

No. 626,577.

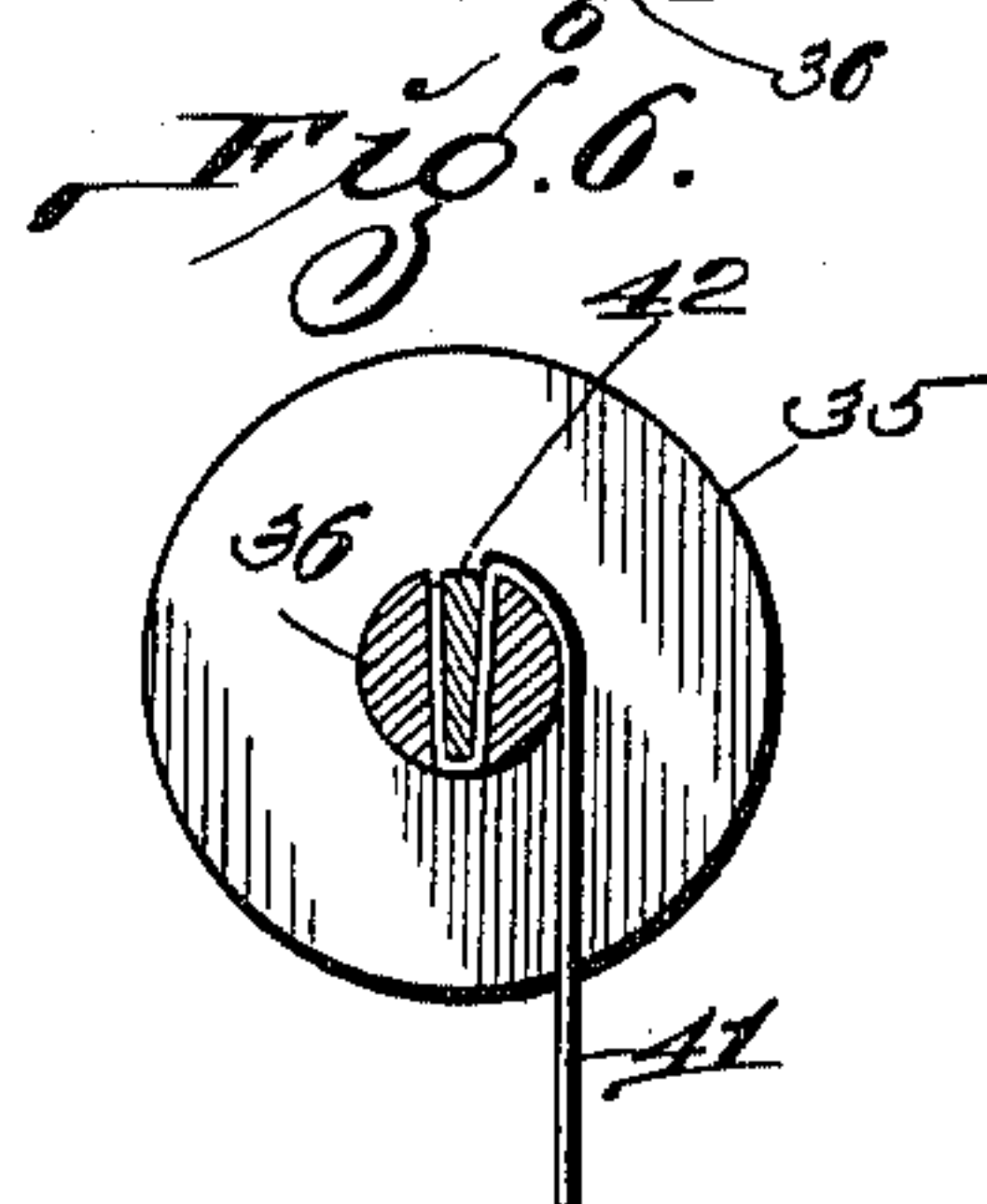
