

(No Model.)

P. GOLDMANN.

DEVICE FOR ADJUSTING WINDOW SHADES, &c.

No. 521,408.

Patented June 12, 1894.

Fig. 1.

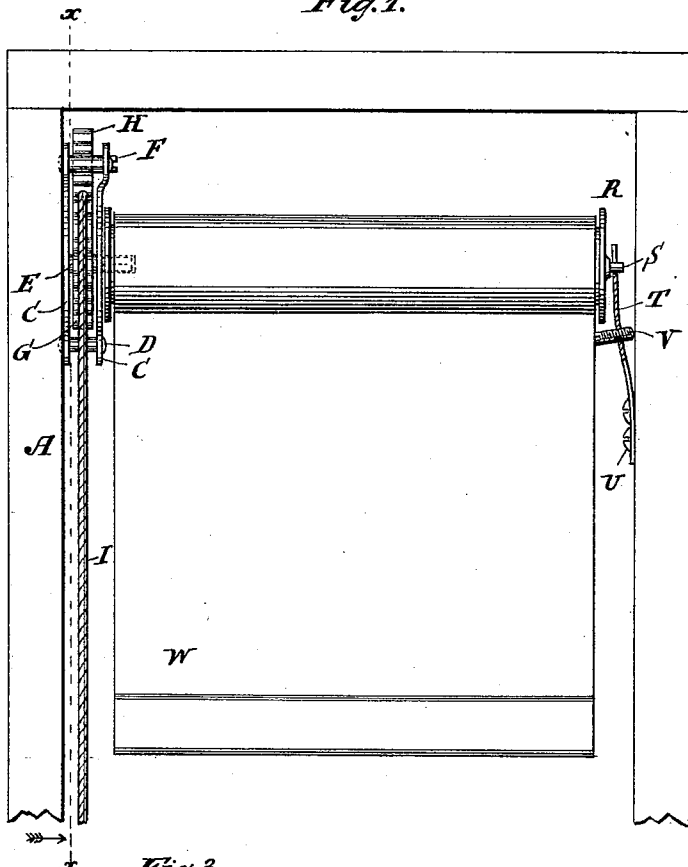


Fig. 2.

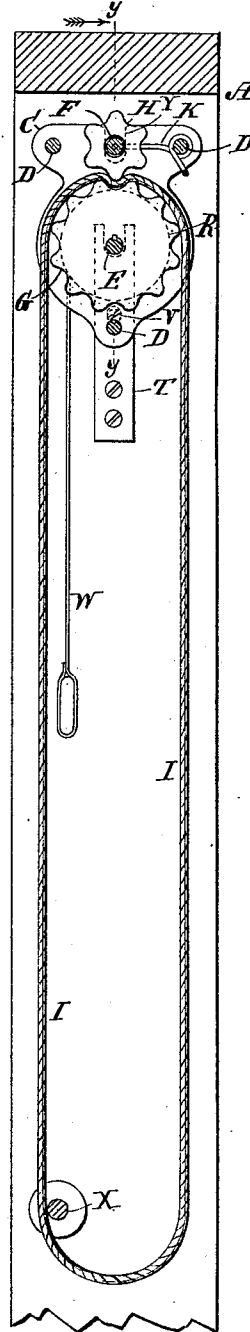


Fig. 3.

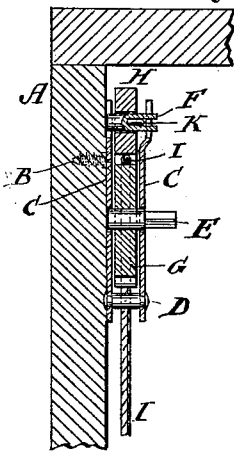
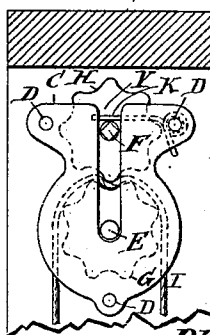


Fig. 4.



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DEVICE FOR ADJUSTING WINDOW-SHADES, &c.

SPECIFICATION forming part of Letters Patent No. 521,408, dated June 12, 1894.

Application filed January 4, 1894. Serial No. 495,608. (No model.)

To all whom it may concern:

Be it known that I, PHILIPP GOLDMANN, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Devices for Actuating Rollers of Window-Shades and other Articles, of which the following is a specification.

The object of this invention is to provide a device which while serving to actuate the roller of a window shade or other article can leave said roller free to be readily removed and replaced, a further object of the invention being to make said device simple and reliable in its operation and readily capable of being put into place or removed, and the invention consists in the novel features set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is an edge elevation of the device. Fig. 2 is a section along $x x$ Fig. 1. Fig. 3 is a section along $y y$ Fig. 2. Fig. 4 is a side elevation of a modification.

