

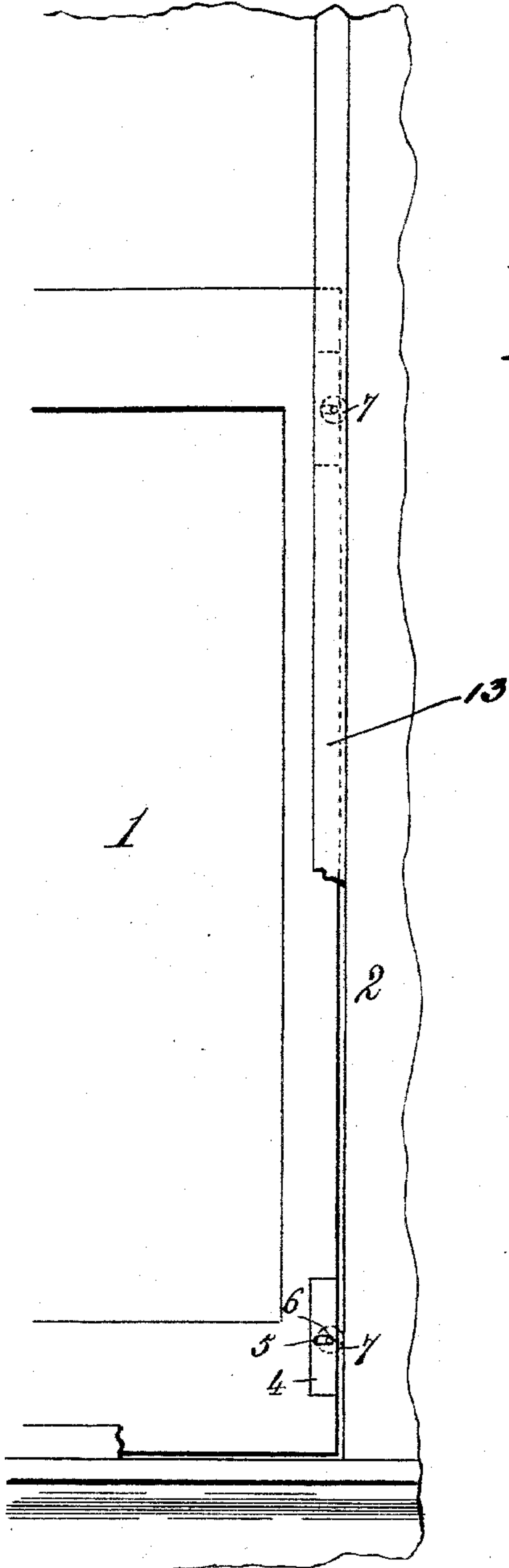
(No Model.)

