J. W. Foard,

Curtain Fixture.

No. 92,812. Patented July 20, 1869.

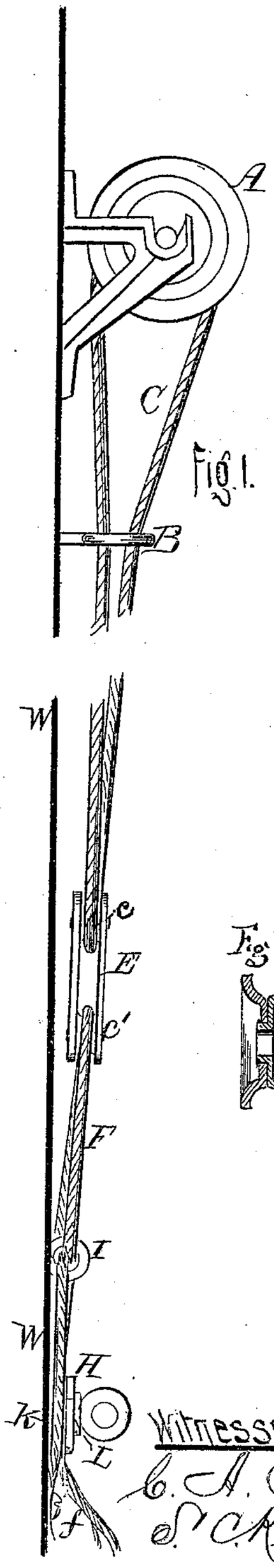


Fig. 1.

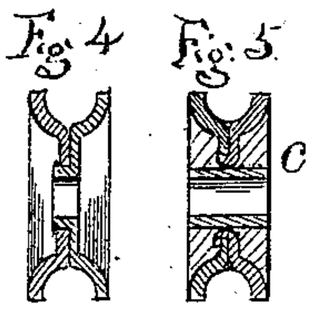


Fig. 2.

Fig. 4

Fig. 5.

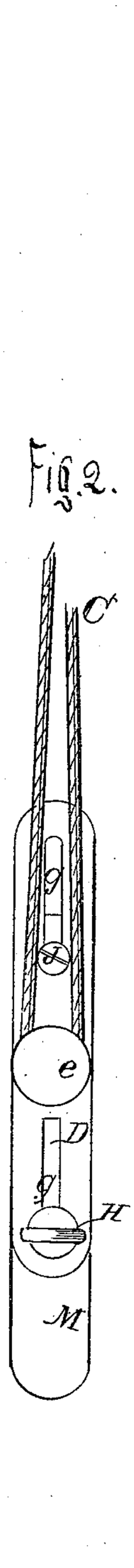
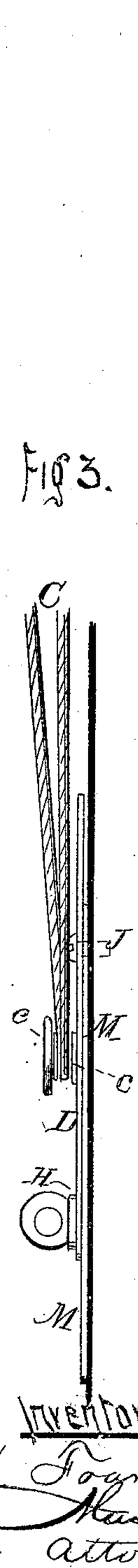


Fig. 3.



Witnesses:
C. A. Pettit
S. C. Kenyon

Inventor:
J. W. Foard
by Munn & Co
attorneys

United States Patent Office.

J. W. FOARD, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 92,812, *dated July* 20, 1869.

IMPROVED CURTAIN-FIXTURE.

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, J. W. FOARD, of the city and county of San Francisco, and State of California, have invented a new and improved Window-Shade and Curtain-Fixture; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view, and

Figure 2 is a front view of the regulating-device.

Figure 3 is a side view, and

Figure 4 is a sectional elevation of the common pulley; and

Figure 5 is a similar view of my improved pulley.

