No. 613,171. Patented Oct. 25, 1898.

W. McLAREN.

APPARATUS FOR OPENING, CLOSING, AND FASTENING WINDOWS OR VENTILATORS.

(No Model.) (Application filed Mar. 7, 1898.)

Fig. 3

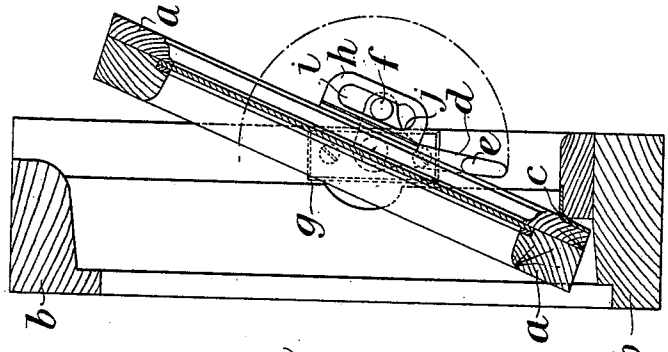


Fig. 2

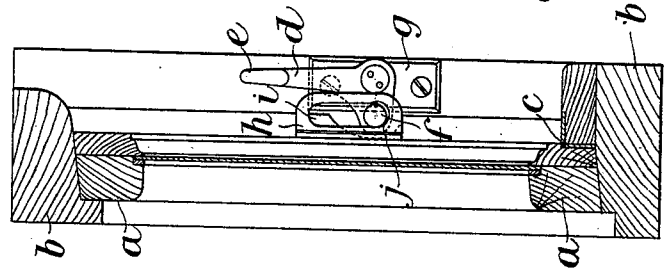
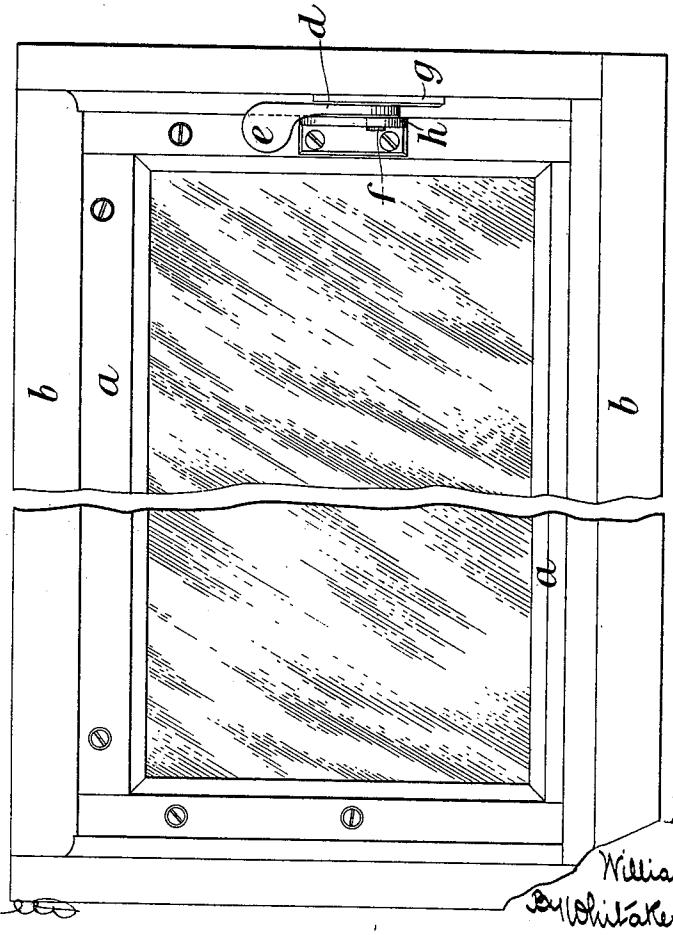


Fig. 1



Witnesses.
J. D. Kingsbury
B. W. Brooks

Inventor.
William McLaren
By Whittaker & Prevost
Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM McLAREN, OF LONDON, ENGLAND.

APPARATUS FOR OPENING, CLOSING, AND FASTENING WINDOWS OR VENTILATORS.

SPECIFICATION forming part of Letters Patent No. 613,171, dated October 25, 1898.

Application filed March 7, 1898. Serial No. 672,944. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM McLAREN, a subject of the Queen of Great Britain, residing at London, England, have invented new and useful Improvements in Apparatus for Opening, Closing, and Fastening Windows or Ventilators, (for which I have applied for a patent in Great Britain, No. 19,715, dated August 26, 1897,) of which the following is a specification.

My invention consists in the novel features hereinafter described, reference being had to the accompanying drawings, which illustrate my invention, and said invention is fully disclosed in the following description and claim.

Referring to said drawings, Figure 1 is an elevation showing the application of my improved device to a ventilator of the kind such as is used in the roof of a railway-carriage. Fig. 2 is a vertical section of the same. Fig. 3 is a section similar to Fig. 2, but showing the parts in a different position.

a is the sash of the window or ventilator, and *b* is the frame in which it is fitted and hinged along one edge of the sash, as shown at *c* in Figs. 2 and 3. The operating-lever is pivoted to the frame, in this instance to a plate *g*, secured to the frame, and consists of the lever-arm *d* and operating-arm *e*, extending from the points of pivoting substantially perpendicular to each other, the lever-arm *d* being provided, preferably, with a finger-piece *e'* on its outer end and the operating-arm *e* being provided with a stud or pin *f*.

h is a plate secured to the window-sash and provided with an elongated slot *i* therein, which receives the pin or stud *f*, the plate and lever being so arranged that when the sash is in closed position the operating-arm *e* of the lever is perpendicular to the sash *a*, so that any strain exerted upon the sash to open it will be transmitted, through the plate *h*, stud *f*, and arm *e*, to the point of pivoting in a straight line perpendicular to the sash, thus keeping the window locked in its closed position until released by moving the lever-arm *d*. In order to force the sash tightly into the frame, the edge of the slot in the plate is provided with an inclined cam-surface *j*, adapted to be engaged by the stud when the sash comes into closed position, thus serving to clamp and force the sash firmly into the frame, as shown in the drawings. When the lever is moved from the position shown in Fig. 2 to that shown in Fig. 3, the sash will be moved into open position and the operating-arm *e* will reverse its position, so that the sash will be held from opening farther or from closing, as will be seen in the drawings.

It will be obvious that my improved device is applicable not only to window-sashes and ventilator-shutters working on a horizontal hinge, as shown, but also to those which are hinged vertically.

It will be obvious that the arrangement hereinbefore described may be slightly modified by attaching the pin to the hinged sash or shutter and forming the slotted plate upon one arm of the pivoted lever.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

The combination with a window-frame, and a sash fitted therein and hinged along one edge, of a plate secured to one of the edges of the sash perpendicular to the hinged portion, said plate being provided with a longitudinal slot, and a locking and operating lever, pivoted to the frame adjacent to the end of said slot nearest the hinged portion of the sash and provided with a short horizontal arm having a stud engaging said slot, and a longer operating-arm, disposed perpendicular to the short arm, said short arm extending perpendicular to the sash when the latter is in closed position, whereby by moving the lever-arm through a half-circle the said short arm will move said sash into open position and lie substantially at right angles to the sash on the opposite side of its point of pivoting substantially as described.

WILLIAM McLAREN.

Witnesses:
W. E. SHEFFIELD,
E. CHURCHER.