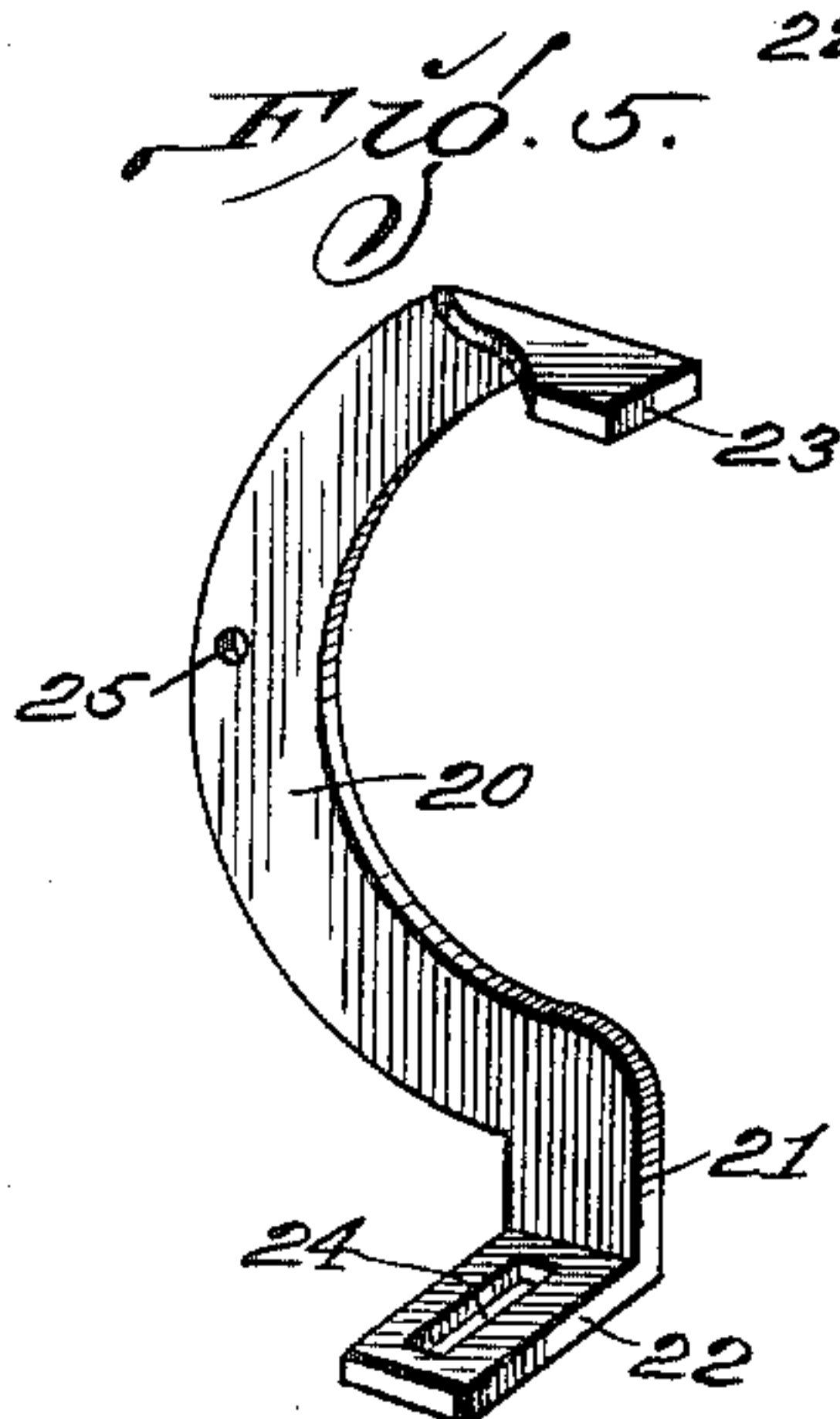
