June 7, 1966 E. J. GINTOFT 3,254,434

ADVERTISING SIGNS

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FIG. 2

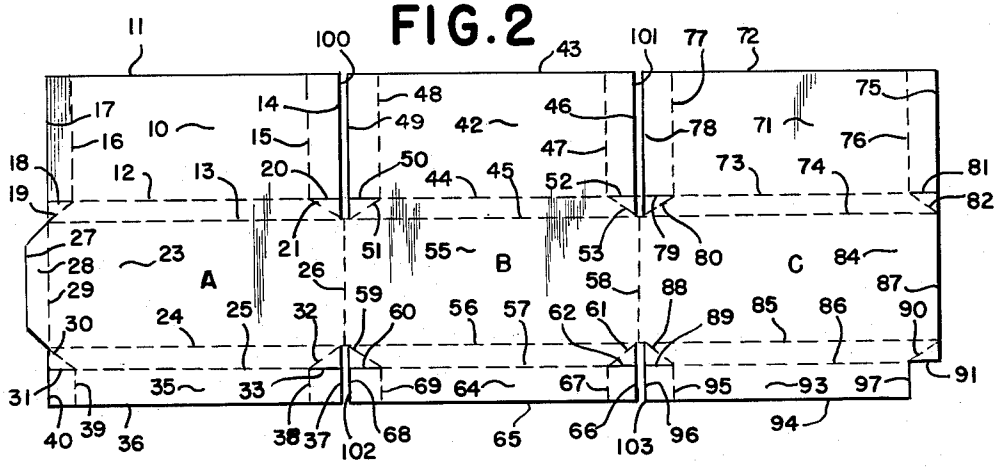


FIG. 1

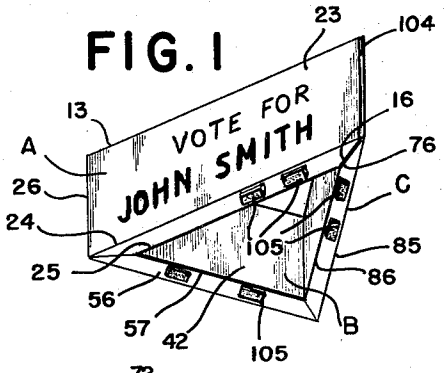
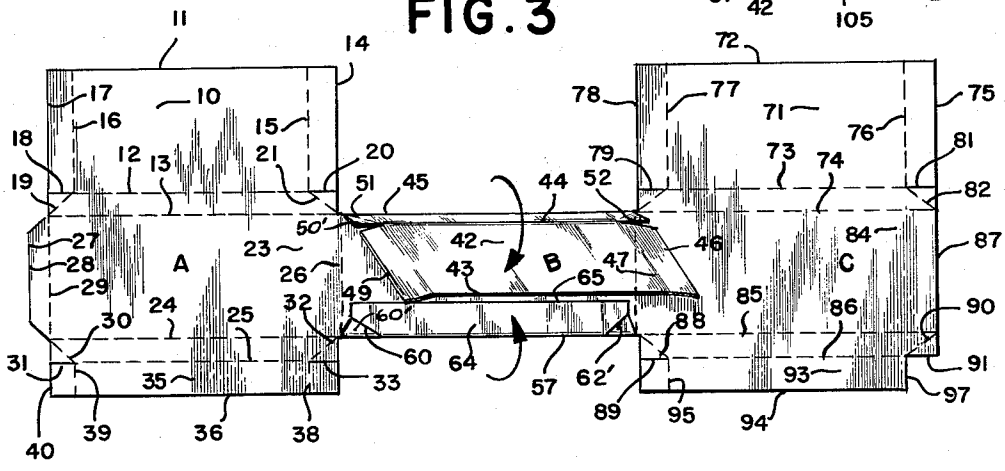


