

P. A. HOUGHTALING.
CURTAIN HOLDING DEVICE.
APPLICATION FILED JUNE 21, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

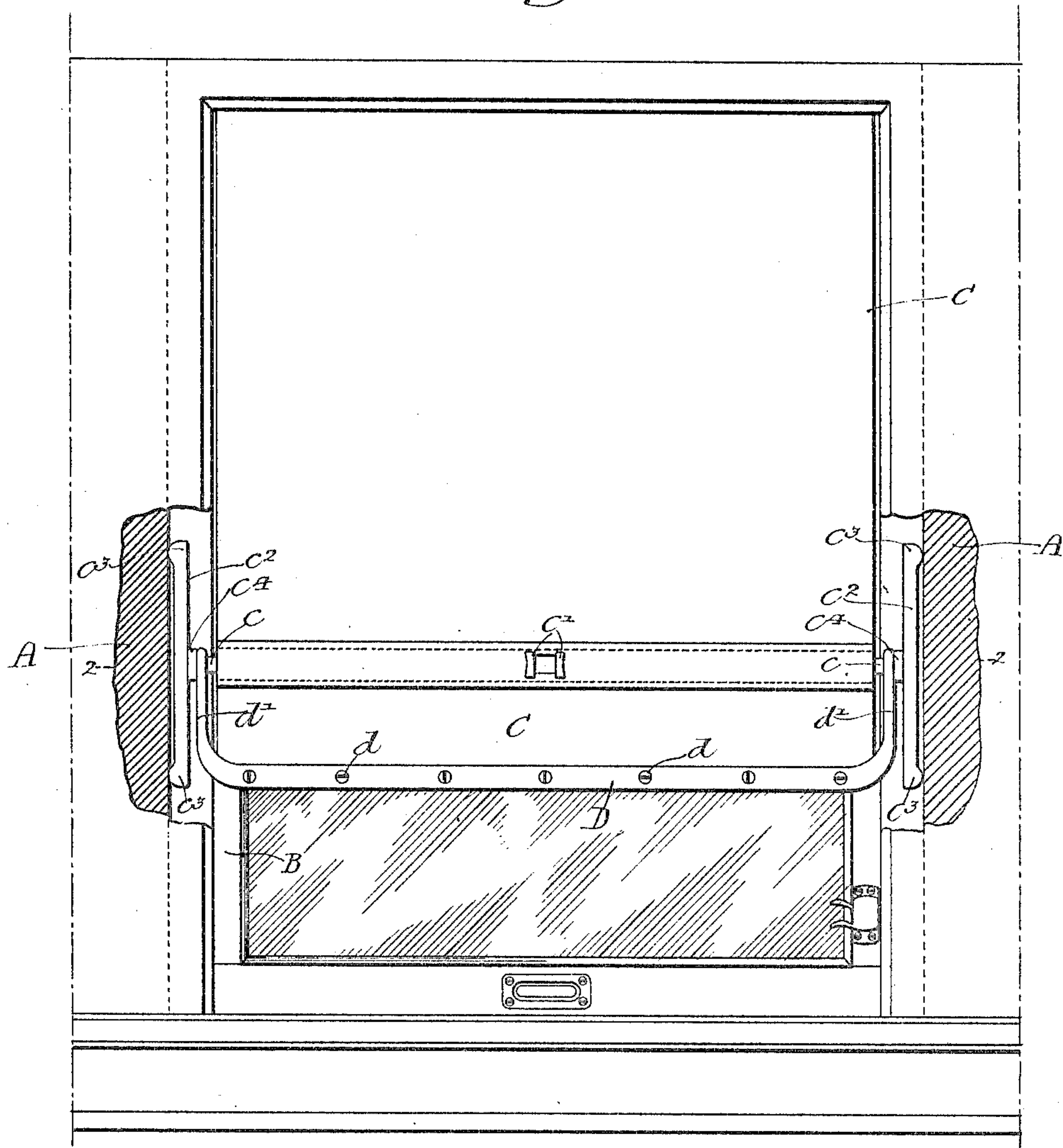
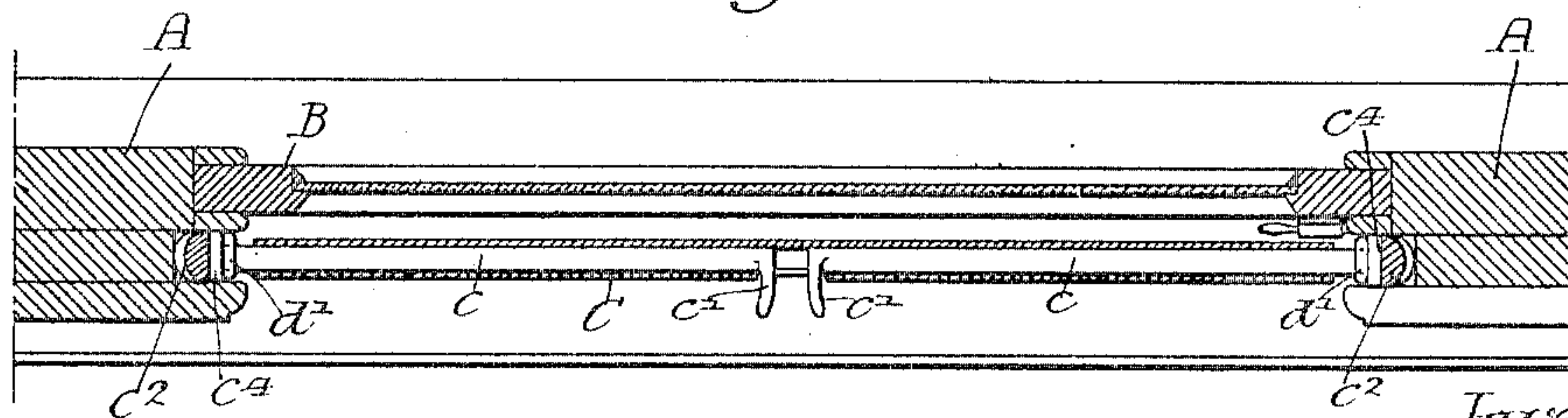


