W. JOHNSON.

Improvement in Rack-Pulley Shade-Fixtures.

No. 114,825. Patented May 16, 1871.

Fig. 1

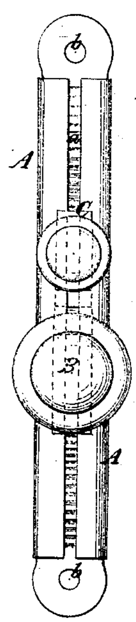
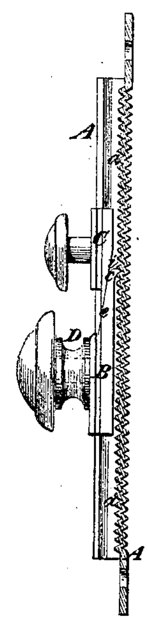


Fig. 2



Witnesses.
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WILLIS JOHNSON, OF WATERBURY, CONNECTICUT.

Letters Patent No. 114,825, dated May 16, 1871.

IMPROVEMENT IN RACK-PULLEY SHADE-FIXTURES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIS JOHNSON, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Rack-Pulley Shade-Fixtures; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a front view of a rack-pulley shade-fixture constructed according to my invention.

Figure 2 is a longitudinal section of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention consists in the novel arrangement of a tooth acting in a rack, in combination with a slide which carries the pulley and a tightening-wedge, whereby, while provision is made for more effectually securing the pulley in the position to which it is adjusted, greater facility is afforded for liberating it, when desired, to alter the adjustment.

A is the body, of ordinary construction, having rack-teeth *a* in its back, having eyes *b b* at top and bottom through which to nail or screw it in place, and having its edges turned in to form guides for the slide B and wedge C, the sides of which are grooved for the reception of said edges.

The pulley D is attached in the usual manner to the slide B, which is arranged in the usual manner below the wedge C, but which differs from the slides commonly used and from all other slides, for like purposes, in two particulars, as shown in fig. 2, viz.: in having rigidly attached to or constructed upon its upper end a tooth, *c*, which enters between the rack-teeth *a*, and in having the bevel *e*, against which the wedge acts, provided on the outer face of its upper part.

The wedge C differs from the wedges of other shade-fixtures in having the bevel *i* on the outer side, and in operating against the front or exterior face of the slide instead of operating against the back or inner faces, as it does in all other shade fixtures in which wedges are used.

The slide is liberated for the purpose of adjusting the pulley by raising the wedge. The slide is then free to slide up and down, the tooth *c* playing freely over the rack, and when it has been adjusted to the proper place the wedge is pushed down tightly over it and thereby made to press and hold the tooth *c* securely in the rack, and so lock the slide and pulley in a positive manner.

By my arrangement of the tooth *c* upon the upper end of the slide, and by the construction and arrangement of the wedge to operate on the exterior of the upper part of the slide, greater security of adjustment is obtained than when the tooth is on the lower part of the wedge, and the wedge operates against the inner side of the slide as in another shade-fixture, in which a tooth is used in combination with slide and wedge; for in my arrangement and construction the slide carrying the pulley is the positively-adjusted and secured part, and the wedge is the key by which the sleeve is locked and unlocked, while in the other construction and arrangement spoken of the slide must be moved upward after the adjustment has been made, in order to force the tooth into the rack. With the latter construction and arrangement it is difficult to release the slide and pulley. When they are at the bottom of the rack, in case of the lower corners of the guiding edges of the body being turned in, as they ordinarily are, to prevent the slide from slipping out when the cord is off, it is necessary in such case, before the tooth can be released, to move the slide downward, and this is prevented by the turned-in lower corners of the body.

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

The arrangement, in combination with the rack *a*, of the tooth *c* on the upper end of the slide B, the bevel *e* on the exterior surface of the upper part of said slide, and the wedge C operating against the exterior of the upper part of the slide, all substantially as herein described.

WILLIS JOHNSON.

Witnesses:
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