Apr. 10, 1923.

1,451,026

L. C. NELSON

CARRIAGE CURTAIN WINDOW FRAME

Filed Sept. 9, 1922

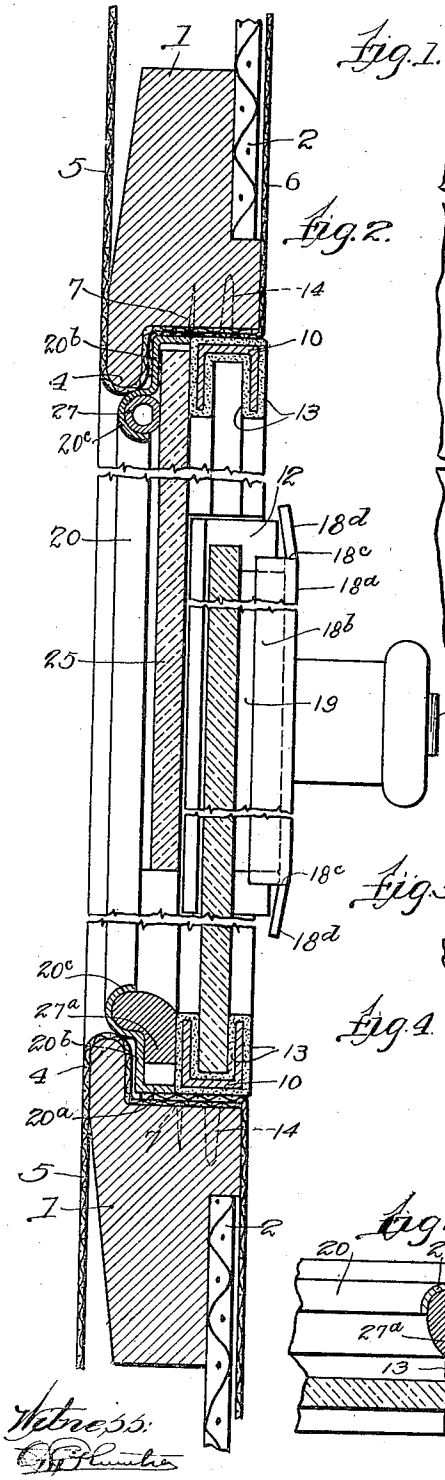


Fig. 1.

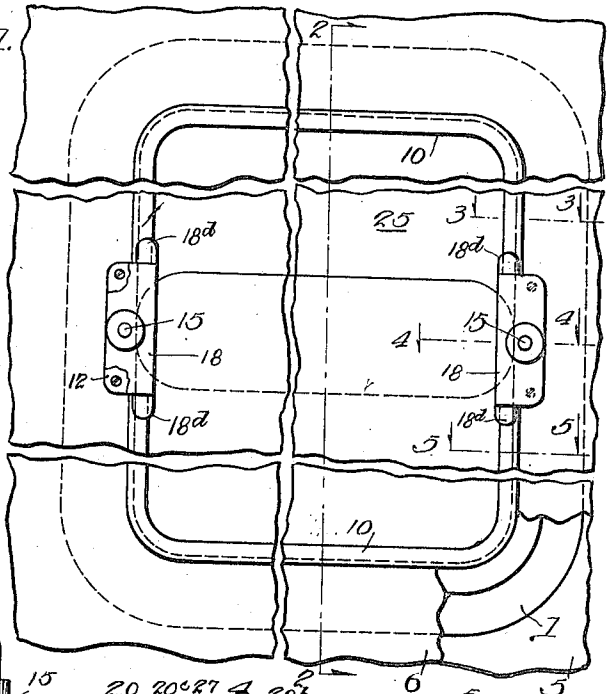


Fig. 2.

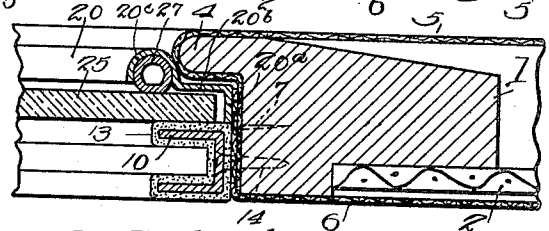


Fig. 3.

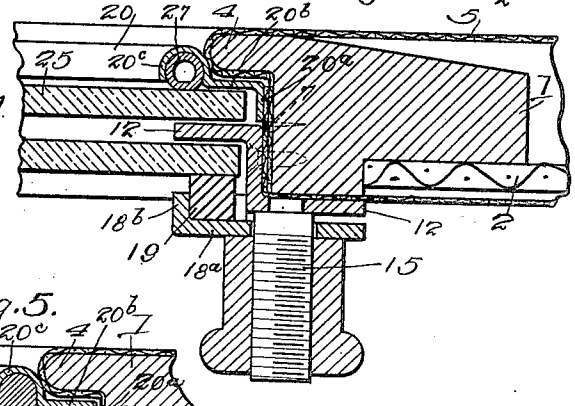


Fig. 4.

