

C. R. Jenkins.

Sash Stop.

Patented Nov. 19. 1867.

No 71,017.

Fig. 3.

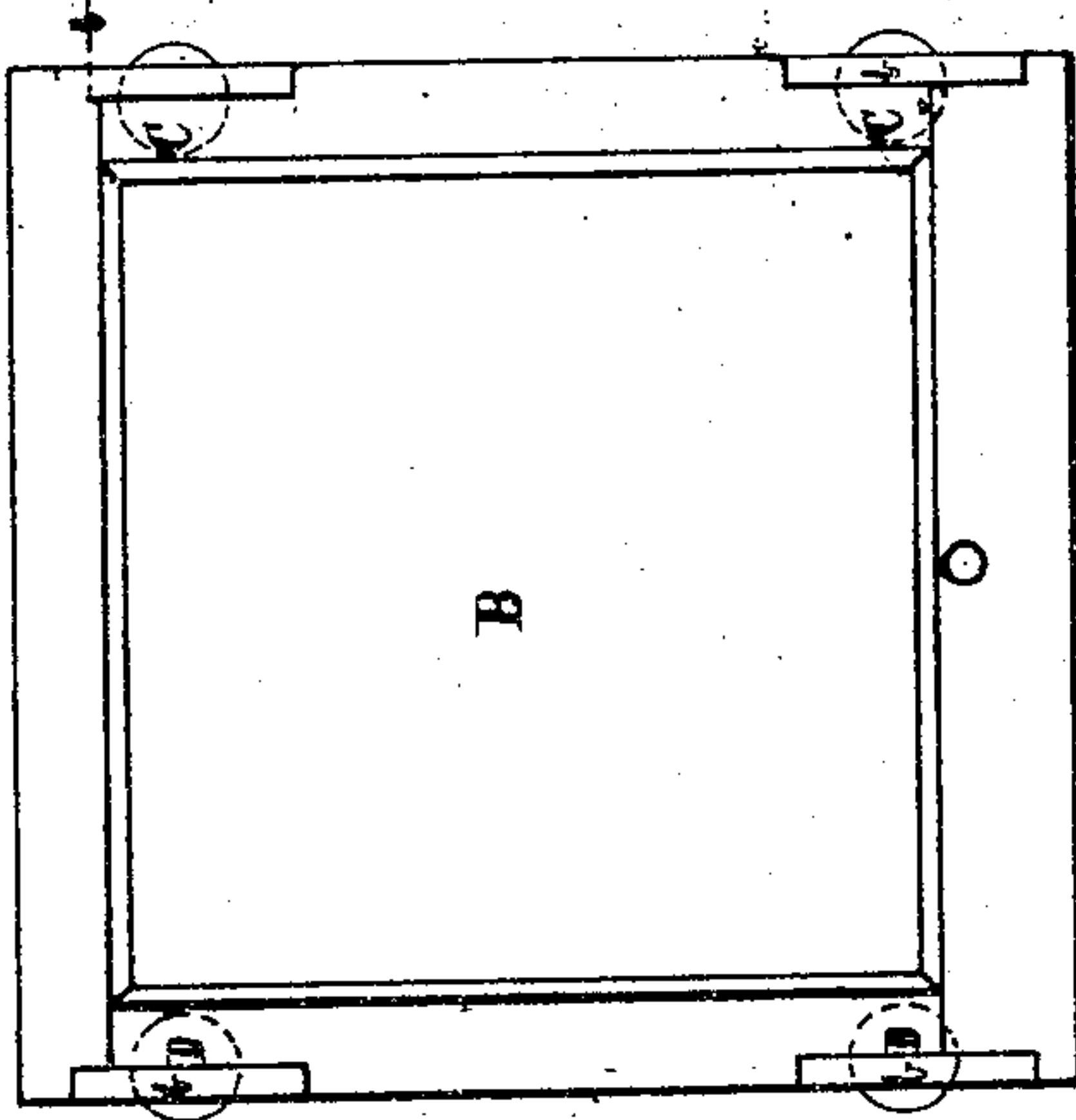