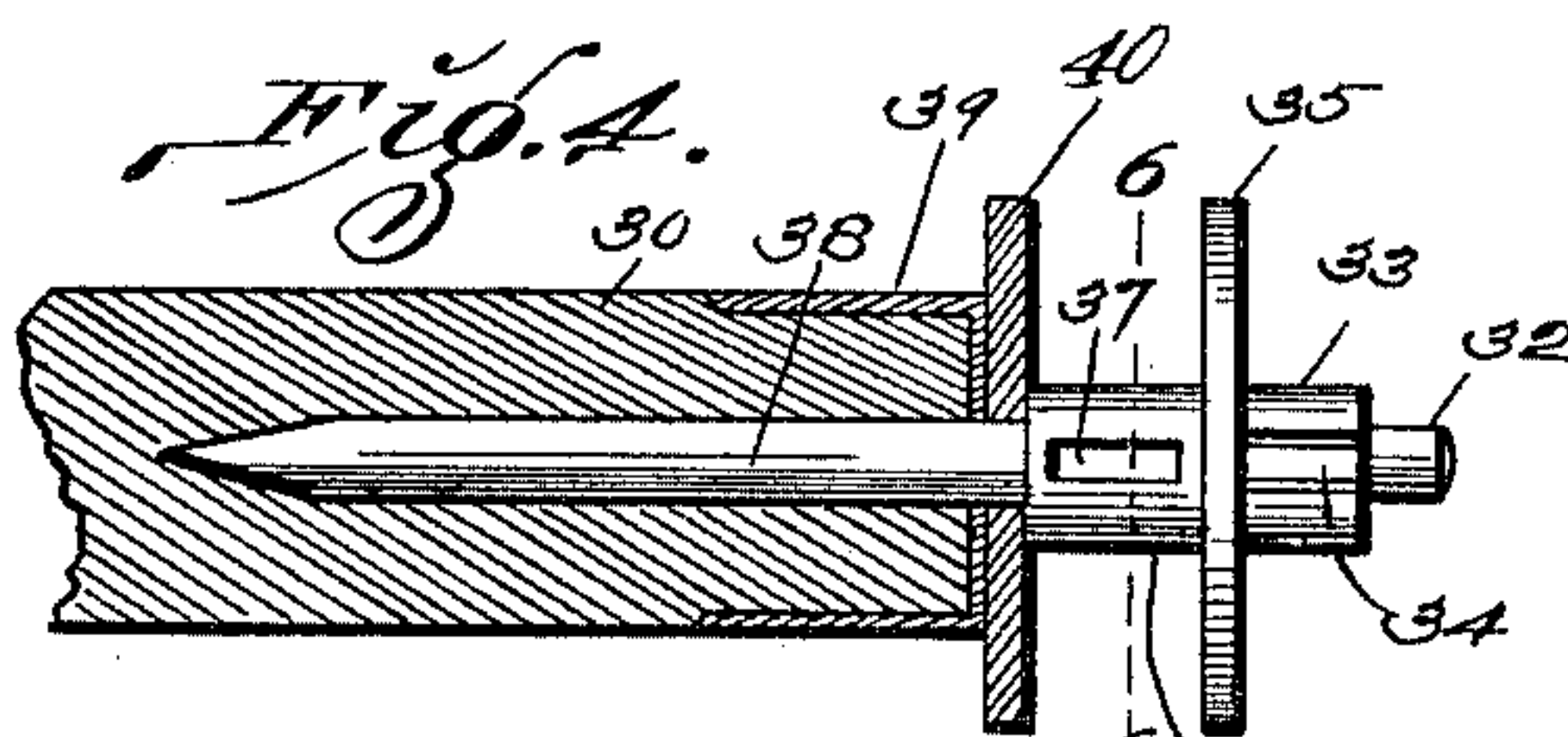
