

No. 758,904.

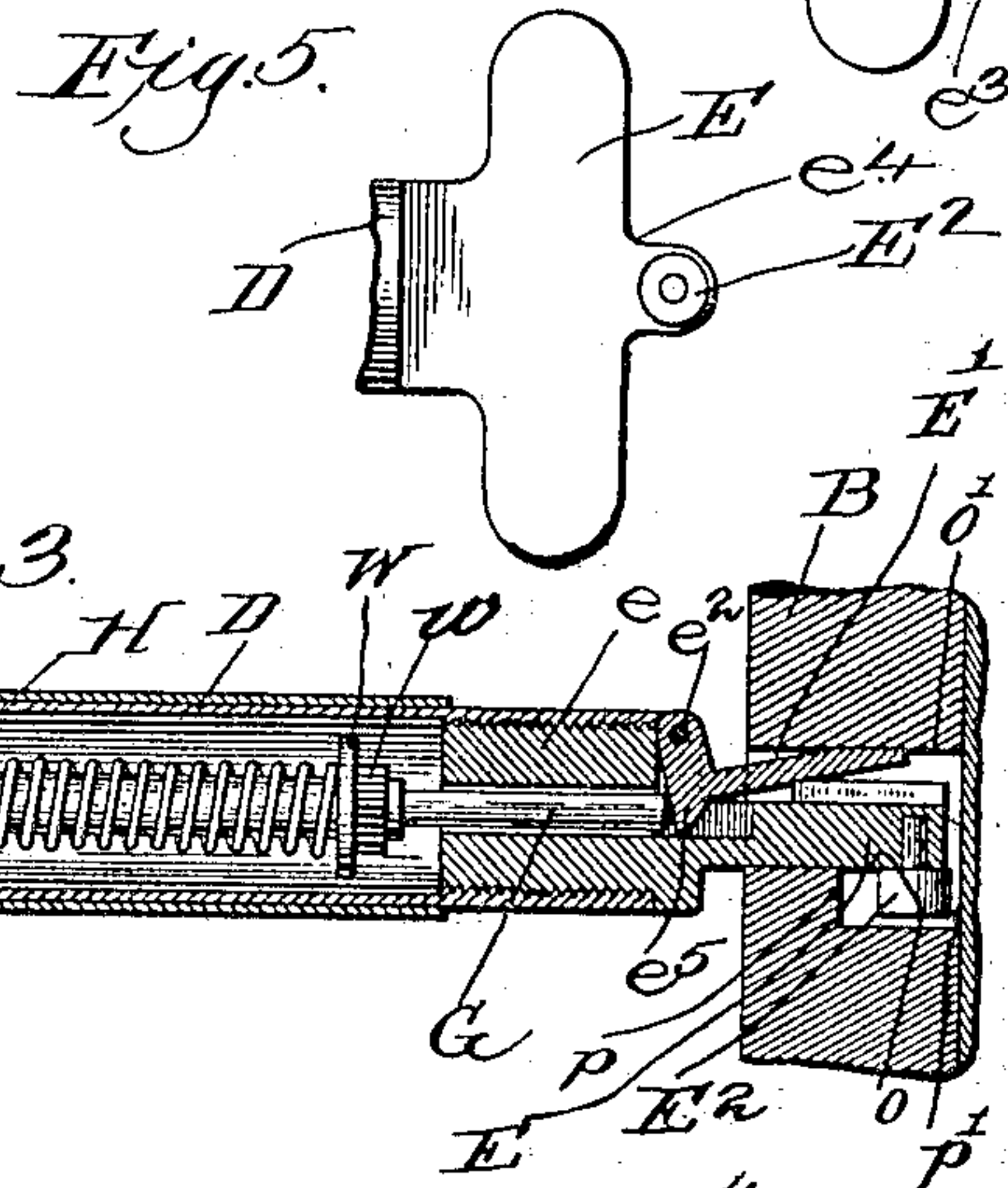
