No. 749,499. PATENTED JAN. 12, 1904.

W. P. POWELL.

CURTAIN HANGING.

APPLICATION FILED AUG. 5, 1903.

NO MODEL.

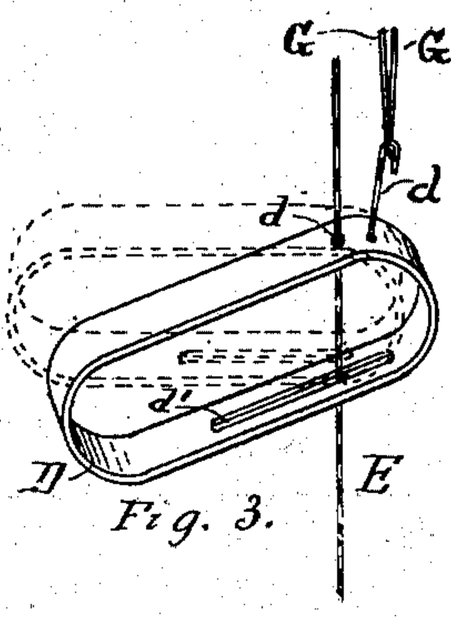


Fig. 3.

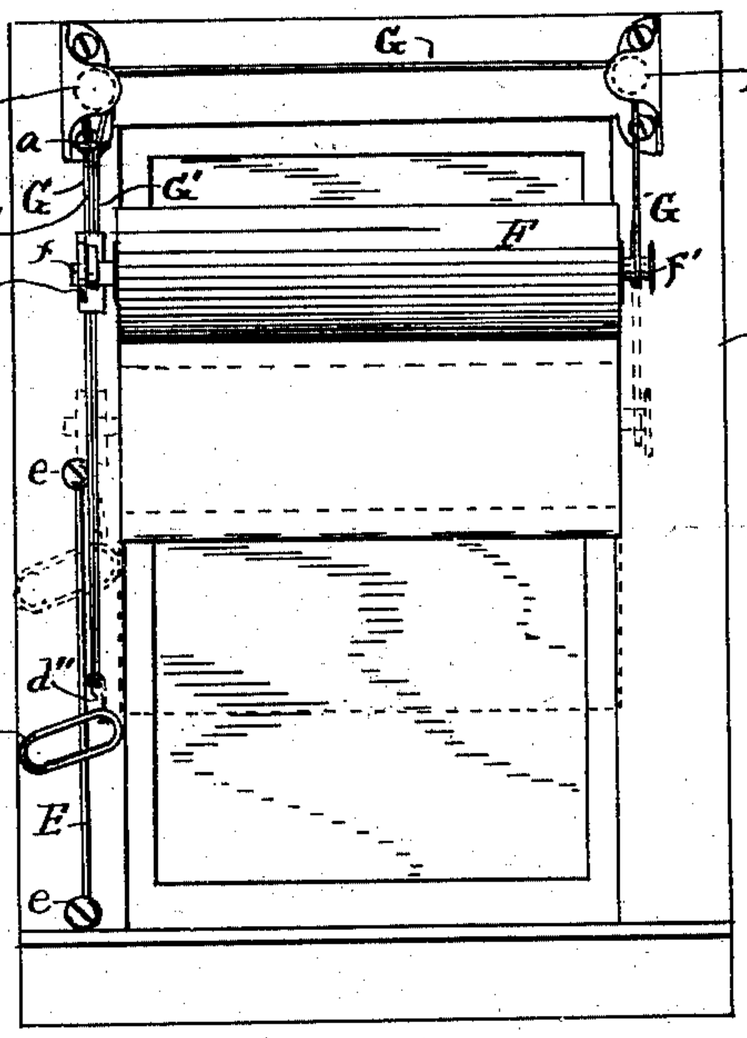
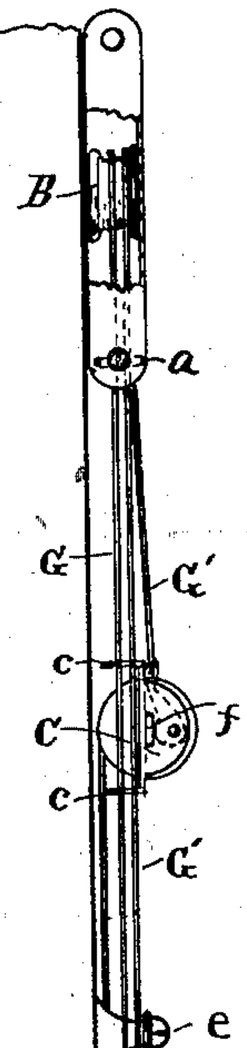