FIG. 3



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ADVERTISING SIGNS

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FIG. 4

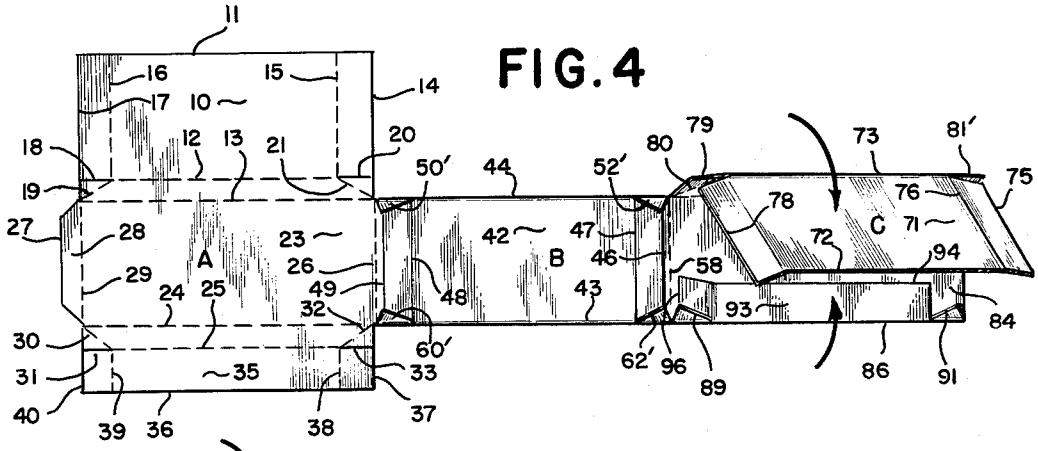


FIG. 5

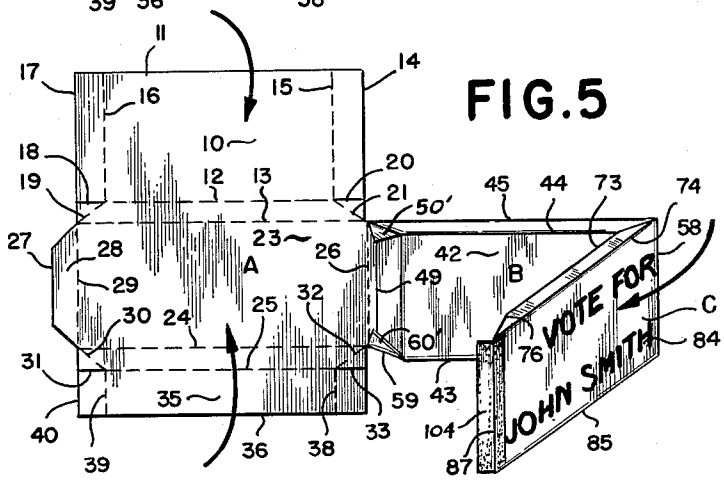


FIG. 6

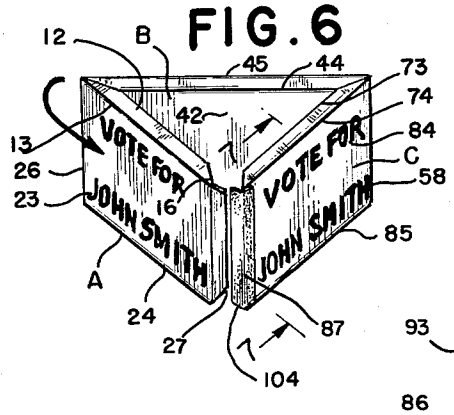


FIG. 7

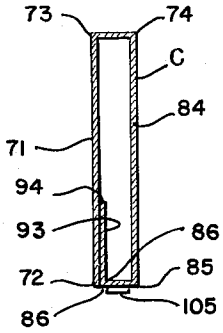
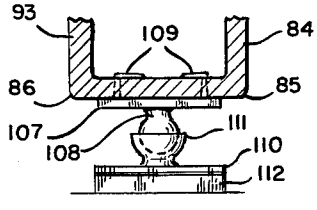


FIG. 8



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ADVERTISING SIGNS

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5 Claims. (Cl. 40—129)

This invention relates to improvements in advertising signs, and more particularly to a novel and improved car top sign.

