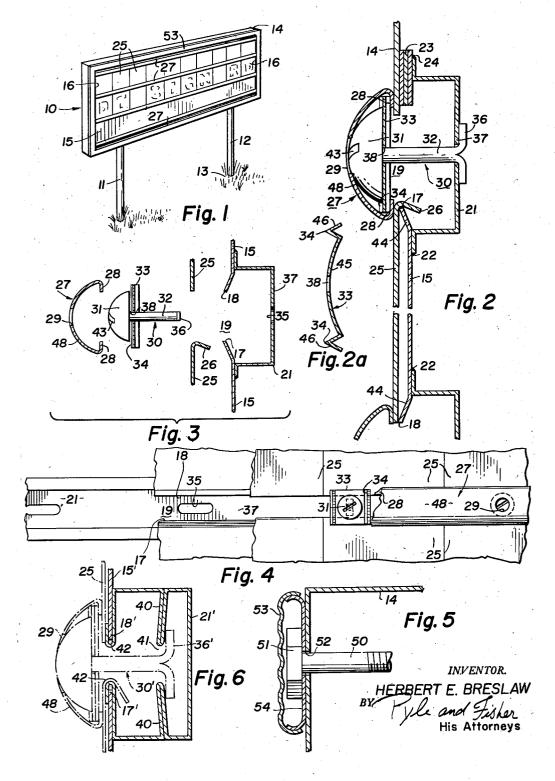
CHANGEABLE LETTER SIGN

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CHANGEABLE LETTER SIGN Herbert E. Breslaw, Mentor, Ohio Application December 13, 1955, Serial No. 552,800 12 Claims. (Cl. 40-125)

This invention pertains to display advertising, and 15 more particularly to a changeable letter sign for selective presentation of desired word messages.

Heretofore changeable letter signs have been constructed for such things as theater marquees. These signs have been heavy, ornate, and unduly expensive and cum- 20 bersome. Their use is limited and because of their construction they must generally be supported some distance above the ground and above eye level of passing persons.

It is, therefore, one of the principal objects of this invention to provide a changeable letter sign which is in- 25 expensive and rugged and which may be used at eye level.

It is a further object of this invention to provide a changeable letter sign which is constructed to substantially prevent tampering and theft of the letters and to completely prevent damage by wind, vibration, or acci-  $^{30}$ dental brushing of the sign by passing persons.

The last named object is achieved through lockable face strips which engage the faces of the letters and

securely fix them in place.

Yet another object of this invention is achieved through 35 the use of these face strips which permit the use of changeable letters to form a sign to convey a desired message, yet provide a firm lock to hold the finished sign in position.

A further object of this invention is to provide a sign 40 of simple, inexpensive, rugged construction which may be readily assembled in any size to provide a low cost sign which is readily adaptable to a particular user's needs.

A further object of this invention is to provide a sign which is adaptable to either indoor or outdoor use and 45 either at eye or elevated levels.

An additional object of this invention is to provide a sign having readily accessible yet hidden means for attachment of the sign to a wall, post, or other support.

Yet another object of this invention is to provide a sign 50 of solid construction which casts the appearance from a distance of being a permanent, custom made sign, rather than a changeable letter sign.

Other objects and a fuller understanding of the invention may be had by referring to the following description 55 and claims, taken in conjunction with the accompanying drawing, in which:

Figure 1 is a perspective view showing one of the signs supported on a pair of signposts and located in an outdoor application;

Figure 2 is a foreshortened fragmentary sectional view of the sign on an enlarged scale with respect to Figure 1;

Figure 2a is a sectional view of one of the resilient locating collars;

mechanism:

Figure 4 is a fragmentary front elevational view with parts successively broken away and removed showing the mechanism for locking the letters in place;

Figure 5 is a fragmentary sectional view of a portion 70 of the frame and one of the support bolts; and,

Figure 6 is a fragmentary sectional view showing a modified form of construction of the anchor member.

Referring to the drawing and to Figure 1 in particular, a sign is shown generally at 10. The sign is supported by suitable means such as the posts 11 and 12 shown in the drawing. The posts are embedded in the ground which is indicated at 13.

