June 2, 1964 D. F. RICKS 3,135,063

ROTARY SIGN

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Fig.1

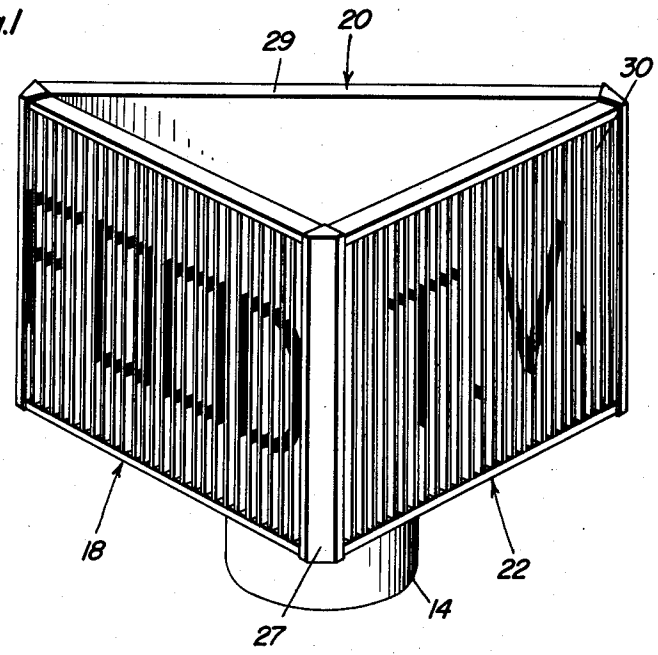
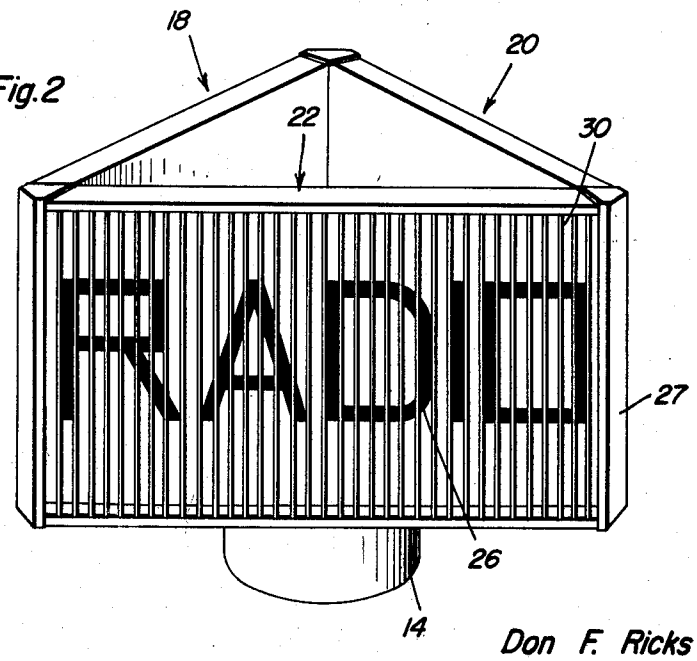


