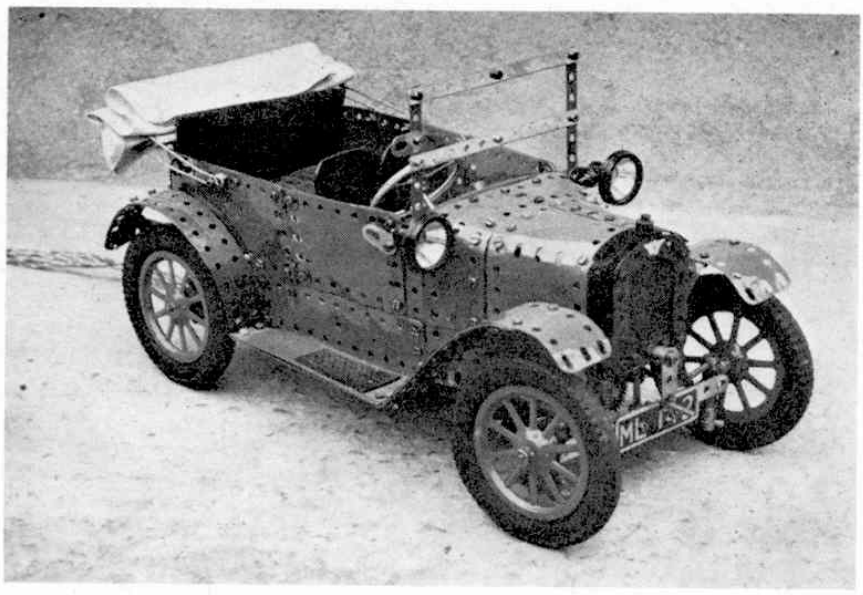


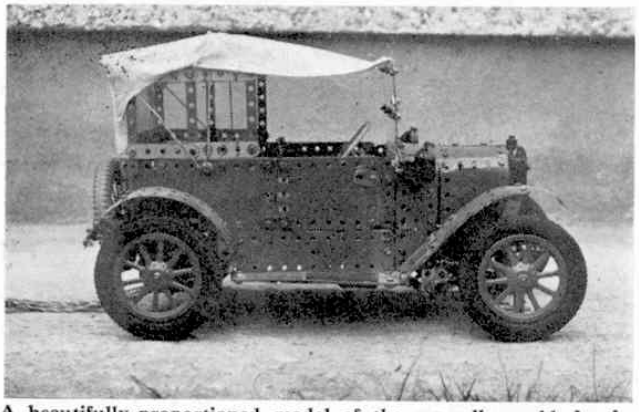
AMONG THE MODEL BUILDERS

This month SPANNER describes a superb working model of an Austin 7 tourer and a fully operating Tower Crane

Early Austin 7

TO THE NON-MECCANO ENTHUSIAST, the sight of a Meccano Set does not mean too much, but to the true enthusiast, it no doubt conjures up visions of hundreds of realistic working models. No matter how many models flash through the mind, however, most serious modellers have an ambition to build at least one special model which is quite unique and one modeller who has realised this ambition beyond a shadow of doubt is Mr. Michael Edwards of Stanmore, Middlesex. Mr. Edwards is the builder of the superb early-model Austin 7, illustrated here.

When Mr. Edwards sent me a couple of photographs of the model several months ago I immediately fell for it and I am sure that all Meccano-minded M.M. readers will echo my sentiments. The model is certainly unique, not only because of its detailed realism, coupled with the fascinating prototype on which it is based, but also because it is totally remote-controlled: steering drive and even the lights—in fact, the lot ! Construction is *almost* entirely in Meccano, save for the hood, seats, running boards and a small battery-powered motor controlling the steering. The best person to describe the model is Mr. Edwards himself, and my thanks go to him for providing the following interesting details :



A beautifully-proportioned model of the marvellous old Austin 7, designed and built by Mr. Michael Edwards of Stanmore, Middlesex. Powered by an E15R Motor, it is fully remote-controlled—including the steering !

" The chassis (writes Mr. E.) is built up of four Girders, held together by a floor consisting of a Meccano Plate. The two outer Girders are angled to give the body its shape and extend backwards to provide supports for the two back coil springs. The two middle Girders extend forward to support the engine and also to house the transmission mechanism.

" Both axles are complete sub-units and are detachable. They support the car with coil springs, the front springs being visible in the front-view photograph. The axles are each held in place by one vertical Rod and two horizontal Rods, loosely attached to the chassis, the former Rods preventing sideways movement and the latter preventing lengthways movement. Thus full vertical movement is allowed while keeping the axles in place.

" Steering is operated by a small battery motor, operating " push-pull " cords attached to each front wheel assembly. The controlling Rod is driven by a Driving Band from the motor and winds or unwinds the cords, so acting on one or the other road wheel, as required."

Concerning the transmission, Mr. Edwards made

use of the speed governor he designed himself and which was featured in the December 1966 M.M. "I used the same governor", he says, "But instead of it changing the gears, it causes a Socket Coupling to engage or disengage with the drive. In this way, the drive is automatically cut off when the engine slows and the governor weights contract. The point of engagement of the drive relative to the speed of the engine can be precisely determined by compressing the small coil spring by varying amounts; the more it is compressed, the faster the engine will have to go to effect any horizontal movement on the connecting rod. I found it best to have a weak compression, otherwise the drive will not engage under power when it has the weight of the car to propel.