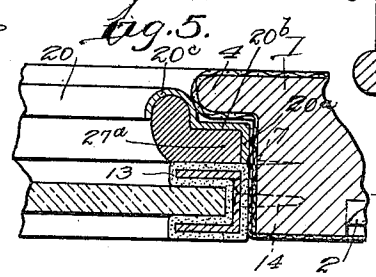


Fig. 5.

Witnesses:

Inventor:
Lawrence C. Nelson
by Burton & Burton
his Attys.

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UNITED STATES PATENT OFFICE.

LAWRENCE C. NELSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO STEWART MANUFACTURING CORPORATION, OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE.

CARRIAGE CURTAIN WINDOW FRAME.

Application filed September 9, 1922. Serial No. 587,138.

To all whom it may concern:

Be it known that I, LAWRENCE C. NELSON, a citizen of the United States, residing in the city of Chicago, in the county of Cook and the State of Illinois, have invented certain new and useful Improvements in Carriage Curtain Window Frames, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

The purpose of this invention is to provide an improved construction of carriage window which shall be particularly adapted for locking a sliding sash in any desired position in its range of sliding and which shall admit of enclosing all the metal parts which might otherwise come into contact with the glass in a suitable soft sheathing for contact with the glass and shall be more economical and substantial in construction than structures now employed. It consists in the elements and features of construction shown and described as indicated in the claims.

In the drawings:—

Figure 1 is an inner side elevation of a portion of the carriage enclosure having a window embodying this invention, same being broken away in respect to both dimensions for reducing the area of the figure.

Figure 2 is a section at the line 2—2 on Figure 1 thereby showing the upper and lower sides of the frame member in transverse section and one vertical side in edge elevation, the sheathing of the guideway being in part cut away as shown in section.

Figure 3 is a detail section at the line 3—3 on Figure 1.

Figure 4 is a detail section at the line 4—4 on Figure 1.

Figure 5 is a detail section at the line 5—5 on Figure 1.

For the carriage window frame embodying this invention there is first provided a rigid frame, 1, preferably of wood entirely encompassing the window opening and secured to some member of the frame structure of the vehicle as to the plate or bar, 2, see Figures 2, 3 and 4. This rigid frame is rabbeted at the inner side all around the window opening to a depth from the inner side downward sufficient to accommodate the thickness of both glasses or sash and their guideways, as seen in Figures 2, 3, 4 and 5. This rabbet results in an inwardly projecting lip, 4, at the outer side extending all around the window opening. The inner and outer fabrics of the carriage enclosure or wall shown at 5 and 6 are desirably folded to enclose the entire inner margin of the opening in the frame including the lip, 4, and tacked to the frame as indicated at 7. Within the opening whose edges are thus covered with fabric there are fitted channel guideways, 10, 10, extending respectively at the upper and lower parts of the window opening spaced apart at their proximate ends at the two sides of the opening a short distance within which the lap of the two glasses or sash occurs. In the intervals or gaps between the proximate ends of the channel guideways there is mounted at each side a Z-shaped fitting, 12, of which one marginal flange is aligned with the outer side marginal flange of the channel guideways and the other marginal flange laps upon the margin of the frame opening; said Z-fittings are secured rigidly to the frame by screws or nails through said two marginal flanges respectively into the wood of the frame, 1.

Preferably the channel guideways, 10, 10, are ensheathed before mounting them in the frame as described, by a soft fabric covering, as felt or velvet, shown at 13, and the said channel guides thus ensheathed are secured in the frame opening by countersink screws, 14, set through the web of the channel and flush with either surface thereof. The Z-shaped fittings, 12, carry each a rigid threaded stud, 15, projecting from the outer marginal flange which is lapped on the margin of the frame, 1, as stated. For co-operating with this fitting to clamp the glass there is provided a clamp member, 18, which is a metal stamping made from sheet metal comprising the web or main area, 18^a, from which at the longitudinal edge there is folded a flange, 18^b, slits being first made at 18^c, at each end so that the lugs, 18^d, at one side of the slits may be folded down at the opposite ends of the lip, 18^b, thereby with said lip enclosing a cushion pocket which receives a rubber cushion, 19, for bearing upon the face of the glass. The lugs, 18^d, at the other side of the slits mentioned are flexed slightly inwardly with respect to the web to overhang the ends of the Z-shaped seat members, 12, giving a finished appearance to the device. It will be seen that with this con-

