(No Model.)

E. W. CUNNINGHAM

GLAZED STRUCTURE.

No. 595,805. Patented Dec. 21, 1897.

Fig. 1.

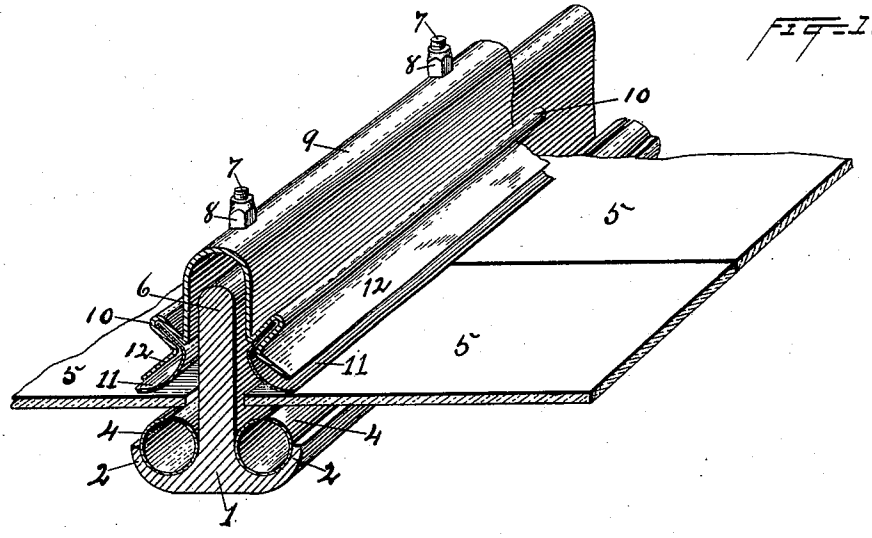
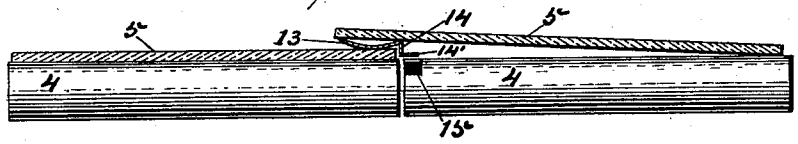


Fig. 2.



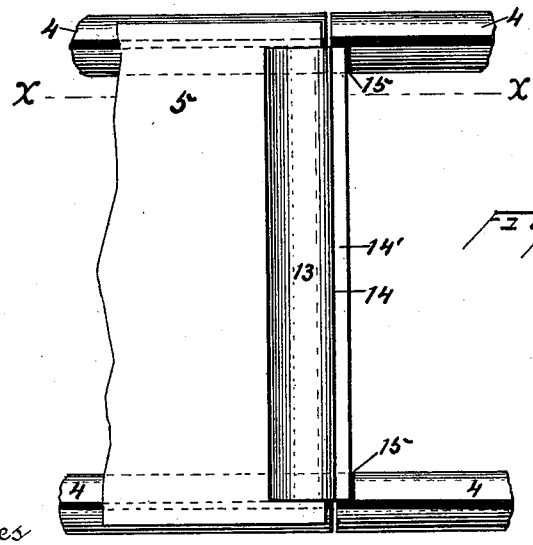


Fig. 3.

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UNITED STATES PATENT OFFICE.

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GLAZED STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 595,805, dated December 21, 1897.

Application filed March 12, 1897. Serial No. 627,165. (No model.)

To all whom it may concern:

Be it known that I, EDGAR W. CUNNINGHAM, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Glazed Structures, which improvements are fully set forth in the following specification and accompanying drawings, and in the latter—

Figure 1 is a perspective view of a glazed structure embodying my said improvements. Fig. 2 is a transverse section of same, the section being taken on the line *x x* of Fig. 3. Fig. 3 is a detail plan view showing binding device interposed between overlapping panels, as in Fig. 2, and adjacent disjoined tubular cushions made use of, one panel being removed.

Similar reference-numerals indicate like parts throughout the several views.

This invention relates to improvements in glazed structures, the same being used for roofing purposes and for the sides of greenhouses, conservatories, and the like. Its object is to provide a structure of the character designated which shall be durable, simple, and inexpensive as regards construction and which shall possess advantages especially in the way of increased efficiency in operation over prior structures of like character.

The invention consists in the novel formation of certain of the parts, in a novel disposition of the various parts, in certain combinations thereof, and in certain details of construction, all of which will be hereinafter specifically referred to, and clearly defined in the claims.

