

E. M. JUDD.
CURTAIN-FIXTURES.

No. 176,537.

Patented April 25, 1876.

Fig. 2.

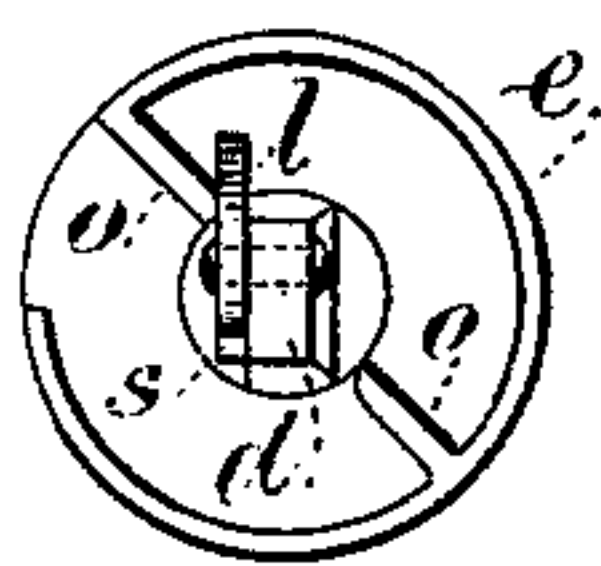


Fig. 1.

