

(No Model.)

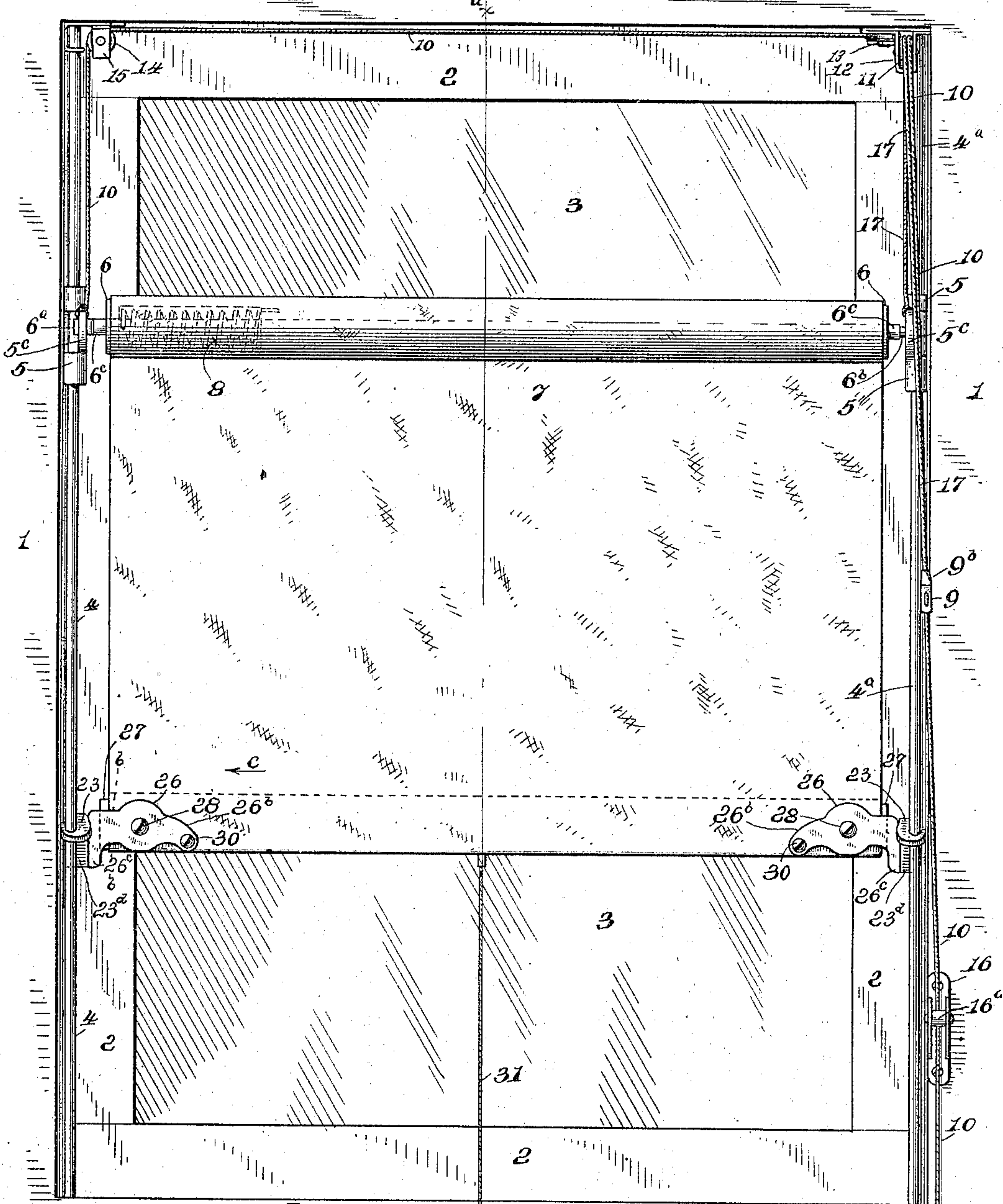
2 Sheets—Sheet 1.

F. H. BASSETT.
CURTAIN FIXTURE.

No. 575,409.

Patented Jan. 19, 1897.

Fig. 1.



WITNESSES: Fig. 14.