The object of this invention is to produce an improved device for adjusting the tension of the cords used in operating window-shades or blinds.

In the drawings—

A represents the curtain-roller;

C is the cord, by which it is operated; and

B is a guide to prevent the cord from running off of the sheave at the end of the roller.

The lower end of the cord passes round a sheave, *c*, which is supported upon a plate, D, figs. 2 and 3, or in a frame, E, fig. 1, which is capable of sliding or moving up and down, so as to loosen or tighten the cord.

The plate, or frame which supports the sheave *c*, is, by means of another cord, F, or the sliding plate D, connected to a screw-clamp, H, by which it can be fixed at any height, so as to adjust the tension of cord C at pleasure, and maintain it at that degree for any length of time.

When a cord, F, is used to connect the screw-clamp to the adjusting-pulley *c*, as shown in fig. 1, one end of such cord is to be fastened to the window-casing at *f*.

From that point the cord is, preferably, to pass upward, through a guide, I; thence around a pulley, *c'*, at the lower end of frame E; thence down through guide I again, and thence down between two disks, K L, the former of which is attached to the window-casing W, and the latter of which can be clamped firmly against the former by means of the thumb-screw H.

When the sliding plate is used to connect the screw-clamp to the adjusting-pulley, as shown in figs. 2 and 3, a smooth metal plate, M, or two washers, are interposed between it and the window-casing, to avoid defacing the latter.

The sheave *c* is supported upon the sliding plate, and the latter is slotted, as shown at *g g'*, and connected to plate M, by means of the thumb-screw H, and a small headed guide-pin, J, so as to be capable of sliding up and down the length of the slots *g g'*.

By loosening the screw H, the plate D can be moved vertically to the required position, in which it can be instantaneously fixed, by a turn of the screw, in the opposite direction.

In order to enable the operator more conveniently to move the plate D up and down, the outer end of the spindle, which attaches the sheave *c* to the plate, is provided with a thumb-piece, *e*.

The disks L, figs. 1, 2, 3, may work loosely on the screw-stem H, or not, as preferred, and one or more may be employed on each or either side of the cord F or plate D, they operating, in such case, as washers, to prevent the wearing of the cord or plate.

The sheaves, or pulleys *c* are formed differently from those heretofore employed for a similar purpose.

Instead of a pulley struck up from sheet-metal, in such a manner as to have a sharp central ridge for the bearing-surface, in contact with the supporting-pin, or spindle, as shown in fig. 4, I employ a pulley formed as described, but provided additionally with a hollow cylindrical bearing, inserted into its central opening, and soldered there, as shown in fig. 5, so that the bearing-surface is not a sharp edge, which soon cuts into the supporting-pin, and interferes with the operation of the pulley, but a smooth, continuous, concave surface, extending from one end of the central opening of the pulley to the other, and having no tendency to cut into the pin.

The thumb-screw H, and also the guide-screw J, may be screwed directly into the wood of the window-casing, instead of being screwed into a plate, M, if preferred.

In case the plate M is employed, as shown in figs. 2 and 3, it need not be attached to the window-casing, except by the screws H J.

The function of plate M being solely to protect the wood from being defaced or worn by the sliding plate, it is evident that washers around screws H J, interposed between the plate D and the window-casing, to separate them, would be a mere equivalent, and might be employed, if preferred.

The whole device is simple, inexpensive, easily adjusted and operated, not liable to get out of repair, neat and ornamental in appearance, and capable of being readily applied and used in connection with any kind of roller.

Having thus described my invention,

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

1. The curtain-fastening, consisting of the sheave *c*, supported upon a movable frame, E, the screw-clamp H, for fixing the sheave at any required height, and the connecting-cord F, that extends from the sheave to the screw-clamp, all constructed to operate together, substantially in the manner and for the purpose set forth.

2. The construction of the pulley, or sheave *c*, as herein described and for the purpose specified.

J. W. FOARD.

Witnesses:

P. H. BELLINGALL,

T. W. SCOTT.