

(No Model.)

2 Sheets—Sheet 1.

J. DARLING.
CURTAIN FIXTURE.

No. 556,255.

Patented Mar. 10, 1896.

Fig. 1.

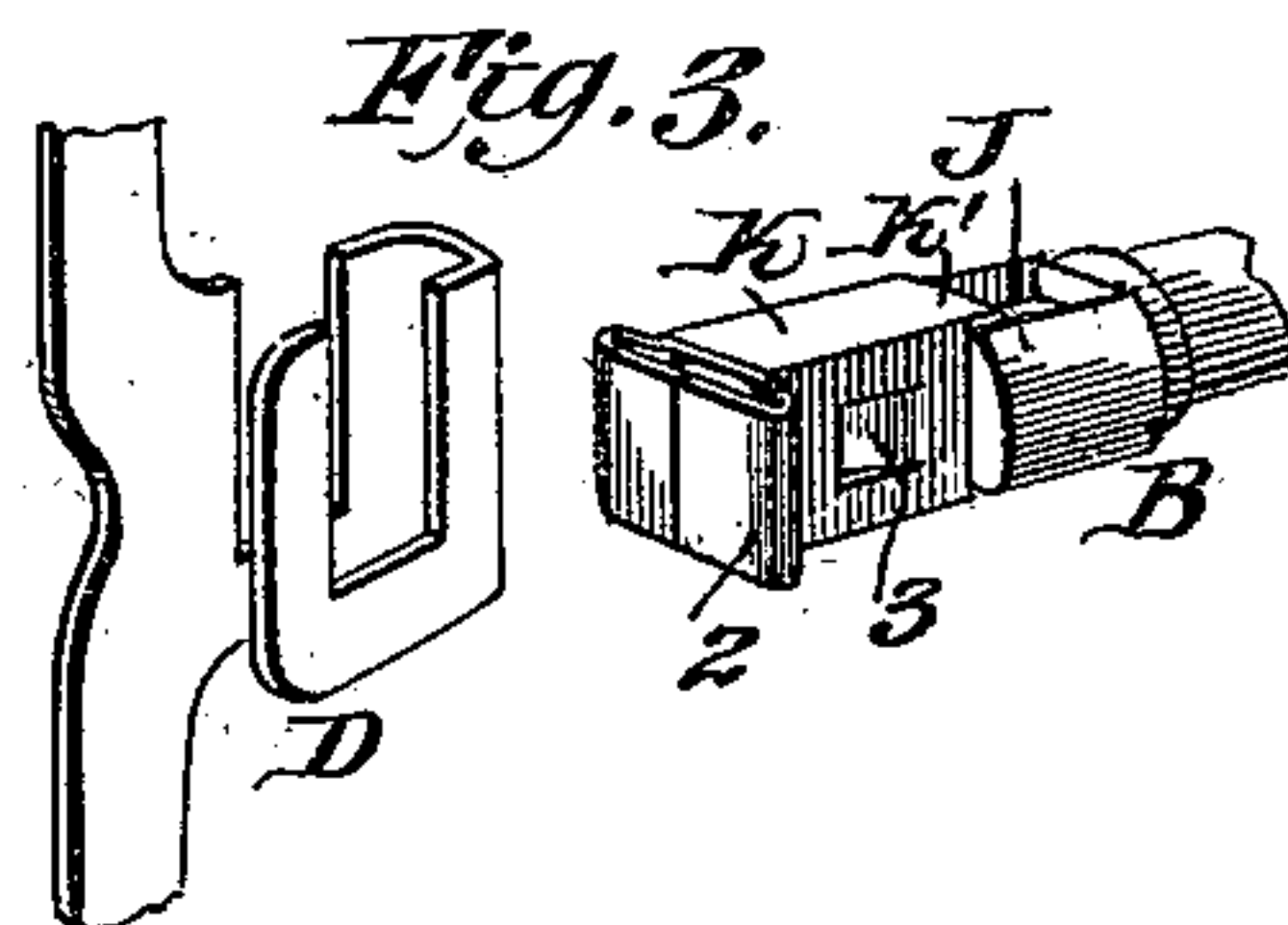
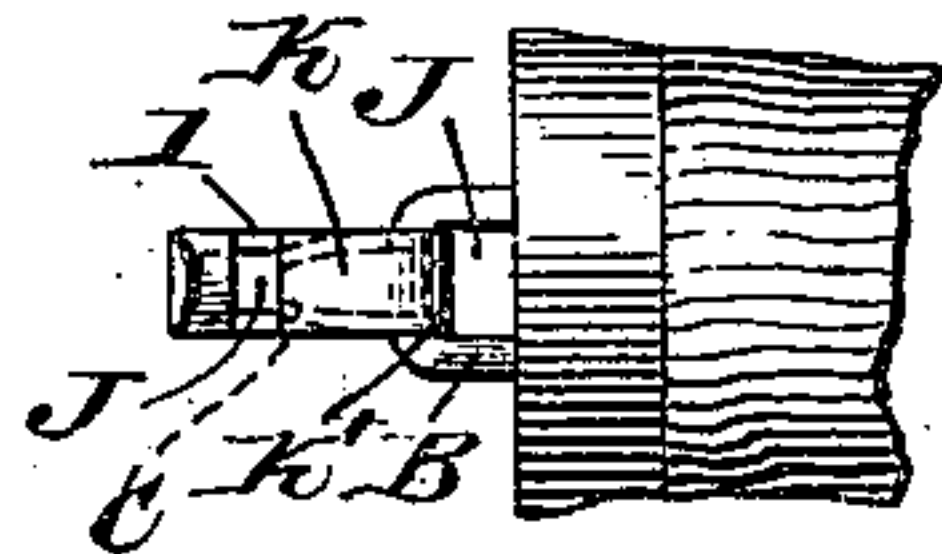