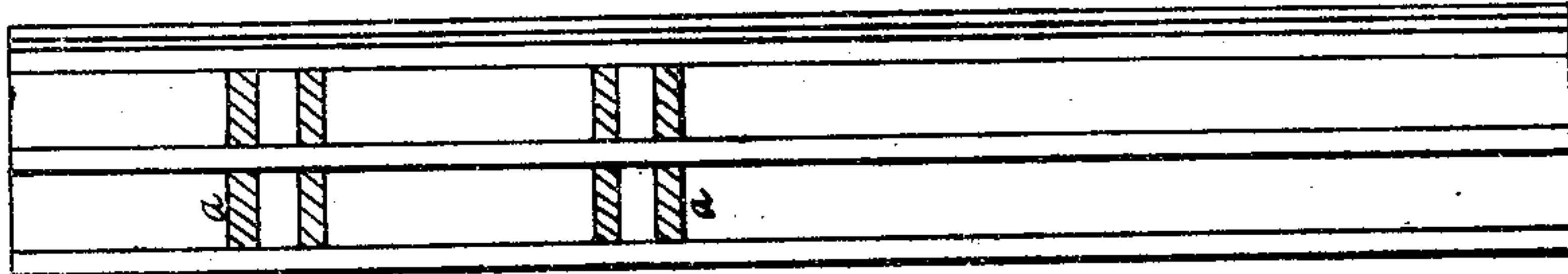
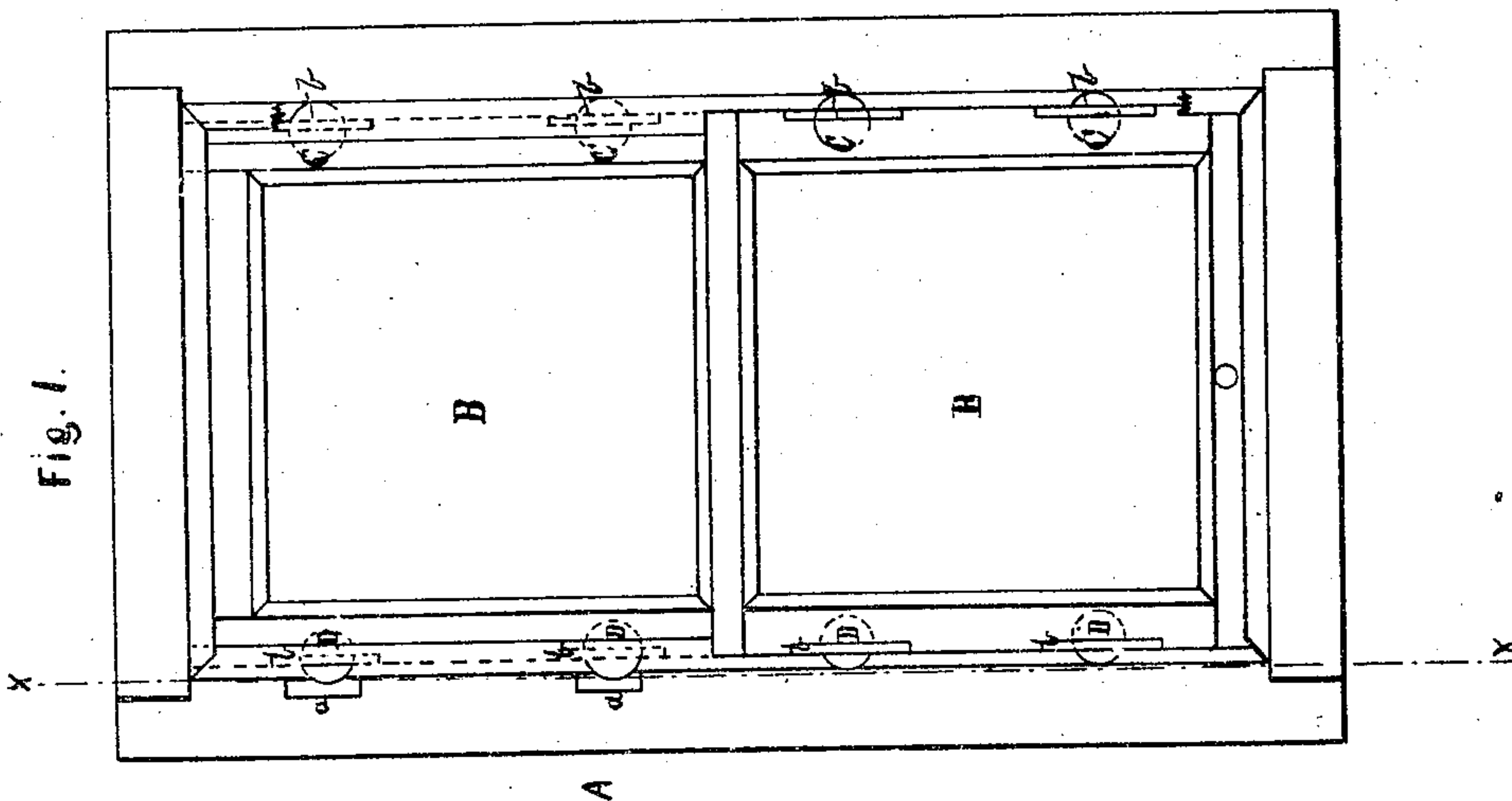


