W. GATES.

CURTAIN-FIXTURE.

No. 169,801. Patented Nov. 9, 1875.

fig. 1

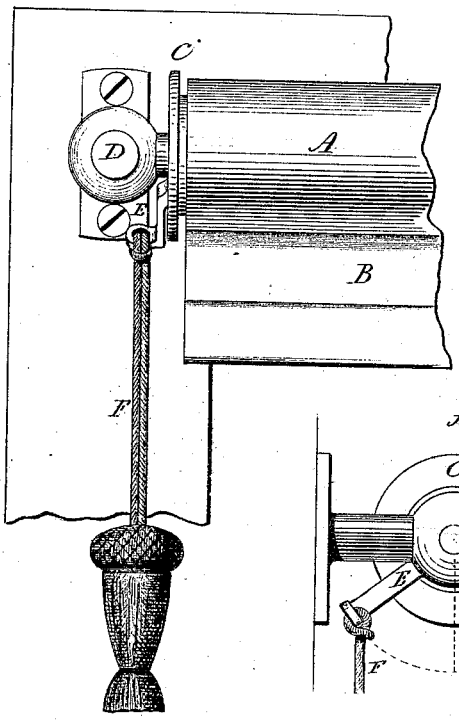


fig. 2

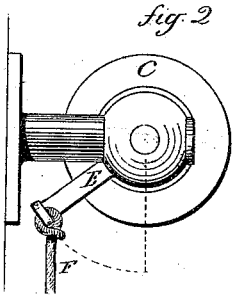
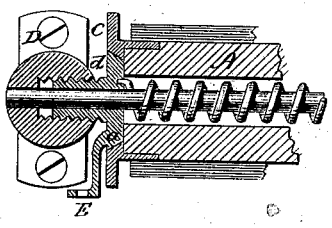


fig. 3



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM GATES, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO C. COWLES & CO., OF SAME PLACE.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **169,801**, dated November 9, 1875; application filed September 28, 1875.

To all whom it may concern:

Be it known that I, WILLIAM GATES, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Curtain-Fixtures; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, front view; Fig. 2, end view; Fig. 3, longitudinal section.

This invention relates to an improvement in that class of curtain-fixtures in which the roll has combined with it a spring to roll the curtain, and the unrolling of the curtain serves to wind the spring.

The usual method of holding the roll against the reaction of the spring has been by a pawl and ratchet. This, from use, soon wears so as to be defective. The clicking noise of the pawl in drawing down the curtain is objectionable, and the roll is unavoidably loose in its bearings, so as to rattle more or less.

The object of this invention is to overcome this difficulty; and it consists in a frictional bearing at one end, constructed so that by turning the bearing slightly it is drawn away, so as to relieve the roll from the friction, and when released returns to the roll to hold it firmly in any desired position, as more fully hereinafter described.

A is the roll or cylinder, upon which the curtain B is wound in the usual manner. Within this roll the usual spring for rolling up the curtain is arranged, also in substantially the usual manner. At one end of the roll is a head, C, fixed to the roll. Against this head a disk, *a*, is arranged to bear, preferably with a conical surface fitting a corresponding surface on the head, as shown. This disk *a* is attached to one end of the spring, the other end of the spring attached to the roll. This disk *a* is constructed with a shank, *d*, projecting axially outward, and with a screw-thread fitting into a corresponding thread in the bracket D. The tendency of the spring, as it acts upon the disk *a*, is to unscrew or draw the disk from the bracket to bear hard against the end of the roll; therefore, by turning the disk *a* in the opposite direction, the screw-thread will draw the disk *a* away from and so as to relieve the roll from its pressure. It is thus drawn away by means of an arm, E, to which the usual cord F is attached.

With this construction, when the arm E is free, the friction is sufficient to hold the roll in any position, but yet so as to allow the curtain to be drawn down; and when it is required to raise the curtain, pull upon the cord, or turn the lever E downward, as denoted in broken lines, Fig. 2, and the disk *a* will be drawn away from its bearing, and allow the spring to act upon the roll to roll up the curtain. This pressure of the disk on the roll bears it so hard against the bearing at the opposite end that rattling is entirely prevented.

While designed with special reference to spring-cylinder curtains, this may be applied to other curtain-fixtures, the spring only acting upon the disk *a*. In that case the internal end of the spring must be fixed to the shaft within the roll, or at some point where it can act upon the disk independent of the roll.

I do not wish to be understood as broadly claiming a frictional bearing on the end of a curtain-roll to support the roll at any point, and at the same time to allow it to be turned to draw down the curtain, as such, I am aware, is not new.

I claim—

In a curtain-fixture, the combination of the head of the roll, the frictional disk constructed with a screw-threaded shank, a correspondingly-threaded bracket, and means for rotating said disk, whereby the said screw draws the disk from and releases the roll, and a spring the tendency of which is to return and force the disk to a bearing against the roll, substantially as specified.

WILLIAM GATES.

Witnesses:

J. H. SHUMWAY,

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