The present invention is concerned principally with triangular car top signs of the type frequently utilized by candidates in political campaigns, as well as for commercial advertising purposes, the triangular design thereof providing a minimum of air flow resistance when the vehicles on which it is mounted is in transist, while still providing plural advertising surfaces which are visible from any direction. Conventional car top signs of this type are ordinarily formed of a wooden framework on which the advertising cards or posters are nailed or stapled, and said frame is carried on two or more transverse boards which are secured to the top of the vehicle by means of straps and clamps. Such conventional car top signs are in widespread use, particularly during political campaigns, but they are not entirely satisfactory for the reasons that they are difficult to mount on a vehicle, and they are bulky and inconvenient to ship or store. Moreover, such signs are relatively expensive. With these shortcomings of conventional car top signs in mind, the general objects of the present invention are to provide a novel car top sign which is inexpensive to manufacture, which is easy to assemble and mount on a car, and which improved sign can be arranged in a flat, compact form for shipment or storage.

A more specific object of the present invention is to provide a novel car top sign which is formed of a one-piece blank die-cut from a sheet of cardboard or similar inexpensive, light-weight material, and which sign may be quickly and easily assembled into a triangular sign having a rigid channel-shaped sides merely by folding the blank along indicated fold lines formed therein.

A further specific object of the invention is to provide a car top sign which is adapted to be formed from a flat cardboard blank, as described, thus providing a sign which can be conveniently and economically stored or shipped in its knocked-down, flat condition, and which blank is so designed that the faces of the sign can be folded over on themselves to cover and protect the advertising indicia thereon during shipment or storage.

A further specific object is to provide a car top sign formed of lightweight, inexpensive material, as described, which lightweight sign can be readily secured on the top of a vehicle by means of a pressure-sensitive adhesive, thereby eliminating the necessity for employing a number of straps and mechanical clamps which are time-consuming and difficult to install.

With the above and other objects in view, which other objects and advantages of the present invention will become apparent hereinafter, the invention comprises the improved car top sign described in the following specification and claims, and all equivalents or modifications thereof. In this respect, it is contemplated that numerous changes could be made in the present sign, such as in the cross-sectional shape of the leg members, the material used, the means for locking the free ends of the triangle together, etc., and it is intended to cover herein not only the structure described, but also any and all variations or modifications therein as may come within the spirit of said invention. Moreover, while it is contemplated that the present sign will be extensively used by supporters of political candidates during election campaigns, because of the convenience and relatively low cost of said sign as compared to those now in use, it is also believed that the invention will be utilized by commercial concerns for advertising their products or services, and the invention is by no means to be limited in its use.

In the accompanying drawings, illustrating one preferred form of the invention:

FIG. 1 is a perspective view of the improved car top sign in its assembled condition;

FIG. 2 is a top plan view of the flat blank from which the sign is formed;

FIG. 3 is a top view of the blank showing the first step in the assembly procedure;

FIG. 4 is a top view showing the second step in the assembly of the present sign;

FIG. 5 is a plan view showing the next step in the assembly;

FIG. 6 illustrates the final assembly steps;

FIG. 7 is a vertical sectional view through one of the channel-shaped sides of the assembled sign, taken along line 7—7 of FIG. 6; and

FIG. 8 shows a snap fastener assembly which can be utilized to mount the sign on the roof of a vehicle.

