United States Patent [19]

Chandos

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[54] **INFLATABLE DISPLAY BANNER**

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[52] **U.S. Cl.** .....**40/125 F,** 40/125 H, 40/145, 40/212

[51] **Int. Cl.**.....**G09f 7/18**

[58] **Field of Search**.....40/125, 125 E, 125 F, 40/125 G, 125 H, 125 J, 212, 214, 217, 145; 46/87, 89, 90, 88; 52/2

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[57] **ABSTRACT**

An inflatable display banner that may be collapsed for storage and/or shipment and inflated to display advertising indicia or the like. The banner is comprised of a flexible sheet adapted to receive indicia and a flexible, inflatable tube secured to the sheet about the periphery of the latter. Securing elements are also provided for securing the inflated banner to a standard.

1 Claim, 3 Drawing Figures

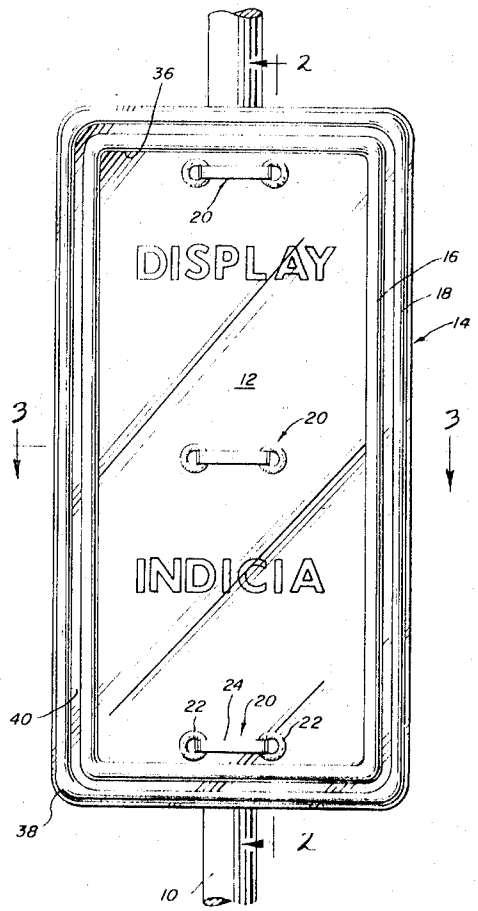


FIG. 1

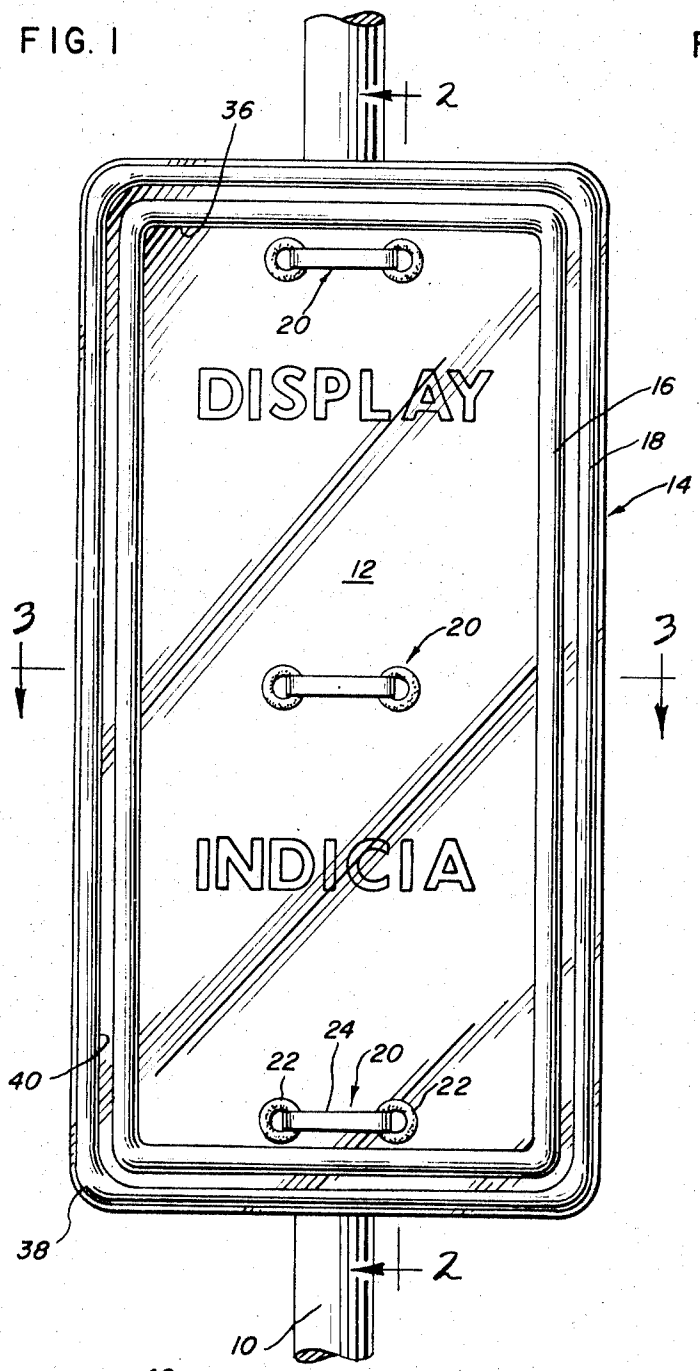


FIG. 2

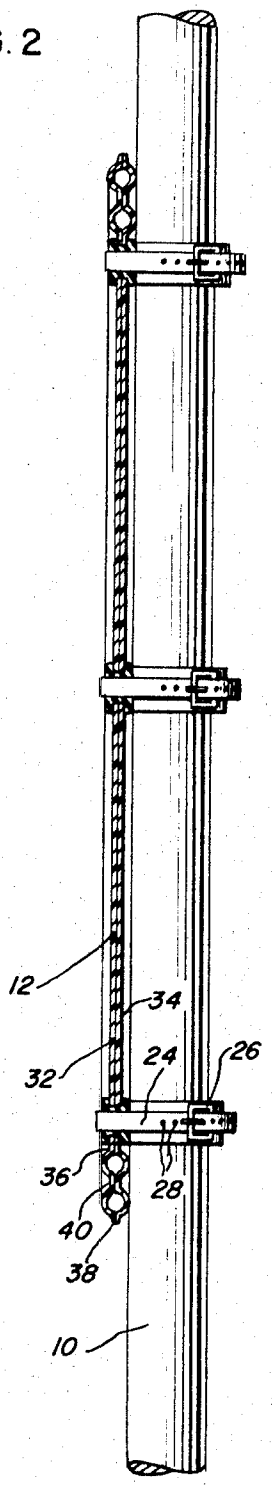
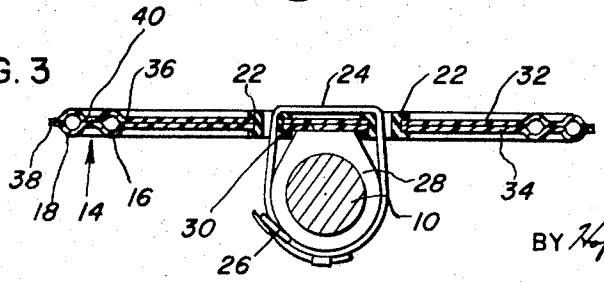


FIG. 3



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INFLATABLE DISPLAY BANNER

BACKGROUND OF THE INVENTION

This invention relates to display devices such as banners and more particularly, to a banner which may be completely knocked down for shipment and/or storage, which may be easily set up for display purposes and which may be economically manufactured.

Recent years have seen an increasing need for inexpensive display devices which may be secured to standards. Out of this need, a number of proposals have arisen for knock-down types of banners which may be stored and/or transported in a relatively compact form. Quite frequently, such knock-down banners will include a flexible display panel which may be compacted for storage or shipment thereby minimizing space requirements. However, proposals heretofore known still require the use of rigid structural members of a type which cannot be collapsed for the purpose of supporting the flexible display panel.

SUMMARY OF THE INVENTION

The principal object of the invention is to provide a new and improved display banner which can be knocked down in its entirety for storage and/or shipment. More particularly, it is an object to provide such a banner wherein even the structural members used for support of a flexible panel may be completely collapsed.

The foregoing objects are realized in the exemplary embodiment by a construction including a flexible sheet serving as a display panel and adapted to receive indicia for display. About the periphery of the flexible sheet there is secured a closed loop, flexible, inflatable tube which, when inflated, is essentially planar and which serves as the structural support for the panel. Further provided are means associated with at least one of the tubes and the sheet for securing the banner to a standard.

In the preferred embodiment, the sheet is formed of two plies of a flexible material and the tube is defined by the space between an inner peripheral seal between the plies and an outer peripheral seal between the two plies. If the flexible material is a plastic, the seal may be formed by conventional heat sealing or solvent welding techniques.

In its best form, there is further provided an intermediate peripheral seal between the two plies so that two such tubes are defined. This features maximizes the rigidity of the support elements for the panel, namely, the tubes, while minimizing the front to back depth of the banner thereby allowing the same to be easily attached to a display stand.

