

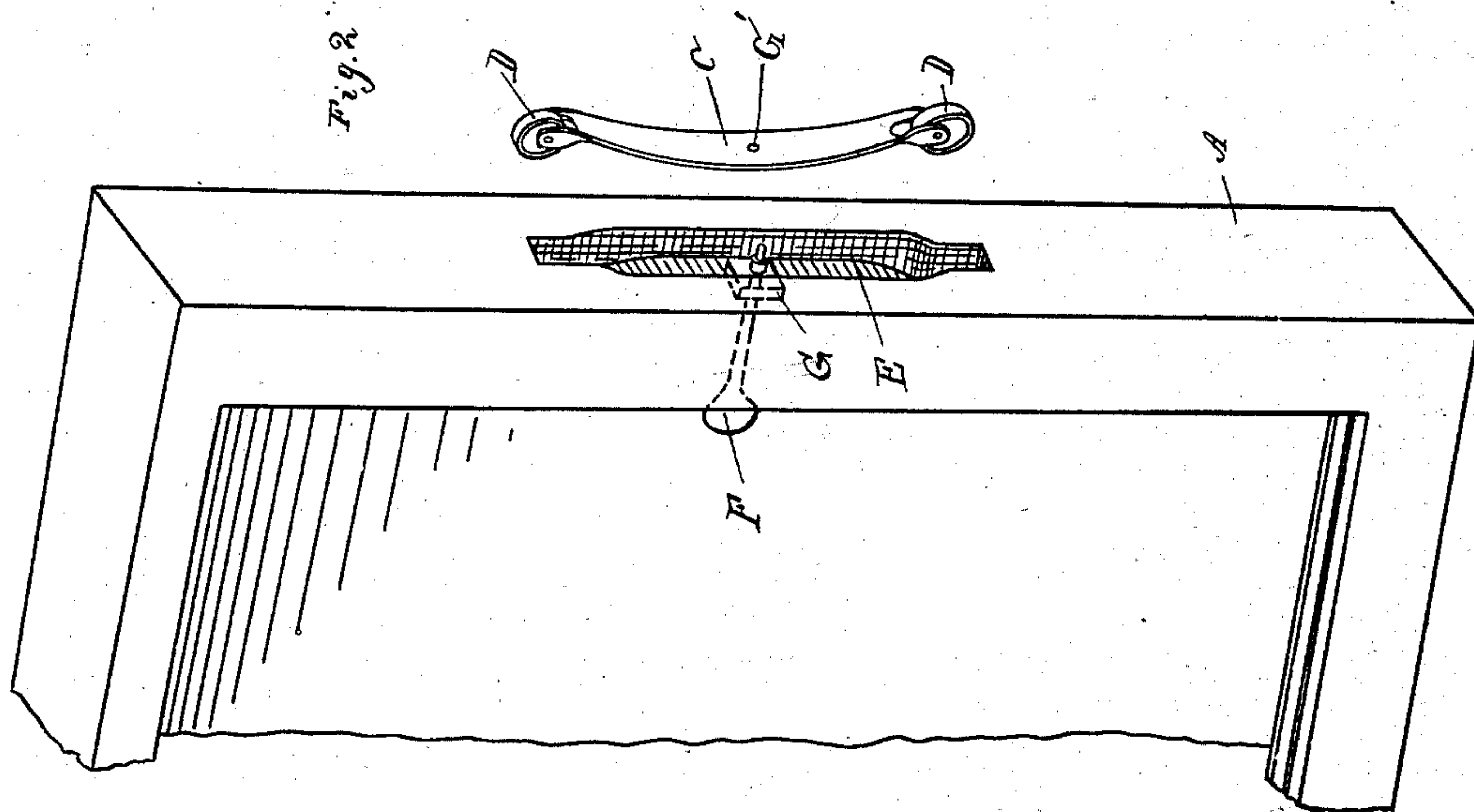
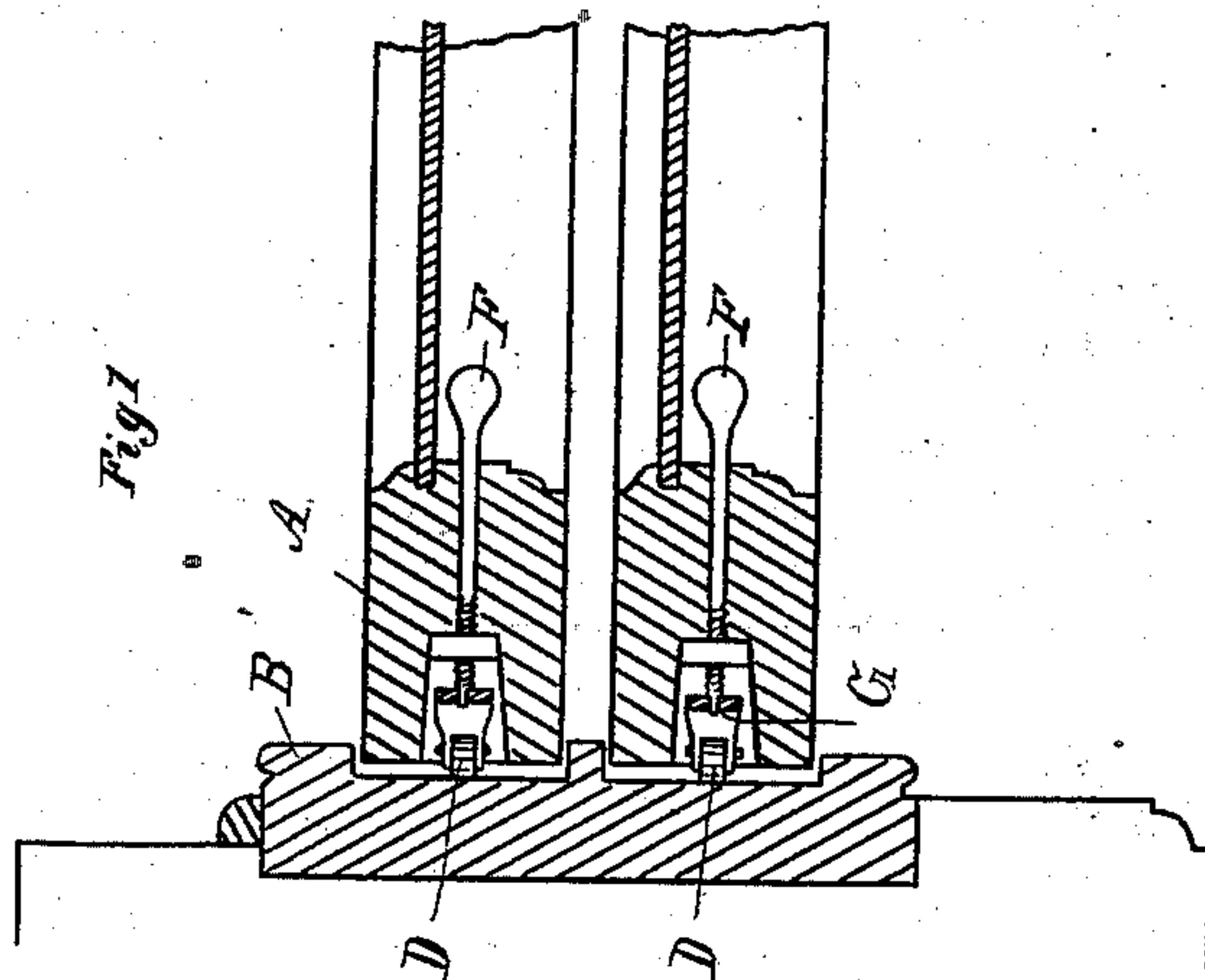
(No Model.)

