

A. B. SHAW.
CURTAIN ROLLERS AND BRACKETS.

No. 195,729.

Patented Oct. 2, 1877.

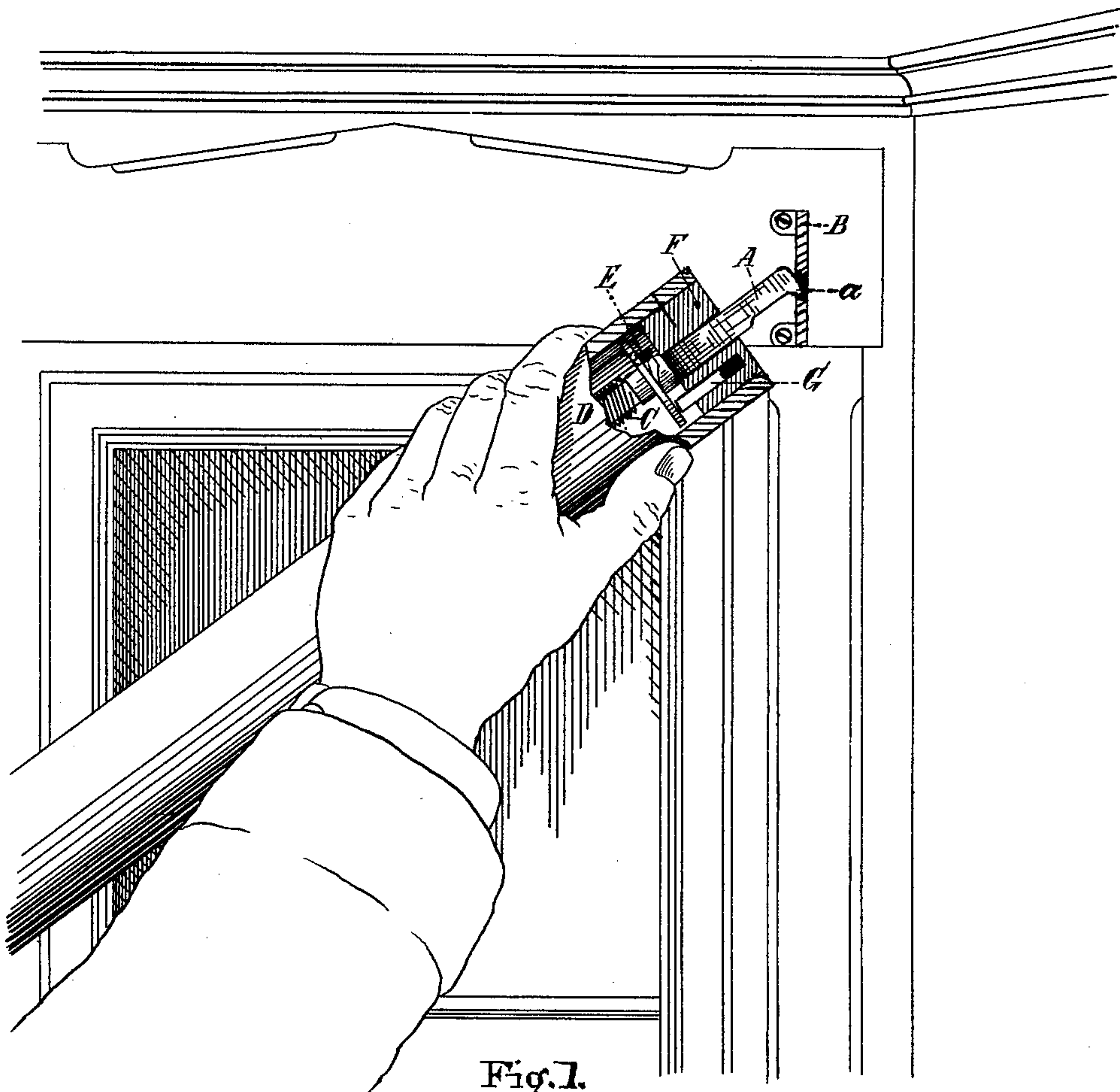


Fig. 1.

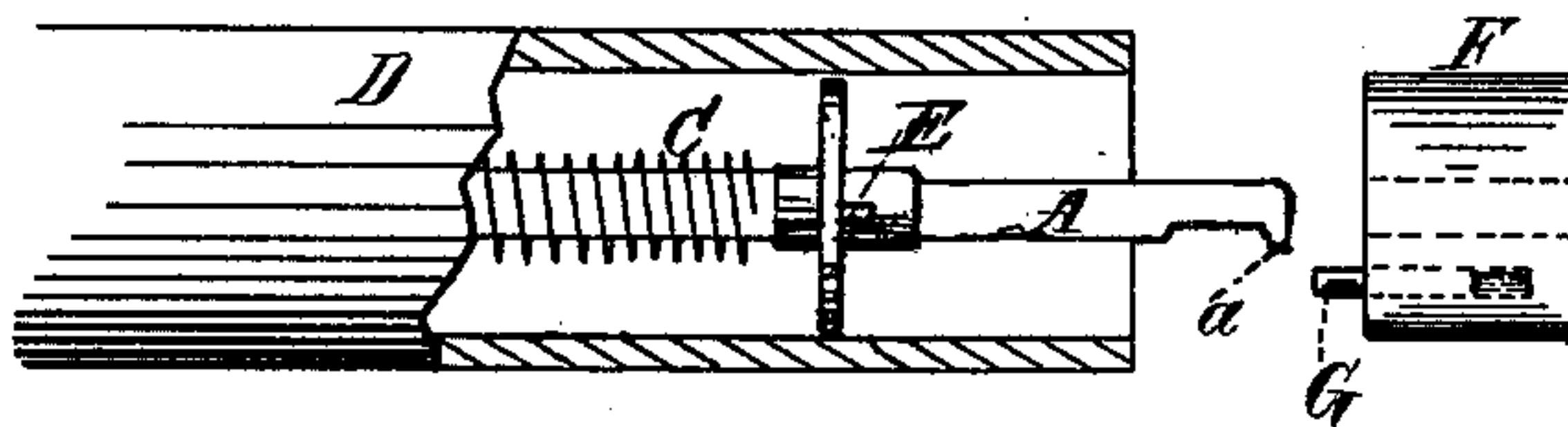


Fig. 2.

