F. EBERL.

GLAZING CONSTRUCTION.

APPLICATION FILED FEB. 28, 1920.

1,411,882. Patented Apr. 4, 1922.

Fig. 1.

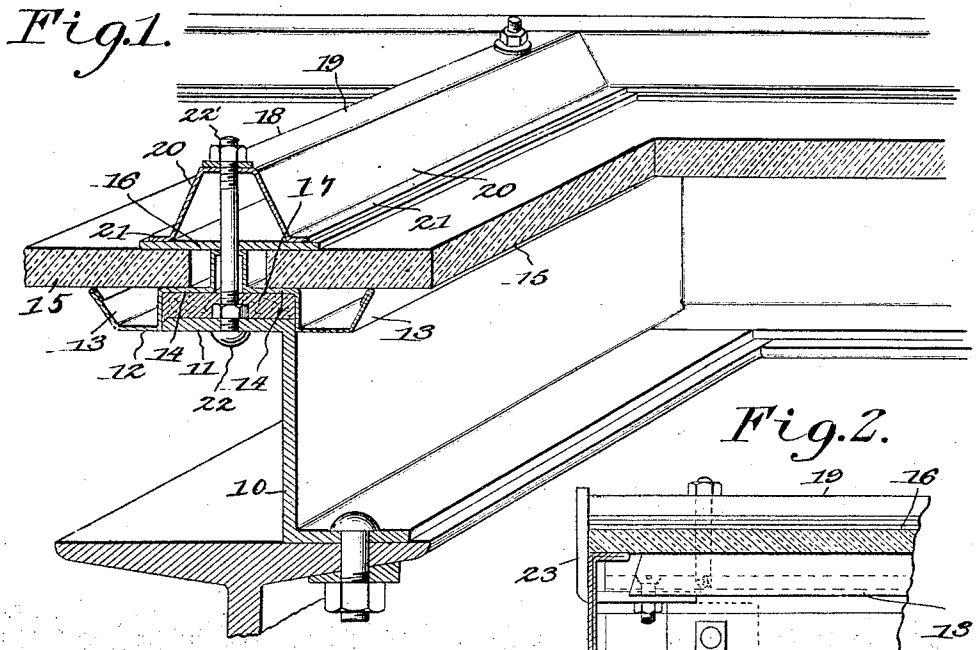


Fig. 2.

Fig. 3.

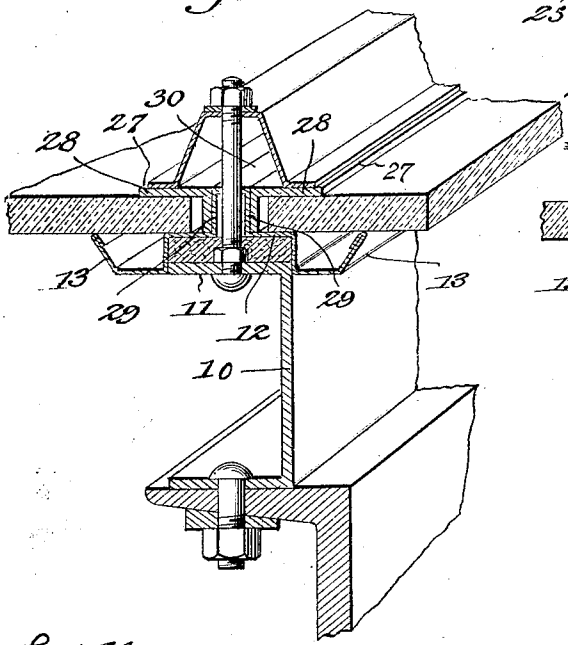
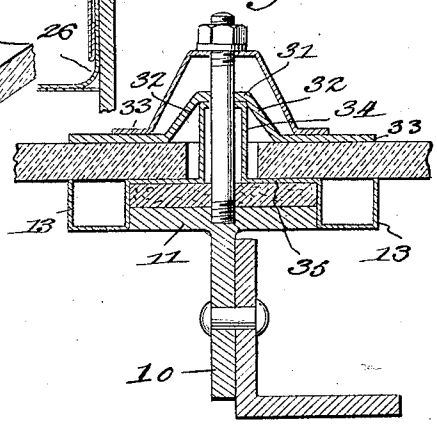


Fig. 4.



Frank Eberl.
INVENTOR

BY Victor J. Evans
ATTORNEY

WITNESS:

UNITED STATES PATENT OFFICE.

FRANK EBERL, OF NEW YORK, N. Y.

GLAZING CONSTRUCTION.

1,411,882. Specification of Letters Patent. Patented Apr. 4, 1922.

Application filed February 28, 1920. Serial No. 362,010.

