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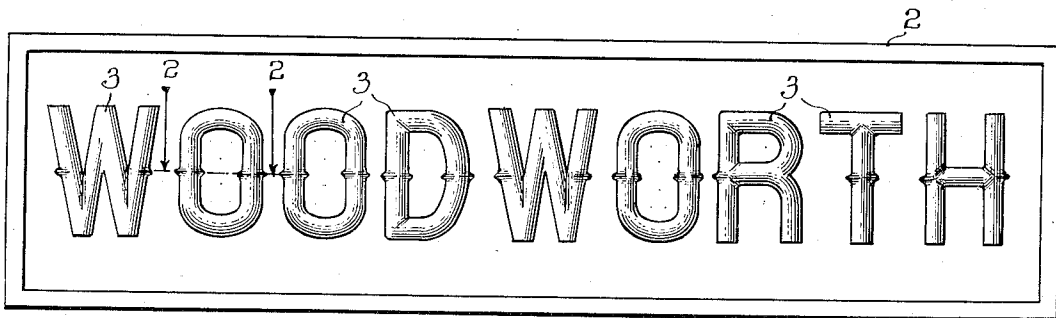
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2,019,113

SIGN

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Fig. 1.



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SIGN

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This invention has special reference to store front or firm name signs of the character that has become standard with certain classes of establishments, notably the chain stores. Such a sign comprises a panel or background bearing in letters the name of the store. The panel is commonly of wood and the letters also ordinarily are of wood, the panel being painted and the letters being covered with gold leaf. The cost of repainting and otherwise servicing signs of this construction is very substantial, as the wood soon cracks, and the decorated surfaces deteriorate on exposure to the weather.

Efforts have been made to produce a store front or firm name sign which should possess the characteristic appearance associated in the mind of the public with the standard store front sign, but which should require little or no servicing. These efforts have been along the line of providing a more durable letter than the standard gilded or painted wood letter, as by substituting glass and ceramic letters. Attempts have also been made to substitute a vitreous-enameled sheet-metal panel for the standard wood panel, but it has been found that such metallic panels, when of the length necessary for a store front sign, are so flexible that if glass or tile letters are attached thereto they will be broken by the undulations or flexing of the panel which unavoidably occurs in the handling of the sign preliminary to mounting it upon the store front, and such movements of the sheet-metal panel as are caused by wind pressure and expansion and contraction after the sign is in place. Consequently, all efforts to produce a store front sign by mounting glass or ceramic letters upon a sheet-metal panel have been, so far as I am aware, merely unsuccessful experiments.

The principal object of the present invention is to produce a thoroughly practical store front sign having the characteristic appearance of such signs, but requiring little or no servicing. This object has been attained by using an enameled sheet-metal panel having gilded glass letters yieldably attached thereto so that the panel may flex without breaking the letters. Other objects and advantages will become evident as the description proceeds.

In the accompanying drawing,

Figure 1 is a front elevation of a store front sign embodying the features of my invention.

Fig. 2 is a sectional view on an enlarged scale, taken in the plane of dotted line 2—2 of Fig. 1.

The panel or background consists of a metal plate 1 of any suitable gage, as, for example, six-

teen gage. The edges of the sheet may be finished in any desired way, as by means of a border 2. The face of the sheet 1 is coated with any preferred permanent covering, as, for example, a coating 1^a of vitreous enamel. A store front sign would usually consist of two or more sections bolted together. On the face of the panel are mounted sign characters 3. These are preferably formed of molded or blown glass, the character strokes being concavo-convex, as shown by Fig. 2 hereof, and more fully in the Lutwyche Patent No. 682,212, dated Sept. 10, 1901. The letters may be formed of crystal, that is to say, transparent, colorless glass, and have a thin coating 4 of gold fused upon their concave sides; or they may be of opal or colored opal or any other color or black. Such letters have long been used in the formation of window signs, the letters being cemented to the plate glass of the window. It would, however, be impracticable to cement such letters to the metal panel 1 as the flexing of the panel would break or detach the letters. I have, therefore, devised the means to be now described for attaching such letters to the panel 1.

To the rear side of each letter I cement a suitable back possessing the requisite strength and ability to withstand exposure to the elements and also possessing approximately the same coefficient of expansion as the glass letter. I have found a sheet of zinc to be very satisfactory, such a sheet being indicated at 5. This sheet is of the same outline as the letter and is cemented to the edges of the letter. In Fig. 2, 6 denotes the layer of cement.