D. W. BROMLEY.  
SASH GUIDE.

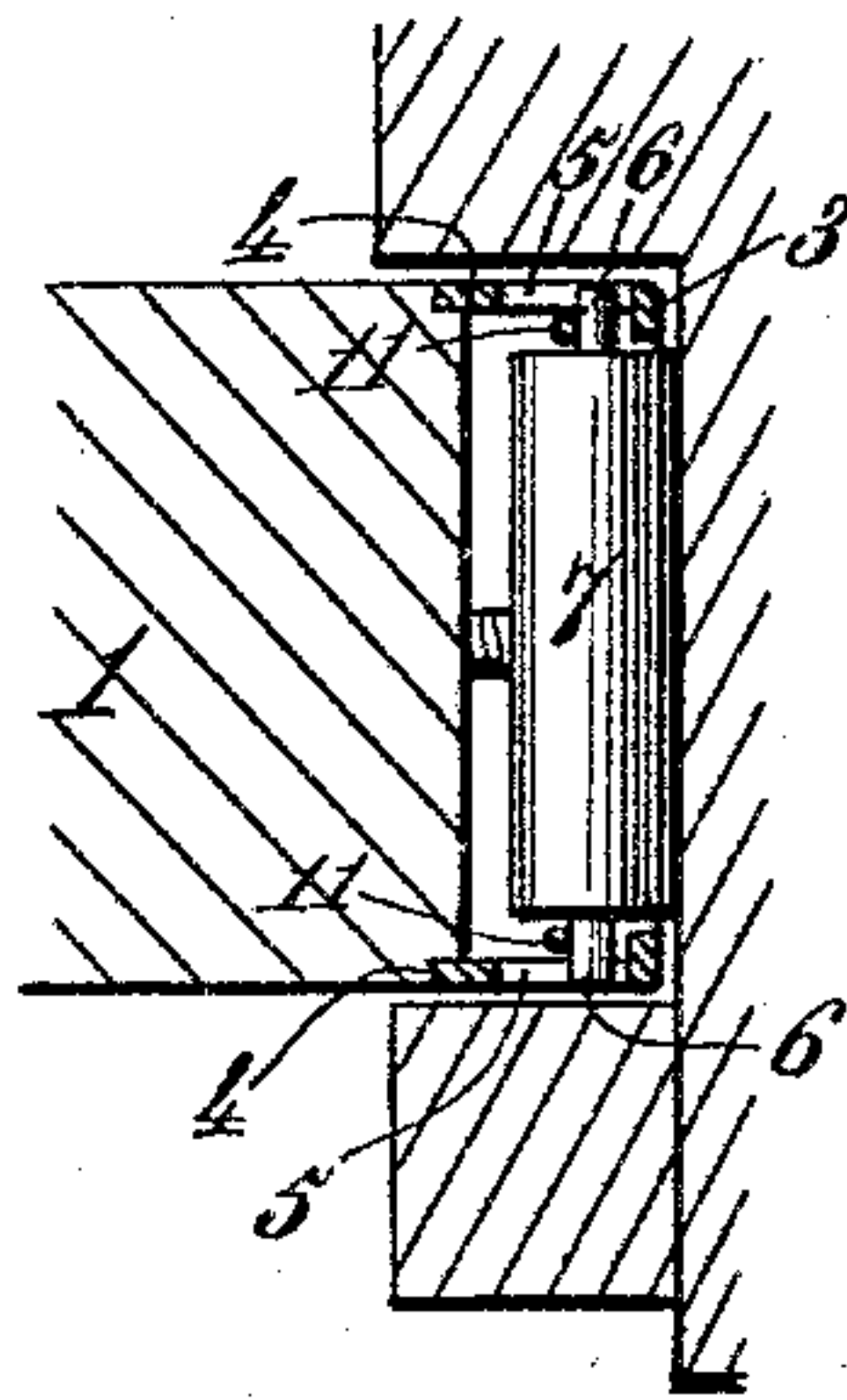
No. 563,650.

Patented July 7, 1896.