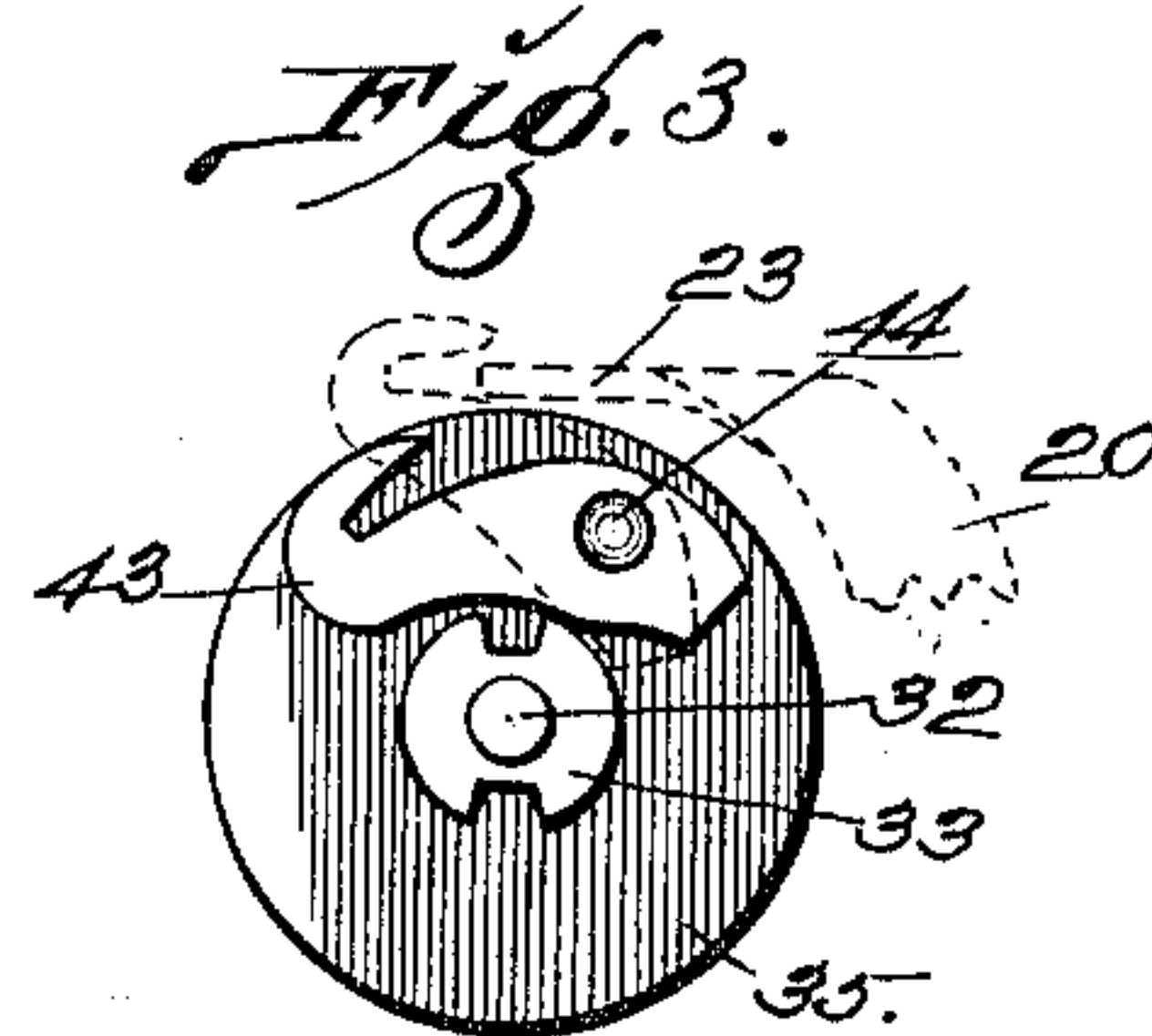
