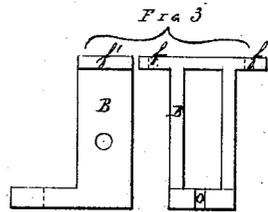
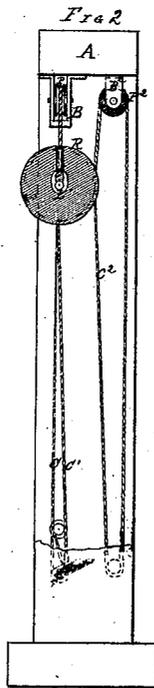
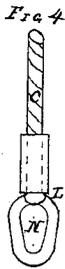
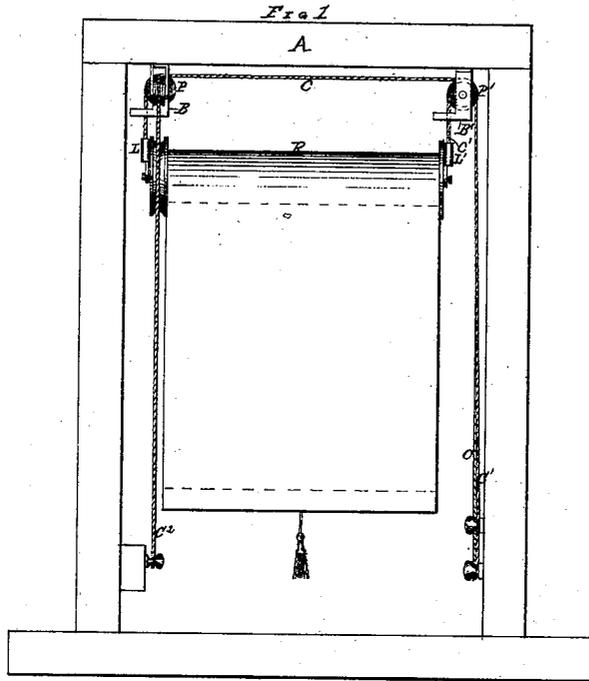


T. Stewart,

Curtain Fixture.

No. 109683.

Patented Nov. 29, 1870



Witnesses { Isaac R. Coffey
Geo. S. Nichols

Thomas Stewart } Inventor

United States Patent Office.

THOMAS STEWART, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 109,683, dated November 29, 1870.

IMPROVEMENT IN CURTAIN-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, THOMAS STEWART, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful "Improvement in Window-Shade-Fixtures;" 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 drawing and to the letters of reference marked thereon.

My invention applies to that style of window-shades where the roller on which the shade is wound can be lowered or raised at pleasure, in order to properly ventilate a room and keep out the rays of the sun.

To accomplish this I use three peculiarly-constructed brackets provided with pulleys, two of which are provided with guides, and carry the cords for suspending the roller, said cords being furnished with metallic links, the lower parts of which are flattened out and made with openings, in which the journals of the roller-ends turn.

Figure 1 is a front view of my invention applied to a window-frame.

Figure 2 is an edge view of same, with a portion of one of the uprights broken away in order to show an end view of the fixtures.

Figure 3 is a side and front view of one of the brackets used.

Figure 4 is a side view of one of the links, showing the end of one of the cords attached.

To enable those skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

Secured in the proper position to the upper part A of the window-frame are two brackets, B and B¹, which extend down, and have placed and revolving in them two pulleys, P and P¹.

The said brackets are each made with projections or flanges, *f* and *f'*, on their upper ends for attaching them to the frame; and their lower ends are extended out, and provided with a slot, O, fig. 3, through which the suspension-cords are passed and guided in raising and lowering the roller R.

Passing over each of the pulleys P and P¹ are two cords, C and C¹, the ends of which are attached to links, L and L¹.

The said links are made with their upper ends in the form of a tube, through which the end of the cord C or C¹ is passed and knotted, in order to prevent it from drawing out, and the lower ends flattened out

and formed with an opening, N, in which are placed the journals of the roller-ends. The opening N is made larger at the top than at the bottom, so as to allow the enlarged ends of the journals of the roller-ends to pass through and drop down, where they are retained by the weight of the roller and curtain.

Immediately in front of the bracket B is placed and secured a bracket, B², provided with flanges similar to brackets B and B¹.

In said bracket is placed a pulley, P², over which passes an endless cord, C². This cord is then passed down and takes one turn around the grooved roller-end, and thence goes down and passes over an ordinary shade-bracket secured to the side of the window-frame.

The cords C and C¹, which pass over the pulleys P and P¹ and support the roller R, extend down on the opposite side of the window-frame, (from where the cord C² is attached,) and are united and wound over knobs fastened to the side of the window-frame.

The operation of a window-shade arranged on fixtures of this construction is as follows:

The roller R is lowered, by means of the cords C and C¹, as far down as the window-sill, if desired; and as the roller is lowered the curtain or shade will be wound around it, owing to the revolving of the roller during its passage downward, which is caused by the single turn of the cord C² over grooved roller-end.

If desired, the curtain or shade can be raised and lowered, in the ordinary manner, by drawing upon the cords C and C¹, and keeping the roller up close to the brackets B and B¹, care being taken to secure the cords C and C¹ around the knobs on the window-frame.

Having thus described my invention,

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

The construction and arrangement of the brackets B and B¹, provided with flanges *f* and *f'*, openings O, and pulleys P and P¹, in combination with the bracket B², pulley P², roller R, and cords C, C¹, and C², so as to operate substantially in the manner and for the purpose specified.

In testimony whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

THOMAS STEWART.

Witnesses:

ISAAC R. OAKFORD.

FRANK STOUT.