

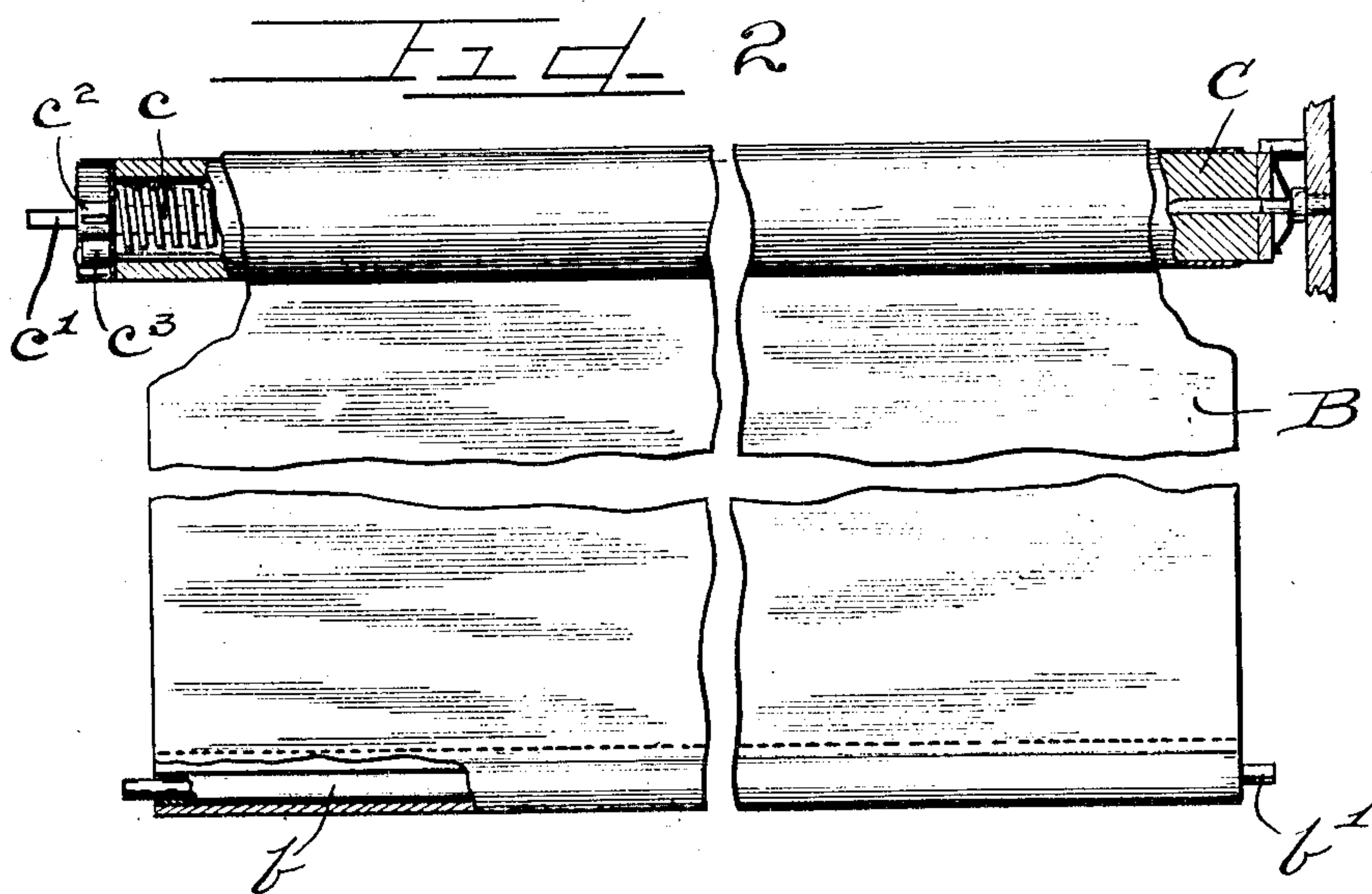