To a suitable support as a window frame A is secured by suitable fastenings or screws as B a casing or frame plates C C. The fastenings B can be extended through one or both the frame plates C, the latter being secured together by fastenings or rivets D or otherwise suitably clamped or connected so that said plates C with their contained mechanism will remain together. Said frame C C can be made of compact form so as to occupy but little space and be easy of attachment or removal wherever required.

In the frame C C are journaled the shafts E F of the toothed or gear wheels G H and a loop or cord I is interposed between said wheels so that by moving said cord one way or another the wheels and shafts will be correspondingly rotated. One of the wheels as H is movable toward and from the other wheel and is held toward said other wheel by the pressure of a spring K. In Figs. 1 to 3 the shaft F of the wheel H is journaled in a slotted or forked part of frame C C so as to allow of the play of wheel H, and the spring K is shown secured or braced against a suitable part or parts of frame C C.

One of the shafts as shaft E is shown pro-

vided with an angular end or engaging part adapted to slip into or engage a corresponding recess or part in a roller or transmitting mechanism R so that the rotations of shaft E will be communicated to roller R. The stud S of roller R is shown supported by a suitable bearing or forked arm T screwed or secured at U to frame A. The screw V in arm T can be actuated or set more or less toward frame A so as to set the free end of arm T more or less toward frame C C as required by the length of roller R. Said roller can be used for the attachment of any suitable object W to be raised or lowered such as a curtain, rolling blind or other article.

Should it be desired to set the roller R higher up than in Fig. 1 it is manifest that by forming the end of shaft F as in Fig. 4 with an engaging portion similar to shaft E and elevating the bearing T the roller R can be elevated and rotated in its elevated position. Such change of parts is self evident and needs no description.

The cord or loop I enables the wheels G H to be readily rotated, said cord as seen in Fig. 2 bending or adapting itself to the teeth of the wheels, and the spring K enables sufficient tension or friction to be obtained so that the curtain or article W will remain at any position to which it is set and will not drop or unroll until the cord I or wheels G H are actuated. The roller R being independent of or detachably secured to the driving mechanism as described, said roller is not exposed to strain by the cord or loop I and said roller can be readily dismantled and replaced without disturbing the casing C or its contained parts with cord I. The roller R can thus not only be readily removed as for example when windows are to be washed, but if said roller should at any time work loose or become unsteady, the cord I will not be thereby effected. The casing C is so narrow as to keep the cord I interposed between the wheels G H thus avoiding the liability of the cord working out of place or getting jammed between a wheel and a side of the casing or housing C. A guide pin or roller X can be applied to prevent the loop or cord I from twisting and also enabling the wheels G H to be rotated in either direction by working or moving only

one side or leg of the loop, and said guide X can be applied so as to tighten the loop or to allow the latter to hang slack as desired.

The wheels G H instead of being toothed gears might be made as friction gears, but I prefer the toothed gear wheels shown. The casing with its contained wheels being one compact mechanism, the cord or loop will be kept in its position even if the wheels are only friction or smooth gears. In the case of friction or smooth gears I prefer winding the cord or loop once or more about one of the wheels so as to prevent slipping or lost motion of the loop.

In Fig. 2 the axle F of wheel H is shown seated in a slot Y in casing C while the axle E turns in perforations or eyes in said casing but as seen in Fig. 4 said slot Y can be lengthened and the axle E journaled at the bottom of said slot while the axle F plays in the upper part of said slot.

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

1. A casing or frame provided with gear wheels having their journals mounted directly in the casing, and an actuating loop or cord interposed between the wheels, one of said wheels having its journal provided with an angular end to detachably engage a roller or transmitting mechanism, substantially as described.

2. A casing or frame provided with gear wheels having their journals mounted directly in the casing, and an actuating loop or cord interposed between the wheels, one of said

wheels having a short shaft provided with an angular end to engage a roller or transmitting mechanism and said frame being made to sit close to the wheels to retain the cord in place, substantially as described.

3. A casing or frame provided with gear wheels having their journals mounted directly in the casing, and an actuating loop or cord interposed between the wheels, one of said wheels having its journal provided with an angular portion to detachably engage a roller or transmitting mechanism, and one of said wheels being movable toward and from the other wheel and exposed to a yielding or spring pressure, substantially as described.

4. A casing or frame provided with gear wheels, and an actuating loop or cord interposed between the wheels, one of said wheels having its journal provided with an angular portion to engage a roller or transmitting mechanism, combined with a setting device for holding the roller in engagement with said wheel, said setting device consisting of an arm fixed at one end and having a set-screw intermediate its ends which serves to adjust the free end of the arm, substantially as described.

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

PHILIPP GOLDMANN.

Witnesses:

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