C. S. THORNE.

STORE FRONT CONSTRUCTION.

APPLICATION FILED MAR. 13, 1913.

1,085,229.

Patented Jan. 27, 1914.

2 SHEETS—SHEET 1.

Fig. 1.

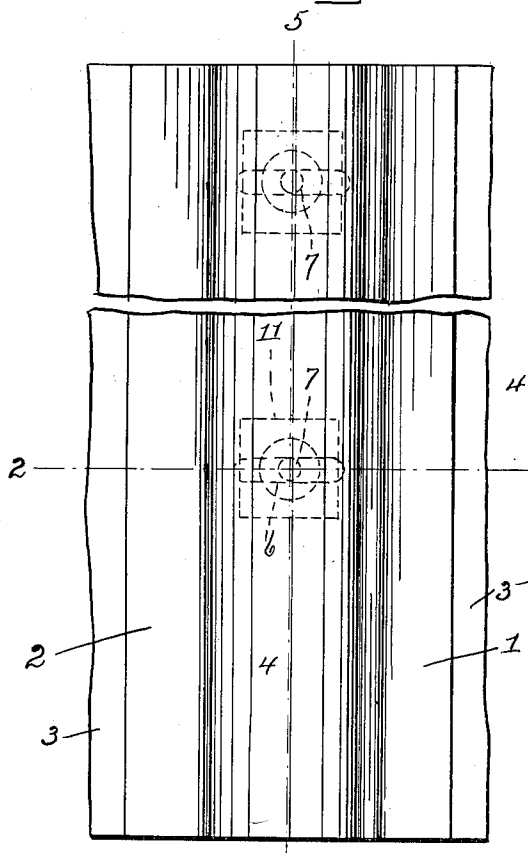
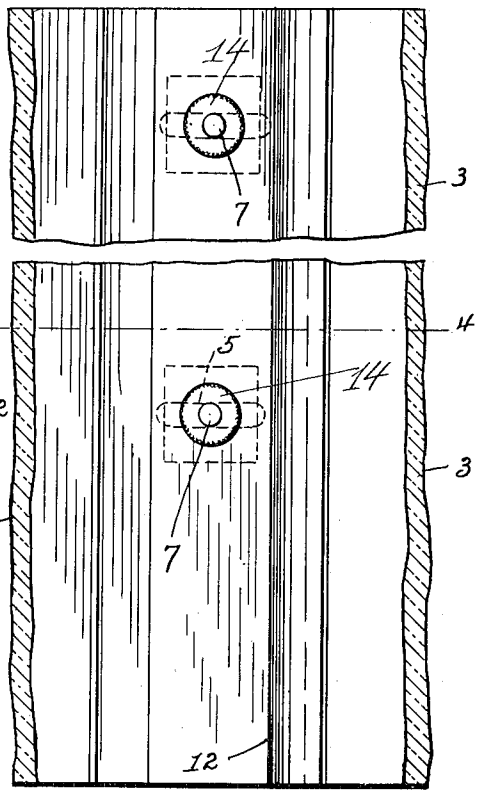


Fig. 3.



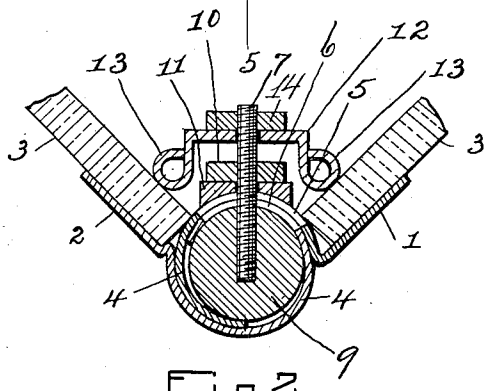


Fig. 2.

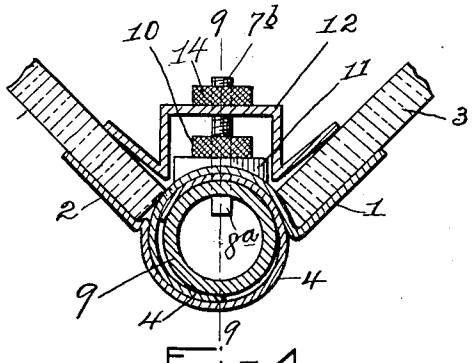


Fig. 4.

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2 SHEETS—SHEET 2.

Fig. 5.