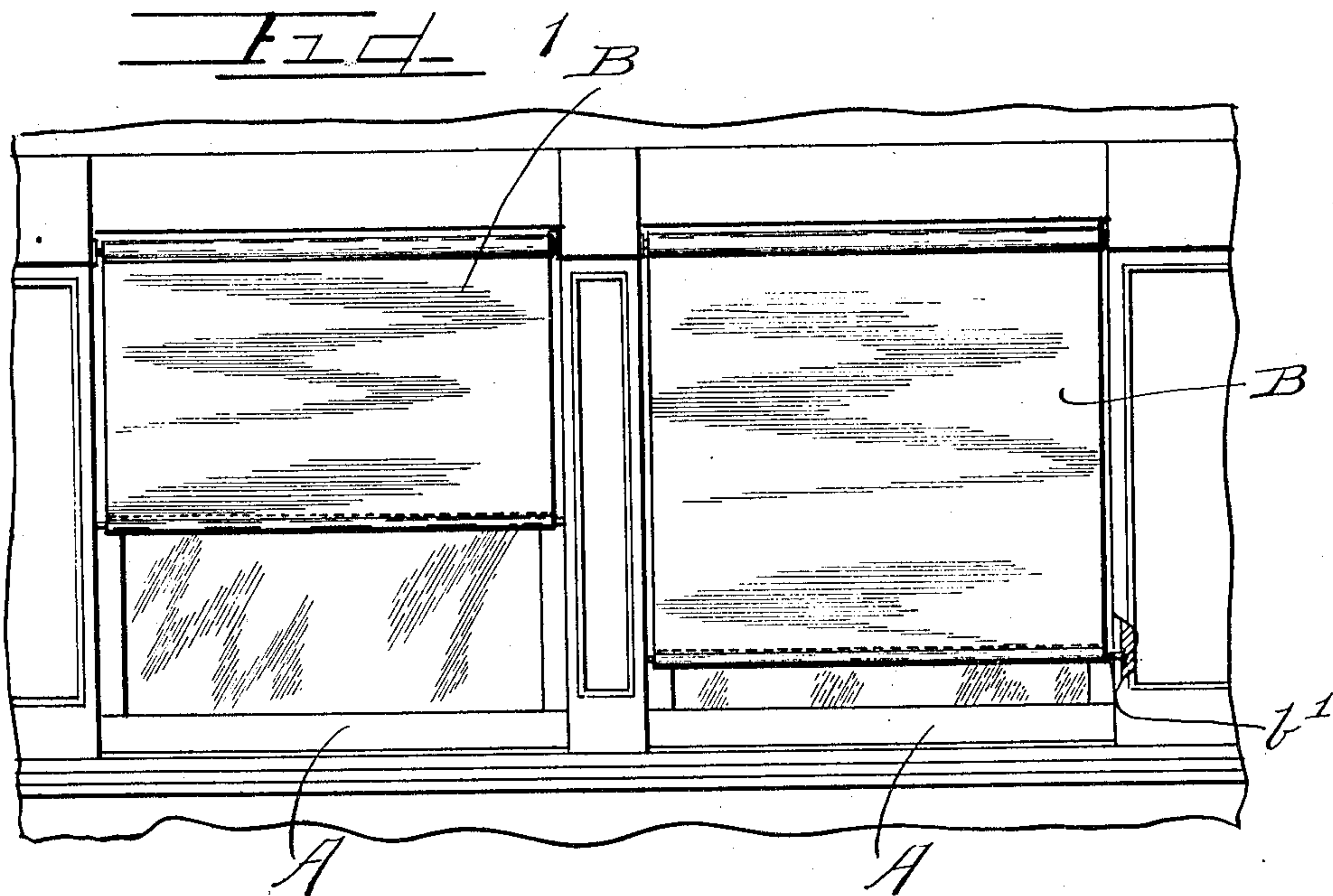
No. 882,082.

