

A novel oscillating mechanism built by H. H. Taylor, of Huddersfield.

The driven shaft supports a Rod Socket 2, on the shank of which five

Angle Brackets are fixed by a nut. A Threaded Pin is held by its nut in each Angle Bracket, to make a star wheel with five spokes.

As the driving shaft rotates the Threaded Pin 1 engages each of the spokes of the star wheel in turn and moves this wheel through one-fifth of a revolution. It is necessary to adjust the position of the Threaded Pin 1 in the slotted hole of the Crank until a smooth drive is obtained.

If the mechanism is required for use in a revolution counter or in a similar machine

in which a 10:1 ratio is necessary, a  $\frac{3}{4}$ " Pinion should be fixed on the same Rod as the star wheel. This Pinion should be arranged to mesh with a 50-tooth Gear on the output shaft, and will provide a 2:1 reduction ratio. As a result of this arrangement the total ratio between the Rod carrying the Crank and the output shaft will be 10:1, and for each complete turn of the driving shaft and its Crank the output shaft will rotate one-tenth of a revolution.

### A Novel Oscillating Mechanism

The mechanism shown in Fig. 2 provides a swishing oscillating movement for which ingenious readers may be able to find interesting uses. At any rate, it will perhaps stimulate experiment in devising models in which it can be put to practical use.

The details are as follows: Two  $4\frac{1}{2} \times 2\frac{1}{2}$ " Flat Plates 1 and 2 are attached to a  $3\frac{1}{2} \times 2\frac{1}{2}$ " Flanged Plate 3 by means of Angle Brackets. To a Trunnion 4, which is bolted to the Flanged Plate, a  $1\frac{1}{2}$ " Strip 5 is attached. A 2" Rod is journaled in the Flat Plate 2 and the  $1\frac{1}{2}$ " Strip, and a Bush Wheel 6 is secured to it.

A 4" Rod 7 has a  $1\frac{1}{2}$ " Contrate Wheel fixed to it, and to the Contrate a  $1\frac{1}{2}$ " Strip 9 spaced away by a Collar is bolted. Also on this Rod is a Coupling 8 and a Collar. A  $2\frac{1}{2} \times 1\frac{1}{2}$ " Double Angle Strip is bolted to the Flat Plates to support a Rod 10, the lower end of which is free to revolve in the Coupling. A  $\frac{1}{2}$ " Pinion, a Collar, and a 50-tooth Gear Wheel are secured to the Rod 10.

A  $2\frac{1}{2}$ " Strip 11 is lock-nutted to the  $1\frac{1}{2}$ " Strip 9, and also to the Bush Wheel 6.

When the Gear Wheel fitted with  $\frac{3}{4}$ " Bolt is rotated an oscillating movement is imported to the output Rod 10.

## Big Prizes for Small Models

THE Simplicity Model-Building Competition announced in the June issue of the Magazine is still open for entries, and the closing date is August 31.

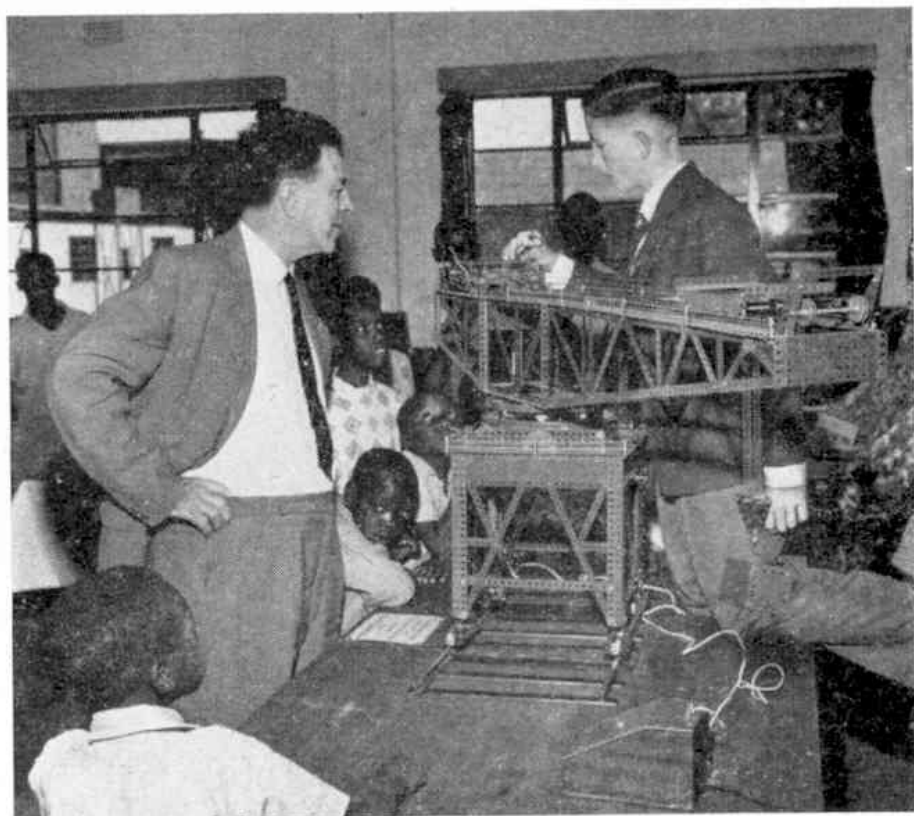
In this contest we are offering cash prizes for miniature Meccano models of any kind constructed realistically with the minimum number of parts. It is not necessary for a model actually to work; a realistic appearance is all that is required. It is possible to make hundreds of really life-like models using no more than a dozen or so Meccano parts, and the prizes will be awarded to

