Oct. 24, 1939. F. A. SUNDERHAUF 2,177,467

ILLUMINATED TIRE SIGN

Filed April 7, 1939

Fig. 1

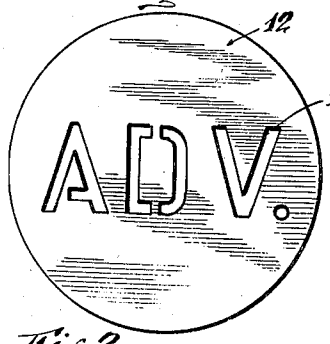


Fig. 3

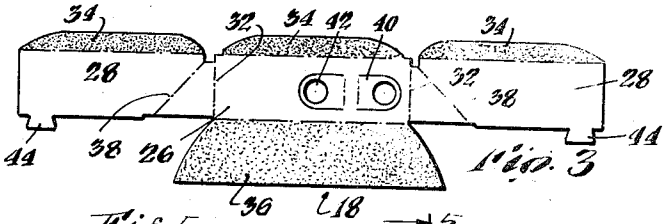


Fig. 5

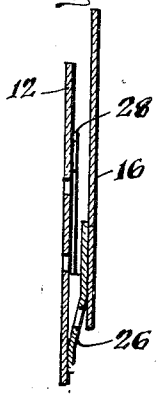


Fig. 4

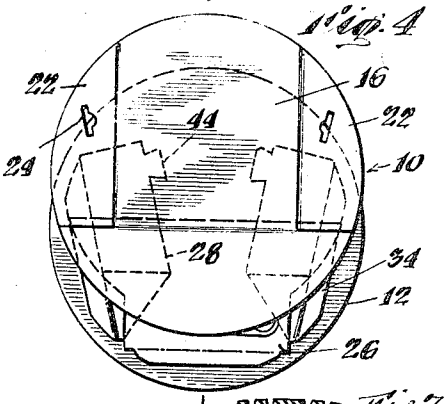


Fig. 2

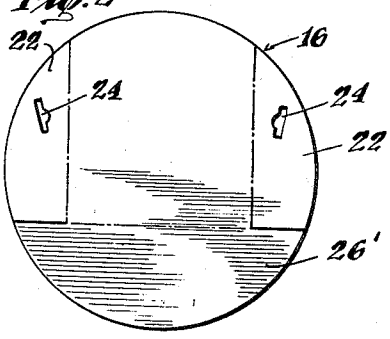


Fig. 6

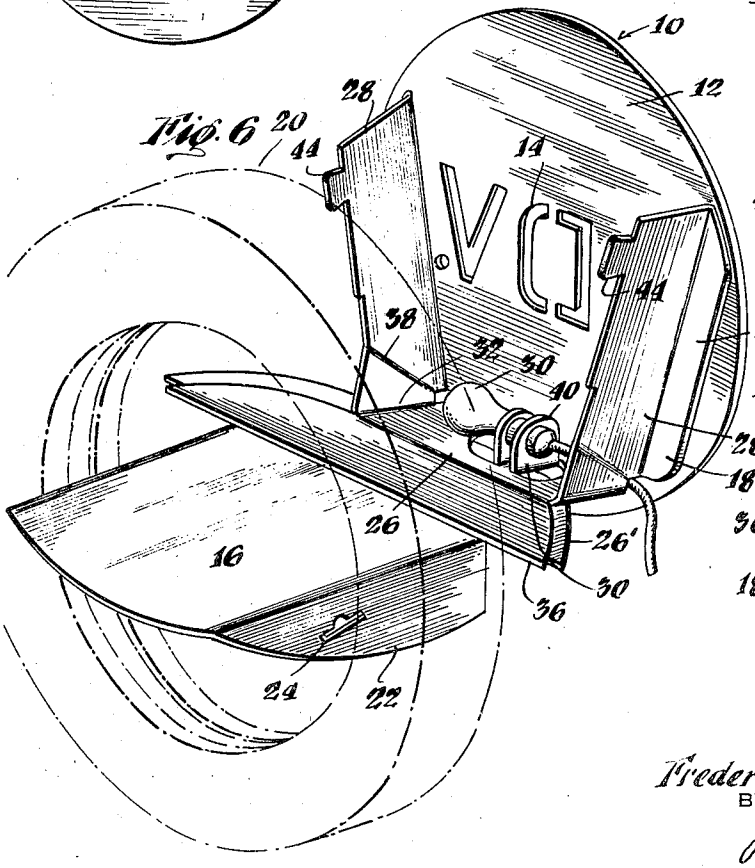
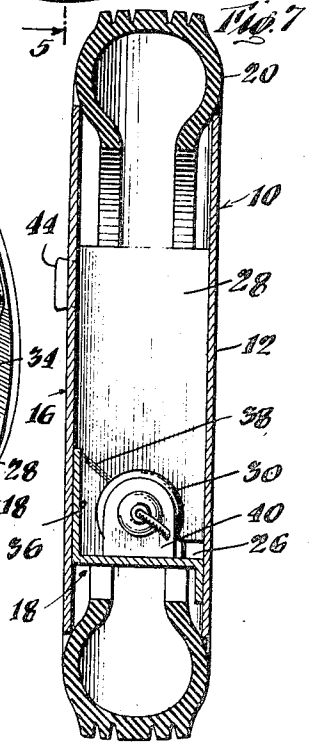