Referring now more particularly to FIG. 2 of the drawings, illustrated therein is the flat blank of light-weight, pliable material from which the improved sign comprising the invention is formed. Said blank is preferably die cut from a sheet of a commercially-available corrugated paperboard stock, although it is to be understood that said blank can be formed of a number of other suitable lightweight and resilient materials, including plastics, and the invention is not to be limited in this respect. The outer surface of said blank is preferably colored so that it can function as the background for the advertising message, and it has a weather-resistant finish thereon to prolong the life of the sign. As illustrated in FIG. 2, the blank includes a first section, which is designated generally by the letter A, a central section B, and a third section C, said blank sections being separated by score lines or cuts which are indicated in full line on the drawings, and creased fold lines which are indicated by broken lines. As will be hereinafter seen, said sections A, B, and C form the three legs or sides of the triangular sign when it is assembled.

With respect, first, to the section A, it will be seen that said section includes an upper rectangular panel **10** having a top longitudinal edge **11**, and said panel has a lower portion including a first longitudinal fold line **12** and a spaced, parallel longitudinal fold line **13** therebelow. The inner, side edge **14** has a creased fold line **15** adjacent and parallel thereto, and a fold line **16** is located adjacent and parallel with the opposite side edge **17**. Formed in alignment with the longitudinal fold line **12** and extending from the panel outer edge **17** inwardly to the fold line **16** is a cut **18**, and extending diagonally between said fold lines **12** and **13** and the edge **17** is a fold line **19**, there being a similar cut **20** and adjacent diagonal fold line **21** provided at the opposite end of said panel **10**. The purpose of said end cuts and diagonal fold lines will be seen hereinafter.

The top of the intermediate or central panel **23** of the blank section A is defined by the aforementioned fold line **13**, and said panel includes a first lower longitudinal fold line **24** and a second spaced parallel longitudinal fold line **25** therebelow. One side of said panel is defined by a transverse fold line **26**, and the opposite, outer side includes a protruding tab **28**, there being a fold line **29** adjacent and parallel to the outer edge **27**. Cut inwardly from the side edges of said central panel, in alignment with the longitudinal fold line **25**, are cuts **31** and **33**, and formed adjacent said cuts and extending between said fold line and the fold line **24** thereabove are diagonal fold lines **30** and **32**, respectively. The height of said center panel, as

measured between the fold lines 13 and 24 is exactly the same as the height of the upper panel 10 as measured between the top edge 11 and the fold line 12.

The bottom panel 35 of said section A extends below the aforementioned longitudinal fold line 25, and is substantially smaller in height than the other two panels 10 and 23. Said lower panel includes a bottom longitudinal edge 36, an inner side edge 37 having a fold line 38 parallel thereto, and an outer side edge 40 having a fold line 39 arranged parallel thereto.

With respect now to the intermediate section B of the blank in the present invention, it will be seen that said section includes an upper panel 42 having a top longitudinal edge 43, and said panel has a lower portion including a first longitudinal fold line 44 and a second parallel longitudinal fold line 45 therebelow. One end edge 46 of said panel has a creased fold line 47 adjacent and parallel thereto, and the opposite side or end edge 49 has a fold line 48 adjacent and parallel thereto. It will be noted that the edge 49 of said central panel is spaced from the edge 14 of the end panel 10, there being a cutout 100 extending downwardly from the top longitudinal edge of said blank to the fold line 13–45. Formed in alignment with the longitudinal fold line 44 in said panel 42, and extending from the outer edge 49 to the fold line 48 is a cut 50, and extending diagonally between said fold lines 44 and 45 and the edge 49 is a fold line 51, there being a similar cut 52 and adjacent diagonal fold line 53 provided at the opposite end of said panel.

The top of the central panel 55 of said blank section B is defined by the aforementioned fold line 45, and said panel includes a first lower longitudinal fold line 56 and a second parallel longitudinal fold line 57 therebelow. One side of said panel is defined by a fold line 58, and the opposite side of said panel is defined by the beforementioned fold line 26. Extending inwardly from the side edges of said central panel, in alignment with the longitudinal fold line 57, are cuts 60 and 62, and adjacent said cuts and extending between said fold line and the line 56 are diagonal fold lines 59 and 61.