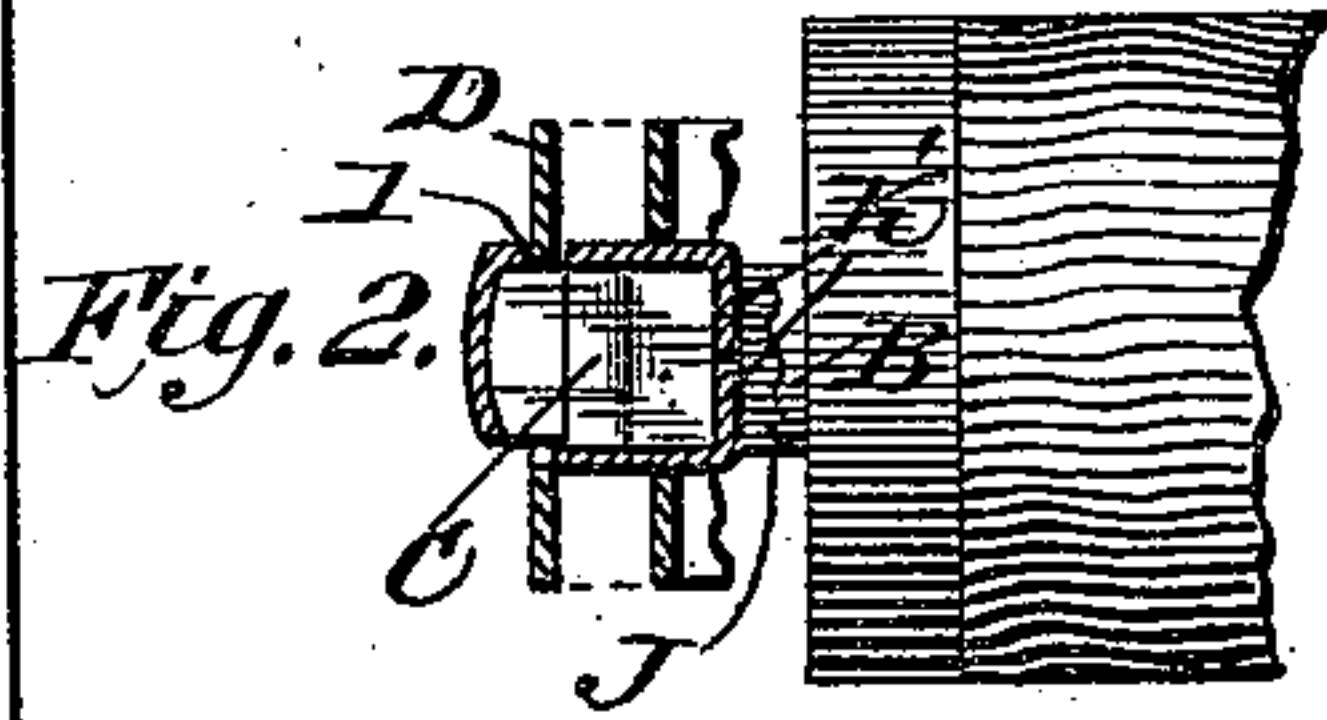
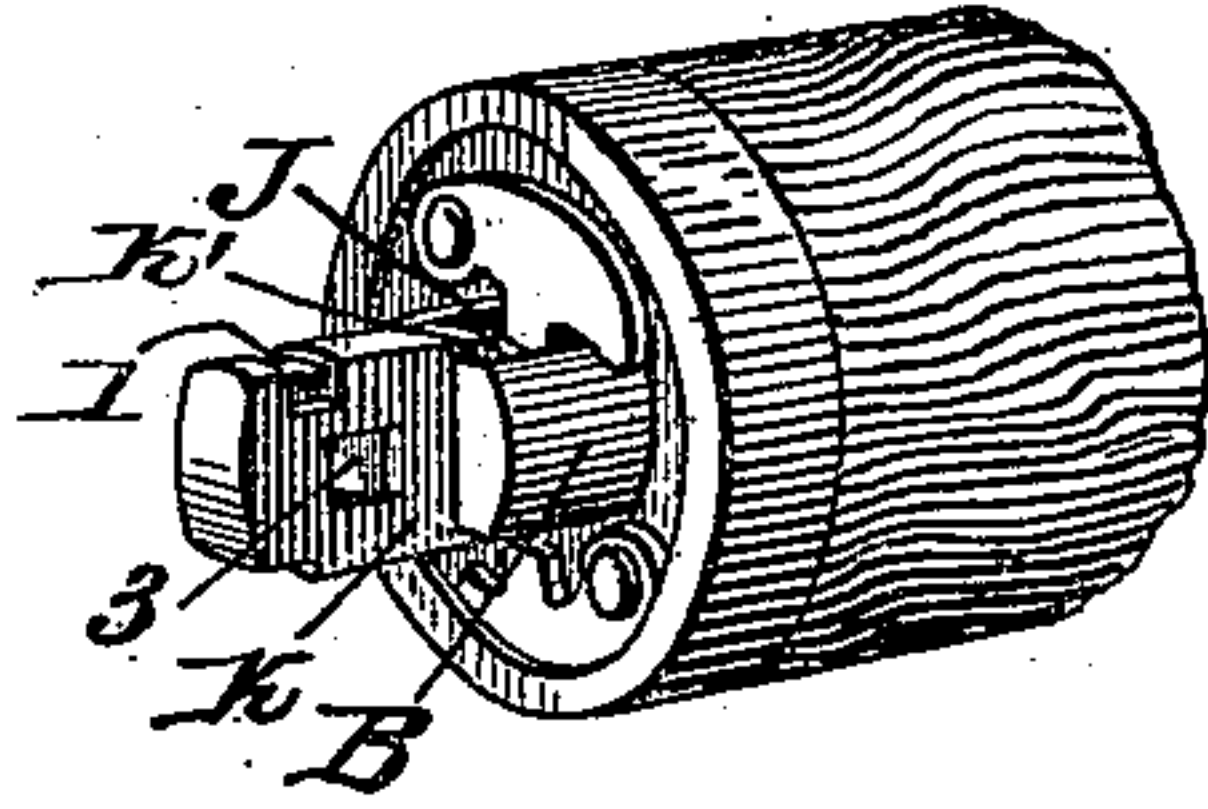
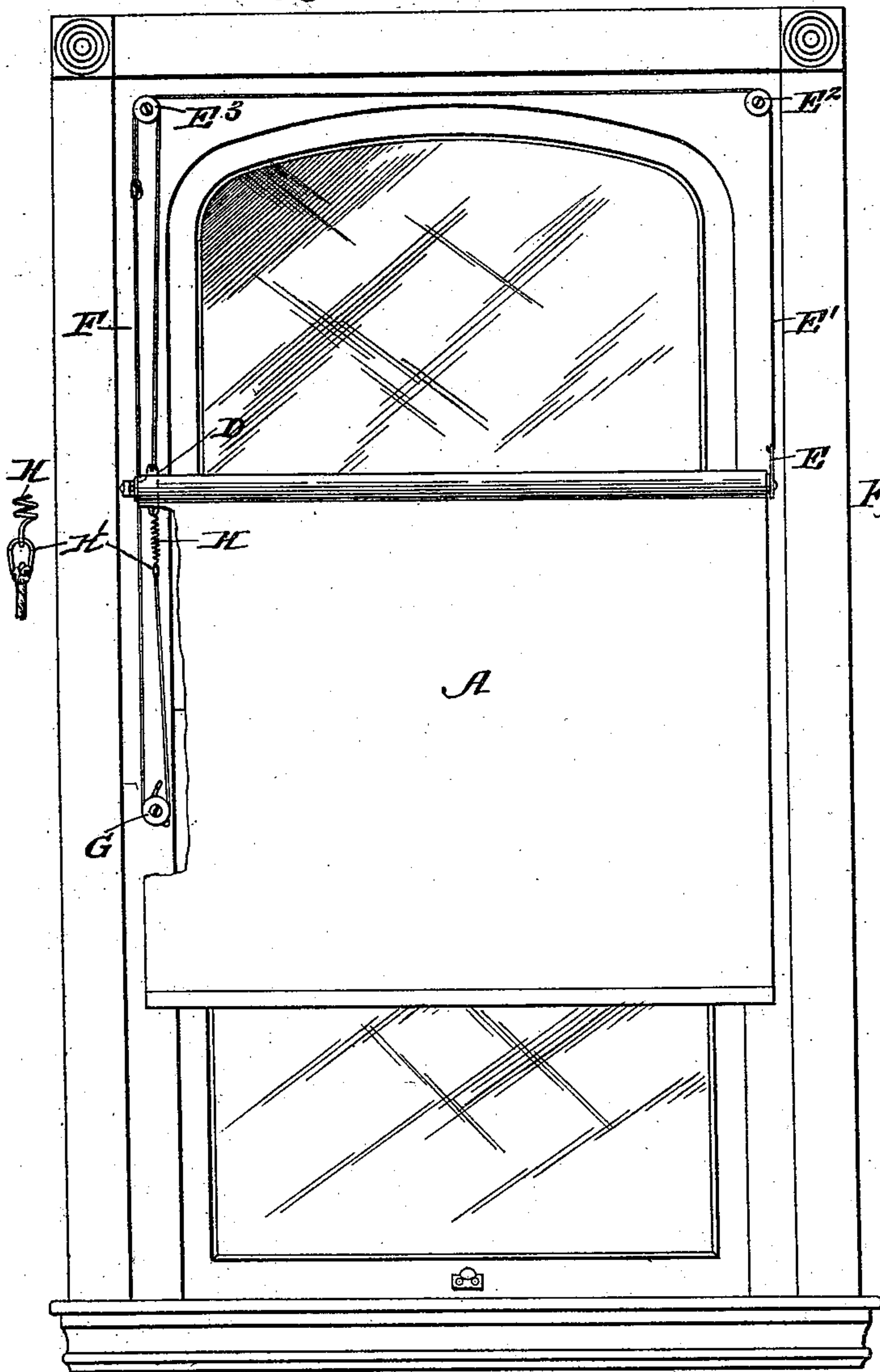