In its preferred form the sign has a letter holding structure which is a generally rectangular construction and 10 which is surrounded by a frame 14. A suitable number of face plates 15 are provided. Preferably the face plates 15 are solid to form a background for the sign. The use of pairs of narrow longitudinal strips, for example, will suffice as letter supporting members, however, as mentioned above, the solid face plates 15 are preferred. The face plates 15 have ends 16 which are connected to the frame 14. The face plates have top letter supporting edges 17 and bottom edges 18.

As may best be seen in Figure 3 the bottom edge 18 of one face plate 15 is in appropriate spaced relationship with a top edge 17 of the next lower face plate to define a letter supporting area in the form of an elongated longitudinal opening 19 of substantially uniform transverse dimension. In the case of the top longitudinal opening, the upper limits of the opening 19 are defined by the frame 14. In the case of the lower longitudinal opening, the lower limits of the opening are defined by the frame 14. It will be apparent that any number of face plates 15 may be employed for the purposes of this invention. One of the outstanding features of this invention is that a sign may be fabricated to a given user's needs to readily provide a sign of appropriate dimension for his purposes.

An elongated box-like anchor member 21 is connected to the rear side of the sign behind the opening 19. As may best be seen in Figure 4 the anchor member 21 preferably extends longitudinally across the entire width of the sign furnishing a backing behind the opening 19. The anchor member 21 is suitably connected to the face plates as by welding at 22. A sign's upper and lower anchor members 21 are connected to the frame as by welding at 24. Suitable shim strips 23 may be provided to permit the frame to be outwardly of the face plates 15 to give

the sign a smooth, finished appearance.

A plurality of individual letter members 25 are provided to be supported in any order desired, to provide a sign carrying any suitable message. The upper portions of the letter members 25 are bent inwardly to provide supporting hooks 26. The supporting hooks 26 are simply placed over the upper edge 17 of the face members 15 to support the letter members 25. A plurality of face strips 27 are provided to hold the letter members 25 in place and to provide a pleasing visual effect by forming a protective and decorative closing for the elongated openings 19.

Preferably, the face strips are, in section, generally curved members having inwardly folded lips 28 and a curved exposed portion 48. The lips 28 are for engagement with the frame 14 and the letter members 25. The face strips 27 are of partially closed, tubular-like con-60 struction to carry connecting devices as will subsequently be described in more detail. The face strips have a plurality of spaced apertures 29 for receipt of a tool to rotate connectors shown generally at 30.

The connectors include an enlarged head portion 31 Figure 3 is an exploded view of the face strip locking 65 and an elongated stem 32. The head portion 31 has a slot 43 to receive a key or other connector rotating tool.

A resilient locating collar 33 is provided to hold the connector 30 and the face strips 27 in appropriate spaced relationship. As may best be seen in Figure 4, the collars 33 are preferably rectangular in shape and have a pair of transverse V-shaped portions 34. Each of the collars

has an opening 38 through which the stem 32 of the connector is received. In assembly one of the collars 33 and one of the connectors 30 are slid longitudinally into one of the face strips until the head 31 of the connector is in appropriate relationship with one of the face strip apertures 29. The connector 30 is held firmly in place by the springing action of the collar.

The V-shaped transverse portions 34 have sufficient depth to cause them to be somewhat flattened when they are retained within the face strips 27. As they are flat- 10 tened they cause center portion 45 of the collar 33 to be somewhat distended and assume a convex curvature with respect to the head 31 of the connector 30. Thus the transverse V-shaped portions 34 grip the face strip 27 to hold the collar 33 in position, and the center portion 45  $^{15}$ provides a resilient portion to tension the connectors when the face strips 27 are locked in place. Alternately, outer sections 46 of the V-shaped portions 34 may be eliminated. Substantially the same result is obtained.

The anchor members 21 have a plurality of elongated 20 apertures 35. The apertures are arranged to receive transverse gripping portions 36 of the connectors 30. In connecting the face strips 27 to the remainder of the sign, the grippers 36 are passed through the apertures 35. The connector 30 is then rotated to cause the grippers to come into engagement with connector surfaces 37 on the anchor members 21.

