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(54) **WIND RESISTANT SIGN**

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(76) **Inventors: Stefan N. Tolna, Westland, MI (US);
David U. Hillstrom, Novi, MI (US)**

**Correspondence Address:
HARNESSE, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303 (US)**

(57) **ABSTRACT**

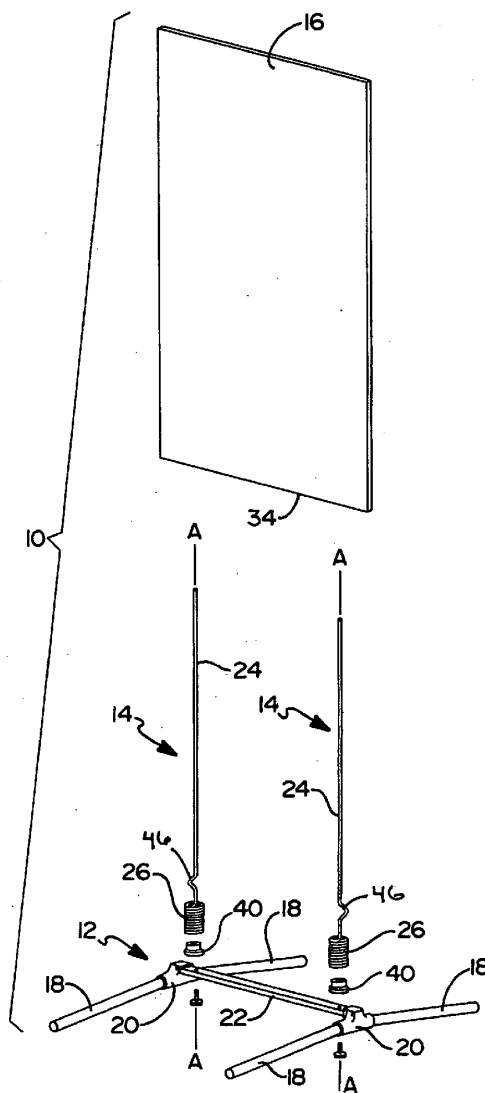
A display device and method of assembling the same is provided having a support structure and first and second support members. The support structure generally includes a plurality of legs and a cross bar. Each support member generally includes a staff portion and a spring element for biasing the staff portion in an upright position. The display device further includes a corrugated display card having a plurality of vertical channels therein for engaging the staff portions of the support members.