Fig.2



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ROTARY SIGN

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Fig.3

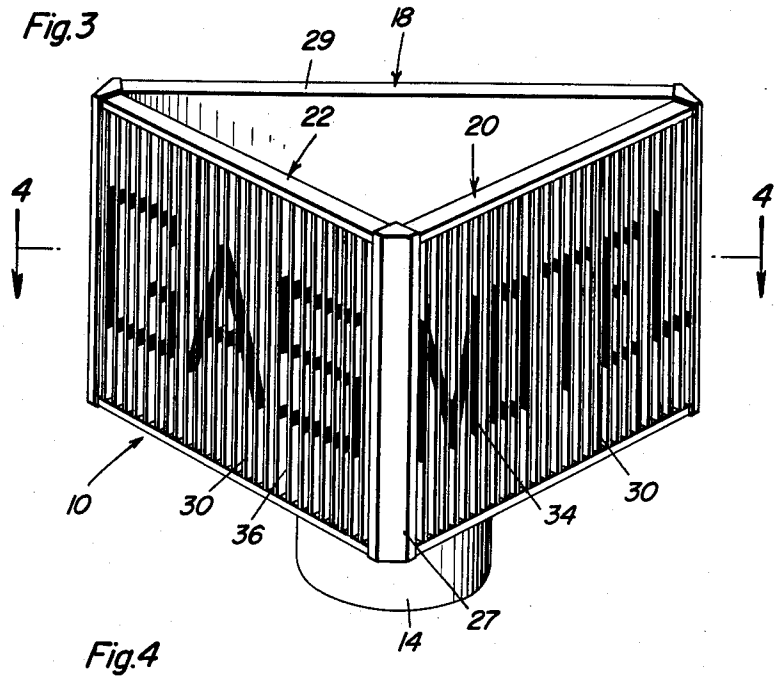
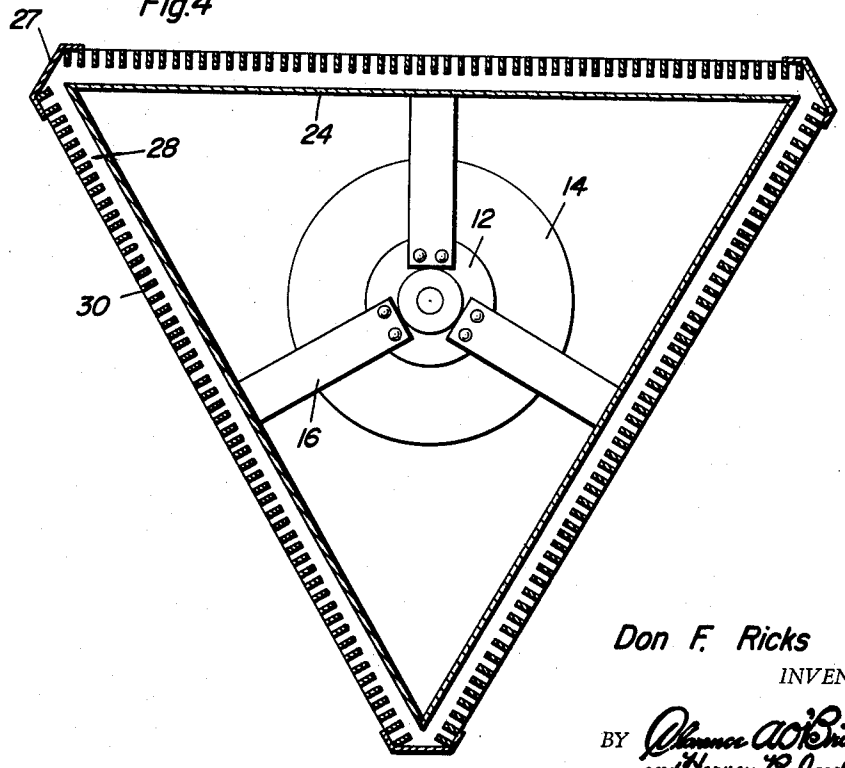


Fig.4



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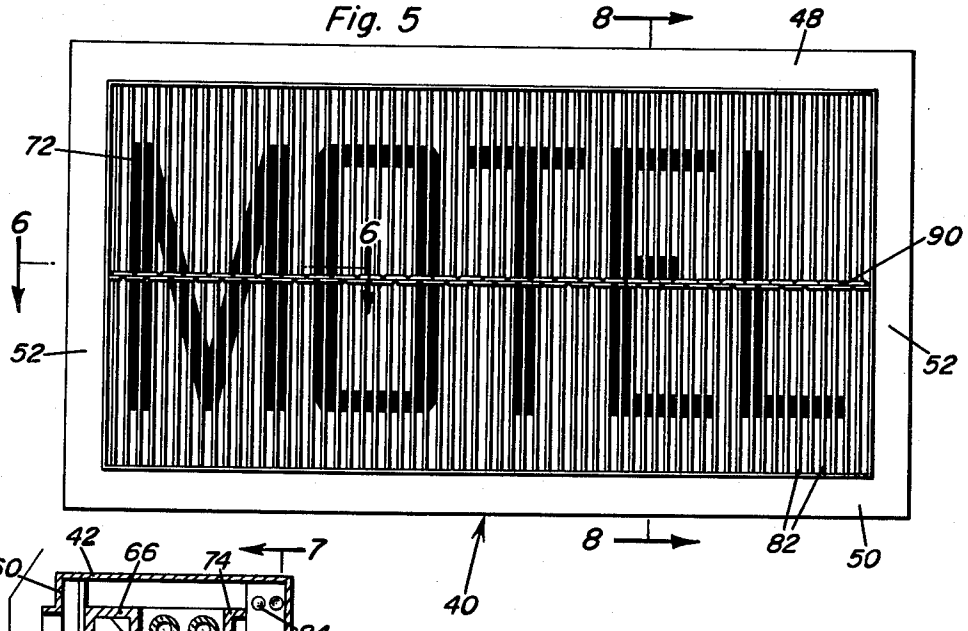
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Fig. 5



