

[54] SIGN
[76] Inventors: **Harmon B. Miller, III**, 3821 N.
Stratford Rd., N.E., Atlanta, Ga.
30305; **Bill Fernander**, 3288
Balmoral Dr., Chamblee, Ga. 30341;
Larry Hanson, Box 70, Fort Valley,
Ga.
[22] Filed: **Apr. 3, 1972**
[21] Appl. No.: **240,515**

[52] U.S. Cl. **40/125 H, 40/125 A**
[51] Int. Cl. **G09f 01/10, G09f 07/12**
[58] Field of Search **40/125 H, 125 A,**
40/124.1, 10 R, 129 C

[56] **References Cited**
UNITED STATES PATENTS
1,980,453 11/1934 Tucker et al. **40/124.1 UX**

3,290,813 12/1966 Rose **40/129 C**
3,327,415 6/1967 Pearson **40/10 R**
1,152,461 9/1915 Wright **40/10 R UX**
3,208,173 9/1965 Shank **40/124.1 X**

FOREIGN PATENTS OR APPLICATIONS

704,578 3/1965 Canada **40/125 H**

Primary Examiner—Robert W. Michell
Assistant Examiner—John F. Pitrelli
Attorney—John W. Malley, Lawrence A. Hymo et al.

[57] **ABSTRACT**
A sign comprising two facing rectangular boards which abut at their tops and ends but are bowed apart at the midpoint of their bottoms. A short block is connected to the bottoms of the respective panels at the middle and is adhered to a surface. The contour of the panels provides increased wind resistance.

13 Claims, 4 Drawing Figures

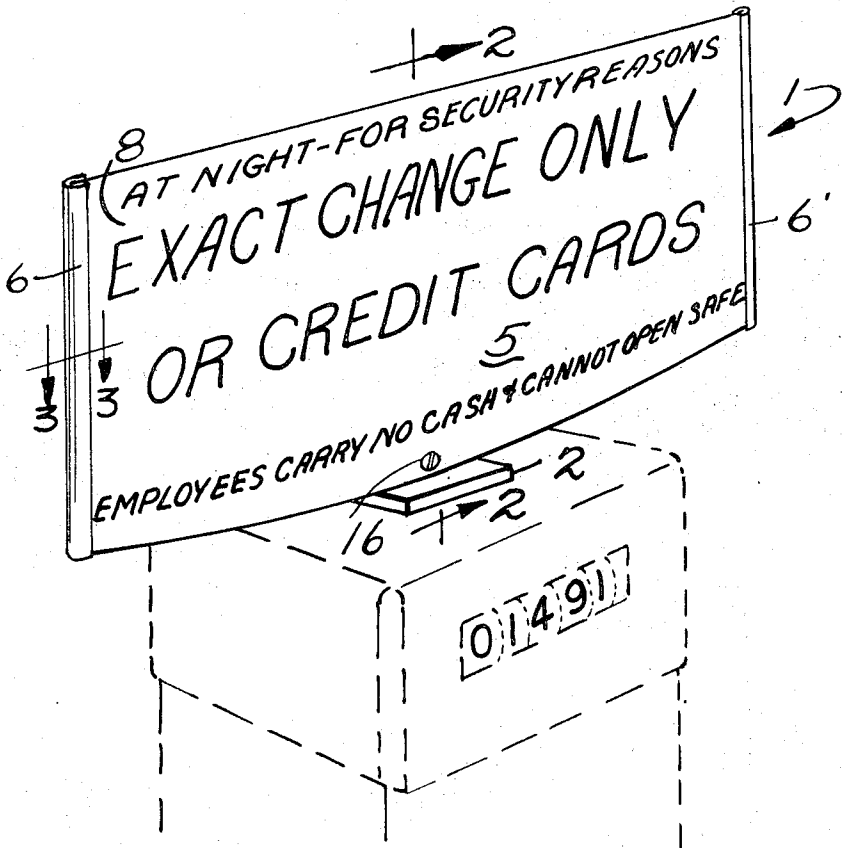


Fig. 1.