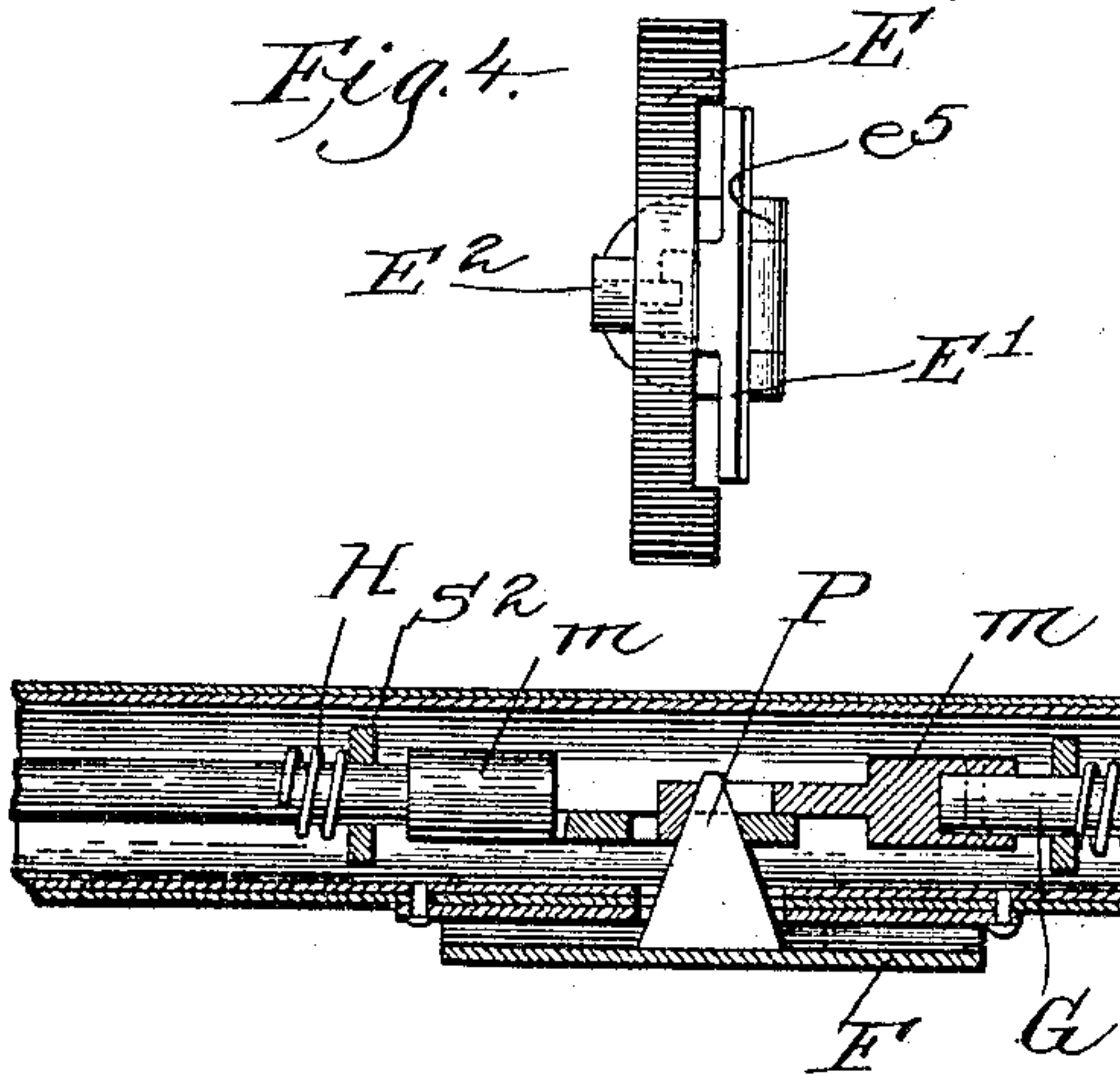