G. A. GRENVILLE.

SASH HOLDER.

No. 317,121.

Patented May 5, 1885.



Attest:
John Schuman.
C. S. Scully.

Inventor:
George A. Grenville.
by his Atty
Thos. J. Sprague

UNITED STATES PATENT OFFICE.

GEORGE A. GRENVILLE, OF KINGSVILLE, ONTARIO, CANADA.

SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 317,121, dated May 5, 1885.

Application filed January 14, 1885. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. GRENVILLE, of Kingsville, in the county of Essex and Dominion of Canada, have invented new and
5 useful Improvements in Window-Sash Attachments; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this
10 specification.

This invention relates to an improvement in devices for balancing window-sashes, so that when raised or lowered to any desired height they will stay in their adjusted position.

15 The improvement consists in the peculiar combinations and the construction and arrangement of parts hereinafter more fully described and claimed.

In the drawings which accompany this specification, Figure 1 is a horizontal cross-section through a window, showing my device in place. Fig. 2 is a perspective view showing my improved friction sash-balance detached from the recess in the window-sash.

25 A is a window-sash, and B is the window-jamb, both of the usual construction.

C is a leaf-spring, preferably curved as shown. D D are two rubber-faced rollers, secured to the ends of the leaf-spring in any
30 suitable way so that they are free to roll. In the drawings the leaf-spring is shown bifurcated at each end, and a rivet is driven through the bifurcated ends to secure the rollers in place.

35 E is a suitable recess in the edge of the sash, in which the device can be loosely inserted, and F is a thumb-screw passing through the sash from the inside and engaging into a nut, G, which is centrally secured at the bottom of
40 the recess E.

In practice the parts are so arranged that the end of the thumb-screw furnishes a central fulcrum for the leaf-spring, allowing the rollers to project sufficiently from the recess to impinge
45 against the adjacent inner face of the jamb, and if sufficient tension is given to the leaf-spring by means of thumb-screw the friction of

the rollers against the jamb can be so regulated as to hold the window-sash in position against its gravity.

I prefer to provide both stiles of each window-sash with this friction device, and if one is not sufficient two or more may be used for each stile.

It is preferable to provide the leaf-spring in the center with a small hole or indentation, G', which, in connection with a reduced or tapering end of the screw F, will hold the leaf-spring against accidental displacement.

Instead of the thumb-screw F, a fulcrum of any other kind may be used for the leaf-spring, but preferably such a fulcrum which admits of adjusting the tension of the leaf-spring.

The device herein described will be found to keep always in good working order, and the effort required to raise or lower the window-sash is, on account of the rolling nature of the friction, but little. It is inexpensive and can be readily applied to any window.

I am aware of the Patents Nos. 5,505 and 84,088, and make no claim to the constructions shown therein as forming part of my invention.

I deem it important that the end of the set-screw F pass through the center of the leaf, as shown, for by this construction no other means are required to retain the spring in place against displacement. The set-screw thus serves the double function of holding the spring in place and, in connection with the
80 nut G, regulating the tension of said spring.

What I claim as my invention is—

An attachment for a window-sash, consisting of a leaf-spring carrying at its two ends flexible wheels or rollers, in combination with a set-screw whose end passes through the center of the leaf-spring, whereby the tension of the spring is regulated and the spring held in its position in the sash, substantially as and for the purposes set forth.

GEO. A. GRENVILLE.

Witnesses:

H. S. SPRAGUE,
E. J. SCULLY.