



Fig. 1. A neat front wheel drive mechanism that can be built into suitable model motor vehicles.

## Among the Model-Builders

By "Spanner"

### Front Wheel Drive for Meccano Motor Cars

I receive so many enquiries for a front wheel drive mechanism for vehicles that I have decided to repeat here details of a scheme that was illustrated in the *Meccano Magazine* some time ago. A picture of this mechanism appears on this page, and it will be found quite easy to assemble and to build into models of suitable type and size.

The front axle consists of two built up strips, each of which is made up from two  $5\frac{1}{2}$ " Strips overlapped nine holes. The Strips are spaced apart by three Washers 1 and 2 on each of the Bolts that fix them to the front springs. The road wheels are mounted freely on short Rods, each of which is fixed in a Coupling that carries two 1" Rods. A  $\frac{3}{4}$ " Pinion 3 is free to turn on the upper 1" Rod but is held in place by a Collar, and the lower Rod is supported in the end holes of the front axle and is also kept in position by a Collar. A  $1\frac{1}{2}$ " Contrate 4, spaced from each road wheel by Collars on  $\frac{1}{2}$ " Bolts, is driven by the

Pinion 3. A 1" Screwed Rod threaded into the Collar on each of the lower 1" Rods is provided with a Swivel Bearing. The Swivel Bearings are connected by a Rod 5. Another 1" Screwed Rod 6 is fixed in a Collar attached by a  $\frac{3}{8}$ " Bolt to one of the Couplings. This Screwed Rod is connected by suitable links to the steering gear.

The driving shaft to the differential is a Rod 7 supported in a Double Bent Strip and a  $2\frac{1}{2} \times 1\frac{1}{2}$ " Double Angle Strip. A  $\frac{1}{2}$ " Pinion on Rod 7 drives a  $1\frac{1}{2}$ " Contrate 8 that is connected to a Bush Wheel 9 by 2" Screwed Rods. Two  $1 \times \frac{1}{2}$ " Angle Brackets are bolted to the Bush Wheel and in them is mounted a  $1\frac{1}{4}$ " Rod fitted



Peter Jones, Eccleshall, Staffs., and the ingenious automatic sawmill plant he designed and built.