Fig. 2.



Witnesses:
Theodore H. Heath
Calvin V. Milant.

Inventor:
Paul A. Houghtaling,
by his Attorneys,
Offield, Tule & Hutchinson

No. 804,473.

PATENTED NOV. 14, 1905.

P. A. HOUGHTALING.
CURTAIN HOLDING DEVICE.

APPLICATION FILED JUNE 21, 1904.

2 SHEETS—SHEET 2.

Fig. 4.

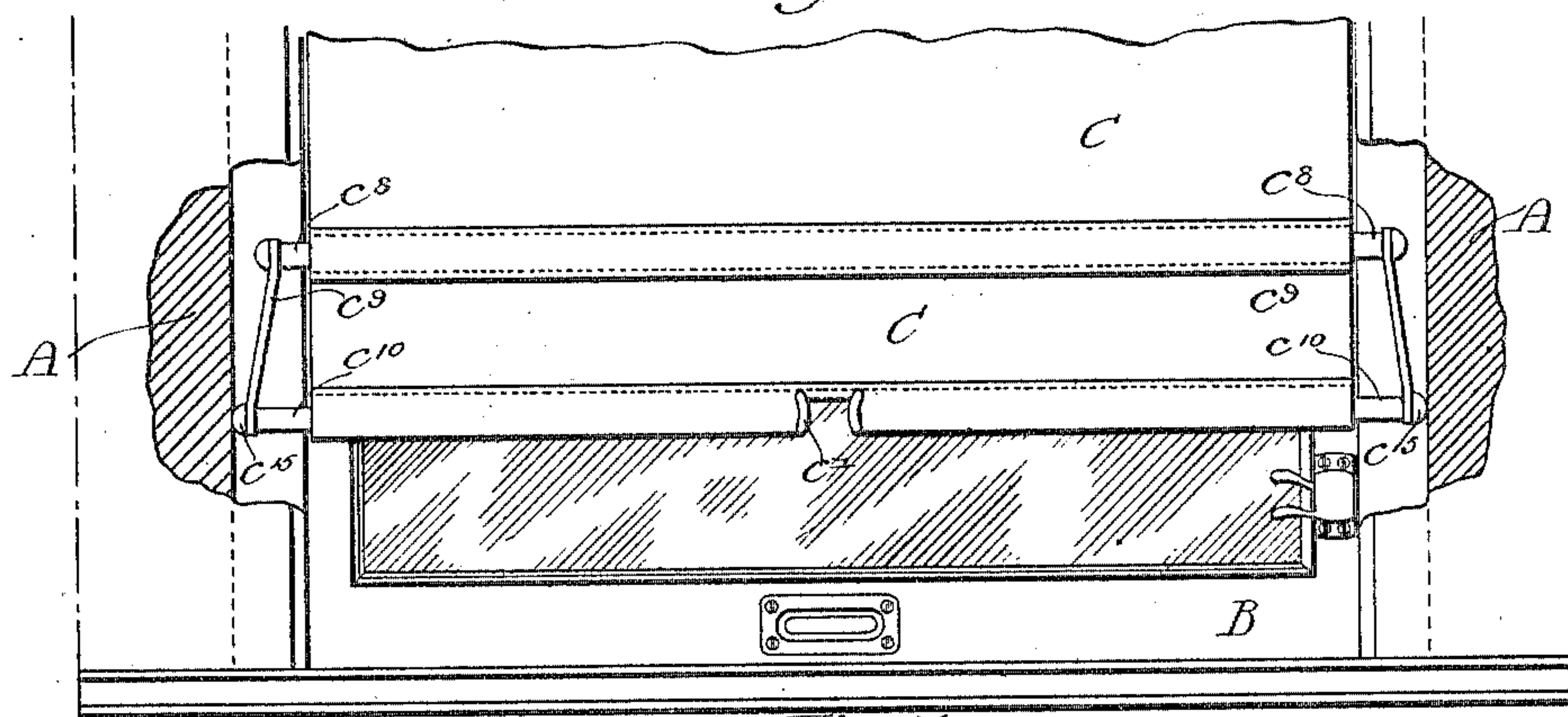


Fig. 3.

