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DISPLAY-SIGN INDICIA

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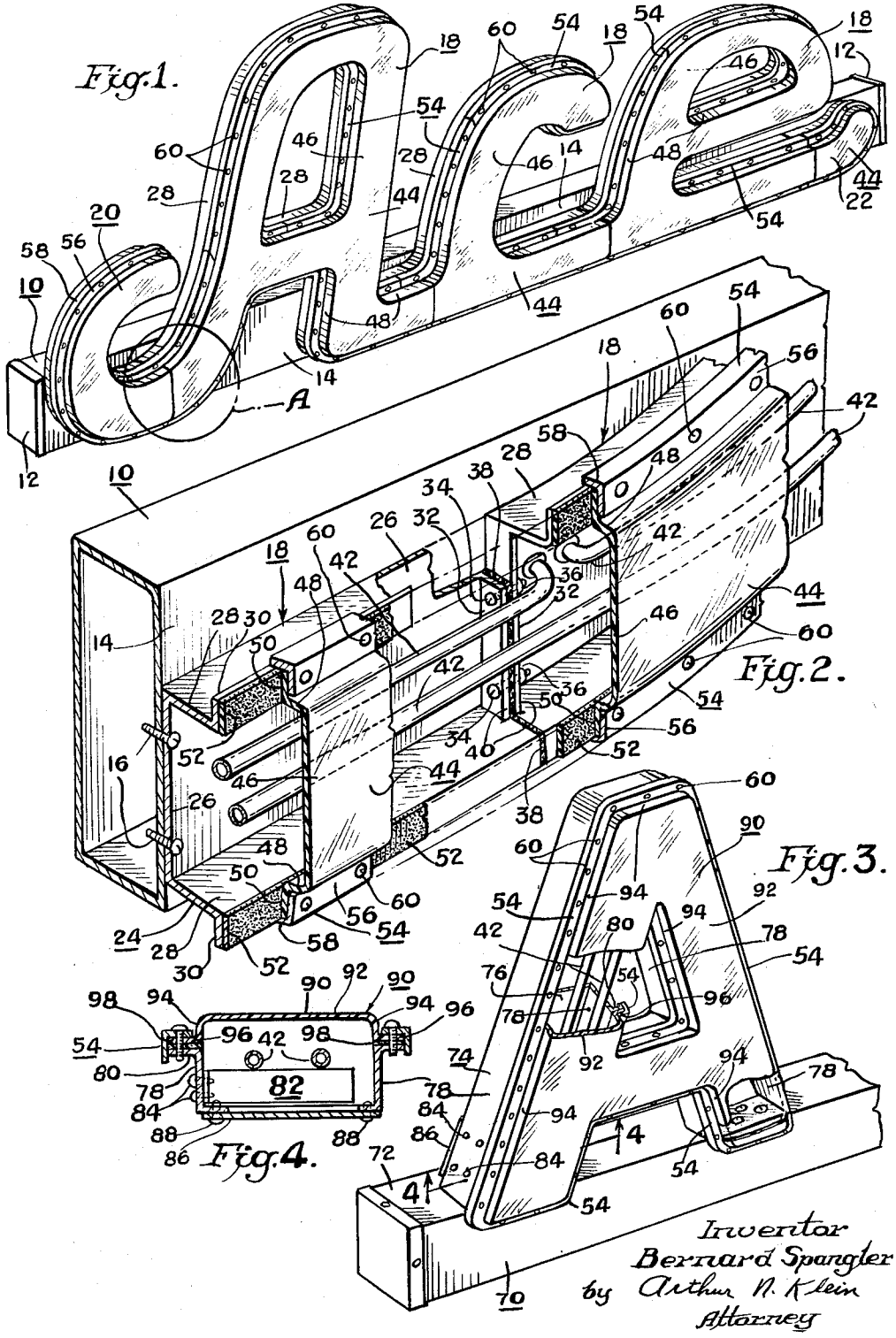

Inventor
Bernard Spangler
by Arthur N. Klein
Attorney

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DISPLAY-SIGN INDICIA

Bernard Spangler, Philadelphia, Pa.