The bottom panel 64 of said section B extends below the aforementioned fold line 57, and is substantially smaller in height than the two panels thereabove. Said lower panel includes a bottom longitudinal edge 65, a side edge 66 having a fold line 67 parallel thereto, and an opposite side edge 68 having a parallel fold line 69. Said side edge 68 is spaced from the edge 37 of the panel 35 in section A by the cutout 102 extending upwardly from the blank bottom edge to the aligned fold lines 24–56.

The last section, which is designated by the letter C, includes an upper panel 71 having a top longitudinal edge 72, and said panel has a lower portion including a first longitudinal fold line 73, and a second parallel longitudinal line 74 therebelow. The outer, side edge 75 has a fold line 76 adjacent and parallel thereto, and the opposite side edge 78 of said panel has a fold line 77 adjacent and parallel thereto, said edge 78 being spaced from the corresponding edge 46 of the panel 42 by the cutout 101, as shown. Formed in alignment with the longitudinal fold line 73 in said panel 71, and extending from the outer edge 78 to the fold line 77 is a cut 79, and extending diagonally between said fold lines and edge is a fold line 80, there being a similar cut 81 and adjacent diagonal fold line 82 provided at the opposite end of said panel.

The top of the central panel 84 of said blank section C is defined by the aforementioned fold line 74, and said panel includes a first lower longitudinal fold line 85 and a second spaced parallel longitudinal fold ine 86 therebelow. Said panel has an outer, side edge 87, and the opposite side edge thereof is defined by the aforementioned fold line 58. Extending inwardly and downwardly from the outer edge 87, between the lines 85 and 86 is a diagonal fold line 90, and extending inwardly from the opposite side edge of said central panel, in alignment with

the longitudinal fold line 86, is a cut 89 and adjacent diagonal fold line 88.

The bottom panel 93 of said section A extends below the aforementioned fold line 86, and is substantially smaller in height than the two panels thereabove. Said lower panel includes a bottom longitudinal edge 94, and a side edge 96 having a fold line 95 parallel and adjacent thereto, said edge 96 being spaced from the edge 66 of the panel 64 by the cutout 103. The opposite corner portion of said lower panel is cut away, as illustrated.

In accordance with the present invention, the advertising message or indicia displayed on the sign is preferably applied to the blank while it is in its flat condition, the face of said blank providing the background therefor. The application of said lettering may be accomplished by a silk screen process of any conventional printing method as an integral step during the forming of said blank, which is substantially less costly than applying the message to the several faces of the sign when it is in its assembled condition. As will be seen in the drawings, the message is applied only to the outer surface of the central panel of each section.

To assemble the novel car top sign comprising the present invention, the user initially folds one section, as for example the central section B, in the manner illustrated in FIG. 3, it being immaterial which section is selected. First, the lower panel 64 is swung upwardly along the fold lines 56 and 57 so that it lies in a plane parallel to the plane of the center panel, the space between said parallel fold lines providing a bottom edge face, and the upper panel 42 is then swung downwardly along the hinge or fold lines 44 and 45, and in covering relation to the aforementioned lower panel 64. The marginal side portions of said panel 42 are then manually pressurably deflected downwardly at about a 45° angle long the fold lines 47 and 48, as best appears in FIG. 4, the side margins of the lower panel 64 being deflected downwardly therewith along the fold lines 67 and 69. Said downward angular deflection of the overlapped panels is permitted by the marginal cuts 50, 52, 60 and 62, and when said panels have been thus arranged, the adjacent diagonal fold lines 51, 53, 59 and 61 coact with said cuts to provide triangular tabs 50′, 52′, 60′ and 62′, respectively. When said panels have been arranged in their overlapping condition, said tabs are folded over the exterior thereof to provide a protective covering over the exposed edges of said panels to prevent water or dirt from working therein and damaging the same. The result is that the entire sign is enclosed, with no exposed edges, which is particularly important, of course, when said sign is formed of corrugated cardboard or other material of a like nature.