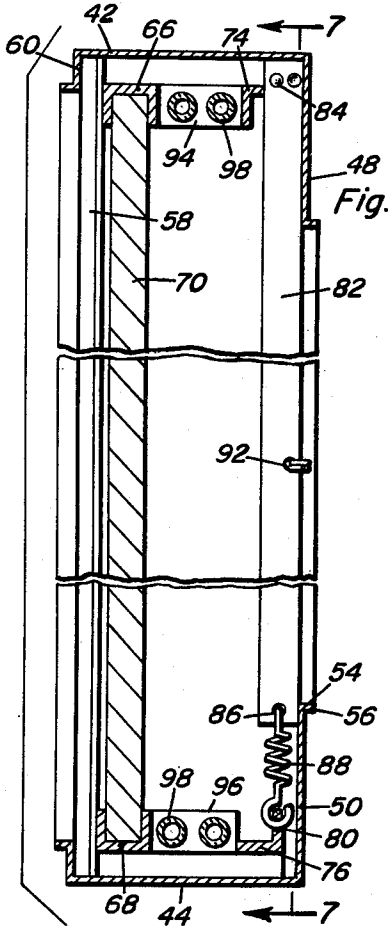
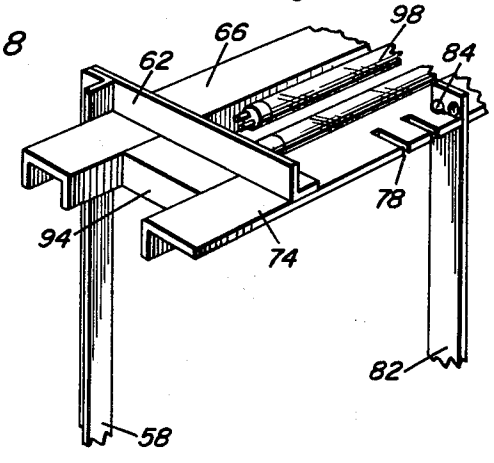