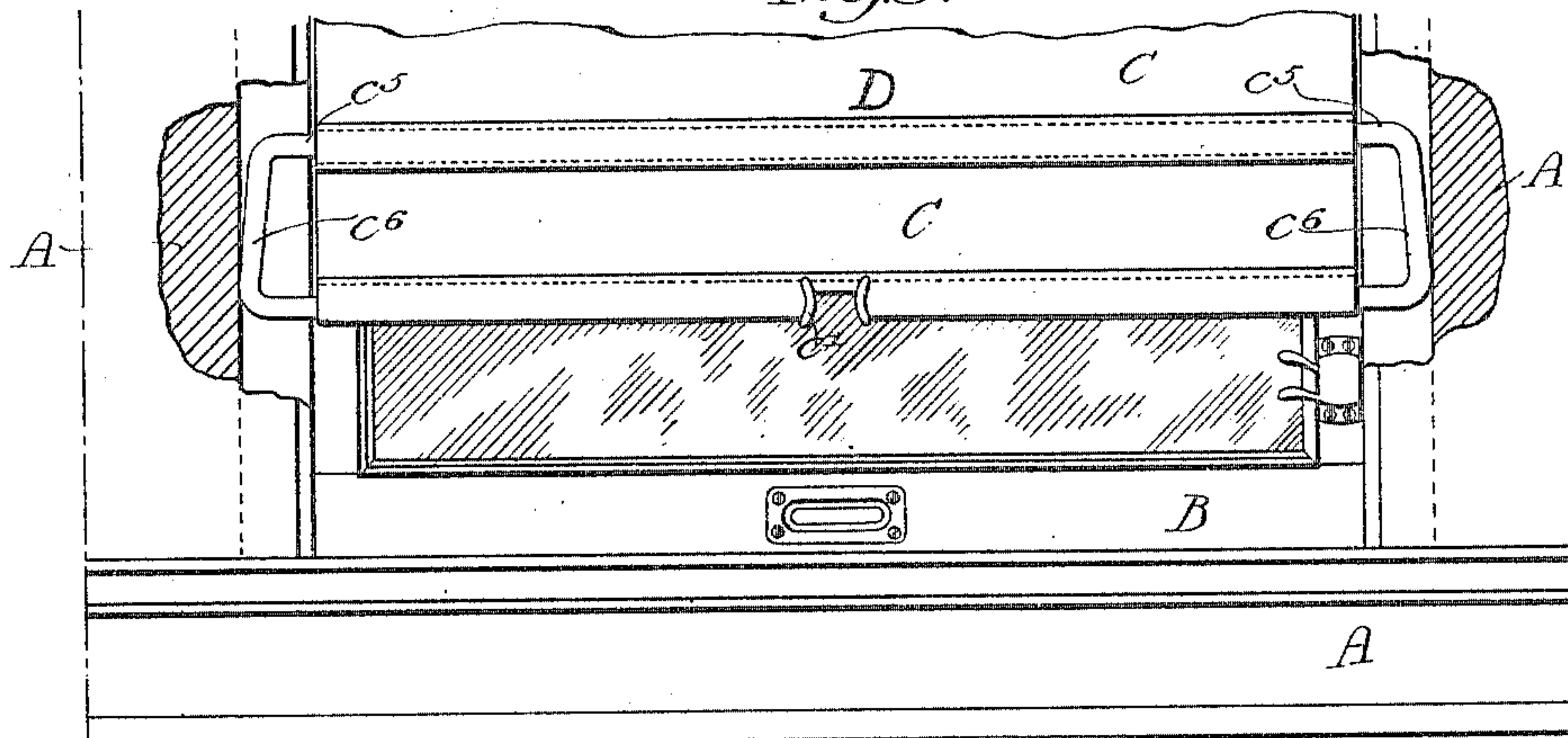
