J. H. STROTHMAN.

CURTAIN-FIXTURES.

No. 188,551. Patented March 20, 1877.

Fig. 1.

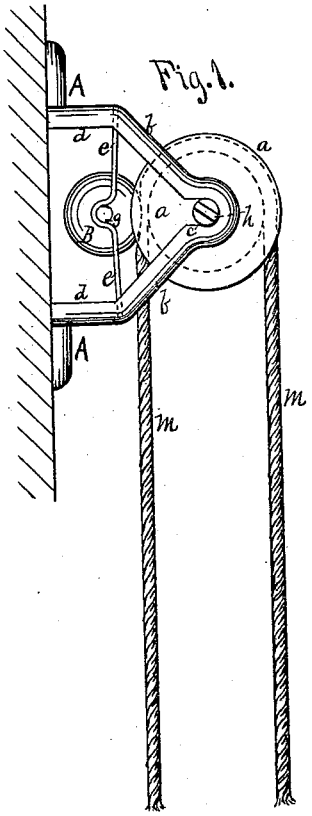


Fig. 2.

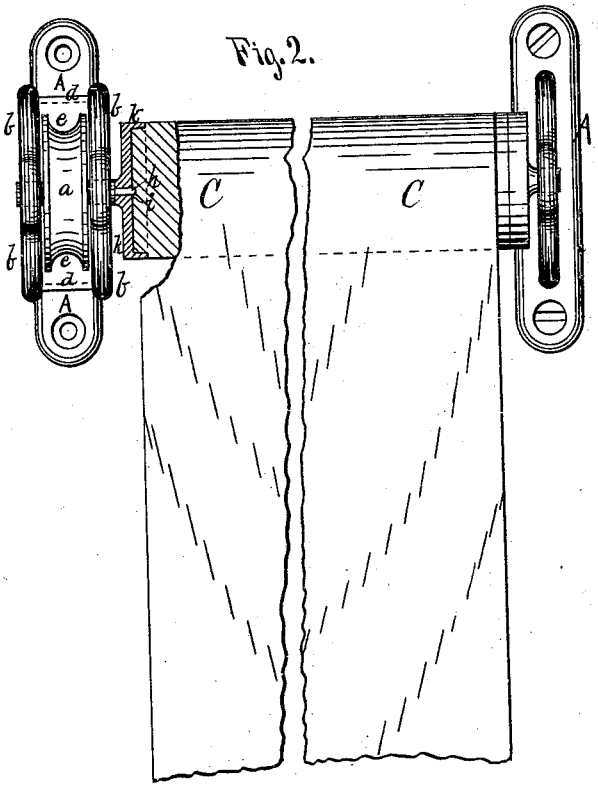


Fig. 3.

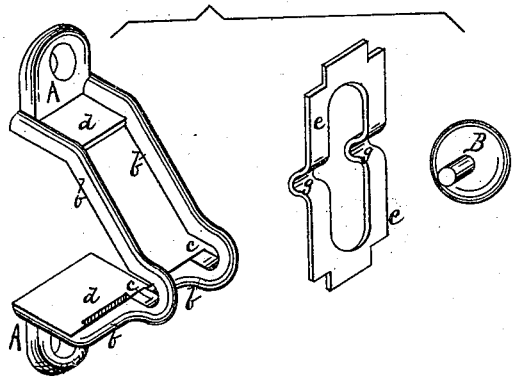
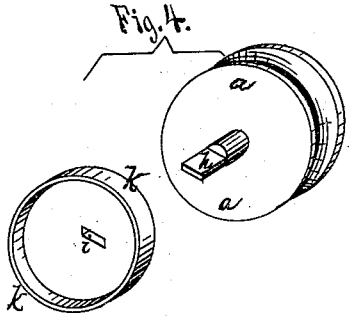


Fig. 4.



Witnesses.
C. N. Woodward
John T. Halsted.

