

C. de QUILLFELDT.
Window-Shade Fixture.

No. 159,803.

Patented Feb. 16, 1875.

Fig. 1.

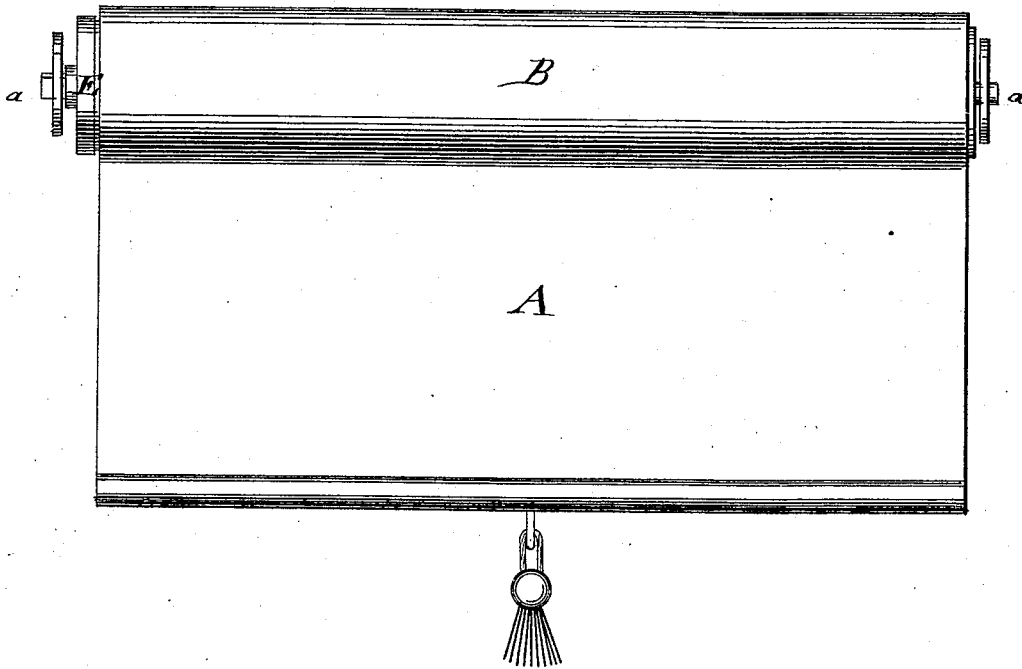


Fig. 2.

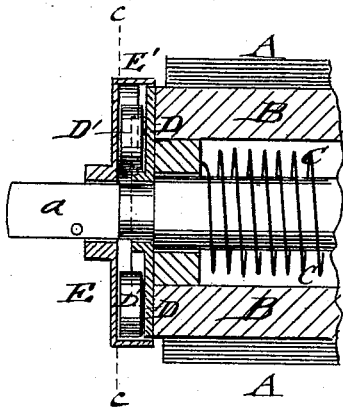


Fig. 3.

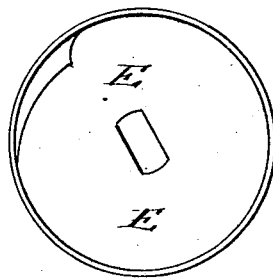
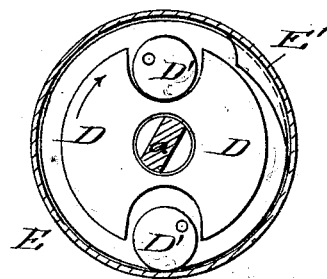


Fig. 4.



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IMPROVEMENT IN WINDOW-SHADE FIXTURES.

Specification forming part of Letters Patent No. 159,803, dated February 16, 1875; application filed October 24, 1874.

To all whom it may concern:

Be it known that I, CHARLES DE QUILLFELDT, of the city, county, and State of New York, have invented a new and useful Improvement in Shade-Fixtures, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a front elevation of my improved shade-fixture applied to a window-curtain; Fig. 2, a vertical longitudinal section of the same; Fig. 3, a detail inside view of the roller-cap; and Fig. 4, a vertical transverse view through the fixture on the line *c c*, Fig. 2.

