No. 860,150. PATENTED JULY 16, 1907.

F. J. PLYM.

STORE FRONT AND SHOW CASE CONSTRUCTION.

APPLICATION FILED OCT. 3, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

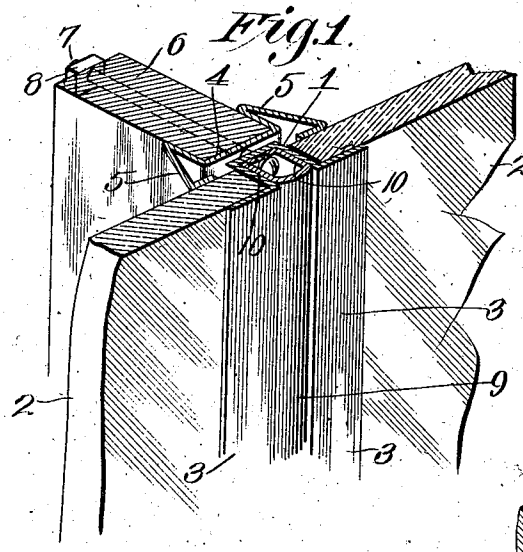


Fig. 3.

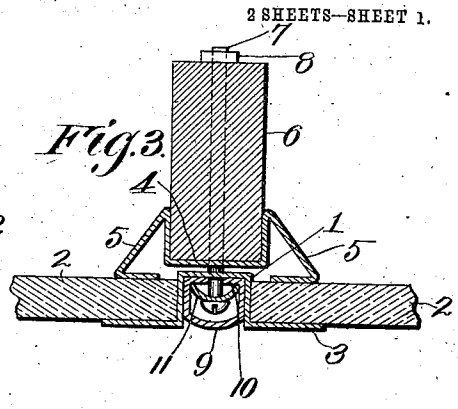


Fig. 2.

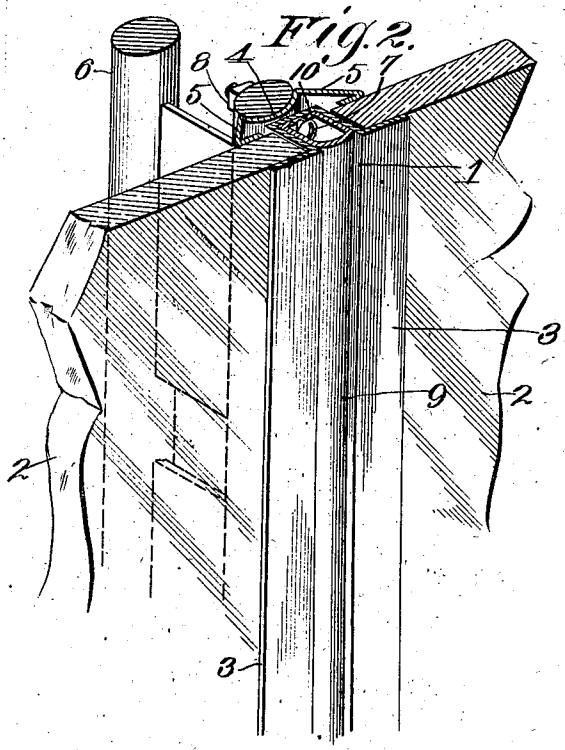


Fig. 4.

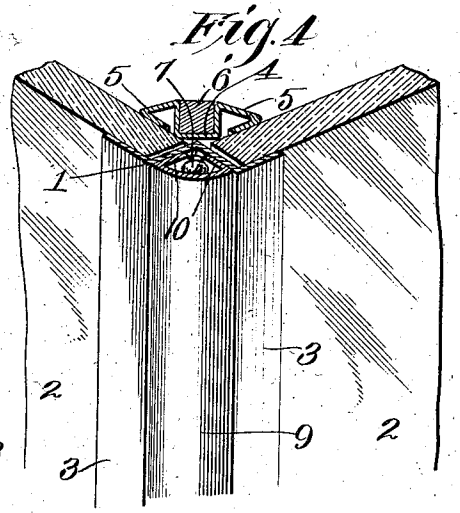
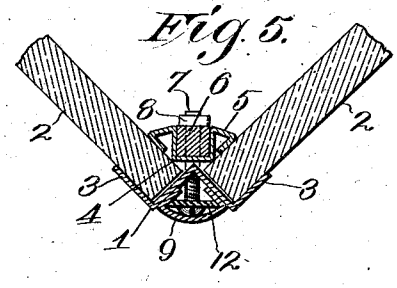


Fig. 5.



Witnesses
Frank R. Glore.
H. C. Rodgers.

Inventor
F. J. Plym.
By George H. Thorpe Atty.

