

(No Model.)

F. STRAUB.
STORM SASH.

No. 421,782.

Patented Feb. 18, 1890.

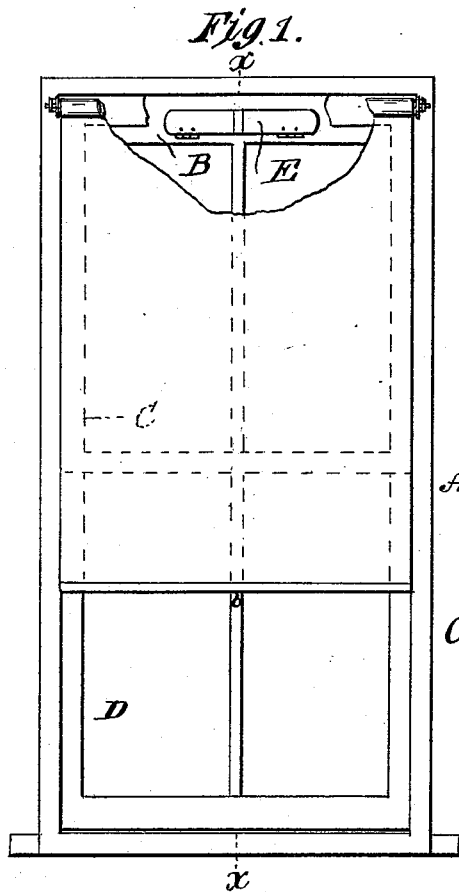


Fig. 5.

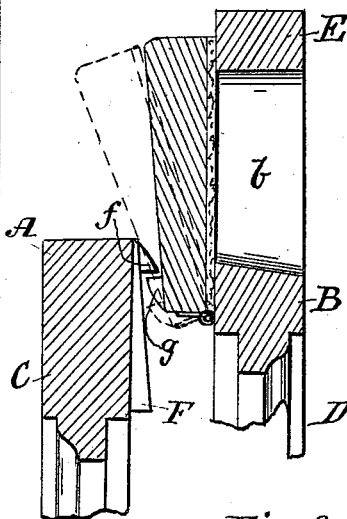


Fig. 4.

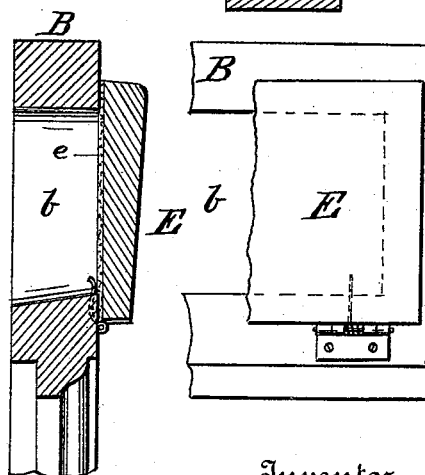
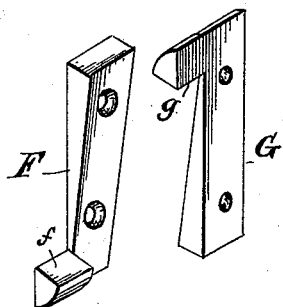


Fig. 3.



Witnesses
Sam^l R. Turner.
Van Buren Willard.

Inventor
Frederick Straub

By his Attorneys
R. S. & A. P. Lacey.

UNITED STATES PATENT OFFICE.

FREDERICK STRAUB, OF SURPRISE, NEBRASKA.

STORM-SASH.

SPECIFICATION forming part of Letters Patent No. 421,782, dated February 18, 1890.

Application filed December 12, 1889. Serial No. 333,450. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK STRAUB, a citizen of the United States, residing at Surprise, in the county of Butler and State of Nebraska, have invented certain new and useful Improvements in Storm-Sashes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to windows, and relates chiefly to the means for operating a damper in the stile of the storm-sash.

The object of the invention is to secure a thorough ventilation of apartments and to lower the curtain at the same time that the sash is lowered and the damper opened.

The improvement consists of the novel features, which will be hereinafter more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a front view, parts being broken away, of a window, showing the application of my invention. Fig. 2 is a section on the line X X of Fig. 1, showing the operation by dotted lines. Fig. 3 is a perspective view of the two wedges for closing the damper and having lateral stops for opening the same. Fig. 4 is a detail view in section and elevation of one end of the damper and sash, showing a spring-hinge. Fig. 5 is a detail section of the upper part of the sash on the line X X of Fig. 1 on an enlarged scale.

The window-frame A is of ordinary construction, and is provided with the storm-sash B and the two sliding sashes C and D, of well-known arrangement. The storm-sash B has an opening *b* in its upper stile, which is closed by the hinged damper E, which is adapted to open downward and inward, and which is faced with rubber or cloth *e* to close tight against the stile *b*. The wedge F, secured to the cross-bar of the upper sash C is adapted to act in opposition to a corresponding wedge G on the side of the damper opposing the said sash and close the damper

and hold it shut when the sash is raised. The lateral stop *g* on the wedge G and the corresponding stop *f* on the wedge F are adapted to engage when the sash C is lowered and effect an opening of the damper, as shown in Fig. 2.

The curtain-fixtures are secured to the sash C and move therewith; hence when the sash is lowered the curtain likewise descends and the damper E is opened, thereby leaving an unobstructed passage for the circulation of air through the opening *b*.

In order to insure a quick opening of the damper, it will in some instances be connected with the sash by spring-hinges, as shown in Fig. 4. However, it is not deemed essential to the operativeness of the invention that these spring-hinges be employed.

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

1. The combination, with the storm-sash, the damper, and the sliding sash, of corresponding wedges secured to the opposing sides of the damper and sash, substantially as and for the purpose described.

2. The combination, with the storm-sash, the damper, and the sliding sash, of corresponding wedges secured to the opposing sides of the damper and sash and having lateral stops, substantially as described, for the purpose specified.

3. The combination, with the storm-sash and the damper closing an opening in the said storm-sash, of the sliding sash adapted to operate the damper and the curtain-fixtures secured to the said sliding sash and adapted to move therewith, substantially as and for the purpose described.

4. The combination of the storm-sash, the damper, spring-hinges connecting the damper with the said storm-sash, and the sliding sash adapted to engage with the said damper and operate it, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK STRAUB.

Witnesses:

A. A. THARP,
MYRON PAYNE.