G. C. MATHERS.

CURTAIN-FIXTURE.

No. 169,822. Patented Nov. 9, 1875.

Fig. 1.

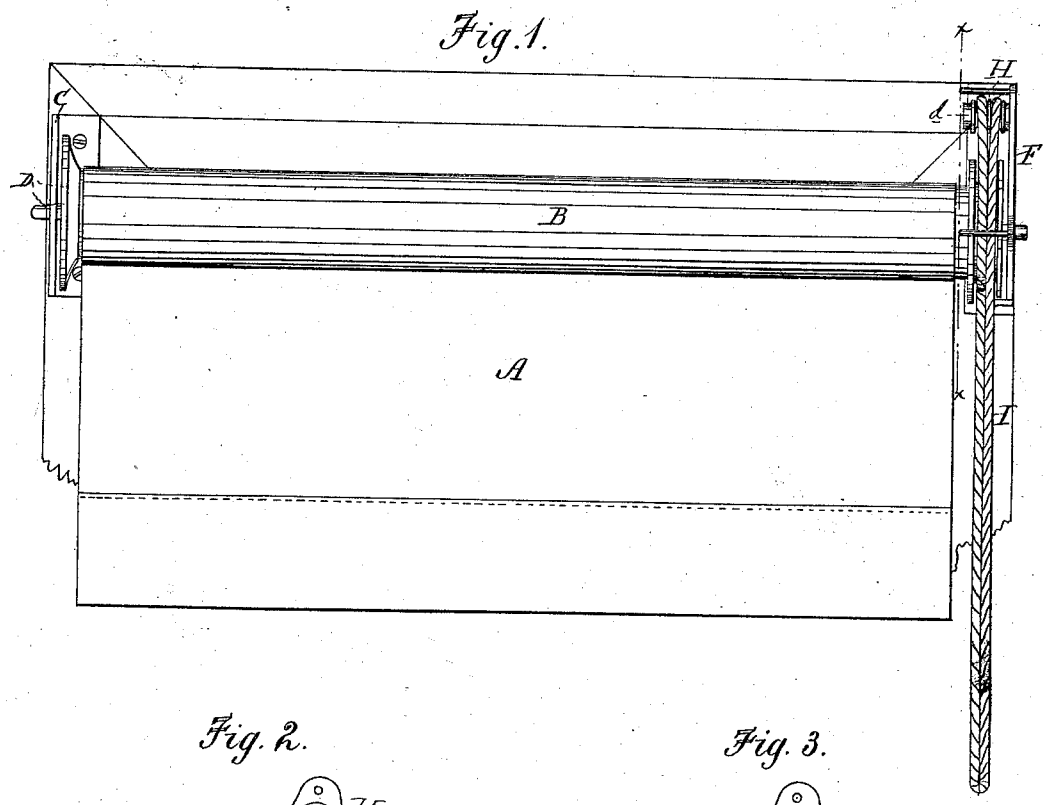


Fig. 2.

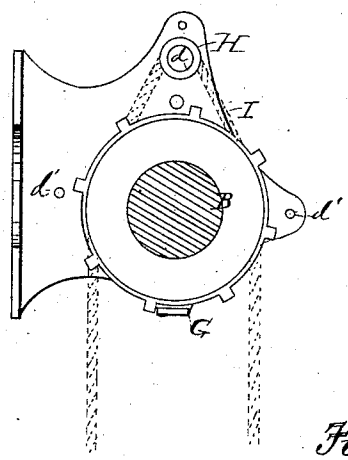


Fig. 3.

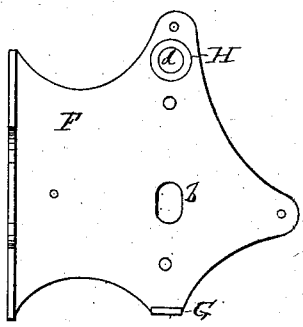
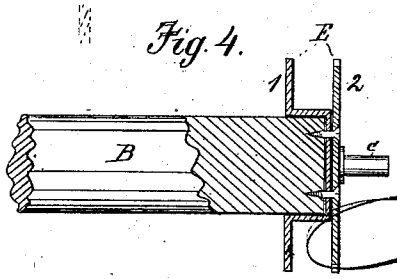


Fig. 4.