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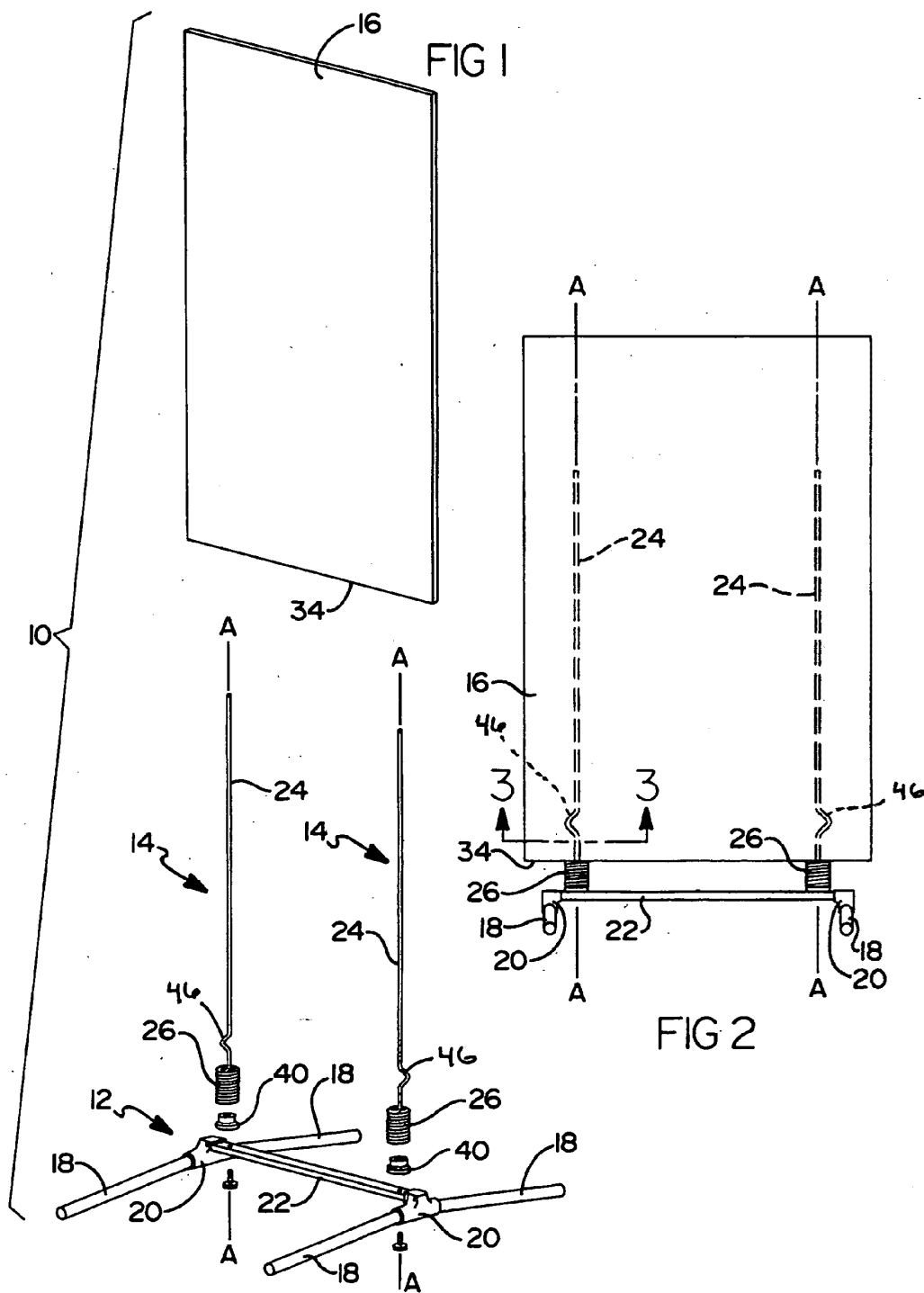
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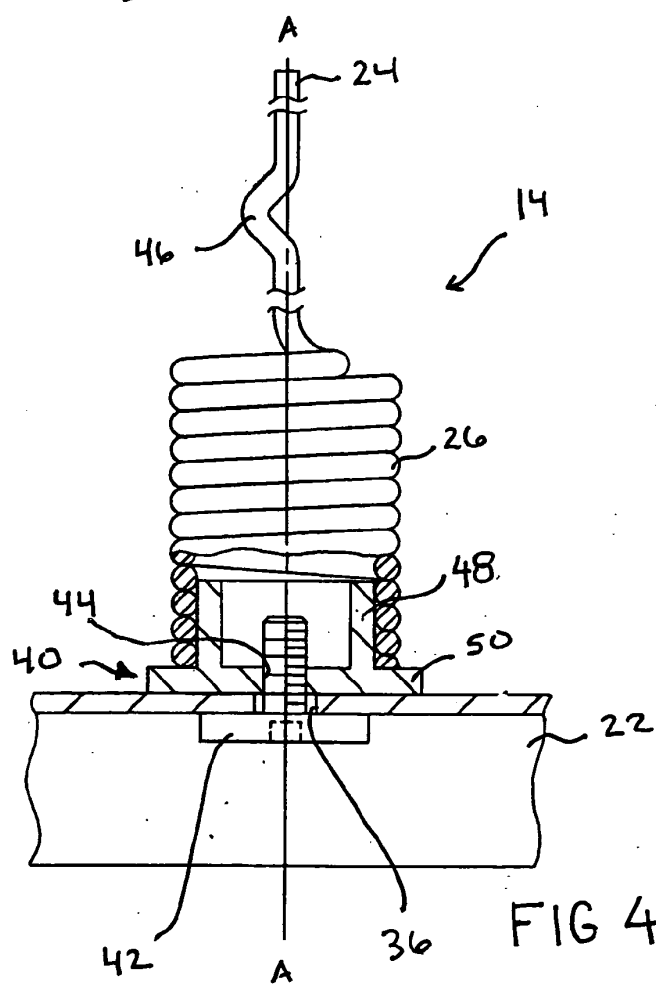