Fig. 1.



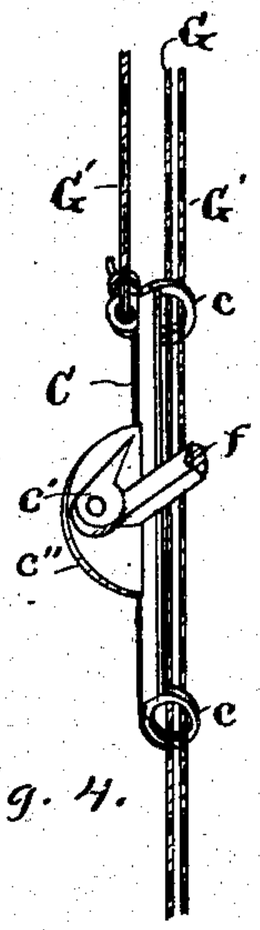


Fig. 4.

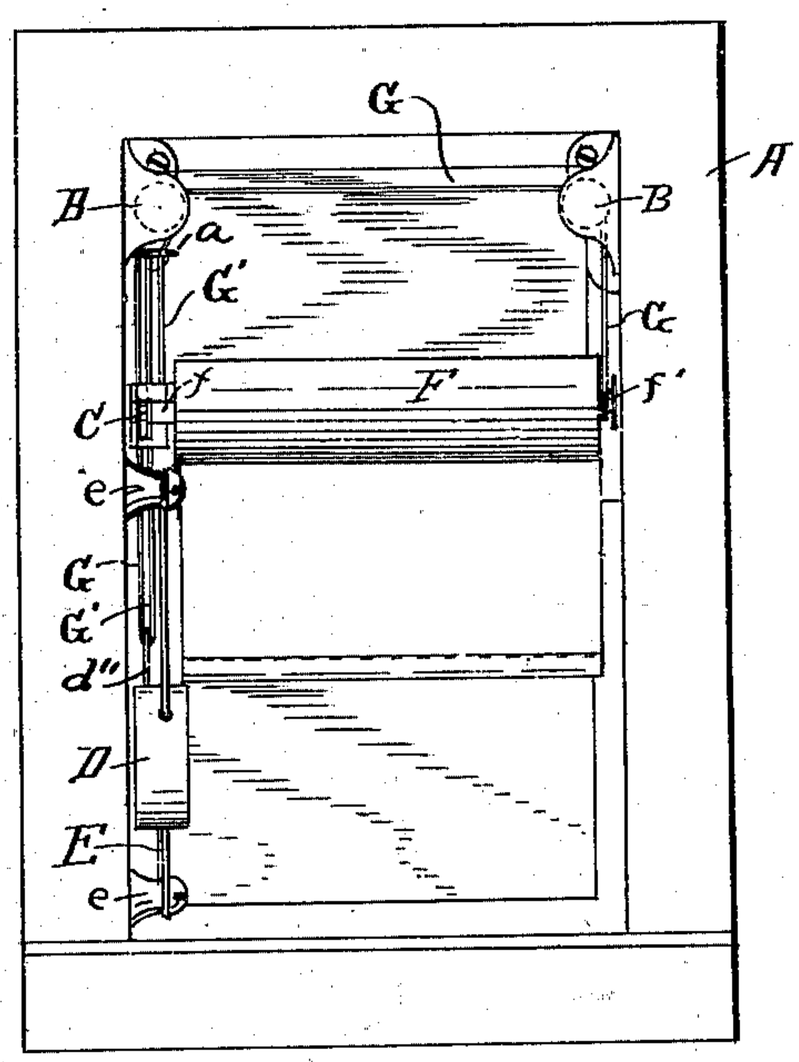


Fig. 2.