To the backing 5 I attach a suitable number of fasteners for use in connecting the letter to the panel 1. Herein I have shown fasteners each consisting of a stud or bolt 7, the head of which lies at the inner side of the zinc plate 5 and is secured thereto as by means of solder 8. The number of fasteners would depend upon the size and shape of the letter or other sign character. Openings are formed in the panel 1 to receive the bolts 7. To hold the letter yieldingly against the face of the panel 1, I place upon each of the bolts 7 a coiled spring 9, the spring being interposed between the back of the panel and an adjusting nut 10 on the bolt. 11 is a lock nut.

The studs 7 are preferably located in or near the longitudinal center line of the panel, or, when the character strokes vary in width, at the point of greatest width.

When mounting my improved store front sign, recesses may be formed, if necessary, in the front

of the building to accommodate the fasteners projecting from the rear side of the panel.

It will be seen that the sign characters are yieldingly attached to the metal panel 1 so that when the panel flexes, as it necessarily will in handling, transportation and mounting, the springs 9 yield as required, thereby relieving the glass sign characters of any injurious stresses. It is thus practicable to use relatively thin gage metal; and the panel may be of maximum length that can be enameled. In the event that moisture finds its way between the backing 5 and the face of the panel 1 and freezes, the springs 9 yield to the resulting expansion, thus avoiding breakage. The panel being surfaced with a durable vitreous enamel and the letters having smooth glass surfaces with a permanent gold coating fused upon the internal surface of the letters, it will be seen that a store front sign embodying my invention requires negligible servicing. It will also be noted that it embodies the attractive appearance which is characteristic of the standard store front sign.

This is also true of signs embodying my invention and comprising letters having silver or other internal coatings or formed of opal or colored glass.

While, as hereinbefore stated, the glass letters per se are old, the necessity of cementing them in place has greatly restricted their use, as the cementing operation requires a considerable degree of skill and care. The present invention permits the cementing operation to be performed at the manufactory that produces the letters, where skilled workmen and all necessary conveniences are available. This greatly simplifies the work of the sign builder, as he merely forms apertures in the panel to receive the studs 7, positions the sign characters upon the panel with the studs extending through the apertures and applies the springs 9 and nuts 10 and 11.

Glass letters of the type herein shown have an advantage over glass letters of the type in which the character is embossed upon a glass base or panel in that it is not necessary for the sign builder to cut a stencil-like opening in the panel 1 to expose the character.

It will be understood that the invention is not limited to letters of the alphabet, but is applicable to numerals and other sign characters, and that the invention is useful in connection with fragile characters mounted upon flexible panels of various forms and sizes.

I claim as my invention:

1. A store front sign comprising a relatively long flexible sheet-metal panel having on its outer face a coating of vitreous enamel, a plurality of sign characters of relatively fragile material, and means yieldably securing said charac-

ters to the face of the metal panel, said means comprising non-fragile material rigidly secured to said characters, studs secured to the non-fragile material and projecting through openings in the panel, and yieldable means engaging said studs and bearing against the rear side of the panel.

2. A store front sign comprising a flexible sheet-metal panel, sign characters of relatively fragile material, and means yieldably securing said characters to the face of the metal panel, said means comprising non-fragile material secured to said characters and having a relatively large area of contact therewith, studs secured to the non-fragile material and projecting through openings in the panel, coiled springs surrounding said studs and bearing at one end against the rear side of the panel, and means on the studs against which the other ends of the springs bear.

3. A sign character consisting of a concavo-convex character formed of relatively fragile material, a plate of relatively strong non-fragile material having a low coefficient of expansion, said plate having the same outline as the character and the margins thereof being cemented to the back of the character, whereby to exclude moisture and dirt from the concave side of the character, and an attaching device secured to and projecting from the rear face of said plate.

4. A store front sign comprising, in combination, a flexible panel, sign characters of relatively fragile material and having rearwardly facing edges, each character having non-fragile material rigidly secured to the entire area of said rearwardly extending edges, and means for yieldably securing said non-fragile material to said panel, said non-fragile material distributing the holding force of said means over the entire area of the edges of the characters.

5. A store front sign comprising, in combination, a flexible panel, sign characters of relatively fragile material in a concavo-convex form with the concave side facing rearwardly, a plate of non-fragile material secured to the rear edges of each character to provide a weather-tight closure for the concavity of the character, and means for yieldably securing said plate to said panel.

6. A store front sign comprising, in combination, a flexible panel, sign characters of fragile material, rigid non-fragile material cemented to the backs of said characters and having substantially the same coefficient of expansion as said fragile material to prevent separation thereof on expansion due to temperature changes, and means for yieldably securing said non-fragile material to said panel.

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