This invention relates to a plate glass window protector and it consists in the constructions, arrangements and combinations herein described and claimed.

Show windows are ordinarily of considerable size, being unsupported except at their outer edges, leaving the medial portions subject to high lateral pressures developed by wind or otherwise, with a result that the glass becomes broken, and it is therefore an object of the invention to provide a means which will support the medial portions of a window glass and thus prevent breakage.

It is another object of the invention to provide a means which will afford a limited amount of resilience permitting a certain degree of “give” to the plate glass.

A still further object of the invention is the provision of means which may be readily installed upon new or old windows, and which will not be objectionable to the desired attractive appearance of the show window.

Additional objects, advantages and features of invention will be apparent from the following description considered in conjunction with the accompanying drawing, wherein:

Figure 1 is a rear elevation of a show window having my device applied thereto.

Figure 2 is a vertical section on the line 2—2 of Figure 1.

Figure 3 is a cross section on the line 3—3 of Figure 1.

Figure 4 is an enlarged detail view of the upper mounting means of the bracing wires.

Figure 5 is a vertical section therethrough.

Figure 6 is a top plan view of the lower securing means for the bracing wires.

There is illustrated in frame 10 of a show window within which there is mounted, as customary, a plate glass 11.

Within the interior of the show window and upon the upper rail 12 of the frame there are mounted a pair of brackets 13, being equally spaced from a vertical medial line through the plate glass, and upon the lower rail 14, in line with the brackets 13 there are a pair of fastening members 15, as will be described in detail hereinafter.

The brackets 13 are mounted upon the rail 12 by screws 16, and comprise spaced ears 17. These ears 17 are disposed inwardly toward the glass 11 and terminate in box-members 18, defining a housing for a lug 19 of a bracing wire 20.

The bracing wires 20 are of a length slightly greater than the window to which my device is applied, and intermediate the length of these wires there is adjustably mounted a tension disk 21, which in the present instance is shown as of oval shape, but obviously may be of any desired shape. The disk has eyelets 22 through which respective wires 20 are threaded, and the free ends of the wires are secured in respective fastening members 15.

The fastening members 15 are shown as comprising a base 23 held in position by anchorages 24, and from the base a screw threaded stud 25 projects. The stud 25 is longitudinally slotted as at 26, this slot extending from the outer end of the stud to a point adjacent to the base 23, and function to receive respective wires 15 therein. A thumb nut 27 cooperates with the stud and it will be obvious that with a wire engaged within the slot, tightening of the thumb nut 27 will cause the nut to force the wire against the base of the slot and thus securely hold the wire.

The tension of the wires 20 is accomplished by means associated with the disk 21, as will now be explained. The disk 21 is provided with a threaded aperture 28 with which there is engaged a wing screw stud 29 upon which there is revolvably engaged a plate 30. The plate 30 is preferably covered with a resilient material such as felt, rubber, or the like, indicated at 31, so that the plate glass will not be scratched or otherwise abraded.

The wires 20 may be of single strand if desired, but preferably I employ a wire composed of several strands twisted together, so that the wires will have a limited degree of longitudinal stretch thereby permitting a certain degree of "give" to the glass under strain or pressure.

I preferably space the brackets 13 and fastening means 15 at points on the rails so that the wires 20 when threaded through the eyelets 22 will be given a slight bow toward each other, this arrangement permitting the use of a comparatively small tension disk, as well as more evenly distributing strains to the glass and other parts of the device.

With my device installed upon a window, it is only necessary to adjust the thumb screw 29 so that the pad 31 bears upon the glass which obviously will tension the wires 20. The glass will thus be supported at its medial portion by the tension disk 21, and the glass will withstand high pressures without liability of breakage.

While I have shown and described a preferred embodiment of the invention, I am aware that changes in construction may be made from that
disclosed, and therefore consider as my own all such modifications as fairly fall within the scope of the appended claims.

I claim:—

5 1. A window structure comprising a frame having a pane of glass mounted therein, a pair of spaced strand members secured to opposite portions of the frame and extending across the pane of glass, a plate member adjustably mounted on the strands, a stud member threadedly engaged with the plate member, and said stud member having a pad in bearing relation to the window.

2. A window structure comprising a frame having a pane of glass mounted therein, a pair of bracket members secured to one side of the frame, a strand member secured in each bracket member, fastening means at the opposite side of the frame for securement of the free ends of the strand members, a plate member, said plate member having eyelets receiving respective strands therethrough, said eyelets being positioned on the plate member so as to impart a bowed relation between the strand members, and adjustable means carried by the plate member for imparting lateral pressure upon the glass.

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