

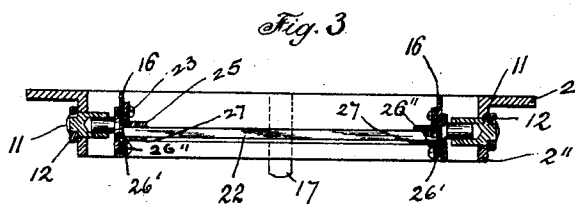
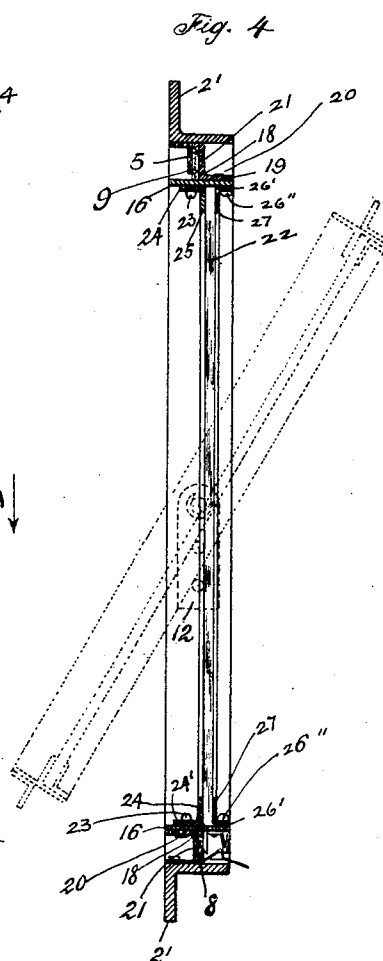
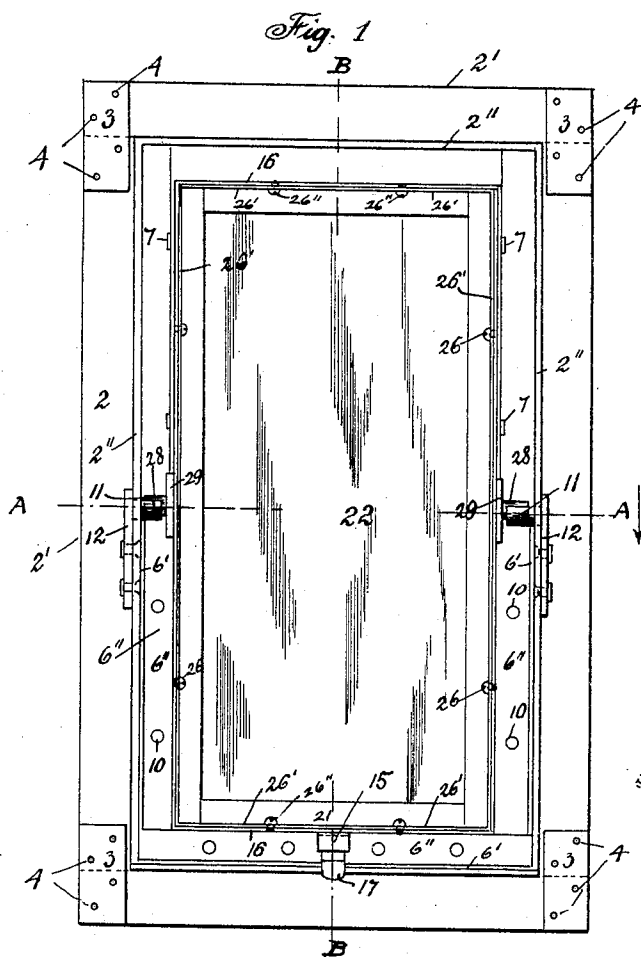
No. 782,915.

PATENTED FEB. 21, 1905.

R. H. LEICHT & A. ZEDNIK.
WINDOW.

APPLICATION FILED AUG. 17, 1904.

2 SHEETS—SHEET 1.



Witnesses
Paul Schmidt
A. Korschbaum

Inventors
Richard H. Leicht
Anton Zednik
by *Robt. Klotz*
att.