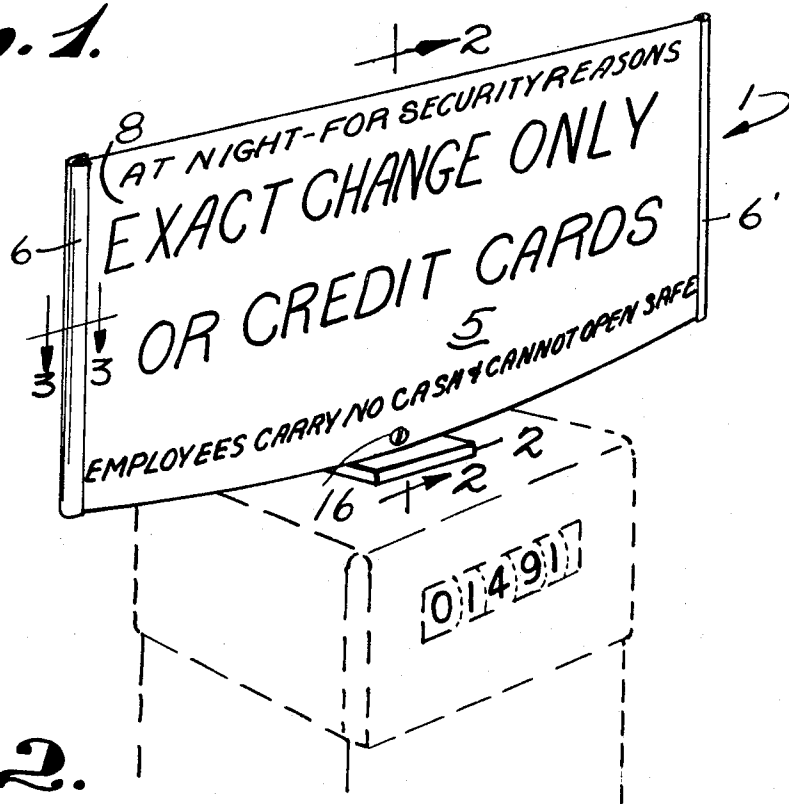


Fig. 2.

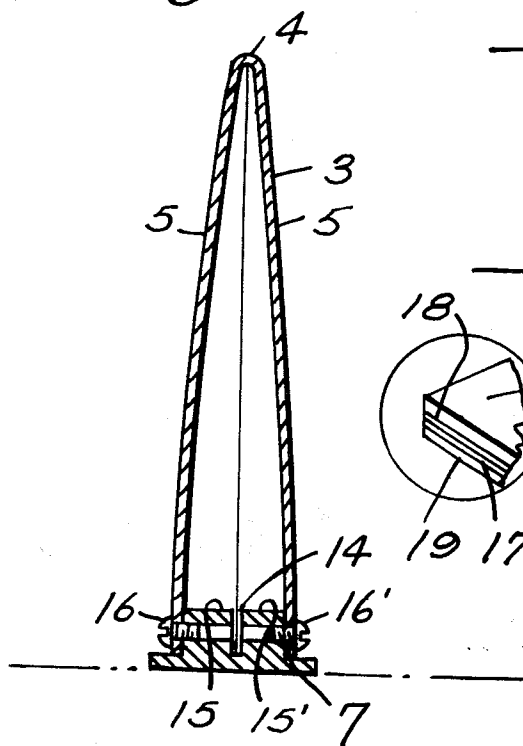


Fig. 3.

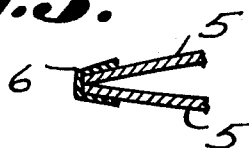
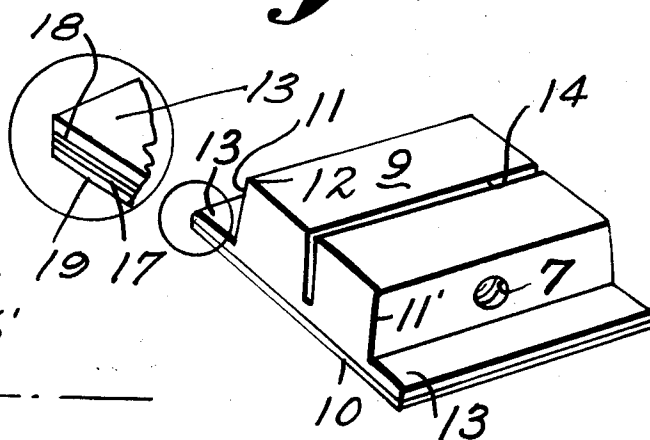


Fig. 4.



SIGN

The present invention relates to a sign and a means for mounting it in a position where it is exposed to the elements, especially wind. More particularly, the invention pertains to a sign adapted to the fastened to the top of a gasoline pump.

The top surface of a gasoline pump provides a convenient place for mounting signs where they are likely to be seen by customers while services are being performed on their automobiles. It is an especially convenient position for announcements of special promotions or new products. However, since the pump ordinarily is outdoors, it is exposed to the elements, especially wind, and therefore a sign on top of a pump must be fastened very securely to the pump.

This requirement, for very secure mounting suggests a sturdy mounting device, attached to the pump with heavy duty fastening devices. However, it would be preferable to have a sign mounted without permanent damage to the pump, and to keep the cost as low as possible.