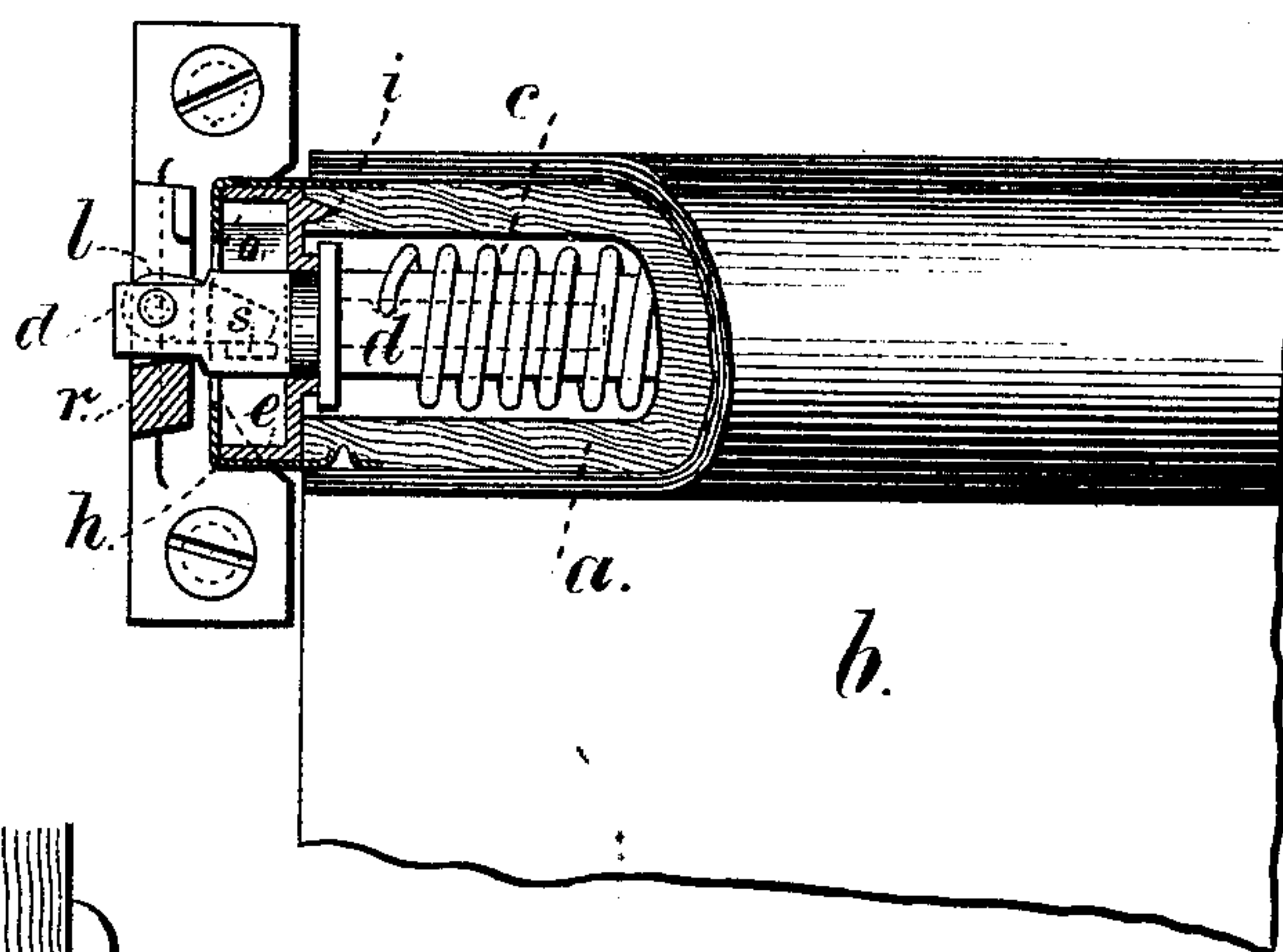
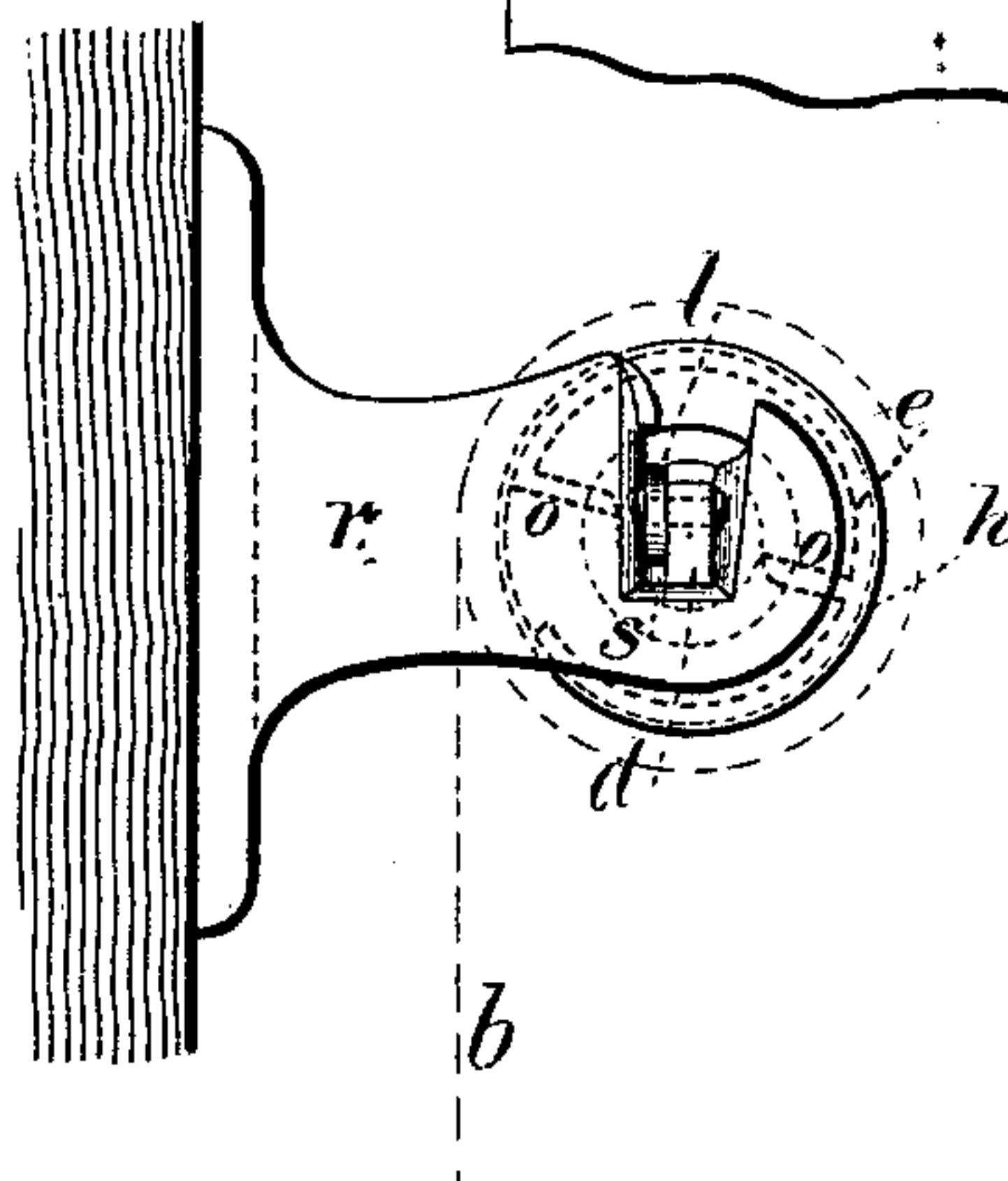


