

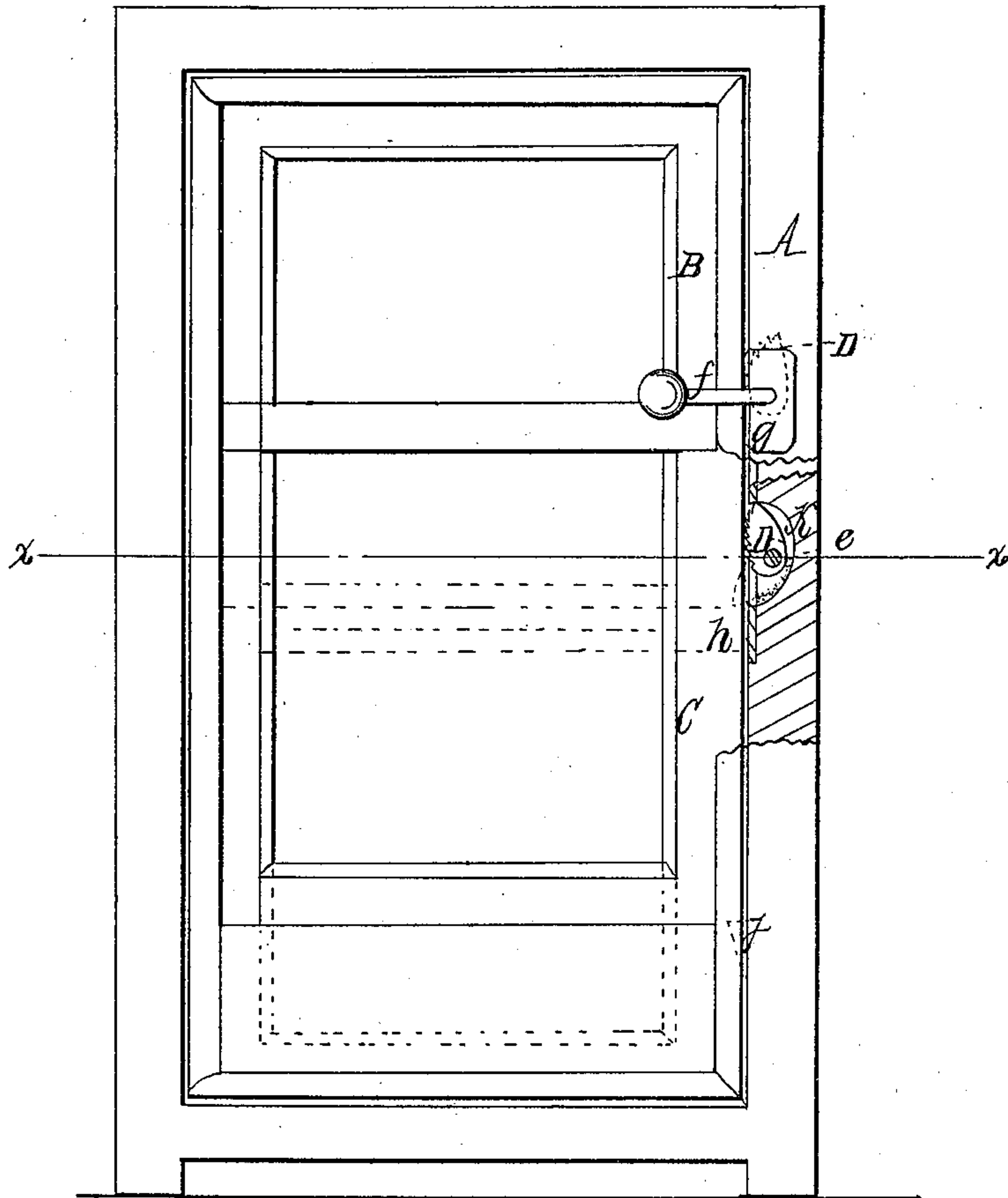
*I. B. Cottrell,*

*Sash Holder.*

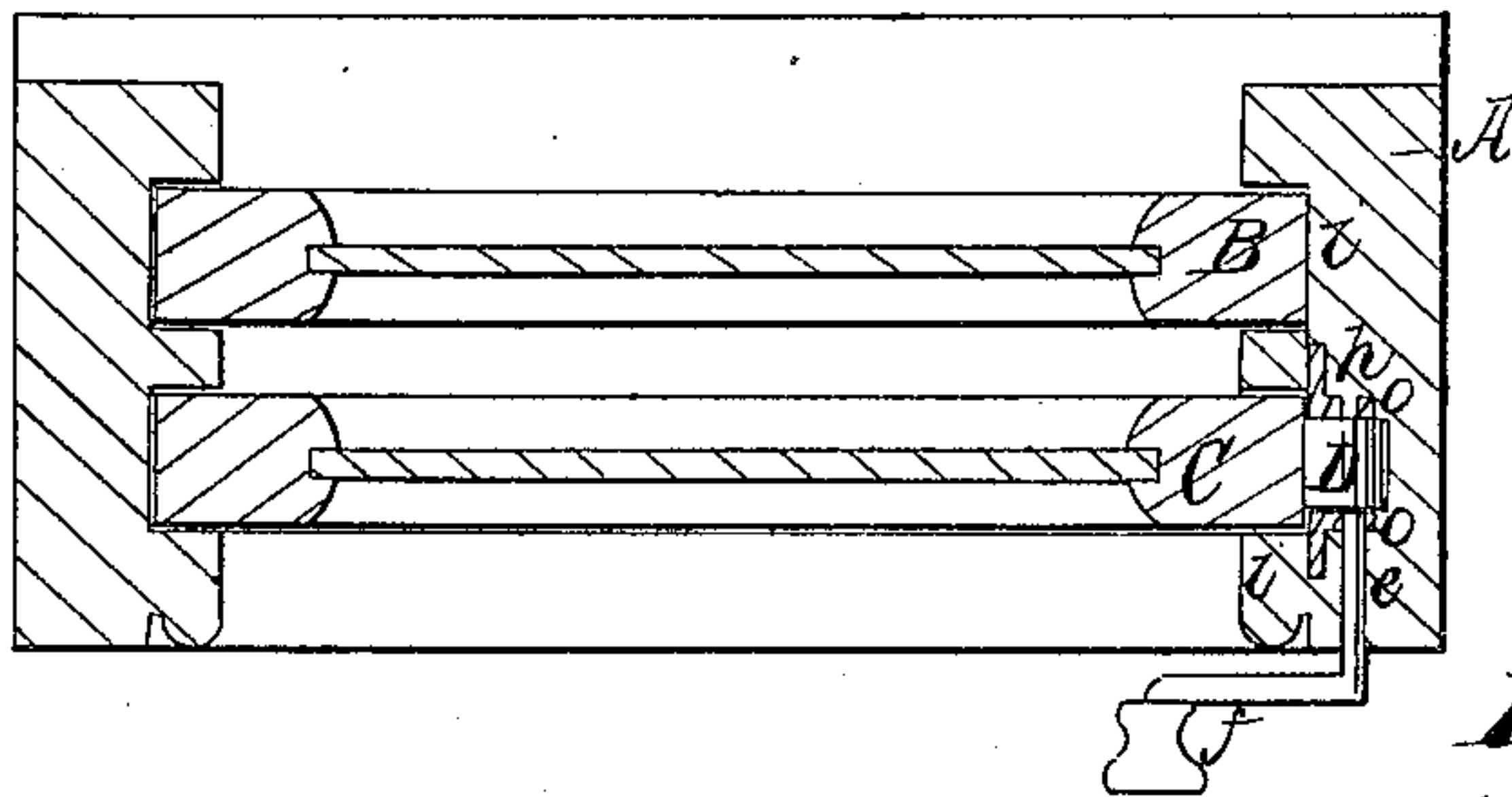
*N<sup>o</sup> 52,242.*

*Patented Jan. 23, 1866.*

*Fig. 1*



*Fig. 2*



*Witnesses:*  
*Thos. Lusk*  
*Wm. B. King*

*Inventor:*  
*I. B. Cottrell*  
*By [Signature]*

# UNITED STATES PATENT OFFICE.

ISAAC B. COTTRELL, OF SOUTH ORANGE, NEW JERSEY, ASSIGNOR TO  
HIMSELF AND MARCUS D. BALL, OF SAME PLACE.

