No. 692,039. Patented Jan. 28, 1902.

J. THORPE.

WINDOW, PANEL, OR OTHER SLIDING FRAME.

(Application filed July 13, 1901.)

(No Model.)

FIG. 1.

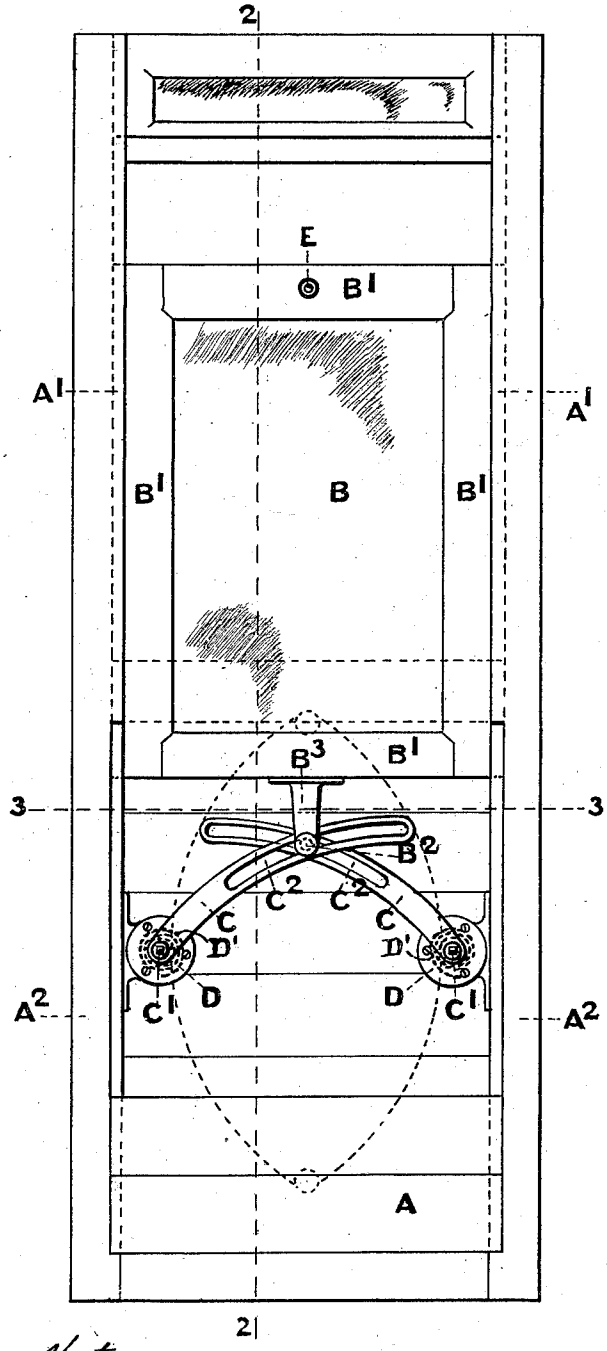


FIG. 2.

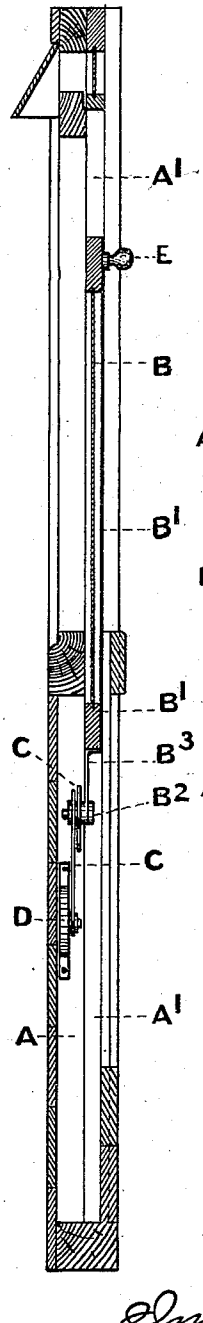
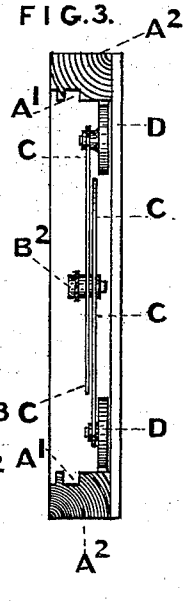


FIG. 3.



