Oct. 11, 1938. F. SOHN 2,132,547

WALL FACING

Filed Aug. 21, 1935

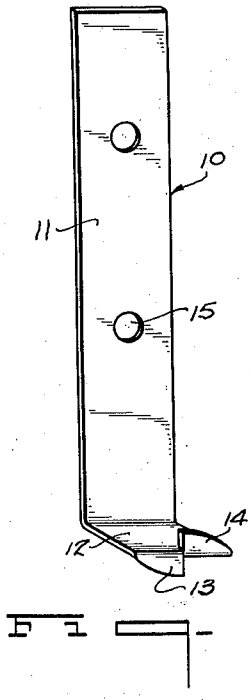


Fig. 1.

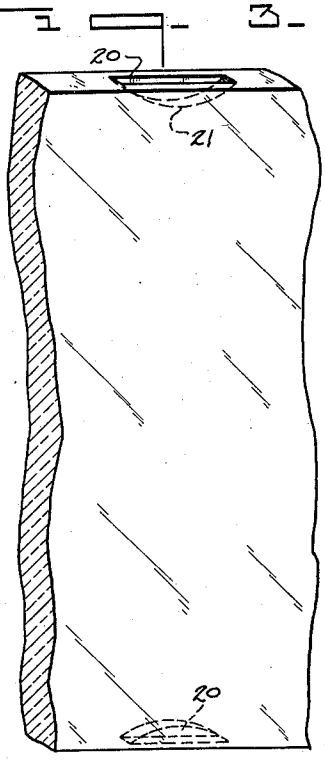


Fig. 3.

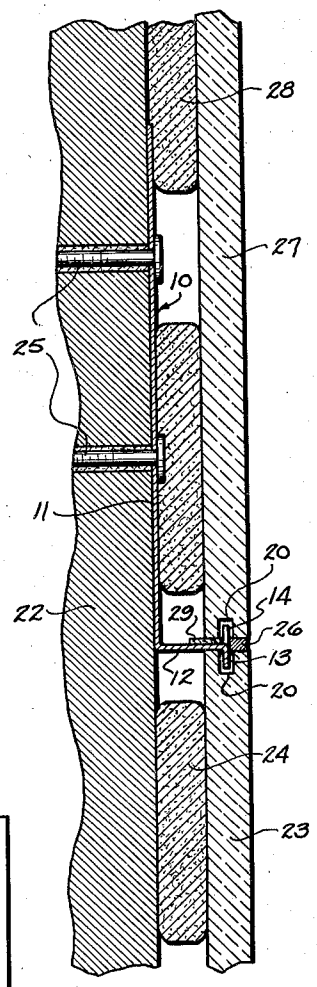


Fig. 4.

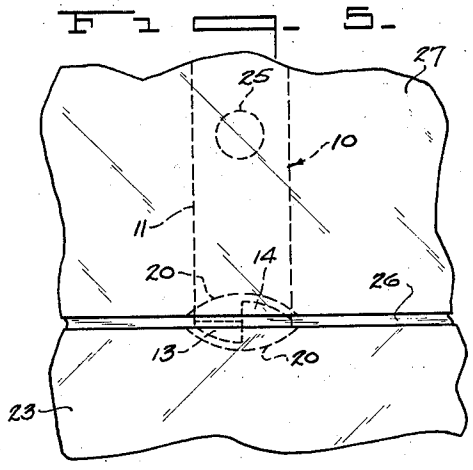


Fig. 5.

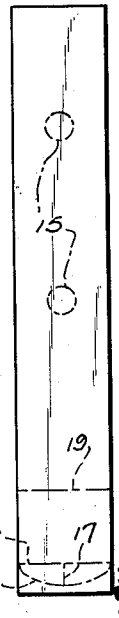


Fig. 2.

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# UNITED STATES PATENT OFFICE

2,132,547

## WALL FACING

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10 Claims. (Cl. 72—19)

The present invention relates broadly to the facing of walls with panels or slabs of vitreous materials such as opaque structural glass and more particularly to the securing of such panels or slabs to wall surfaces by mechanical anchoring means.

Flat slabs or panels of opaque structural glass are now being widely used for the facing of buildings and store fronts. The method of installation commonly practiced consists in simply securing the slabs to the wall by means of an asphaltic cement. When done with proper care, this method has proven entirely satisfactory. However, there have been instances of installations where, due to some procedure of construction being improperly carried out, the glass slabs have separated from the wall and fallen to the sidewalk endangering the lives of persons passing by.