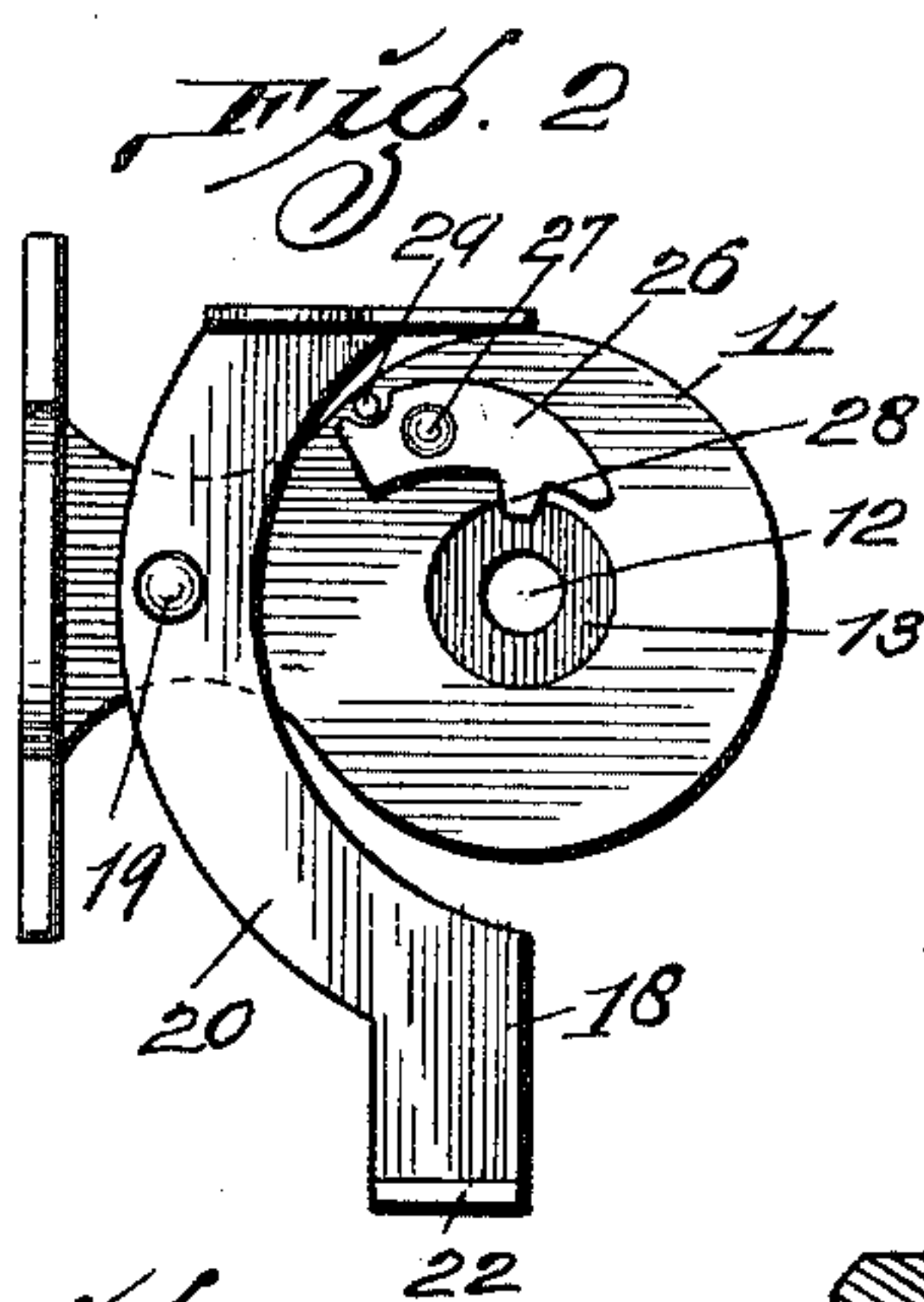