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The present invention relates generally to display signs and more particularly to individual display-sign letters, numbers or other indicia.

An object of the present invention is to provide a novel construction for display-sign letters, numbers and other indicia. Another object of this invention is to provide novel display-sign indicia which are easily and inexpensively manufactured, with a minimum of hand operations, and which are strong, long-lasting and capable of giving effective service, even under the most adverse outdoor weather conditions, for long periods of time and with a minimum of maintenance and repair.

Other objects and advantages of the present invention are apparent in the following detailed description, appended claims and accompanying drawings.

For the purpose of illustrating the invention, there are shown in the drawings forms thereof which are presently preferred and which have been found in practice to give satisfactory results; it being understood, however, that the present invention is not limited to the precise arrangements and instrumentalities illustrated.

Referring to the accompanying drawings in which like reference characters indicate like parts throughout:

Figure 1 is a perspective view of a display-sign constructed of individual script letters in accordance with the present invention.

Figure 2 is an enlarged fragmentary perspective view, taken in the area "A" of Fig. 1; parts being broken away better to reveal the construction of the display-sign.

Figure 3 is a perspective view of a block-letter display-sign forming another embodiment of this invention; parts being broken away better to reveal the construction.

Figure 4 is an enlarged cross-sectional view taken generally along the line 4—4 of Fig. 3.

In Figs. 1 and 2, I have shown a display-sign constructed in accordance with the present invention and including an elongated hollow supporting member **10** (which may be generally rectangular in cross-sectional configuration), within which are disposed conventional transformers, resistances, starting mechanism and the like (not shown) such as are conventionally used with fluorescent tubing lighting. The ends of the member **10** may be provided with weather-tight closure lids **12**, as indicated in Figure 1.

To the front wall **14** of the member **10** are mounted, for example by screws **16**, a plurality of script letters **18**, whihc are also secured to each other in abutting end-to-end relationship, to form a continuous unit spelling out a word or name, and with tail portions **20** and **22** at the front end of the first letter and the rear end of the last letter respectively, to provide a pleasing unitary construction which is substantially water-tight, strong and long-lasting, and so arranged that any word or name or the like can be quickly and easily formed from a stock of prefabricated letters or the like; each letter or the like being formed from a back or body which is of precast one-piece light-weight aluminum allow or other suitable metal and from a complementary front or face which is of pre-molded one-piece light-transmitting shatter-proof synthetic resin or the like, the backs and fronts being capable of forming a weather tight peripheral seal along their peripheral edges and preferably also at the abutting ends of the metal backs. The abutting end walls of the metal backs of the individual letters are preferably recessed rearwardly or inwardly from the flanged front or outermost edges to permit fluorescent tubing to pass from one letter to the next without disturbing the smooth and continuous configuration of the front or face portions of adjoining letters or the like.

As can best be seen in the enlarged broken-away perspective view of Fig. 2, the pre-cast one-piece metal back or body **24** of each letter **18** and of each of the front and rear tail portions **20** and **22**, is of generally U-shaped configuration with a back wall **26** which abuts the front wall **14** of the supporting member **10**; the walls **26** and **14** being provided with matching holes for the fastening screws **16** and also with larger-size matching holes, at suitable intervals, to permit the tubing to pass from the member **10** (wherein the ends of the tubing are operatively connected to the transformer and starting mechanism, not shown, in conventional manner) into the letters **18**.

The generally parallel top and bottom legs **28** of the U-shaped back **24** are provided with integrally-formed generally parallel and vertical diverging flanges **30** at their front edges.

An end wall **32** extends outwardly or frontwardly at both ends of the back wall of each letter body. However, there is only a single end wall **32**, shown in Fig. 2, at the abutting end of the back wall of the front tail portion **20**. Similarly, there is only a single end wall at the abutting end of the back wall of the rear tail portion **22**.

