

G. A. Sturges.

Sash Holder.

N^o 89,356.

Fig. 1.

Patented Apr. 27, 1869.

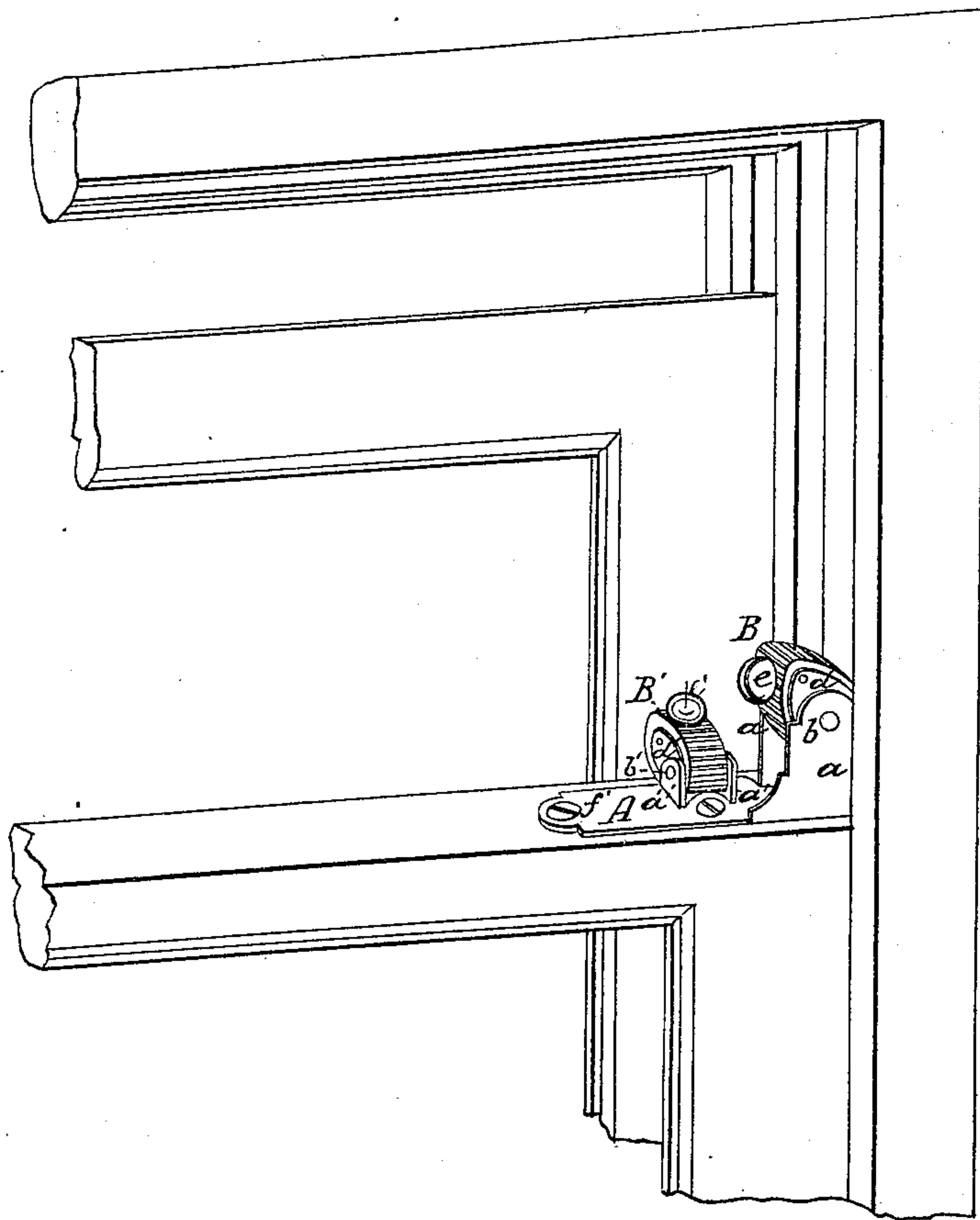
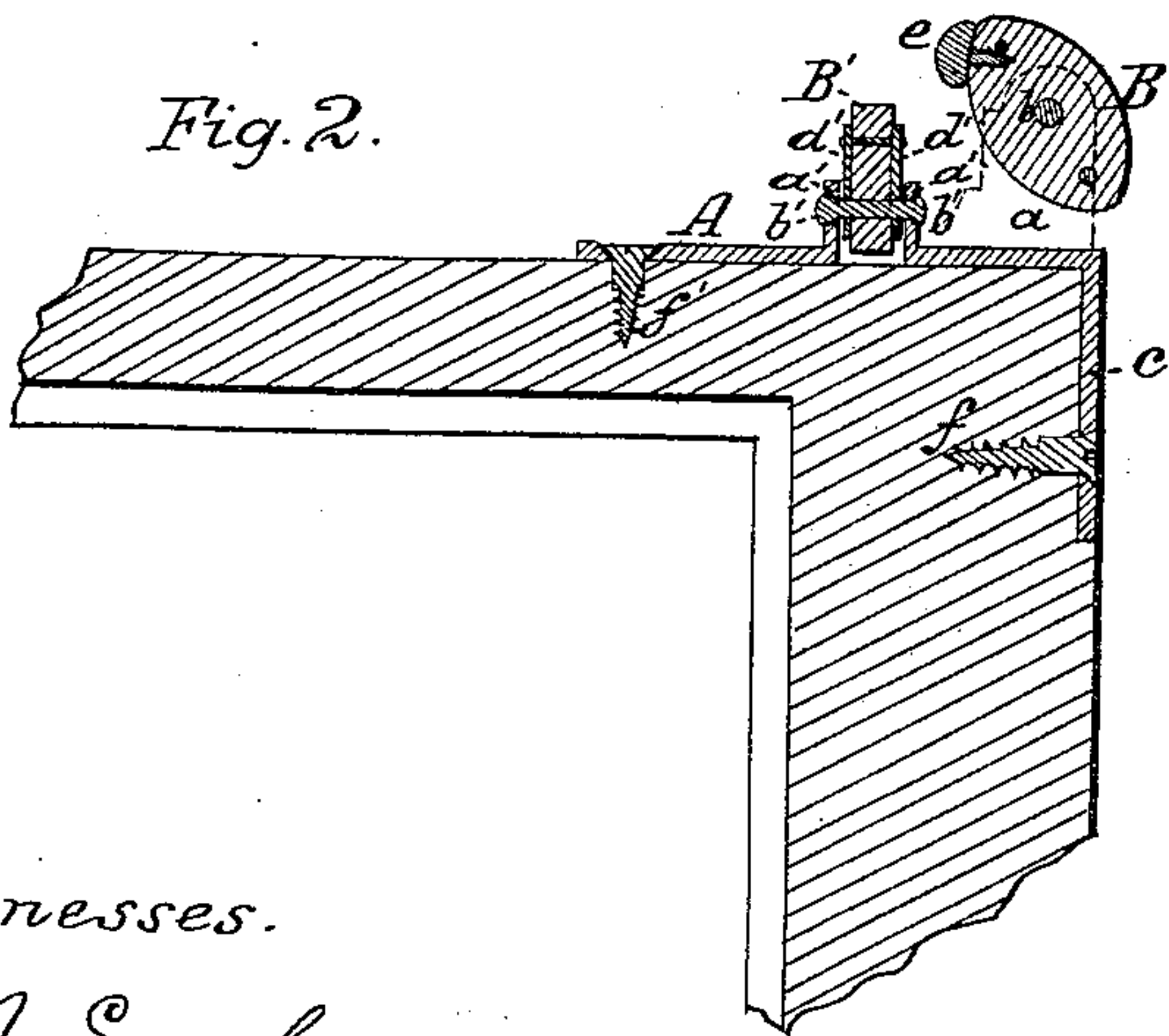


