

No. 779,211.

PATENTED JAN. 3, 1905.

W. A. FAIR.
GLASS CLAMP.

APPLICATION FILED MAY 14, 1904.

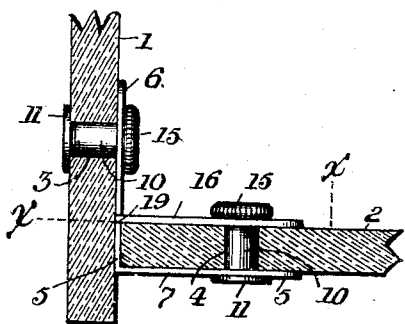


Fig. 1.

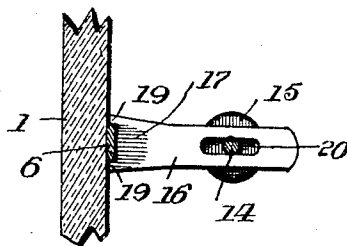


Fig. 2.

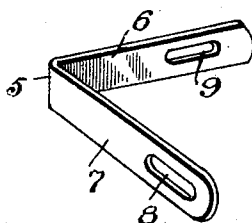


Fig. 3.

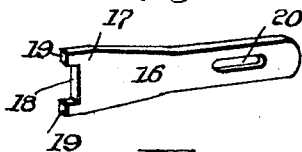


Fig. 4.

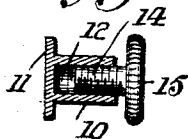


Fig. 5.

Witnesses:
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UNITED STATES PATENT OFFICE.

WILDER A. FAIR, OF AVALON, PENNSYLVANIA.

GLASS-CLAMP.

SPECIFICATION forming part of Letters Patent No. 779,211, dated January 3, 1905.

Application filed May 14, 1904. Serial No. 207,958.

To all whom it may concern:

Be it known that I, WILDER A. FAIR, a citizen of the United States of America, residing at Avalon, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Glass-Clamps, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to glass-clamps, and more particularly to that class which are employed for securing plate-glass together in connection with show-cases, windows, and the like; and the object of this invention is to provide novel means whereby two plates of glass may be secured together to form a tight and compact joint.

Another object of my invention is to provide means in connection with the glass-clamp whereby should the glass sag or move after it has once been placed in position (this often being occasioned by the settling of the building) that the glass will not crack or become sprung; and, briefly described, my improved clamp comprises an angled strip which is provided with slots in its angled portions, and the plate-glass adjacent to its edges is adapted to be drilled, and through these apertures and the slots of the angled strip are placed screw-clamps, whereby the glass is firmly held in engagement with the angled strip, and a supplementary strip is provided in connection with the clamp for further securing and bracing the two plates of glass together.

With the above and other objects in view reference will be had to the accompanying drawings, forming a part of this application, wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a transverse sectional view of two plates of glass secured together by my improved clamp. Fig. 2 is a vertical sectional view taken on the line *xx* of Fig. 1. Fig. 3 is a perspective view of the angled strip. Fig. 4 is a perspective view of the supplementary or inside strip used in connection with my improved window-clamp, and Fig. 5 is a sectional view of the screw-clamp.

As above stated, my invention relates to se-

curing plates of glass together which are used for show windows, cases, and the like, and in carrying my invention into effect I have illustrated the same in Fig. 1 of the drawings as securing the edges of two plates of glass together, forming the corner of a window or show-case, and the reference-numeral 1 indicates one plate of glass, and the reference-numeral 2 a plate of glass which is adapted to be secured to the plate 1 at right angles thereto, and adjacent to the edges of the plates 1 and 2 I have drilled apertures 3 and 4, in which the screw-clamps to be hereinafter described are inserted.

The reference-numeral 5 indicates an angled strip, the angled portions or arms 6 and 7 of said strip being formed at right angles to each other, and in the ends of these angled portions or arms 6 and 7 I provide longitudinal slots 8 and 9, respectively. This strip, as clearly illustrated in Fig. 1 of the drawings, is secured to the plate of glass 1 by a screw-clamp which consists of an interiorly-screw-threaded sleeve 10, carrying on its one end a head 11, and this sleeve is adapted to be placed in the aperture 3 of the plate 1, the inner face of the head 11 engaging the exterior side of the glass plate 1, and in the screw-threaded opening 12 of the sleeve I secure a thumb-screw 14, carrying a head 15, by which the screw is rotated into the sleeve. Prior to placing the screw in the sleeve the angled portion 6 of the strip 5 is placed against the plate-glass 1, the slot 9 of this strip coinciding with the screw-threaded aperture 12 of the sleeve 10, at which time the screw 14 is secured in said sleeve, the inner face of the head 15 engaging the angled portion 6 of the strip and firmly holding the same in position upon the glass plate 1.