The collar 33 furnishes sufficient resilient biasing to hold the grippers 36 in firm engagement with the anchor members. The face strips, when thus connected, are in 30 firm holding engagement with the removable letter members 25 to hold them against accidental damage or displacement.

The letter members 25 are so constructed that the letters are always arranged in appropriate spaced rela-This is accomplished by carefully locating a letter on a letter member of appropriate width. For example, an "i" would be printed on a narrow letter member and an "m" would be printed on a rather wide letter member. By providing solid face plates 15 and continuous locking strips 27 of the same color as the letter member backgrounds, the finished sign when viewed from a reasonable distance casts the appearance of being a custom made sign.

The face strips when locked in place serve a multiple 45 function. First, they prevent the letter members from shifting longitudinally and thus hold the letters in appropriate spaced relationship. The face strips also prevent wind, vibration, or accidental jostling from causing the letters to move or fall off the sign.

As may best be seen in Figure 5 a novel mechanism for connection of the sign to a suitable support, such as the posts 11 and 12, is provided. For clarity of illustration only one of the connecting mechanisms is shown. A bolt 50 having a thin, flat head 51 is inserted through 55 a suitable aperture 52 in the frame 14. The bolt may be connected to the posts 11 or 12 or other suitable sup-A removable trim strip 53 is snapped over bracket 54 to provide a sign having a finished appearance and to hide the head 51 of the bolt 50. Through 60 this construction a rugged, hidden, and protected connection is provided for fixing the sign to a suitable support. If it is desired to remove the sign for any reason, the trim strip 53 may be readily pried off and the bolt 50 disconnected. After the sign has been reconnected 65 to the support or when the sign is first connected to the support the trim strip 53 is simply snapped onto the bracket 54 to provide a sign of finished appearance.

In Figure 6 a modification of the anchor member 21 is shown and indicated as 21'. This modified anchor 70 member 21' may be formed by suitable multi-stage die operations. A pair of inwardly directed shoulders 40 are formed. These shoulders 40 define an elongated connecting groove 41 which preferably extends longi-

opening 41 is also preferably of substantially uniform transverse dimension. The connector 30' is shown in phantom with the grippers 36' in engagement with the shoulders 40. It is thus readily apparent that the shoulders 40 form connector surfaces comparable in function to the surfaces 37 on the anchor member 21. The shoulders 40 are also shown with a slight taper to provide a camming action. Thus, when the connectors 30 are rotated, the grippers are able to better squeeze the face strips 48 against the letter members 25.

This modified construction has a two-way advantage. The first advantage is that it is not necessary to precisely locate the face strip apertures 29 since the opening 41 is a longitudinal opening extending through the length of the anchor member 21'. The second advantage is that the grippers 36' are housed within the anchor member 21' and therefore are not exposed to the elements. Further, there is not even a remote chance that someone may catch his clothing on the sign when brushing past the back of it.

A pair of plate connecting parts 42 are also formed in the modified anchor member 21'. In this construction the plate connecting parts 42 are in the shape of a U in section. They are arranged and designed to grip the upper and lower edges 17' and 18' of the face plates 15' or the edges of the frame 14. The plate connecting parts 42 are simply pressed down onto the frame 14 and the face plates 15' to form permanent crimped connec-

Outward projections in the form of flares 44 are provided on the face members 15. In the modified construction the face plates 15' need not be flared outwardly in the vicinity of upper and lower edges 17' and 18'. The purpose of the flares 44 in the face members 15 is to hold the letter members 25 in spaced relationship with the face members 15. This prevents scratching of the surface of the face members to preserve the finish. In the modified form shown in Figure 6, the plate connecting parts 42 form an outward projection to serve this spacing function.

With the flare 44 eliminated it becomes possible to construct the sign with the face plate 15 in flush relationship with the frame. Thus the need for the shim strips 23 is eliminated. The face plates 15' are thus connected to the anchor members 21' in the plane of connection of the anchor members to the frame 14.