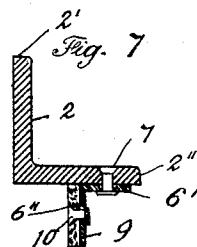
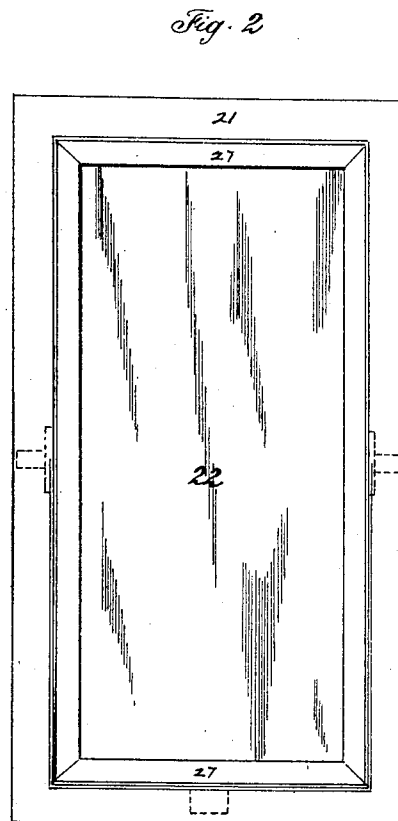
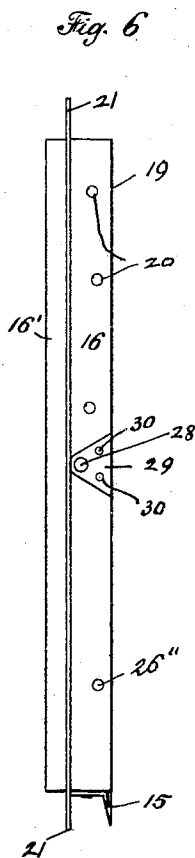
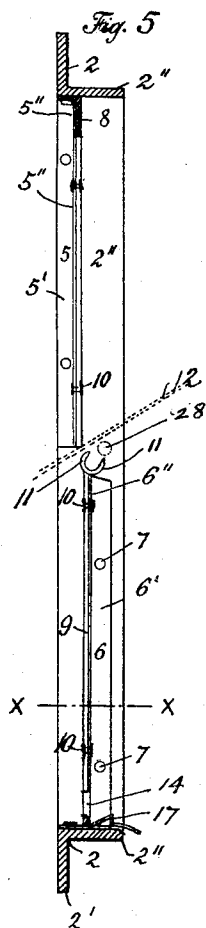
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PATENTED FEB. 21, 1905.

R. H. LEIGHT & A. ZEDNIK.
WINDOW.

APPLICATION FILED AUG. 17, 1904.

2 SHEETS—SHEET 2.



Witnesses
P. Gerhardt.
A. Hocke

Inventors
Richard H. Leicht
Anton Zednik
By *Robt. Klotz*
Att.

UNITED STATES PATENT OFFICE.

RICHARD HERNMAN LEICHT AND ANTON ZEDNIK, OF CHICAGO,
ILLINOIS.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 782,915, dated February 21, 1905.

Application filed August 17, 1904. Serial No. 220,996.

To all whom it may concern:

Be it known that we, RICHARD HERNMAN LEICHT and ANTON ZEDNIK, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Windows, of which the following is a specification.

Our invention relates to windows of the type wherein the sash swings on pivots; and its object is to provide a window casing or frame and sash of simple construction, easily manipulated, adapted for construction out of such staple material as angle-irons, easily made weather-proof, and wherein the sash may at once be firmly seated and readily removable from the casing or frame, as well as replaced, without danger of the sash being accidentally dropped to the outside of the building.

With the above objects in view our invention consists in the novel construction and arrangement of parts hereinafter described in detail, illustrated in the drawings, and incorporated in the claims.

In the drawings, Figures 1 and 2 are elevations of a window embodying our invention, showing, respectively, inside and outside views thereof. Fig. 3 is a section substantially on the line A A of Fig. 1. Fig. 4 is a section taken on the line B B of Fig. 1. Fig. 5 is a section through the window-frame alone substantially on line B B of Fig. 1, the dotted lines showing position of the sash when inserted or removed from the frame or casing. Fig. 6 is an edge view of the window-sash. Fig. 7 is an enlarged sectional view taken on line X X of Fig. 5.

Referring to the drawings, the window-casing consists of angle-irons 2, having wings or flanges 2' and 2'', the former adapted to lie against the outer face of the wall of a building, while the latter projects inwardly in the casing-opening. The four corners of the casing are fastened together by plates 3, riveted to the flanges 2', 4 representing the rivets. To the inner faces of the flanges 2'' are riveted window-stops 5 and 6, which are also angle-irons, with wings 5' and 6' fastened to flanges 2'' of the casing and wings 5'' and 6'' which project

