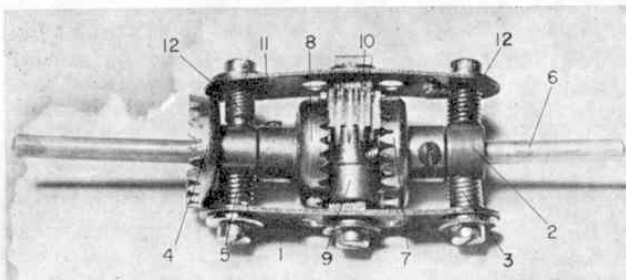


# AMONG THE MODEL BUILDERS

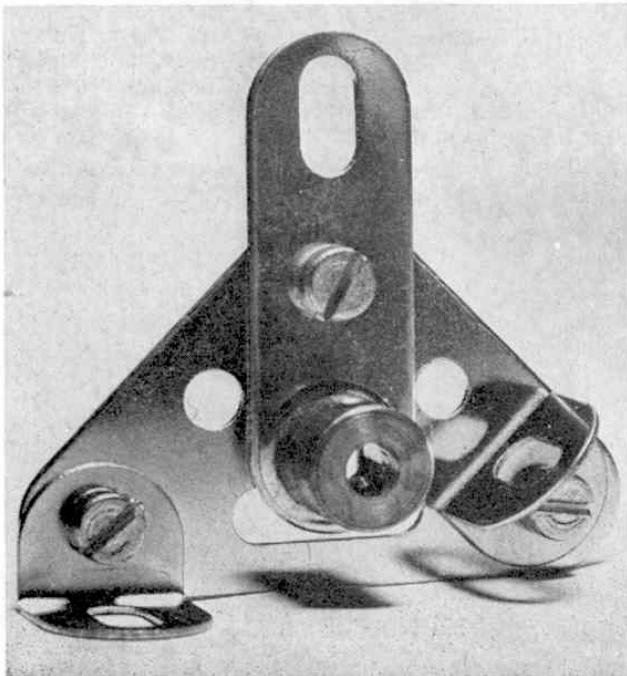
## with 'Spanner'



Another in the series of working mechanisms for small motor vehicles is this "baby" Differential designed by Mr. James Grady of Dundee, Scotland.

### "BABY" DIFFERENTIAL

James Grady of Dundee (the man, you may remember, who specialises in useful mechanisms for smaller motor vehicles using 1 in. Pulleys with Motor Tyres as wheels) has been designing again—and with his usual success. This time he has come up with the very neat, yet fully-working "baby" Differential illustrated in the accompanying photograph.



In his covering letter to me, Mr. Grady writes, "In designing this mechanism, I deliberately refrained from using any expensive parts such as Couplings, etc., as my aim was to make it as cheaply as possible to catch the youngsters. Why should the boys with the big Sets get all the fun?!" Why, indeed, Mr. Grady!

Construction of the mechanism has been made possible by the new-design 2 in. Strips with the additional hole in the centre. Secured by a Nut in the centre hole of one of these new 2 in. Strips 1 is a 1 1/8 in. Bolt, a Washer between the head of the Bolt and the Strip. One end of the Strip is then secured to a Collar 2 by a 3/8 in. Bolt, but is spaced from it by a Cord Anchoring Spring 3 on the shank of the Bolt, a Washer also being carried between the bolthead and the Strip. At its other end, the Strip is secured to the boss of a 3/4 in. Contrate Wheel 4, again being spaced from it by a Cord Anchoring Spring 5 and carrying a Washer under the bolthead.

Now journalled, free, in the Collar is a 1 1/2 in. Rod 6, on the inside end of which a second 3/8 in. Contrate Wheel 7 is fixed. Another 3/8 in. Contrate Wheel 8, is in turn, fixed on the inside end of a 2 in. Rod journalled, free, in the boss of Contrate 4. Mounted, free, on the 1 1/2 in. Bolt between Contrates 7 and 8 is a Collar 9 and a 7/16 in. Pinion 10, after which a second 2 in. Strip 11 is lock-nutted on the lower end of the Bolt. The Pinion, of course, meshes with the Contrates.

To finish the Unit off, the ends of Strip 11, like Strip 1, are secured to Collar 2 and the boss of Contrate Wheel 4 by 3/8 in. Bolts, Cord Anchoring Springs 12 again being used as spacers, and Washers again being carried, one under the head of each Bolt. A certain amount of careful adjustment may be required before the mechanism will operate freely, and it will be necessary to curve the 2 in. Strips slightly, but I can assure readers that Mr. Grady's sample unit illustrated worked extremely well, indeed.

### PARTS REQUIRED

2—6	1—26c	3—37a	1—59
1—17	3—29	8—38	4—111c
1—18a			1—111d

### For the Mathematically-minded

In lighter vein, Mr. Bob Hauton of Lincoln—another well-known member of Meccano modelling circles—has supplied me with an idea for a Meccano