

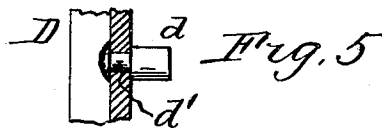
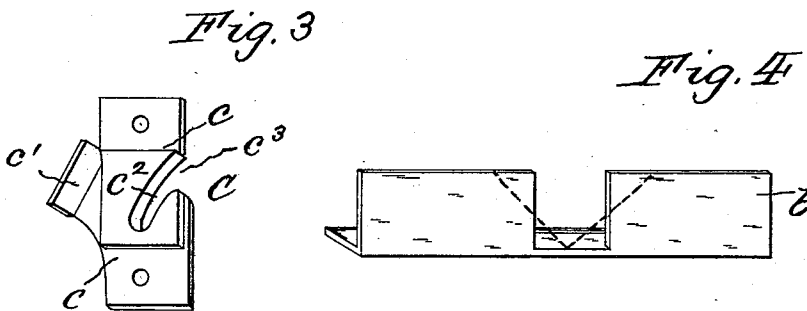
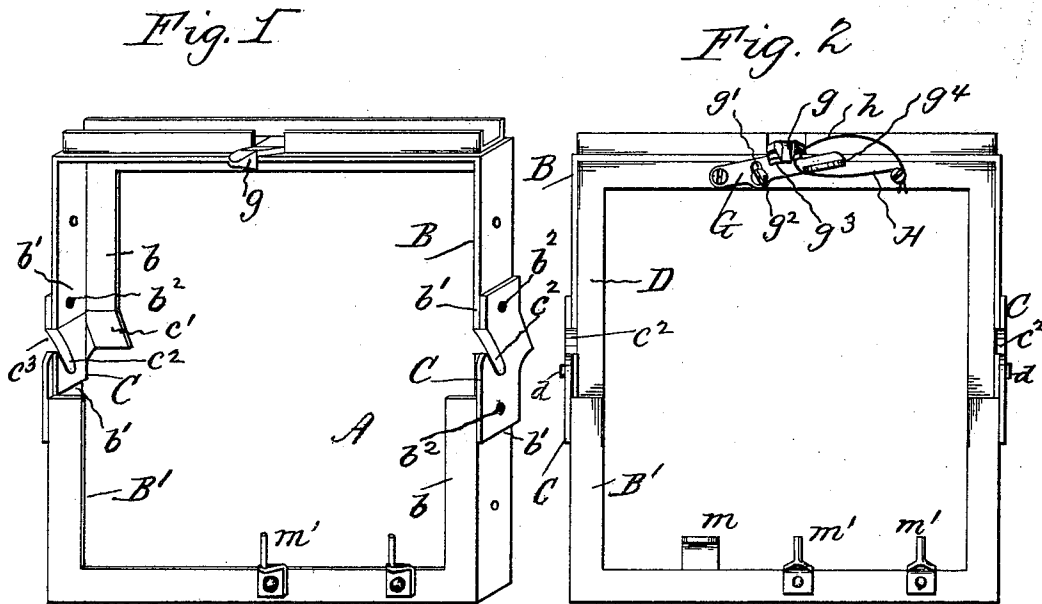
(No Model.)

P. & W. DEISSLER.
VENTILATING SASH.

2 Sheets—Sheet 1.

No. 459,834.

Patented Sept. 22, 1891.