The aim of this invention is to make it possible securely and permanently to hold such panels or slabs to the face of a wall by the provision of novel mechanical anchoring means which is preferably used in conjunction with the customary asphaltic cement.

Another object of the invention is the provision of mechanical anchoring means for securing the slabs or panels to the face of the wall which is entirely concealed and which therefore results in a neat and attractive facing.

Another object of the invention is the provision of mechanical anchoring means in the form of metal hangers which are of simple and inexpensive construction; which may be easily and conveniently made and installed; which place a minimum strain on the facing slabs or panels; and which are adaptable to all conditions.

A further object of the invention is the provision of the novel method herein disclosed of constructing a wall facing by concealed mechanical attachment and which method is not only secure but economical and easy to carry out and accomplished without the use of any costly machinery or special equipment.

Other objects and advantages of the invention will become more apparent during the course of the following description when taken in connection with the accompanying drawing.

In the drawing wherein like numerals are employed to designate like parts throughout the same,

Fig. 1 is a perspective view of one of the improved metal hangers constructed in accordance with the present invention,

Fig. 2 is a view of the blank from which the hanger is formed,

Fig. 3 is a view showing the manner in which the facing slabs or panels are prepared for receiving the hangers,

Fig. 4 is a vertical section through a portion of a wall showing the facing attached thereto, and

Fig. 5 is a front view thereof.

With reference to the drawing, one of the improved metal hangers, constituting the mechanical anchoring means for the facing slabs or panels, is illustrated in Fig. 1 and designated in its entirety by the numeral 10. This hanger comprises a vertical elongated body portion 11 provided at its lower end with a forwardly directed, substantially horizontal foot 12 extending at substantially right angles relative to said body portion. The foot 12 is formed at its outer end with the two vertical tongues 13 and 14 which extend respectively downwardly and upwardly and which are arranged substantially parallel with the body portion 11, said body portion being provided with openings 15 through which may be inserted suitable fastening elements for securing the hanger in place.

The hanger 10 is preferably of a one-piece construction and may be formed from a single relatively narrow strip of suitable metal, the blank strip from which the hanger is formed being illustrated in Fig. 2. In making the hanger, one end of the blank strip is first rounded as indicated at 16 and is then slit longitudinally intermediate the side edges thereof for a relatively short distance extending inwardly from said rounded edge as at 17. The metal at one side of the slit 17 is bent downwardly along the transverse line 18 to form the tongue 13 while the metal at the opposite side of said slit is bent upwardly also along line 18 to form the tongue 14. The metal strip is then bent ninety degrees along the transverse line 19, the relatively long portion of the strip above said line constituting the body portion 11 while the relatively shorter portion of the strip between lines 18 and 19 constitutes the foot 12. The punching of the holes 15 in the body portion may be done at any time during the formation of the hanger.

One of the panels or slabs of vitreous material, such as opaque structural glass which is to be used as the facing material, is shown in Fig. 3. In rendering the panel or slab capable of use with the hanger 10, a relatively narrow groove 20 is formed in either the upper or lower edge or in both edges thereof, depending upon the posi-

tion of the panel upon the wall. These grooves are positioned inwardly of the opposite side faces of the panel and may be cut therein either with a carborundum grinding wheel or in any other suitable manner. The grooves are relatively shallow and have rounded bottoms as indicated at 21.

There is illustrated in Fig. 4 of the drawing a portion of a wall 22 of a building, the outer face of which is covered by the slabs or panels of opaque structural glass or other vitreous material. In attaching the facing to the wall, the panel 23 at the bottom of the wall is first secured thereto by the asphaltic mastic 24 in the usual manner. Before being thus secured in place, however, the upper edge of the panel is formed with a groove 20. The down-turned tongue 13 of the hanger 10 is then loosely inserted within the groove 20 and the said hanger securely fastened to the wall 22 by screws, nails, or the like 25 passing through openings 15.

The top edge of the panel 23 is then covered with a layer of suitable joint cement 26, after which a second panel 27 is positioned above the panel 27 will be directly above the upper edge of the lower panel 23, with the joint between first panel and secured to the wall 22 with asphaltic cement 28. The bottom edge of the upper said edges being sealed by the cement 26. The bottom edge of the upper panel 27 is provided with a groove 20 and in positioning this panel the upturned tongue 14 of the hanger 10 will be received within the said groove 20. The two panels may be held properly spaced from one another by a spacer strip 29 of cork or the like carried upon the foot 12 of the hanger.

