

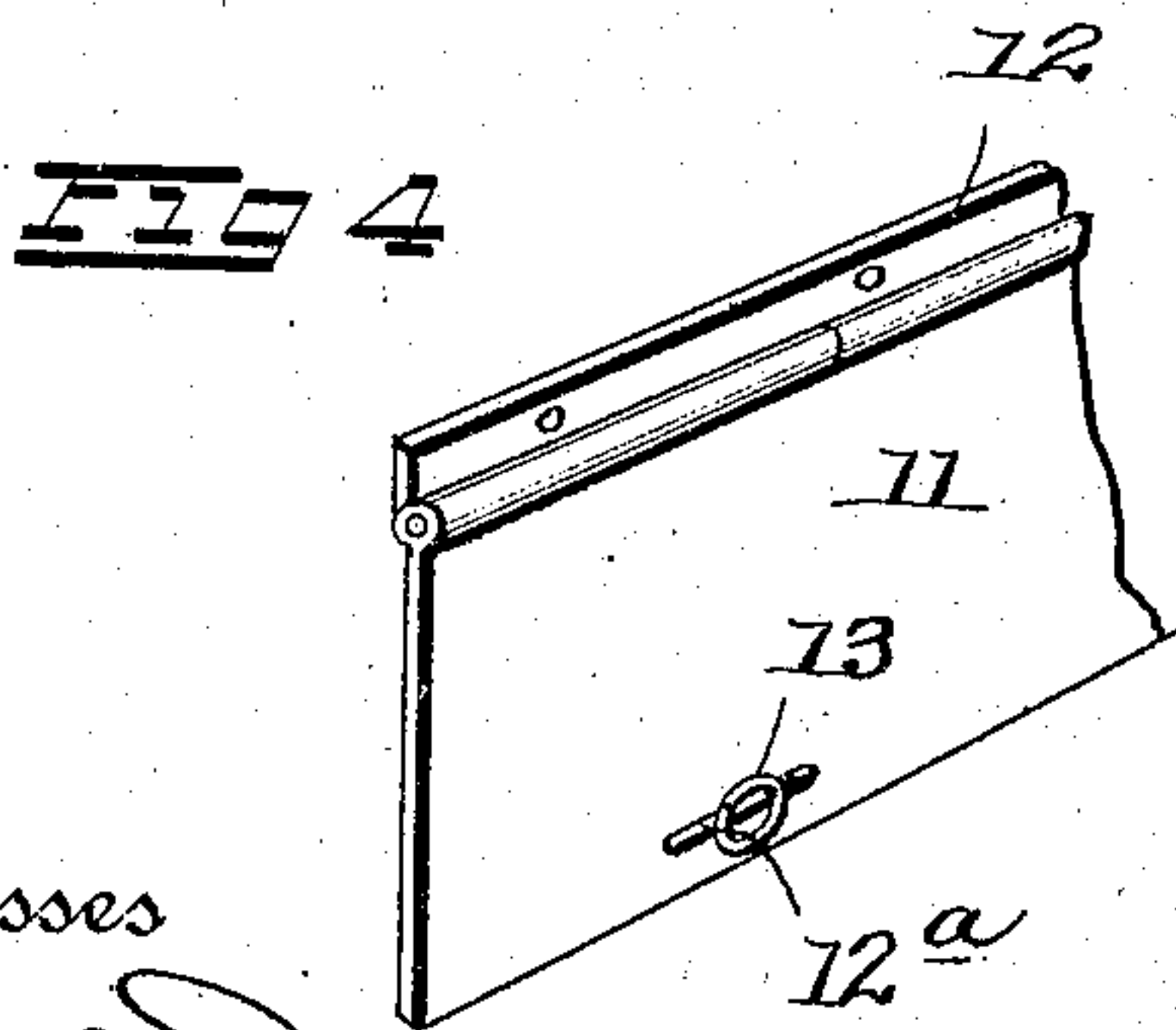
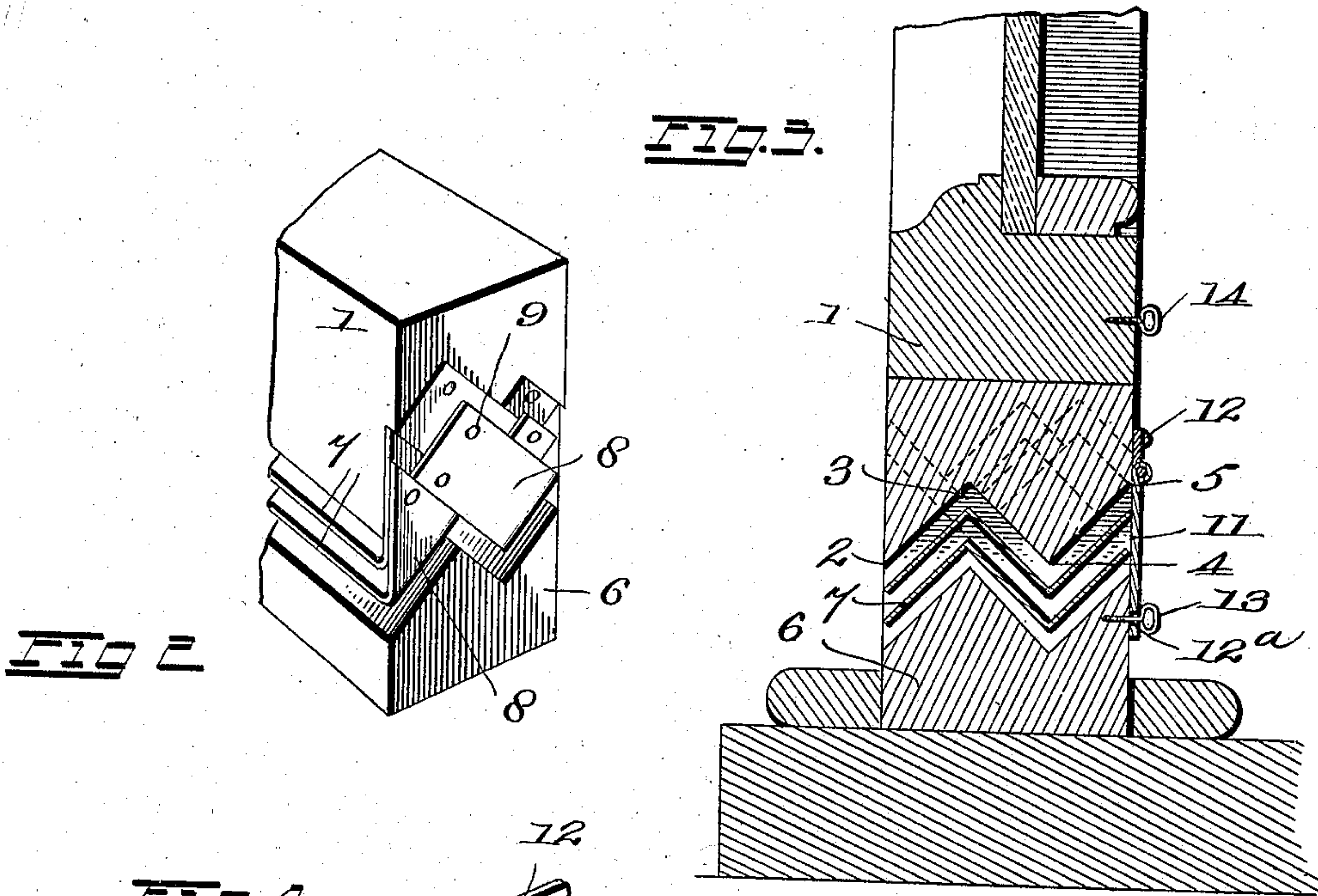
