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(54) **WIND RESISTANT SIGN** (52) **U.S. Cl. 40/607.03; 40/608**

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(57) **ABSTRACT**

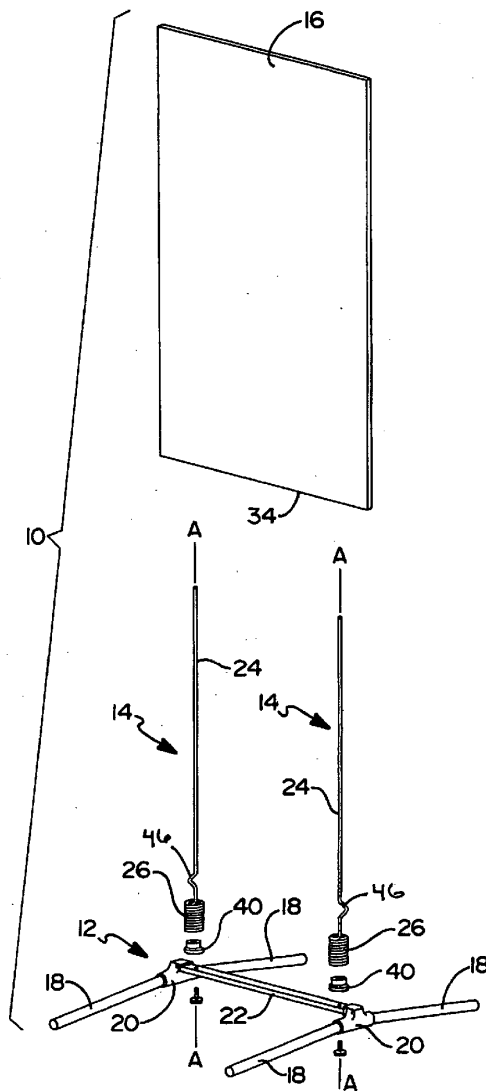
A display device and method of assembling the same is provided having a support structure and first and second support members. The support structure