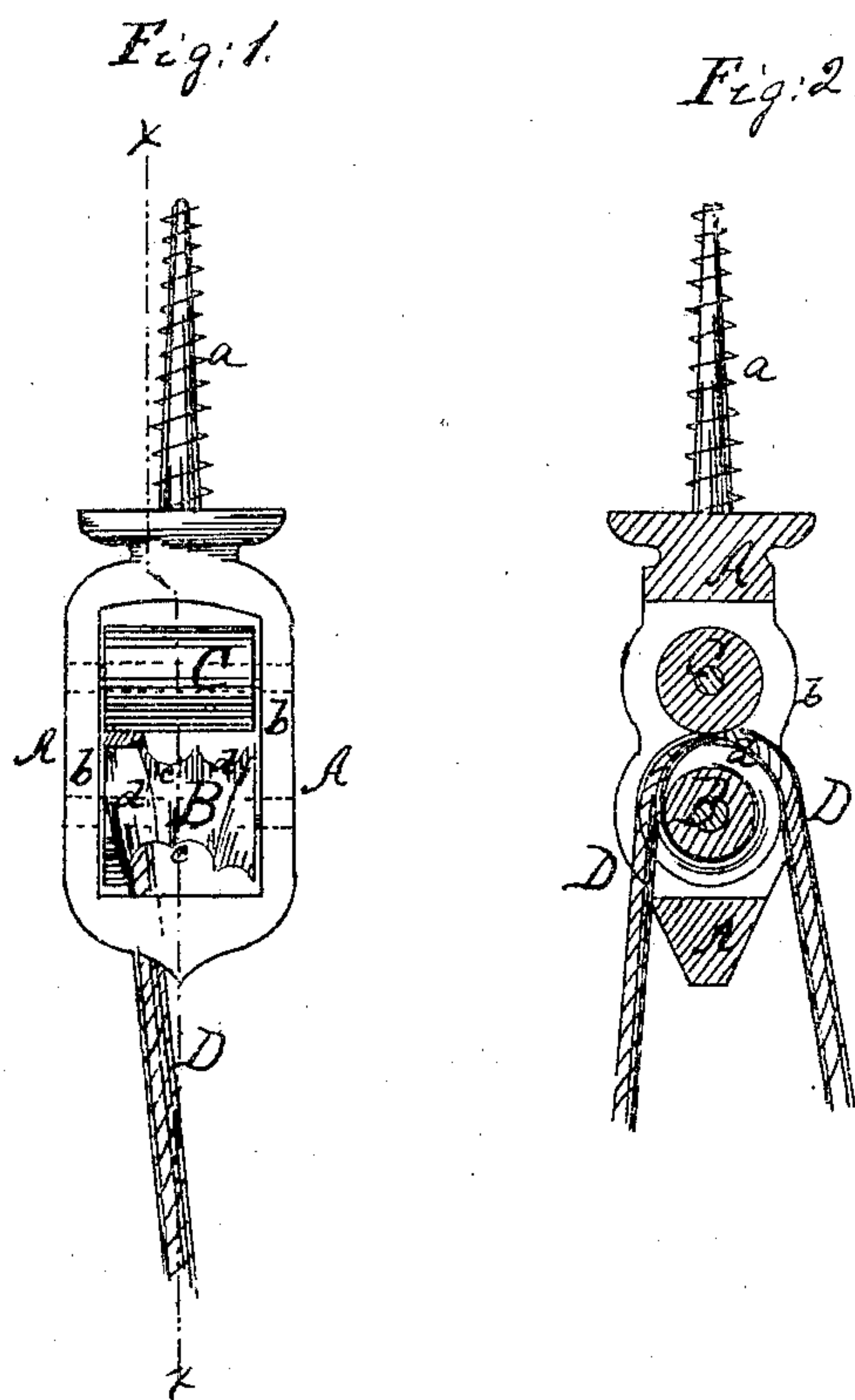


S & J. Roebuck

Pulley & Block.

N<sup>o</sup> 73653

Patented Jan. 21, 1868.



Witnesses.

Thos. Trushe  
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# United States Patent Office.

SAMUEL ROEBUCK AND JOHN ROEBUCK, OF NEW YORK, N. Y.

*Letters Patent No. 73,653, dated January 21, 1868.*

## IMPROVEMENT IN PULLEY AND BLOCK.

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

### TO ALL WHOM IT MAY CONCERN:

Be it known that we, SAMUEL ROEBUCK and JOHN ROEBUCK, of the city, county, and State of New York, have invented a new and improved Pulley and Block; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a front view of our improved pulley.

Figure 2 is a vertical cross-section of the same, the plane of section being indicated by the line *xx*, fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new device for hanging window-shades, mosquito-canopies, and other light articles, and consists in so arranging the roller, around which the cord from which the said articles are suspended passes, and in so combining it with another roller above, that the said cord can, by moving its end to one side, be securely clamped between the two rollers, so that the articles may be retained in any desired position and at any desired elevation, and so that by moving the said cord towards the centre again, it may be released and the articles be raised or lowered at will. The invention consists in making three grooves around that roller over which the cord passes. The centre groove is concentric, and when in it the cord is loose and cannot touch the upper roller. The two grooves on the sides are eccentric, and when the cord is brought into one of them, it is gradually raised until it is clamped between the upper and lower roller.

A represents a sheave-block of suitable construction. It may, for the purposes for which it is intended by us, be provided with a screw, *a*, or a hook, by which it may be secured in or suspended from a ceiling or some other stationary object. In its cheeks *b b* are the bearings for two rollers B and C. The cord D, to which the article to be suspended is fastened, passes over the roller B. In the circumference of the latter are formed three grooves. The centre groove *c* is concentric with the axis of the roller. The cord is in it when the article is being raised or lowered. On each side of the centre groove is a spiral eccentric groove, *d*, of which the lower end, or that end which is nearest to the axis of the roller, is of equal depth with the groove *c*, and is in connection with the same, as seen in fig. 1. From the point of connection with the groove *c*, the grooves *d* gradually deviate from the same, fig. 1, and also from the axis of the roller, fig. 2, so that when the end of the cord is moved in an oblique direction to one side, it will be gradually brought into the groove *d*, which is on that side of the groove *c*, and will be elevated toward the roller C, and be clamped between the same and the roller B, as is clearly indicated in figs. 1 and 2.

We are aware that a patent was issued to J. E. Palmer, of St. Louis, Missouri, for so constructing a tackle-block and pulley that the rope, when desired, may be clamped between a fixed portion of the block and a portion of the pulley. It will be observed that in our device the cord is clamped between the two pulleys, as shown. We have found that when once clamped between the pulley and the block the cord could not be released with sufficient ease or brought into the central groove, while, where two rollers are used, the pressure will be fully as effective upon the cord as is necessary, and by pulling the cord back when clamped, so that the roller B will be revolved in the direction opposite to that in which it was turned while the cord was being clamped, the said cord will be easily released. Another advantage of our device over that of Palmer is that the cord will not be injured between the rollers, while it is subject to considerable wear when clamped between the roller and block.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The block A, when combined with the rollers C and B, of which the latter is provided with concentric and eccentric grooves, substantially as and for the purpose herein shown and described.

The above specification of our invention signed by us this      day of May, 1867.

SAMUEL ROEBUCK,  
JOHN ROEBUCK.

Witnesses:

ALEX. F. ROBERTS,  
J. M. COVINGTON.