Fig. 4.

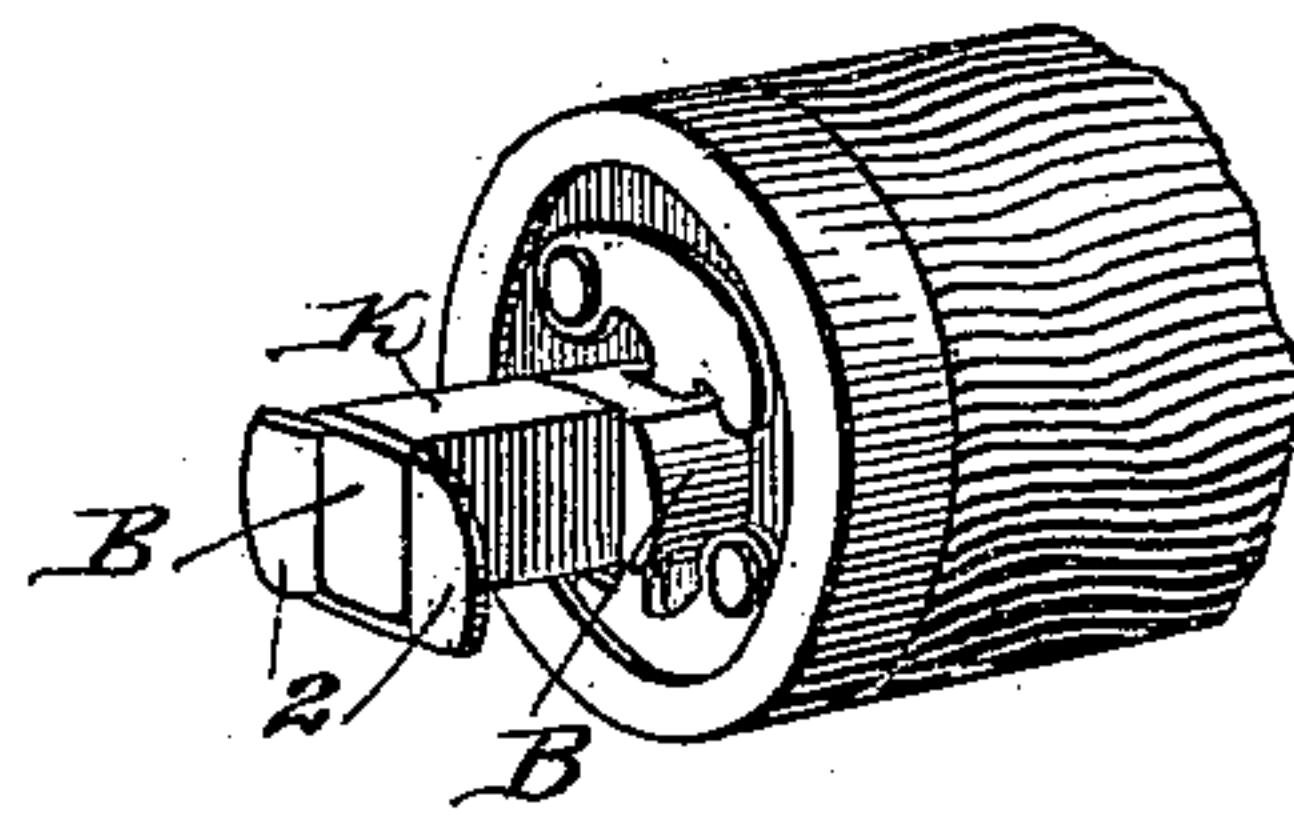
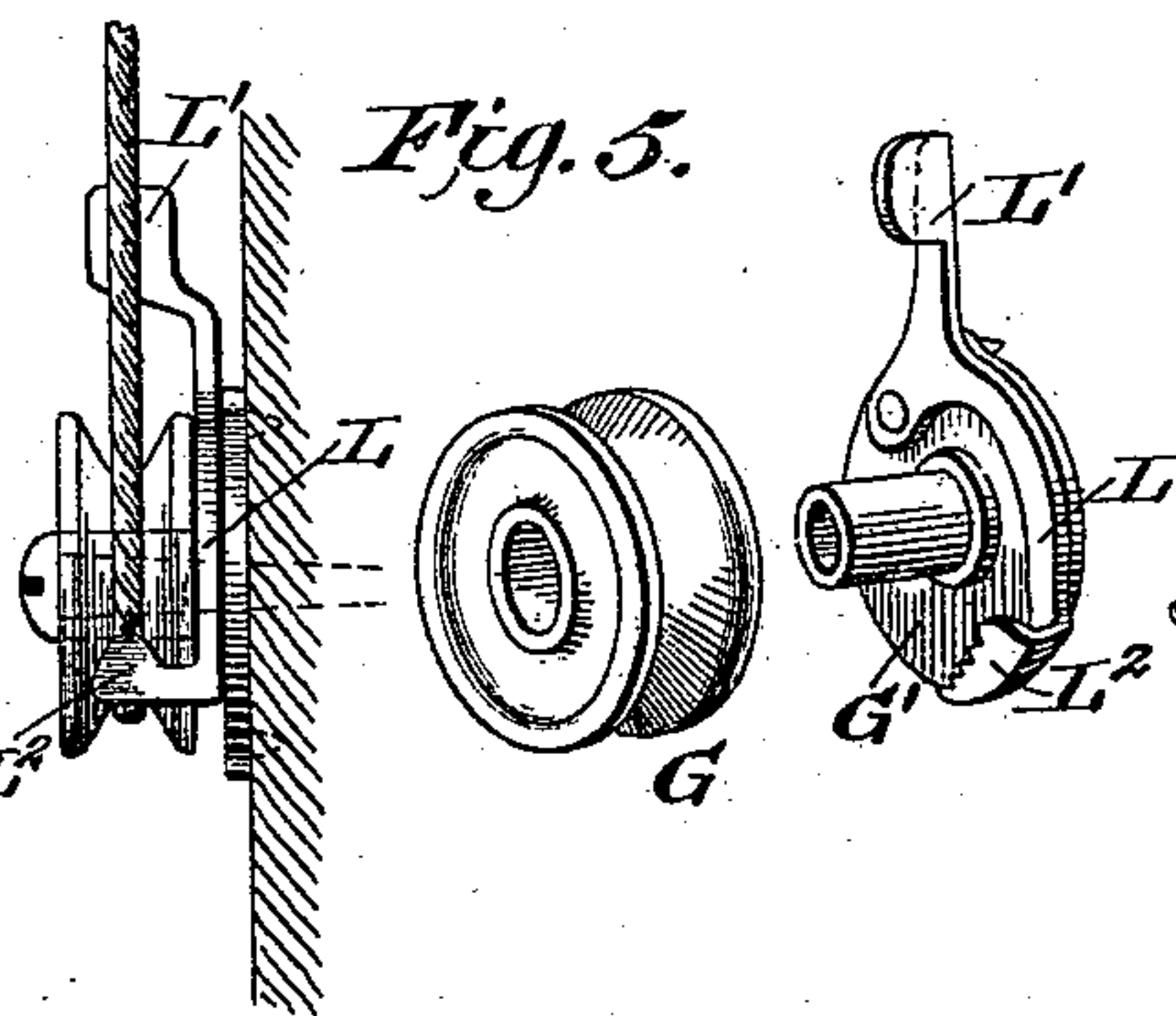


Fig. 5.



WITNESSES:

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2 Sheets—Sheet 2.

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Fig. 6.

