

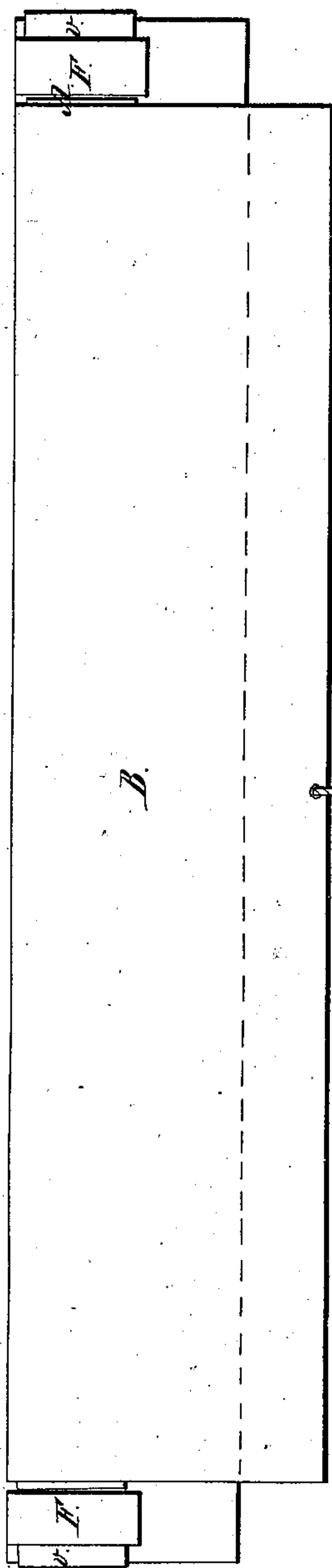
*Hartshorn & Chamberlain,*

*Curtain Fixture,*

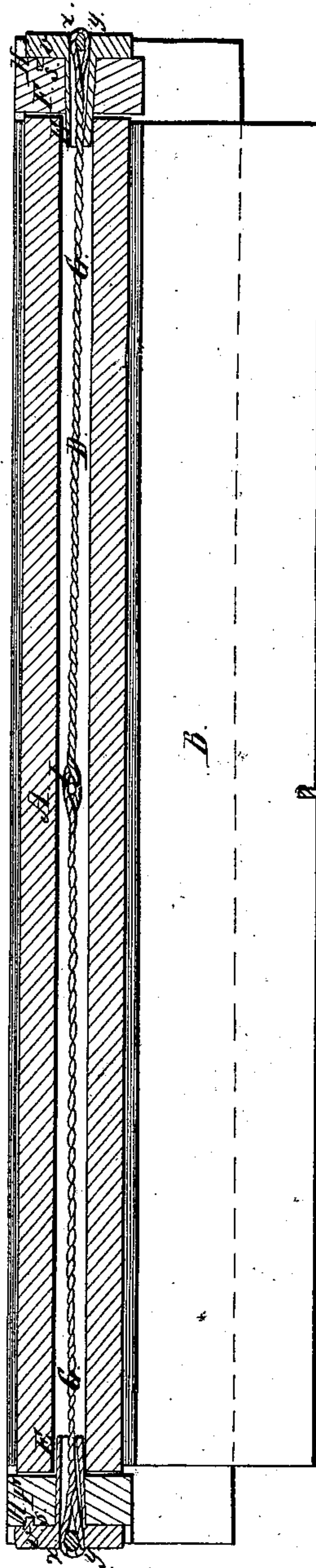
*No. 12,271,*

*Patented Jan. 23, 1855.*

*Fig. 1.*



*Fig. 2.*





# UNITED STATES PATENT OFFICE.

DEXTER H. CHAMBERLAIN AND JOHN HARTSHORN, OF BOSTON, MASSACHUSETTS.

## ROLLER FOR CURTAINS.

Specification of Letters Patent No. 12,271, dated January 23, 1855.

*To all whom it may concern:*

Be it known that we, DEXTER H. CHAMBERLAIN and JOHN HARTSHORN, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Curtain-Fixtures; and we do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of the said drawings Figure 1, denotes a front view of a curtain or window shade having our improved fixture applied to it. Fig. 2, exhibits a vertical section of the same taken through the curtain roller and its brackets.

In such drawings, the curtain roller is shown at, A, and the curtain at, B, the said curtain being fixed to the roller in the usual way, and provided with a tassel, C. The roller is made tubular or is bored out axially from end to end as seen at, D. Each of its ends being made to revolve in a tubular journal, E, made to project from one of two brackets, F, F, which are screwed or otherwise properly fastened to the frame of the window or opening to which the curtain may be applied.

The journals are bored out in line of the axis of the curtain roller and so as to permit an india rubber or elastic cord torsion spring, G, to be extended through them and the bore of the curtain roller, such spring being a cord carried through two branch holes, *x*, *y*, in each journal and leading laterally out of the round hole or passage through it. The journals are pins with heads, *v*, *v*. In applying this spring to the curtain roller we usually take a piece of elastic cord made in part or in whole of india rubber or other suitable elastic material and pass its two ends through one of the journals and the roller and thence through the other journal and secure it by tying the cord together.

Between the doublings of the cord and through the roller we extend a pin, I, or we fasten said spring cord at any suitable part of it to the roller. We prefer however to extend the fastening pin I transversely through the middle of the roller because under such circumstances when the roller is rotated so as to unwind the curtain

and twist the spring cords, the roller will not be drawn endwise in one direction more than in the other. The forces tending to draw the roller endwise will balance one another so that there will be no tendency to draw the roller against one bracket with a greater force than it may be drawn toward the other. Friction of the cord of the roller against its bracket is what we seek to avoid.

From the above it will be seen that while the curtain is being drawn downward, or unwound from its roller, such roller will be put in revolution by it and twist the india rubber or elastic torsion spring and produce thereon such a torsion strain as will operate against the balancing weight, C, and tend to rotate the roller in a reverse direction so as to wind up the curtain around it whenever the balance weight is laid hold of and lifted upward.

Each head of each journal may be provided with a pin H, which may be carried between either recess in the side of the bracket.

Should it be desirable at any time to increase or diminish the power of the india rubber torsion spring, the journals may be pulled outward so as to draw the pin, H, out of its socket hole, *s*, in its bracket. The journal may next be revolved for either twisting or untwisting the cord, and after a proper amount of twist has been applied to or left in the cord the pin may be replaced in its socket.

A common spiral metallic spring when applied to a curtain roller is very liable to either break, get out of order, or lose its elasticity. A torsion spring when made of elastic cord and applied in the manner above set forth is not only cheaper and more easily adjusted, and less liable to get out of order, but presents in its operation and construction several advantages over the spiral spring.

We do not claim the application of a torsion spring to one end only of a curtain roller, but

We claim—

Our improved manner of applying the spring to the curtain roller, that is extending it axially entirely through the roller and its two journals and affixing it to the roller and both its brackets, (or journals extended

from and fastened to them) substantially as specified, such not only affording advantages of which a long spring has over a short one, but also important facilities in  
5 applying the spring or modifying its tension as occasion may require.

In testimony whereof we have hereunto

set our signatures this eighth day of November A. D. 1854.

DEXTER H. CHAMBERLAIN.

JOHN HARTSHORN.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.