Fig. 8

Fig. 9



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ROTARY SIGN

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Fig. 6

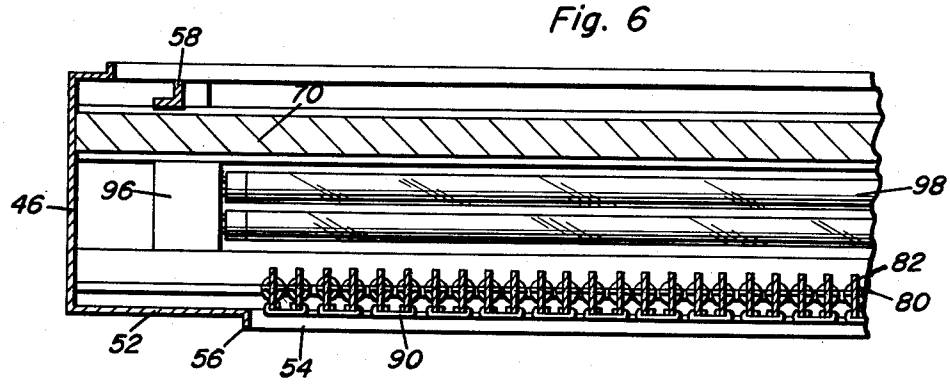


Fig. 7

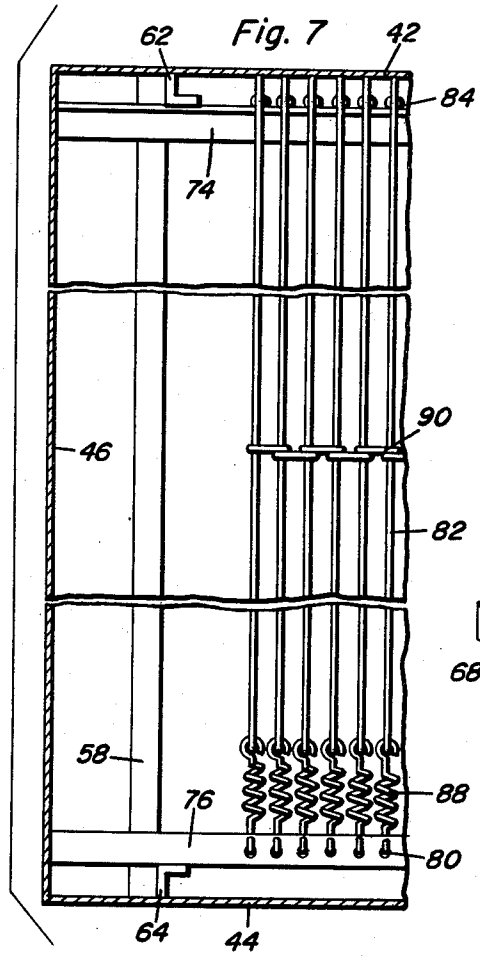
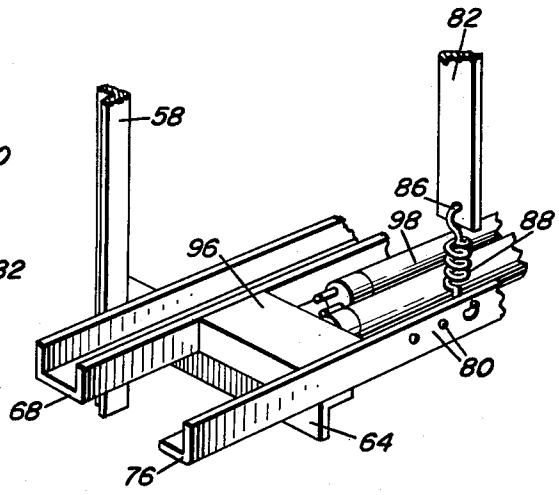


Fig. 10



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3,135,063

ROTARY SIGN

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Filed Sept. 7, 1960, Ser. No. 56,625
4 Claims. (Cl. 40—137)

The present invention generally relates to a sign construction and more particularly to a rotary sign of triangular configuration and of the louvered type and this application is a continuation-in-part of copending application Serial No. 4,714, now abandoned, filed January 26, 1960, for rotary sign.

Businesses advertising their products or services quite often resort to signs. Highway signs have been quite prevalant but a number of jurisdictions have rather stringent regulations dealing with highway signs. Various types of signs have been provided for attracting attention so that the message of the sign will be observed. Included in the development of signs are signs having changeable indicia thereon so that more than one sign or groups of indicia may be displayed from the same sign. Such devices have generally been complicated and expensive to manufacture and maintain.

It is the primary object of the present invention to provide a simplified sign intended for use as a large highway type sign or for installation in public gathering places where they will be readily observed such as in restaurants, banks, adjacent to side walks, on buildings, and in any other area where it can be observed by a number of people.

The sign is mounted on a simple turntable and is of triangular configuration so that the sides of the triangular sign will be sequentially revealed to a person. Of course, the messages or indicia imprinted on the sides of the triangular sign can be observed by the person. The most essential feature of the invention is a construction in which each side of the triangular rotatable sign is provided with a backing panel having indicia thereon together with a plurality of louvers arranged in spaced relation to the backing panel and in equally spaced relationship to each other. The louvers have indicia on each surface thereof with the indicia on one surface coacting to form one sign or message and the indicia on the other surface of the louvers coacting to form another sign or message. Thus, as each side of the triangular rotatable sign proceeds past a person or as a person proceeds past the sign, such a person will initially see the message on one side of the louvers, then look directly into and between the louvers and see the message on the backing panel and subsequently see the message on the other side of the louvers.