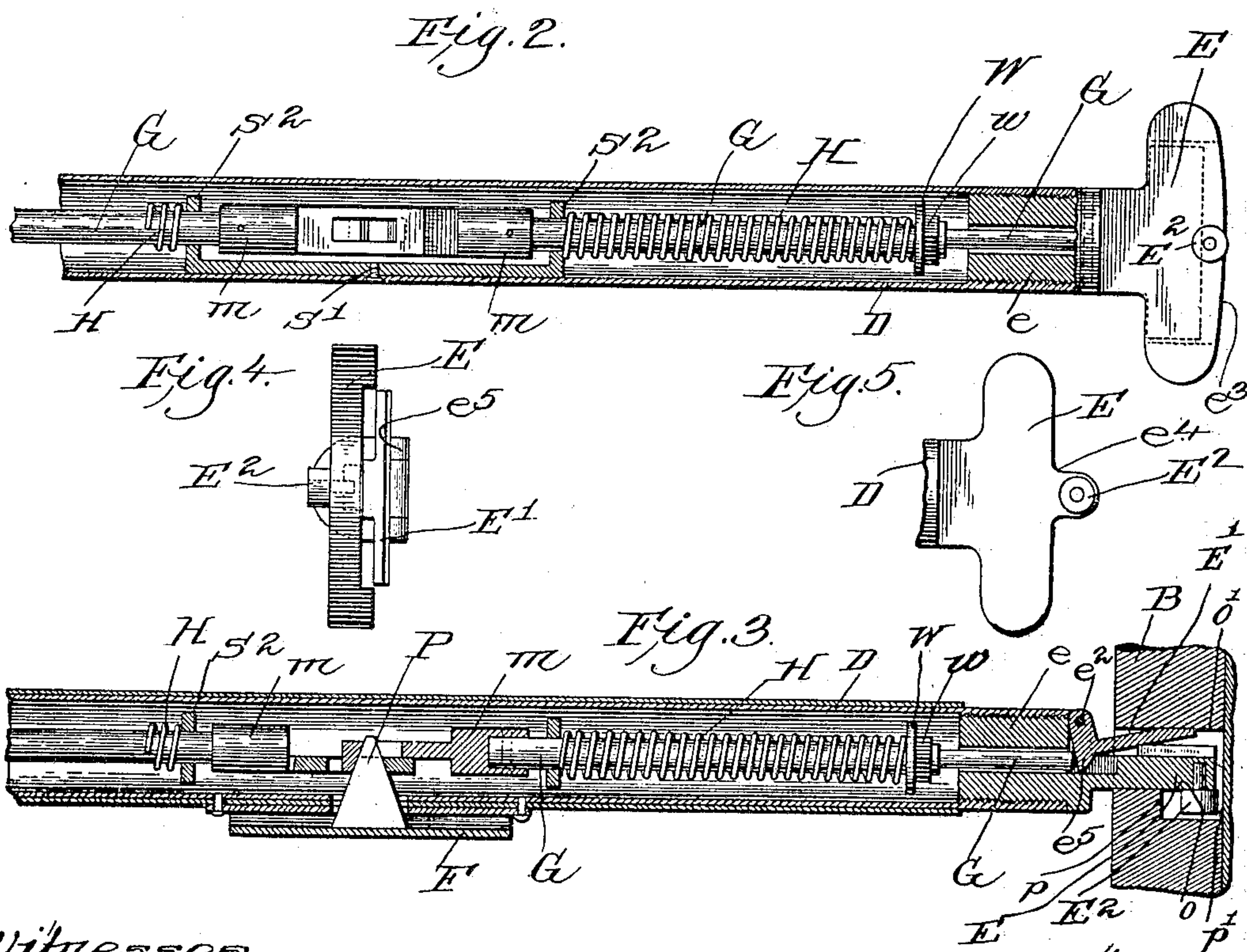