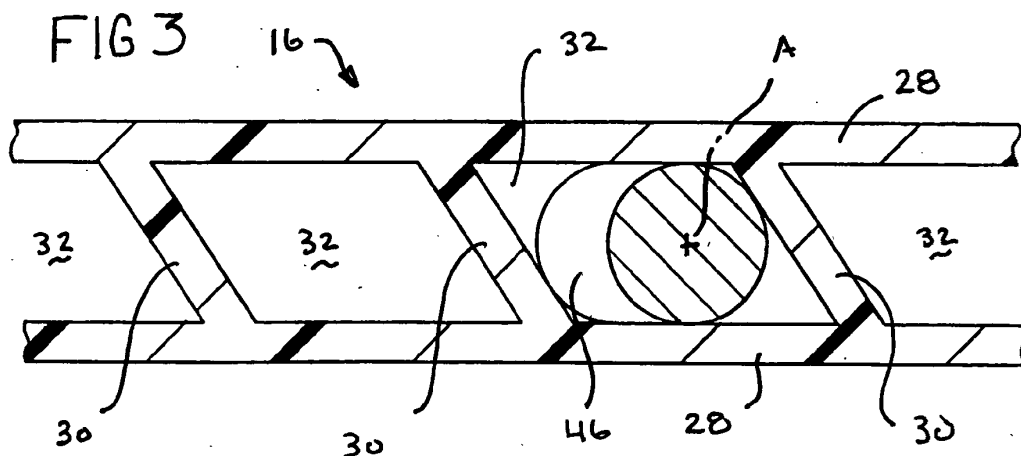
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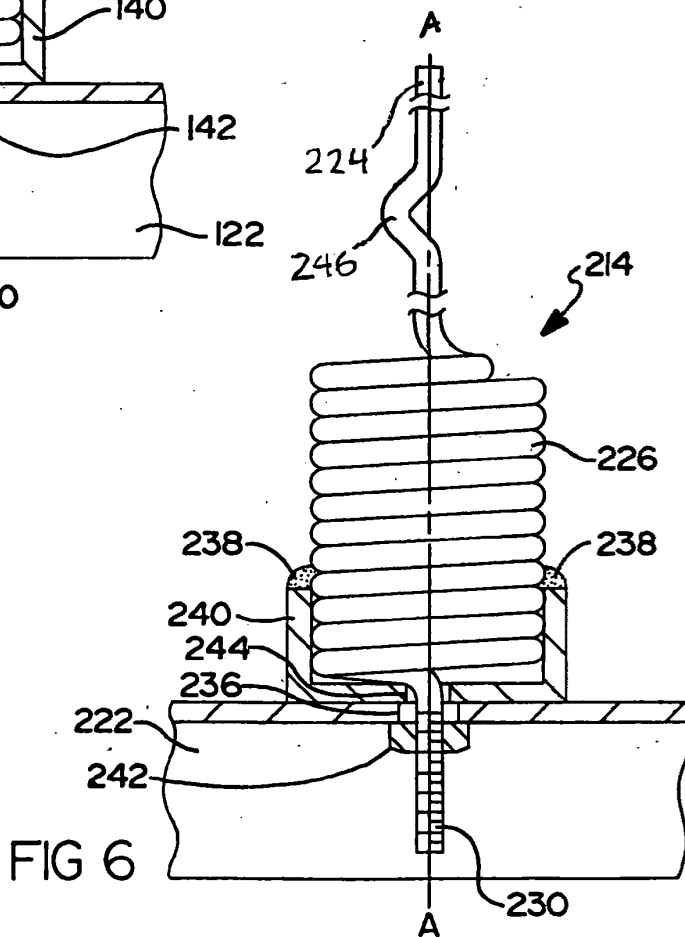
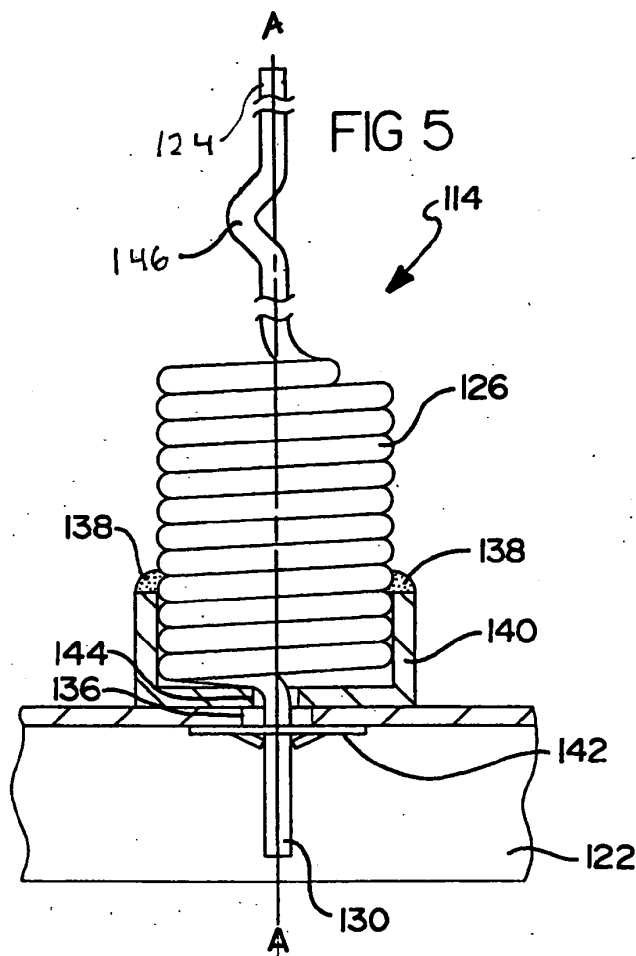