The present invention is concerned with a sign which is fastened to the top of the pump by means of a small quantity of adhesive, the sign being shaped to reduce the strain on the adhesive bond when the sign is exposed to strong wind. Briefly, it consists of two facing display panels which substantially abut at their tops and ends but are bowed apart at the midpoint of their bottoms. A block is provided which is fastened to the top of the pump which is inserted between the bowed-apart portions of the display panels. The panels are secured to the block, and therefore are held to the top of the pump.

The panels form a smooth contour, the bottom of each being curved outwardly in an arc from a line connecting the ends of the panels and being contoured smoothly to their tops where they substantially abut. This configuration reduces the wind loading of the display and permits holding it to the top of a gasoline pump with the small area of adhesion between the block and the pump.

The invention will be better understood from the following detailed description of a preferred embodiment, reference being made to the drawing, in which

FIG. 1 is a perspective view of a sign according to the invention, a gasoline pump being illustrated in phantom lines;

FIG. 2 is a cross-section along lines 2—2 of FIG. 1.

FIG. 3 is a cross-section of a part of the sign, along lines 3—3 of FIG. 1; and FIG. 4 is a perspective view of the mounting element, referred to herein as "the block," one corner being illustrated on an enlarged scale.

Referring to FIG. 1, the sign comprises two main elements, a display member indicated generally by the number 1 and a block 2. In the embodiment illustrated, the display member comprises a single sheet of cardboard 3 approximately 0.070 inch thick, and approximately $18\frac{3}{4} \times 21$ inches. The board has a weather-resistant coating, and is folded in the middle, along seam 4 to form two panels 5 and 5', each $10\frac{3}{4} \times 18\frac{3}{4}$ inches. At the ends of the panels, transparent tape is applied along substantially the whole length of the board to provide end closures which secure the panel ends in substantially abutting contact, as hereinafter defines. At the center of each panel, near its lower edge, there is a screw hole 7, whose center is $\frac{1}{4}$ inch

from the bottom of the panel. A brass eyelet is inserted in the hole to protect the cardboard from wear. Indicia, indicated by the number 8, is printed on either or both of the panels.

The block 2 is aluminum in the preferred embodiment, and may be an extruded shape. Viewed from its end, the block is a trapezoid, having parallel flat top and bottom surfaces 9 and 10 and upwardly and inwardly inclined sides 11 and 11', the angle at the top corners 12 being about 100° . The top in this embodiment is $1\frac{1}{2}$ inches across, and the block is about $\frac{3}{4}$ inch high. Flanges 13 and 13' extend laterally outwardly about $\frac{1}{2}$ inch each from the base of the block, the bottoms of the flanges being extensions of the bottom surface 10, and the flanges being about $\frac{7}{64}$ inch thick and the overall width of the block being about $2\frac{9}{16}$ inches. The block is about $2\frac{1}{2}$ inches long. There is a groove 14 along the block, about $\frac{1}{16}$ inch wide and extending down from the top surface of the block about $\frac{1}{2}$ inch. Holes 15 and 15' are drilled through the block, from the respective sides 11 and 11' to the groove 14, approximately midway along the length of the block and about $\frac{5}{16}$ inches up from the tops of the flanges 13 and 13'. The holes 15 and 15' are tapped for $\frac{1}{4}$ inch machine screws 16 and 16' which hold the display 1 to the block, being inserted through holes 7' of the display panels. The positions of the holes 15 and 15' allows about $\frac{1}{16}$ inch clearance below the side panels 5 and 5' to assure ease in mounting the display 1 on the block 2.

A rubber layer 17 is adhered to the bottom of the block which provides adhesion to mount the sign on the top of a gasoline pump. This is a flexible, weather resistant rubber, such as neoprene, about $\frac{1}{16}$ to $\frac{1}{64}$ inch thick and coated on both sides with adhesive layers 18 and 19. For ease of application, this may be a pressure sensitive adhesive, that is to say, an adhesive of the kind which is permanently tacky at room temperature and which, on adhesion to a smooth, non-fibrous surface, can be removed without delamination. Many such adhesives are known and available commercially.

It is possible to purchase the rubber layer 17 pre-coated on both sides with pressure sensitive adhesive layers, and with each adhesive layer covered with conventional release paper. During manufacture of the block, one of the release papers is removed when the rubber is adhered to the block. The other layer of release paper can be left for removal when the block is mounted on a gasoline pump.

The pressure sensitive adhesive should be selected with a view to the climate in which the sign will be used. For example, in cold climates, one would select an adhesive which does not become brittle when exposed to low temperatures. The adhesive also should be selected to resist premature aging. Suitable adhesives are readily available from adhesive manufacturers.