H. F. Lamb
Jas A. Range

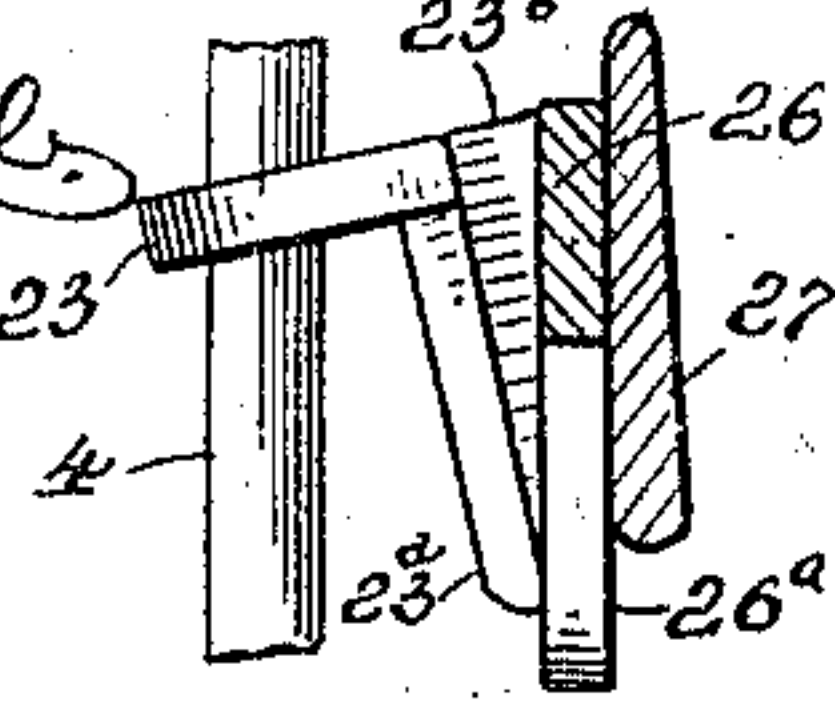
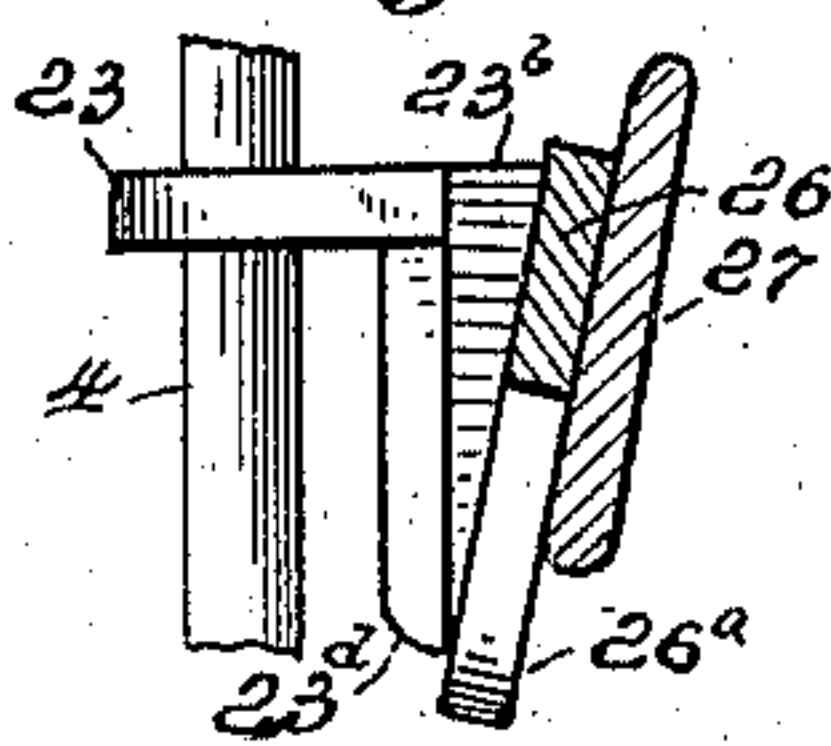


Fig. 15.



INVENTOR
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(No Model.)

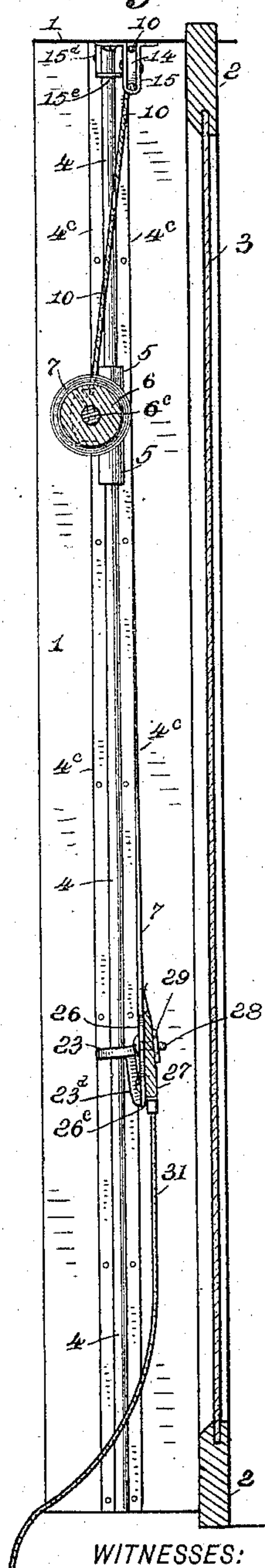
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F. H. BASSETT.
CURTAIN FIXTURE.

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Patented Jan. 19, 1897.

Fig. 2.



WITNESSES:

H. A. Lamb
Jas. A. Raper

Fig. 3.

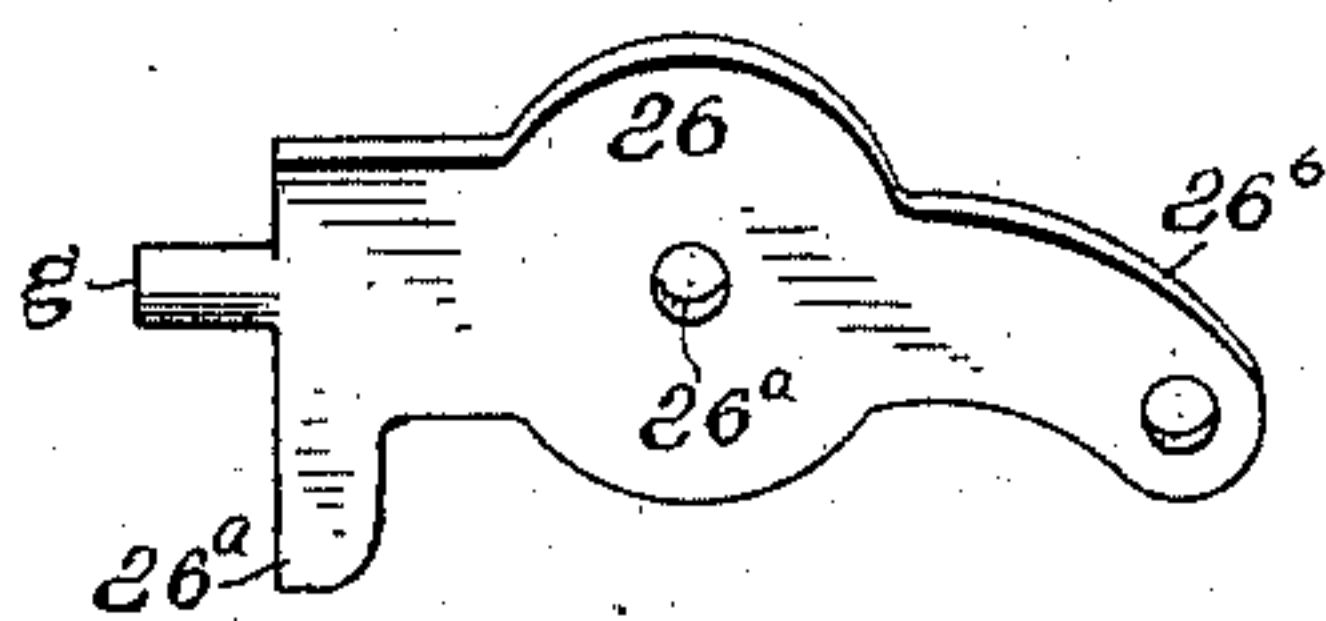


Fig. 4.