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WIND RESISTANT SIGN**FIELD OF THE INVENTION**

[0001] The present invention relates to portable display devices and, more particularly, to wind resistant portable display devices.

BACKGROUND OF THE INVENTION

[0002] Portable display devices have become widespread in the advertising industry. They are often used out of doors and therefore, become exposed to the forces of wind. Because rigid display devices tend to topple over under the force of wind, a variety of display devices has been developed having a spring mechanism that is adapted to maintain the display device upright. Conventional spring loaded display devices include a support structure and a frame for containing a display card, whereby a spring mechanism is interposed between the frame and the support structure. This configuration enables the display frame to independently move relative to the support structure. A problem with the conventional configuration is the relatively high cost associated with constructing the frame, the spring mechanism, the support structure and any of the fasteners required to interconnect these components. Furthermore, assembly of the conventional spring loaded display device can be overly time consuming.

SUMMARY OF THE INVENTION

[0003] A portable display device is provided including a support base, first and second elongated support members, and a display card. The support base supports each of the first and second support members vertically thereon, enabling a display card having vertical channels through an interior portion thereof to be inserted onto the elongated support members.

[0004] Further areas of applicability of the present invention will become apparent from the detailed description provided hereinafter. It should be understood that the detailed description and specific examples, while indicating the preferred embodiment of the invention, are intended for purposes of illustration only and are not intended to limit the scope of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] The present invention will become more fully understood from the detailed description and the accompanying drawings, wherein:

[0006] **FIG. 1** is an exploded perspective view of a display device in accordance with the present invention;

[0007] **FIG. 2** is a front elevational view of a display device in accordance with the present invention;

[0008] **FIG. 3** is a cross-sectional view taken along line III-III in **FIG. 2**;

[0009] **FIG. 4** is a detail of a first embodiment of a cross bar and support member in accordance with the display device of the present invention;

[0010] **FIG. 5** is a detail of a second embodiment of a cross bar and support member in accordance with the display device of the present invention; and

[0011] **FIG. 6** is a detail of a third embodiment of a cross bar and support member in accordance with the display device of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0012] The following description of the preferred embodiments is merely exemplary in nature and is in no way intended to limit the scope of the present invention, its application, or its uses.

[0013] With reference to **FIGS. 1-3**, a preferred embodiment of a display device **10** is provided including a support base **12**, a pair of support members **14** and a display card **16**. The support base **12** generally includes two pair of legs **18** interconnected at a coupling **20** by cross bar **22**, thereby supporting the cross bar **22** horizontally. The support members **14** generally include a spring element **26** and a staff portion **24**. As presently preferred, the spring element **26** and the staff portion **24** are formed as a one-piece support member **14**. However, one skilled in the art will appreciate that the support members **14** could be made of separate interconnected components. Likewise, the preferred embodiment is illustrated as having a pair of support members **14** extending from the support base **12**. However, one skilled in the art will appreciate that the specific number and location of the support members may vary depending on the given application.

[0014] The spring elements **26** are attached to a top side of the cross bar **22** and define a central longitudinal axis A-A. The staff portions **24** generally include elongated rods extending upward along central longitudinal axis A-A and have an offset portion **46** formed therein slightly above the spring element **26**. The offset portion **46** functions to provide a slight interference fit with the display card **16** as hereinafter described. As presently preferred, the offset portion **46** is in the form of a kink or bend in the staff portion **24**. However, one skilled in the art will recognize that an offset portion may be provided in the staff portion **24** by other means such as swaging or otherwise deforming the cross-section, or alternately locally adding material to the cross-section of the staff portion **24** to provide a slight interference fit.

[0015] The display card **16** includes an interior display card having opposing faces **28** interconnected by a corrugated web **30**, which defines a plurality of vertical channels **32** therebetween. A preferred embodiment of the display card is plastic sheet material approximately 8 millimeters thick such as the material sold under the trademark Coroplast® by Great Pacific Enterprises, Inc. of Vancouver, British Columbia, Canada. As seen in **FIG. 3**, the vertical channels **32** are generally trapezoidal in shape having a width which is greater than the height. The staff portion is dimensional to be about equal to the height of the channel. The bend **46** is dimensioned to provide a slight interference with the web, thereby providing a sufficiently tight friction fit between the support member **14** and the display card **16**. In an alternate embodiment, the display card **16** may be fabricated from a suitable weatherproof corrugated cardboard having opposing faces and corrugated web similar to the Coroplast® sign material shown and described herein. Access to the channels **32** is provided at the bottom edge **34** of the display card **16**. In this manner, the staff portion **24** of

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