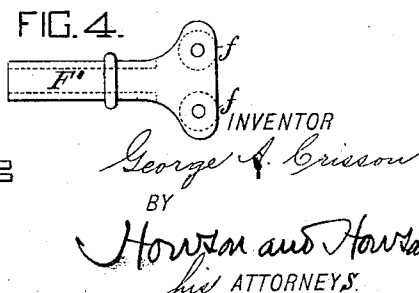
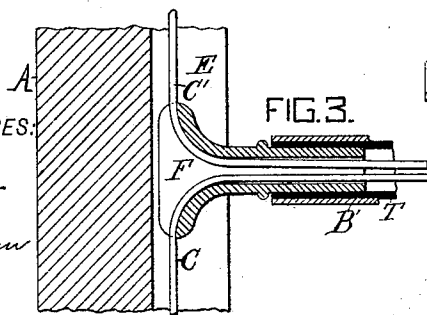
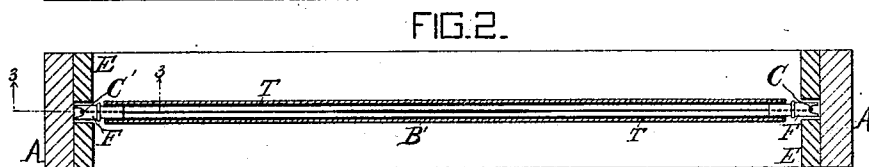
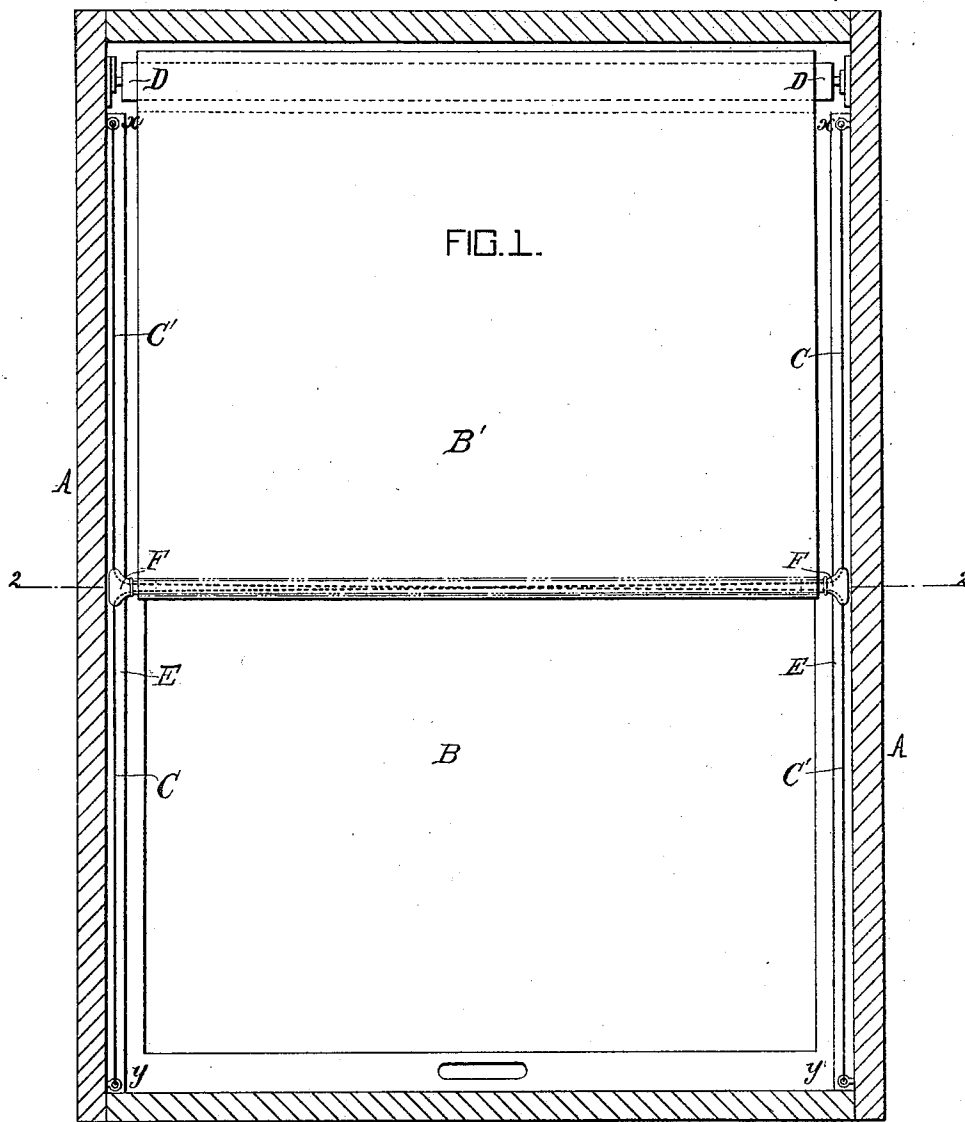


(No Model.)