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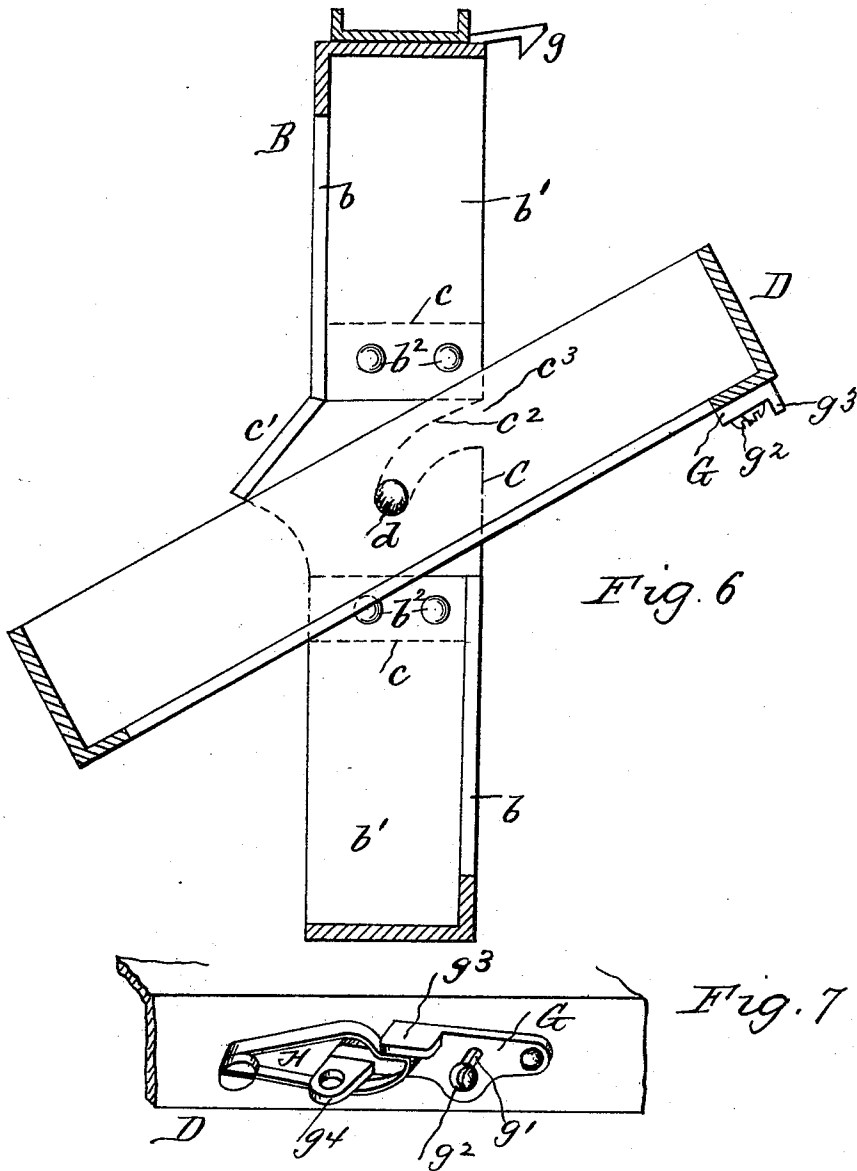
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2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

PETER DEISSLER AND WILLIAM DEISSLER, OF PHILADELPHIA, PENNSYLVANIA.

VENTILATING-SASH.

SPECIFICATION forming part of Letters Patent No. 459,834, dated September 22, 1891.

Application filed September 11, 1890. Serial No. 364,598. (No model.)

To all whom it may concern:

Be it known that we, PETER DEISSLER and WILLIAM DEISSLER, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Ventilating-Sashes, of which the following is a specification.

Our invention has relation to ventilating-sashes in general, but particularly to that form of the same having metal sashes pivoted to metal window-frames; and it has for its objects simplicity and durability of construction of the window-frames and manner of pivoting the sash-frames to the window-frames, whereby they are much easier to handle in putting them in and taking them out of position for repairs or alterations before and after they are in place.

Our invention accordingly consists of the combinations, constructions, and arrangements of parts, as hereinafter described in the specification and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents a perspective view of the window or outside frame embodying our improvement. Fig. 2 is an elevation of the same with the sash or ventilator frame in its closed position. Fig. 3 is a perspective of one of the coupling-irons for the upper and lower sections of the outside or window frame, showing more particularly the open end supports for the pivots of the inside or ventilator sash and the rain-guard for said pivot and support. Fig. 4 is an elevation of part of a length of angle-iron bar for the outside frame-sections, showing different ways of cutting one of its webs, in order that the bar may be bent into shape to form the frame-section. Fig. 5 is a sectional elevation of part of the inside frame and one of its pivots. Fig. 6 is a vertical sectional view of outside frame and inside or ventilating frame, the latter being in its open position; and Fig. 7 is a perspective of locking-latch on the ventilating or movable frame.

