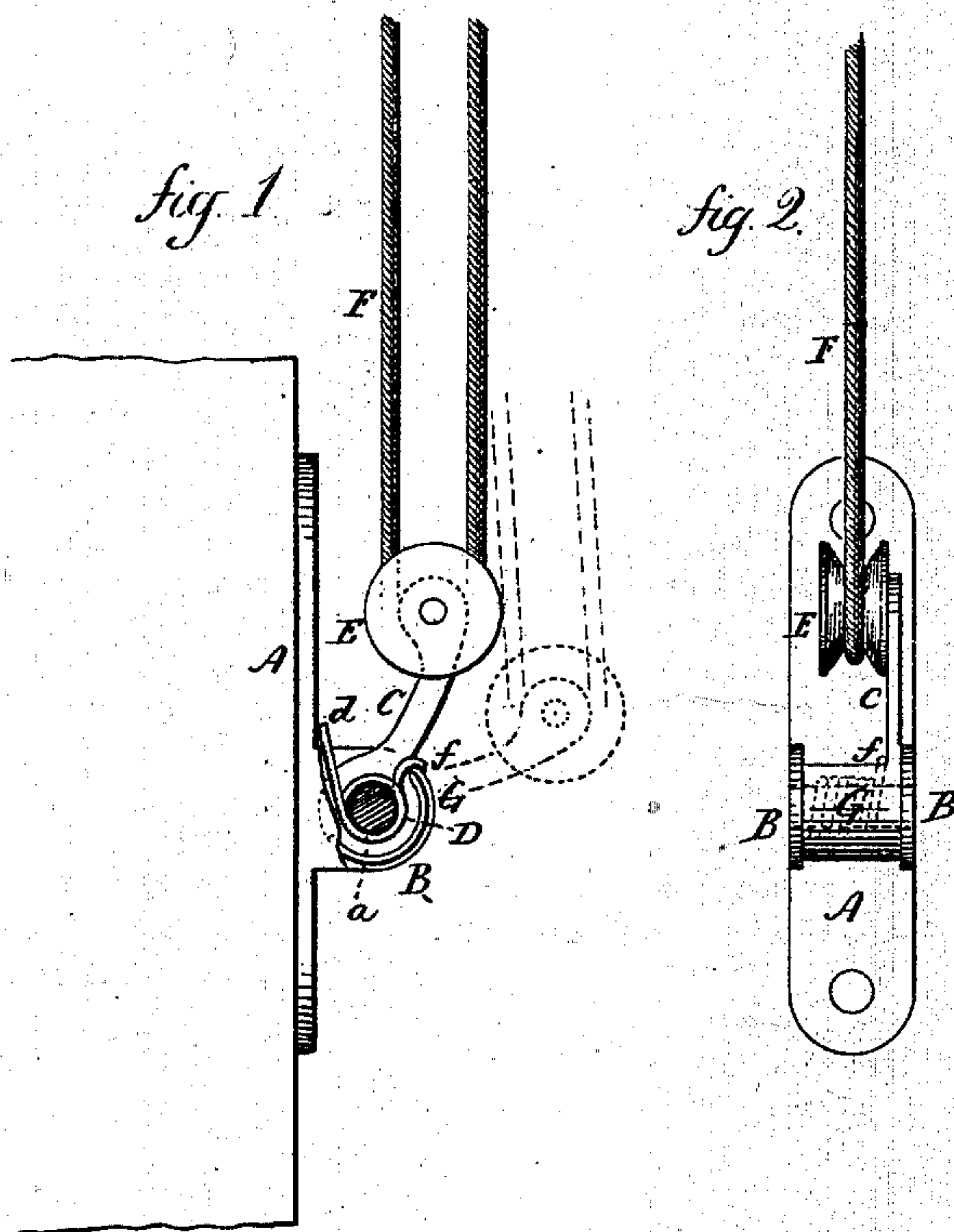


C. B. BRISTOL.
Cord-Tighteners for Curtains

No. 146,427.

Patented Jan. 13, 1874.



Witnesses.
A. J. Tibbitts
J. H. Shumway

Chas. B. Bristol
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UNITED STATES PATENT OFFICE

CHARLES B. BRISTOL, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN CORD-TIGHTENERS FOR CURTAINS.

Specification forming part of Letters Patent No. **146,427**, dated January 13, 1874; application filed October 17, 1873.

To all whom it may concern:

Be it known that I, CHARLES B. BRISTOL, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Cord-Tightener for 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, a side view; and in Fig. 2, a front view.

This invention relates to an improvement in cord-tightener for curtain-fixtures; and it consists in a lever constructed with a spring-chamber at one end and a knob or pulley at the other, combined with a plate constructed with ears, between which the said lever is pivoted, and a spring within the said chamber, one arm of which bears upon the lever, and the other upon the base or plate, as more fully hereinafter described.

A is a base, from which extend two ears, B B. Between these the lever C is hung upon a pivot, D. Upon the outer end of the lever C a pulley or knob, E, as the case may be, is attached, around which the cord F, from the curtain-roll, runs. Around the axis of the lever a spiral spring, *a*, is arranged, one arm, *d*, of which bears upon the base, the other arm, *f*, upon the lever, the tendency of this spring being to throw the lever down, this force of

the spring being at all times applied through the knob E of the cord, that the cord may be drawn tight. As the cord stretches, or is otherwise extended, the lever C will be thrown out, drawing down the pulley according to the stretch or extension of the cord, thus maintaining at all times a sufficient strain upon the cord to prevent the fall of the curtain.

An advantage of this construction consists in the fact that when placed upon the jamb, as seen in Fig. 1, the axis of the pulley will be parallel with the axis of the roll, and thus avoid the twist which is necessary in the usual construction of cord-tighteners, which, when placed in similar position on the jamb, the axis of the pulley must be at right angles to the axis of the roll.

To inclose or hide the spring, I form the lever with a barrel or case, G, around the axis, so as to form a chamber to inclose the spring.

I claim as my invention—

The lever C, constructed with a spring-chamber, G, at one end, and a knob or pulley, E, at the other end, combined with the plate A, constructed with ears B, between which the said lever is pivoted, and the spring *a* within the chamber G of the lever, one arm of the said spring bearing upon the lever, and the other upon the base, all substantially as specified.

CHAS. B. BRISTOL.

Witnesses:

A. J. TIBBITS,
J. H. SHUMWAY.