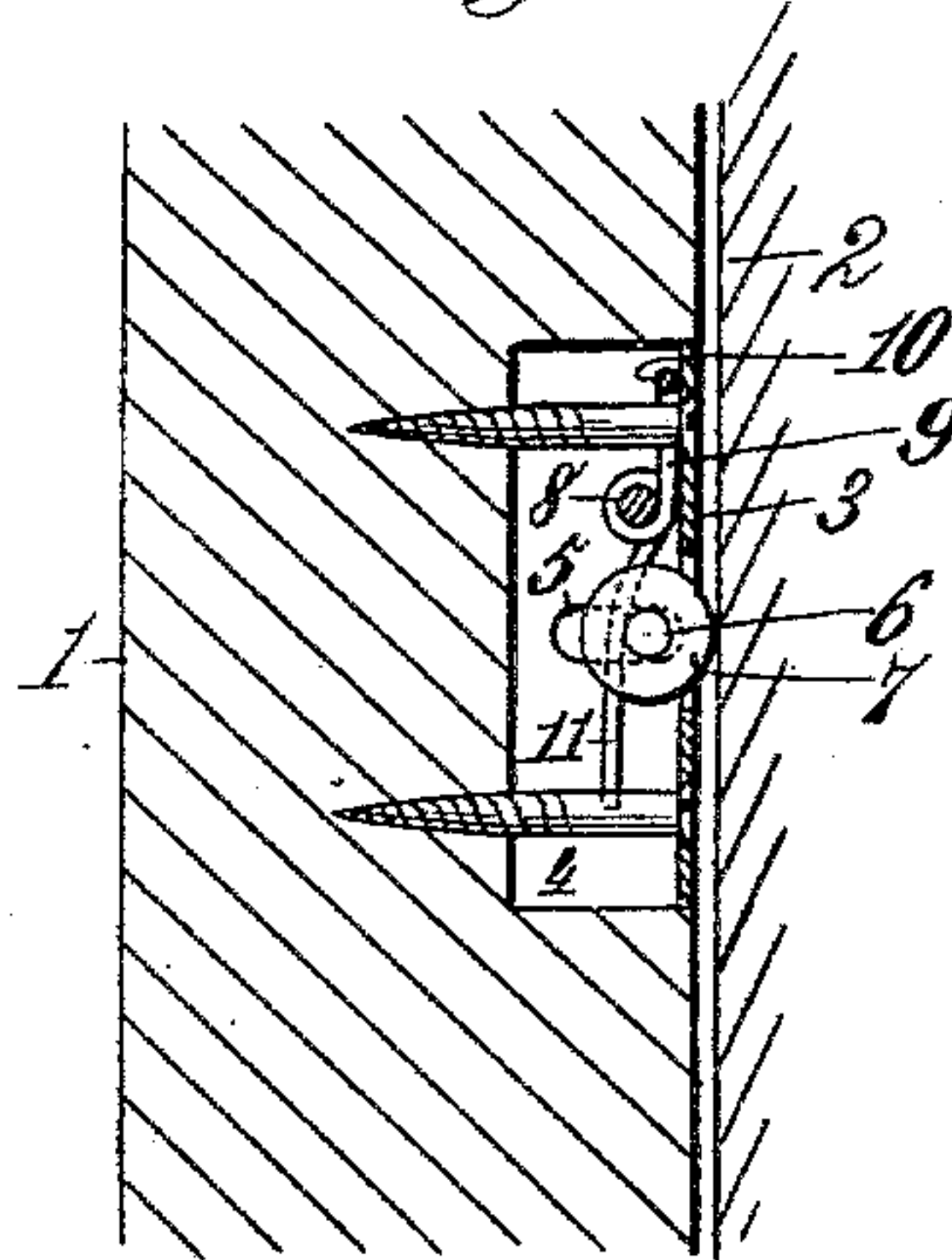
*Fig. 1.*



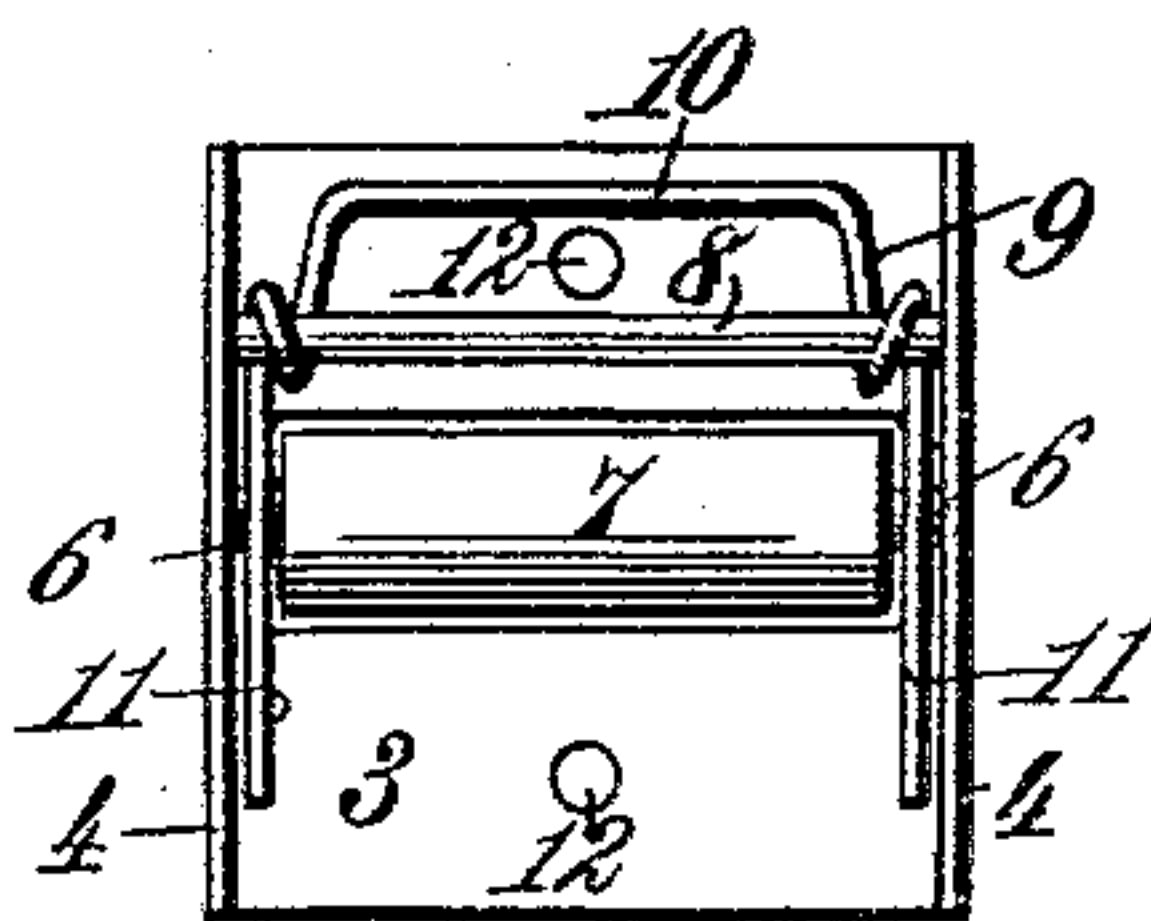
*Fig. 2.*



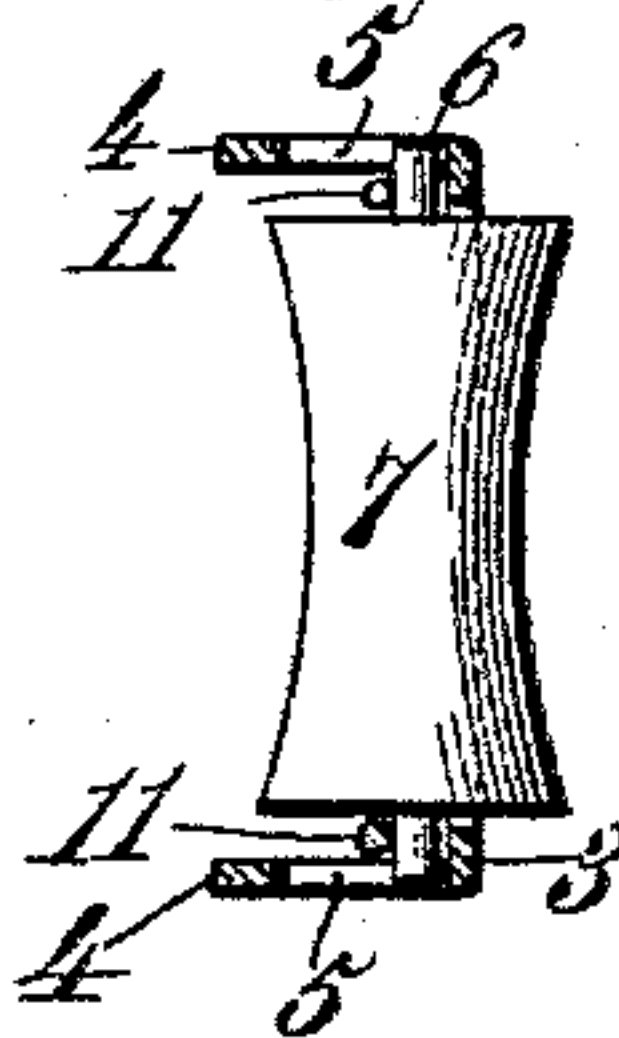
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses:  
*Robert G. Watt,*  
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Inventor:  
*Daniel W. Bromley.*  
By *James L. Norris,*  
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# UNITED STATES PATENT OFFICE.

DANIEL W. BROMLEY, OF LEXINGTON, KENTUCKY, ASSIGNOR OF ONE-HALF  
TO WILLIAM E. BARRON, OF SAME PLACE.

## SASH-GUIDE.

SPECIFICATION forming part of Letters Patent No. 563,650, dated July 7, 1896.