With the panels 42 and 64 thus arranged in an overlapping position, and in a plane parallel to the plane of the center panel 55 therebelow, a channel-shaped section is provided which is rigid and extremely strong. It has been found, in fact, that even when the present sign is formed of a corrugated paperboard material said channel-shaped side members will readily support the weight of a grown man. Moreover, despite their great strength and rigidity, the hollow, channel-shaped side members provide a sign which is extremely light in weight, thereby not only facilitating the handling of the same, but permitting the mounting of said sign on the top of a vehicle without the use of straps and buckles, as will be hereinafter seen.

The next step in the assembly operation is to fold one of the adjacent sections, as for example the section C, in the same manner as the section B hereinbefore described. As is illustrated in FIG. 4, the lower panel 93 is first swung upwardly along the fold lines 85 and 86, and the upper panel 71 is swung downwardly along the fold lines 73 and 74 to a position overlapping said lower panel. The side marginal portions of said overlapped panels are then deflected downwardly along their

fold lines to provide angled or beveled end faces, and said entire section is then swung around the hinge line **58** to the position of FIG. 5. In the latter position the beveled inner edge face of said panel abut the corresponding beveled side edge face of the central panel B. As described, said panel marginal portions are beveled at about a 45° angle, and when they are arranged in an abutting position the panels B and C form two legs of an equilateral triangle.

The side A may then be set up by swinging the bottom panel **35** upwardly along the fold lines **24** and **25** (FIG. 5) and swinging the top panel **10** downwardly along the fold lines **12** and **13** to a position overlapping said lower panel. The side marginal portions are then deflected downwardly along the fold lines **15**, **16**, **38**, and **39**, and said section A is swung around the hinge line **26** to the position of FIG. 6. In the latter position the inner beveled edge face of said section A abuts the similarly beveled face of section B and said section A forms the third leg of the triangle.

With the sign structure in the condition illustrated in FIG. 6, the beveled free ends of the sections A and C are brought together, the tab **28** on section A is inserted therebetween, and an elongated strip **104** of adhesive is secured thereover to join said ends and to lock the sign in its triangular condition. Any other suitable joining and locking means could also be used, and the invention is not to be limited in this respect.

As hereinbefore mentioned, when the present sign is assembled, each of its sides is channel-shaped in cross section, as is illustrated in FIG. 7, thus providing an extremely strong and rigid structure. It is not necessary to bond or otherwise secure the faces of the overlapping panels together, nor to positively brace or secure the sides of said triangular sign, since the flanged walls thereof are compressed somewhat during the folding operation and the natural resiliency thereof creates a spring tension which functions to push said wall members tightly together, and to securely hold the same in their assembled condition.

In accordance with the present invention, a plurality of adhesive mounting elements **105** are carried on the underside of the assembled sign. These elements are preferably formed of a short section of strip material having a pressure-sensitive adhesive on both sides, and said mounting elements are designed to adhere to any surface. Because of the extremely light weight of the present sign structure, as hereinbefore described, it is merely necessary to position the sign on top of the car or other vehicle and to manually push downwardly on said sign for a few seconds to set the adhesive. With the sign thus mounted on its roof, it has been found that a car can be driven at speeds in excess of 80 miles per hour without its coming off, or working loose. The use of said adhesive mounting elements **105** in lieu of the troublesome and inconvenient straps and clamps required with conventional car top signs is an important advantageous feature of the present invention. Moreover, because of its light weight the present sign is much easier to handle than said conventional car top signs.