## IMPROVED SASH-FASTENING.

Specification forming part of Letters Patent No. 52,242, dated January 23, 1866.

*To all whom it may concern:*

Be it known that I, ISAAC B. COTTRELL, of South Orange, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Window-Sash Fastenings; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation of a window whose upper and lower sashes are provided with my improvement. Fig. 2 is a horizontal section taken on the line *x* of Fig. 1.

This invention has for its object to produce a fastening to hold up window-sashes when they are raised, and also to secure them from being opened from without; and it consists in applying, as a locking device, a weighted cam whose face is corrugated, and which holds the sash when opened by contact with its adjacent side, the same cam serving to lock the lower sash when closed by swinging over it, and to hold it up when it is opened.

A designates the casing of a window, and B and C are an upper and a lower sash.

The sashes are guided in their vertical movements by grooves cut or made for them in the casing in the usual way. The fastening and holding device which I employ is placed in the casing, so as to operate in or in the line of such grooves, and such device is placed at such a height for the respective sashes as will accomplish the purpose in view, to wit, the retaining of the upper sash in any position, open or closed, and both the retaining of the lower sash, when it is raised more or less, and the locking it when down.

I will first show the application of the device to the upper sash. A recess is made in the casing at the bottom of the groove *i* at such a height as is suitable to keep control of the upper sash and prevent it from falling too low. A shoulder, *j*, may be fixed in the lower part of the groove, as indicated in dotted outline in Fig. 1, for the purpose of limiting the descent of the upper sash. The form of this recess is like that provided to receive the fastening of the lower sash, which latter recess is designated by the letter K. The front of

the recess is protected by a plate, *h*, in which an opening is cut as large as the recess, and from the edges of the opening made in the plate project ears O O, which furnish bearings for the shaft *e* of the fastening.

D is a cam which resembles in side view the shape of a curvilinear triangle, but that face which is next to the shaft is more convex than its opposite face. Its base is perforated to receive a shaft, *e*, which is journaled in the ears o o, above mentioned. This cam is set upright in the recess prepared for it, which is of a proper width to allow the shorter diameter of the cam to rotate therein, but not the longer, whereby the cam is prevented from falling outward beyond the vertical plane which passes through its axis. The face of the cam which is presented toward the side of the sash is corrugated or roughened, so that it will not allow the sash to slip when the two are brought into contact. The shaft *e* is extended through the casing to that face which is within the apartment when it is bent at right angles toward the sash and loaded with a weight, *f*, in order to keep the cam constantly bearing toward the sash. The casing is provided with an escutcheon, *g*, at the place where the shaft *e* issues therefrom, and which furnishes a bearing for that end of the shaft.

The same device is fixed in the same way in the groove *i* of the lower sash, and the office of the cam in holding the sash up when it is raised is the same for that sash as it is for holding the upper sash in whatever position it is to be kept. But, besides this office, the cam is made also to lock the lower sash when it is closed. In order to accomplish this end the cam is placed at such a height in the casing as that when the sash is down the point V of the cam will come down upon its top, as seen in red outline in Fig. 1. When the cam is in this position its corrugated or roughened side is in contact with the top of the sash, and if the sash is then pushed upward its top will be held firm by the cam because its roughened side will not slip over the sash, and the cam then acts as a detent.

In order to raise the sash it becomes necessary to raise the weight *f* and turn the cam up within the recess K. When the sash is up as high as is desired the weight is released, when



it will bring the cam against the sash and hold it up.

It will be observed that no plates or racks are required on that side of the said sashes which is acted on by the cams, but it is left plain. This device can be applied to any window-casing with ease and economy.

I claim as new and desire to secure by Letters Patent—

The cams D D, mounted upon weighted

shafts *e e*, so as to be operated in the manner described, and so arranged that while the two cams perform their respective functions of sustaining the upper and lower sash at any desired height the lower cam can be made to lock the lower sash when down, as set forth.

ISAAC B. COTTRELL.

Witnesses:

SAMUEL F. WHEELER,  
LEWIS G. TAYLOR.