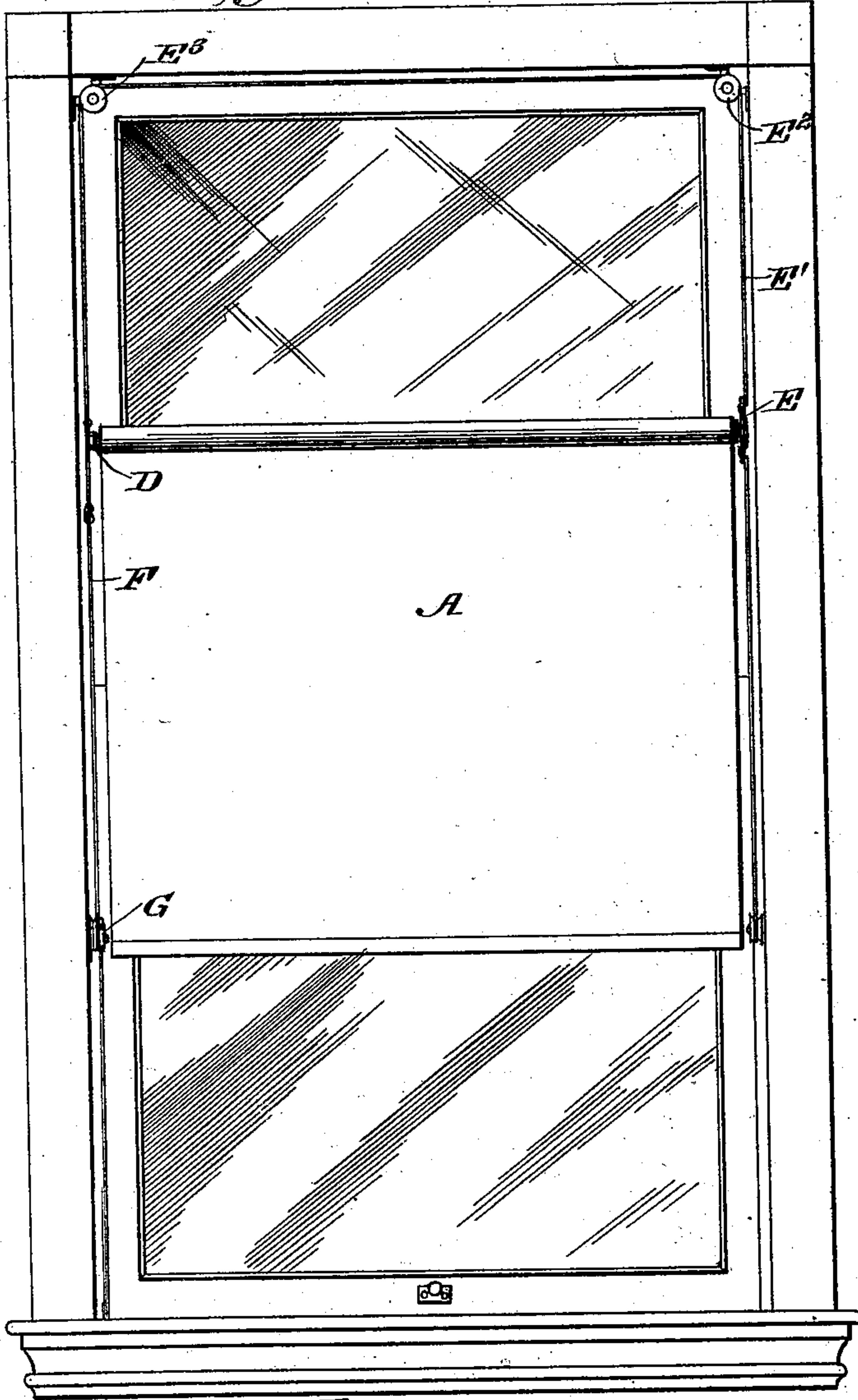


Fig. 10.