The reference-numeral 16 indicates the supplementary or inside strip, which is oblong in form and has its one end slightly enlarged, as indicated at 17, and cut away, as indicated at 18, forming projections 19 19, while the other end of said strip is provided with a longitudinal slot 20, similar to the slots 8 and 9 of the angled strip 5. The plate-glass 2 is now placed at right angles to the plate-glass 1, and the sleeve 10 is placed through the slot

8 of the angled portion 7 of the strip and through the aperture 4 of the plate-glass 2, at which time the supplementary strip 16 is placed against the inner side of the plate 2, the projections 19 19 being adapted to engage 5 the top and bottom edges of the angled portion 6 of the strip 5, as clearly illustrated in Fig. 2 of the drawings. The positioning of this strip 16 upon the angled portion 6 of the 10 strip 5 further facilitates the alinement of the slot 20 of the strip 16 with the screw-threaded aperture 12 of the sleeve, at which time the screw 14 is placed in the sleeve 10, the inner face of the screw-head 15 engaging the side 15 of the supplementary strip 16 and rigidly holding the same in position against the plate-glass 2.

It will be observed by this construction that the plates of glass 1 and 2 are firmly secured 20 together at right angles to each other, and I have provided the slots 8, 9, and 20 of the strips, whereby a longitudinal movement of the plates of glass in respect to the strips 5 and 16 will be permitted, it being observed 25 that one plate of glass can move independent of the other. It will be noted that each plate of glass is adjustably secured, and should they unevenly settle the plates are permitted to move relatively to one another, thus pre- 30 venting one or both of the plates from breaking.

The many other advantages of my improved clamp will be apparent from the above description, taken in connection with the draw- 35 ings, and while I have herein shown the preferred form of construction it is obvious that slight changes in the details of construction may be made without departing from the general spirit and scope of the invention.

40 What I claim is—

1. In a clamp for glass plates, the combination with the glass plates, of an angled strip, the ends of said strip having slots formed therein, a supplementary strip, one end of 45 said strip having a slot formed therein, the other end of said strip being cut away to form projections, and means for securing said strips to the plates, substantially as described.

2. In a clamp for glass plates, the combination 50 with two plates, of an angled strip, the ends of said strip having slots formed therein, said glass plates having apertures formed therein, a supplementary strip, one end of said strip having a slot formed therein the

other end of said strip being cut away to form 55 projections, and screw-clamps adapted to pass through the apertures of said glass plates and the slots of said strips, substantially as described.

3. In a glass-clamp, the combination with 60 two plates of glass having apertures formed therein, of an angled strip, the ends of said strip having slots formed therein, a supplementary strip, one end of said strip having a slot formed therein, the other end of said strip 65 being cut away to form projections, interiorly-screw-threaded sleeves mounted in the apertures of the plate-glass, and screws secured in said screw-threaded sleeves and adapted to hold said strips in engagement with the plates 70 of glass, substantially as described.

4. In combination with two plates of glass positioned at right angles to each other, fast- 75 ening means comprising an angle-strip, the arms of which are of equal length and extend at right angles to each other and having slots near their free ends registering with open- ings provided in the glass plates, a screw-clamp passing through the slot in one of said 80 arms and through the opening in one of the glass plates for securing the arm to the plate, a supplementary inside strip having its inner end engaging one of the arms of the angle- 85 strip and provided near its outer end with a slot registering with the opening in the other plate and with a slot in the other arm of the first-named strip, and a screw-clamp binding 90 said supplementary strip to the last-named glass plate and arm of the first-named strip.

5. In a clamp of the character described, 95 the combination with two plates of glass having apertures formed therein, of an angled strip, the ends of said strip having slots formed therein, screw-clamps adapted to pass through said apertures and slots to secure the glass 95 plates to said strip, a supplementary strip having its one end cut away to form projections, the end of said strip having a slot formed therein, the projections of said strip adapted to engage the angled portion of the first- 100 named strip, substantially as described.

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

WILDER A. FAIR.

Witnesses:

H. C. EVERT,

E. E. POTTER.