

2 Sheets—Sheet 1.

WINDOW FRAME.

Patented Mar. 20, 1888.

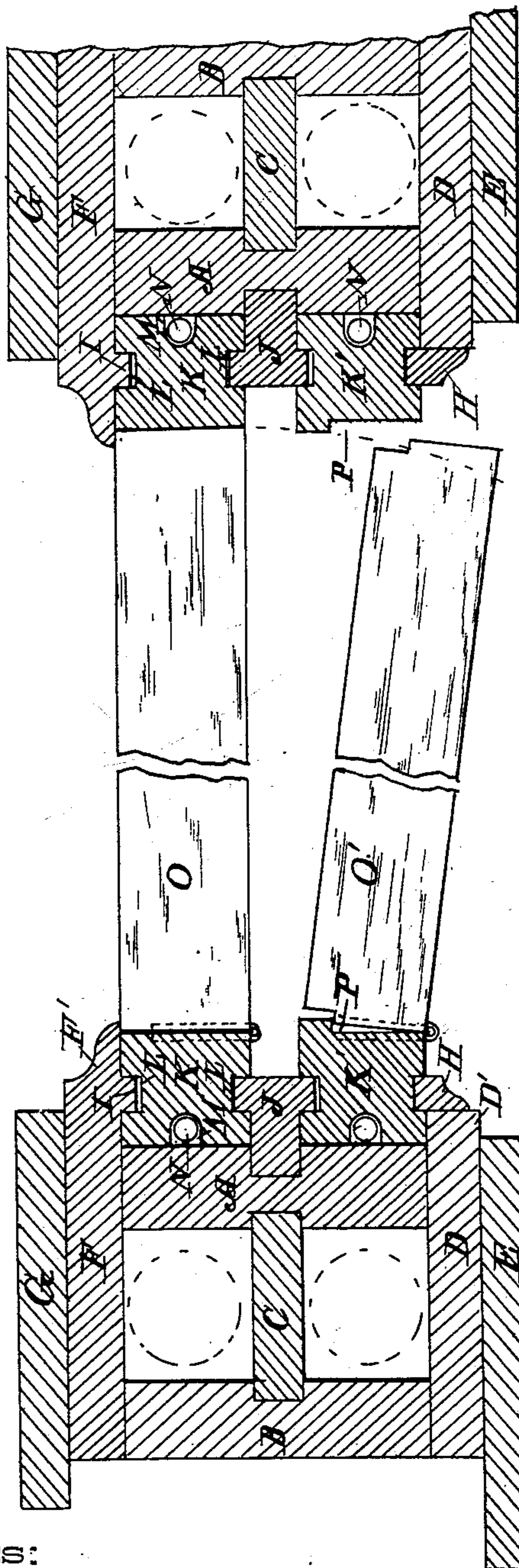


Fig. 1.

INVENTOR :

Amos Woeber.

John Lammey:

J. S. Felt
Attorney

Attorney.

(No Model.)

2 Sheets—Sheet 2.

A. WOEBER & J. LAMMERS.

WINDOW FRAME.

No. 379,920.

Patented Mar. 20, 1888.