those who succeed in producing the most realistic and original models. It is only necessary to send a photograph or a good sketch of any model you wish to submit. Entries should be addressed: "Simplicity Model Building Competition, Meccano Ltd., Binns Road, Liverpool, 13".

The prizes will be as follows: First, Cheque for £5 0s. 0d.; Second, Cheque for £3 0s. 0d. Third, Cheque for £1 10s. 0d. There will be also ten prizes of 15/- and ten prizes of 7/6d.

# Ideas and Suggestions for Meccano Model-Builders

By  
"Spanner"



Sir J. R. Farquharson (General Manager of the East African Railways and Harbours) surrounded by keenly interested African children, watching a demonstration of a Block-setting Crane built by David McGowan, Nairobi, at an Arts and Crafts Exhibition.

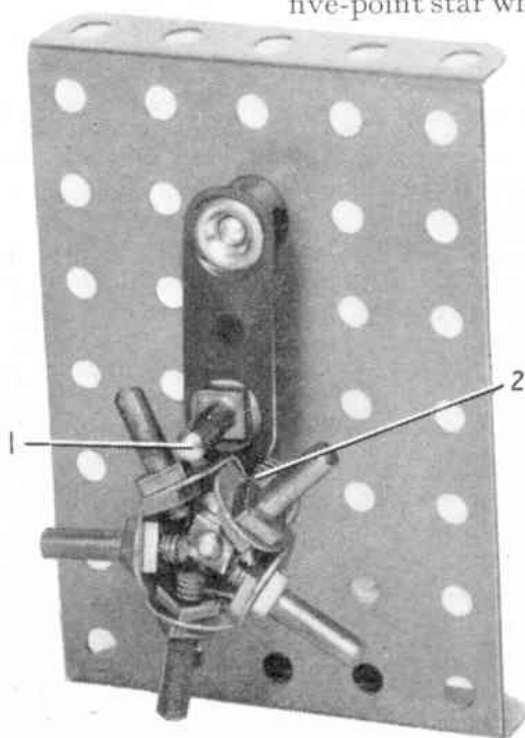
The illustration on this page shows a moment of success in the life of young David McGowan, who lives in Nairobi, Kenya. David is a keen Meccano model-builder and in the illustration referred to he is shown demonstrating to an audience including Sir J. R. Farquharson (General Manager of the East African Railways) and several young African children, a fine Block-setting Crane he built entirely by himself as an exhibit for the eighth annual Arts and Crafts Exhibition of the East African Railways and Harbours. Later David was presented with a special prize for his efforts by Lady Farquharson.

African children are taking an ever increasing interest in Meccano and many are really keen and capable model-builders themselves.

The photograph on which our illustration is based is reproduced by courtesy of the East African Railways and Harbours.

## An Intermittent Drive Arrangement

Fig. 1 illustrates an unusual form of intermittent drive that makes use of a five-point star wheel built up from Threaded Pins. By means of this arrangement a fifth of a revolution of the driven shaft can be obtained for each complete revolution of the driving shaft. When the device is used in conjunction with a 2:1 gear ratio it will provide a total ratio of 10:1 and it is therefore suitable for use in revolution counters and calculating machines. Details of the arrangement are as follows. The driving shaft carries a Crank fitted with a Threaded Pin 1.



An intermittent motion mechanism that can be used to give a 10:1 ratio between driving and driven shafts.