No. 860,150. PATENTED JULY 16, 1907.

F. J. PLYM.

STORE FRONT AND SHOW CASE CONSTRUCTION.

APPLICATION FILED OCT. 3, 1906.

2 SHEETS—SHEET 2.

Fig. 6

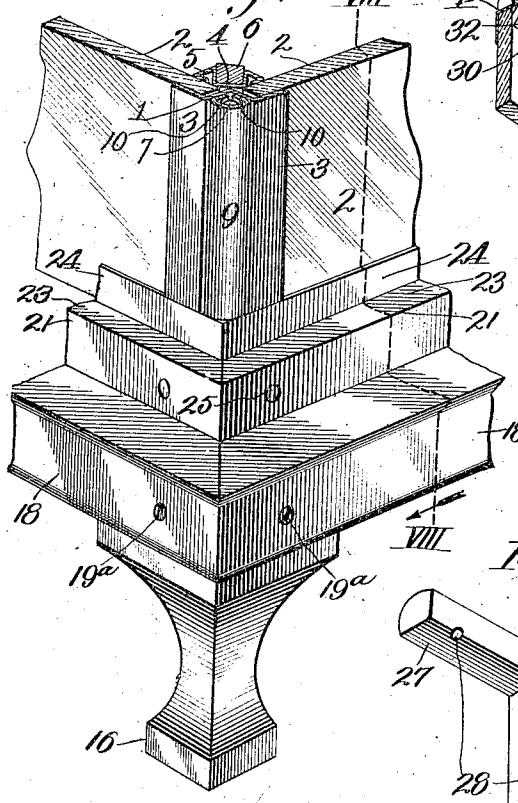


Fig. 10.

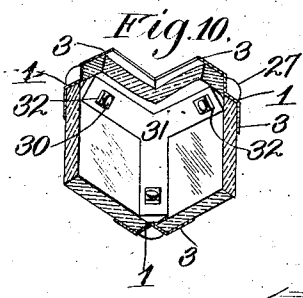


Fig. 7

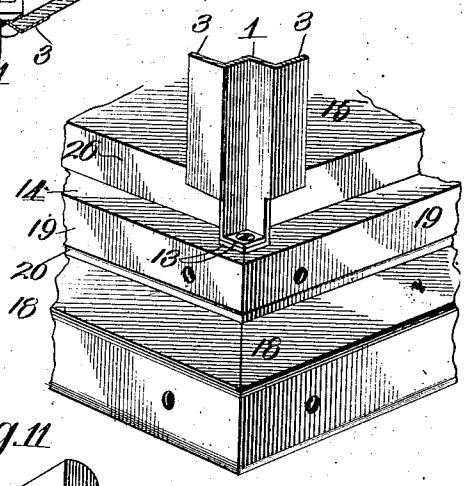


Fig. 11

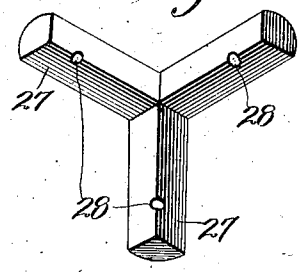


Fig. 8

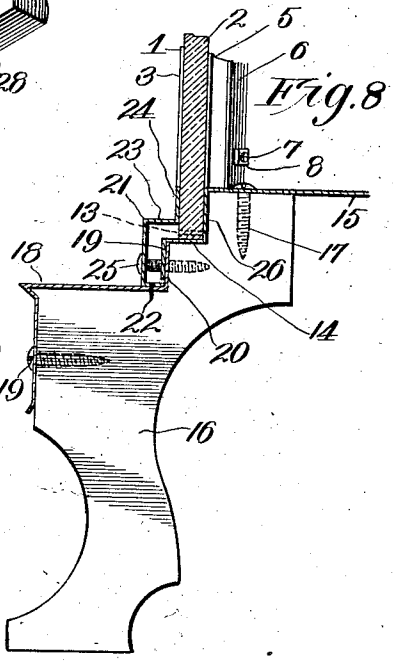
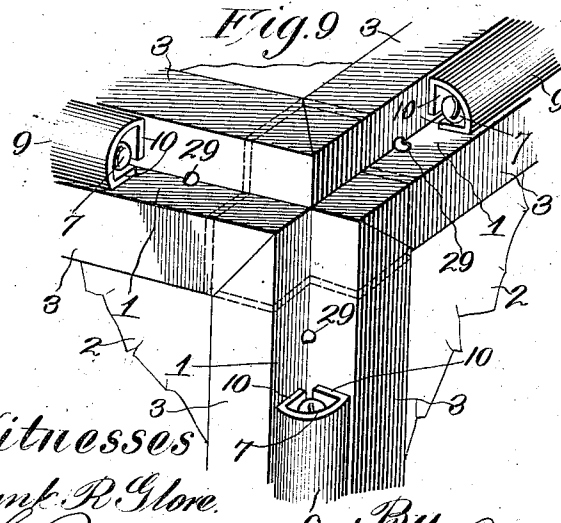


Fig. 9



Witnesses

Frank R. Glore.