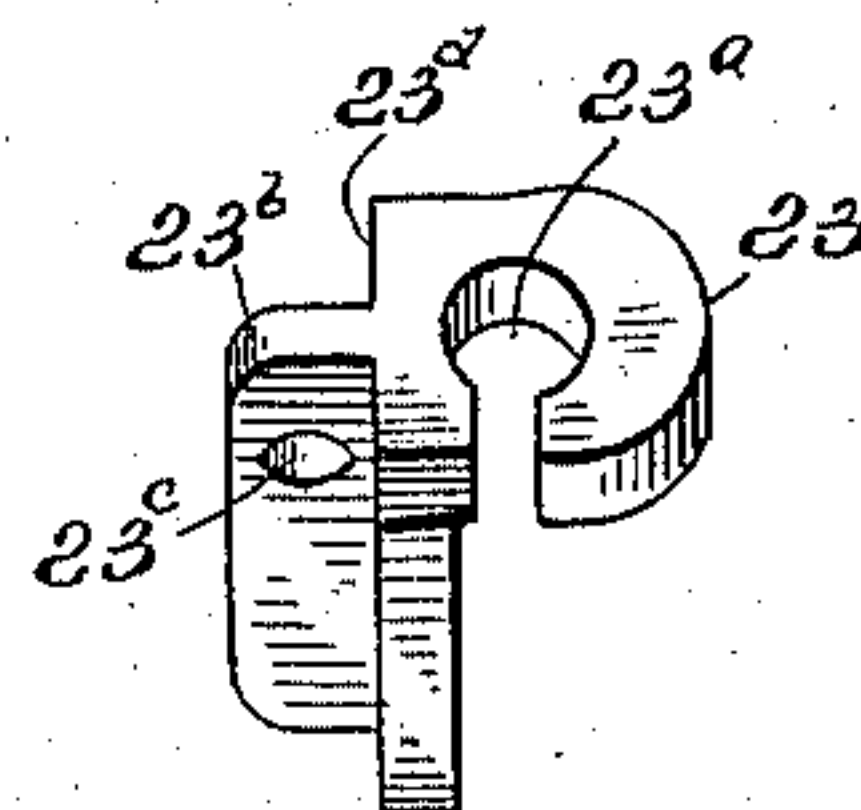


Fig. 5.

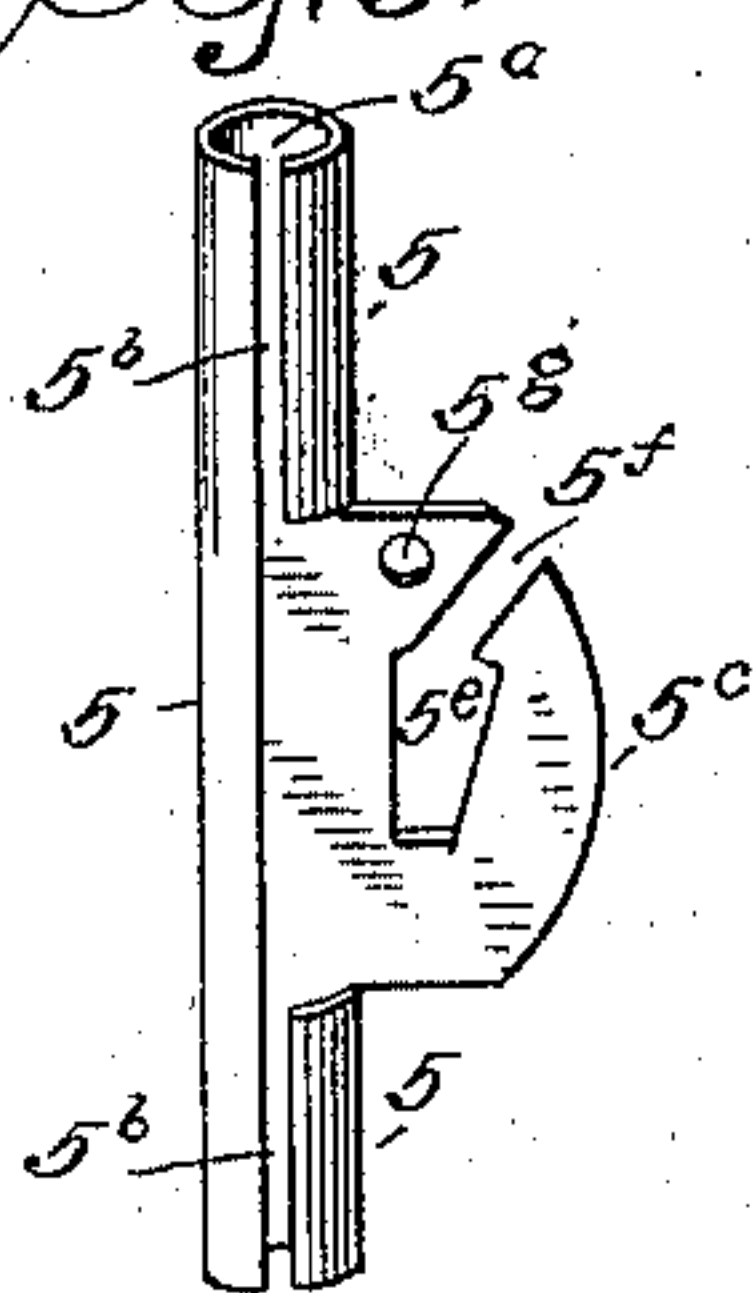


Fig. 7.