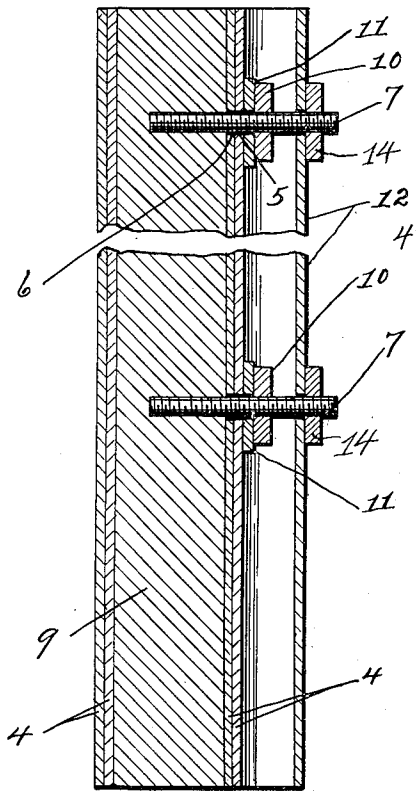


Fig. 9.

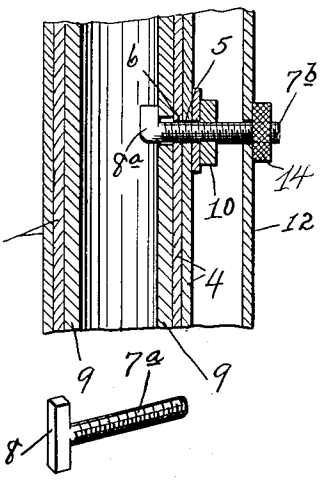
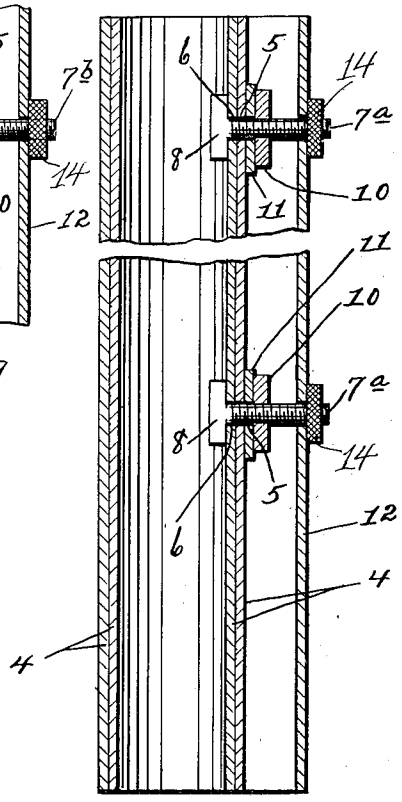


Fig. 7.

Fig. 6.



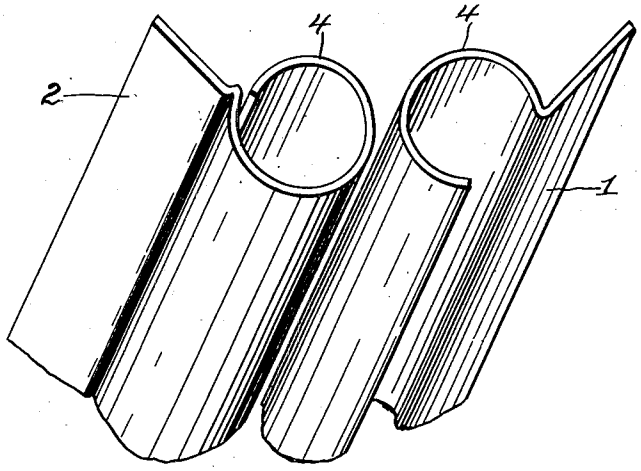


Fig. 8.

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UNITED STATES PATENT OFFICE.

CHARLES S. THORNE, OF TROY, NEW YORK, ASSIGNOR TO THE THORNE HOLD-FAST METAL BAR COMPANY, OF TROY, NEW YORK, A CORPORATION OF NEW YORK.

STORE-FRONT CONSTRUCTION.

1,085,229. Specification of Letters Patent. Patented Jan. 27, 1914.

Application filed March 13, 1913. Serial No. 753,924.

To all whom it may concern:

Be it known that I, CHARLES S. THORNE, a citizen of the United States, residing at Troy, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Store-Front Construction, of which the following is a specification.