An improved, changeable letter sign which is inexpensive, rugged, pleasing to the eye, suitable for indoor or outdoor use, and substantially free from susceptibility to tampering, theft, or wind, or other damage, has thus been described. The described sign is also a sign which is readily changeable but in which the letters are fixed in place when the sign is arranged for a display. The described sign is also a sign which may readily be assembled in any desired size to suit the needs presented by a given problem.

Although the invention has been described in its preferred form with a certain degree of particularity, it is understood that the present disclosure of the preferred form has been made only by way of example and that numerous changes in the details of construction and the combination and arrangement of parts may be resorted to without departing from the spirit and the scope of the invention as hereinafter claimed.

I claim:

1. A changeable letter sign holding structure, comprising, a letter support defining a longitudinal opening for the support of movable letter members, the support having first and second sides, anchor means disposed along the first side of the support, a plurality of longitudinally extending face strips removably connected to the sign along the second side of the support, each of such face strips contactable with a plurality of the letter members to hold such letter members in selected positudinally the entire length of the anchor strip 21. The 75 tions, the longitudinal dimension of each of said face

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strips being substantially equal to the longitudinal dimension of said letter support opening, and connecting means carried by the letter members disposed through the longitudinal area for removable connection of the face strips to the anchor means, whereby to provide a sign holding structure on which letter members may be hung in a selected position and then held in place by the connection of said face strips to said anchor means.

2. A changeable letter sign, comprising, a letter support having a least one longitudinal opening therein, said 10 support having front and back sides, anchor means connected to said support along the back side and behind the longitudinal opening, letter members for selective location, said letter members having hook portions inserted in said longitudinal opening, said letter members 15 being supported by said support, a longitudinally extending face strip removably connected to the anchor means and in position retaining contact with the letter members to hold the letter members in place, and connecting means removably connecting said face strip to said an- 20 chor means and holding said face strip firmly against said letter members, said letter member having first and second sides, the letter member first sides being in contact with said letter support, and said face strips being in contact with the letter member second sides.

3. A changeable letter display sign, comprising, a frame member, sign supporting members having ends connected to said frame member, said members having edges defining elongated supporting openings, anchor members mounted on said sign behind said openings, face strips for securement of letters to said sign, and connecting means for removable connection of said face strips to said anchor members after the face strips

have been positioned.

4. A changeable letter display sign, comprising, a 35 frame member, sign supporting members having ends connected to said frame member and top and bottom edges, said frame member and said members defining elongated supporting openings along said support member edges, anchor members mounted on said sign behind said supporting openings, face strips for securement of letter members to said sign, and a plurality of connectors rotatably carried by said face strips, said connectors including an enlarged head and an elongated stem, the stem having first and second ends, the first end being fixed to the head, the second end including at least one gripping portion projecting radially outwardly past the contour generated by the remainder of the stem, said gripping portion engaging said anchor members with said stem projecting through said supporting openings to removably connect said strips to said sign.

5. A changeable letter display sign, comprising, a frame member, a sign supporting face member having ends connected to said frame member and top and bottom edges, said frame member and said members defining elongated supporting openings along said support member edges, anchor members mounted on said sign behind said supporting openings, face strips for securement of letters to said sign, a plurality of connectors rotatably carried by said face strips, said connectors including an enlarged head and an elongated stem, the stem having first and second ends, the first end being fixed to the head, the second end including at least one gripping portion, said gripping portion engaging said anchor members with said stem projecting through said supporting openings to removably connect said strips to said sign, and a resilient locating collar carried by each of said connectors to tension such removable connec-

6. A changeable letter sign holding structure, comprising, a letter support defining a longitudinal area for the support of movable letter members, the support having first and second sides, anchor means disposed along the first side of the support, face strips removably con-

nected to the sign along the second side of the support holding such letter members in a selected position, and connecting means disposed through the longitudinal area for removable connection of the face strips to the anchor means after the face strips have been positioned, said anchor means being an elongated box-like structure having an apertured wall, said wall apertures being formed to receive said connecting means and said wall having outer connecting means engaging surfaces, whereby to provide a sign holding structure on which letter members may be hung in a selected position and then held in place by the connection of said face strips to said anchor means.