generally includes a plurality of legs and a cross bar. Each support member generally includes a staff portion and a spring element for biasing the staff 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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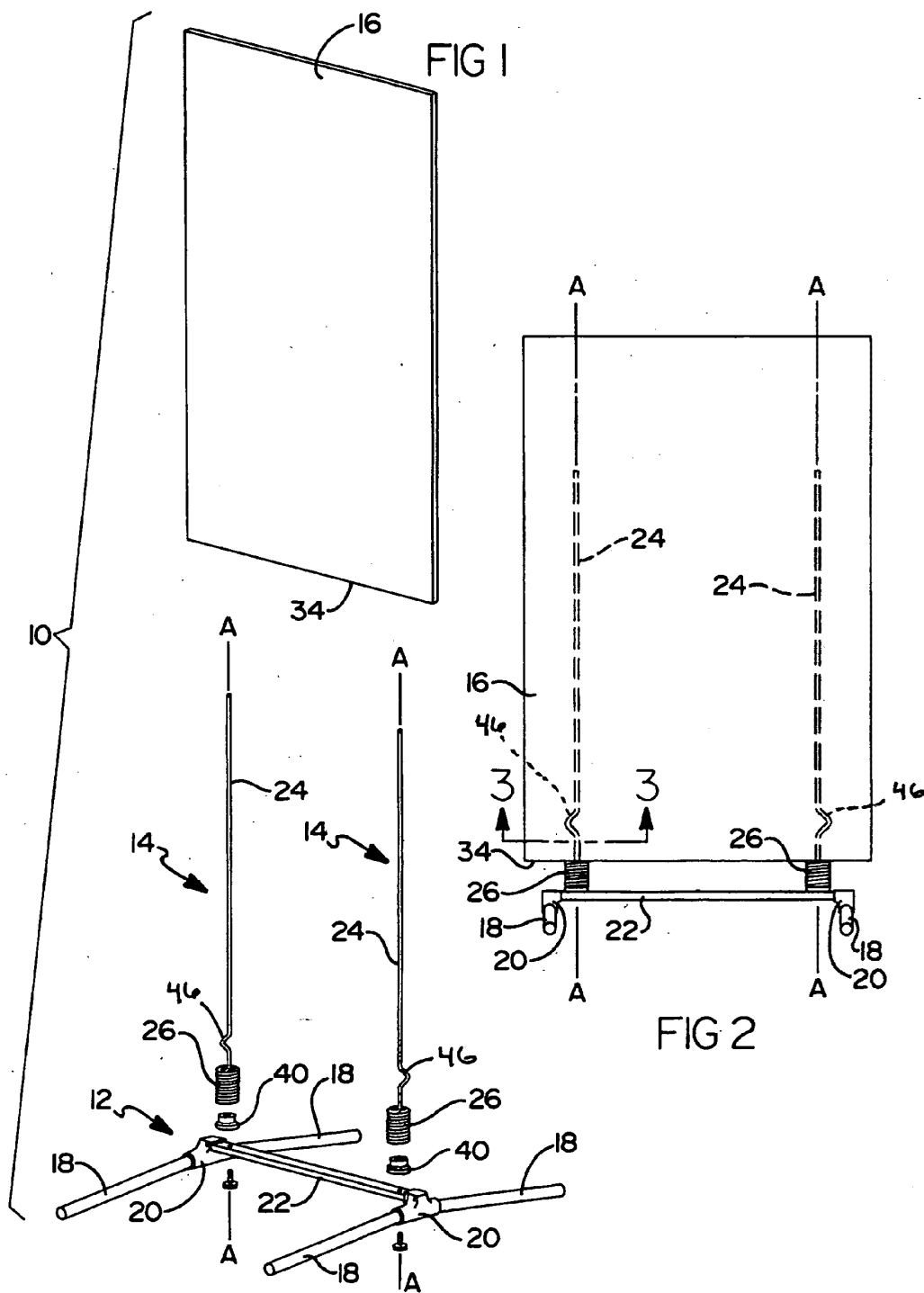
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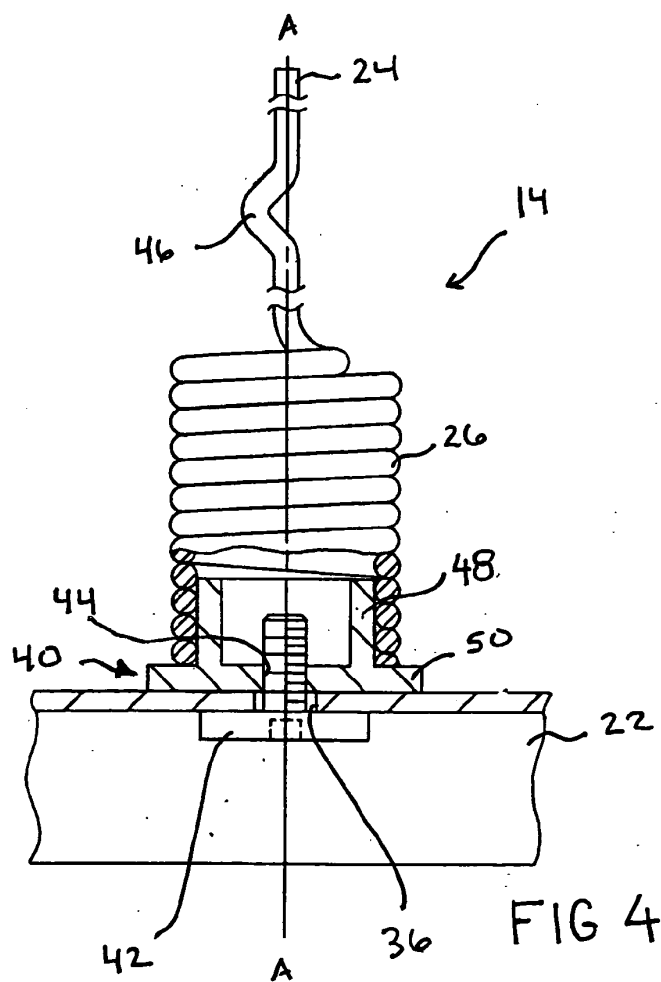