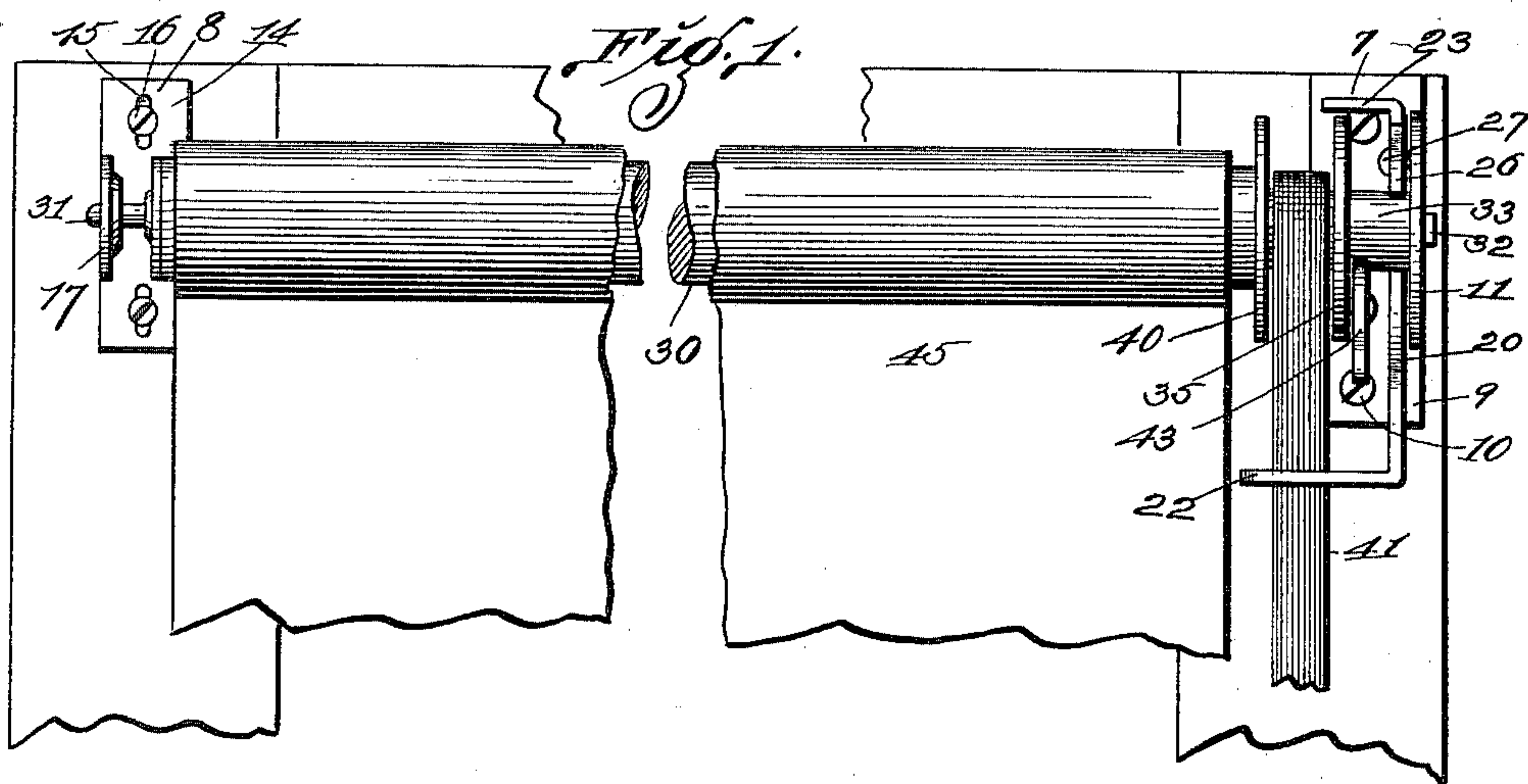
Patented June 6, 1899.