Fig. 2.



Witnesses.

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GEORGE ANSON STURGES, OF DELHI, NEW YORK.

Letters Patent No. 89,356, dated April 27, 1869.

IMPROVEMENT IN SASH-HOLDER.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern :

Be it known that I, GEORGE ANSON STURGES, of Delhi, in the county of Delaware, and State of New York, have invented a new and useful Improvement in "Stops for Window-Sashes;" and I do hereby declare the following to be a clear and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a perspective drawing of my improved window-sash stop, showing the manner in which it is applied to the window-sashes.

Figure 2 is a longitudinal section of the same, showing more particularly the manner of fastening it to the under sash.

Like letters of reference indicate like parts.

The nature of my invention consists in constructing a window-sash stop in such a manner that both the upper and under sashes can be upheld at any point in the window-frame by the same "stop," which is fastened to the top of the under sash only.

To obtain this result, I make a metallic plate, A, which can be either struck out by means of dies, or cast, as may be desired.

This plate is provided with two pairs of ears, or standards, *a a*, and *a' a'*, the use of which is to act as hinge-posts for the elliptic-shaped stops *B B'*, which work in them upon the pins *b b'*.

One pair of those ears is placed with its axial line at right angles with the axial line of the plate. The axial line of the other pair coincides with that of the plate.

The planes of both pairs of ears are perpendicular to the plane of the plate A.

One end of the plate A is turned down at right angles with the body of the plate, as shown at C, fig. 2, for the purpose of the better securing the plate to the window-sash.

Within the standards (or ears) *a a*, *a' a'*, are two elliptic-shaped cams, or stops, working on pins *b b'*.

The cams are made of India rubber, vulcanized to the requisite degree of hardness, which is just sufficiently soft to spring a very little, the better to crowd on the wood of the window-frame and upper sash, and also by its spring to keep the sashes close to the frame of the window, and prevent them from rattling.

The cam B, working within the ears *a a* upon the pin *b*, is made in the form of an ellipse, and is hung exactly in the centre, with the plane of the ellipse coincident with the plane of the lower sash, so that one end of the elliptic rubber stop will act (against the window-frame) to keep the sash from being pushed up when the sash is close down; and the other end of the ellipse will act as a stop to prevent the sash from falling down, when the same is pushed up to admit air.

The elliptic cam *B'*, working within the ears *a' a'*

upon the pin *b'*, is hung in the focus of one of the ends, with the plane of the ellipse at right angles with the plane of the sashes, so that the upper end of the elliptic stop may press against the upper sash, and support it at any desired point in the window-frame, whether the under sash be open or shut.

Secured by rivets to the sides of each of the elliptic cams, are metal plates *d d*, *d' d'*, (one pair of plates to each cam,) of the same elliptic shape as the cams, but a little smaller, the use of which is to support the rubber, and prevent it from being forced too far back on the hinge-pins, should much force be applied to the sashes, with the intention of forcing them open.

The metal knobs *e e'* may be applied, one to each cam, for the purpose of assisting (by their weight) the cams *B B'* to drop the more readily into or out of lock, as may be desired, and also to afford a better hold to the fingers when altering the position of the cams.

The method of applying and operating my improved sash-stop is as follows:

The plate A is placed upon the top of the under sash, in the position shown in fig. 1, a seat being cut in the edge of the sash to receive the part C, as shown in fig. 2. The plate is then secured to the sash by means of the screws *f f'*, and the sashes being properly placed in the window-frame the stop is ready for use.

When it is desired to lock the under sash down, the top of the cam B is pressed against the frame of the window, in which position the centre of the elliptic cam being some distance out from and under the point of contact, any force applied to the sash, with the intention of raising it, only tends to press the stop firmer against the window-frame, the retaining power of the stop being further increased by the nature of the material used for the cams, which, being of rubber, made to yield a very little, crowds and resists more and more, as the strain upon them increases.

Should it be desirable to raise the sash, the top of the cam is turned over until the transverse axis of the ellipse is perpendicular, in which position, as the cam does not touch the window-frame, the sash can be easily raised.

To support the under sash at any desired height in the window-frame, the top of the cam B is turned over until the bottom part of the elliptic cam comes in contact with the window-frame, in which position it will securely hold the sash at any height it may be placed at in the window-frame.

To support the upper sash at any desired point in the window-frame, turn back the top of the cam *B'*, and lower or raise the sash to the point desired, when the cam, being again placed against the sash, will hold it securely at the place desired.

The advantages of this improvement are, its sim-

plicity, durability, and efficiency. It acts as a stop for both sashes, yet there is nothing complicated about it to get out of order. It is made of material which will last for a considerable time in constant use without wearing away the window-frame. It securely holds both sashes at any point in the window-frame desired, and at night the upper sash may be lowered a little for air, while the under sash remains closed and locked, without any danger of the under sash being raised, or the upper sash being lowered from without.

I am aware that rubber cams have been used for fastening window-sash, which cams I do not claim; but

What I do claim, is—

The arrangement and application of the above-described device, as and for the purpose specified.

GEORGE ANSON STURGES.

Witnesses:

H. J. ENGLAND,
SOLOMON RICE.