Witnesses:

H. E. Remick.
E. A. Phelps.

Inventor:

A. B. Shaw,
Per A. H. Jewett,
Atty.

UNITED STATES PATENT OFFICE.

AI B. SHAW, OF MEDFORD, MASSACHUSETTS.

IMPROVEMENT IN CURTAIN ROLLERS AND BRACKETS.

Specification forming part of Letters Patent No. **195,729**, dated October 2, 1877; application filed May 15, 1877.

To all whom it may concern:

Be it known that I, AI B. SHAW, of Medford, Massachusetts, have invented an Improvement in Curtain-Fixtures, of which the following is a specification:

This invention relates to that class of curtain-fixtures which are operated by a coiled spring surrounding the spindle and placed within the roller-tube; and the object of my improvement is to provide a convenient means of locking the roller and spindle together, so that the excess of tension of the spring required to operate the curtain shall not be lost when the roller is removed from the brackets.

My invention consists in a roller, spring, and spindle provided with a device operating to lock the parts in a position to prevent uncoiling of the spring whenever the roller is materially depressed at one end in removing it from the brackets.

In the accompanying drawing, Figure 1 is a side view, partly in section, showing the locking device operated by depressing the opposite end of the roller. Fig. 2 shows the parts detached.

A is the spindle, held so as not to rotate by insertion in a rectangular aperture of the bracket B. C is the operating-spring, secured at one end to the spindle and at the other to the roller D, in the usual manner. When the roller is placed in the brackets a proper tension should be imparted to the spring sufficient to counterbalance the weight of the curtain-stick and tassel; and it is important to retain that degree of tension when the roller is removed from the brackets, as it is subsequently to be replaced. To accomplish this most conveniently I attach to or form integral with the spindle a collar nearly sufficient in diameter to fill the bore of the roller D, and provided with one or more lugs, E, having one face at a right angle to that of the collar, and beveled or sloped, as shown, upon the other face. A perforated plug, F, is slipped loosely upon the spindle and secured within the roller, and this plug has a perforation parallel with its axis to receive loosely a sliding bolt, G, fitted to engage with the square face of the lug E, to prevent, for the time being, rotation of the roller upon the spindle in the direction tending to slacken the spring. When the

roller is turned in the opposite direction, in drawing down the shade, the beveled face of the lug E will slide the bolt longitudinally in its bed far enough to permit free revolution either way until the bolt is again moved toward the collar. There is no tendency for it to thus move while the roller remains horizontally in its brackets; but it will slide by gravity when the roller is removed from its position, if one end is depressed considerably, as in Fig. 1. To secure this inclined position whenever the roller is to be taken down, I form the end of the spindle and the aperture in the corresponding bracket of such relative shape that they cannot be disengaged from each other while the bracket is in position, unless the roller is held at an angle of at least thirty degrees to the horizon. The simplest plan I have conceived is shown in the drawings. I form a hook, *a*, on the end of the spindle, or cut away the metal somewhat, so as to leave a point, *a*, projecting a little on the lower side of the spindle. I also bevel the upper corner slightly. The aperture in the thin bracket B, closed on four sides, is just too small to receive the end of the spindle with the hook, if presented horizontally; but the hook *a* may be first inserted by dropping the other end of the roller, as in Fig. 1, after which the entire end of the spindle enters the socket as the roller is brought to a horizontal position.

The bearing at the opposite end of the roller is a plain round rod, turning in a socket of the bracket open at the top. While in these bearings the roller revolves freely, and the bolt lies dormant in its horizontal bed, into which it has been pressed by the beveled face of the lug E in drawing down the curtain.

To remove the roller from its position these steps are reversed. The open socket permits the corresponding end of the roller to be lifted out of its bearings. It is then lowered until the upper corner of the hooked spindle is freed from the aperture in its bracket, and the hook is next withdrawn. This frees the spindle; but, meanwhile, the inclined position of the roller has caused the bolt G to slide down against the collar, so as to catch upon the square face of the lug E, and lock the roller and spindle, so that the spring shall not un-

coil further. The tension of the spring causes sufficient lateral pressure upon the bolt to retain it in this position.

I do not claim, broadly, locking and unlocking by the action of the bracket; nor do I claim locking by gravitation when the roller is horizontal and in position in its brackets; but

I claim as my invention—

1. The combination of a roller, spring, and spindle with a locking device arranged to lock the parts together only by depressing one end of the roller, as in removal from the brackets, substantially as set forth.

2. In a curtain-roller operated by an inter-

nal-spring, the combination of a sliding bolt, a ratchet-collar, and a hooked spindle, substantially as and for the purpose set forth.

3. The combination of a roller, spring, and brackets with a sliding bolt and a spindle having a hook on its outer end, which can only be removed from the bracket by dropping the opposite end of the roller, substantially as set forth.

AI B. SHAW.

Witnesses:

A. H. SPENCER,
C. W. BARTLETT.