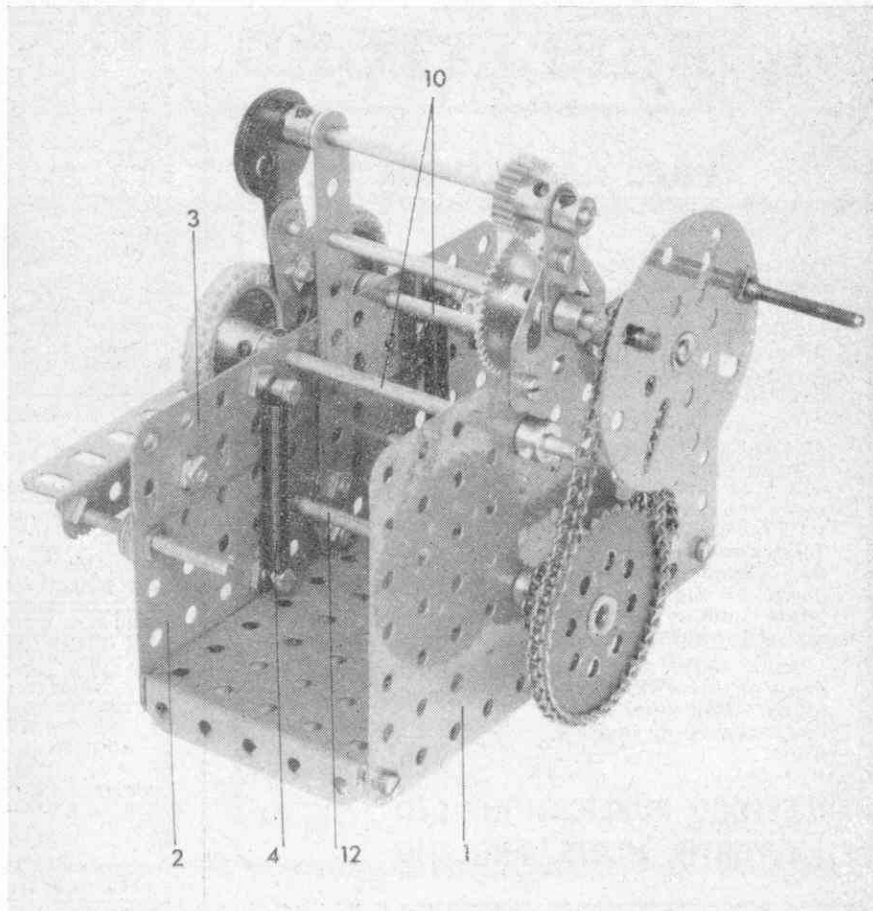
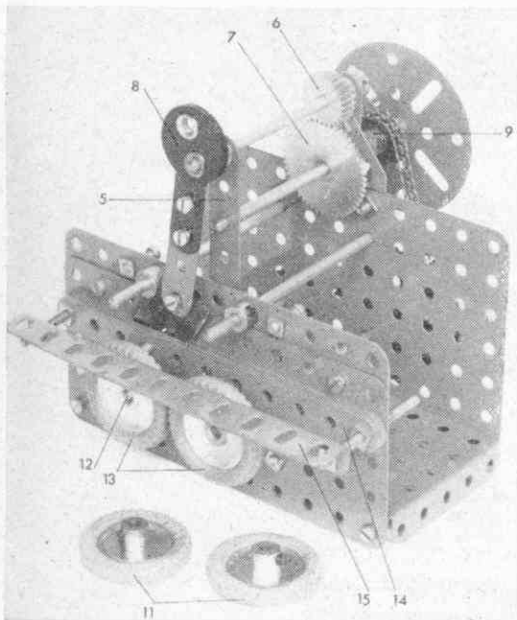


# Automation on your desk

ARE you one of those people like me, who enjoys receiving letters but detests the trouble involved in opening them? I find that most of the letters I receive are sealed so well that I have great difficulty in getting my finger underneath the end of the flap and spend agonizing moments fumbling about. When I do manage to raise the end and then try to slit the envelope open along its upper edge, the 'slit' usually manages to shoot down into the middle of the envelope instead of staying along the top as it should do, with the result that the envelope is ruined and there is always the danger that the contents might well be damaged too. Somewhere, I have one of those dangerous looking stiletto-type openers, but it always seems to get mislaid.