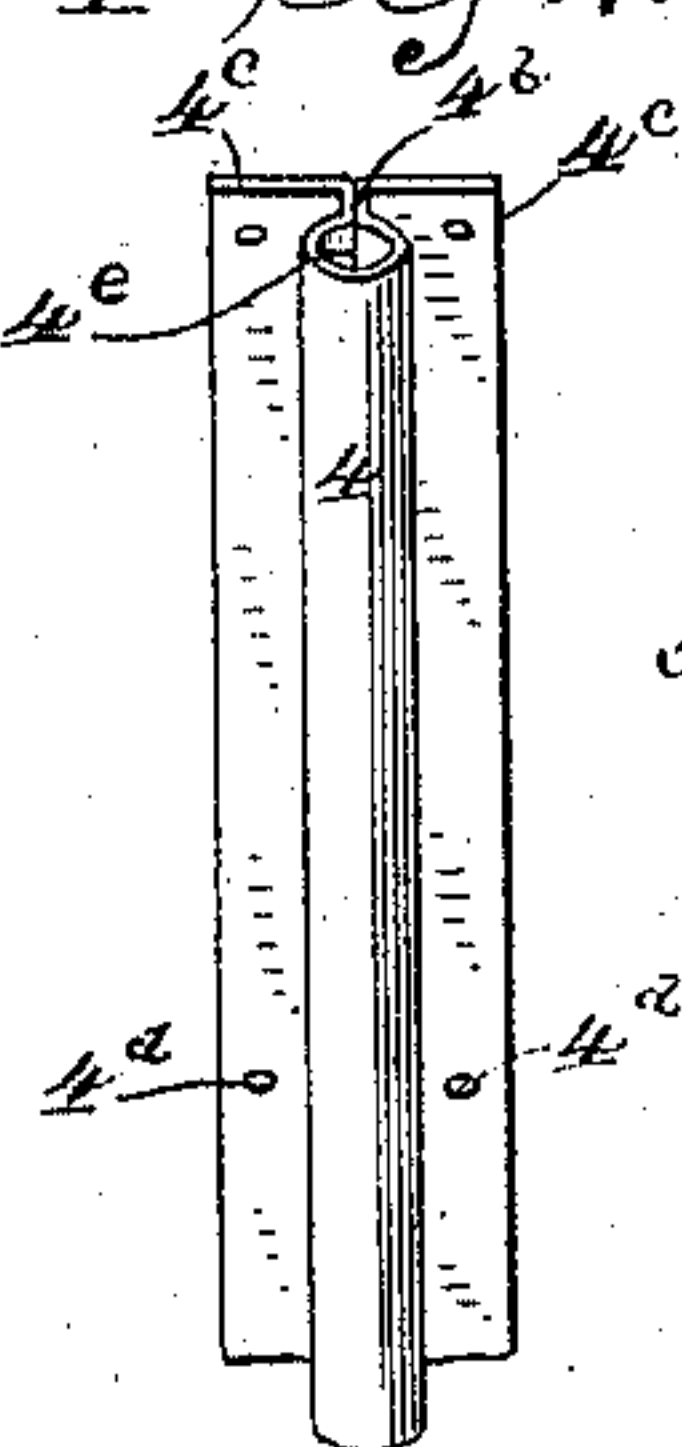


Fig. 6.

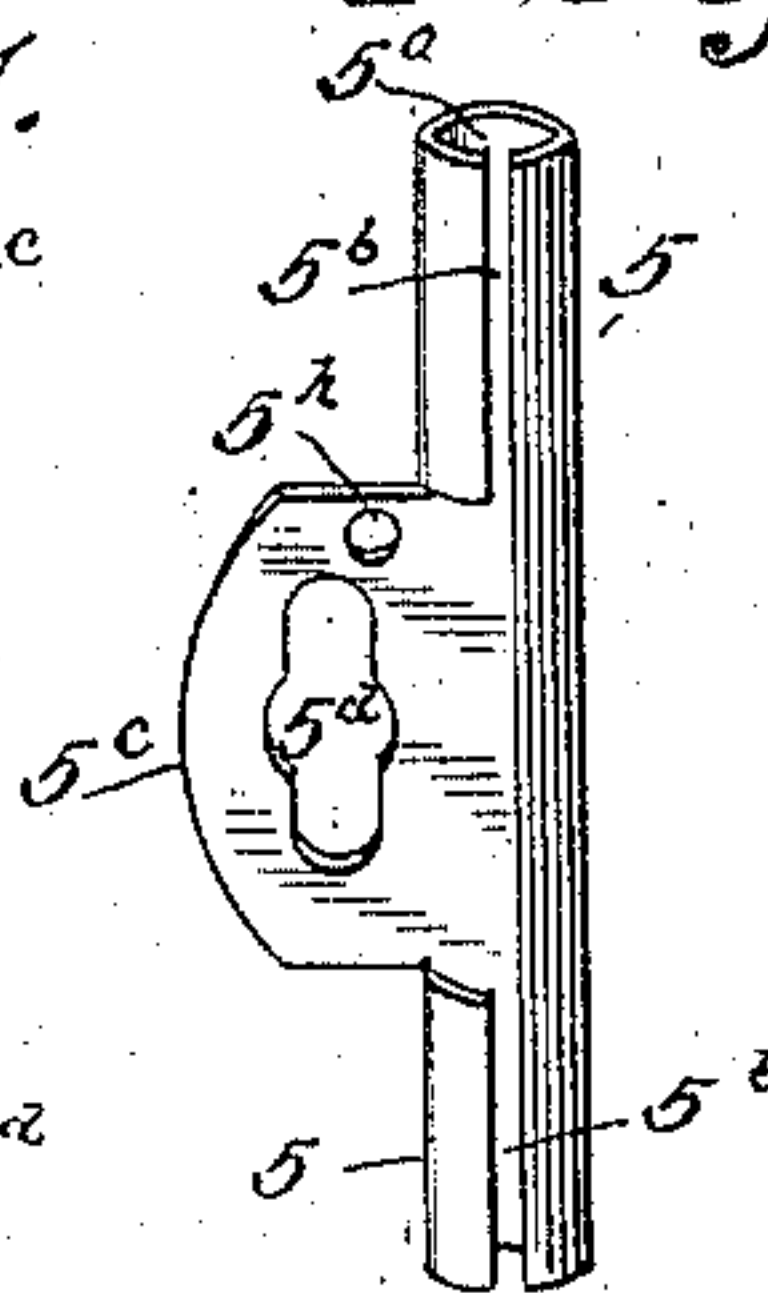


Fig. 8.