A represents the outside or window frame of any suitable configuration, preferably composed of top and bottom sections B B', united by separate coupling-irons C C—one on each side of the frame—to secure said sections to-

gether. The latter are preferably made of L-shaped angle-irons, each bent into shape, preferably, from a single length of iron or bar, and to effect this one of the webs *b* of the same is cut away in oblong form, as shown in full lines, Fig. 4, or in angular or V-shaped form, as indicated by dotted lines in said figure. In the one case a box-joint and in the other a miter-joint is formed by the cut parts of the web *b* when the bar is bent into a section. The sections B B' are reversely placed relatively to one another, so that the web *b* for the top section B is on the outside, while the corresponding web for the lower section B' is on the inside of the frame A.

The coupling-irons C C are of cast metal, preferably of malleable iron, and are provided with inside top and bottom recesses or shoulders *c* for the reception of the ends *b'* *b'* of the sections B B', which are rigidly secured together by rivets or bolts *b*² to complete the frame A. Said irons C have on their outside edges between the shoulders *c* downwardly-inclined and wide laterally-projecting lugs *c'*, which form a continuation of the web *b* of the top section B to form rain-guards to prevent water beating in through the joint of the inside frame with the outside frame, as hereinafter described, which lugs *c* also serve as stop-lugs for limiting the full extent of opening movement of the ventilator or inside frame D. Leading from the inside edges of the irons C are downwardly-inclined slots *c*², having outer open ends *c*³ for supports for the side pivots *d* on the inside frame D. The latter frame is also of angle-iron, preferably in one piece, bent into the required form, and its pivots *d* have shoulders *d'* for riveting them solid to the frame, as more plainly shown in Fig. 5. The pivots *d*, having shoulders *d'* abutting against the sides of frame D, are more readily and solidly riveted to the frame D and in case of wear or injury can be easily replaced. At the top of frame A is a hook or catch *g*, rigidly fixed thereto for engagement with a latch G, pivoted or suitably secured to the upper part of the sash D for locking it in its closed position. I prefer the form of latch G shown, which consists of a pivoted lever having a slot *g'*, through which passes a guide-

pin g^2 , and a lug g^3 , against which impinges one end or part h of an upwardly-acting spring H, as more plainly shown in Fig. 7, which spring is shown as a flat bow-shaped spring, and is suitably secured to the sash D and moving with it, as also does the latch G. The latter is also provided with a lug g^4 , with an aperture for the attachment of a cord or chain for releasing the latch G from catch g when sash D is closed to admit of opening it. When opened and as it moves into its final closing position, the spring H snaps the latch G into locking engagement with catch g to securely hold the sash in its closed position.

The sash D and the frame A are respectively provided with eye and pin attachments $m m'$ for the usual hook or other bar for holding the sash in an adjusted open position.

From the foregoing it will be noted that the coupling-irons C C serve also as the pivotal support for the sash D, and as said pivotal supports have outer open ends the sash D can be inserted in the frame A after it is secured in place and can as easily be removed for repairs or replacement; that the outside frame A, being made with open pivot supports, can be more readily set in position, as the sash is not then in position on frame A; that the sash can be inserted in place through frame A, thereby often saving scaffolding heretofore used, and that the sash D being loose, with pivots riveted solid to it, it has no friction against the outside frame.

Hence the pivots cannot wear loose and the inner frame or sash D cannot sag or sway down to bind on the bottom of the outside frame, the whole forming an easily and economical ventilator, which is durable and easily worked.

What I claim is—

1. The metal frame A, composed of sections B B', united by coupling-irons C C, and pivot-supports with free or open ends in said irons C C, substantially as set forth.

2. The metal frame A, composed of sections B B', and coupling-irons C C, having stop and rain guard lugs c' and open-end slots c^2 , substantially as set forth.

3. In combination with a frame A, composed of angle-iron sections B B', coupling-irons C C for uniting said sections, open-end slots c^2 in said couplings, and sash-frame D, having pivots for pivoting the frame D in said open-end slots, substantially as set forth.

4. The frame A, composed of sections B B', and coupling-irons C C, having stop and rain guard lugs c' and lug g , sash D, having the latch, and an upwardly-acting spring for said latch, as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

PETER DEISSLER.

WILLIAM DEISSLER.

Witnesses:

HENRY C. ESLING,

S. J. VAN STAVOREN.