Having reference to the accompanying drawings, 1 denotes a glazing-support, ordinarily of iron, steel, or wood. This support is of any suitable length and is provided with upwardly-curved wings 2, into the concavity of each of which I place a disjoined tubular cushion 4, of thin elastic sheet metal adapted to yield under pressure.

5 denotes the glass panels, each resting along its edge upon one of the cushions 4, and in some instances overlapping one upon the other, as shown in Fig. 2.

The support 1 is provided with a central upright web 6, carrying rigid vertical bolts 7, each threaded at its upper end to receive a nut 8. A sheet-metal continuous cap 9, resembling in cross-section an inverted **U**, straddles longitudinally the vertical web 6, and each of its depending sides is folded or bent upon itself to form ridges 10, between the opposing walls of which is inserted one end of a continuous binding-strip of flexible, spring, or yielding thin sheet metal 11, preferably brass, the said walls of the ridge 10 being squeezed snugly together, thereby serving to prevent displacement of the strip 11. The depending sides of the cap 9 each terminate in a flaring portion 12, which extends over and thereby serves to protect from the elements the strip 11, the latter, when the parts are in place, resting along its lower edge upon the panel 5.

The cap 9 is provided with openings arranged at suitable intervals along its uppermost portion, through each of which openings projects one of the vertical bolts 7, which carries on its threaded end a nut 8.

Intermediate of the overlapping edges of the panels 5, as shown in Fig. 2, I dispose a weather or binding device of yielding sheet metal, as brass, said device consisting of a slightly-curved body portion 13, bent downward at one edge to form a straight wall portion 14, adapted to abut against the adjacent edge of the underlapping panel 5, said wall portion 14 being bent outward at a suitable angle to the portion 14 and terminating in a portion 14′, thereby forming a condensation-gutter, the latter communicating at its respective ends with the disjoined tubular cushions 4, to admit of which said cushions are each cut away, as at 15. With this construction water of condensation finds its way to the gutter formed by the portions 14 and 14′ of the binding device, from whence it is discharged into the cushion 4 and after passing along the latter, or the wings 3, may be conveyed to any desired point in any common and well-known manner.

Having placed the disjoined tubular cushions 4 in the wings 2, the panels 5 upon the cushions 4, the cap 9 over the web 6, with the bolts 7 projecting through the openings therein, and the nuts 8 on the bolts 7, upon turning the nuts 8 homeward the result will be to urge the cap 9 downward, thereby forcing

the strip 11 against the panels 5, the strip, being of yielding material, finding its way into any depressions that may exist in the panels 5, the flaring portion 12 coming in contact with the latter, whereupon the overlapping edges of the panels 5 are primarily urged together upon the curved portion 13 of the binding device and secondarily urged downward upon the cushions 4, with the result that the latter tend to close more or less and an upwardly and downwardly yielding disposition of the panels is secured.

It will be observed that in my improved structure evil effects resulting from contraction and expansion of any of the parts are largely, if not entirely, obviated, water-tight junctions are secured at all points, and an easy-yielding disposition of the panels is attained.

From the foregoing description of my improved glazed structure it will be seen that the same is simple and inexpensive in construction and is especially well adapted for the purpose for which it is designed; and it will also be obvious that the same is susceptible of some modification without material departure from its principles and spirit, and for this reason I do not wish to be understood as limiting myself to the precise form and arrangement of the parts as herein set forth.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a glazed structure, the combination with overlapping panels, of a binding device, formed from a single strip of yielding sheet metal, and comprising a curved portion, a straight portion arranged at an angle thereto, and a portion 14′, arranged at an angle to the straight portion, the said curved portion being interposed between the overlapping edges of said panels, as herein shown and described.

2. In a glazed structure, the combination of overlapping panels, a binding device, comprising a curved portion, a straight portion arranged at an angle thereto, and a portion 14′, arranged at an angle to the straight portion, said curved portion being interposed between the overlapping edges of said panels, thereby forming a gutter, and suitably-disposed, disjoined, tubular cushions, supporting said panels, the gutter named being arranged to communicate with said cushions, as herein shown and described.

3. In a glazed structure, in combination with a glazing-support, provided with a vertical web, suitably-disposed panels, a continuous cap, straddling said web, yielding sheet-metal binding-strips, one secured along its upper edge to each of the depending sides of said cap, and arranged so that its lower edge portion may be pressed against the panel, through downward movement of said cap and means for urging said cap downward, as herein shown and described.

4. In a glazed structure, in combination with a glazing-support, suitably-disposed panels, a cap, straddling said support, and having its depending sides each folded upon itself to form a rib, a yielding binding-strip, held at its upper edge between the opposing walls of said rib, and in contact, at its lower edge, with the panels aforenamed, and means for urging the cap downward, as herein shown and described.

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