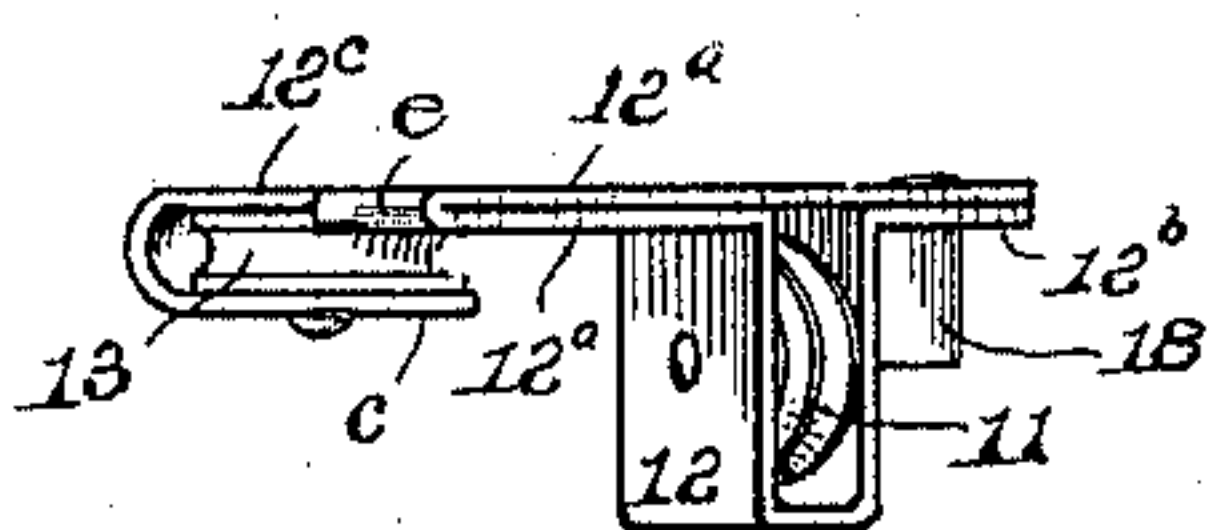


Fig. 12.

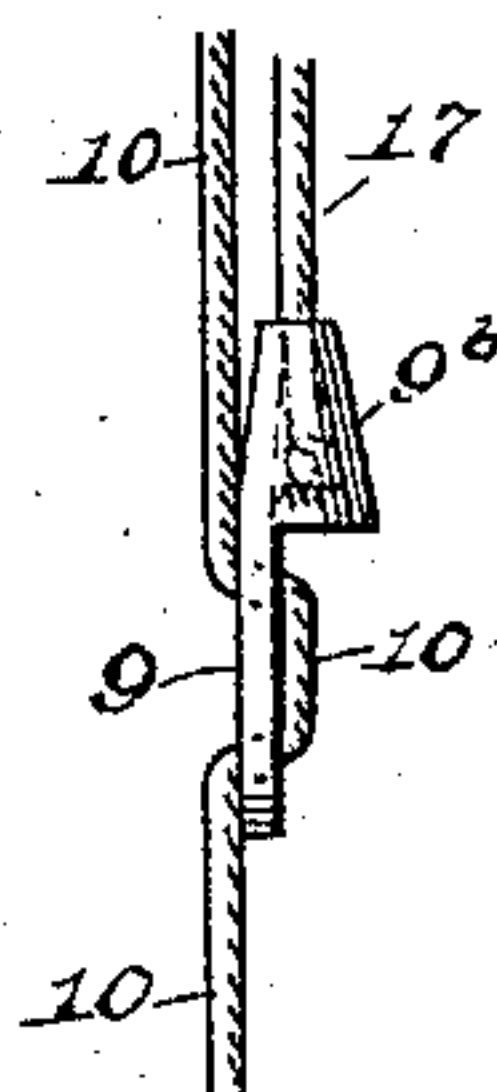


Fig. 9.

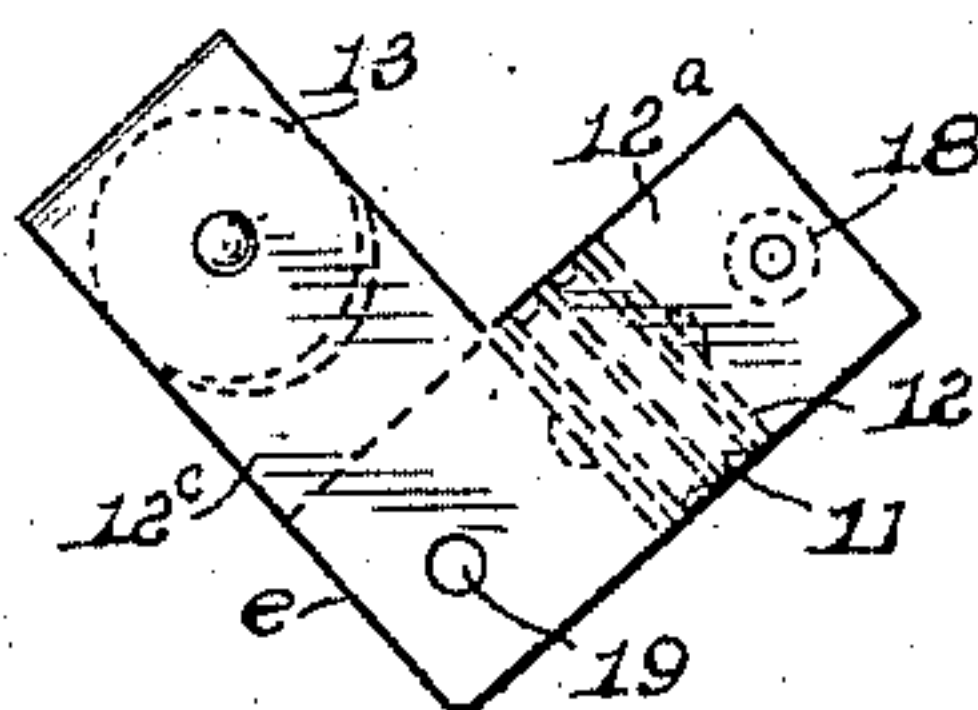


Fig. 13.