The foregoing description presents a detailed description of a preferred embodiment which has been found particularly satisfactory in extensive field use. However, various changes may be made in those dimensions and in the shape of the sign without deviating from the principles of the invention.

In respect of the display 1, it is important that the top and ends of the panels substantially abut. It will be appreciated that when the display is made of heavy cardboard which is folded, as in the above-described embodiment, it may be difficult to bring the panels to-

gether. However, if they can be brought to within $\frac{1}{8}$ inch or $\frac{1}{4}$ inch, and the space between them is closed, this is satisfactory.

In general it is desirable that the height of each panel is no greater than its width, preferably no more than $\frac{2}{3}$ its width. On the other hand, the height of each panel will usually be at least $\frac{1}{2}$ its width.

The center portion of the bottom of the display is bowed outwardly from a center line connecting the ends of the panels. In general, the distance between the center of each panel and the center line will be about 2 to 10 percent of the length of the panel.

The block is preferably quite short. Because many gasoline pumps do not have flat tops, a longer block would not be able to adhere to such pump unless its bottom were contoured to match the pump. However, if this were done, the cost of the block would be increased greatly, and several types of blocks would have to be made for different kinds of pumps. In addition, too long a block would prevent formation of a smooth curve between the ends of the panels and their centers. Of course, a longer block could be made which follows the contours of the panels; however, they could not be made from extrusions and would have to be molded. On a cost basis, this would be undesirable.

For the type of block illustrated in the drawing, the length may be typically 10–25 percent of the length of the display, preferably 10–20 percent.

The flanges 13 and 13' are not essential. However, they increase the surface area of the block which is adhered to the pump top without increasing length or affecting the contour of the display. Secondly, they provide a seat against which the display can rotate around the screws 16 and 16' so that if the sign pivots down on one side, it presses the block down instead of pressing against the pump top and lifting the block.

The groove 14 is not essential. It is useful for an alternate application for the block, with a single card inserted in the groove, anchored by the screws 16 and 16'. However, such a sign does not have the wind resistance of the two-panel sign described above, and would be useful primarily indoors.

Other means can be provided to fasten the sign to the block. For example, there may be a metal frame for each panel having the same contour as described above and providing for insertion of lighter weight paper display panels. In addition, other fastening means besides the screws 16 and 16' may be used, and other means besides tape may be used to bring the panel ends together.

The block may be made of materials other than aluminum. For example, it may be rigid plastic. It will be appreciated that other changes may be made in details of construction and mode of operation without departing from the invention.

We claim:

1. A sign for mounting on a surface in a position exposed to wind comprising a pair of planar facing panels, means joining the tops of said panels in abutting relationship substantially along their top edges to form a single substantially straight line joint, means securing the respective ends of said panels in abutting relationship substantially along their respective edges to form substantially straight line joints, a block having a length of about 10–25 percent of the length of said panels, which can be attached to said surface, means for securing the middles of the lower portions of the respective panels to spaced apart positions of said block whereby the bottoms of said panels are bowed apart at their mid portions but abut at their tops and ends along said joints, the bowed configuration of the lower portions of said panels reducing the strain on the attachment between said block and said surface.

2. A sign as set forth in claim 1 in which said panels comprise a single sheet folded against itself, the panels abutting along the fold.

3. A sign as set forth in claim 2 in which said fold is at the tops of said panels.

4. A sign as set forth in claim 1 in which the ends of said panels are joined together by a tape adhered to them.

5. A sign as set forth in claim 1 in which said block has means for securing it to a surface comprising an elastomeric cushion which conforms to the shape of said surface.

6. A sign as set forth in claim 1 in which said block has a pair of generally parallel vertical surfaces against which the respective panels are secured.

7. A sign as set forth in claim 6 in which said vertical surfaces are upwardly and inwardly inclined towards each other.

8. A sign as set forth in claim 6 including flanges extending outwardly from the lower portions of said vertical surfaces to increase the area of said block secured to said surface.

9. A sign as set forth in claim 1 in which said block has means for securing it to said surface comprising a pressure sensitive adhesive.

10. A sign as set forth in claim 1 in which said block has downwardly extending groove for insertion of a single panel sign and means for securing said single panel sign in said groove.

11. A sign as set forth in claim 1 in which the heights of said panels are no greater than their lengths.

12. A sign as set forth in claim 11 in which the height of each of said panels is $\frac{1}{2}$ to $\frac{3}{4}$ of its width.

13. A sign as set forth in claim 1 including printed indicia on at least one of said panels.

* * * * *