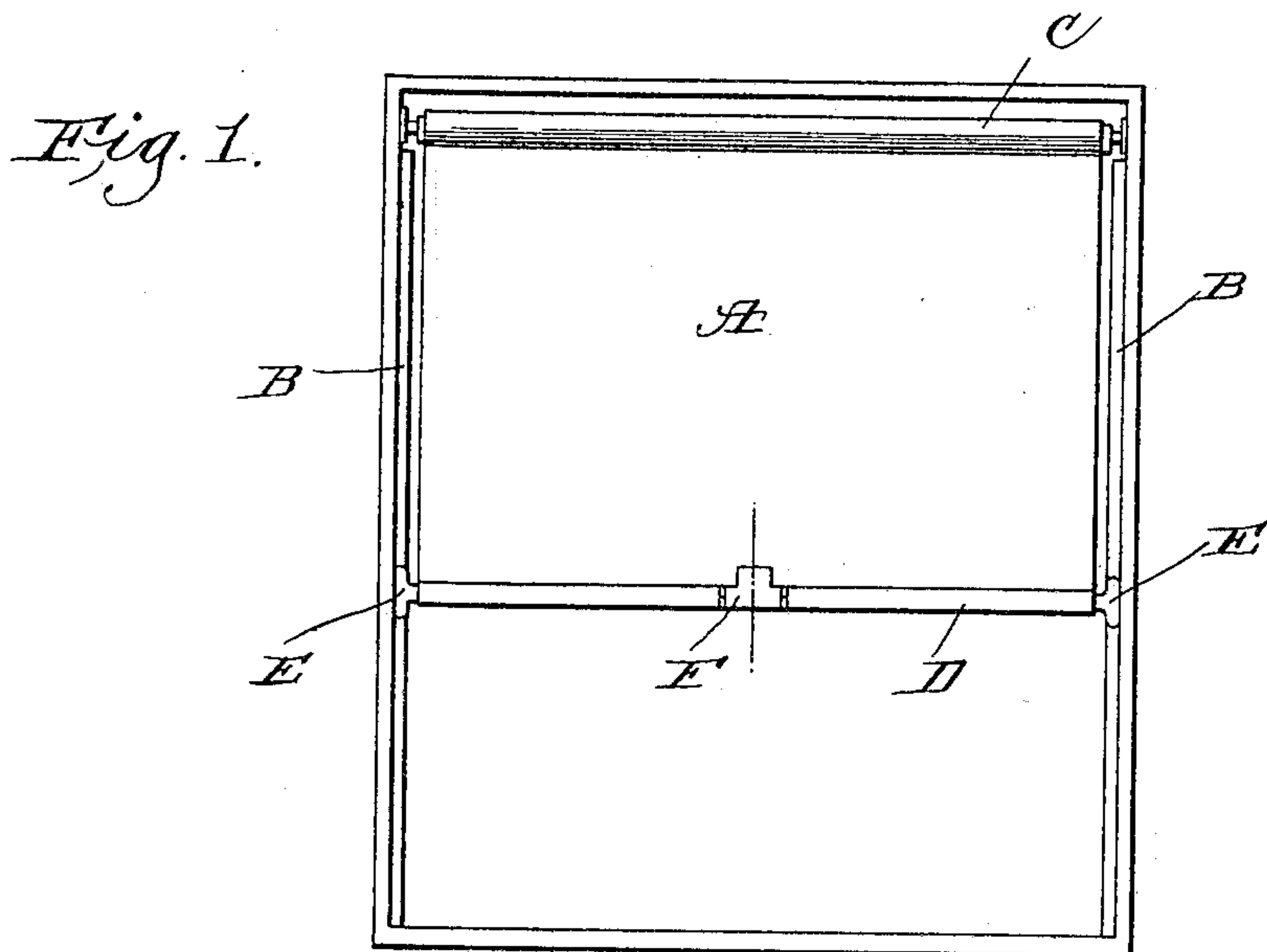
PATENTED MAY 3, 1904.