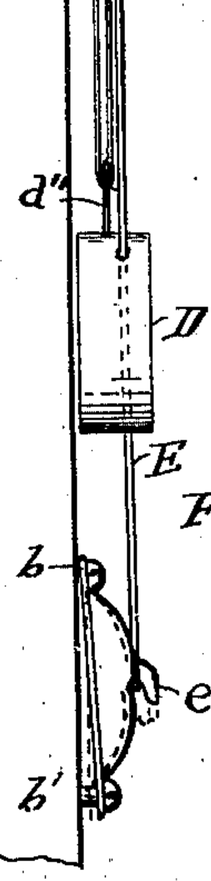


Fig. 5.

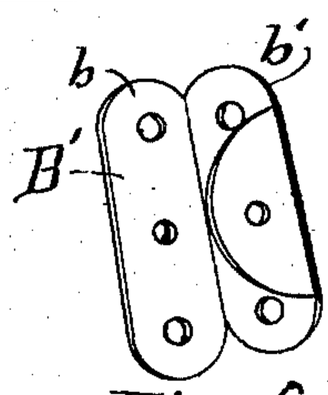


Fig. 6.

Witnesses

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No. 749,499. Patented January 12, 1904.

UNITED STATES PATENT OFFICE.

WILLIAM P. POWELL, OF GRAND RAPIDS, MICHIGAN.

CURTAIN-HANGING.

SPECIFICATION forming part of Letters Patent No. 749,499, dated January 12, 1904.

Application filed August 5, 1903. Serial No. 168,378. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. POWELL, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Curtain-Hangings, of which the following is a specification.

My invention relates to improvements in adjustable window-curtain hangings; and its objects are, first, to provide a means of threading the adjusting-cord whereby a curtain may be so supported and manipulated by a single cord that both ends of the curtain-roller will be made to move in perfect unison; second, to provide locking devices in the line of threading, wherewith the ratchet-pintle in the curtain-roller will be securely fastened; third, to provide a locking device and guide in the line of threading, wherewith the adjustment of the curtain-roller with a single cord may be conveniently and easily made and will be uniform, and, fourth, to provide a means whereby the threading of the adjusting-cord may be made either upon the surface of the window-casings or upon the surface of the jambs. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a window, showing the threading upon the surface of the casings. Fig. 2 is the same, showing the threading between the jambs. Fig. 3 is a perspective of the locking device by means of which the curtain roll and cords are supported and manipulated. Fig. 4 is a perspective of the locking device for attaching the adjusting-cords to the roller-pintle. Fig. 5 is an edge elevation of the entire threading system with the pulley-case cut away to show the threading over the pulley, and Fig. 6 is a perspective of the pulley-case.

Similar letters refer to similar parts throughout the several views.

A represents the casing of a window-frame.

B represents the pulley over which the adjusting-cords are threaded, and B′ represents the case in which it is supported. Ordinarily the case B′ is screwed to the face of the window-casing A, as shown in Fig. 1, one at each side of the window at the top of the casing, and for my system of threading I find it necessary to place a supporting-clamp, as D, and a guide, as E, upon the casing in position to receive the end of the manipulating-cord G. This clamp D is made in the form of a link, as shown, having a small aperture *d* through the upper side near one end and a corresponding slot *d′* through the other side so arranged that it will act as a guide upon the rod or wire E and the edge of the link will be held to position by coming in contact with the surface of the window-casing.