The removal of the present sign from the vehicle on which it is mounted can be quickly and easily accomplished merely by manually prying the mounting elements **105** loose from the vehicle roof, and it has been found that a twisting motion facilitates the separation thereof. The paint or finish on the vehicle is not marred by said mounting elements, and any traces of adhesive on the surface can be readily wiped away with a cloth. As an alternative to the above described method and means for securing the sign on the roof of a vehicle, a number of separable snap fasteners such as that shown in FIG. 8 can be employed. In this type of mounting assembly a top plate **107** having a male snap element **108** on its underside is permanently secured to the bottom edge face of the sign by means of deflectable prongs **109**, and a lower plate **110** having a mating female snap element **111** is removably engaged therewith. Said plate **110** has a resilient material **112** on its underside, and the latter is provided with pressure-sensitive adhesive for bonding said lower plate to the vehicle roof. The advantage of this type of mounting assembly is that the sign can be readily disengaged from said lower plates and temporarily removed from the vehicle when it is desired to wash said vehicle, or when it is necessary to drive at high speeds for a prolonged period. In addition, the swivel socket connection provided by a snap fastener of the general type shown is self-adjusting to conform to the contour of the particular vehicle roof on which the sign is mounted, thus ensuring a secure engagement therewith.

If it is desired to store the sign away for future use, or to ship the same to another location, said sign can be disassembled in a few seconds and arranged in a flat condition wherein it requires a minimum of space. Moreover, the faces of said sign can be folded upon themselves in a manner whereby the advertising indicia thereon is covered and protected from dirt, thus permitting the storage of said sign for years without detriment. In some instances, it might be desirable to deliver the sign to a user in a partially-assembled condition, to facilitate the task of setting it up. In that case, the blank is folded to provide a single, elongated channel-shaped member, and the overlying upper and lower panels of each section are stapled or bonded together. Said elongated member is then flattened about one of its upper and one of its lower longitudinal fold lines, to bring the opposed channel walls into face to face contact, and it is folded about its transverse hinge joints for shipment. All the user need do is manually reposition the flattened wall sections in their spaced, channel-like arrangement, form the beveled end faces, and secure the walls in their triangular condition.

From the foregoing detailed description it will be seen that the present invention comprises a novel car top sign having several important advantages over conventional signs intended for the same use. The present sign structure is strong and durable, it is much less expensive than said prior signs, it is easier to handle, it is easier to mount on a vehicle, and it can be arranged in a flat, compact condition for convenient and economical shipment or storage.

It is to be understood that while a preferred form of the invention has been described herein, and illustrated in the drawings, the invention is not to be limited or confined to the exact structure disclosed. It is contemplated, for example, that changes could be made in the cross-sectional shape of the channeled sides, or in the manner of joining the free ends of the triangle. In addition, it is contemplated that the sign could be made in two or even three separate sections which would be taped or otherwise secured together in the assembled sign. Such a construction has certain advantages, particularly when the advertising indicia is to be applied on the sign by a silk screen printing process, and can be easily obtained by severing the adjacent center panels during the die-cutting operation, in lieu of the hinge connections provided therebetween in the illustrated form of the invention. In short, it is to be clearly understood that it is intended to include herein not only the illustrated structure but also any and all modifications or changes therein as may come within the spirit of said invention, and within the scope of the following claims.

What I claim is:

1. A triangular car top sign adapted to be formed from a flat, one-piece blank of material, said blank including a first section, an intermediate section, and a third section, said sections being in hingedly-connected, side by side relationship, and each of said sections including an upper panel with a free top longitudinal edge, said panel having a lower portion with a longitudinal creased fold line,

said panel having a first side edge and a second, opposite side edge; a center panel having a message displayed on its front face, said center panel having a top defined by said upper panel longitudinal fold line, having a lower portion with a first longitudinal fold line and a second, parallel fold line spaced therebelow, the height of said center panel being the same as said upper panel, the center panels of said first and third sections including a free outer side edge, and an inner side defined by a creased hinge line, the sides of the center panel in the intermediate section being defined by the hinge lines of said adjacent first and third sections; a lower panel having a top defined by said center panel second longitudinal fold line, having a free bottom longitudinal edge, and having a first side edge and a second, opposite side edge, said lower panel being swingable upwardly about said center panel longitudinal fold lines so that it lies above the back face of said center panel, the space between said parallel fold lines providing a bottom edge face, and said upper panel being swingable downwardly about its longitudinal fold line to a position on and overlying said lower panel, said folded sections being swingable about said hinge lines to provide a triangular sign structure; and means for securing the two free end edges of said sections together to maintain said sign in its triangular condition.