F. E. EDWARDS.

DEVICE FOR HOLDING SPRING ACTUATED CURTAINS.

APPLICATION FILED FEB. 14, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

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DEVICE FOR HOLDING SPRING-ACTUATED CURTAINS.

SPECIFICATION forming part of Letters Patent No. 758,904, dated May 3, 1904.

Application filed February 14, 1903. Serial No. 143,362. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. EDWARDS, a citizen of the United States, residing at Chelsea, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Devices for Holding Spring-Actuated Curtains, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to an improvement in devices for holding spring-actuated curtains at different points of adjustment in the window-casing, and is designed and constructed in such a manner that the accidental removal of the curtain-rod from the grooves of the window-casing is prevented. The curtain-rod upon being tipped or displaced is automatically restored to its horizontal position, and the curtain-rod when grasped by the operator is readily adjusted to its desired position.

The invention consists in the construction and arrangement of parts hereinafter described, and defined by the several claims.

The novel features of this invention lie entirely in the construction of the heads of the fixture and their combination with the grooves of the window-casing in which they operate. The heads comprise a pivoted spring-actuated side wall similar to that shown and described, for example, in the application of Frank B. Hopewell, Serial No. 133,356, filed December 1, 1902, and the means for actuating this pivoted spring-actuated side portion may also be the same as shown in the said application. The invention, however, is not limited to any specific form of means for actuating the pivoted side portion, since it is obvious that various means could be used to accomplish this result. For convenience of illustration, however, a mechanism of the character shown in the said application is illustrated herein.

Figure 1 is a front view of a window-casing with the curtain and fixtures in place. Fig. 2 illustrates, partly in vertical section, a portion of the curtain-rod with its inclosed parts and one head. Fig. 3 illustrates, partly in horizontal cross-section, the curtain-head and fragment of a window-casing with the parts

shown in Fig. 2. Fig. 4 is an end view of one of the heads. Fig. 5 is a side view of a modified form of one of the heads.

In Fig. 1 the outlines of the window-casing are shown with the walls B, wherein are formed the grooves wherein the heads of the curtain-fixture slide. The grooves are shown in cross-section in Fig. 3.

A represents a curtain, and C a spring-actuated curtain-roller of ordinary type.

D represents the curtain-rod, E the heads, and F the handhold by operation of which the friction between the heads and the grooves of the window-casing is released in order to permit the rolling and unrolling of the curtain and the consequent adjustment of the height of the curtain-rod.

As already stated, the mechanism in the end of the curtain-rod for actuating the parts of the head and causing friction in the grooves of the window-casing may be of any construction. As shown, two rods G, mounted in the depending ears s^2 of a frame S, attached to the interior of the curtain-rod by a screw S', are provided. These rods have spiral springs H surrounding them, said springs bearing at one end against the depending ears s^2 and at the other end against washers W, held in position by adjustable nuts w , whereby the tension of the spring may be increased or diminished, as desired. The rods G at the outer ends project through the central hole of the heads E and at the other ends are provided with apertured end pieces m . The handhold F is provided with a projection P, having oppositely-inclined sides, and by pressing upon the handhold the rods are retracted, all as set forth in the said prior application of Frank B. Hopewell, to which reference is made for fuller details of this construction.

Each head E has a portion e fitting within the end of the curtain-rod. This portion is preferably screw-threaded, whereby a slight longitudinal adjustment may be made to compensate for slight differences in width of the window-casing; but any other means for causing this adjustment may of course be employed. The portion e is also axially bored to permit of the movement therein of the end

of the rod G. That portion of the head fitting within the groove of the window-casing is preferably elongated, as shown in Fig. 2, so as to provide a more extended bearing against the window-casing. The head is also curved upon its outer surface, as shown at e^3 , and this curve should be of such a radius as to render it impossible for the outer surface of the head to touch the window-casing upon the tipping of the curtain-rod to any possible angle. An antifriction-roller E^2 is journaled on one side of said head in line with the axis of the curtain-rod and projecting slightly beyond the outer surface of the head, and it will therefore be the only part which can bear against the opposing wall of the window-casing. To secure the same end, the head may be shaped as shown in Fig. 5, a projection e^4 being constructed upon the outer surface of the head in which the antifriction-roller E^2 may be journaled.

In order to cause the necessary friction to hold the curtain-fixture in its desired adjustment, a similar construction to that shown in the said application of Frank B. Hopewell is employed. The head is provided with what is termed a "pivoted" side wall E' . This portion may constitute either an entire side wall of the head or only a substantial portion thereof, as shown in dotted lines in Fig. 2. It should be of sufficient area, however, to produce the necessary friction from the window-casing. This side wall is pivoted at e^2 in the head and is provided with a projection e^5 , against which the spring-actuated rod G acts.

