

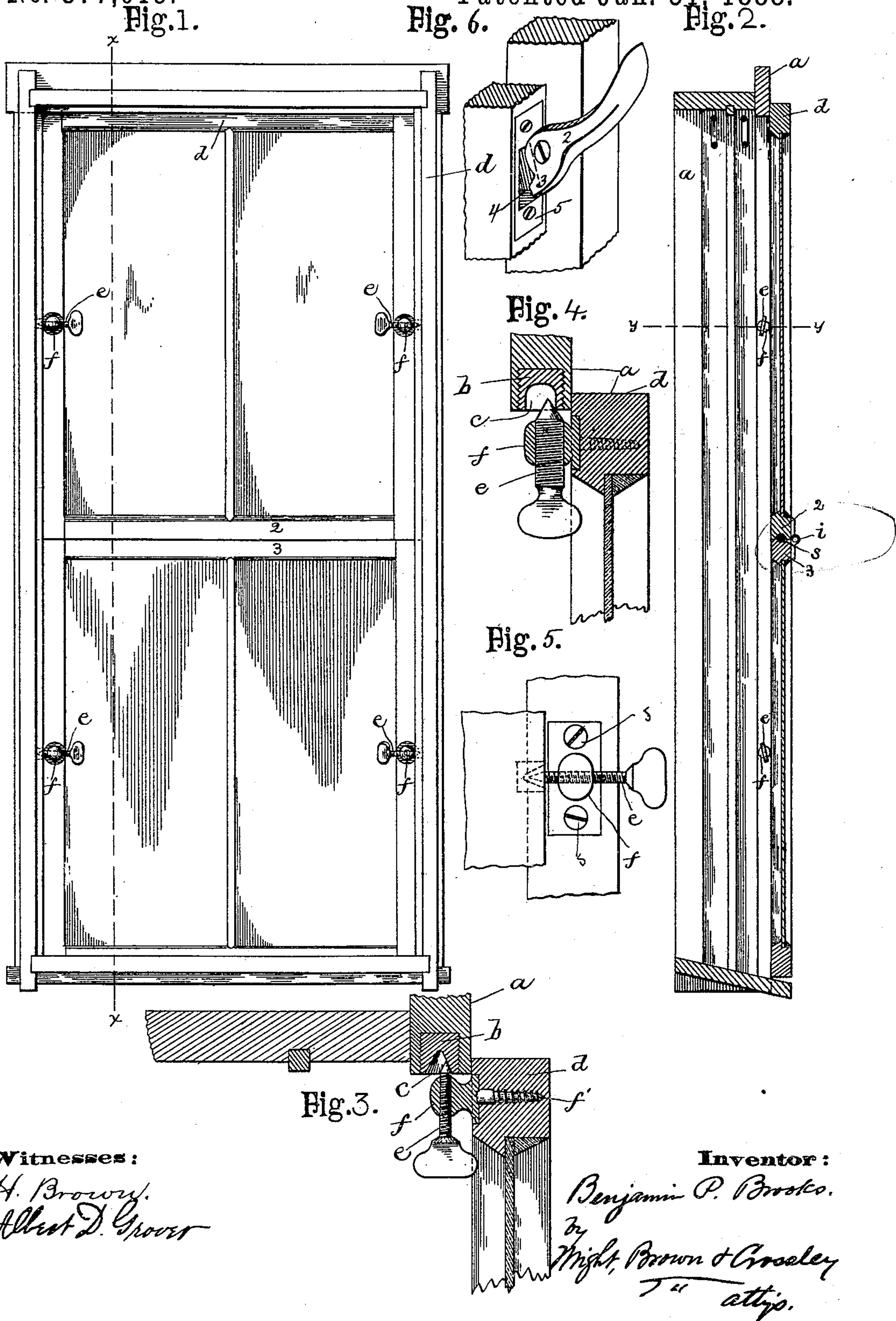
(No Model.)

B. P. BROOKS.

OUTSIDE WINDOW AND MEANS FOR SECURING THE SAME.

No. 377,013.

Patented Jan. 31, 1888.



UNITED STATES PATENT OFFICE.

BENJAMIN P. BROOKS, OF MANCHESTER, NEW HAMPSHIRE.

OUTSIDE WINDOW AND MEANS FOR SECURING THE SAME.

SPECIFICATION forming part of Letters Patent No. 377,013, dated January 31, 1888.

Application filed December 31, 1886. Serial No. 223,099. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN P. BROOKS, of Manchester, in the State of New Hampshire, have invented certain new and useful Improvements in Outside Windows and Means for Securing the Same, of which the following is a specification.

This invention has for its object to provide improved means whereby outside or "double" window-sashes can be conveniently secured to the window-casings and pressed closely against their seats on said casings, so as to exclude air as nearly as possible.

The invention also has for its object to enable any part or parts of a double window to be easily and quickly secured to and detached from the casing, so that the sash may be made in two or more sections hinged together, either section being capable of easy disengagement from the casing, so that it may be swung outwardly on the hinges that connect it to the adjacent section, thus permitting the admission of fresh air.

