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H. A. FLITMAN ETAL

3,284,889

METHOD OF MAKING SIGNS

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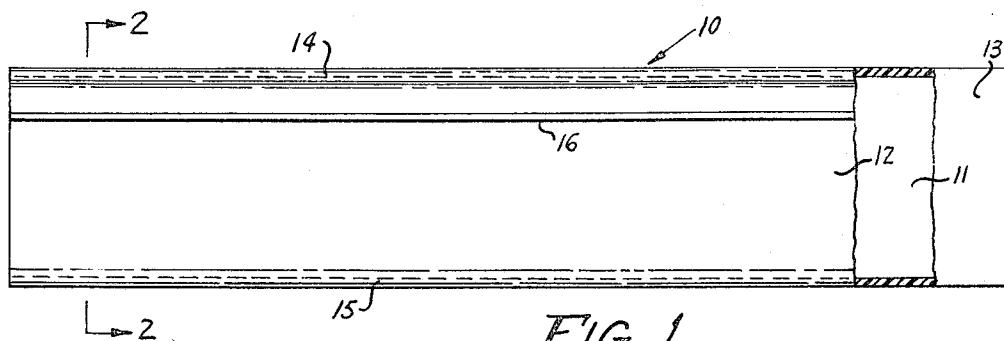


FIG. 1

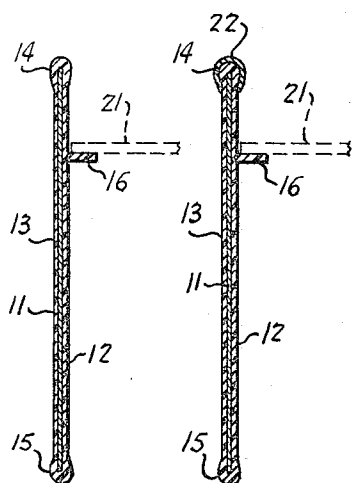


FIG. 2 FIG. 3

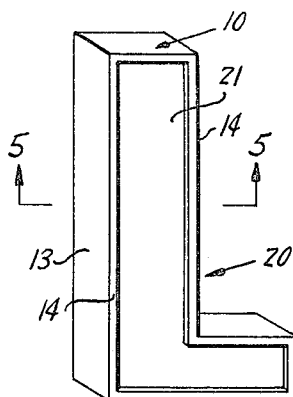


FIG. 4

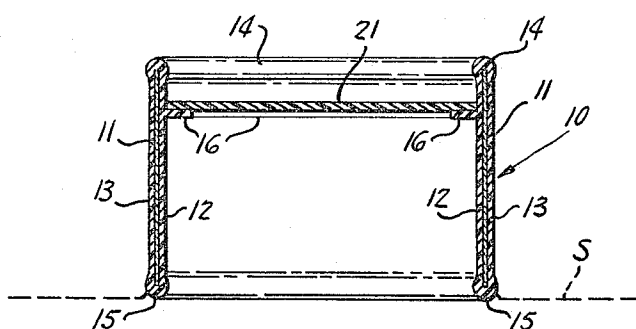


FIG. 5

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## METHOD OF MAKING SIGNS

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10 Claims. (Cl. 29—411)

This invention relates to a method of making a sign, such as a display sign embodying raised letters or the like and has as its primary object the provision of a perimeter material for raised letters on such a sign so that the letters may be formulated or fabricated by unskilled labor with a minimum of time and difficulty.

A further object of the invention is the provision of a method of forming a perimeter material for such raised letters, designs, or the like, which may be readily and expeditiously manufactured on an extruded plastic machine, for example, in one continuous operation.

An additional object of the invention is the provision of a method of forming a perimeter material embodying metal, such as stainless steel, rolled steel, aluminum, or the like in strips, which is covered with a bondable adherent plastic material whereby plastic cut-out faces of letters, designs, ornaments, or the like may be quickly adhered thereto by the use of a solvent.

Still another object of the invention is the provision of a method of forming a perimeter strip of this character which is provided with an integral preformed lip upon which the cut-out letters or the like may be rested, and sealed, to insure an even and equidistant spacing of all letters and portions of letters.

Still another object of the invention is the provision of a method of forming a perimeter strip of this character which may be of any desired metal, in any desired width or color, provided with a complete plastic coating to insure against tarnishing, and provide adequate protection for outdoor usage.

A further object of the invention is to provide a plastic bead along the inner surface of the method of forming a perimeter strip whereby individual letters, designs, or the like may be quickly and expeditiously adhered to a plastic base, simply by the use of a solvent.

A further object of the invention is the provision of a method of making a sign of three dimensional nature, which is sturdy and durable in construction and relatively simple and inexpensive to manufacture.

