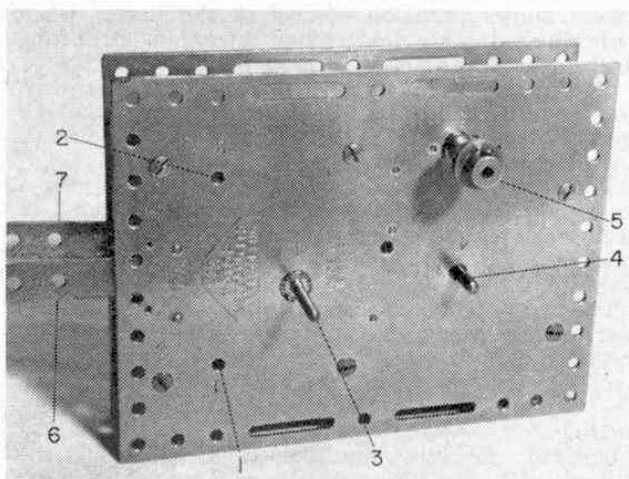


# COLLECTOR'S CORNER

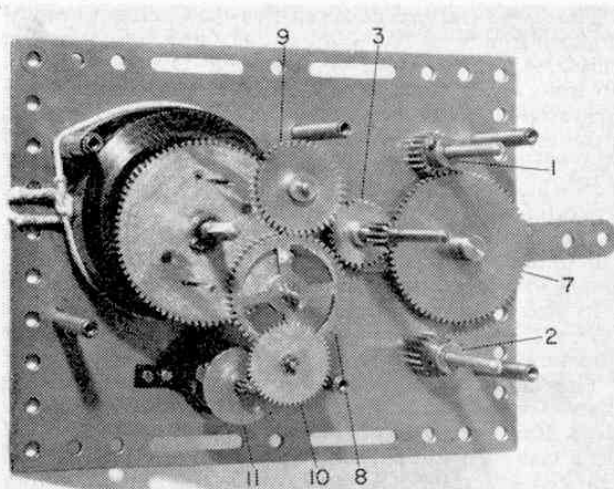
B. Love takes a look at an early Meccano motor



A LARGE number of older enthusiasts take a great pleasure in collecting examples of some of the earlier Meccano products and it is a great tribute to the Meccano system that a number of these early items are preserved in excellent order. The fine example of an early Meccano Clockwork Motor illustrated here was recently discovered by Jim Gamble of Nottingham in a collection of early nickel Meccano parts. A curious fact about this particular Motor is that, although it is clearly stamped No. 2 MOTOR MECCANO LTD. ENG., it is also stamped MADE IN WURTEMBERG and it is indeed a fine example of rugged German clockmaking. This Motor is sometimes known as the "Cathedral" or "Trinity" Motor because it has no less than three driving spindles as shown in the accompanying illustrations, where they are numbered 1, 2 and 3. The primary spindle, No. 3, is a fixture in the lower Motor plate and it imparts a drive to the secondary spindles 1 and 2 via a large idler gear on the control lever 7. Spindle 3 has two fixed gears, the lower of these having 30 teeth and engaging with gear 7.

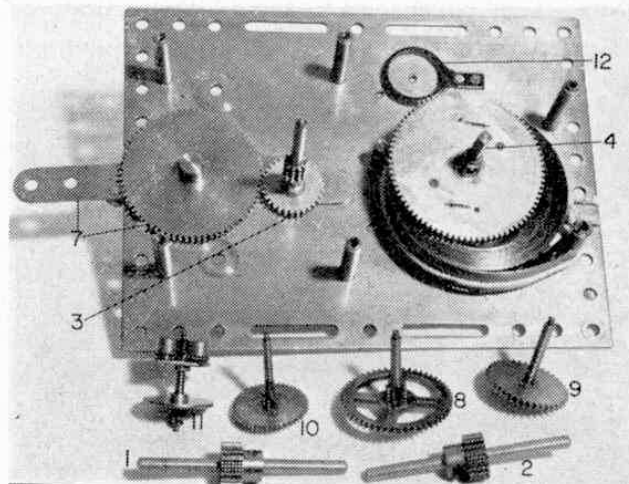
It must be remembered that, at the time of the manufacture of this Motor, Meccano  $\frac{1}{2}$  in. Pinions had 20 teeth instead of the 19 teeth found on present-day Pinions. Thus, there was a step-up ratio between the primary and secondary spindles of 2 : 3 in the "Trinity" Motor.