2. The sign structure recited in claim 1, and having pressure sensitive adhesive means on the bottom edge of said sign for mounting the same on the roof of a vehicle.

3. A triangular car top sign adapted to be formed from a flat, one-piece blank of resilient material with a waterproof finish on its front surface, said blank including a first section, an intermediate section, and a third section, said sections being in hingedly-connected, side by side relationship, and each of said sections having an upper panel having a free top longitudinal edge, said panel having a lower portion with a first longitudinal creased fold line and a second, parallel fold line spaced therebelow, said upper panel having a first free side edge with a side fold line adjacent and parallel thereto, and said panel having a second, opposite free side edge with a side fold line adjacent and parallel thereto, a cut extending from the side edges of said panel to the adjacent side fold lines in alignment with said first longitudinal fold line, a diagonal fold line extending upwardly between said first and second longitudinal fold lines from each of said side edges to its adjacent side fold line; a center panel having a message displayed on its front face, said center panel having a top defined by said upper panel second longitudinal fold line, having a lower portion with a first longitudinal fold line and a second, parallel fold line spaced therebelow, the height of said center panel being the same as said upper panel, the center panels of said first and third sections including a free outer side edge and an inner side defined by a creased hinge line,

the sides of the center panel in the intermediate section being defined by the hinge lines of said adjacent first and third sections, said center panel having a cut extending inwardly from said side edges in alignment with said second longitudinal fold line, and having a diagonal fold line extending inwardly and downwardly from said edges between said first and second longitudinal fold lines; a lower panel having a top defined by said center panel second longitudinal fold line, having a free bottom longitudinal edge, and having free side edges with side fold lines adjacent and parallel thereto, said lower panel being swingable upwardly about said center panel longitudinal fold lines so that it lies above the back face and in a plane parallel to the plane of said center panel, the space between said parallel fold lines providing a bottom edge face, and said upper panel being swingable downwardly about its longitudinal fold lines to a position on and overlying said lower panel to provide a channel-shaped section, the side marginal portions of said upper and lower panels being deflectable downwardly about said side fold lines at an angle to the plane of said panels to provide beveled side edge faces, said cuts and diagonal fold lines forming triangular tabs positionable over the edges of said folded panels, and said folded, channel-shaped sections being swingable about said hinge lines to provide a triangular sign structure; and means for securing the two free end edges of said sections together to maintain said sign in said triangular condition.

4. The structure recited in claim 3, and having a plurality of pressure sensitive adhesive elements on the bottom edge of said sign for mounting the same on the roof of a vehicle.

5. The sign structure recited in claim 3 wherein said blank is foldable upon itself to provide a substantially flat unit for shipment or storage, and with the message thereon completely covered and protected.

References Cited by the Examiner

UNITED STATES PATENTS

1,885,282	11/1932	O'Connor	40—129
2,077,585	4/1937	Rivers	40—129
2,349,241	5/1944	Arneson	229—34
2,710,472	6/1955	Leander	40—125 X
2,810,474	10/1957	Essick	206—44
2,960,786	11/1960	Wagner	40—125 X
3,003,676	10/1961	De Nola	229—34
3,084,844	4/1963	Rattner	229—22
3,113,552	12/1963	Spooncer	40—125 X
3,153,294	10/1964	Hay et al.	40—129
3,159,274	12/1964	Burt	206—45.33

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