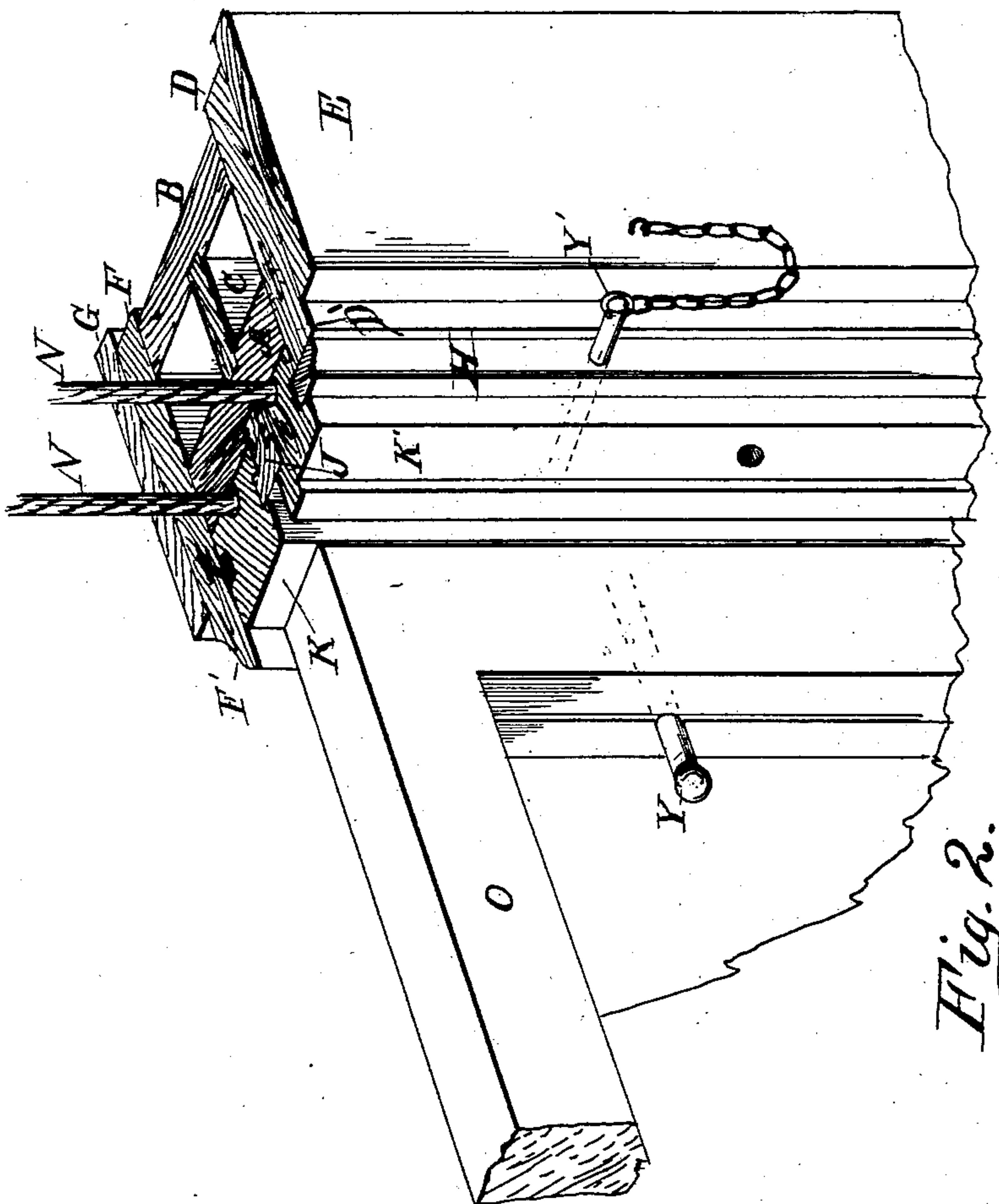


Fig. 2.

WITNESSES:

Robert Kirk
M. Redman,

INVENTOR :

Amos Woerber
John Lammers,

By

[Signature]

Attorney.

UNITED STATES PATENT OFFICE.

AMOS WOEBER AND JOHN LAMMERS, OF CINCINNATI, OHIO, ASSIGNORS OF
ONE-THIRD TO HENRY LAMMERT, OF SAME PLACE.

WINDOW-FRAME.

SPECIFICATION forming part of Letters Patent No. 379,920, dated March 20, 1888.

Application filed April 15, 1887. Serial No. 234,921. (No model.)

To all whom it may concern:

Be it known that we, AMOS WOEBER and JOHN LAMMERS, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Window-Frames, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a top sectional view of our improved window frame and sash, and Fig. 2 is a perspective view of a section of the frame and sash.

The object of our invention is to construct a window sash and frame which are so arranged that the sash can be hinged so as to open and close like a door, while at the same time weights can be used, as with the ordinary frame and sash; and it consists of a frame having the dividing-strips between the sash made T-shaped, and in providing the inner and outer holding-strips with tongues, which project into grooves in square sliding bars, which are of the same height as the sash, and which bars fit in the spaces usually occupied by the sash. To these bars the sashes are hinged, and as the weight-ropes are attached to these sliding bars there will be no interference in sliding the sash up or down, all of which will now be fully set forth in detail.

In the accompanying drawings, A represents the hanging stile of a box window-frame, and B the rear stile. These are constructed, preferably, as shown, by being made the same width as the thickness of the two sashes and the intervening sash-strip. The weight-chambers are formed by a dividing-strip, C, gained in the two stiles A B. The inner side of the weight-box is formed by a board, D, the edge D' of which extends slightly past the face of the hanging stile A, so as to form one side of the guideway for the sash-bar. The finishing casing E is then placed on the box-piece D. The other side of the box-chamber is formed by a board or casing, F, one edge of which projects a considerable distance over the face of the hanging stile, so as to cover the joint between the sliding sash-bar and sash, as will be hereinafter shown. The outer or finishing casing, G, is then placed on the box-piece F. This form of constructing the box-frame is

adapted to wooden houses; but for stone or brick houses the outer casing, G, is not employed, and we change the construction of the hanging stile by making it wider, or so as to project out, the same as in box-frames now made.

The projecting edge D' of the inner side, D, of the weight-box has a molding-strip, H, secured thereon, which projects inwardly past the inner surface of the piece D. The outer piece, F, has also on its projecting edge F' a tongue, I, and midway between the box-castings D F is a T-strip, J, secured to the face of the hanging stile A by means of a groove.

K K' are sliding sash-bars, the former of which is for the upper sash and the latter for the lower sash. The bars K are preferably square in cross-section, and are as long as the height of the sash, and of the same thickness and width. These bars have grooves L on opposite sides, in which the tongues I J operate. There is also a groove next the hanging stile, in which the weight-rope N lies. The upper sash, O, is hinged to one of the sliding bars K on the inside. The bars K' are made the same as the bars K in cross-section, except that a rabbet is formed along the side next the sash O', and the sash itself has a corresponding rabbet, so as to make a tight joint when the sash is closed.

The weight-cords, being attached to the sash-bars K K', operate the same as though connected directly with the sash.

In order to lock the sash to the bars K K' on the side opposite to the hinges, a pin, Y, or other suitable means, may be employed. It is also obvious that the bars K K' can be locked at any point by the use of pins Y', or by any other locking mechanism. The pin Y' would of course be used whenever it should become necessary to open the sash on their hinges, so as to prevent the weights from drawing up the bar. In such cases the entire weight of the sash would rest on the opposite bar, and there would be no danger of the single weight on that side raising the sash.

It will be observed that the bars on opposite sides are not connected with each other except through the medium of the sash.

We further call attention to the fact that the meeting-rails of the sash can be made the same

in this as in the ordinary sash, so as to fill up the interstice formed by the strip between the two sashes.

What we claim as new is—

5 In a sash-frame, the hanging stile A, the rear stile, B, the dividing-strip C, the pieces D and F, extending beyond the hanging stile, the latter having the tongue I, the sash-bars K and K', grooved on opposite sides, and the tongue
1c J between said bars and fitting in its inside

grooves and the molding H, and the sashes hinged to said bars, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands, this 8th day of April, 1887, in the presence of witnesses.

AMOS WOEBER.
JOHN LAMMERS.

Witnesses:

ROBERT KIRK,
ROBT. S. MILLAR.