

H. L. HALL.  
Curtain-Fixtures.

No. 161,407.

Patented March 30, 1875.

Fig. I.

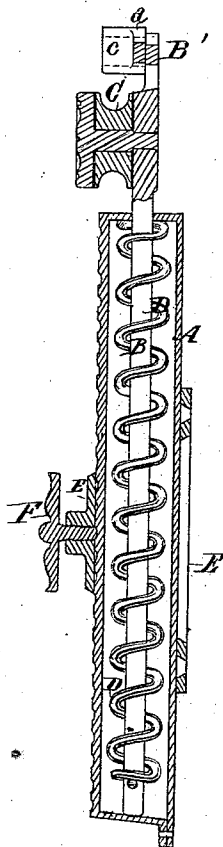
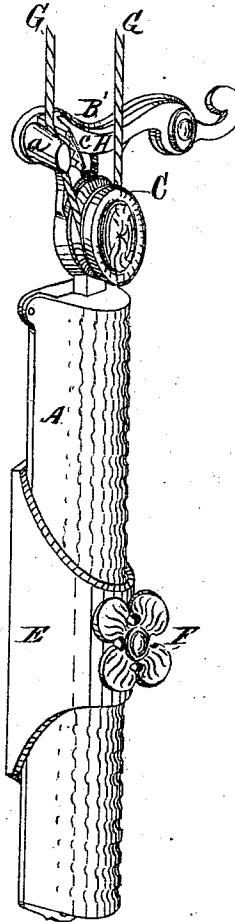


Fig. II.



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# UNITED STATES PATENT OFFICE.

HENRY L. HALL, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **161,407**, dated March 30, 1875; application filed February 23, 1875.

*To all whom it may concern:*

Be it known that I, HENRY L. HALL, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Tension-Pulleys for Curtain-Cords; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a vertical section of my device, and Fig. 2 is a perspective view of the same.

Like letters refer to like parts in each figure.

The nature of my invention relates to an improvement in tension-pulleys for curtain-cords; and has for its object to so construct and arrange the same as to provide a constant tension for the cord as it stretches and contracts under the hygrometric changes in the atmosphere; also, to an automatic stop or brake, which acts upon the cord to lock the curtain fast in whatever position it be left.

The invention consists, first, in a clamp and set-screw, to be secured to the window-casing, to receive and hold the spring-case at any point which will give the required tension; and, second, in an automatic locking device for locking the curtain, in combination with the shank of the pulley, to which it is secured, or of which it may form part, as more fully hereinafter set forth.

In the drawing, A is a cast or sheet metal case, semi-cylindrical in cross-section, and in two parts riveted together, as shown. B is a square shank or stem, inserted in the upper end of the case A, to whose bottom it extends. C is a pulley, sleeved on a stud projecting from the upper part of the stem. D is a spring, spirally coiled about the shank, between a pin at its lower end and the top of the case. The length of this spring, when free, being greater than that of the case, it is compressed somewhat in putting it in place, so that its expansion tends to draw the shank into the case. E is a clamp-case, provided with a set-screw, F, which clamp-case is fastened by nails or wood-screws to the jamb of the window-casing. The clamp-case receives

the case A, which is secured therein at any point by the set-screw. The outer face of the case A may be ribbed or corrugated, to prevent its slipping from the set-screw.

In attaching this fixture to the window, the curtain-cord G is placed under the pulley C, and the case A pushed down in the clamp-case about two-thirds of the range or play of the spring, and secured at this point by the set-screws, thus giving the proper tension to the cord, while the pulley adjusts itself to the expansion and contraction of the cord caused by hygrometric changes in the atmosphere.

For large and heavy shades, I provide the top of the stem B with a T-head, B', from one end of which projects a stud, *a*, across the plane of the pulley. To the other end of the head is pivoted a dog, H, with a serrated plate, *c*, projecting from its heavy end, parallel with the stud *a*, with the curtain-cord between them. *b* is a handle, which serves to lift the dog when it is required to lower the shade.

The serrated end of the dog being the heaviest, it always presses upon the "down" side of the curtain-cord; and should the tension of the spring be insufficient to sustain the shade, a downward movement of the cord causes the dog to force it against the stud, and thus clamp it fast, while the dog frees the cord from pressure while the shade is being raised.

The pulley C may be dispensed with, and a stationary spool or pin be used in lieu thereof.

The dog or latch is unnecessary where light or ordinary shades are used, the tension of the spring being sufficient to sustain them.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the case A and its attachments B C, or its equivalent, and spring D, with the clamp-case E and screw F, as and for the purpose specified.

2. The combination of the pulley C, or its equivalent, with head of stem B, stud *a*, and the dog H, substantially as and for the purpose set forth.

HENRY L. HALL.

Witnesses:

WM. H. LOTZ,  
GEO. W. FERRIS.