H. C. Rodgers.

Inventor

F. J. Plym.

By Geo. H. Thorpe Atty.

UNITED STATES PATENT OFFICE.

FRANCIS J. PLYM, OF KANSAS CITY, MISSOURI.

STORE-FRONT AND SHOW-CASE CONSTRUCTION.

No. 860,150. Specification of Letters Patent. Patented July 16, 1907.

Application filed October 3, 1906. Serial No. 337,302.

To all whom it may concern:

Be it known that I, FRANCIS J. PLYM, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Store-Front and Show-Case Constructions, of which the following is a specification.

This invention relates to store front and show case constructions, and more especially to that type in which the glass plates are held with a yielding pressure so that they may be capable of expansion and contraction without danger of cracking, and my object is to produce a store front or show case structure of such character that the parts may be easily and quickly assembled in or removed from position.

A further object is to produce a structure of the character mentioned of simple, strong, durable and inexpensive construction and of ornamental and attractive appearance.

To these ends the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1, is a sectional perspective view of a pair of glass plates or windows and a mullion bar embodying my invention, for securing the same together. Fig. 2, is a similar view of a slightly modified type of construction. Fig. 3, is a horizontal section of a second modified construction. Fig. 4, is a sectional perspective view showing the type of mullion bar employed at each corner of a window or show case. Fig. 5, is a horizontal section of a modified form of Fig. 4. Fig. 6, is a sectional perspective view similar to Fig. 4, but also showing a portion of the base of a show case. Fig. 7, is a view similar to Fig. 6 with the glass plates and certain other parts omitted. Fig. 8, is a section on the line VIII—VIII of Fig. 6. Fig. 9, is a perspective view of one of the upper corners of a show case with certain parts omitted. Fig. 10, is an internal perspective view of the upper corner of the show case. Fig. 11, is a detail perspective view of an external corner bracket for the show case.

In the said drawings, 1 indicates a channeled face plate of U-form when used between alined glass plates and of V-form when employed between glass plates extending at an angle to each other, the glass plates being numbered 2, and 3 are flanges projecting in opposite directions from the channel plates and adapted to overlap and bear against the outer faces of the plates.

A back plate of spring metal preferably consists of a channeled body portion 4 and substantially V-shaped wings 5, the channeled back plate being disposed directly back of the face plate and its resilient wings forward of the body portion and at opposite sides of the channeled portion of the face plate and pressing the glass plates outwardly against the flanges 3.

6 indicates a stiff bar adapted to fit in the channeled back plate, and 7 are bolts extending through the front and back plates and the stiffening bar, nuts 8 engaging the inner ends of the bolts and said bar to clamp the parts in the relation described.

As thus far described the structure is not new.

For the purpose of providing a finish for the store front or show case and to prevent tampering with the bolts, I provide a filling strip 9 which is of substantially U-shape in cross section and which in the construction shown in Figs. 1 to 3 inclusive is provided with inwardly projecting flanges 10 between which the bolts extend and against the outer ends of which the heads of the bolts bear. This filling strip is adapted to be slipped into the channel of the face plate from one end of the latter before the face plate is secured in position but after the bolts have been slipped through it, the nuts 8 being eventually turned to clamp the parts in the desired relation.

In Fig. 3 the pressure of the bolts is applied directly on the face plates near the corners of the same instead of near the middle, through the medium of a segment shaped bar 11 which is mounted on the bolts and engages the heads of the same and the rear corners of the filling strip. In Fig. 5 a flat plate 12 is employed in lieu of the segment shaped plate 11 so that the pressure on the bolt shall impose a resistance to a nearer approach of plates 2, the filling strip and plate 12 thus acting as a brace against collapse of the channeled portion of the face plate.

In Fig. 7, it will be noticed that for show case construction, the lower end of the channeled or body portion 1 of the face plate is extended below the flanges 3 thereof, the sides of said channeled or body portion being formed with superposed horizontal flanges 13, resting upon the step 14 of the bottom plate 15 of the show case. The case is preferably mounted upon legs 16, stepped to receive the stepped portion of the bottom and the latter is also secured to the legs by screw bolts 17. The legs are connected by angle plates 18 secured in place by screw bolts 19ª and said angle plates are provided with upwardly projecting flanges 20, which are interposed between the depending flanges or riser portions 19 of the step 14 and the legs.