Similar letters of reference indicate corresponding parts.

My invention relates to such an improvement in that class of shade-fixtures in which the shade-roller is provided with an interior spiral spring for winding up the shade in an automatic manner, so as to allow the positive stoppage and retention of the shade at any desirable point or height on the release of the shade, without any chance or possibility of the rapid winding up and tearing of the shade by the continuous and unchecked action of the spiral spring.

The main objection to the shade-fixtures with spring-rollers patented heretofore has been the sudden escape of the shade from the hands of the person trying to adjust the same by the action of the spring, so that the shade is wound up with great rapidity around the roller, and exposed to damage and injury in consequence of it. This happens often to persons conversant with the peculiarities of these rollers, and still more frequently to persons who are not familiar with them, they being not aware that a repeated pulling at the tassel and "feeling" for the pawl is necessary until the same engages the notched hub or ratchet of the roller, and retains the shade in position. This causes sometimes great annoyance and a distrust to this class of curtain-fixtures, though they are by their other advantages greatly preferable to the common cord or other roller-turning devices.

My invention is designed to obviate this defect of the present spring shade-fixtures, and produce the absolute and positive stopping of the shade at any desired point, by means of a notched or recessed hub of the spring-roller,

having sliding or eccentrically-pivoted disks or equivalent devices, in connection with a covering roller-cap, provided with a cam or brake-piece for stopping the roller and disks when turned in one direction by the spring, but admitting the passage of the disks in opposite direction for the unwinding of the shade.

In the drawing, A represents a window-shade; B, its roller, having a spiral spring, C, fitted within the interior hollow part of the same, said spring being arranged in such a manner that it has a tendency to turn the roller and wind up the shade. The spring-roller B is hung by its projecting axle or shaft ends *a*, of which one has flattened sides, in such a manner to the supporting-brackets that the shaft is retained stationary in the same, while the roller turns readily on the shaft. A recessed plate or hub, D, is screwed or otherwise attached to the end of roller B, and supplied within the recesses with sliding or eccentrically-pivoted disks D', of a size corresponding to the recesses, or with pawls, balls, or other equivalent devices, in connection with two or more recesses of the hub, provided that they are arranged in such a manner that on the sudden release of the shade, and consequently rapid turning of the roller, they are, by centrifugal power, thrown beyond the periphery of the hub, while by the slow and easy rotation of the roller they return, when the recesses approach the upper vertical position, by their own weight, back into the same. The sliding disks D' are inclosed by a cap, E, keyed to the roller-shaft, so as to protect and cover the interior parts. Cap E is provided at the inner circumference with a cam or brake, E', of triangular shape, the shorter and steeper side of which is arranged toward the direction of the roller-motion when winding up, as caused by the spiral spring, while the other longer and gently inclined side is arranged toward the opposite or unwinding direction of the roller. The apex of the triangular cam E' extends nearly up to the circumference of the hub, but without coming in contact therewith. The unwinding motion of the roller carries the disks against the longer side of the cam, and slides them easily back into the recesses of the hub, while the opposite motion of the roller, especially on the quick release of the shade,

throws the disks toward the circumference of the cap, and brings them in sudden contact with the shorter cam or brake side, being firmly retained by the projecting hub parts, so as to stop instantly and positively the shade at any height on releasing the same.

When it is desired to wind up the shade entirely, or to any suitable length, the roller is allowed, by taking gently hold of the shade, to rotate slowly, so as to give the disks time to return to the recesses before coming in contact with the cam, and to pass, therefore, below the apex of the same without being retained. The roller may be taken off the brackets, the rotation of the roller being stopped

in similar manner, so that no unwinding of the spring is possible, and the roller thereby retained in regular order and effective working for any length of time.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, in a spring shade-roller, of the cam or brake E', the inclosing-cap B, the recessed hub D, and the pivoted disks D', as and for the purpose specified.

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Witnesses:

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