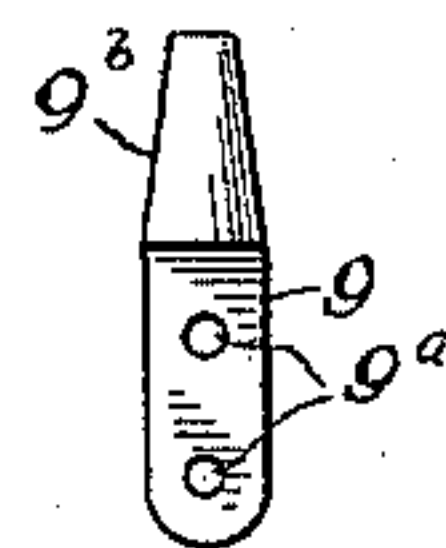


Fig. 10.

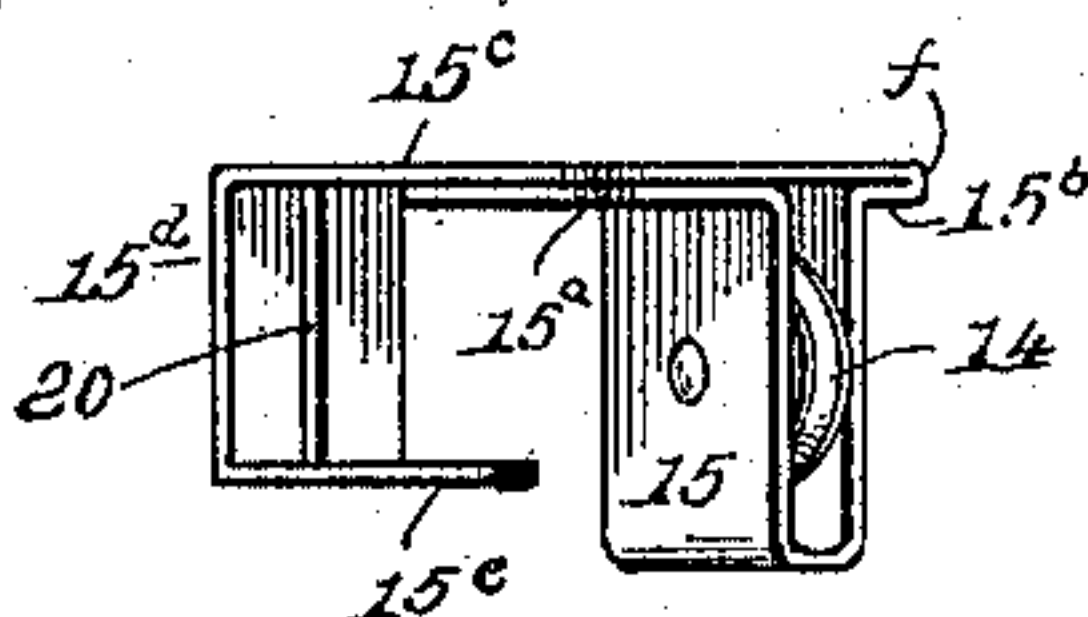
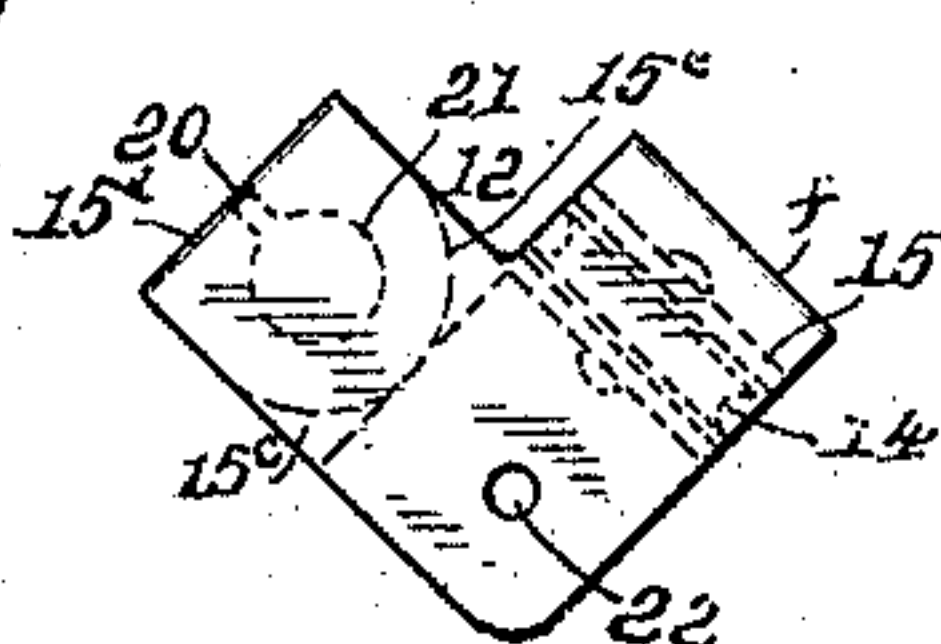


Fig. 11.



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UNITED STATES PATENT OFFICE.

FRED H. BASSETT, OF WATERBURY, CONNECTICUT.

CURTAIN-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 575,409, dated January 19, 1897.

Application filed October 28, 1895. Serial No. 567,053. (No model.)