Other objects will in part be obvious and in part be pointed out as the description of the invention proceeds and shown in the accompanying drawing wherein:

FIGURE 1 is a plan view, partially broken away, from the inner side of a perimeter strip constructed in accordance with the instant invention, and by the method thereof.

FIGURE 2 is an enlarged sectional view taken substantially along the line 2—2 of FIGURE 1 as viewed in the direction indicated by the arrows.

FIGURE 3 is a view similar to FIGURE 2, but showing a metal cap strip for the upper or outer bead of a finished letter.

FIGURE 4 is a perspective view of one form of letter constructed in accordance with the instant invention; and

FIGURE 5 is an enlarged sectional view taken substantially along the line 5—5 of FIGURE 4.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Having reference now to the drawings in detail, there is generally indicated at 10 in FIGURE 1 a strip of material such as employed in forming the perimeter of letters, designs, ornaments or the like in accordance with the instant invention. The strip includes a core or central portion 11 which is formed preferably or stainless steel, although other materials, such as aluminum foil, aluminum, black iron, or cold rolled steel in strip form could

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be equally advantageously employed. The strip 11 is run through a continuous extruding machine and provided with a plastic coating 12 and 13, comprising the inner and outer sides of the strip, respectively. On each side of strip 11 there is formed a bead, 14 and 15, respectively, and adjacent the outer or top bead 14 there is formed a continuous integral flange 16, as best shown in FIGURES 2 and 3. Any suitable plastic may be employed, such as butyrate, polystyrene, acetate, or various acrylic monomers. The upper and lower beads are simultaneously formed.

After the strip is formed in the above-described manner, and cut to desired lengths, letters, such as the letter "L," indicated at 20 in FIGURE 4 may be formed by relatively unskilled craftsmen. The perimeter strip extends entirely about the letter, and its ends may be secured in any desired manner, as by the application of a suitable solvent, such as methylene chloride or ethylene dichloride which are suitable for any of the above enumerated plastics. After the outline of a letter is formed, as shown in FIGURE 4, a suitable letter cut-out 21, which is preferably formed of a suitable plastic is seated on the lip 16, and caused to adhere thereto by the application of a solvent as in the previously described formation of a letter. By virtue of the relatively thick bead 15 at the lower or inner face of the letter, the application of a solvent along the perimeter thereof will permit the letter to be adhered to a plastic background or sign face S, as best seen in FIGURE 5.

The formation of right angle bends may provide some difficulty if close tolerances are not adhered to in the formation of the flat strip. Such tolerances are in the neighborhood of .010—.012 between the flange 16 and the lower bead 15, and approximately .018 above the flange. The bead thickness is approximately 1/4 to 3/8 of an inch for both the top and bottom bead. If these tolerances are adhered to, right angle bends may be effectuated with a minimum of difficulty to provide a smooth, accurately finished and highly ornamental letter or design.

If desired, the top bead 14 may be covered by a metal or plastic protective sheath or sleeve 22, which is of U-shaped cross-sectional configuration, and simply slipped over the entire perimeter of the outer bead 14.

Obviously, the letters and their associated perimetric strips may be constructed in any desired size, length, or height, and will provide a highly durable and highly ornamental raised three-dimensional letter or ornament for use in signs, or other decorative or ornamental displays.

From the foregoing it will now be seen that there is herein provided an improved sign, together with a method of formulating the perimetric strip therefor, which accomplishes all the objects of this invention, and others, including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative, and not in a limiting sense.

We claim:

1. A method of making a sign or the like which comprises the steps of passing an elongated strip of thin sheet metal through a continuous extrusion machine to coat both sides of the strip with plastic and simultaneously forming plastic beads on the opposite edges of said strip and forming a continuous flange extending perpendicularly of the strip on one side thereof, cutting the coated strip to a desired length, bending the strip to form the perimeter of a letter or the like, with the flange interiorly thereof, adhering a cut-out flat letter to the flange, applying a solvent to the inner plastic bead and adhering the letter to a plastic backing sheet.

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2. The method of claim 1 wherein the flat letter is of plastic material and adherence thereof is effected by applying a solvent to the plastic flange.

3. The method of claim 1 wherein the metal of the strip is stainless steel.

4. The method of claim 1 wherein the metal of the strip is aluminum.

5. The method of claim 1 wherein the metal of the strip is cold rolled steel.

6. The method of claim 1 wherein the metal of the strip is aluminum foil.

7. The method of claim 1 wherein the plastic is selected from a group consisting of butyrates, polystyrene acetate and acrylic monomers.

8. The method of claim 7 wherein the solvent employed is methylene chloride.

9. The method of claim 7 wherein the solvent employed is ethylene dichloride.

10. The method of claim 1 wherein the thickness of the plastic coating is .010-.018 inch and the thickness of the plastic bead is between  $\frac{1}{4}$  and  $\frac{3}{8}$  inch.

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