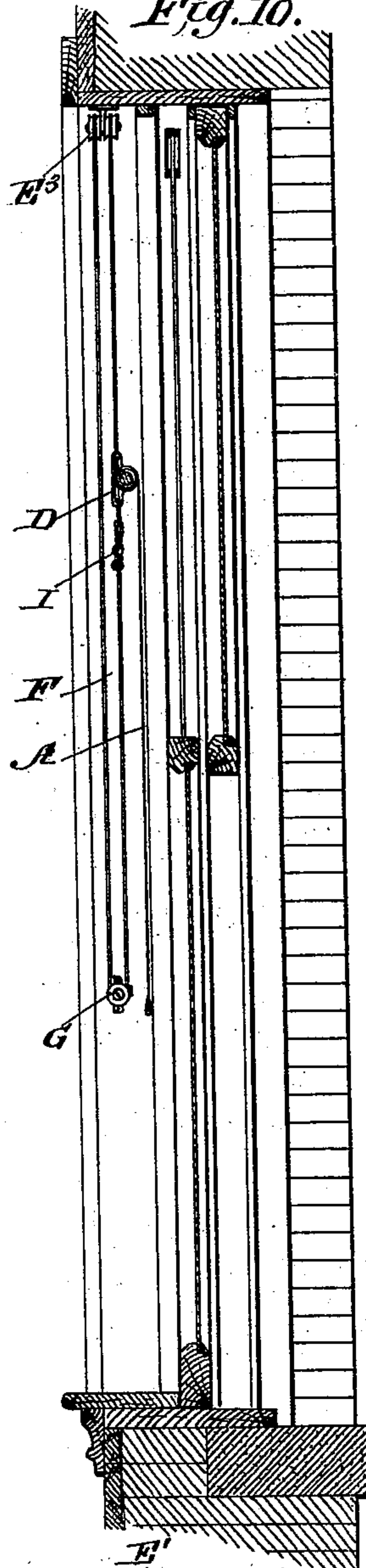
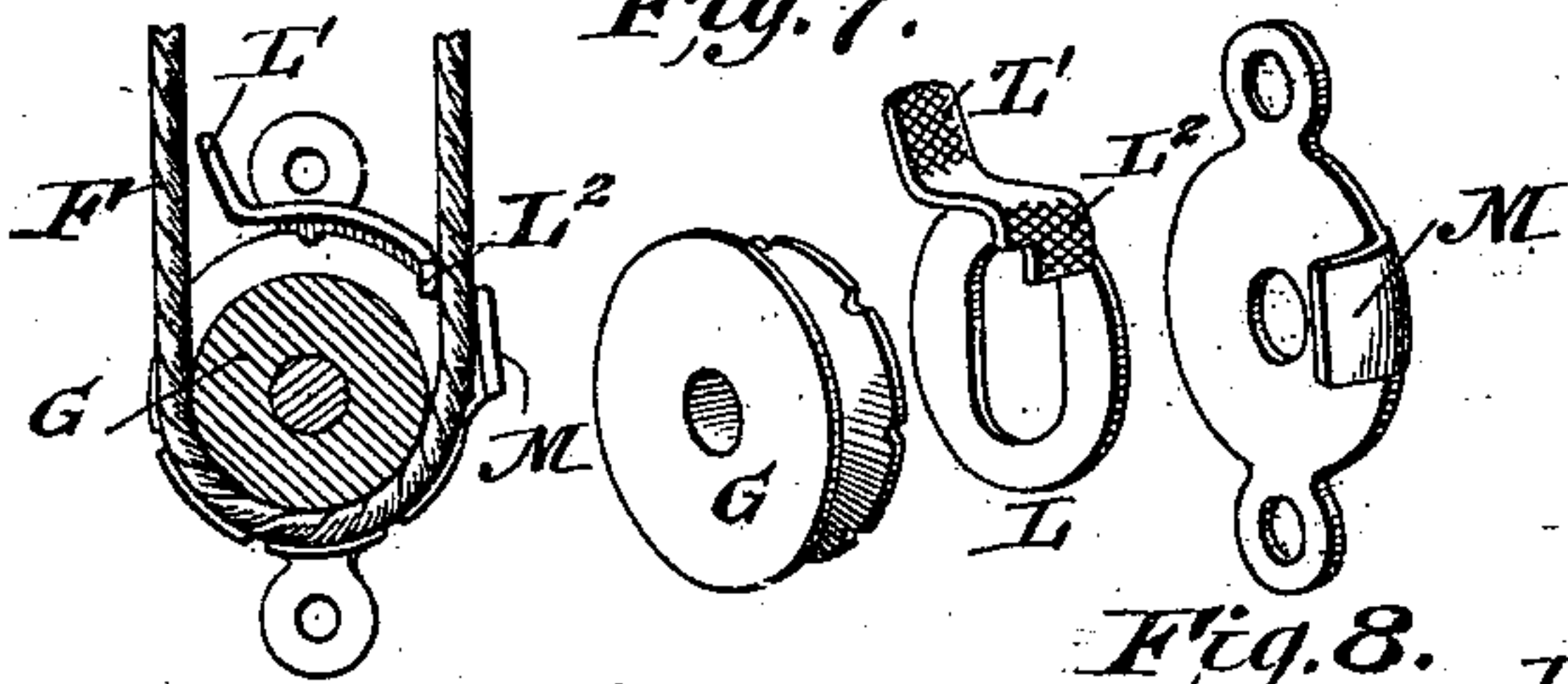


Fig. 7.



WITNESSES:

M. D. Blouck
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Fig. 8.

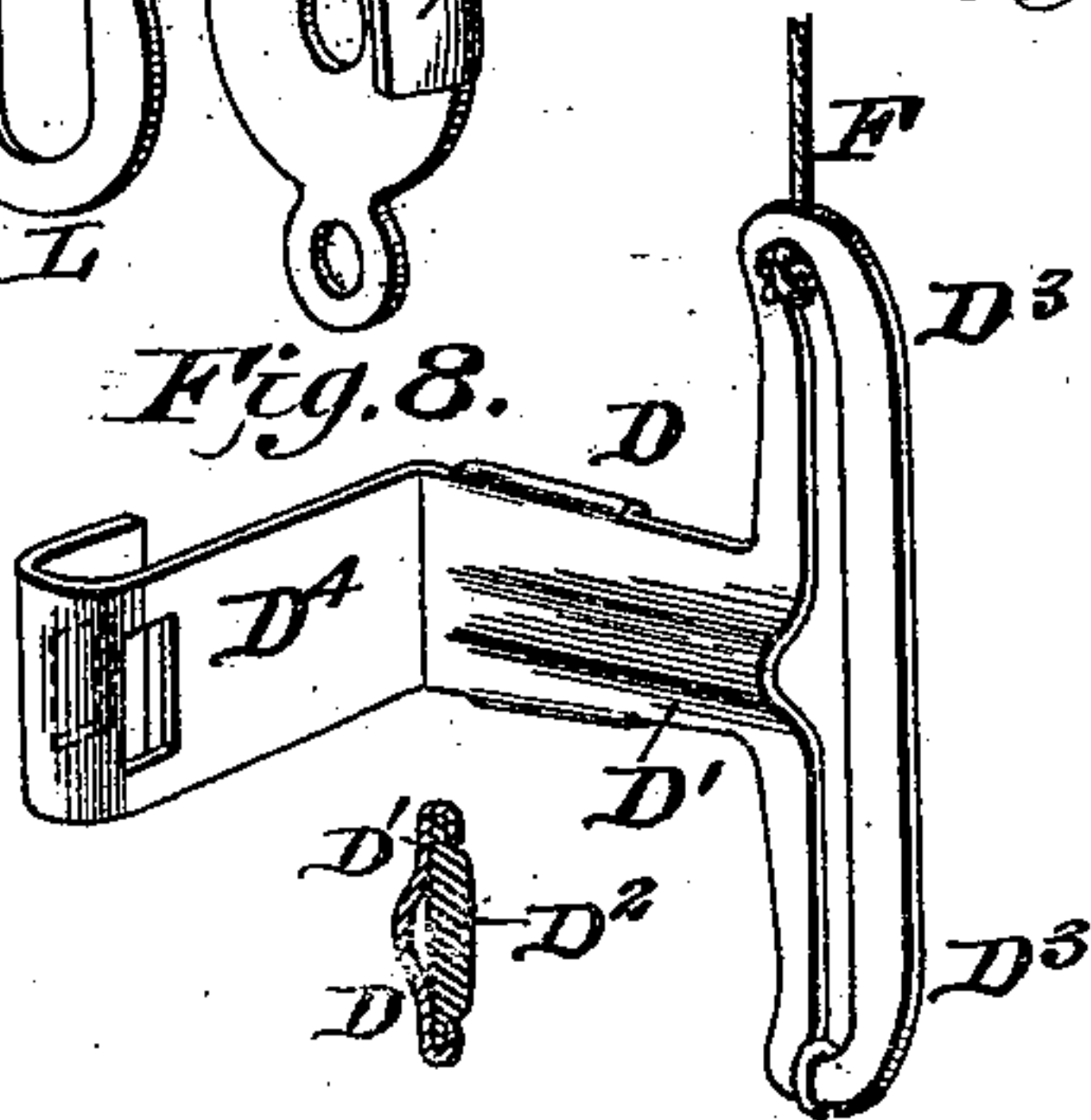
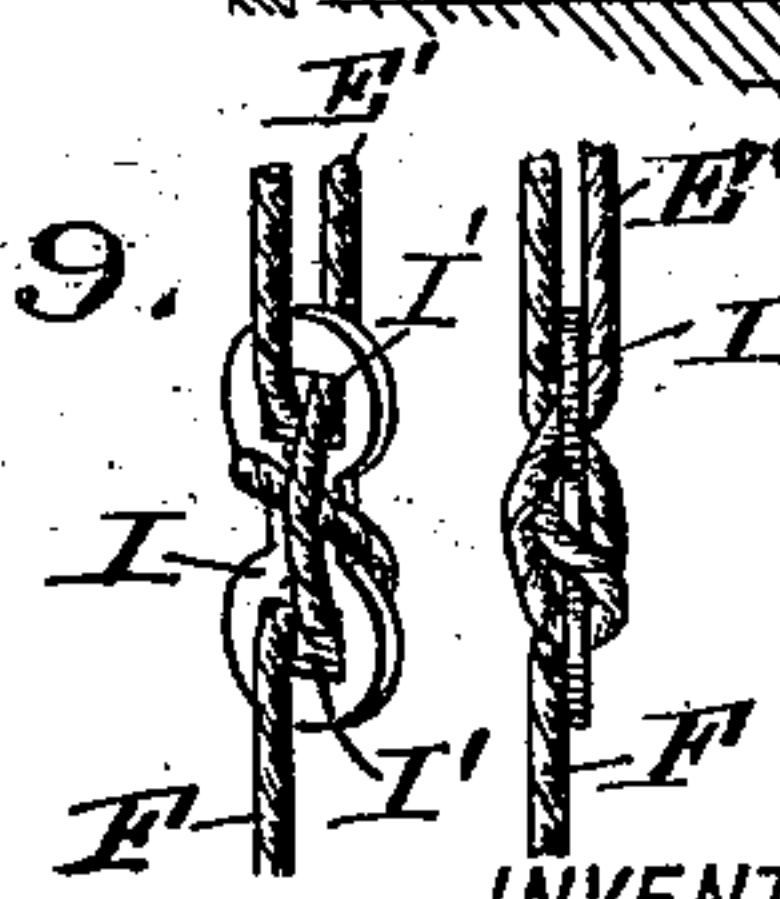


Fig. 9.



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UNITED STATES PATENT OFFICE.

JOSEPH DARLING, OF PEACHVILLE, PENNSYLVANIA.

CURTAIN-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 556,255, dated March 10, 1896.

Application filed March 26, 1895. Serial No. 543,265. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH DARLING, residing at Peachville, in the county of Butler and State of Pennsylvania, have invented a new and useful Improvement in Curtain-Fixtures, of which the following is a specification.

My invention is an improvement in curtain-fixtures, and particularly in the means for connecting the curtain-roller with its main supporting-bracket, and for braking the curtain operating and supporting cord, and for connecting such cord, whereby to take up slack and level the roller, and in other improvements, as will be hereinafter more fully described; and the invention consists in certain novel constructions and combinations of parts, as will be described and pointed out in the claims.

In the drawings, Figure 1 is a face view of a window provided with my improvements. Fig. 2 is a detail view illustrating the preferred construction by which the spring-stud is adapted for connection with the supporting-bracket. Fig. 3 shows a somewhat different construction of such connection. Fig. 4 shows a still different construction. Fig. 5 is a detail view illustrating the guide-pulley and its brake attachment. Fig. 6 is a face view of a window, showing a different form or arrangement of supporting-cords. Fig. 7 illustrates in detail the pulley and brake shown in Fig. 5. Fig. 8 is a detail view of the main roller-supporting bracket. Fig. 9 illustrates the leveling-cord shifter, and Fig. 10 is a sectional view of the window shown in Fig. 6.

The curtain A is wound on a roller, which may be of Hartshorn or other similar automatic type and provided with a spring-stud B, as usual. This stud B, as is well known, has an angular or non-circular portion C, which in practice is fitted in a seat in the curtain-bracket and is held from turning in operation. The main bracket D in the present construction supports this spring-stud and the corresponding end of the roller, while the other end of the roller is carried by a bracket E, which bracket E is supported on a cord E', carried up over roller E², thence across over a roller E³, and connected with the belt-like cord F, which loops over the roller E³ placed near the top of the frame and over a roller G placed usually about midway be-

tween the bottom and top of the frame, as shown. One end of the cord F is secured to one arm of the main bracket D, while its other end is secured to the opposite arm of said bracket, so that as the cord F is drawn in one or the other direction it will raise or lower the bracket D and also the bracket E by means of a connecting-cord E' and thus raise or lower the curtain bodily, the curtain being also susceptible of being wound and unwound upon its roller, as usual. In long windows ordinarily the tension of the curtain-cord will be sufficient to hold the same comparatively taut, but in short windows a spring H may be sometimes necessary and may be applied as shown.