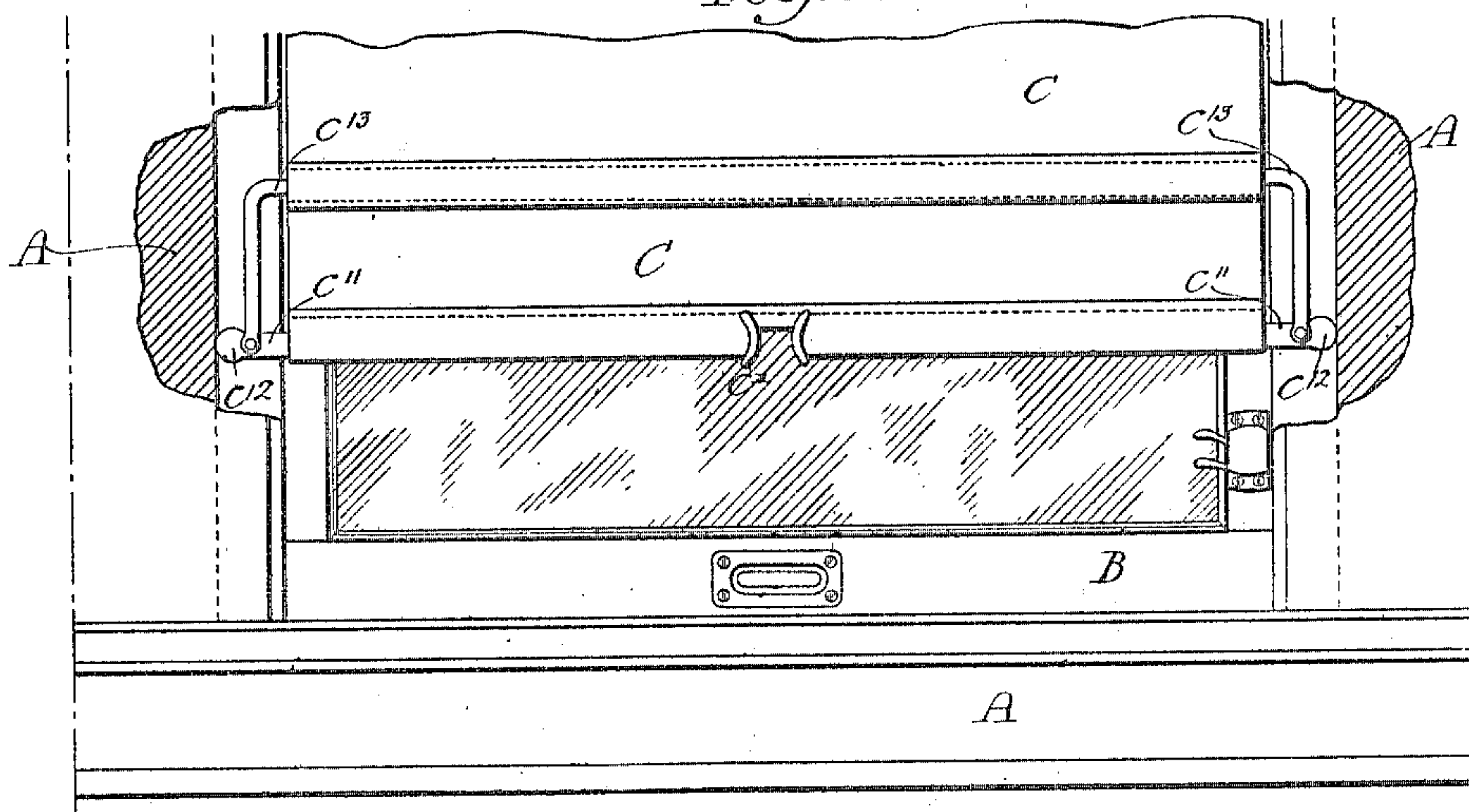