The rod or wire guide E is secured to the casing upon studs, as indicated at *e e*, and for the purpose of giving it the proper tension to engage properly with the clamp D, I prefer the use of a stud practically of the form shown at *e′* in Fig. 5, where the screw *b* may be screwed nearly to place and the screw *b′* left out a short distance, so that this end of the stud may stand away from and at an angle with the casing until the wire E is attached, when the screw can be screwed in and a strong tension given to the wire. I also find it necessary to have a reliable clamp attached to the revoluble roller-pintle *f*, and for this purpose I find the form shown in Fig. 4 the most practical. This clamp is formed with a body C, having a wall *c″* turned back at right angles therewith. This wall is provided with a small mortise for the end of the pintle *f* and has an eccentric *c′* pivoted to it in position to engage and firmly hold the pintle between it and the body C of the clamp, and I also form two annular guides *c*, one at each end, for the cords G and G′ to pass through. These guides have a double office—first, to hold the clamp in position upon the cords, and, second, to keep the cords in proper position and form.

My system of threading is as follows: Commencing at the pintle *f′*, to which the cord G is looped, the cord passes up over one pulley B, across, over, and down from the other pulley B, through the guides C to and around the link *d″*, which is attached to the clamp D, whence it bends back upon itself, forming a second strand, (marked G′,) which passes up over the pulley on this side of the window and down to and is attached to the clamp C, as indicated in Figs. 1, 2, and 5. That the parallel cords

G and G′ may be perfectly perpendicular and parallel, I place an annular guide *a* just below this pulley, through which the cords all thread. By use of these clamps in connection with this system of threading the cord I find that the raising and lowering of the curtain-roller is always uniform, holding the curtain at all times exactly parallel with the top or bottom of the window-frame. In manipulating the curtain with this system of threading if it is desired to lower the curtain all that is necessary is to raise the back end of the clamps D to the position indicated by the dotted lines in Fig. 3, when the wall of the clamp at the end of the slot *d′* will come in contact with the wire E, holding the clamp at a right angle with the wire and allowing it to be easily drawn up by the weight of the curtain, or if it is desired to raise the curtain the cords G G′ may be grasped near where they are attached to the link *d″* and pulled down gently, when the clamp will slide down upon the wire.

For making the pulley-support B′ applicable to attachment either upon the face of the window-casing, as in Fig. 1, or the jambs, as in Fig. 2, I form them with two bearing sides *b b′*, the one to receive screws passing into the casing and the other into the jambs.

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

1. In an adjustable curtain-hanging, supporting-pulleys, a clamp having a body, a right-angle wall having a mortise, an eccentric thereon, and guides for the cord, a guide-wire, a clamping-link thereon having an aperture through one side, a slot through the other side and a link connected therewith, a curtain-roller and pintles; in combination with a cord threaded from the pintle *f′* over the pulleys, through the guide on the pintle-clamps down and through the link on the clamp D, thence up through the guides on the pintle-clamp to and over the pulley and back to and attached to the pintle-clamp, substantially as and for the purpose set forth.

2. In combination with a curtain-roller having a fixed and a revoluble pintle, and supporting-pulleys, a pintle-clamp having guides, a main clamp consisting of a link having a small aperture through one side a slot through the other side, and a connecting-link, and a rod carrying the same, with a cord passing from the fixed pintle over the pulleys, thence down to and through the link, thence up over the pulley and down to the pintle-clamp, substantially as and for the purpose set forth.

3. In combination with a window-frame, a curtain-roller having a fixed and a revoluble pintle, adjustable supporting-pulleys on the frame and a pintle-clamp, a main clamp consisting of a flat link having small aperture through one side near the end, a slot through the other side, and a link, a rod passing through said slot and aperture and secured to the window-frame, and an adjustable post connected therewith and with the window-frame, with a cord attached to the fixed pintle, thence passing over the pulleys, down to and through the link *d″*, thence up over the pulley and back down to and secured to the pintle-clamp, substantially as and for the purpose set forth.

Signed at Grand Rapids, Michigan, August 3, 1903.

WILLIAM P. POWELL.

In presence of—
URL CILLEY,
ITHIEL J. CILLEY.