Witnesses
J. B. Roman

Inventor
James Thorpe
By Wm. E. Boulden
Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES THORPE, OF SHEFFIELD, ENGLAND.

WINDOW, PANEL, OR OTHER SLIDING FRAME.

SPECIFICATION forming part of Letters Patent No. 692,039, dated January 28, 1902.

Application filed July 13, 1901. Serial No. 68,245. (No model.)

To all whom it may concern:

Be it known that I, JAMES THORPE, a subject of the King of England, residing at 79 Westbury street, Pinfold Lane, Sheffield, Yorkshire, England, have invented certain new and useful Improvements in or Relating to Windows, Panels, or other Sliding Frames, (for which I have made application for Letters Patent in Great Britain under No. 2,098, dated January 30, 1901,) of which the following is a specification.

This invention relates to windows, panels, and other sliding frames, its object being to provide means for holding the window or panel in any position without the use of straps, stops, cord, pulleys, or weights, such as are generally used for this purpose.

Although the invention is specially designed for use in a carriage-window and is hereinafter described as so applied, it is to be understood that it is equally applicable to all windows, panels, or frames which are opened and shut by a sliding motion.

In the accompanying drawings, Figure 1 is an elevation of a carriage-window fitted to a door and constructed according to this invention, some of the door-panels being removed for the sake of clearness. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a section on the line 3 3 of Fig. 1.

Like letters indicate like parts throughout the drawings.

The door A is fitted with a window B in its frame B′, adapted to slide in grooves A′, formed in the side frames A^2 of the door A. A spring-controlled lever or arm C is pivoted at C′ on each side of the sash, both levers having an operative connection with the window-frame B′. In the preferred construction the levers C are slotted at C^2, and a pin B^2, carried on a downward extension B^3 of the frame B′, engages the slots in both levers. The pivot-spindles C′ of the levers C are carried in boxes D, secured to the side frames A^2 of the door. The boxes D each contain a coiled spring D′, one end of which is secured to the box or other fixed part, the other end being fastened to the pivot-spindle C′ or to the lever C. The springs D′ may be arranged to act upon the levers in various ways—for instance, one spring may tend to move its lever upward, while the other is oppositely arranged. In this case the strength of the spring tending to move its lever upward would be at least sufficient to counterbalance the sum of the forces exerted by the weight of the window and by the other spring. Again, both springs may be arranged so as to tend to move their levers upward, the combined strength of the springs being sufficient to hold the window in any position.

A handle or the like E is secured to a suitable part of the window-frame B′ on the inside, whereby the window may be raised or lowered. A similar handle may be secured to the outside of the window-frame.

It will be understood that the window is retained in any position by the springs D′ acting on it through the levers C and pin B^2.

The grooves A^2, in which the window slides, may be either made with parallel sides, as shown, or may be tapered to allow the window to be locked in the ordinary manner, a draft and dust excluder being preferably provided of any desired construction. In the former case any convenient catch may be provided for locking the window in its closed position. Such a catch would conveniently be capable of being operated from both the inside and outside.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of a support, a sliding frame therein, two levers pivoted at one end to the support at opposite sides, an operative connection between the frame and the other end of the levers and springs acting on the levers for the purpose set forth.

2. The combination of a support, a sliding frame, therein, two slotted levers pivoted to the support, a pin on the frame engaging the slots in the levers and springs acting on the levers for the purpose set forth.

3. The combination of a support, a sliding window therein, two spindles on the support, a slotted lever on each spindle, a pin on the window engaging the slots in the levers and a coiled spring acting on each of the spindles to operate the levers substantially as set forth.

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

JAMES THORPE.

Witnesses:

A. H. CRAVENWOOD,

THOMAS HARVEY.