7. A changeable letter sign, comprising, a sign face faving a plurality of longitudinal slots, the face having outwardly projecting portions adjacent to and paralleling the slots, anchor members, one of said anchor members being connected to said face behind each of said slots, changeable letter members, each of said letter members having a hooked portion projecting through one of the slots and supporting such letter member, said letter members being in contact with said outwardly projecting portions and being held in spaced relationship with the remainder of said sign face, face strips disposed across said slots and in holding engagement with said letter members, and connecting means projecting through said slots and securing said face strips to said sign by interaction with said strips and said anchor members.

8. A changeable letter display sign comprising, a generally rectangular frame structure, a plurality of sign supporting face members having top and bottom edges and having ends connected to said frame, said face members being of substantially equal dimension from the top edge to the bottom edge, said face members being fixed to the frame in spaced relationship to provide a plurality of elongated longitudinal openings of substantially uniform transverse dimension, a plurality of boxlike anchor members, one of said anchor members being fixed to said sign to provide a backing for each of said longitudinal openings, a plurality of letter members, each of said letter members being a substantially flat member having an outer surface displaying a letter and an inwardly bent upper portion to provide a supporting hook, said letter supporting hooks being engageable with the top edges of said supporting members and being arrangeable to provide a suitable word message, a plurality of face strips, each of said face strips having an exposed portion and a pair of inwardly bent lips, said strips being of sufficient size to close said elongated openings with said lips in supporting engagement with said letters, a plurality of connectors carried by each of said face strips, said connectors including a head portion and an elongated stem portion, the head portion of each of said connectors being carried within the exposed portion of said face strips with said lips overlapping said head portion, a resilient locating collar interposed between said head portion and said lips to hold said connectors in appropriate relationship with said face strips, said anchor members having connector engaging surfaces, said connector stem portions projecting through said elongated openings, and said connector stem portions each having laterally projecting gripping parts engaging said anchor member surfaces, said face strips being removable upon rotation of the connector, whereby to provide a changeable letter sign in which the letter members may be hooked over the supporting member top edges to provide a desired sign and then secured in place by placing the face strips over the elongated openings and in engagement with the letter members and rotating the connectors to secure the face strips to the sign.

9. A changeable letter sign holding structure, comprising, a letter support defining a longitudinal area for the support of movable letter members, the support having first and second sides, face strips removably connected to the sign along the second side of the

support holding such letter members in a selected position, and connecting means disposed through the longitudinal area for removable connection of the face strips to the support by interaction with said second side of the support, whereby to provide a sign holding structure on which letter members may be hung in a selected position and then held in place by the connection of said face strips to said support.

10. A changeable letter display sign, comprising, a frame member, sign supporting members having ends 10 connected to said frame member, said members having edges defining elongated supported openings, anchor members mounted on said sign behind said openings, face strips for securement of letters to said sign, connecting means removably connecting said face strips and said 15 support. anchor members together, support attachment means carried by said frame member for removable attachment of the sign to a support, and a trim strip removably connected to said frame member to cover said support attachment means.

11. A changeable letter sign comprising, a sign support, a plurality of letter members, the sign support defining a plurality of longitudinally extending member supporting slots, said letter members having first and second sides, the member first sides being in contact with the letter sign support when the members are arranged to convey a word message, face strips contacting the letter member second sides to hold the letter members in position and disconnectable means fixing the face strips to the sign support and in abutment with the letter members after the letter members have been positioned on the support.

12. A changeable letter sign comprising, a sign sup-

port, a plurality of letter members, the sign support defining a plurality of longitudinally extending member supporting slots, said sign support having outwardly projecting portions and solid background areas between said projecting portions, said projecting portions being to hold the letter members in spaced relationship with said background areas, said letter members having first and second sides, the member first side being in contact with the projecting portions when the members are arranged to convey a word message, face strips contacting the letter member second sides to hold the letter members in position, and disconnectable means fixing the face strips to the sign support and in abutment with the letter members after the letter members have been positioned on the

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