John H. Strothman
Inventor, By
Louis Fesser, Hes.
Attys.

UNITED STATES PATENT OFFICE.

JOHN H. STROTHMAN, OF MINNEAPOLIS, MINNESOTA.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **188,551**, dated March 20, 1877; application filed January 18, 1877.

To all whom it may concern:

Be it known that I, JOHN H. STROTHMAN, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and useful Improvement in Window-Shade Fixtures, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is an end view, and Fig. 2 is a front view, of a window-curtain, showing my improvements applied thereto. Figs. 3 and 4 are perspective views of the several parts detached.

The object of my invention is to furnish a device by which a curtain may be held in any desired position by the use of a friction-roller applied to the cord-pulley.

In the drawings, A is a hanger, in which the cord-pulley *a* is suspended, and is formed of two side frames, *b b*, having cavities or bearings *c c* for the axles of the cord-pulley, and flat webs or plates *d d* connecting the frames *b b* together, forming bearings for a flat spring-plate, *e*, having semicircular cavities or bearings *g g*, in which the axle of the friction-roller B sets. This friction-pulley is made of rubber or its equivalent, and with its periphery rounded to fit the groove in the cord-pulley *a*, against which it is held by the spring of the plate *e*.

One end of the axle of the cord-pulley *a* is extended, as shown at *h*, in an oblong or square form, and fits into a similar-shaped socket, *i* in the ferrule *k* on the end of the roller C. (See Figs. 2 and 4.)

By this means the roller and curtain may be readily removed at any time without in any manner disturbing the cord-pulley or its attachments.

This is a very important feature of my invention, as it does away with the difficulty often found to exist in ordinary fixtures—viz., the necessity of rearranging the cord every time the curtain is removed.

The relative positions of the sockets *i* and pin *h* may be reversed, if desired; but I prefer it arranged as shown.

The operation is as follows: One end of a cord, *m*, is passed over the pulley *a*, and forced down between it and the friction-pulley B, and thence downward until it is low enough to be reached from the floor. Then, by simply pulling upon the cord, the curtain may be raised or lowered, and the friction-pulley will hold the roller C in any position desired.

The two ends of the cord *m* may be fastened together, or a stationary pulley or grooved wheel may be secured to the casing, to hold the cord and prevent it becoming entangled; but this is not necessary to its perfect working.

The friction-roller B will be made sufficiently elastic to allow any small irregularities in the cord to pass beneath it without disturbing it, while the spring-plate *e* will be just stiff enough to hold it in place.

The friction-roller may also be grooved slightly to fit the cord, if desired.

I am acquainted with the patent of T. C. Richards, March 4, 1862, No. 34,593, which shows a friction-roller of metal, with notches in its periphery; but I do not claim any novelty in the friction-roller itself, but confine my claim to my peculiar devices for holding the roller in place and rendering it operative.

I also claim a great advantage in the use of rubber for the roller, as its elasticity will, as before stated, allow it to press upon the cord *m* under all circumstances, whether it is regular or irregular.

It will also act much more quickly, and with less wear upon the cord, than the metal roller.

I am also acquainted with the patent of Isaac W. Heysinger, October 24, 1876, No. 183,668—curtain-fixtures—which shows a square or angular pin secured to a stationary bracket, and fitting into a cavity in a spring-roller; but he does not use a cord-pulley in any manner.

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

1. The combination and arrangement of the hanger A *b b'*, spring-plate *e*, friction-roller B, and cord-pulley *a*, arranged and operated substantially as hereinbefore specified.

2. The spring-plate *e*, arranged as de-

scribed, and friction-roller B, in combination with the cord-pulley *a*, as hereinbefore set forth.

3. The cord-pulley *a*, having the square or angular-shaped axle *h*, in combination with the curtain-roller C and socket *i*, arranged and operating substantially as hereinbefore described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN H. STROTHMAN.

Witnesses:
C. N. WOODWARD,
JOHN T. HALSTED.