To all whom it may concern:

Be it known that I, FRED H. BASSETT, a citizen of the United States, and a resident of Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Curtain-Fixtures, of which the following is a specification.

My invention relates to curtain-fixtures, being an improvement on the patent granted me January 23, 1894, which improvement will be more fully set forth in the following specification and such features believed to be new and novel particularly pointed out in the claims to follow.

To enable others to understand my invention, reference is had to the accompanying drawings, in which—

Figure 1 is a front elevation of a window with my improved fixture attached thereto, showing the shade-roller partially dropped from the top of said window and the lower part of the curtain partially raised; and Fig. 2 is a vertical central section through line *a a* of Fig. 1. Fig. 3 is a detail front elevation of the trip-plate to be attached to each end of the lower slat or rod of the curtain, which plate carries a bearing on which the clutch engaging the side guide-rods is journaled. Fig. 4 is a detail perspective view of one of the guide-rod clutches. Fig. 5 is a perspective view of the curtain-roller bracket-sleeve which embraces one of the guide-rods. Fig. 6 is a detail perspective view of the opposite roller bracket-sleeve. Fig. 7 is a detail perspective view of a section of one of the side guide-rods. Fig. 8 is a perspective detail view of the double cord-pulley and bracket. Fig. 9 is a detail upper plan view of the device shown at Fig. 8. Fig. 10 is a perspective detail view of the single cord-pulley and bracket. Fig. 11 is a detail upper plan view of the device shown at Fig. 10. Fig. 12 is a detail side elevation of the cord-binder and broken section of cords therein. Fig. 13 is a detail front elevation of the cord-binder. Fig. 14 is a detail view looking in the direction of arrow *c*, Fig. 1, and broken view of the curtain-slat and trip-plate through *b b*, showing the relative position of the trip-plate with the clutch, both of which are in a normal position. Fig. 15 is a detail view similar to

Fig. 14, showing the trip-plate thrown around to engage with the clutch and release it from engagement with the guide-rod.

Its construction and operation are as follows:

1 is the window-casing; 2, the window; 3, the glass; 4 ^{4a}, the side guide-rods, made (see Fig. 7) of a single piece of sheet metal bent around to form a neck portion 4^b, the free ends being turned at right angles to form the feet 4^c, one of which feet may in some cases be dispensed with, holes 4^d being formed in such feet for attaching such guides to the casing.

5 (see Figs. 1, 2, 5, and 6) are sleeves, preferably made from a single piece of sheet metal, having a tubular body with hole 5^a to loosely embrace the side guide-rods 4 and a narrow opening 5^b to embrace the neck 4^b of said rods. 5^c are flange-brackets bent at right angles to the body of such slides to support the journals of the shade-roller, presently to be described. In Fig. 6 the bracket is provided with the elongated opening 5^d, and in Fig. 5, 5^e represents the bearing for the opposite end of the shade-roller journal with an opening 5^f to admit such journal from the top. Preferably the sleeve shown at Fig. 5 is placed at the left of the window, and the one shown at Fig. 6 at the right.

6 is a pawless spring-roller on which the shade 7 is wound. This roller has the journals 6^a and 6^b to rest in the bearings of the sleeves, previously described. 8 is a spring in the end of the roller, one end being attached to said roller and the other end to the rod 6^c.

9 is the cord-binder, having holes 9^a, Figs. 12 and 13, for the cord 10 to pass through, and which is gripped by said binder. This cord passes over the double pulley 11, journaled in the pulley-bracket 12, (see also Figs. 1 and 8,) thence around the single pulley 13 and across the top of the window-casing and over the pulley 14, journaled in the bracket 15, thence down through the hole 5^g of the shade-roller bracket 5^c of the sleeve 5, to which it is made fast. The other end of this cord passes through the catch 16, fastened to the opposite side of the window-casing.

9^b is an overhanging projection (see Figs.

1, 12, and 13) having a hole longitudinal therethrough to admit one end of the cord 17, the lower end of this hole being enlarged to receive a knot formed in the end of said cord to prevent its withdrawal from the binder. This cord also passes over the double pulley 11, and is attached to the hole 5^b (see also Fig. 6) of the sleeve on the right hand of the window, similar in all respects to the fastening of cord 10, previously described.

Releasing the cord 10 from the catch 16 the operator will have full control of the curtain-roll, either to raise or lower it. The curtain-roll will descend freely by its own weight, and the sleeves, by reason of their engagement with the side guide-rods and being of sufficient length, will keep such roll in perfect alinement therewith and not permit one end to advance, either in raising or lowering, beyond the other. In letting go of the cord 10 the roll 16^a of the catch 16 will drop in grooves provided in said catch, but not shown, and bind the said cord against the base-plate of said catch, thus instantly checking the travel of the curtain-roll.

The hangers or brackets for the cord-pulleys are (see Figs. 8, 9, 10, and 11) preferably made of a single piece of sheet metal and bent into the proper shape. The pulley 11, as before mentioned, is journaled in the bracket 12.

12^a and 12^b are supporting-feet bent at right angles to bracket 12, the longer one being folded over at the point *e* upon the upper surface, as shown. The tailpiece 12^c has its free end *c* turned under to form a bracket for the single pulley 13.

18 is a stud riveted through the free ends of the above-mentioned feet, and is adapted to enter (see also Fig. 7) the hole 4^c of the guide-rod, Fig. 7, that is secured to the right-hand side of the casing. By reason, therefore, of this pin's engagement with its guide-rod the pulley-bracket from which such pin projects will need but the single hole 19, Fig. 9, for a nail or screw to firmly support it to the upper right-hand corner of the casing. The other pulley-bracket 15, Figs. 10 and 11, has also the long and short legs 15^a and 15^b, the short one being folded over at the point *f* upon the upper surface. The tailpiece 15^c has the vertical bend 15^d, while its free end 15^e is turned at right angles thereto. 20 is a slot formed through such vertical part 15^d, which slot opens into the hole 21 of the free end 15^e. This arrangement enables the bracket to be slipped over the end of the guide-rod at the left-hand side of the window, the slot 20 embracing the neck portion of such rod, while the bead 4, or rod proper, (see also Fig. 7,) enters the hole 21, Fig. 11, of the single pulley-bracket frame. This feature, in connection with the hole 22 for a nail or screw, will be sufficient to firmly brace and support such bracket.