PATENTED MAR. 17, 1908.

H. H. SCHROYER.  
CURTAIN FIXTURE.

APPLICATION FILED JAN. 21, 1907.

2 SHEETS—SHEET 1.



WITNESSES

J. W. Angell.  
H. E. Hannah

INVENTOR

Harry H. Schroyer.  
by Charles W. Rice  
Atty.

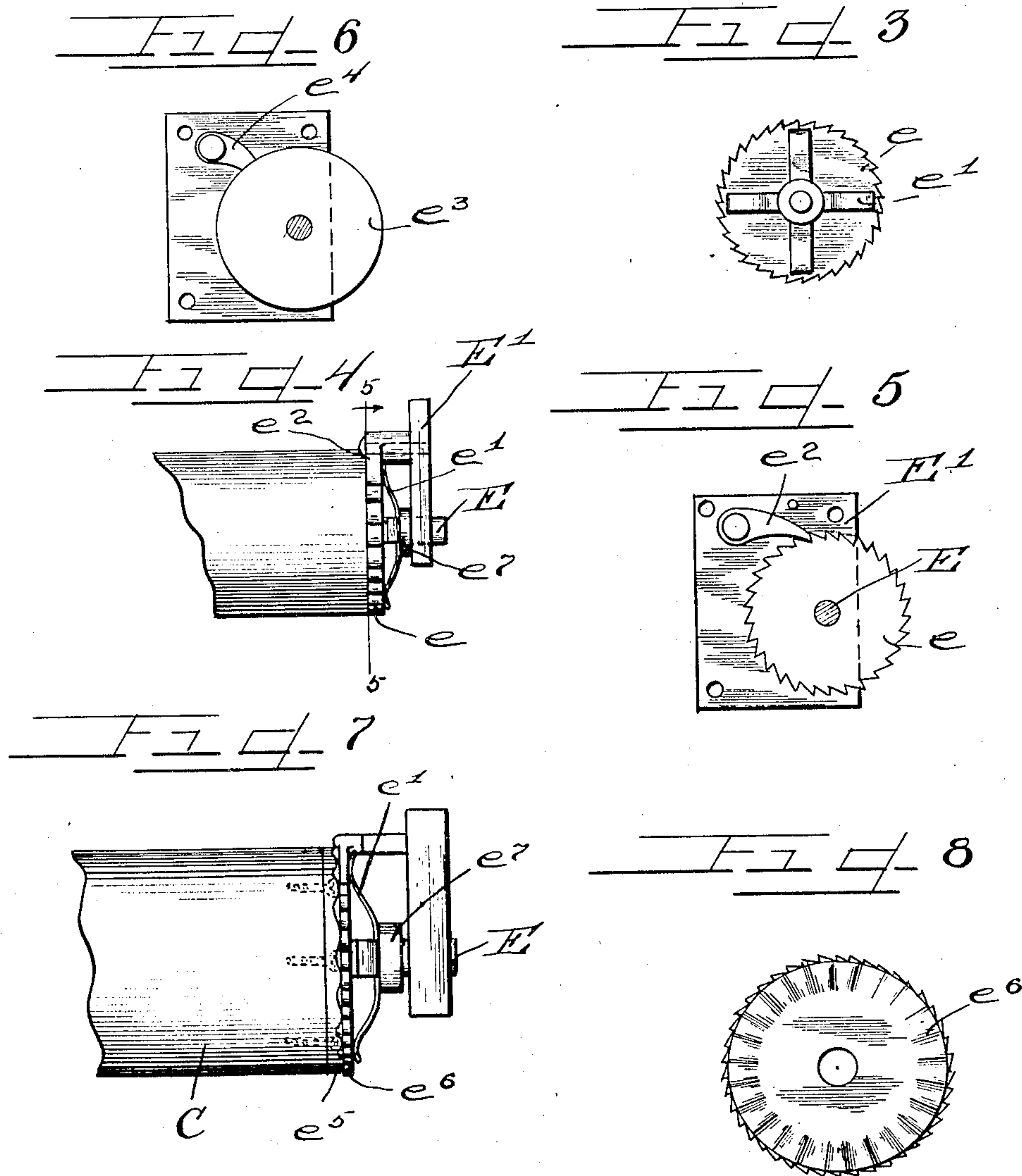
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by Charles E. Rice ATTORNEY



# UNITED STATES PATENT OFFICE.

HARRY H. SCHROYER, OF CHICAGO, ILLINOIS.