Application filed March 14, 1896. Serial No. 583,204. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL W. BROMLEY, a citizen of the United States, residing at Lexington, in the county of Fayette and State of Kentucky, have invented new and useful Improvements in Sash-Guides, of which the following is a specification.

This invention relates to a sash-guide, and has for its object to provide means for rendering easy the movement of the sash when the latter is raised and lowered, and to compensate for the shrinkage of the wood of which the sash and sash-frame are formed.

To these ends my invention consists in the features and in the construction or arrangement of parts hereinafter described, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is an elevation, partially broken away, of a portion of a car-window. Fig. 2 is a horizontal section taken through one of the guides. Fig. 3 is a vertical section thereof. Fig. 4 is a rear plan view of one of the guides and Fig. 5 is a detail view of a modified form of roller.

Referring to the drawings, the numeral 1 indicates a car-window, and 2 the frame in which the window-sash slides. To either or both sides of the sash are affixed yielding rollers that bear against the inner side of the window-frame with a yielding and rolling bearing, thus preventing the window sash from binding or sticking in the frame and compensating for any shrinkage that may occur in either the window sash or frame. The rollers are constructed and arranged as follows:

The numeral 3 indicates the roller-frame, consisting of a flat plate having upturned flanges 4. The flanges 4 are provided with transverse elongated and coincident slots 5, in which are journaled trunnions 6, formed on or secured in the ends of a roller 7. Said roller projects through a correspondingly-shaped aperture formed in the plate 3. Fixed between the flanges 4 is a rod 8, about which is coiled a U-shaped spring 9, the crown 10 of which bears against the plate 3, and the free ends 11 thereof rest upon the trunnions 6 and operate to force the roller 7 through

the aperture in the plate 3 with a constant pressure. The plate 3 is applied to the edge of the sash and is secured thereto by screws or small nails that pass through perforations 12, formed in the plate 3 for the purpose.

In practice two rollers are applied to each side of the sash, near the top and bottom of the latter, and a strip or molding 13 is fastened to the window upon each side in such manner as to overlap the edges of the sash and conceal the rollers from view.

In Figs. 2, 3, and 4 I have shown the roller as being of cylindrical form, while in Fig. 5 the roller is shown as having a concave periphery to reduce the bearing-surface that comes in contact with the window-frame, and rollers of either form shown may be employed, as may be preferred or found most desirable.

A window provided with the described rollers may be raised and lowered with great ease, the rollers having a rolling and yielding contact with the window-frame, whereby the sash is prevented from binding or sticking within the frame, and any shrinkage that may occur in either the sash or frame, or both, will be compensated for by the springs which operate to force the rollers against and maintain them in contact with the frame. The rollers also hold the window steady and prevent the same from rattling in the frame, which is a frequent source of annoyance in car-windows. By journaling the trunnions of the rollers in the slotted bearings of the frames, as shown, the thrust of the rollers is borne by the flanges of the frame, thus relieving the springs of all strain other than that necessary to force the rollers into contact with the window-frame.

I have shown and described my improved guide as applied to a car-window, but it will be manifest that the same may be applied to windows of all descriptions.

Having described my invention, what I claim is—

1. In a guide for windows, the combination with a frame 3 having parallel upturned side flanges 4 provided with transverse elongated and coincident slots 5, of a roller 7 projecting at its periphery through an aperture formed in the front wall of the frame



and provided at its ends with trunnions 6 which project into said slots, and a U-shaped spring connected to a fixed support between its crown and ends and bearing at its crown 5 against the front wall of the frame and at its free ends against the rear sides of the trunnions, substantially as described.

2. In a guide for windows, the combination with a frame 3 having parallel upturned 10 side flanges provided with transverse elongated and coincident slots 5, of a roller 7 projecting at its periphery through an aperture formed in the front wall of the frame and provided at its ends with trunnions 6

which project into said slots, a rod 8 fixed 15 between the said flanges, and a U-shaped spring coiled between its crown and ends about said rod and bearing at its crown against the front wall of the frame and at its free ends against the rear sides of the trun- 20 nions, substantially as described.

In testimony whereof I have hereunto set my hand in presence of subscribing witnesses.

DANIEL W. BROMLEY.

Witnesses:

R. AMSPIGER,  
CLARENCE EGBERT,  
FLORENCE CAMPBELL.