from the inner faces of the casing and constitute the stops proper. The stops 5 and 6 are fastened to the casing by rivets 7. The flanges 5'' and 6'' have, respectively, facings 8 and 9 of fiber, felt, rubber, or like material, and said facings are shown secured to the flanges 5'' and 6'' by means of rivets 10, though other suitable fastening means may be employed. As shown most clearly in Fig. 5, the facing 8 is on the inner side of the flange 5'', while the facing 9 is on the outer side of flange 6''. The flanges 5'' are secured to the three sides of the upper half of the casing, while flanges 6'' extend around the three sides of the lower half of said casing. As clearly shown in Fig. 5, the flanges 5'' and 6'' lie in different parallel planes sufficiently far apart to allow room therebetween for the outer flanges of the sash-frame hereinafter referred to. Said frame is pivotally supported in the frame 2 upon a pair of trunnions supported in substantially semicircular bearings 11 11, secured at the upper ends of stops 6. These bearings are fixedly mounted upon plates 12 12, and the latter are in turn preferably riveted to the outer sides of vertical flanges 2'', as shown in Fig. 1, suitable apertures for the bearings to project through being provided in the casing. In the lower horizontal portion of flange 6'' is a notch 14, which permits lip or ear 15, constituting the sash portion of the locking mechanism, to pass the flange 6'' when the sash 16 is rotated into its open position. A spring-catch 17 on the casing-flange 2'' engages the ear 15 to hold the sash in its locked position.

The sash 16 comprises a flat strip of metal bent four times at right angles and is designated by the numeral 16'. An angle-iron 18 extends around the outer faces of the sash portion 16'. One wing, 19, of said iron is riveted at 20 20 to the sash portion 16', and the other portion or wing, 21, of said angle-iron projects from the sides of the frame portion 16'. The wing or wings 21 cooperate with the facings 8 and 9 to provide a weatherproof joint between casing and sash. The glass of the sash is held in place in a channel formed on the inner periphery of the sash portion 16' by means of the projecting wings of another

pair of angle-irons extending all the way around. One of these angle-irons extending around the four sides of the sash is labeled 24, and its wing 24' is secured by rivets 23 to the sash member 16'. The other wing, 25, forms one side of the channel for the edges of the glass. The other side or wall of said channel is formed by a similar angle-iron 26; but the wing 26' of the latter is preferably secured to the sash portion 16' by means of screws 26" instead of rivets, so that the wing 27, forming one of the walls of the glass-channel, may be readily removed. The sash 16 is provided with trunnions 28 28, secured to plates 29, themselves fastened to the sash by screws or rivets 30.

As shown in Fig. 5, the trough-like bearings 11 11 are inclined toward the inner side of the sash and casing, so as to elevate one edge thereof above the opposite edge. The object of this is to provide for the easy insertion of sash into casing or without the exertion of lifting the sash bodily into its bearings. As shown by dotted lines in Fig. 5, the flange 21 of the sash may be slid into place upon the upper edges of bearings 11, and by raising one end of the sash, with said bearing as a fulcrum, the trunnions 28 will be raised over the lower edges and permitted to drop into place. The lower ends of stops 5 are brought sufficiently close to the bearings 11 to prevent trunnions 28 from passing between the upper bearing edges and lower ends of upper stops, while allowing ample room for the flange or flanges 21, thereby obviating any possible danger of a window-cleaner, for instance, permitting the sash to slide entirely through the casing and drop from the building, while provision is made for the complete separation of sash from casing in the simplest possible manner.

The operation of our invention will be readily understood from the foregoing description. Figs. 5 and 6 show the frame or casing and sash as distinctly separate members, and all that is involved in assembling said members is to insert the lower or catch end of the sash between the bearings 11 and stops 5 and slide the sash into position as previously explained, and shown by dotted lines in Fig. 5.

The sash may then be turned into its vertical position, when the facings 8 and 9 will lie closely against the flange 21 and provide a weatherproof joint between casing and sash. When the sash is in its closed position, the facing 8 lies against the outer side of the flange 21, while the facing 9 lies against the inner side of said flange, so that rain and the like beating against the upper portion of the window will run off the naked side of flange 5" onto the flange 21.

What we claim as new, and desire to secure by Letter Patent, is—

1. The combination of a window-casing with a window-sash, said casing having an outer peripheral flange and a pair of interior peripheral flanges arranged in separate planes, said sash having an exterior peripheral flange arranged to normally lie against said interior peripheral flanges but in a plane between the planes of said flanges, said sash having two pairs of interior peripheral flanges adapted to removably confine a window-glass therebetween.

2. The combination of a window-casing with a window-sash, said casing being constructed out of angle-irons, one wing of said irons forming the body of said casing and the other wing projecting at right angles from the outer face of said body, angle-iron stops secured to the inner sides of said body, said stops being arranged so that the stops of the upper portion of the casing occupy a different plane from the stops in the lower part of said casing, open trunnion-bearings between the upper and lower stops, said sash consisting of a frame having angle-irons secured to its outer and inner sides, the angle-irons on the outer sides providing a peripheral wing extending from the sides of said sash, angle-irons secured to the inner sides of the sash which provide a channel for the window-glass.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

RICHARD HERNMAN LEICHT.
ANTON ZEDNIK.

In presence of—

LEON ABRAHAM,
A. TROESCHALL.