Fig. 2.



A

Fig. 1.



Witnesses

William Wenz
D. Cawand

Inventor

Charles R. Jenkins
by V. Diederichsen Co
attys

United States Patent Office.

CHARLES R. JENKINS, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 71,017, dated November 19, 1867.

IMPROVED SASH-STOP.

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, CHARLES R. JENKINS, of the city and county of Philadelphia, and State of Pennsylvania, have invented new and useful Improvements in Window-Sashes; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which it appertains to fully understand and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front view of a sash illustrating my invention.

Figure 2 is a vertical section in the line *x x*, fig. 1.

Figure 3 is a detached view of one of the sashes.

The object of this invention is to overcome certain imperfections and disadvantages incident to the methods of sustaining window-sashes in which friction-rollers are employed.

Heretofore the sash has either been provided with a set of yielding rollers on each side, or a set of rigid or non-elastic rollers. The former are objectionable in operation, from the fact that when compressed at each side of the sash, they oppose too much friction to the movements of the sash, and the latter (metallic or other hard rollers) become inefficient in the performance of their functions when the relative distance between their peripheries and the jambs is varied in consequence of the wear to which they are liable.

My invention overcomes the above objections by combining metallic or other inelastic rollers with soft-rubber rollers to sustain the sash. Thus I apply to one side of the sash a pair or set of metallic or other inelastic rollers, which serve to separate that side of the sash from the jamb, and avoid friction therewith; and to the other side of the same sash I apply a pair or set of soft-rubber or yielding rollers, which, by frictional contact with the jamb, serve to support the sash in any desired position, and at the same time hold that side of the sash sufficiently away from the jamb to avoid the undue friction which would result from direct contact therewith.

In the drawings, A represents a window-frame of ordinary construction, provided with sill, cap, etc. The inner face has metal plates, *a*, which are grooved transversely, and placed at suitable distances apart, into which drop the rollers of the sash-frames, and hold them at the desired height. B represents the sash-frames, which are adapted to be raised and lowered, and constructed as usually. One side thereof is suitably cut out or grooved, forming a channel, in which are placed elastic rollers C, mounted on pins, axles, or shafts, secured to or resting on ears of a metal plate, *b*, which is "let in" and secured on the side of the frame, and whose outer face is flush therewith. The roller thus partly protrudes through the plate, but turns freely on its bearings. The portion of the side of the sash-frame directly opposite to the elastic rollers C is likewise cut out or grooved to receive metal or rigid rollers D, which are mounted, the same as the elastic rollers, on the ears of metal plates *b*, which are previously described.

The rollers may be made of wood, iron, brass, or any other suitable metal or rigid material, and may be mounted in any suitable manner other than that described, so as to turn freely, and partly protrude or project beyond the side of the frame.

The application and operation are as follows: One of the outside beads is first removed. The sash is to be introduced into the window-frame by presenting the side carrying the elastic rollers C, and bearing against the same until the metal or rigid rollers D clear the stile. The sash can now easily be pressed in proper position, and the bead be replaced, when the sash is complete. It will be perceived that the elastic rollers will cause the metal rollers to bear firmly against the inside of the window-frame, and this, with the friction between the rubber and wood, will invariably hold the sash-frames wherever they may be placed while raising or lowering them, and independently of any mode of fastening.

It is evident that there will be no rattling of the sash by wind, and scarcely any liability of its falling or moving, unless power is applied thereto. The frames can be moved to their highest point, and no space is left between their tops and the window-frame. The frames are quickly removed for cleansing purposes, and may be as readily replaced. I dispense with ropes, pulleys and weights, racks, or other like contrivances. In car-windows, the continual jarring or shocks of the cars may cause a gradual lowering of the sashes; I therefore employ the grooved plates *a*, which will receive the metal rollers and hold the sashes in their intended position;

but for buildings of any kind the notches or grooved plates are unnecessary. Instead of the plate α , suitable notches may be made in the window-frame, and thus dispense with the plates. The rollers must be made of size corresponding to the size of the sash-frames. I find, from practice, that they will work the same on light and heavy sashes.

My invention can be applied to doors and sliding shutters which are apt to move by the shaking or jarring of cars or conveyances of any kind, or are to be raised or lowered, as previously described, in sash-frames. Another advantage I derive from the simultaneous application to window-sashes of rollers of rigid and elastic materials is, that I make provision for lateral expansion and contraction of the frames. The elastic rollers will always press or bear to the full extent of their elasticity, and thus compensate for contraction of the wood-work of the frame D. On expansion, the rubber rollers will be compressed, and thus only hold the frames more firmly.

I present a novel device, which is cheap, durable, and practical, and readily adapted for general use.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with a window-sash of a set of metallic or inelastic rollers, D, applied to one side, and a set of soft-rubber rollers, C, applied to the other side, as and for the purpose set forth.

To the above I have signed my name this tenth day of September, 1867.

CHARLES R. JENKINS.

Witnesses:

JOHN S. GAFFNEY,

THOS. S. BROWN.