Another object of the present invention is to provide a louver type sign in which the louvers are suspended on coil springs or supported by coil springs in such a manner that the louvers may be constructed of light gauge metal which enables the greatest possible area of the backing panel to be observed and also enables removal of the louvers for repainting or for changing the signs as may be desired, the spring suspension holds the louvers tight regardless of expansion and contraction and wire connectors are provided for joining the louvers together so that the louvers will not flutter from the wind. This type of construction is especially desirable on the outdoor type of sign which may be mounted on a building or the like.

Still another important feature of the present invention is the provision of a rotary sign of the character described together with tubular lights being disposed intermediate the backing panel and the louvers along both the top and bottom edges thereof for illuminating the sign. The tubular lighting is of the smallest possible diameter and is

concealed from view and the lighting or illumination will actually render the louvers transparent in appearance although they are actually not transparent.

Another important feature of the present invention is the provision of a rotary sign of the louver type which is quite simple in construction, highly intriguing, attractive in appearance, attention attracting and extremely inexpensive to manufacture and maintain.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompany drawings forming a part hereof, wherein like numerals refer to like parts throughout and in which:

FIGURE 1 is a perspective view of the rotary sign illustrating the manner in which the signs on the louvers are observed;

FIGURE 2 is a perspective view of the rotary sign with the side panel thereof being disposed in perpendicular relation to the line of vision of a person observing the sign;

FIGURE 3 is a perspective view of the sign illustrating the rotary sign turned at still a further angle in relation to an observer for further illustrating observation of the signs on the louvers;

FIGURE 4 is a plan sectional view taken substantially upon a plane passing along section line 4—4 of FIGURE 3 illustrating the structural details of the sign;

FIGURE 5 is a side elevational view of a modified form of the present invention;

FIGURE 6 is a detailed sectional view taken substantially upon a plane passing along section line 6—6 of FIGURE 5;

FIGURE 7 is a detailed sectional view taken substantially upon a plane passing along section line 7—7 of FIGURE 8 illustrating the mounting structure for the louvers;

FIGURE 8 is a detailed sectional view on an enlarged scale taken substantially upon a plane passing along section line 8—8 of FIGURE 5 illustrating the relationship of the louvers, the backing panel and the tubular lights;

FIGURE 9 is a fragmentary perspective view of the upper corner of the frame illustrating the structure thereof; and

FIGURE 10 is a fragmentary perspective view of the lower corner of the framework illustrating the structure thereof.

Referring now specifically to FIGURES 1–4 of the drawings, the numeral **10** generally designates the basic triangular sign of the present invention that is rotatably supported on a centrally disposed turntable **12** carried by a base **14** and which may be electrically driven by a suitable electric motor. The sign itself is supported by a plurality of radially extending support brackets **16** which support the triangular sign **10** from the turntable **12** for rotation about a central vertical axis.

The sign **10** is of triangular configuration and includes three equal sides designated by the reference numerals **18, 20**, and **22**. The three sides **18–22** are of the same structural arrangement but with different indicia appearing thereon.

Each of the sides **18–22** includes a backing panel **24** of sheet material and the outer surface of the backing panel **24** is provided with indicia **26**. The edges of the backing panels **24** are secured together by a hollow generally U-shaped corner juncture member **27**. The bottom edge of each of the back panels is provided with a flange **28** and there is also a flange **29** at the top edge of each of the back panels **24**.

Extending rigidly between the flanges **28** and **29** and attached thereto in any conventional manner is a plurality

of louvers 30 disposed perpendicular to the backing panel 24 and in spaced relation thereto and which extend in vertical parallel spaced relation between the flanges 28 and 29 on the side panels 18–22. Each of the louvers is provided with indicia 34 on one surface thereof and indicia 36 on the other surface thereof.

A person disposed in stationary relation to the rotating sign as illustrated in the manner of FIGURE 1 will see the indicia "TV" formed by the indicia on one side of the louvers and the word "FOOD" on the other side of the louvers. As the side 22 approaches the perpendicular relation to the line of sight, side panel 22 is then in position for observing the indicia 26 on the backing panel 24 as illustrated in FIGURE 2.