Fig. 7



INVENTOR

Frederick A. Sunderhauf

BY John A. Blair

ATTORNEY

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ILLUMINATED TIRE SIGN

Frederick A. Sunderhauf, Rutherford, N. J., assignor to Reynolds Metals Company, Richmond, Va., a corporation of Delaware

Application April 7, 1939, Serial No. 266,458

8 Claims. (Cl. 40—133)

This invention relates to an improved collapsible, or knock-down, sign formed of cardboard stock or the like, preferably foil coated on one or more surfaces, and of a type, if desired, adapted to give a glowing "neon" effect at night and also to provide a sign for both day and night use and is to be regarded as an improvement of the class of illuminated sign described and claimed in U. S. Patent No. 2,086,893 issued July 13, 1937, to Charles W. Belden and U. S. Patent No. 2,148,179 issued February 21, 1939, to Frederick A. Sunderhauf.

Heretofore, various signs, either illuminated or otherwise, have been suggested for use with automobile tires. However, most have been bulky, or unattractive, or expensive to fabricate, or have incorporated breakable glass parts or have been expensive to operate.

Therefore, it is an object of my invention to provide a collapsible, preferably metal foil covered, cardboard sign which may be shipped flat, which is cheap and economical to fabricate, being formed of simple parts, which is easy to assemble, and which when assembled forms a strong stable display structure suitable for day and night display purposes, and which is attention compelling.

It is a further object of my invention to provide such a sign or display which may be readily incorporated within the opening of a rubber automobile tire, and which will fill the opening in an attractive manner. Large sums of money have been expended upon tire advertisements but to date no one has created an attractive display, which may be shipped in collapsed form to dealers, for incorporation within, or for combination with, an automobile tire, and which display or sign is cheap and economical to fabricate, easy to assemble, and economical to operate.

It is a further object of my invention to form such a sign by die scoring and die cutting cardboard or like stock, by modern methods from easily formed simple pieces, so that once the proper dies are obtained, thousands of the displays may be die cut and die scored, and assembled in flat collapsible form, at little expense.

These and various objects and advantages will be readily understood from the following description taken in connection with the accompanying drawing of a preferred embodiment of the invention, in which modifications may be made without departing from the scope of the appended claims.

In the drawing:

Fig. 1 is a plan view of a flat, die cut front or display panel section of a sign embodying my invention.

Fig. 2 is a plan view of a die cut and die scored rear member of a sign embodying my invention.

Fig. 3 is a plan view of a foldable flat collapsible connective member for joining the members illustrated in Figs. 1 and 2, the connective member having die cut support members for an electrical bulb and a socket.

Fig. 4 is a perspective of a sign, in assembled form, embodying the members illustrated in Figs. 1, 2 and 3.

Fig. 5 is a section taken on the line 5—5 of Fig. 4, except that the sign has been flat collapsed for shipping.

Fig. 6 illustrates the method of folding the rear member of a display embodying my invention, so that the said rear member can be projected through the opening of a tire and a rubber automobile tire is indicated in this figure.

Fig. 7 is a section of an automobile tire and a sign embodying my invention, in assembled position, for display or advertising purposes.

In these figures, a flat foldable collapsible sign or display 10 will be preferably formed of cardboard stock, or like materials, with a front display or panel portion 12, die cut with an advertising stencil as indicated at 14, a rear member 16, and a flat collapsible connecting and supporting member 18.

The cardboard stock may be covered with metal foil if desired as this adds to the attention compelling character of the sign.

Front member 12 and rear member 16 will usually be made circular in form and of equal size, slightly larger than the opening in a tire 20, as indicated in Fig. 7.

Member 16 will normally be provided with lines of fold so that the rear member may be projected through the opening of a tire, as indicated in Fig. 6. These lines of fold may take the form as indicated in Fig. 2, thus providing two hinged wing members identified at 22 provided with locking slots 24 and a hinged bottom portion 26. Wing members 22 are folded only when being pressed through the tire opening and otherwise will normally lie in the plane member 16 when the sign is set up for display.