Fig. 3.



Inventor.

Edward M. Judd.

Witnesses,

Chas. H. Smith
Harold Ferrell

per Lemuel M. Ferrell

att'y.

UNITED STATES PATENT OFFICE.

EDWARD M. JUDD, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **176,537**, dated April 25, 1876; application filed February 2, 1876.

To all whom it may concern:

Be it known that I, EDWARD M. JUDD, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Curtain-Fixtures, of which the following is a specification:

Curtain-fixtures have been made with a spring acting between the roller and a spindle that is held stationary in a bracket, and a sliding transverse pawl, and a swinging pawl upon the roller end, have been employed to prevent the spring unwinding when the roller is removed from the bracket.

My improvement consists in a swinging pawl pivoted to the flattened side of the spindle, in combination with a ring-stop upon the roller, so that when not in use the pawl lies parallel with the spindle in the bracket; but when the roller is removed from the bracket, the pawl flies out and catches the stop to prevent the spring unwinding.

In the drawing, Figure 1 is a section of the roller end and bracket. Fig. 2 is an elevation, showing the pawl and stops at the end of the roller as detached from the bracket; and Fig. 3 shows the bracket and roller with the spindle in the bracket and the pawl out of action.

The roller *a* for the curtain *b* is made hollow, and receives the helical spring *c*, that is around the spindle *d*, and one end of the spring is attached to the roller and the other to the spindle, as heretofore usual. At the end of the roller the ring *e* is attached. It is preferable to employ the pins *i* to enter the end of the roller when a wooden roller is made use of, and this ring *e* has an opening to admit the end of the spindle *d*, and it is made with a cylindrical ring and stops *o*. The tubular cap *h* is employed to hold the ring *e* in place. It fits upon the roller end, and has an annular opening at the end rather longer in diameter than the distance between the stops *o*. The outer end of the stem *d* is flattened, and to it is pivoted the pawl *l*, and there is a projection

at *s* that prevents the pawl swinging in the wrong direction. The end of this pawl is adapted to catching into one of the stops *o*. The bracket *r* is made with a notch, adapted to the reception of the flattened portion of the spindle and the pawl, so that the spindle will be held by the bracket as the curtain is drawn down, or the roller revolved by the spring to wind up the curtain.

If the roller is lifted out of the bracket for any purpose, the spring ordinarily would run down; but the pawl *l*, flying out by centrifugal force, catches one of the stops *o*, and the spring *c* only turns the roller a half-turn or a turn before the further unwinding is arrested. When the roller is put back into the bracket, the flattened end of the spindle is caught by the bracket, and hence the pawl is no longer required to be in action. Hence, if the parts are put into the bracket, so that the pawl is uppermost, it drops as soon as the curtain is drawn upon sufficiently to partially revolve the roller and relieve the end of the pawl from pressure; and if the parts are placed in the bracket with the pawl downwardly the weight of the roller will cause the pawl to be pressed upwardly out of contact with the stop, because the pawl will come into contact with the bottom of the notch in the bracket before the spindle touches the bottom of such notch.

I claim as my invention—

The ring *e*, with the stop *o*, in combination with the pawl *l*, pivoted upon the flattened portion of the spindle *d*, the helical spring *c*, the curtain-roller *a*, and the bracket sustaining the spindle, substantially as and for the purposes set forth.

Signed by me this 1st day of February, A. D. 1876.

EDWARD M. JUDD.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.