Fig. 5.



Witnesses:

John P. Strath
Calvin T. Milens

Inventor:

Rud A. Houghtaling,
by his Attorneys,
Offield, Fowler & Hutchinson

UNITED STATES PATENT OFFICE.

PAUL A. HOUGHTALING, OF RIVERTON, NEW JERSEY, ASSIGNOR TO THE CURTAIN SUPPLY COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

CURTAIN-HOLDING DEVICE.

No. 804,473.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed June 21, 1904. Serial No. 213,461.

To all whom it may concern:

Be it known that I, PAUL A. HOUGHTALING, a citizen of the United States, residing at Riverton, in the county of Burlington and State of New Jersey, have invented certain new and useful Improvements in Curtain-Holding Devices, of which the following is a specification.

This invention relates to improvements in curtain-holding devices of that class wherein the holding device (usually called a "curtain-fixture") is applied to the lower end of a curtain mounted upon a spring-actuated roller and which holding device or fixture is provided with means for frictionally engaging the window-casing and restraining the curtain against the upward pull of the roller.

The object of the invention is to provide a simple and effective curtain-fixture which will hold the curtain at any desired elevation and which may be readily adjusted to different positions without the friction holding-shoes readily coming out of the grooves in which they travel.

A distinguishing feature of my invention consists in the provision of a curtain stick or bar having elastic end portions extending beyond the side margins of the curtain and at an angle to the bottom of the stick and affording by their elasticity the power for frictionally locking the shade or curtain against upward movement either by direct contact of said elastic portions with the window-casing or by their action upon friction holding-shoes and in combining with said stick means arranged parallel to but non-coincident with the axis of the stick for retracting said elastic portions or the shoes operated thereby, said retracting means being connected at their outer ends to said elastic end portions or to the friction-shoes connected therewith and said retracting means being preferably provided at their inner or proximate ends with pinch-handles.

In one embodiment of my invention the elastic end portions of the curtain stick or bar contact with the bottoms of the grooves, and thus form in and of themselves friction holding-shoes, while in another embodiment of the invention the friction-shoes are mounted upon the extended ends of the retracting-rods. In still another embodiment of the in-

vention the ends of the retracting-rods themselves afford friction-shoes.

The several forms of construction above briefly indicated are illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation, partly in section, showing the window-frame, the sash and curtain, and the curtain-fixture applied thereto. Fig. 2 is a transverse sectional view taken on the line 2 2 of Fig. 1 longitudinally through the pocket inclosing the retracting-rods and showing the latter in plan, it being necessary to show this one section only, inasmuch as the formation of the pinch-handles and their connecting portions are the same in all embodiments of the invention herein illustrated. Figs. 3, 4, and 5 are elevational views, partly in section, showing various modifications of my invention.