struction a glass or sash mounted in the channel guideways, 10, 10, and adapted to slide either into the upper or lower part of the window opening, may be clamped at any position at which it may be thus adjusted, either for closing the window opening when it is at the bottom, or for opening it more or less as it is slid up to the desired height. For the other glass or sash which is to be usually held in a fixed position at the upper part of the window opening, there is provided a guide member, 20, rolled or drawn from sheet metal which in cross section comprises an L whose flange, 20^a, is seated in the plane of the web of the channel guides, 10, that is at the depth or bottom of the rabbet in the frame, 1, and whose web, 20^b, stands parallel to the flanges of the channel guides, 10, at a distance from the outer side of the outer flange,—including its sheathing, 13,—adequate to accommodate the thickness of the upper outer-side fixed glass or sash, 25, with a slight clearance, that is, so that when said glass is pressed inwardly against the fabric sheathing of the channel guide, 10, its outer side is out of touch with the web, 20^b, of the metal guide, 20. This member is formed comprising in addition to the web and flange, 20^b and 20^a, an inner marginal bead, 20^c, which springs from the inner margin of the web, 20^b, substantially semi-circular in cross section with its cavity facing inwardly toward the glass. This bead preferably extends entirely around the window opening and constitutes a finish for the same as seen from the exterior, being preferably made from polished metal, or plated. In the hollow of this bead there is lodged a rubber cushion, 27, preferably tubular as shown, whose diameter is such that it is slightly flattened at one side when the glass, 25, is in place with the cushion bearing against its outer surface keeping it out of touch with the metal web, 20^b.

The construction above described comprising the sheet metal stamping with the guideway for the glass and the hollow bead may be employed for windows consisting of a single glass or sash; but when employed for windows having an inner sash sliding and an outer sash member fixedly occupying only a portion of the window opening, the cushion, 27, at the portion of its extent over which the glass or sash, 25, does not extend, that is usually the lower half of the window opening, has a wing, 27^a, which occupies the otherwise unoccupied portion of the window glass seat; or at least a portion of that seat immediately below the lower edge of the fixed sash or glass, 25; thereby affording a stop for that glass holding it at the portion of the window opening at which it is intended to remain.

In the foregoing description I have employed the terms "sash" and "glass" as equivalents to indicate that it is immaterial for the purposes of this invention whether each or either of the light-admitting members is a framed or an unframed element; and in my claims the term "glass" is to be understood as denoting a transparent or light-admitting material of any kind, and without regard whether or not it is bound or framed.

I claim:

1. A carriage window frame comprising in combination with a rigid frame encompassing the window opening a channel guideway for a lower sliding glass extending throughout the height of the opening at both sides except as to an interval at each side at which the upper and lower sash lap at closed position; seating means for the upper glass at a zone adjacent to and outward from the zone of said channel guideways; Z-shaped seating fittings mounted on the rigid frame at the intervals between the upper and lower channel guideway members with one marginal flange in alignment with the outer side flange of the channel guideway and the other marginal flange lapped on the margin of the frame opening, and having a threaded stud rigid with the last mentioned flange; a clamp apertured for entry on the stud overhanging the margin of the glass and having in its overhanging portion a cushion pocket, a cushion in said pocket for bearing on the glass, and a clamping nut on the stud for forcing the cushion against the glass; whereby the sliding glass is frictionally held at desired position within its range of sliding.

2. In a carriage window frame in combination with a rigid frame member encompassing the window opening; channel guideways for a lower sliding inner side glass extending for guiding the sash both at the lower and at the upper part of the opening; a seating member for a fixed upper outer side glass mounted adjacent to and outward from the zone of the channel guideways, said seating member having an inwardly hollow bead encompassing the frame opening and a cushion member engaged in the hollow of said bead for seating on the outer face of the upper glass, said cushion having a wing occupying said seating member from the lower edge of the outer sash downwardly affording a lower stop for the upper glass.

3. A carriage window frame comprising in combination with a rigid frame encompassing the window opening and rabbeted all around the opening at the inner side, forming at the outer side an inwardly-projecting lip encompassing the opening; a channelled guideway for a lower sliding glass; seating means for an upper glass at a zone adjacent to and outward from the zone of said channelled guide ways, said upper glass-seating

member having integrally springing from the inner margin of the guideway therein, an inwardly hollow bead encompassing the window opening, and a cushioning member engaged in the hollow of said bead for seating against the inner face of the glass, said upper glass-seating member being dimensioned for occupying the depth of the rabbet and thereby positioning its hollow bead adjacent to the margin of said hollow lip all around the window opening.

4. In the construction defined in claim 2 foregoing, the rigid frame member being rabbeted all around the opening at the side forming an inwardly projecting lip at the outer side, the glass guideway member being dimensioned for occupying the depth of the rabbet and positioning its bead immediately within said inwardly projecting lip of the rigid frame.

5. In a carriage window having a frame provided with a vertical guideway for a sliding glass, a clamping device for locking said glass comprising a fitting mounted rigidly in the frame at the margin of the window opening extending over the lap of the sliding glass with a fixed glass and having a rigid threaded stud projecting inwardly from the plane of the window opening, a clamping member apertured for being entered on the stud overhanging the margin of the glass and having at its inner side a cushion pocket; a cushion in said pocket and a clamping nut for engaging the threaded stud to clamp the device against the glass and the glass against its guideway.

6. In the construction defined in claim 5 foregoing, the clamping device being formed of sheet metal folded L-shaped in cross section to form one side of the cushion pocket with down-folded lugs to form the ends of said pocket, lugs projecting endwise beyond the last-mentioned in-folded lugs and flexed a distance substantially equal to the thickness of the blank.

In testimony whereof, I have hereunto set my hand at Chicago, Illinois, this 7th day of September, 1922.

LAWRENCE C. NELSON.