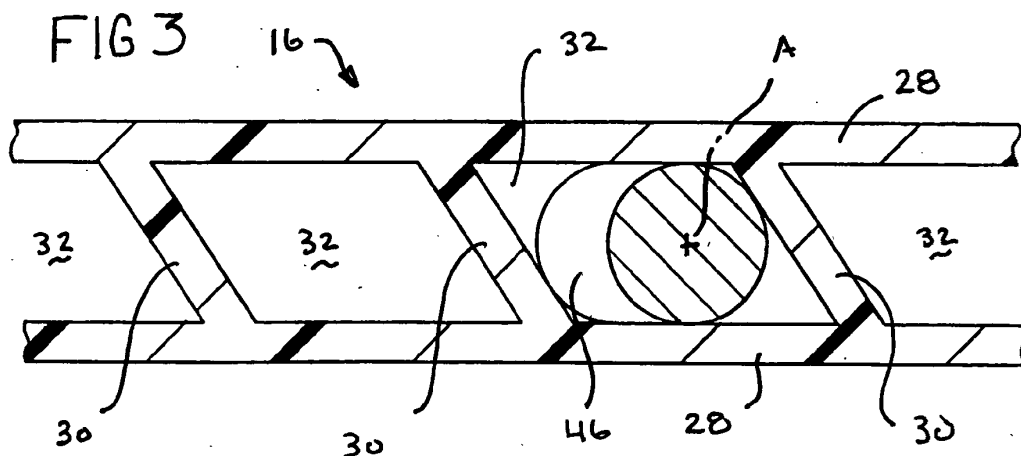
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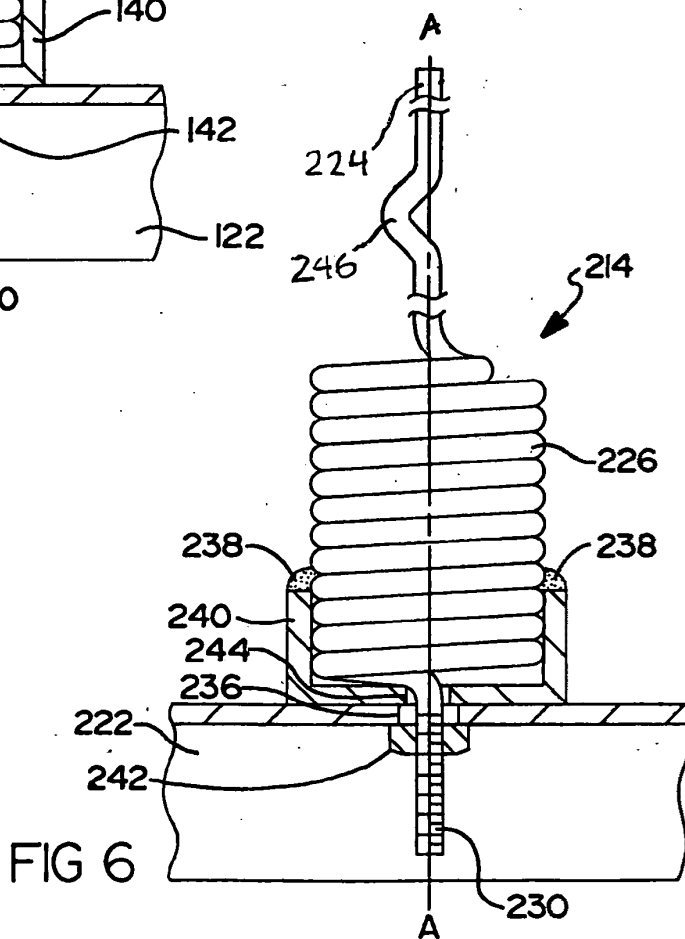
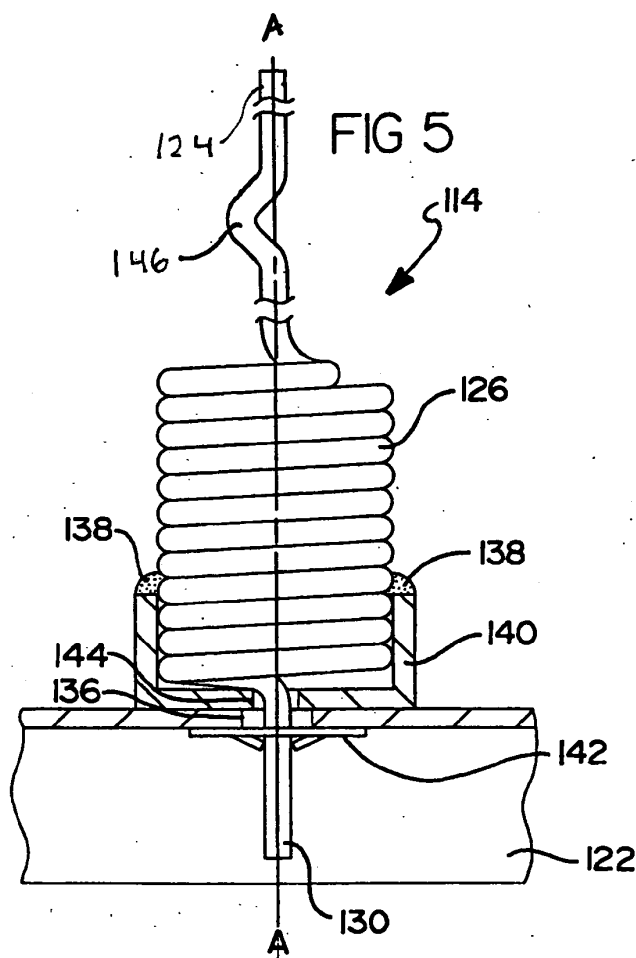


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WIND RESISTANT SIGN

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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