As can be seen in Fig. 2, the end walls **32** extend frontwardly only a fraction (for example one-half or less) of the distance of the legs **28**. The abutting end walls of adjoining bodies or backs **24** are provided with matching holes, through which pass connecting bolts **34** provided with threaded nuts **36** to lock the adjoining backs securely together in abutting end-to-end relationship. I may provide a gasket **38** intermediate the abutting end walls to improve weathertightness.

Since the front edges **40** of the end walls **32** are recessed substantially from the flanged front edges of the legs **28**, clearance is provided in front of the end wall edges **40** to permit the bent glass fluorescent tubing **42** to pass from one letter to the next as shown in Fig. 2.

In this way, it is not necessary to provide tubing connections for each letter and tail portion. In other words, the tubing can be formed with only two or three sets of connections, in the intermediate or central letters of the entire word or name and can have its end portions extend into the end letters and/or tail portions, as indicated in Fig. 2, with the tubing passing from letter to letter (or to tail portion) in front of the front edges **40** of adjoining end walls **32**.

The complementary pre-molded one-piece front or face **44** of each letter **18** and of tail portions **20** and **22** is preferably formed of light-transmitting shatter-resistant synthetic resin or other appropriate material, which preferably is colored and also somewhat light-diffusing so that the light emanating from the fluorescent tubing is more or less uniformly distributed and illuminates the entire surface of the front or face.

The front or face **44** corresponds in shape to its metal back **24** and is also generally U-shaped in cross-sectional configuration, with a front wall **46**, top and bottom legs **48** (which are not as deep as the body legs **28**), and diverging vertical flanges **50** at the rear edges of the legs **48**. The flanges **50** are constructed and arranged to abut the metal body flanges **30**, although I may provide an intermediate sealing gasket **52** to improve weathertightness.

A metal molding strip **54** of generally L-shaped cross-sectional configuration is bent to follow the contour of the letter edges and is used to fasten the face **44** to the body or back **24**.

Thus, one wall 56 of the molding strip 54 overlies the front surface of the face flange 50, while the other wall 58 of the strip 54 overlies the juxtaposed free edges of the flanges 30 and 50, as shown in Fig. 2. Matching holes are drilled or otherwise formed in the adjoining wall 56, and flanges 30 and 50, to receive siutable fastening elements, for example self-tapping screws 60.

As indicated in Fig. 1, I prefer to form the molding strip 54 as well as the gasket 52 from individual bent sections which terminate at points spaced somewhat from the abutting end walls of adjoining letters or tail portions. In this way, there is continuous and uninterrupted gasketing at the zones of abutment of adjoining letters, so as to improve weathertightness.

From the foregoing description, it can be seen that the novel construction of the present invention, permits the use of sturdy and relatively inexpensive prefabricated metal backs and light-transmitting synthetic resin fronts to form individual letters or other sign-indicia, which can be quickly and easily assembled into any desired sign, name or word or the like; the individual letters or the like being securely fastened to a supporting member and also to each other, and with provision for passing bent fluorescent light tubing from one letter to the next, while maintaining an enclosed substantially weathertight structure.

The use of prefabricated standard letters (made up of complementary metal backs and light-transmitting fronts) which can be kept in stock and assembled into any desired name or word or the like greatly reduces both the time and the expense involved. Indeed, the novel construction of the present invention permits the production of extremely strong cast-metal signs at a fraction of the cost of conventional hand-made bent-and-soldered sheet metal signs heretofore used.

In Figs. 3 and 4, there is shown a modified embodiment of the present invention, which also constitutes a continuation-in-part of the invention described and claimed in my co-pending application Serial No. 503,381, filed April 25, 1955, now Patent No. 2,895,245.