In the preferred embodiment, the securing means comprise at least two spaced pairs of grommets extending through the sheet. A securing strap is provided for each pair of grommets and is adapted to be trained about a standard. Further provided is a spacer element that is adapted to be interposed between the strap and the display standard and which has a flat, sheet engaging surface.

Other objects and advantages of the invention will become apparent from the following specification taken in conjunction with the accompanying drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front elevation of an inflatable banner made according to the invention;

FIG. 2 is a vertical section taken approximately along the line 2—2 of FIG. 1; and

FIG. 3 is a horizontal section taken approximately along the line 3—3 of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

An exemplary embodiment of the banner made according to the invention is illustrated in FIG. 1 and is seen to be mounted on a standard in the form of a pole **10**. The banner includes a display panel **12** adapted to receive display indicia and formed of a sheet of flexible material and further having secured thereto about its periphery, a closed loop inflatable tube means, generally designated **14**. In the exemplary embodiment, the tube means **14** are defined by a pair of tubes **16** and **18** respectively which serve, when inflated, as structural supports for the panel **12**.

Also provided are means for securing the banner to the standard **10**, generally designated **20**. Each of the securing means **20** comprises a pair of spaced grommets **22** in the display sheet **12** through which a securing strap **24** is passed. As best seen in FIGS. **2** and **3**, each strap **24** terminates at one end in a conventional buckle **26** and includes apertures **27** at its other end for cooperation with the buckle **26**. The strap **24** may be trained about the standard **10** as illustrated in FIG. **3** with a spacing element **28** interposed therebetween. The spacing element **28** includes a flat, sheet engaging surface **30** for engaging the back of the sheet **12** to space the same sufficiently from the standard **10** so that contact of the tube means **14** with the standard will not cause the banner to be distorted from its basically planar shape.

The manner of fabrication of the flexible sheet **12** and the tube means **14** can best be understood from an examination of FIGS. **2** and **3**. In particular, the sheet **12** is formed of a pair of plies **32** and **34** of flexible material. The material, for example, may be any suitable plastic of the type that may be heat sealed or solvent sealed by conventional techniques. The tubes **16** and **18** are formed by peripheral seals between the two plies. For example, the tube means **14** are defined by the space between an inner peripheral seal **36** between the tube plies **32** and **34** and an outer peripheral seal **38** between the two plies. To define the individual tubes **16** and **18**, there may be further provided an intermediate peripheral seal **40**.

With regard to the formation of more than one individual tube as the tube means **14**, the use of two or more tubes permits the same amount of rigidity that could be obtained only with a significantly larger tube that would increase the front to back depth of the banner. In order to avoid complicating the securing of the same to a standard **10** due to possible distortion caused by the abutment of the tube means against the standard **10** and the pulling of the sheet **12** towards the same by the securing means **20**, two or more tubes may be used to provide maximum rigidity with a reduced front to back depth.

Also provided are means (not shown) whereby a gas under pressure may be introduced into the interior of the tube means **14**. Typically, such means may form a conventional manually operated valve such as those customarily used on air mattresses or the like or, a conventional tire valve. Such a valve may be provided for each of the tubes **16** and **18** or, a single valve may be provided if the intermediate seal **40** between the tubes **16** and **18** is broken at one point to permit flow of gas between the two tubes.

From the foregoing, it will be appreciated that the banner, with the tubes **16** and **18** in a collapsed state may be folded into a relatively small space for shipment or storage. When the banner is desired to be used, it is only necessary to remove the same from an appropriate container, secure the same to a standard and inflate the tubes **16** and **18**. In this regard, one extensive use of a banner made according to the invention is contemplated to occur at service stations or the like and in such instances, it will be desirable that the valve for filling the tubes **16** and **18** be a conventional tire valve so that the tubes **16** and **18** may easily be filled from an existing tire air supply system.

The display indicia may then be located on the sheet

12 as indicated in FIG. **1**. For example, a sheet of paper bearing indicia could be pasted thereon. Alternately, the sheet **12** may be pre-printed with the display indica if desired.

I claim:

1. An inflatable banner comprising:

a sheet of flexible material adapted to receive indicia for display;

a closed loop, inflatable tube formed of flexible material secured to said sheet about the periphery of the latter and constructed to define a substantially planar form upon inflation; and

securing means for securing said sheet and said tube, when inflated, to a standard, including at least two spaced pairs of spaced grommets in said sheet, a strap for each pair of grommets and passing through both grommets of each pair and adapted to be trained about and secured to a standard, and a plurality of spacer elements, one for each strap, and each having a flat, sheet engaging surface and being interposable between the standard and corresponding strap.

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