The invention relates to such improvements and consists in the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification. Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in front elevation of a portion of a store-front construction, showing two plates of glass joined together by my improved device. Fig. 2 is a horizontal cross-section of the same taken on the broken line 2—2 in Fig. 1. Fig. 3 is a view in rear elevation of the same. Fig. 4 is a horizontal cross-section of the same taken on the broken line 4—4 in Fig. 2. Fig. 5 is a vertical cross-section taken on the broken line 5—5 in Fig. 1. Fig. 6 is a similar vertical section, showing a different form of mechanism for clamping together the lapping portions of the hinge-scrolls. Fig. 7 is a view in perspective of one of the T-headed screw-bolts used in the construction shown in Fig. 6. Fig. 8 is a view in perspective of broken-away end-portions of two plates provided with edge-scrolls whereby they are adapted to be hinged together for use in my improved device. Fig. 9 is a vertical cross-section taken on the broken line 9—9 in Fig. 4.

The principal object of the invention is to provide a device whereby the neighboring ends of two plates of glass, or the like, may be joined together and supported at such an angle to each other as may be desired.

Other objects will appear in connection with the following description.

In carrying out my invention, I employ a pair of hinge-connected plates adapted to engage the neighboring ends of the two plates of glass on the outer side, together with means for holding the hinged plates in whatever relative angular position is required to support the glass in the desired position, and means engageable with the inner side of the plates of glass for holding them against said hinge-connected plates.

Referring to the drawings wherein the invention is shown in preferred form, 1 and 2 are a pair of hinge-connected plates adapted to engage the outer side of the neighboring ends of two plates of glass, 3. The plates, 1 and 2, may be hinge-connected by any known form of hinge having its axis substantially parallel with the plates of glass. I have shown a preferred form of hinge-connection consisting of interengaging scrolls, 4, formed on the neighboring longitudinal edges of the respective plates, 1 and 2. The scrolls, 4, are adapted to be brought into engagement with each other by sliding one scroll into the other telescopically until the plates, 1 and 2, are brought opposite one another. When the parts are so assembled, the plates, 1 and 2, are held in connection with each other while capable of swinging movements about the axis of the scroll-hinge, whereby the angle of the plates to each other can be varied to a considerable degree to adapt them to engage the outer sides of the neighboring ends of two plates of glass arranged at different angles to each other.

I have shown the scroll-portion of the plate, 1, provided with a plurality of transverse slots, 5, and the scroll-portion, of the plate, 2, provided with a like plurality of similarly located transverse slots, 6, said slots being adapted to receive the respective clamping screws, 7 or 7^a. Each of the screws, 7, 7^a extends outwardly from a clamping member located within the hinged scroll, and adapted to engage the inner surface of the inner scroll-member, said inner member being shown in Fig. 6 in the form of a T head, 8, on the inner end of the screw, 7^a; and in Fig. 5 in the form of a continuous rod or bar, 9, which occupies the interior of the scroll-hinge. In either case, the two scroll members, 4, are tightly clamped together between said inner member, 8 or 9, and a nut, 10, on the projecting portion of the screw, 7 or 7^a. In order to secure a better bearing upon the outer side of the outer scroll-member, 3, a saddle or washer, 11,

having a cylindrical concaved face is interposed between the nut, 10, and said outer scroll-member.

By loosening the nut, 10, the plates, 1 and 2, can be swung toward or from one another until they are brought to the desired angle, in which position they can be firmly secured by tightly screwing up the nuts, 10, until the scroll-members are securely clamped together.

The plates of glass rest against and are supported by the hinge-connected plates, 1 and 2, against which plates the plates of glass may be clamped and held in any known manner. I have shown an inside clamp-plate, 12, preferably formed of sheet-metal having rolled or beaded edges, 13, adapted to bear against the inner sides of the plates of glass, said inside clamp-plate being provided with apertures to receive the respective screws, 7 or 7^a, and being adapted to be held in engagement with the plates of glass by means of nuts, 14, adjustable on the respective screws, 7 or 7^a, to engage the outer side of said clamp. When the T-headed screw-bolts, 7^a, are employed, the head of the bolt is brought parallel, and in line with, the registering slots, 5 and 6, in the scroll-members and is passed through said slots and then rotated to bring the T-head at right angles to the slots, so as to bear upon the inner surface of the inner scroll-member on both sides of the slot therein.