G. A. CRISSON.
WINDOW OR CURTAIN FIXTURE.

No. 513,307.

Patented Jan. 23, 1894.



WITNESSES:

S. C. Connor
George Baumann

UNITED STATES PATENT OFFICE.

GEORGE A. CRISSON, OF TARRYTOWN, NEW YORK, ASSIGNOR OF ONE-HALF
TO JAMES N. DICKEY, OF PHILADELPHIA, PENNSYLVANIA.

WINDOW OR CURTAIN FIXTURE.

SPECIFICATION forming part of Letters Patent No. 513,307, dated January 23, 1894.

Application filed November 10, 1893. Serial No. 490,539. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. CRISSON, a citizen of the United States of America, and a resident of Tarrytown, New York, United States of America, have invented certain Improvements in Window and Curtain Fixtures, of which the following is a specification.

My invention relates to window and curtain fixtures, more particularly such as are intended for use in railway cars, and the object of my invention is to construct a simple but effective window or curtain fixture which will enable the window or curtain to be raised or lowered to any position or height within the limits of the window frame with its cross bar or bars always horizontal, and to remain at any height to which it may be moved.

In the accompanying drawings, Figure 1 is a face view or elevation of a railway car window provided with my improved curtain fixture, the frame or casing of the window being shown in section. Fig. 2 is a section on the line 2—2, Fig. 1. Fig. 3 is a section on the line 3—3, Fig. 2, drawn to a larger scale, and with part of the frame on one side in section. Fig. 4 is a view of a modification.

In the drawings I have shown my invention as applied to a window curtain, but it should be understood that my improvement is equally applicable to window-sashes, window-screens, &c.

Referring to Fig. 1, A is the window-frame, and B the window, which of course may both be of any suitable design or construction. The curtain B' is of fabric, leather or other suitable material, and is wound upon a spring roller D, the construction of this spring roller being such as to tend at all times to wind the curtain up on to the roller and therefore raise the curtain to its highest position.

In constructing my invention in its simplest form, I provide the lower end of the curtain with a tube T, which may be of metal or other suitable material. Through this tube pass two flexible cords, wires or chains C and C'. Each of these cords is connected both to the upper and to the lower end of the window frame, but at diagonally opposite corners; thus the cord C is connected to the upper part of the window frame as at x and to

the lower part of the window frame as at y , diagonally opposite, while the cord C' is connected to the upper part of the window frame as at x' on the side opposite that at which the cord C is connected, while the lower end of the cord C' is connected to the lower end of the window-frame, as at y' , in the diagonally opposite corner. Thus the two cords cross each other within the tube at the lower edge of the curtain and pass out of the tube at the opposite open ends. Where they pass out I prefer to provide funnels or guide pieces F, preferably of the flattened form indicated in Figs. 1, 2 and 3. Each funnel piece may have its inner end fitted within the end of the tube T, as shown in Fig. 3. These cords where they pass out of the funnels or guide pieces at the ends of the tubes, bear with sufficient friction thereon to maintain the curtain in any position which may be given it, and in opposition to the pull of the spring in the curtain roller, but at the same time permit of the curtain being raised or lowered by a slight pulling or lifting power applied to the bottom. Furthermore, owing to the described arrangement of these cords, the line of the bottom edge of the curtain cannot be pushed or pulled out of substantial parallelism with the top and bottom of the window-frame; or in other words no matter how the curtain is manipulated or pulled up and down, the lower edge will always keep its proper horizontal position, assuming that the window is as usual vertical.

The funnels or guide pieces at the ends of the curtain may be variously modified. For instance in Fig. 4, I have shown a construction in which rollers f are provided for the passage and guidance of the cords.

I prefer to provide in the side pieces of the window vertical grooves E in which the guide pieces F can travel and the cords be more or less concealed from view.

It will be understood that in this specification I use the word "cord" in a sufficiently wide sense to include chains, ropes or other equivalent flexible connections, and I also wish it to be understood that I use the word "curtain" in this specification in a sufficiently wide sense to include similar devices

as window-sashes, window-screens, &c., to which my invention may be applied.

I claim as my invention—

1. The combination of a window frame and
5 curtain with a tube carried by the curtain
and two cords, each connected to diagonally
opposite corners of the window-frame and
passing through the said tube and crossing
the other cord, substantially as and for the
10 purpose set forth.

2. The combination of a window-frame and
curtain having a tube at its lower end with
funnels, or guide pieces at the ends of the tube
and two cords, each connected to diagonally
15 opposite corners of the window frame, and
passing through the tube and crossing the

other cord, substantially as and for the purpose described.

3. The combination of a window-frame having vertical grooves, and a curtain having a
20 tube with its ends guided in said grooves and
two cords each connected to diagonally opposite
corners of the window frame, and passing
through the tube and crossing the other cord,
substantially as and for the purpose described. 25

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

GEORGE A. CRISSON.

Witnesses:

EDITH J. GRISWOLD,
HUBERT HOWSON.