For this reason I am particularly pleased to feature this invaluable Meccano model. It is, as you might have guessed, an automatic letter opener, but more important still, it's no toy, for it

*In this view the upper rollers have been removed to show the position of the razor blade. A section of the left-hand edge of the blade must be broken off to prevent the blade catching on the Collar. A Bolt is passed loosely through Strips 14 and through the razor blade centre*



An automatic letter opener that neatly cuts off the top edge of an envelope, thus saving a good deal of trouble, and, incidentally making quite an exciting operation out of a chore

really works! The sealed envelope is simply placed between the first two rollers, and the handle turned. The envelope passes through, having its top edge neatly cut off in the process! A razor blade provides the cutting edge, so great care must be exercised when fitting the cutting mechanism to the model.

A 5½ in. by 3½ in. Flat Plate 1 and a 5½ in. by 2½ in. Flat Plate 2 are bolted to a 5½ in. by 2½ in. Flanged Plate. A 5½ in. Flat Girder 3 is attached to Plate 2 by lock-nutted bolts through its elongated holes. Tension Springs 4 are added as shown, being fixed to ½ in. Bolts in the Flat Girder and to ⅜ in. Bolts in Plate 2.

Bolted to the inside of Plate 2, but separated from it by two Washers on the shank of each Bolt is a 4½ in. Strip 5. A Flat Trunnion extended by 1½ in. Strips is secured to Plate 1 and journalled in this and Strip 5 are a 3½ in. Rod, carrying a ⅜ in. Pinion 6, and a 4 in. Rod carrying a 50-teeth Gear Wheel 7. Gear 7 is in constant mesh with Pinion 6. Also mounted on the 3½ in. Rod is a Collar, two Washers, and a Single Throw Eccentric 8, extended by a 2 in. Strip. Also mounted on the 4 in. Rod is a Collar, a ⅜ in. Sprocket Wheel 9 and a Face Plate, carrying a Long Threaded Pin to act as a handle. Lock-nutted to the 2 in. Strip is an ordinary razor blade.

Two 4 in. Rods 10 are journalled in Plate 1 and Flat Girder 3, Collars holding them in place, and two 1 in. Pulleys with Tyre 11 are mounted on their ends. Another two 4 in. Rods 12 are mounted in Flat Plates 1 and 2, being held in place by ⅜ in. Sprocket Wheels at one end and by Collars at the other. The Sprocket Wheels are connected by Chain, while another two 1 in. Pulleys with Tyre 13 are added at the other ends of the Rods. Pulleys 11 and 13 represent the rollers. A 2 in. Sprocket Wheel is added to one Rod 12, and is connected to Sprocket Wheel 9 by Chain.

Fixed to Plate 2 by Nuts on 2 in. Screwed Rods are five 5½ in. Strips 14, and the razor blade is inserted between the second and third Strips. Finally, a 5½ in. Angle Girder 15 is mounted on the 2 in. Screwed Rod, also being held in place by Nuts.

## Parts required

5 of No. 2	14 of No. 37b	1 of No. 103
1 of No. 2a	8 of No. 38	1 of No. 109
1 of No. 6	2 of No. 43	2 of No. 111a
1 of No. 6a	1 of No. 52	2 of No. 111c
1 of No. 9	1 of No. 52a	1 of No. 115a
5 of No. 15b	8 of No. 59	1 of No. 126a
1 of No. 16	1 of No. 70	1 of No. 130a
4 of No. 22	1 of No. 81	4 of No. 142c
1 of No. 25	1 of No. 94	1 Razor Blade
1 of No. 27	1 of No. 95	
31 of No. 37a	3 of No. 96a	