In the drawings, A represents the window-frame, B the sash, and C a flexible shade or curtain. The latter is intended to be mounted on a spring-actuated shade-roller, which latter exerts a constant tendency to wind up the shade, and to restrain this tendency and to guide the shade smoothly and hold it in any desired position I apply my approved curtain-fixture, various forms of which are shown in the drawings, but all of which forms embody the same general principle. In each of said forms of construction I employ a rigid curtain stick or bar D, which, as shown in Fig. 1, is secured to the lower edge of the curtain or shade by means of screws or rivets d , so as to form a rigid binding-strip for the lower end of the shade. This curtain-stick is provided at its extremities with elastic extensions d' , which extend parallel to the side edges of the curtain. In the construction shown in Figs. 1 and 2 these extensions d' are made to bear upon the collars c^1 of the friction-shoes c^2 , said shoes being of considerable length and provided with rounded bearing-points c^3 to engage the bottom wall of the groove in the window-frame. Retracting-rods c are connected to said shoes and are arranged to slide in a suitable pocket in the shade, the proximate ends of the retracting-rods being bent to provide pinch-handles c' . With the device as thus constructed the curtain stick or bar D not only affords a binding-strip for the lower edge of the curtain, but as it extends

transversely across the curtain it affords the rigid member or base of the curtain-fixture, prevents bending or folding of the curtain, and supports the movable members of the fixture. The elastic extensions are shown in Fig. 1 as formed integrally with the bar D, and said bar may be composed of a strip of flat metal or it may be in the form of a slot-
 5 ted tube, the slot admitting the lower edge of the curtain or shade and the ends being sufficiently reduced and so set as to afford a constant outward pressure upon the friction holding-shoes.

In the form of construction shown in Fig. 3 the curtain-stick D has straight extensions c^5 beyond the margins of the curtain and bent extensions c^6 , which afford friction-shoes, while the retracting-rods are continuations of said extensions and integral with the curtain-stick D and the friction-shoes c^6 . In this construction the curtain-stick may be composed of a single light rod the bending of which will afford the necessary elasticity to maintain the shoes in holding contact with the bottoms of the grooves. Practically the same construction is shown in Fig. 4, the extensions c^8 carrying springs c^9 , which are engaged at their lower ends with the extended ends c^{10} of the retracting-rods, the latter being provided with bearing-points c^{15} , which afford friction-shoes.

In Fig. 5 the curtain stick or bar D has its elastic extensions c^{13} pivoted to the extended ends c^{11} of the retracting-rods, and the latter are provided with the rounded bearings c^{12} , which form the friction holding-shoes.

In the forms of construction shown in Figs. 3, 4, and 5 it will be observed that the curtain stick or bar D, as well as the retracting-rods c , are inclosed in pockets afforded by two folds of the material of the curtain or shade and parallel rows of stitching. In the construction shown in Fig. 1 the retracting-rods are mounted in a similar pocket.

In the various constructions illustrated it will be observed that the curtain stick or bar affords a rigid member which is provided with elastic extensions whose elasticity affords the power for frictionally holding the curtain, that said elastic extensions may of themselves constitute the holding-shoes or may afford the power for applying such shoes, and that in each case the retracting means are arranged parallel to the curtain stick or bar, but non-coincident therewith. These provisions afford means for applying the pressure at one side of the longitudinal axis of the rigid shade stick or bar, while the retracting means is applied in the same line and at the extremities of the elastic portions, thereby making the retracting of the friction-shoes easy of accomplishment, as well as providing a guide of such length as to be efficient to control the movement of the curtain and prevent the same from readily coming out of the grooves. It

is also observed that the maximum length of the holding and guiding means is such as to prevent the ready tilting of the fixture and to restrain the tendency of the holding means to come out of the grooves when the fixture is tilted.

While this curtain-fixture affords an efficient means for holding a spring-actuated curtain or shade, it will be observed that there are few parts and those of simple construction and that the fixture as a whole can be cheaply made and is not likely to get out of order.

In some of the claims I make use of the term "complementary securing means arranged parallel with and separated from said curtain-stick," and by this term I mean the rod or rods c , Fig. 1, or the corresponding parts of the other forms illustrated in the other figures or the equivalents thereof.