WITNESSES:

W. W. Hollingsworth

W. H. Hannah

INVENTOR:

Geo. C. Mathers

BY

Munn & Co

ATTORNEYS.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE C. MATHERS, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **169,822**, dated November 9, 1875; application filed August 12, 1875.

To all whom it may concern:

Be it known that I, GEORGE C. MATHERS, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and Improved Curtain-Fixture; 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 elevation of the curtain-fixture as seen when attached to the window-frame; Fig. 2, a sectional detail view through line *x x;* Fig. 3, a detail view of the bracket, showing the arrangement of pulleys or wheels. Fig. 4 is a detail sectional view, showing the construction of the "roller end" or cord-pulley which is secured to the roller.

This invention relates to an improvement upon the curtain-fixture for which I obtained Letters Patent No. 159,944, dated February 16, 1875; and it consists in arranging the bracket, cord-wheels, or pulleys on an axis above the notched disk, whereby I reduce the cost of the fixture, and secure certain advantages in respect to the arrangement of the operating-cord.

In the drawing, A represents a window curtain or shade adapted to be wound upon a rod or roller, B, in the usual way. Said rod has at one end a cap, D, provided with a stud, which rests in the ordinary open bearing in the bracket C, attached to the window-frame. E is the roller end, which is composed of the flanged or hat-shaped part 1, and the notched disk 2. The socket or cavity of part 1 adapts it to receive the end of the roller B, as shown, and the disk 2 is then applied in contact with the outer side of part 1, and both are secured by screws passing through coincident holes. F is the bracket, which has a vertical slot, *b*, to receive the stud *c*, which forms the journal of the disk. G is a detent or pawl, which is formed in one piece with the bracket, and engages, when the journal of the disk is in the lower portion of its bearing, with the notches upon the said disk, for the purpose of holding the rod rigid and the curtain in place. H H are small friction wheels or pulleys, which are mounted upon a stud, *d*, attached to a vertical extension of the bracket above the disk. The endless cord I is looped around said disk, and passes to the right and left over the wheels H, and down on each side of the grooved disk. The cord is maintained in its position upon the wheels H, and in the groove of the roller end, by means of the pins *d'*.

The operation is as follows: When the cord is pulled, and thereby tightened, the vertically-drawing loop, which it forms around the roller end, brings the journal of the disk in the upper portion of the slot *b*, in which position the notches of the disk are out of the range of the detent, and the curtain may be either raised or lowered by pulling, respectively, either one side or the other of the endless cord. When the curtain is in the right position the ring is released, and the journal of the disk recedes to its former position at the bottom of the slot, and the notches engage the detent to hold it stationary.

The above-described arrangement of the friction-wheels enables me to reduce the size of the bracket, and dispense with one of the studs or axles previously employed, thus reducing the cost of the fixture, and the operating-cord is also brought nearer the wall or casing, to which the bracket is attached, thus materially improving the appearance and efficiency of the fixture when in use, since the bracket does not project laterally so much as before, and the cord extends downward in a nearly-vertical line with the axis of the roller, so that when a pull is given the traction is in the same vertical direction. The slot or bearing for the roller-journal being vertical, the roller descends (after being raised) by a quicker and more positive movement than when the slot is horizontal. Hence, the notched disk is more quickly and securely locked with its pawl or stop.

As an alternative construction, I may employ, in place of the wheels H, a stud or bar having holes, through which to pass the cord. In such case the holes will be countersunk to lessen the friction and wear of the cord; or I may employ a triple-flanged wheel, H, in place

of the two separate or independent ones above described.

What I claim is—

As an improvement in curtain-fixtures above described, the combination, with the notched disk and the bracket, provided with a detent, and having the vertical slot, of the cord-wheels H, arranged above said disk, and both mounted on the same axis, as and for the purposes set forth.

The above specification of my invention signed by me this 10th day of August, 1875.

GEORGE C. MATHERS.

Witnesses:

AMOS W. HART,

CHAS. A. PETTIT.