FIGURE 3 illustrates an arrangement similar to FIGURE 1 but with the turntable turned even further with the side panels 20 and 22 arranged in angular relation to the line of vision of the observer.

With this construction, a person disposed at a fixed point of observation will see a rotatable sign in which each side of the triangular sign will provide a changing sign without any movable parts thereby providing a highly intriguing type of sign. In other words, as the device turns and the point of observation stays stationary, the person will initially see the sign or message on the approaching sides of the louver, subsequently see the sign or message on the backing panel as he looks between the louvers when the backing panel is substantially perpendicular to the line of vision and then finally see the sign or message on the receding surfaces of the louvers. The louver and back panel arrangement is such that only one sign is visible at a time and in which the signs do not interfere with each other.

The three equal sides of the sign may be constructed of sheet metal, sheet plastic, cardboard or the like and the turntable may conveniently rotate 3½ r.p.m. and each side of the triangular sign has three signs thus providing a total of 9 different signs. In order to avoid reflection of the sign painted on the back panel upon the signs painted on the louvers, it is necessary that the back panel be set back a distance substantially equal to twice the width of the louvers.

The advantages of this sign are to initially present an advertiser's name singly and because of the changing, rotating motion, the sign will attract attention. The signs may be constructed to operate in restaurants and the like where people are relaxing and not moving rapidly so that they can see the changing signs. Also, the machine is small, neat and compact making it easy to locate in various localities and clearly, the sign is simple to manufacture and includes a relatively inexpensive sign construction.

The sign also has many advantages for use as a large highway type sign. For example, the sign could be built on a scale of 20 or 30 feet in length on each side. One of the unique features about this sign is that it attracts more attention than the ordinary rotating sign by virtue of the fact that it has the illusion of changing the copy of the sign as a person observes the sign. This illusion can only be accomplished satisfactorily by rotating this louver type sign. It is not obtained through a stationary louver type sign because of the obvious difficulty incident to observation of the stationary sign by moving traffic. When the sign moves, the change is accomplished without necessity of movement by the observer.

Referring now specifically to FIGURES 5–10 of the drawings, the numeral 40 generally designates a modified form of the invention and an improved form of the invention. The triangular configuration and the rotational supporting turntable is still incorporated into the structure the same as in conjunction with FIGURES 1–4. All of the advantages and operational features of the device of FIGURES 1–4 are maintained. In FIGURES 5–10, only one side panel of the sign is indicated and

includes a top member 42, a bottom member 44 and end members 46. The top member 42 is provided with a depending flange 48 and the bottom member 44 is provided with an upstanding flange 50 while the end members 46 are provided with inwardly extending flanges 52 thus forming a peripheral flange for the sign which peripheral flange defines an opening 54. The opening 54 is defined by a slightly outwardly protruding flange 56 on the members 48, 50 and 52.

Extending vertically adjacent the rear of the sign, there is a pair of angle iron members 58 secured to an inwardly extending peripheral flange 60 on the rear edges of the members 42, 44 and 46. Attached to the vertical angle iron members 58 is an upper forwardly extending angle iron member 62 and a lower forwardly extending angle iron member 64 which are disposed against the inner surface of the upper or top member 42 and the lower or bottom member 44 respectively.

Supported from the angle iron members 58 and 62 is a top channel shaped member 66 facing downwardly and secured to the angle iron member 58 and the angle iron member 64 is a bottom channel shaped member 68 facing upwardly which forms a channel shaped guide for receiving a backing panel 70 which has indicia 72 thereon forming a sign or message.

Disposed adjacent the forward end of the angle iron member 62 and supported therefrom is a top angle iron member 74. Supported from the bottom angle iron member 64 is a horizontally disposed bottom angle iron member 76. Note that the top angle iron member 74 has the vertical flange thereof disposed inwardly while the bottom angle iron member 76 has the vertical flange disposed outwardly.

The horizontal flange of the top angle iron member 74 is provided with a plurality of slots or notches 78 extending inwardly from the edge thereof and the vertical flange of the bottom angle iron member 76 is provided with a plurality of longitudinally spaced apertures 80 therein.