To these ends my invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a view of the inner side of a window-casing with an outside or double window applied thereto, the inside or permanent sash being removed. Fig. 2 represents a section on line *x x*, Fig. 1, looking toward the left in said figure. Fig. 3 represents an enlarged section on line *y y*, Fig. 2. Figs. 4, 5, and 6 represent detail views of modified forms of the invention, hereinafter referred to.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents a window-casing of ordinary or any suitable construction, fitted to hold the usual permanent window-sashes, the latter being omitted from the drawings. In the inner sides of the casing I insert metal bushings *b*, containing conical or approximately conical cavities *c*, said cavities being near the outer surface of the casing, against which the outer sash bears.

d represents the sash of the outer or double window. Said sash is formed to bear against the outer surface of the casing *a*, in the usual manner, but, instead of being attached to said

casing by screws passing inwardly through the sash into the outer surface of the casing, as usual, is attached by screws *e e*, working in nuts *f*, attached to and projecting inwardly from the inner sides of the vertical or side rails of the sash, the ends of said screws being preferably tapered, as shown in Fig. 3, and entering the conical cavities *c* in the casing.

The nuts *f* are preferably the heads of screws *f'* inserted in the sash, and are so arranged that the screws are eccentric to the conical cavities and bear against the sides of the latter, so that when the screws are turned into said cavities they will at the same time be caused by the inclined sides of the cavities to draw the sash *d* inwardly and cause it to bear firmly against the casing *a*.

It will be seen that the sash is secured and brought to a close bearing on the casing by simply turning the screws into the cavities *c*, and released by turning the screws in the opposite direction. The operations of securing and releasing the sash can therefore be very quickly and easily performed, there being no necessity of employing a ladder or like contrivance and climbing up from the outside, as is now commonly done.

I prefer to make the sash in two or more sections, 2 3, said sections being connected by hinges *i*, so that when either section is disengaged from the casing it may be swung outwardly to permit the entrance of fresh air. This matter of hinging the several sections together constitutes an important feature of the invention.

The different sections are connected, preferably with "rule-joints" *s*, as shown in Fig. 2, so as to exclude the snow, rain, and air as nearly as possible, and at the same time prevent the sash from springing or warping. They can conveniently be hoisted to any desired height by passing a strong cord from the window to which they are to be attached and fastening it around nuts *f f*, the cord thus attached affording a convenient means for holding the window in position until it is secured to the casing, as desired, and can be lowered in like manner, thus entirely obviating the use of steps or ladders.

It will be seen that the facility with which the sash-fastenings are operated, as above described, makes it perfectly feasible and con-

venient to disengage either section of the sash from the casing and swing such section outwardly for purposes of ventilation. If desired, a hook or retaining device may be provided for one or each section to hold it when swung outwardly.

It is well known that wood-screws, ordinarily used to secure an outside sash, in time so enlarge the holes into which they are inserted in the window-casing that they become incapable of holding the sash in close contact with the casing, so that said holes have to be plugged and renewed from time to time. This objection is entirely obviated by my improvement, there being no entrance of screws into wood in my device.

Although I have shown the nuts *f* and their screws *e* applied to the side rails of the sash, it is obvious that they may be applied also to the top and bottom rails, and that as many of the devices may be used for each sash as may be desired. The nuts *f*, their attaching-screws *f'*, and the sash-holding screws *e* working therein, as well as the bushings *b*, having the conical cavities, may be sold by the hardware dealers as articles of trade.

The sectional construction of the sash enables it to be compactly folded for storage.

Instead of forming the attaching-screws *f'* as an integral part of the nut *f*, as clearly represented in Fig. 3, the plate *p*, forming a part of said nut *f*, may have holes formed therein at the sides of the nut, and the latter device attached to the sash *d* by means of ordinary wood-screws, *s s*, as clearly shown in Fig. 5.

It is also to be observed that, instead of forming the sides of the sockets in the bushings *b* conical or with inclined sides, their sides may be made parallel and the end of the screw *e* made of conical form, and so arranged as to operate against the straight or parallel sides of the sockets, as shown in Fig. 4; and though in said figure the bottom of the socket is represented as somewhat rounded, it is obvious that it might as well be made flat. Again, instead of employing a nut and screw on the sash and a socket on the casing, I may use a lever, 2, pivoted to the casing, and have its

end 3 engage a cam or inclined slot, 4, formed in a plate, 5, secured to the casing, as shown in Fig. 6. These and other formal changes may be made in the form and arrangement of parts constituting my invention without departing from its nature or spirit.

I claim—

1. An outside sash having inwardly-projecting nuts on its inner side and screws working in said nuts, combined with a casing provided with bushings adapted to receive the ends of said screws, as set forth.

2. An outside sash having inwardly-projecting nuts on its inner side and screws working in said nuts, combined with a casing having conical cavities receiving the ends of said screws, as set forth.

3. As an article of manufacture, a nut, *f*, provided with a screw, *f'*, whereby the nut may be attached to a post, sash, casing, or the like, and having a screw, *e*, arranged in the nut transversely to screw *f'* and passing entirely through and having a screw-threaded connection with the nut, and a bushing, *b*, adapted to receive the end of screw *e*, extending through and beyond the nut, substantially as and for the purposes set forth.

4. An outside sash adapted to cover the entire window or area within the casing, said sash being made in two sections, 2 3, divided horizontally and hinged together at their line of division, each section being provided on its inner side with devices, substantially as hereinbefore set forth, for securing it to the casing, whereby the outside sash may be made as a single article, readily attachable and detachable from the inside, and either section held stationary and the other swung outwardly for the purposes of ventilation, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 8th day of December, 1886.

BENJAMIN P. BROOKS.

Witnesses:

THOS. D. LUCE,

ARTHUR W. CROSSLEY.