"Regarding the Motor itself (an E15R), I found it necessary to remove the reversing switch so that (a) it could be wired to the remote-control centre and (b) to make room for the dashboard—the car has such a snub bonnet! I extended the wires between the switch and the Motor the length of the lead—hence the many wires to be seen. Two of these wires carry power to the lighting system, made up of two headlights and one red rear light, the latter on the right of the rear number plate. The bulbs are miniature 12 volt units with $\frac{1}{8}$ in. diameter, while the headlights are made from two torch reflectors stuck together, with glass fronts from the original torch. A miniature bulb holder forms the centre of each, holding the tiny bulb.

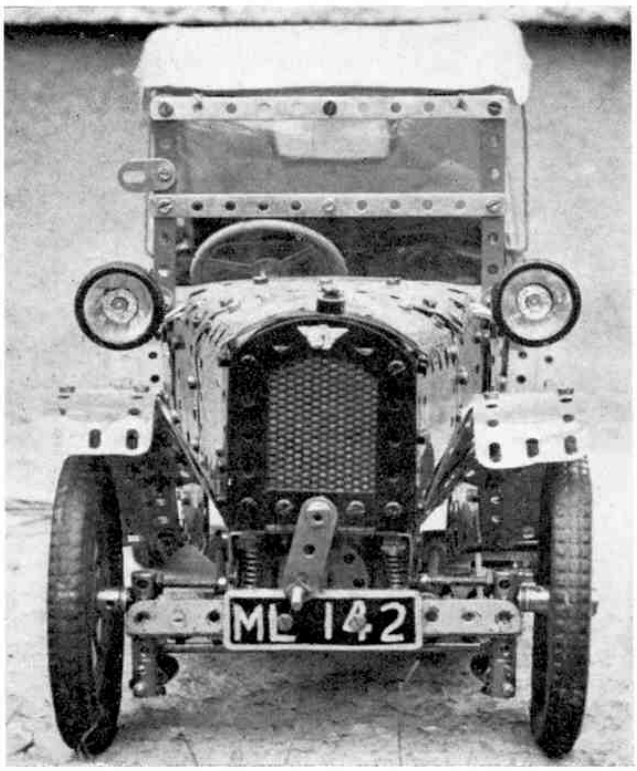
"For the sake of realism I have not adhered completely to Meccano parts. The front seats are made of plastic sheet, cut and moulded to shape, and the rear seats are of leather. The hood is of canvas, supported by wire, and the windows are of sheet acetate, the side windows being detachable. The number plates and running boards are, again, of plastic, while the radiator-grille is of wire mesh.

"Finally, the car is light enough to work, without strain, with the one gear ratio on a flat surface or thin carpet, the gear ratio of 48 : 1, giving quite a reasonable speed. A drop of oil on all the moving parts increases the efficiency and makes it work much better. The bonnet, incidentally, hinges completely forward so that the Motor can be serviced.

"Well, that just about covers it. . . ." It does, indeed, Mr. Edwards—and very well, too. Many thanks!

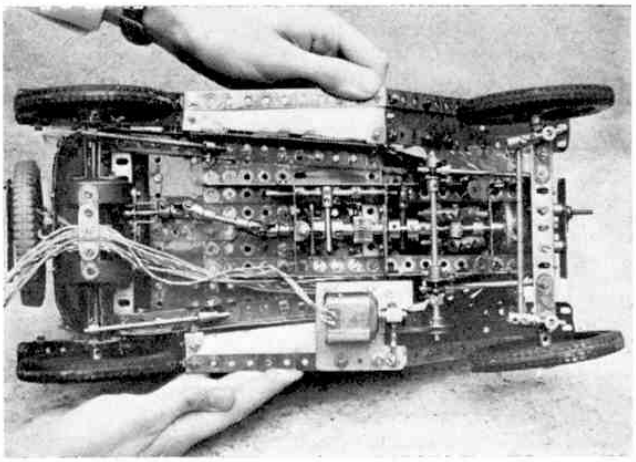
Tower crane

Giving Mr. Edwards' model the space it so obviously deserved has not left me with much room for anything else, but I just have sufficient space remaining to draw your attention to a Tower Crane constructed by Carlos Read of London, a photograph of which will be shown next month. This shows young Carlos Read with a very well-proportioned Builder's Crane he has produced, the Crane being closely modelled on an actual crane operating on the Pantechnicon Site, just behind his parent's London Flat. As Carlos, himself, says, "The model reproduces all the movements of the original: the traverse of the trolley, the raising and lowering of the pulley block and the rotation of the boom. The tower, made from $24\frac{1}{2}$ in. Angle Girders overlapped with $18\frac{1}{2}$ in. Girders, is $3\frac{1}{2}$ in. square in cross-section and braced with $5\frac{1}{2}$ in. Strips. It is securely mounted on a rectangular base of $12\frac{1}{2}$ in. Angle Girders and the driver's cabin, with transparent windows, is built into the top. The boom is carried on a 4 in. ball thrust bearing. For the greater part of its length it is of the cage construction shown in the photographs and is $2\frac{1}{2}$ in. wide with a $4\frac{1}{2}$ in. wide extension at the rear to carry the gearbox and E15R Motor."



One of the few non-Meccano parts used in the Austin 7 is a sheet of wire-mesh, representing the radiator-grille. The realistic effect it gives makes up for the fact that it is not Meccano!

Carlos goes on to explain that the drive transmission mechanism and cord arrangements are very similar to those used in the No. 10 Set Block-setting Crane Leaflet, the former being suitably modified to suit his own needs. This is an excellent example of how ideas presented in official Meccano instructions literature can be "borrowed" for use in other models, only a little suitable rebuilding usually being necessary—and sometimes none at all! There's no point designing new mechanisms when existing units can be adapted to do the job just as well! Be that as it may, however, congratulations on a very good model, Carlos.



An underside view of the model showing the drive system. Note the small electric motor controlling the steering and the governor which automatically disconnects the drive when the speed drops below a certain level.