H. M. STURGIS.

COMBINATION SHADE ROLLER AND LOCK.

(Application filed Mar. 8, 1897. Renewed Dec. 1, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

HERBERT M. STURGIS, OF DALLAS, TEXAS.

COMBINATION SHADE ROLLER AND LOCK.

SPECIFICATION forming part of Letters Patent No. 626,577, dated June 6, 1899.

Application filed March 8, 1897. Renewed December 1, 1898. Serial No. 697,999. (No model.)

To all whom it may concern:

Be it known that I, HERBERT M. STURGIS, of the city of Dallas, Dallas county, State of Texas, have invented certain new and useful
5 Improvements in a Combination Shade Roller and Lock, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

10 My invention relates to window-shades; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

15 Figure 1 is a front elevation of a window-shade constructed in accordance with the principles of my invention and in position for use, parts being broken away to economize space. Fig. 2 is an inside view of one of the brackets and the locking mechanism
20 secured to the bracket. Fig. 3 is a view of the end of the roller which operates in the bracket shown in Fig. 2. Fig. 4 is a detail view, partly in section, taken longitudinally of the end of the roller shown in Fig. 3. Fig.
25 5 is a view in perspective of the tape-guide. Fig. 6 is a transverse sectional view taken approximately on the line 6 6 of Fig. 4 and illustrating the means of attaching the tape to the roller.

30 A window-shade in position for use and constructed in accordance with the principles of my present invention is illustrated in Fig. 1. The brackets 7 and 8 are attached to the casing of the window in horizontal
35 alinement with each other. The bracket 7 consists of the perforated plate 9, through which the screws 10 are inserted to secure said plate to the window-casing. Projecting from the outer edge of the plate 9 forwardly
40 in a horizontal position is the arm 11, in which is formed a bearing 12, and the recess 13 is formed in the inner face of said arm 11 around the bearing 12. The bracket 8 consists of the rectangular plate 14, through which the
45 vertical elongated apertures 15 are formed to receive the screws 16, which screws are inserted in the window-casing, thus forming a sliding connection between the bracket 8 and the window-casing, as required, to allow said
50 bracket 8 to be adjusted into horizontal alinement with the bracket 7. The arm 17 is formed integral with and projects forwardly

from the outer edge of the plate 14, and a slotted bearing is formed in said arm 17 in alinement with the bearing 12.

55 The tape-guide 18 is pivotally connected to the bracket 7 by means of the screw or rivet 19, which screw or rivet is inserted through said tape-guide and through the arm 11 at a point near its rear end and in horizontal alinement with the bearing 12. The
60 tape-guide 18 is formed of sheet metal and consists of the central portion 20, which is in the form of a segment, the portion 21, which projects downwardly from the lower end of the portion 20, the portion 22, which projects inwardly in a horizontal plane from the lower end of the portion 21, and the portion 23, which projects inwardly in a horizontal plane from the upper end of the portion 20. An opening 24 is formed vertically through the portion 22. The pin or screw 19 is inserted through the opening 25, which is formed substantially in the center of the segmental portion 20. The tape-guide is placed
75 in position with the central or segmental portion 20 substantially concentric to the bearing 12 and with the opening 24 substantially in vertical alinement with said bearing 12.

80 The pawl 26 is placed against the inner face of the arm 11 above the bearing 12 and is pivotally mounted in position by means of the pin or screw 27, inserted through said arm 11 and through said pawl 26. The tooth 28 of the pawl extends downwardly from the lower edge of said pawl at a point intermediate of its ends and at a point in front of the pivot which supports said pawl. The pin 29 is fixed in the arm 11 at a point upon the opposite side of the pivot of the pawl 26 from the tooth 28 and above the end of said pawl, as required to form a stop to limit the motion of the tooth 28.