As shown in Figs. 4 and 9, the post, 9, is hollow in the form of a tube or pipe and the screw, 7^b, has an L-shaped inner end, 8^a, adapted to be inserted through a suitable aperture in the hollow post to bear against the inner side of the tube.

What I claim as new and desire to secure by Letters Patent is—

1. In a device of the class described, and in combination, a pair of hinge-connected plates engageable with the outer side of the neighboring ends of two plates of glass; means exposed only on the inner side of the hinge-connection for securing said hinge-connected plates in definite angular relation to each other; and means for supporting the inner sides of said plates of glass.

2. In a device of the class described, and in combination, a pair of hinge-connected plates engageable with the outer side of the neighboring ends of two plates of glass; mechanism engageable with the inner side of said plates of glass; and means exposed only on the inner side of the hinge-connection for holding said hinged plates in definite angular relation to each other and for connecting them with said mechanism.

3. In a device of the class described, and in combination, a pair of plates engageable with one side of the neighboring ends of two plates of glass, said plates having on their contiguous edges interengaging scrolls whereby they are hinged together; means for holding said hinged plates in selected definite angular relation to each other; and means for supporting the opposite side of the plates of glass.

4. In a device of the class described, and in combination, a pair of plates adapted to engage one side of the neighboring ends of two plates of glass, said plates having on their contiguous edges interengaging scrolls whereby they are hinged together, said scrolls being provided with transverse slotted apertures in their lapping portions; a clamping member located within said scrolls; a clamping member located outside said scrolls; and screw-mechanism passing through said slots in the respective scrolls for drawing together said clamping members to clamp therebetween the lapping portions of said scrolls.

5. In a device of the class described, and in combination, a pair of plates adapted to engage one side of the neighboring ends of two plates of glass, said plates having on their contiguous edges interengaging scrolls whereby they are hinged together, said scrolls being provided with transverse slotted apertures in their lapping portions; a clamping member located within said scrolls; a clamping member located outside said scrolls; screw-mechanism passing through said slots in the respective scrolls for drawing together said clamping members to clamp therebetween the lapping portions of said scrolls; a glass-clamping member engageable with the opposite side of said plates of glass; and a nut on said screw-mechanism for forcing said glass clamping member against the glass.

6. In a device of the class described, and in combination, a pair of plates adapted to engage one side of the neighboring ends of two plates of glass, said plates having on their contiguous edges interengaging scrolls forming a hinge, each scroll being provided with a plurality of transverse slotted apertures adapted to register with corresponding apertures in the other scroll; a post extending lengthwise through said hinge; a plurality of screws projecting from said post through registering pairs of said apertures in the scrolls; nuts on the respective screws for clamping lapping portions of the scrolls against said post; and means for supporting the opposite side of said plates of glass.

7. In a device of the class described, and in combination, a pair of hinge-connected plates engageable with one side of the neighboring ends of two plates of glass, said plates having on their contiguous edges interengaging scrolls whereby they are hinged together, said scrolls being provided with transverse slotted apertures in their lapping portions; a clamping member located within said scrolls; a screw extending from said

clamping member outwardly through registering slots in said scroll; a nut on the outer end of said screw; and a washer interposed between said nut and the outer side of the outer of said scrolls, said washer having its scroll engaging face concaved to conform to the shape of the screw.

8. In a device of the class described, and in combination, a pair of hinge-connected plates engageable with the outer side of the neighboring ends of two plates of glass; means covered and concealed on the outer side by said hinge-connected plates for securing said hinge-connected plates in definite angular relation to each other; and means for supporting the inner sides of said plates of glass.

9. In a device of the class described, and in combination, a pair of hinge-connected plates engageable with the outer side of the neighboring ends of two plates of glass; mechanism engageable with the inner side of said plates of glass; and means covered and concealed on the outer side by said hinge-connected plates for holding said hinge-connected plates in definite angular relation to each other and for connecting them with said mechanism.

10. In a device of the class described, and in combination, a pair of hinge-connected plates engageable with the outer side of the neighboring ends of two plates of glass; and means on the inner side of said hinge-connected plates for securing them in definite angular relation to each other, said means being concealed from the outer side.

In testimony whereof, I have hereunto set my hand this 5th day of March, 1913.

CHAS. S. THORNE.

Witnesses:

ROSE A. LEDUC,

GERTRUDE M. PITZ.