An electrical bulb and socket supporting and connective bridge member 18 will be provided for connecting front member 12 and rear member 16 in a strong and stable manner, the member 18 being simply die cut and die scored from a single blank of material and adapted, when assembled, to provide a reflective bottom portion

26 and two side portions 28 for the light emanating from electrical light bulb 30.

The bottom portion 26 and the side portions 28 may take the form of an elongated rectangular strip with lines of fold 32, provided by die scoring the said members and hinged flap members 34 will be provided upon portions 26 and 28, the hinged flap members 34 will normally be adhesively connected to the front member 12 as indicated, by any suitable adhesive. Bottom portion 26 will also be provided with a flap member 36 of generally similar conformation as hinged flap portion 26' of rear member 16 and will be adhesively connected thereto.

Diagonal fold lines 38 may be die scored in side portions 28 of connective member 18 so that the side portions may be collapsed flat as indicated in Figs. 5 and 6.

The interior of the sign will normally be colored to provide a reflective surface as desired so that light rays emanating from bulb 30 will strike the colored areas upon the interior of the sign and so that such areas will partially project colored light through stencil 14, and so that an observer looking through the stencil 14 will see illuminated colored surfaces within the interior of the sign.

Foldable and hinged tabs 40 having openings 42 will be die cut and die scored in portion 26 of connective member 18 to form an electrical socket and bulb support.

Also, side members 28 are provided with locking tabs 44 properly positioned to lock in slots 24 of side wing portions 22 of rear member 16, in order to keep the side members substantially straight in a vertical plane and also to hold the side wing members 22 in the same plane as the rest of member 16, namely a vertical plane, when the sign is assembled.

It will be recognized that refinements and modifications may be made in displays which embody my invention, either in whole or in part, but that the essence of my invention comprises a flat collapsible die cut and die scored illuminable sign or display which may be cheaply and economically formed from preferably three main die cut and die scored pieces and which when assembled gives a strong and stable display for use in combination with an automobile tire. Of course the display could be fabricated from sheet metal or the like. It will be further recognized that while the illustrated form of the invention which I have described represents the preferred embodiment, I do not wish to limit myself to the details as shown, since it is obvious that the same may be varied without departing from the spirit of the invention as described and claimed in the appended claims.

I claim:

1. A flat collapsible sign adapted to fill the central opening an automobile tire, said sign including a front panel member adapted to be positioned on one side of the tire, a rear panel member adapted to be positioned on the other side of the tire, and a connective bridge member foldably connected to at least one of said panel members and having means of connection to the other of said panel member.

2. A structure as defined in claim 1 wherein the sign is constructed of die cut and die scored cardboard or like stock and is flat folding.

3. A structure as defined in claim 1 wherein the sign is constructed of die cut and die scored cardboard or like stock and is flat folding, and wherein the two panel members are substantially equal in size but larger than the tire opening and the rear panel member is formed of at least two hingedly connected parts.

4. A structure as defined in claim 1 wherein the sign is constructed of die cut and die scored cardboard or like stock and is flat folding, and wherein the two panel members are substantially equal in size but larger than the tire opening and the rear panel member is formed of at least two hingedly connected parts, and wherein the connective bridge member has a bottom member and two side members formed of an elongated rectangular strip of material and is flat collapsible, the said members being permanently associated with the panel members so that all are collapsible flat.

5. A structure as defined in claim 1 wherein the sign is constructed of die cut and die scored cardboard or like stock and is flat folding, and wherein the two panel members are substantially equal in size but larger than the tire opening and the rear panel member is formed of at least two hingedly connected parts, and wherein the connective bridge member has a bottom member and two side members formed of an elongated rectangular strip of material and is flat collapsible, the said members being permanently associated with the panel members so that all are collapsible flat, and wherein the front panel member is provided with a die cut stencil and the sign is illuminable.

6. A structure as defined in claim 1 wherein the sign is constructed of die cut and die scored cardboard or like stock and is flat folding, and wherein the two panel members are substantially equal in size but larger than the tire opening and the rear panel member is formed of at least two hingedly connected parts, and wherein the connective bridge member has a bottom member and two side members formed of an elongated rectangular strip of material and is flat collapsible, the said members being permanently associated with the panels so that all are collapsible flat, and wherein the front panel member is provided with a die cut stencil and the sign is illuminable, and wherein the interior of the sign includes colored reflective material.

7. A structure as defined in claim 1 wherein the two panel members are substantially equal in size, but larger than the tire opening, and the rear panel member is formed of at least two parts adapted to be folded so that the rear panel member can be inserted through the tire opening.

8. A combination as defined in claim 1 wherein the two panel members are substantially equal in size but larger than the tire opening and the rear panel member is formed of at least two connected and foldable parts so that the rear panel member can be inserted through the tire opening, and wherein the front panel member is illuminated by an ordinary electric bulb.

FREDERICK A. SUNDERHAUF.