The above method is continued for each succeeding panel, with two hangers 10 being ordinarily used for each panel, one adjacent each end thereof. The hangers 10 effectively prevent the facing panels from separating from the building while the asphaltic cement holds the panels steadily in place at the proper distance from the wall. As pointed out above, the grooves in the facing panels or slabs are provided with rounded bottoms and due to the rounding of the end of the metal strip as indicated at 16, the outer edges of the tongues 13 and 14 or, in other words, those edges facing the bottoms of the grooves are also rounded. This arrangement serves to place the least strain upon the facing panels.

With the above arrangement and method of installation, it will be readily apparent that mechanical anchorage of the structural glass is accomplished in a convenient and economical manner. Furthermore, that the mechanical anchoring means is entirely concealed so that it will not mar or detract from the appearance of the facing. The hangers 10, while of simple, inexpensive construction, will serve to permanently secure the panels to the wall of the building and may be easily and quickly installed. Moreover, the type of hanger used, coupled with the shape of the grooves in the edges of the panels, results in the least weakening of the structural glass. The fact that the grooves in the panels are relatively larger than the tongues of the hangers results in a loose fit and permits the said panels to expand and contract without being restrained by the mechanical holding means. Likewise, the metal hangers may also expand and contract without placing any strain on the panels.

It is to be understood that the form of the invention herewith shown and described is to be taken as the preferred embodiment of the same, and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

I claim:

1. A one-piece hanger for securing slabs of structural facing material to the walls of buildings, comprising a strip of metal having a body portion adapted for attachment to the wall of the building, said strip being bent laterally adjacent one end to provide a foot extending at substantially right angles relative to said body portion, the outer end of said foot being rounded and the foot being slit longitudinally intermediate its side edges for a relatively short distance inwardly from the curved outer end thereof, the metal at opposite sides of said slit being bent in opposite directions to form a pair of tongues which are arranged substantially parallel with said body portion and adapted for engagement with the structural facing material.

2. The combination with a wall, of facing panels therefor of structural glass having grooves with rounded bottoms formed in certain of the edges thereof, and mechanical anchoring means secured to said wall and having portions fitting loosely in said grooves.

3. The combination with a wall, of facing panels therefor of structural glass having grooves with rounded bottoms formed in certain of the edges thereof, and metal hangers secured to said wall and having portions loosely received within said grooves.

4. The combination with a wall, of facing panels therefor of structural glass having grooves with rounded bottoms formed in certain of the edges thereof inwardly of the opposite side faces of said panels, and one-piece metal hangers secured to said wall and having tongues loosely fitting in said grooves.

5. The combination with a wall, of facing panels therefor of structural glass having relatively shallow grooves with rounded bottoms ground in certain of the edges thereof inwardly of the opposite side faces of said panels, and mechanical anchoring means secured to said wall and having portions fitting loosely in said grooves and spaced from the bottoms of the said grooves.

6. The combination with a wall, of facing panels therefor of structural glass having relatively shallow grooves with rounded bottoms ground in certain of the edges thereof intermediate the opposite side faces of said panels, and metal hangers secured to said wall and having tongues fitting loosely in said grooves, the edges of said tongues facing the bottoms of said grooves being also rounded.

7. The combination with a wall, of facing panels therefor having relatively shallow grooves with rounded bottoms formed in certain of the edges thereof intermediate the opposite side faces of said panels, and metal hangers secured to said wall and having tongues fitting loosely in said grooves, the edges of said tongues facing the bottoms of the grooves being also rounded and spaced from the bottoms of said grooves, with the thickness of the tongues being relatively less than the width of the grooves.

8. The combination with a wall, of facing panels therefor of structural glass having relatively shallow grooves formed in certain of the edges thereof inwardly of the opposite side faces of said panels, and mechanical anchoring means secured to said wall and having portions fitting

loosely in said grooves, said portions being spaced from the bottoms of the grooves and the thickness of the said portions being relatively less than the width of the said grooves.

9. The combination with a wall, of facing panels therefor of structural glass having relatively shallow grooves formed in certain of the edges thereof inwardly of the opposite side faces of said panels, and metal hangers secured to said wall and having tongues fitting loosely in said grooves, said tongues being spaced from the bottoms of the grooves and the thickness of the said tongues being relatively less than the width of the said grooves.

10. In combination, a supporting backing, a facing panel therefor of structural glass having relatively shallow grooves formed in certain of the edges thereof inwardly of the opposite side faces of said panel, and mechanical anchoring means secured to said backing and having portions fitting loosely in said grooves, said portions being spaced from the bottoms of the grooves and the thickness of the said portions being relatively less than the width of the said grooves.

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