I claim—

1. A curtain-fixture comprising a pair of rod portions one movable relative to the other, a pocket for the inner ends thereof, shoes at the outer ends of said rod portions, and a connecting portion intermediate the shoes and independent of the pocket adapted to move the shoes in opposite directions.

2. A curtain-fixture comprising a pair of rod portions one movable relative to the other, shoes at the outer ends of said rod portions, and a continuous yielding connecting member between said shoes tending to move them in opposite directions.

3. A curtain-fixture comprising a pair of rod portions one movable relative to the other, a pocket for the inner ends thereof, shoes at the outer ends of said rod portions, and a connecting device intermediate the shoes and without the pocket adapted to move the shoes in opposite directions.

4. A curtain-fixture comprising a pair of rod portions one movable relative to the other, shoes at the outer ends thereof provided with spring portions, and a continuous connecting member including said spring portions between said shoes tending to move them in opposite directions.

5. A curtain-fixture comprising a pocket, a pair of shoes at the ends thereof operatively associated therewith, and a connecting device intermediate the shoes and independent of the pocket adapted to move the shoes in opposite directions.

6. A curtain-fixture comprising the following instrumentalities, to wit: a stick, a pair of rod portions one movable relative to the other arranged at points removed from said stick, and means intermediate the outer ends of the rod portions and the adjacent ends of the stick whereby portions of said instrumentalities constitute retaining or holding parts.

7. A curtain-fixture comprising the following instrumentalities, to wit: a stick, a pair of rod portions one movable relative to the other arranged at points removed from said

stick, and connecting portions between the outer ends of the rod portions and the adjacent ends of the stick, one of said connecting portions being yieldable whereby portions of said instrumentalities constitute friction holding or retaining parts.

8. A curtain-fixture comprising the following instrumentalities, to wit: a stick, a pair of rod portions one movable relative to the other arranged at points removed from said stick, and spring portions intermediate the outer ends of the rod portions and adjacent ends of the stick whereby portions of said instrumentalities constitute friction holding or retaining parts.

9. In a curtain-holding fixture, a spring-actuated holding member adapted to engage the guide-groove of a window-casing, and a pinch-handle formed to project without said guide-groove, said pinch-handle and the spring being integrally connected.

10. In a curtain-holding fixture, spring-actuated holding members adapted to engage the guide-grooves of a window-casing, and pinch-handles formed to project without said guide-grooves, said pinch-handles and the springs being integrally connected.

11. In a curtain-fixture, holding parts, a connecting part between corresponding ends thereof, said connecting part and the holding parts being integrally connected, and pinch-handles carried by the opposite ends thereof.

12. In a curtain-fixture, holding parts, a connecting part between corresponding ends thereof, and pinch-handles carried by the other ends thereof, the whole being of integral formation.

13. In combination with a shade having a pocket, oppositely-disposed rods therein adapted to shift longitudinally and provided with a spring connection located without said pocket and between the outer ends of said rods for creating a holding pressure.

14. In combination with a curtain or shade, a curtain stick or bar secured thereto, and complementary means arranged parallel with and separated from said curtain stick or bar connected thereto at its outer ends, the connecting portions being retractable inwardly and normally projecting beyond the edges of the curtain to constitute guides.

15. In combination with a curtain or shade, a curtain stick or bar secured thereto, and complementary means arranged parallel with and separated from said curtain stick or bar connected thereto at its outer ends whereby the bottom of the curtain is reinforced, the connecting portions constituting friction holding devices.

16. In combination with a curtain or shade, a curtain stick or bar secured thereto, a rod arranged parallel with and separated from said curtain stick or bar and connected at its outer end with the latter, the connecting por-

tion being retractable inwardly and normally projecting beyond the edge of the curtain to constitute a guide.

17. A curtain-fixture comprising a curtain stick or bar adapted to be carried by the curtain, friction bearing-surfaces adapted to engage the window-frame, spring portions normally acting to maintain said friction bearing-surfaces in holding engagement, and retracting-rods for said friction bearing-surfaces adapted to be mounted on the curtain parallel to and without the curtain-stick.

