

# Mobile Crane for the younger builder

ON page 31 of this issue, I have given full instructions for a large and fairly complicated Mobile Crane. This is a very interesting model for advanced builders to tackle, with a large number of parts at their disposal, but I do not want to forget the younger age group, who may not have the parts—or the experience—to attempt such a complex structure. Therefore, I intend to describe here a simple Mobile Crane which no one should experience difficulty in building.

The crane hoist is operated by a No. 1 Clockwork Motor.

Although it is an easy model to construct, it is packed with what, in the toy-making world, is called 'play-value'. In fact, you can have 'loads' of fun with it.

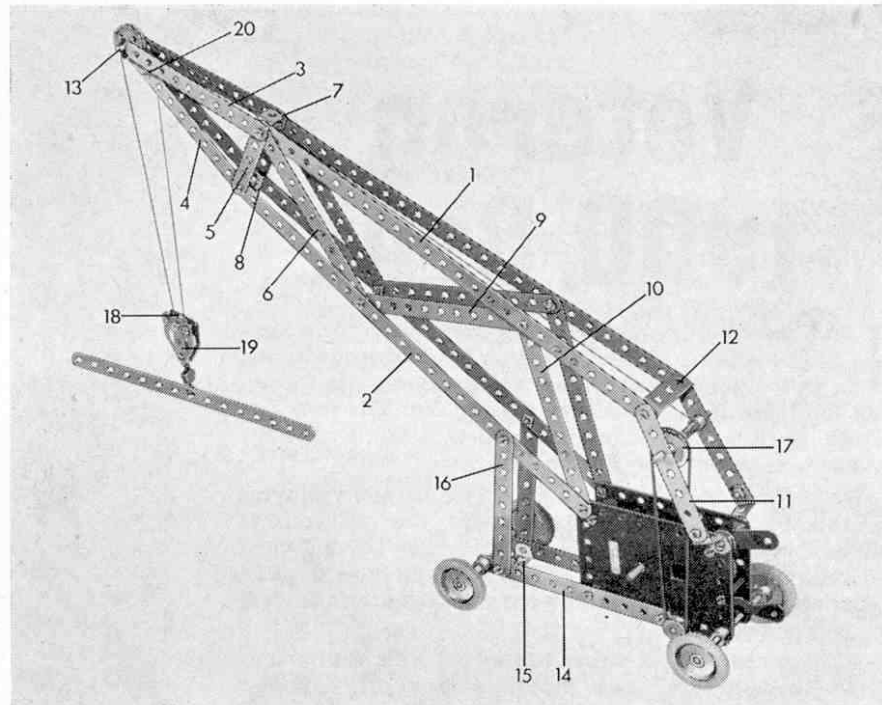
## The jib

This part of the model is particularly strong, thanks to the cross-bracing used in its construction. Each side is built separately as follows: Two 12½ in. Strips 1 and 2 are extended to a point by two 5½ in. Strips 3 and 4, a ½ in. Bolt being used to connect each pair of Strips. The Bolt joining Strips 1 and 3 also holds a 2½ in. Strip 5, a 5½ in. Strip 6 and a Double Bracket 7 in place, while the Bolt joining Strips 2 and 4 secures the other end of Strip 5 and another Double Bracket 8. At its other end, Strip 6 is bolted, together with another 5½ in. Strip 9, to Strip 2. Strip 9, in turn, is bolted, together with a further 5½ in. Strip 10, to Strip 1. Strip 1, at its other end, is extended by a 3½ in. Strip 11, at the same time bolting a 1½ in. × ½ in. Double Angle Strip 12 in position.

Each side of the jib can now be joined by means of Double Brackets 7 and 8, and Double Angle Strip 12. A 1 in. Rod 13, carrying a 1 in. loose Pulley, is then journalled in place by Spring Clips.

## Chassis and motor

Two 5½ in. Strips 14 are bolted to the side plates of a No. 1 Clockwork Motor, being spaced from them by a Washer on the shank of each Bolt. These Strips are



This simple, but effective, working Mobile Crane, powered by a Meccano No. 1 Clockwork Motor, has been designed specially for younger model-builders

connected through their second holes by a compound 1 in. × ½ in. double bracket 15, built up from a 1 in. × ½ in. and a ½ in. × ½ in. Angle Bracket, the same bolts fixing two 4½ in. Strips 16 in position. Two 3½ in. Rods, carrying a 1 in. fixed Pulley with Tyre at each end, are journalled as shown, Collars holding them in place.

## Connecting jib to chassis

Strips 2 and 10 are bolted to the upper forward corner of the Motor side plates, and Strips 11 are joined to their upper rear corner by ½ in. × ½ in. Reversed Angle Brackets, as illustrated. A 2½ in. Rod, carrying a 1 in. fixed Pulley 17, a Cord Anchoring Spring and a Collar, is now mounted in Strips 11. A 10 in. Driving Band connects Pulley 17 to a ½ in. Pulley on the Motor Shaft.

## Load hook

A ½ in. loose Pulley 18, free on a ½ in. Bolt, is journalled between two Flat

Trunnions 19, which are connected by three ½ in. Bolts. Fixed by Cord to the Bolt in the apex hole of these Flat Trunnions is a current-style Loaded Hook. If, however, you possess the older type of Hook, this can be mounted directly on the Bolt.

To complete the model, a long length of Cord is tied to the Cord Anchoring Spring on the 2½ in. Rod, is passed around the Pulley on Rod 13, then around Pulley 18, and finally tied to a ½ in. Bolt 20 fixed in Strips 4.

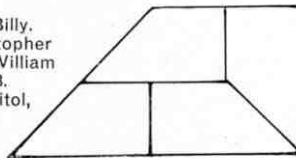
## Parts required:

4 of No. 1	1 of No. 18b	1 of No. 48
12 of No. 2	5 of No. 22	1 of No. 57c
2 of No. 2a	1 of No. 22a	5 of No. 59
2 of No. 3	1 of No. 23	2 of No. 111a
2 of No. 5	1 of No. 23a	7 of No. 111c
2 of No. 11	2 of No. 35	2 of No. 125
1 of No. 12	39 of No. 37a	2 of No. 126a
1 of No. 12b	21 of No. 37b	4 of No. 142c
2 of No. 16	4 of No. 38	1 of No. 176
1 of No. 16a	1 of No. 40	1 of No. 186b

## Answers to Puzzles on page 19

### Quick Quiz

- The Puffing Billy. Built by Christopher Blakett and William Hedley in 1813.
- America (Capitol, Washington).
- English
- 130 yds.
- Felucca.
- Mammal.



### Tricky Teasers

- 5 Thats:—He said, that that 'that' that that teacher had quoted during the last lesson was grammatically incorrect.  
Well-known proverb: Least said, soonest mended.  
Shopkeeper: Greengrocer.

### Car Quiz No. 5:

Citroen DS19, made in France.