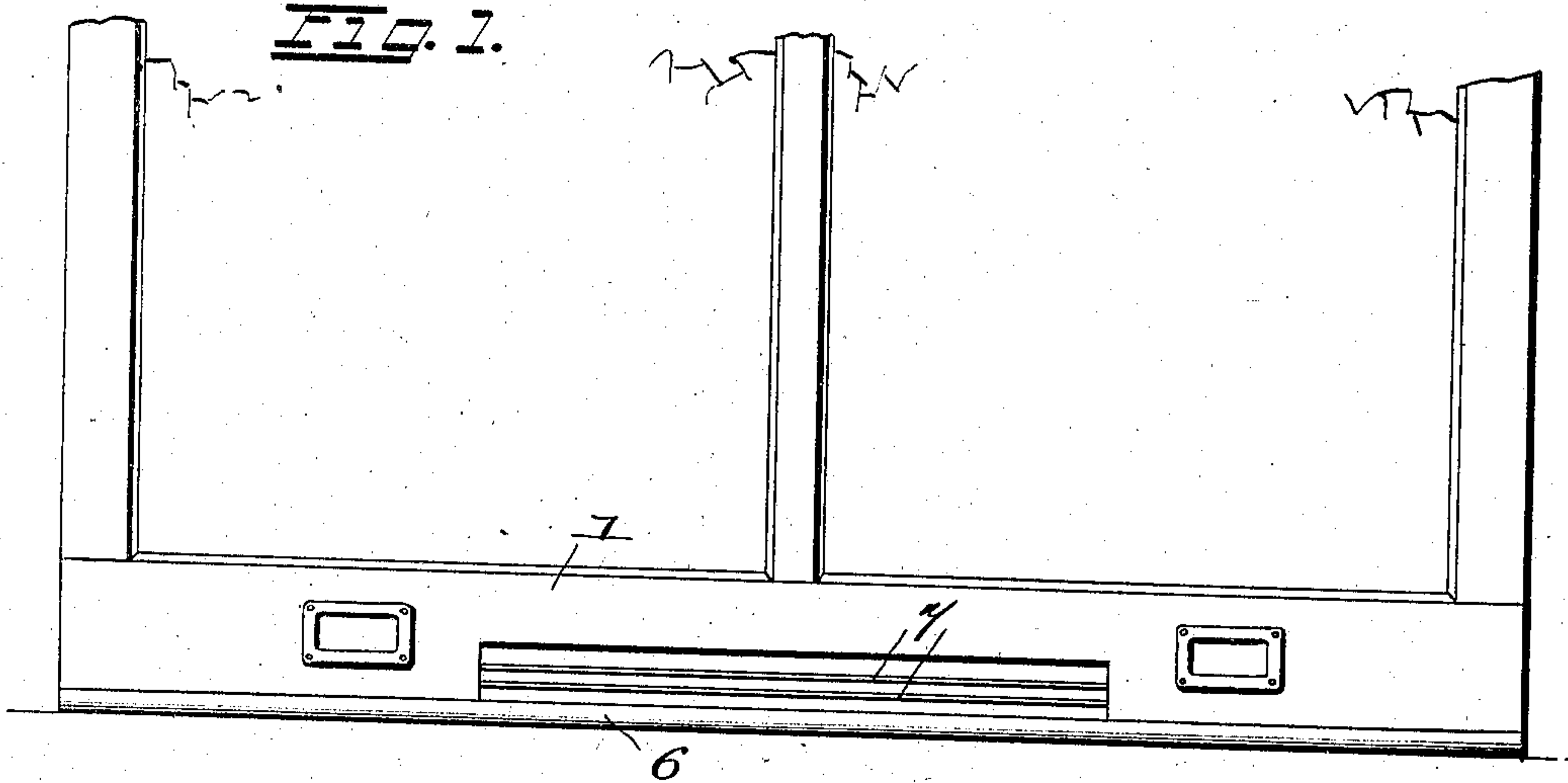
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VENTILATOR.

