2}$ " stepped Curved Strips form the sides and rear of the driver's cockpit as shown in Fig. 2.

The Magic Clockwork Motor will drive the model for a considerable distance at a good speed. The Motor can be rewound by inserting the key in the gap left between the  $5\frac{1}{2}$ "  $\times$   $1\frac{1}{2}$ " and  $2\frac{1}{2}$ "  $\times$   $1\frac{1}{2}$ " Flexible Plates that form the sides of the body.

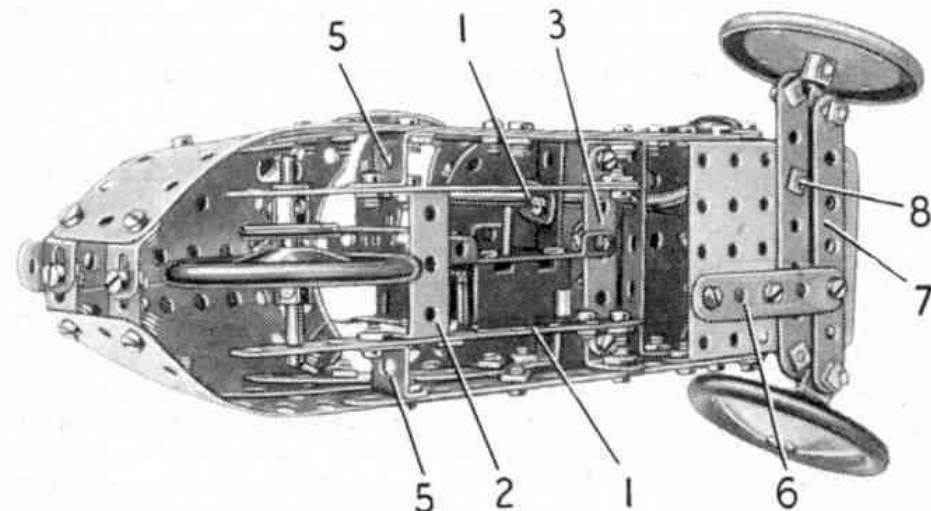


Fig. 3. An underneath view of the car that shows how the Motor is fitted, and the steering mechanism.

- Parts required to build the Three-Wheel Sports Car:
- 6 of No. 2; 2 of No. 3; 5 of No. 5; 3 of No. 10; 2 of No. 11; 6 of No. 12; 4 of No. 12c; 1 of No. 17; 2 of No. 18a; 1 of No. 18b; 1 of No. 19g; 3 of No. 22; 1 of No. 23; 1 of No. 24; 5 of No. 35; 57 of No. 37; 10 of No. 37a; 7 of No. 38; 1 of No. 48; 3 of No. 48a; 1 of No. 51; 3 of No. 90a; 6 of No. 111c; 2 of No. 125; 2 of No. 126a; 3 of No. 187; 2 of No. 188; 2 of No. 189; 1 of No. 190; 1 of No. 191; 2 of No. 200; 1 of No. 212; 1 of No. 214; 4 of No. 215; 1 Magic Clockwork Motor.