A keyhole-shaped link H' may be connected with the spring and adapted by means of knots on the cord to take up slack therein. It sometimes happens that the relation of cords E' and F become such that the curtain is thrown off the horizontal, and in order to remedy this in a simple manner I provide a cord-shifter I, having openings I' near its opposite ends to connect the cord E' with the cord F, so such connection may be varied as desired to secure a proper leveling of the curtain.

The main bracket D has a horizontal arm D', the rear side of which is shown as provided with a slightly-projecting pad or cushion D² to prevent injury to the window-frame in raising and lowering the curtain, and at the inner end of the arm D' are provided the upper and lower arms D³ connecting with the cord F. At the outer end of the arm D' is provided the forwardly-projecting arm D⁴ having a seat for the spring-stud of the roller or the head-like portion attached to said spring-stud, as hereinafter described. Ordinarily these spring-studs are provided with depressions or seats J, and the head-like portion K has prongs or portions K', which are bent into contact with the seats J to hold the head from moving longitudinally off the stud. This head is provided at or near its outer end with an inwardly-facing shoulder or flange, which when the head is properly applied to the bracket D will hold the curtain from moving endwise out of engagement with said bracket. This head may preferably be formed of sheet metal bent to embrace the angular portion of the spring-stud and suitably formed

to provide the inwardly-facing shoulders or flanges and the prongs to be bent into engagement with the depressions or seats in the spring-stud. In Fig. 1 an inwardly-facing shoulder is provided by notching the top of the head near its outer end, as shown at 1, while in Fig. 3 the inwardly-facing shoulders are provided by flanging the end of the head at 2. It sometimes happens that the studs are free of seats or depressions for engagement by the prongs of the head, and in such case it sometimes becomes necessary to file or otherwise nick the stud, and in such case I provide the head with portions shown at 3, Fig. 2, which may be bent in to engage the nicks filed in the stud. It should be understood that a broad feature of my invention is the provision upon the spring-stud of inwardly-facing shoulders or flanges, and, further, in providing such flange or shoulder upon a separate part applied to such stud, and also in positively locking such part upon the spring-stud, so that it is practically a part thereof.

It will be understood that the construction shown in Fig. 4 might be employed without departing from some of the principles of my invention. In this construction the head is adapted to fit on the angular portion of the stud and may be secured thereto by sealing-wax, cement, solder, or other similar fastening medium.

In operation the weight of the curtain and its roller is ordinarily sufficient to cause the same to move bodily downward when the cord F is free to move upon its guiding-rollers; but in order that such downward movement may be stopped at any point desired I provide a brake to operate upon the cord and stop the same from moving in the direction to lower the curtain unless such brake be released. At the same time the brake is so arranged that the cord may move freely in a direction to raise the curtain, so that it is only necessary to release the brake when it is desired to lower the curtain. In the construction shown in Fig. 1 the brake L is carried by the bracket or base-plate G' of the roller G, is pivoted concentrically with the roller G and between such roller and its bracket G' has a handle L' and a brake-shoe L², which latter is arranged to press the cord tightly into the groove in pulley G, and such brake may be, if desired, pressed so tightly against the cord F as to lock said cord from movement in either direction.

In the construction shown in Fig. 7 the brake is supported between the pulley and its bracket, but instead of having its shoe arranged to press the cord against the pulley it binds such cord against a bearing M on the pulley-supporting bracket. The brake-shoes or their abutting portions, or both, may be roughened if desired, and also, if desired, the pulley may have nicks or notches for engagement by portions of the brake, as will be understood from Fig. 7.

The arrangement of cords shown in Fig. 1 may be preferred when there is sufficient room on the face of the window-frame for it; but sometimes there is not such room, and in such case it may be useful to employ the arrangement shown in Fig. 6, wherein the cords are disposed upon the sides of the window-frame.

In applying the curtain with the form of stud-head shown in Fig. 3 to its bracket, such stud-head may be moved vertically into and out of its seat, but in the construction shown in Figs. 1 and 2 the roller should be tilted to an angle with its bracket, inserted edgewise into the bracket-seat, and then tilted to bring its shoulder into locking contact with the bracket in a hook-like fashion, as will be understood from Fig. 2.

Having thus described my invention, what I claim is—

1. In a curtain, an attachment to be applied to the spring-stud composed of a head-like portion having an inwardly-facing flange or shoulder with a portion adapted to be pressed into locking contact with the spring-stud of the roller, substantially as set forth.

2. In a curtain, a roller attachment composed of a head-like portion having an inwardly-facing flange or shoulder, a bushing-like main portion or body for incasing the angular end of the spring-stud and a prong or prongs bendable into locking contact with such stud, substantially as set forth.

3. A curtain-roller having a spring-stud and provided with a separate cap-like head portion fitted on said stud and provided near its outer end with an inwardly-facing shoulder substantially as set forth.

4. A curtain-roller having its stud provided with a separately-applied head-like portion held against rotary or longitudinal movement independent of said stud and provided with an inwardly-facing flange or stop-shoulder, substantially as set forth.

5. A curtain-roller having its spring-stud formed with a depression or seat and provided with a flanged or shouldered head portion having a part pressed into locking contact with said depression or seat, substantially as set forth.

6. The combination with a curtain-roller spring-stud of a separate cap-like head embracing and secured upon said stud and provided near its outer end with an integral inwardly-facing shoulder all substantially as and for the purposes set forth.

7. In a curtain, a bracket, a base having a cord-guiding pulley journaled thereto, a brake-lever journaled concentrically with the pulley and arranged between the same and the base or bracket and having a shoe by which to press the cord between said shoe and a portion of the base, substantially as set forth.

JOSEPH DARLING.

Witnesses:

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