21 indicates channeled base strips having their lower arms 22 resting on angle plates 18 and projecting inwardly under said riser portions 19 and having their upper arms 23 occupying a plane above the superposed portions 13 of the vertical strips and overhanging the

horizontal portion of step portions 14 of the bottom and terminating in upwardly projecting flanges 24 which bear against the outer sides of the glass plates and underlie the flanges 3 of the vertical strips 1 as shown clearly in Figs. 6 and 8, screw bolts 25 extending through said channeled base strips and through the portions 9 and upwardly projecting portions 20 and into the legs 16 to secure base 2 and therefore the glass plate reliably in position, the glass plates fitting loosely by preference between the riser portions 26 of the bottom and the flanges 24 of the base strips so as to be capable of expansion and contraction.

In Figs. 9 and 10 which show an upper corner of the show case, it will be noticed that there is a front plate and a corresponding side and end plate of precisely the same construction as the vertical front plate and that the three plates are mitered so as to fit snugly together as shown clearly in the first-named figure, the dotted lines in said figure indicating the cross sectional configuration of said plates. It will also be noticed that said plates are provided with similar filling strips 9 and that said strips terminate short of the junction of said plates, thus leaving a tri-armed channel to receive a tri-armed bracket 27, which is preferably of cast metal with each arm of substantially the same cross sectional configuration as the alined filling strip so as to form a continuation of the latter. Each arm is provided with a hole 28 registering with holes 29 in the juxtaposed plates, and through said holes 28 and 29 bolts 30 extend, also extending through a tri-armed bracket 31 secured within the show case, nuts 32 clamping the parts firmly together so as to properly unite the sides, ends and top of the case.

From the above description it will be apparent that I have produced a store front and show case construction embodying the features of advantage enumerated as desirable in the statement of the object of the invention and I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described as obvious modifications will suggest themselves to one skilled in the art.

Having thus described the invention what I claim as new and desire to secure by Letters-Patent, is:—

1. The combination of a channeled front plate, a back plate, a channeled filling strip occupying the channel of the front plate and headed fastening devices extending through the channeled plate and the back plate and having their heads within the channeled filling strip to be covered by the same.

2. The combination of a channeled front plate provided with lateral flanges, a plate back of the same and provided with resilient wings, a stiffening part engaging the back plate, bolts extending through the channeled front plate, the back plate, and the stiffening part, and a channeled filling strip occupying and closing the channel of the front plate and clamped in position by said bolts.

3. The combination of a channeled front plate provided with lateral flanges, a plate back of the same and provided with resilient wings, a stiffening part engaging the back plate, bolts extending through the channeled front plate, the back plate and the stiffening part, a channeled filling strip occupying and closing the channel of the front plate and having its inner edges terminating at opposite sides of the bolts, and a plate interposed between the heads of the bolts and said filling strip to clamp the latter in position.

4. The combination of a bottom having a step portion, a vertical channeled front plate upon said stepped portion and provided with flanges to overlap the outer faces of glass plates resting on said step portion, and channeled base strips having their lower arms underlying the lower riser of the step portion of the bottom and their upper arms overhanging the step portion and engaging the outer faces of said glass plates.

5. The combination of a bottom having a step portion, a vertical channeled front plate upon said step portion and provided with flanges to overlap the outer faces of glass plates resting on said step portion, and channeled base strips having their lower arms underlying the lower riser of the step portion of the bottom and their upper arms overhanging the step portion and engaging the outer faces of said glass plates, and provided with upwardly projecting flanges engaging the outer faces of the glass plates and the lower edges of the flanges of the vertical channeled front plate.

6. The combination of a bottom having a step portion, a leg underlying the bottom and stepped to accommodate the step portion of the bottom, an angle plate secured to the leg and provided with a flange projecting upward between the leg and the lower riser of the stepped bottom, a vertical front plate upon the step portion of the bottom and engaging the outer face of a glass plate resting edgewise on the step portion of the bottom and a channeled base strip having its lower arm projecting inwardly below the lower riser of the bottom and clamped against the upwardly projecting flange of the angle plate and its upper arm overhanging the tread portion of the stepped bottom and clamping the glass plate against the upper riser of the latter below the said front plate.

7. The combination of transparent plates disposed at angles to each other to produce a tri-armed channel, channeled plates fitting in said channel and having their contiguous or converging ends mitered together and each provided with flanges disposed at an angle to each other and engaging the outer faces of a pair of said plates, a tri-armed bracket fitting in said channel, a tri-armed bracket having each arm engaging the inner sides of a pair of said plates, and securing devices connecting said tri-armed brackets and extending through said channeled plates and between the first-named or transparent plates.

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

FRANCIS J. PLYM.

Witnesses:
H. C. RODGERS,
G. Y. THORPP