18. A curtain-fixture comprising a curtain stick or bar adapted to be carried by the curtain, friction bearing-surfaces adapted to engage the window-frame, spring portions normally acting to maintain said friction bearing-surfaces in holding engagement, and retracting-rods for said friction bearing-surfaces adapted to be mounted on the curtain independently of and parallel to but non-coincident with the axis of the curtain-stick.

19. The combination of a curtain, holding means therefor including longitudinally-movable rod portions carried by the curtain, a curtain-stick extending across the curtain and carried thereby at a point removed from said rod portions and having spring means at the end thereof for moving the rod portions outwardly, and means for manually retracting the rod portions.

20. The combination of a curtain, a curtain-stick extending across the curtain and having resilient portions, a pair of rod portions carried by the curtain at points removed from said curtain-stick, the resilient portions of the curtain-stick being adapted to force said rod portions apart, and means for manually moving the rod portions toward each other.

21. The combination of a curtain, a curtain-stick extending across the same, and having resilient portions beyond the edges of the curtain, and a pair of rod portions carried by the curtain at points removed from said curtain-stick and normally thrust outwardly by said resilient portions of the curtain-stick.

22. The combination of a curtain, rod portions carried by the lower portion of the curtain, friction bearing-surfaces for engaging the window-frame, and a curtain-stick extending across the curtain at a point removed from said rod portions and having resilient portions acting to force the rod portions outwardly and the friction bearing-surfaces into contact with the window-frame.

23. The combination of a curtain stick or bar adapted to extend across the curtain with its ends extended beyond the edge of the curtain, rod portions arranged at points removed from said curtain stick or bar also adapted to be carried by the curtain and having endwise movement, and resilient portions located beyond the edge of the curtain intermediate the curtain-stick and the rod portions tending to

move the said rod portions away from each other and toward the side walls of a window-frame.

24. In a curtain-fixture, the combination of
5 a curtain stick or bar adapted to be mounted transversely of a curtain or shade and having angularly-bent elastic portions provided with outwardly-pressed friction bearing-surfaces, and retracting-rod portions therefor also
10 adapted to be mounted on said curtain externally of and parallel with said curtain-stick, said retracting-rod portions having pinch-handles at their inner proximate ends.

25. In a curtain-fixture, the combination of
15 a curtain stick or bar adapted to be mounted transversely of a curtain or shade and having angularly-bent elastic portions provided with outwardly-pressed friction bearing-surfaces, and retracting-rod portions therefor also
20 adapted to be mounted on said curtain externally of and parallel with said curtain-stick, said retracting-rod portions being provided with means for drawing them together.

26. In a curtain-fixture, the combination of
25 a curtain stick or bar adapted to be mounted transversely of a curtain or shade, friction bearing-surfaces elastically associated with the extremities of said curtain-stick, and retracting-rod portions for said friction bearing-
30 surfaces also adapted to be mounted on said curtain externally of and parallel with said curtain-stick and provided with means for drawing them together.

27. In a curtain-fixture, the combination of
a curtain stick or bar adapted to be mounted 35 transversely of a curtain or shade, friction bearing-surfaces elastically associated with the extremities of said curtain-stick, and retracting-rod portions for said friction bearing-surfaces also adapted to be mounted on said 40 curtain externally of said curtain-stick and projecting into proximity at their inner ends.

28. In a curtain-fixture, the combination of
a curtain stick or bar adapted to be mounted transversely of a curtain or shade, friction 45 bearing-surfaces elastically associated with the extremities of said curtain-stick, and retracting-rod portions for said friction bearing-surfaces also adapted to be mounted on said curtain externally of said curtain-stick and 50 provided with means for drawing them together.

29. In a curtain-fixture, a spring-actuated holding part formed to engage the guideway of a window-frame and a pinch-handle car- 55 ried directly by the spring thereof formed to project without said guideway.

30. In a curtain-fixture, a spring-actuated holding part formed to engage the guideway of a window-frame and a pinch-handle inte- 60 gral with the spring thereof formed to project without said guideway.

PAUL A. HOUGHTALING.

Witnesses:

WILLIAM E. BRADLEY,
ELIAS H. WHITE.