Supported intermediate the angle iron members 74 and 76 is a plurality of louvers 82 of relatively light gauge metal having laterally extending protuberances or projections 84 adjacent the upper edge thereof and an opening 86 adjacent the lower end thereof. The louver 82 is moved laterally into one of the slots 78 with the protuberances or projections 84 engaging the upper edges of the slot 78. A coil spring 88 is engaged with the aperture 86 in the lower end of the louver 82 and the lower end of the spring 88 is engaged with one of the apertures 80 in the lower angle iron member 76 thus supporting the louvers 82 between the angle iron members 78.

Centrally disposed between the louvers 82 are a plurality of wire connectors 90 which have the end portions thereof extending through small apertures 92 adjacent the center forward edge of the louvers 82 thus spacing the louvers from each other equally and retaining this spaced relationship. This enables relatively light gauge louvers of whatever material desired to be employed while yet maintaining the spaced relationship and preventing flutter of the louvers which may be caused by wind.

Intermediate thet top channel member 66 and the top angle iron member 74 is a pair of tubular light socket members 94 and intermediate the bottom channel member and the bottom angle iron member 76 is a pair of tubular light socket members 96 each of which receives a pair of tubular lights 98 of conventional construction and which are of the small size or slim line type of tubular lights. The orientation of the tubular lights 98 is such that they are concealed behind the flanges 50, and 48 whereby the indicia on the front surface of the backing panel 70 and on both surfaces of the louvers 82 will be illuminated.

The advantages of the illumination are, of course, to

first illuminate the sign and second to conceal the light to provide a smooth and compact appearance and also to enhance the appearance of the sign since the louvers will assume substantially a fluorescent appearance which also will add in the attention attraction characteristics of the sign. The illumination feature of this sign is somewhat similar to the effect of a translucent internally lighted plastic sign because light comes through the sign from the rear. By simply removing five or six of the louvers, the lights may be serviced easily, that is, the light may be removed and replaced as required.

The light weight, light gauge louvers enable the sign to be constructed of relatively light weight material so that they may be constructed in relatively large sizes and still be easily handled and supported on areas such as roof tops or the like in heavily populated sections of the country thus enabling the most desirable locations to be obtained for the signs.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A rotary sign construction comprising a hollow sign construction of triangular configuration, means supporting said sign for rotation about a vertical axis, said sign including a plurality of equal size side panels, each of the side panels including a backing panel having indicia forming a message on the outer surface thereof, and a plurality of vertically disposed louvers disposed in parallel relation to each other and in perpendicular relation to the back panel, said louvers being spaced from the surface of the backing panel having indicia thereon, one surface of said louvers having indicia thereon combining to form a message, the other surface of said louvers having indicia thereon forming a message whereby the message formed by the approaching surfaces of the louvers towards a point of observation will be initially observed during rotation of the sign, the indicia on the outer surface of the backing panel being observed when the louvers are substantially parallel to a line of vision from the point of observation while the backing panel is perpendicular to the line of vision, the message on the other surface of the louvers being observed from the point of observation as the louvers recede during rotation of the sign, said louvers extend between an upper horizontal flange and a lower flange, said upper flange having a plurality of slots formed therein and communicating with one edge thereof for receiving the louvers, each of the louvers having protuberance means adjacent the upper end thereof for engagement with the edges of the slots for supporting the upper ends of the louvers, spring means interconnecting the lower ends of the louvers and the lower flange for suspending the louvers between the flanges.

2. The structure as defined in claim 1 wherein the central portions of said louvers are interconnected by wire connecting and spacing means for retaining the louvers in spaced relation and preventing flutter of the louvers.

3. The structure as defined in claim 1 wherein an inwardly extending flange is provided peripherally of the sign in overlying relation to the end edges of the louvers, and tubular light means disposed inwardly of the louvers and concealed behind the inwardly extending flange for illuminating the louvers whereby the louvers are illuminated from the rear surface thereof.

4. The structure as defined in claim 1 wherein an upper and lower channel shaped member is provided, the backing panel being received in said channel shaped members.

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