## CURTAIN-FIXTURE.

No. 882,082.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed January 21, 1907. Serial No. 353,218.

*To all whom it may concern:*

Be it known that I, HARRY H. SCHROYER, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Curtain-Fixtures; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in curtain fixtures and is shown more particularly as a curtain fixture for cars though adaptable of course for general use.

Heretofore it has been usual to support car curtains or shades upon an ordinary spring roller such as the Hartshorn, and to provide at the bottom of the shade a stick or fixture having adjustable frictional devices at the ends which engage in grooves in the window jamb and act to hold the curtain or shade from raising until released. These frictional devices are usually operated by means of metallic pulls, extending through the side of the shade and at the bottom and frequently the clothing of passengers is injured thereby. Furthermore such devices are usually expensive and are frequently out of order and prevent in some instances the proper operation of the curtain.

The object of this invention is to provide a curtain or shade fixture whereby the movement of the curtain is controlled wholly from the top, and in which although the bottom of the curtain may be mechanically held in proper relation with the window, nevertheless its adjustment is at all times maintained by a suitable device at the top of the curtain.

It is also an object of the invention to provide an improved spring curtain roller having frictional means for supporting the shade at any point in its adjustment.

The invention consists in the matters hereinafter described and more fully pointed out and defined in the appended claims.

In the drawings: Figure 1 is an inner face view of car windows provided with shades embodying my invention. Fig. 2 is an enlarged fragmentary view of a curtain and fixture embodying my invention; the fixture being partly in section. Fig. 3 is an enlarged elevation of the frictional end of the stick. Fig. 4 is a fragmentary side elevation of the stick. Fig. 5 is a section taken on line 5—5

of Fig. 4. Fig. 6 is a view similar to Fig. 5 but showing a frictional pawl instead of a ratchet pawl. Fig. 7 is a view similar to Fig. 4 illustrating a slight modification of the frictional means. Fig. 8 is an inner face view of the friction disks shown in Fig. 7.

As shown in said drawings: Pullman or other car windows A having grooved jambs as is usual are provided with curtains B secured on spring curtain rollers C. As shown the spring end of said roller is constructed as is usual with the Hartshorn or any standard spring roller such as are now in common use and having an internal torsion spring *c* coiled about and secured to an externally flattened rod *c'* and to the roll. A ratchet wheel *c''* of any suitable kind is secured on the rod and adapted to be engaged by a pawl when winding up the spring. At the opposite end of said roller are frictional controlling means whereby the rotation of the roller in rolling up the curtain is limited. For this purpose, as shown, a rod or gudgeon *E* is secured axially in the end of the roller and rotatably engaged thereon is a ratchet wheel *e* which bears firmly against the end of the roller under the action of a leaf spring *e'* comprising arms extending from a common center through which extends said gudgeon. A fixed collar *e''* is provided on the gudgeon against which the center of the spring bears and acts to maintain uniform pressure on said spring. A pawl *e'''* pivoted on the bracket or plate *E'* on which the gudgeon is journaled engages said ratchet and acts to hold the same to resist lowering of the curtain, but which permits free rotation of the ratchet when the curtain is being raised.

The curtain is provided at its lower edge or margin with a tubular stick *b* preferably metal to utilize the gravity thereof, and engaged therein at each end is a rod or gudgeon *b'* which projects into the usual groove in the window jamb adjacent thereto and acts to confine the bottom of the curtain to place. The curtain sticks however, may be made in any suitable or convenient manner and for house use the extended ends are not required. Instead of a ratchet *E*, a plain friction disk *e'''* may be employed on which engages a friction pawl or cam *e''''* pivoted on the plate or bracket *E'* as before described. This permits free rotation of said disk in one direction but holds the same firmly from rotation in the other. With heavy curtains it is sometimes desirable to rely on more fric-



tion than can be well secured by frictional engagement with the roller alone. For this purpose a radially fluted friction disk  $e^5$  is rigidly secured to the roller by means of screws nails or other suitable means, and rotatably secured upon the gudgeon E, is a complementary disk  $e^6$  of greater diameter and as shown in Fig. 4 provided at its periphery with ratchet teeth adapted to be engaged by the pawl  $e^2$  before described. The spring  $e^7$ , bears against said complementary disk  $e^6$  and holds the roller from rotation until said spring is compressed sufficiently to let one disk rotate relatively to the other.