The groove in the window-casing is preferably constructed as shown in Fig. 3, and consists of what are herein termed a "longitudinal" groove and a "lateral" groove, the two together constituting a substantially L-shaped groove. The head fits loosely between the walls $o o'$ of the longitudinal groove; but when the pivoted side wall is swung outwardly under the influence of the spring-actuated rod G the head is held by friction between the two walls $o o'$ of the longitudinal groove. The antifriction-roller e^2 runs loosely in the lateral groove and is normally arranged so as not to touch either the wall p or the wall p' of this lateral groove, for the antifriction-roller E^2 is only designed to come into operation upon the tipping of the curtain-rod or upon the action of some force tending to remove the head from the groove. The term L-shaped groove has been used; but it is of course obvious that this term would include a T-shaped groove and a construction requiring a duplication of antifriction-rollers E^2 .

It will thus be seen that the position of the antifriction-roller E^2 in the lateral groove of the window-casing absolutely prevents any accidental removal of the curtain-rod from the grooves of the window-casing. It will also be seen that upon the tipping, either accidentally or otherwise, of the curtain-rod,

the antifriction-roller E^2 will be the only part of the head which can come into contact with the walls of this lateral groove, and when it does come into contact it will act to allow the ready and automatic restoration of the curtain-rod to its normal horizontal position. It will also be noticed that the friction whereby the curtain-rod is held in desired position occurs only between the walls of the longitudinal groove and is always the same no matter what angle the rod is tipped. In other words, there is no tendency on the tipping of the rod to cause it to bind in any way in the grooves of the window-casing. Moreover, this friction is absolutely removed by the gripping of the handhold and is also greatly diminished by any sidewise pressure whatever upon the curtain-rod, for thereby the pivoted side wall is swung inwardly.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A window-casing provided on each side with a longitudinal groove and a lateral groove the two constituting a substantially L-shaped groove, a spring-actuated curtain, a curtain-rod provided at each end with heads, each head fitting loosely within the corresponding longitudinal groove and provided with a spring-actuated side wall, whereby the head is caused to grip the walls of the longitudinal groove, an antifriction-roller journaled on one side of said head on an axis intersecting the axis of the curtain-rod and projecting into said lateral groove and normally running free of the walls of said lateral groove, whereby the accidental removal of the curtain-rod from the window-casing is prevented and whereby upon the tipping of the curtain-rod the antifriction-rollers come into action with the walls of the lateral grooves to prevent binding.

2. A window-casing provided on each side with a longitudinal groove and a lateral groove the two constituting a substantially L-shaped groove, a spring-actuated curtain, a curtain-rod provided at each end with an elongated head, each head fitting loosely within the corresponding longitudinal groove and provided with a spring-actuated side wall, whereby the head is caused to grip the walls of the longitudinal groove, an antifriction-roller projecting beyond the outer surface of said head, and journaled on one side of said head on an axis intersecting the axis of the curtain-rod and projecting into said lateral groove and normally running free of the walls of said lateral groove, the outer surface of the head being of such curvature that it will not touch the window-casing upon the tipping of the curtain-rod, whereby the accidental removal of the curtain-rod from the window-casing is prevented and whereby upon the tipping of the curtain-rod the antifriction-rollers come into action with the walls of the lateral grooves to prevent binding.

3. A curtain-holding device comprising a curtain-rod, heads mounted at each end thereof and each having relatively movable side portions, means for moving said side portions relatively and laterally, an antifriction-roller journaled on the side of each head on an axis intersecting the axis of the curtain-rod and projecting beyond the outer face of the head.

4. A curtain-holding device comprising a curtain-rod, elongated heads mounted at each end thereof and each having relatively movable side portions, means for moving said side portions relatively and laterally, an antifriction-roller journaled on the side of each head on an axis intersecting the axis of the curtain-rod and projecting beyond the outer face of the head.

5. A curtain-holding device comprising a

hollow curtain-rod, elongated heads mounted at each end thereof, each head having one immovable side wall and one side wall pivoted with respect thereto, means located within the hollow curtain-rod for actuating said pivoted side wall outwardly, an antifriction-roller journaled on the immovable side wall on an axis intersecting the axis of the curtain-rod and projecting beyond the outer face of the head.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK E. EDWARDS.

Witnesses:

NATHAN HEARD,
GEO. W. GREGORY.