To all whom it may concern:

Be it known that I, FRANK EBERL, a citizen of the United States, residing at Bronx, in the county of New York and State of New York, have invented new and useful Improvements in Glazing Constructions, of which the following is a specification.

This invention relates to glazing construction and more particularly it relates to skylights.

Some of the objects of the invention are: to provide a glazing construction which obviates the use of putty and the like; to produce a glazing construction as a skylight which embodies cushioning means to be used in lieu of putty or the like to insure glass panels against breakage and at the same time to permit the creation of a permanently weatherproof construction; to produce a glazing structure which provides gutters to carry off condensation given off by the glass panels. With these and other objects in view the invention resides in the simplification of constructions of this character and the relative disposition of parts hereinafter more fully described and illustrated in the accompanying drawings in which:—

Figure 1 is a sectional perspective view illustrating the several features of one form of the present invention.

Figure 2 is a longitudinal sectional view illustrating end construction.

Figure 3 is a sectional perspective view illustrating a modified form of metallic cushioning means.

Figure 4 is a transverse sectional view illustrating a further modified form of metallic cushioning means.

Referring now to the drawing, it will be seen this glazing construction will include a supporting member 10, which will be in the nature of either a Z bar, channel iron or T iron to provide a flange 11. Arranged in juxtaposition with respect to the flange 11 is an element 12. The element 12 is bent and formed to provide spaced gutters 13—13 and horizontally disposed shoulders 14—14. The shoulders 14—14 provide supporting ledges for the edges of the glass panels 15 which form a part of this particular skylight construction.

In order to effectively weatherproof the construction as a whole and to insure the glass panels against their being broken, there is provided, a metallic cushioning member 16, which, in the present instance, is of sheet lead; and a cushioning member 17, which is non-metallic, such as felt, or asbestos fibre, or the like. The cushioning members 16 and 17 are arranged upon opposite sides of the edge of the glass panels 15, the member 16 being disposed contiguous the edges of the panels while the member 17 is disposed between the shoulders 14—14 and the flange 11.

In order that the glass panels 15 may be held in place, clamping means is provided which includes a cap member 18, made preferably of sheet copper. This cap member is provided with a U shape central portion 19, sloping side portions 20 and flanges 21. The clamping means also includes bolts 22 which are secured to the flange 11 and extend through the felt member 17, the central portion of the element 12, the member 16, and through the portion 19 of the cap member 18. The upper end of the bolt 21 is adapted to receive a washer and nut 22′ for securely holding the several parts assembled.

By referring to Figure 2 of the drawing, it will be seen, that use is made of a forecap 23 to shut out weather elements from the cap member 16; that a front apron 24 is used to close up the gutters 13 at the ends thereof; that weep holes 25 are also used through which condensation received by the gutters is emptied; that suitable roof flashing 26 is utilized for trimming the skylight and also for providing proper protection for the skylight support.

In Figure 3 of the drawing there has been shown a modified form of metallic cushioning member, and in the present instance, it is made up of two parts 27, which are identical in construction, each consisting of right angularly disposed portions 28 and 29. The portions 28 lie contiguous the faces of the panels 15 at the opposing edges thereof respectively, whereas, the portions 29 embrace the central portion 30 of the element 12.

In Figure 4 of the drawing there has been shown a still further modified form of metallic cushioning member, and in the present instance, the same consists of a central portion 31, sloping portions 32, and flanges 33. In this form of the invention, the central portion 34 of the element 13 is substantially of greater heighth than the similar portions in the other forms shown in Figures 1 and 3 of the drawing. Central portion 32 of the member 31 rests upon this central portion

of the element 13, while the flanges 33 are contiguous the faces of the panels 15 near the opposing edges thereof and are disposed between the panels and the flanges 21 of the cap member 19.

From the foregoing it will be manifest that glazing construction for the production of skylights, windows, etc., of simple and of a more thorough efficiency may be obtained; that the resultant construction will be of a permanent nature; that it will be absolutely weatherproof and at the same time will obviate the disadvantages resulting from the breaking of the glass panels due to the lack of proper cushioning means; that stock material may be used as distinguished from specially made supporting parts by special machinery thus minimizing cost without sacrificing thorough effectiveness.

What is claimed as new is:—

In glazing construction, the combination of a supporting member including a flange, an element arranged in juxtaposition to said flange, the said element including spaced gutters having weep holes and shoulders upon which edges of glass panels may rest; cushioning members for opposite sides of said panels, one of said members being metallic to be arranged above said panels in contact therewith, the other of said members being non-metallic to be arranged between the said shoulders and said flange, and means including a cap member, bolts extending at a substantial right angle with respect to said panels, flange and shoulders; the nuts and washers of said bolts bearing against said cap member and the bolts being attached to said flange.

In testimony whereof I have affixed my signature.

FRANK EBERL.