The operation is as follows: The curtain stick is secured in place with sufficient torsional strain on the spring to permit the curtain to be fully rolled up thereby and when secured in place the pawl  $e^2$  at the spring end of the roll is either removed or is turned downwardly so that said spring acts at all times independently of said pawl, it having no effect whatever to control the action of the curtain and being only used to wind up the spring. In pulling the curtain down the ratchet or friction at the opposite end of the roller is firmly held by the pawl and acts to resist the downward pull of the curtain. Having adjusted the curtain at the desired point the pawl engages the ratchet or friction and the torsion of the spring together with the friction caused by said ratchet is sufficiently great to prevent the weight of the stick lowering the curtain. When it is desired to raise the curtain the stick is lifted. This removes the weight of the stick from the roller and the same under the torsion of its spring acts to roll up the curtain, the ratchet or friction member rotating freely under the pawl. Obviously frictional devices may be employed at any suitable point on the roller and any suitable frictional device may be employed therefor, I therefore do not purpose limiting this application for patent otherwise than necessitated by the prior art as various details of construction and arrangement may be varied without departing from the principles of this invention.

I claim as my invention:

1. The combination with a curtain roller and spring for winding the curtain thereon of a gudgeon in one end of the roller, a ratchet wheel on the gudgeon beyond the end of the roller and freely rotatable in winding the curtain, means forcing the ratchet against the outer end of the roller to frictionally engage the same and means engaging the ratchet in unwinding the curtain to prevent rotation thereof.

2. In a device of the class described the combination with a spring curtain roller of a gudgeon secured in one end thereof, a ratchet journaled on the gudgeon beyond the end of

the roller, a collar secured on the gudgeon, a spring on said gudgeon having radial arms adapted to force the ratchet inwardly to frictionally engage the extremity of the roller and a pivotal pawl permitting free rotation of the ratchet in one direction and rigidly securing the same from rotation oppositely.

3. In a device of the class described the combination with a spring impelled curtain roller, a gudgeon secured in one end thereof, a bracket supporting the same, a ratchet freely rotative on the gudgeon beyond the end of the roller adapted to frictionally engage the end of the roller, tension means bearing against the outer side of the ratchet forcing the same inwardly to frictionally engage the roller and a pawl pivoted to engage the ratchet to prevent rotation thereof in unwinding the curtain.

4. The combination with a spring curtain roller, of a fluted disk rigidly secured to one end thereof, a fluted ratchet wheel having the fluted portion frictionally engaging the same, means yieldingly forcing the ratchet against said disk and a pawl for engaging the teeth on the ratchet to prevent rotation thereof in one direction.

5. In a device of the class described the combination with a spring curtain roller of a curtain thereon, a gudgeon secured in the end of the roller, a ratchet thereon having a roughened side to frictionally bear against the outer end of the roller, means preventing rotation of the ratchet in unwinding the curtain, said ratchet freely rotatable with the curtain in winding, means for forcing the ratchet inwardly to frictionally engage the end of the roller and a rod secured in the lower edge of the curtain acting against the tension of the spring to prevent rolling up the curtain unless first lifted.

6. In a device of the class described the combination with a curtain roller and curtain of a spring for winding the curtain thereon, a counterbalancing rod in the lower edge of the curtain acting against the spring, a plate adjacent the end of the roller, a gudgeon secured in the end of the roller and journaled in the plate, a corrugated disk secured to one end of said roller, a friction member having a corrugated face to frictionally engage the disk, a leaf spring forcing the friction member inwardly and means preventing rotation thereof in lowering the curtain.

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

HARRY H. SCHROYER.

Witnesses:

J. W. ANGELL,  
K. E. HANNAH.