In this embodiment, I have shown an elongated hollow supporting member 70, to the top wall 72 of which is mounted (by screws or the like) a base or back or body 74 which is die-cast or otherwise suitably integrally formed of aluminum alloy or other appropriate light-weight metal or the like, shaped, for example, into the configuration of the block letter A. The body 74 is generally U-shaped in cross-sectional configuration, with a back wall 76, forwardly-directed walls 78 and a diverging vertical peripheral flange 80 at the forward end of said walls 78. A transformer unit 82 may be mounted near the bottom of one of the leg-portions of the A for example by screws 84 as shown in Fig. 3 and a removable access door 86, held by screws 88, may be provided in the back wall 76 adjacent the transformer unit 82, as shown in Fig. 4. Alternatively, the transformer unit may be mounted within the supporting member 70, in a manner analogous to that shown in the embodiment of Figs. 1 and 2.

Fluorescent light tubing 42 may be suitably mounted within the body 74, preferably somewhat recessed from the peripheral flange 80.

A complementary pre-molded one-piece front or face 90 is preferably formed of light-transmitting shatter-resistant synthetic resin or other appropriate material, as in the embodiment of Figs. 1 and 2 and is also generally U-shaped in cross-sectional configuration with a front wall 92, rearwardly-extending legs 94 (not as deep as the body walls 78) and diverging vertical peripheral flange 96 which is constructed and arranged to abut the body flange 80, although, again, I may provide an intermediate sealing gasket 98.

A metal molding strip 54, like that shown in Figs. 1 and 2, may be used to interconnect the flanges 96 and 80, by means of screws 60, and an intervening sealing gasket 98 may be employed to increase weathertightness, in the manner described hereinabove.

In this embodiment, the matching flanged body and front portions can be quickly and easily asesmbled, using the metal molding, in very little time, to provide a sturdy and long-lasting construction which, being pre-cast and pre-molded, is comparatively inexpensive and far superior to the hand-made bent-and-soldered sheet metal constructions heretofore employed.

The present invention may be embodied in other specific forms and, therefore, the foregoing embodiments are to be considered in all respects merely as illustrative and not restrictive, reference being made to the appended claims as indicating the true scope of this invention.

Having thus described my invention, I claim as new and desire to protect by Letters Patent the following:

1. A display-sign letter or the like comprising an integral back cast of light-weight metal or the like having a generally U-shaped configuration in cross-section with a back wall and continuous forwardly-extending sides, said sides having diverging flanges integrally formed along their front edges, said back also including at least one forwardly-extending end wall which is appreciably shallower than the sides, said end wall having means permitting end-to-end connection of adjoining letters or the like, the shallower end wall providing sufficient clearance to permit the tubing to pass in front of said end wall from one letter to the next, light-creating tubing mounted within said back, an integral front of molded light-transmitting synthetic resin or the like having a somewhat shallower cross-sectional configuration than the back and including a front wall, continuous backwardly-extending sides and diverging flanges integrally formed along the rear edges of said sides, said flanges being constructed and arranged to conform to and seat against the flanges of the metal back, a sheet metal molding strip bent to the contour of the letter and of angular cross-sectional configuration consisting of a pair of angularly disposed walls and having one wall adapted to overlie the front face of the flange of the front member and its other wall adapted to overlie the free edges of both juxtaposed flanges, and a plurality of removable fastening elements passing through the juxtaposed molding wall and flanges at spaced intervals.

2. A construction according to claim 1 wherein a sealing gasket is interposed between the flanges of the front and back members; the fastening members passing through said sealing gasket.

3. A construction according to claim 1 wherein removable fastening elements connect adjoining end walls of successive letters or the like, so as to form a more or less unitary combination of said letters or the like.

4. A construction according to claim 3 wherein a sealing gasket is interposed between adjoining end walls to provide a generally weathertight connection therebetween.

5. A construction according to claim 3 wherein the molding strips used to overlie the front and back member flanges are in lengths which meet at points spaced appreciably from the juncture points of the letter end walls, and wherein lengths of sealing gasket are interposed between the respective flanges of the front and back members, the lengths of sealing gasket also meeting at pionts spaced appreciably from the juncture points of the letter end walls.

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