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924,479.

Patented June 8, 1909.



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UNITED STATES PATENT OFFICE.

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VENTILATOR.

No. 924,479.

Specification of Letters Patent.

Patented June 8, 1909.

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To all whom it may concern:

Be it known that I, GUSTAV G. LOEHLER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Ventilators; and I do hereby 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.

This invention relates to improvements in ventilators, and is primarily designed to provide ventilating means, avoiding any drafts, communicating between the exterior and interior of any compartment, whether it be a room, car, or other form of compartment.

While the invention may be associated with any form of compartment, as stated, and while it may be disposed in planes outside of the horizontal, still for the purpose of simplicity of illustration the invention is shown as applied to the bottom of a window sash, extending transversely of the window and forming the ventilating means between the interior of a room and the exterior atmosphere. It will also be understood that the invention is not restricted to the exact arrangement shown, but for the purpose of disclosure reference is had to the accompanying drawings illustrating a practical embodiment of the invention, and the particular features of novelty will be pointed out more succinctly in the claims.

Referring to the drawings, in which like numerals represent like parts in the several views—Figure 1 is a fragmentary front elevational view of the window sash with the invention applied, the hinged cover being omitted. Fig. 2 is a fragmentary perspective view looking toward one end of the ventilating member. Fig. 3 is a vertical cross section through the sash and ventilating member, and Fig. 4 is a perspective view of the cover or hinged plate.

In the drawings the invention is illustrated as applied to the bottom of the window sash, by recessing the same as shown at Fig. 1, the ventilating member being bodily inserted in said recess and rigidly secured therein in any suitable way.

While the ventilator may be integrally formed of metal, I have shown it of sectional form, the upper portion 1 being cut away to provide a zig-zag bottom face extending from the lower outside position 2, upwardly

to the position 3, thence downwardly to the position 4, thence upwardly and inwardly to the position 5. Disposed below this, and when inserted in position forming a continuation of the bottom of the sash, is the lower member 6, similarly cut away on its upper face in a zig-zag fashion, so that the zig-zag surface will lie substantially parallel to the surface just described. These two portions of the ventilator are held spaced apart in any suitable manner and they form a zig-zag channel adapted to extend upwardly from the exterior atmosphere, thence downwardly, and thence upwardly, opening into the interior of the compartment in a direction the reverse of the disposition of the exterior opening.

It is obvious that the channels might be cut in just the reverse direction, but this is the practical form, because by having the exterior opening directed downwardly it prevents water from beating in and filling up the channel formed.

In ventilating it is deemed advisable not to have too big an opening, which is unprotected from the elements, but it is desirable to admit the same amount of air through separate openings, the incoming air being so directed that it will not be discharged in a strong draft or current, and in order to provide a plurality of channels of the same contour as the one just described, I employ one or more zig-zag vanes 7 in the form of oppositely disposed triangles having a common leg. These vanes, which may be turned out in long strips from a fluted roller and clipped off in proper sections, may be secured between the upper and lower members in any suitable way, but for the purpose of illustration we have simply shown them as formed from metal, comprising three wings angularly disposed in zig-zag fashion, the joining line of the wings being slit at each end to provide portions which may be bent over at right angles to form ears 8, adapted to fit up against the ends of the upper member and may be secured thereto by any suitable fastening means, such as nails passing through the perforations 9. It will be understood, however, that these vanes may be held in position in any way at all, but when they are fixed in the manner shown the ears 8 are preferably countersunk in the upper member and finishing plates, not shown, may be fastened to the ends of the ventilating mem-

ber to cover these turned over ears and make a smooth fit in the recessed portion of the sash. Also any suitable means may be provided for forming a door or closure for the ventilator, but the simplest form for illustration is shown as comprising a plate 11, hinged as at 12 to the bottom of the sash and of a depth sufficient to cover the ventilating channels, this plate being slotted as at 12 and adapted to register with screw eyes 13 and 14 and be held either in the closed or open position, as will be apparent.

It is evident that the ventilating means may be of any suitable length or one or more of such means may be spaced along the sash, or they may have circular openings instead of elongated ones, the principle of the invention residing in the introduction of fresh air into a compartment, the pressure at the same time being so equalized by the interrupted passage of the air through the zig-zagging channels that it is admitted into the room without creating a current or draft.

Having thus described the invention, what I claim is:—

1. The combination of a suitable recessed support and ventilating means fitted in said support so as to be flush with the outer surface thereof, said means including a plurality of continuous metal strips, each strip

being bent so as to form a plurality of oppositely-disposed right angles, said strips being parallel with each other, substantially as described.

2. The combination of a recessed window sash and ventilating means fitted in said recess so as to be flush with the outer surface of said sash, said means including a plurality of continuous metal strips, each strip being bent so as to form a plurality of oppositely disposed right angles and said strips being parallel with each other, substantially as described.

3. The combination of a recessed window sash, a movable cover for said recess, and ventilating means located in said recess flush with the surface of said sash, said ventilating means consisting of a plurality of metal strips arranged parallel to each other and each bent so as to form a plurality of oppositely disposed right angles, thereby providing a zigzag passage through said sash, substantially as described.

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

GUSTAV G. LOEHLER.

Witnesses:

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