95 The roller is mounted with its spindle in the bearings of the brackets 7 and 8, and said roller consists of the cylindrical wooden portion 30, having the spindle 31 inserted in one of its ends to engage in the bearing in the bracket 8 and the spindle 32 attached to its opposite end to engage in the bearing 12 in the bracket 7. The spindle 32 projects from the outer end of the cylindrical body 33. The notches or recesses 34 are formed in the periphery of the cylindrical body 33 and are de-
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signed to receive the tooth 28 of the pawl 26. The disk 35 is formed integral with the end of the cylindrical body 33 opposite the spindle 32, and the cylindrical body 36 projects from the opposite face of the disk 35 from the cylindrical body 33 and in alignment with said cylindrical body 33. The opening 37 is formed through the cylindrical body 36, and the pin 38 projects from the end of said cylindrical body 36. A cap 39 is placed upon the end of the wooden roller 30, and the disk 40 is placed against the outer end of said cap. The pin 38 is inserted through the disk 40, through the cap 39, and into the end of the roller 30. The upper end of the tape 41 is doubled and inserted through the opening 37, and the wedge-shaped plug 42 is driven into said opening 37 to hold the tape or cord in position. The tape 41 is passed downwardly through the opening 24 in the tape-guide 18. The pawl or hook 43 is pivotally attached to the outer face of the disk 35 by means of the pin 44. The free end of the pawl 43 is in the form of a hook, and said hook is turned outwardly from the axis of the roller and is designed to engage the portion 23 of the tape-guide when said pawl is operated upon by centrifugal force, as indicated by dotted lines in Fig. 3. The shade 45 is attached to the roller 30 in any suitable way, and said shade is wound upon said roller 30 in a direction opposite to the direction of the tape 41 around the cylindrical body 36. The pawl 26 is so constructed and mounted that the tooth 28 will be held in engagement with the periphery of the cylindrical body 33 by the force of gravity, and the notches 34 and the tooth 28 are so constructed relative to each other that when the operator pulls downwardly upon the tape 41, as required to wind up the shade upon the roller 30, the tooth 28 will slide out of the notch 34, but when the tape 41 is released and the tendency of the shade 45 is to unwind the tooth 28 will fall into the notch 34 and form a lock to prevent said shade from unwinding. When the shade is being raised or lowered at a slow rate of speed, the pawl 43 remains inoperative; but should the operator lose control of the tape 41 and the shade start to unwind rapidly the centrifugal force will operate to throw the free end of the pawl 43 outwardly from the axis of the roller, and the hook will engage the portion 23 of the tape-guide, as indicated in dotted lines in Fig. 3. When the operator again pulls the tape 41, the hook will be disengaged

and the shade will operate as before. The portion 23 forms a stop to be engaged by the pawl 43, and it is obvious that said portion 23 might be attached directly to the arm 11 or that it might be secured in position in any other way without being carried by the tape-guide.

While I have shown and described my invention as applied directly to one end of the shade-roller, it is obvious that it may be employed in adjusting the shade-roller, as shown in my Patent No. 576,001, dated January 28, 1897.

I claim—

1. In a device of the class described, the roller 30, the spindle 31 inserted in one end of said roller, the cap 39 placed upon the opposite end of said roller, the disk 40 placed against the end of said cap 39, the pin 38 inserted through the disk 40, through the cap 39 and into the end of the roller 30, the cylindrical body 36 attached to the outer end of said pin 38 and having the opening 37, the disk 35 attached to the outer end of the cylindrical body 36, the cylindrical body 33 projecting outwardly from the disk 35 and having the notches 34 formed in its periphery, the spindle 32 projecting outwardly from the cylindrical body 33, the centrifugally-operated pawl 43 pivotally attached to the outer face of the disk 35, a suitable bracket having a bearing in which the spindle 31 operates, a bracket 7 consisting of the plate 9 and the arm 11 formed integral, said arm 11 having a bearing in which the spindle 32 operates, and the tape-guide 18 pivotally attached to said arm 11, said tape-guide having the portion 23 projecting horizontally from its upper end and in position to act as a stop and be engaged by said centrifugally-operated pawl 43, substantially as specified.

2. In a device of the class described, the bracket 7 consisting of the plate 9 and the arm 11 formed integral, the tape-guide 18 pivotally attached to said arm 11, said tape-guide having the portion 23 projecting horizontally from its upper end, the roller carrying the disk 35, and the centrifugally-operated pawl 43 pivotally attached to said disk 35 and in position to engage said portion 23, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

HERBERT M. STURGIS.

Witnesses:

W. B. ANDERSON,
J. W. PIPPIN.