One of the accompanying photographs gives the



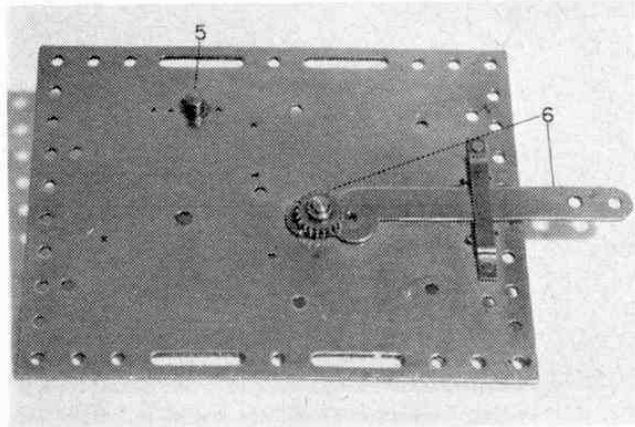
impression that gear 3 is in mesh with gear 9, but this is not the case as they are set at different levels. The drive to the primary spindle from the Motor spring is actually via another idler gear 6, which reverses the direction of spindle 3 by being meshed either with gear 8 or gear 9. Although the original Motor would have been supplied with 20-teeth Pinions, the Motor will still run quite satisfactorily with 19-teeth Pinions. In this event, however, the gear ratio between primary and secondary spindles becomes fractional. The larger idler gear 7 does not affect the ratio. In operation, the primary spindle and either spindle 1 or spindle 2 may be engaged, but not both together. The direction of all spindles is the same whether No. 1 or No. 2 is used, but they are all controlled by the main reversing lever 6.

A close examination of the exploded view of the "Trinity" Motor will reveal that the basic design of this original Motor is so good that its principles have been retained for more than half a century and are still embodied in the current Meccano No. 1 Clockwork Motor. The governor 11, with its constricting ring 12, is almost unchanged in design. Braking was carried out on its rubbing disc by a spring-loaded plunger 5, the business end of which can be seen protruding through the lower Motor plate. It was retained in the "off" position by withdrawing the plunger knob and making a half turn. The present Meccano Motor and most pre-war designs simply use



a lever with a small bent lug for a brake, but this also acts by pressure on the governor disc. The reversing motion is also a continuous feature through the "stable" of various Meccano Motors and the detachable top plate held on pillars with countersunk screws is typical of all successive models.

The motor spring is a very strong one indeed and had to be restrained with tough string before attempting to dismantle the Motor. This is a job which should not be tackled lightly as an unleashed spring can cause damage both to the Motor and to the person if handled without due preparation and respect. The author wishes to thank Jim Gamble for placing his newly-found "gem" at his disposal for photographic purposes and, talking of photographs, it is interesting to note that the accompanying general view of the Motor is similar to that which appeared in the Meccano Manuals during the 1910-1920 period.



## DRIVING SCHOOL FOR SCHOOLS

*Described by Arthur Gaunt*



Both girls and boys are being introduced to the points which make for good motoring. Instruction includes lessons to make them familiar with the workings of a car.

**Y**OU WOULD like to be a motorist, but you're too young to apply for a learner's licence. That's a problem experienced by many senior school pupils today, and until fairly recently it has gone unsolved.

Now, however, there is a satisfactory answer. It has been provided by the Automobile Association, and it was launched at the Blackwell Secondary Modern School, Harrow, in September, 1965, when lessons in road safety and the basic principles of good driving were introduced into the curriculum.

Twelve pupils, aged 15-16, both boys and girls, were given expert instruction in these two subjects. As part of their studies they attended lectures in road safety, driving technique, the legal aspects of motoring, road signs, highway markings, and vehicle maintenance.

Films, working models, and sectionalised engines were used for instruction, and the syllabus included a visit to the Metropolitan Police Central Driving School at Hendon.

The most popular lessons was practical tuition in the school grounds at Harrow, where correct driving procedure was taught by using a dual-controlled vehicle made available by the A.A. That organisation

provided instructors, and the police and road safety officials also co-operated in presenting the three-months course.

### Adopted by 200 schools

That pilot course proved so attractive and useful that the idea has since been adopted all over Britain. About 200 schools now have instructional and driving courses, and the total continues to grow. The scheme has the backing of the Ministry of Transport, and is endorsed by educational authorities, safety organisations, and police forces.

During the first three periods (which take place on weekdays immediately after school hours), the pupils are introduced to the principles of road safety, vehicle control, and basic driving technique. Subsequent sessions are held on Saturday mornings, the scholars dividing into two groups. One group is given driving tuition in the school grounds while the other receives tuition in the classroom. The groups change over half-way through the morning.

The purpose is to give sound preliminary instruction which will encourage in young students a responsible attitude towards motoring and road safety, before they undergo formal driving tuition with the object of passing the Ministry of Transport driving test.

The final day is devoted to a written test which takes about an hour, and a simple driving test to determine whether they have mastered the essential techniques of car control—such as correct use of the clutch, gearbox, steering, and brakes, both forwards and when reversing.

At the conclusion of the course a certificate is presented to successful students, but it is emphasised that the document in no way entitles the recipient to take a car on the road.

On the other hand, by following up the driving careers of pupils who have taken motoring lessons at school, it has been made clear that his or her chances of passing the Ministry of Transport driving test for an official driving licence at the appropriate age (17) are considerably increased.

Five out of six pupils from Blackwell Secondary Modern School, Harrow, who learned roadcraft there, passed the Ministry's driving test at the first attempt on reaching the age of seventeen.