The foregoing description relates entirely to the construction and manipulation of the

curtain-roller or upper part of the shade, raising, lowering, and securing it in any position throughout the entire length of the window.

The lower or bottom end of the curtain is constructed and operated as follows:

23, Fig. 1, are clutches which embrace the side guide-rods 4 and 4^a. As both of these clutches operate alike and are alike in construction, a brief description of one will serve for both.

23^a, Fig. 4, is a circular clutch-opening adapted to loosely embrace the guide-rod proper.

23^b is a rearward projection having the hole or bearing 23^c therethrough to receive the journal *g* of the trip-plate 26, Fig. 3, and when assembled thereto the end of such journal is headed to prevent withdrawal.

It being understood (see also Fig. 1) that there are two trip-plates as well as two clutches, therefore the parts connected therewith will be designated by the same reference-numbers. These trip-plates are specially designed to be attached to the bottom slat of a curtain that is tapering in cross-section. Therefore said plates have the central portion enlarged and of circular form, so as to nearly cover the width of the slat 27, (see also Figs. 14 and 15,) and through the hole in such central part are placed the screws 28.

29, Fig. 2, is a nut on the projecting threaded ends of these screws to bind said plates and slat together. The tailpieces 26^b are curved downward, so as to rest against the lower and thicker part of the curtain-slat 27, so that there will be sufficient thickness of material to support the wood-screws 30, Fig. 1.

As before mentioned, the clutches 23 are journaled on the ends of the trip-plates, and by reason of the bulk of the metal of which such clutches are composed being forward of these journals they will drop into the angular position shown at Figs. 2 and 14, so that the opposite edges of the hole 23^a (see also Fig. 4) will grip the guide-rod with which it is engaged and so prevent the roller-spring drawing up the lower part of the curtain. When therefore it is desired to elevate the bottom of the curtain, the bottom of slat 27 is tilted forward by means of the central cord 31, so as to bring the trip 26^a of the trip-plates against the bottom of the projection 23^d, which operation will elevate the clutches proper into a horizontal position, as shown at Fig. 15, releasing their grip on the guide-rods, whereupon the roller-spring will act and draw the curtain up and continue to do so until the slat is released, when all the parts will instantly assume their normal position (shown at Figs. 2 and 14) and the clutches again grip the guide-rods and stopping further movement of the curtain.

The object in pivotally supporting the clutches to the trip-plate at each end of the bottom curtain-slat is that each clutch is thus caused to act independent of the other, and both are sure to exert an equal grip on its re-

spective guide-rod. This result could not be achieved were they rigidly attached so that both would turn with the slat, as it would be impracticable and almost impossible to cause them to both grip the rods at the same time. One would grip while the other would be loose, and that side of the curtain having the free clutch would be drawn up by the tension of the roller-spring and throw the lower edge out of alinement. Even if they could be set true the result would be of short duration, owing to the tendency of the wooden slat to spring or warp out of shape and thus throw one of the clutches out of engagement.

I do not wish to be confined to any particular means for securing the free end of the operating-cord 10, as various means besides the one shown can be used for this purpose.

An important feature of my invention lies in operating both ends of a curtain-roll from a cord or cords at one side of the casing, combined with one or more cords running across the top of the window and connecting with the end or ends of the curtain-roll. Therefore I do not wish to be confined to the number of said cords or to the number of cord-pulleys therefor, or how located, except that they must be placed near the upper end of the casing and adapted to carry a cord or cords across the window, so as to connect with the opposite end of the curtain-roll, or at least with the bracket in which such roll is journaled, so that the said curtain-roll can be raised and lowered by the manipulation of the cord or cords at one side of the casing instead of the center of the window.

The independent tripping feature of the lower curtain-slat is shown in connection with clutches and side guide-rods. It will be understood, however, that this feature is also applicable to any clutching arrangement that could be utilized in vertical slots on the side of the window-casing, or, in fact, any temporary holding device for the lower curtain-slat whereby said device is tripped or caused to release its hold during the vertical movement of the curtain.

While I show the guide-rods also in connection with the arrangement of the cords and pulleys, it will be understood that such cords and pulleys can be used in connection with

other methods for supporting the ends of a vertically-movable curtain-roller.

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

1. The combination with the bottom slat of a window-curtain of vertical side guide-rods attached to the sides of the window-casing, clutches engaging therewith, a trip-plate on each end of said slat, said clutches independently journaled to said plates, means on said plates, so that, when the lower edge of said slat is laterally tilted, toward the clutches, said clutches will release their grip on the guide-rods, by reason of the trip on said plates engaging therewith, so that, the lower end of the curtain will be drawn up by the action of the spring in the curtain-roller, and when the said slat is released it will assume its normal position and the clutches will drop by their own weight and reengage with the guide-rods, as described.

2. In a curtain-fixture, carrying a pawless spring-roller and side guide-rods, the combination, with the lower slat and guide-rods, of a clutch adapted to engage said rods, a tripping device attached to such lower slat and engaging with said clutch so as to release its hold on the guide-rods and thereby bring the lower end of the curtain under the influence of the roller-spring, substantially as set forth.

3. The combination, in a curtain-fixture, having a vertically-movable curtain-roller and supports therefor, of cord-pulleys located at the upper and opposite corners of the window-casing, said pulleys supported in brackets made from a single piece of sheet metal and bent in the form substantially as shown so that, one of said brackets will support a vertical and a horizontal pulley so as to carry the overhead, or horizontal, cord close to the upper surface of the casing and to the vertical pulley in the opposite corner thereof, substantially as set forth.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 18th day of October, A. D. 1895.

FRED H. BASSETT.

Witnesses:

GEO. D. PHILLIPS,
LEWIS F. PELTON.