April 25, 1967 L. N. EDWARDS 3,315,392

DISPLAY SIGNS

Filed May 23, 1966

FIG. 1.

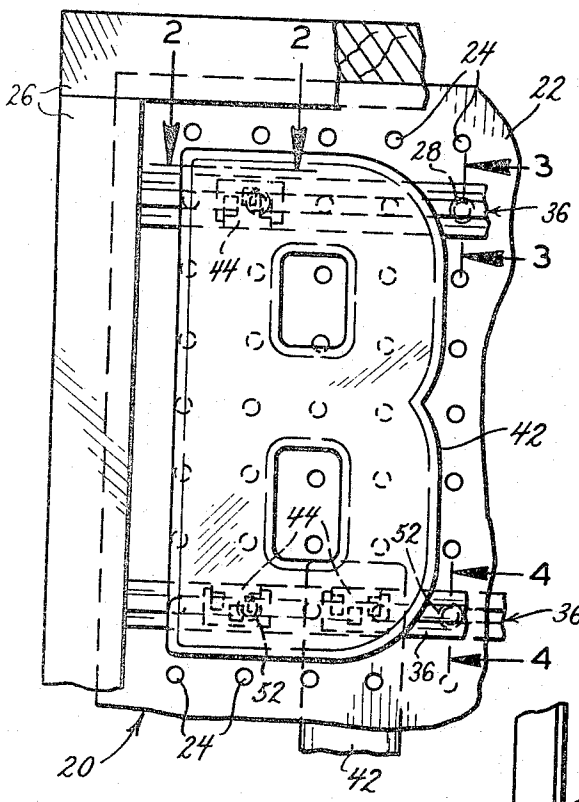
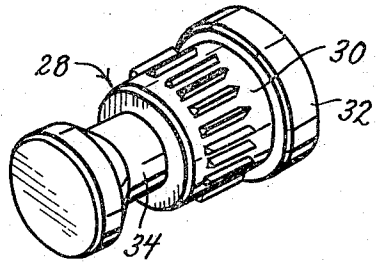


FIG. 5.



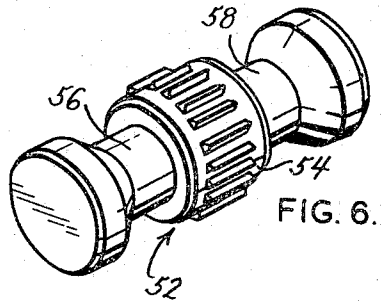


FIG. 6.

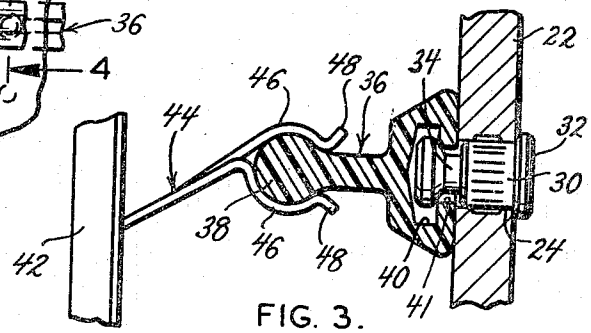


FIG. 3.

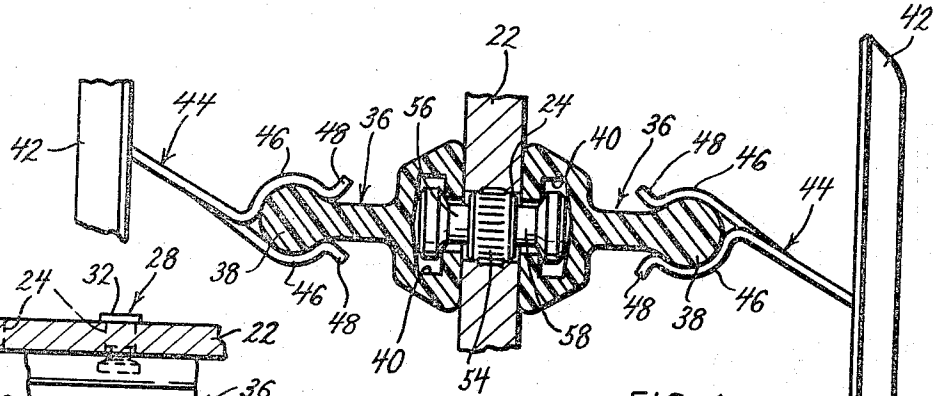


FIG. 4

FIG. 2.

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3,315,392

DISPLAY SIGNS

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9 Claims. (Cl. 40—143)

This invention relates to improvements in display signs. More particularly, this invention relates to improvements in display signs that are easily fabricated.

It is, therefore, an object of the present invention to provide an improved display sign that is easily fabricated.

The display sign provided by the present invention utilizes a panel with a number of openings therein; and those openings accommodate fasteners to which elongated supports can be secured. Those elongated supports can releasably hold flexible clips at the rear faces of indicia, which are to be releasably held adjacent the panel and which are to constitute parts of the overall display sign. The fasteners can be mounted within the openings in the panel without any need of using tools; and the elongated supports can be secured to those fasteners without any need of using tools. As a result, the display sign provided by the present invention can be fabricated easily. It is, therefore, an object of the present invention to provide a display sign which utilizes a panel with a number of openings therein, to provide fasteners that can be readily disposed within those openings, and to provide elongated supports that can be readily assembled with those fasteners.

The elongated supports provided by the present invention have elongated slots in the rear faces thereof, and those slots accommodate projections on the fasteners. Those elongated slots will coact with those projections to prevent accidental separation of those elongated supports from those fasteners and from the panel, and also will prevent accidental separation of those fasteners from those elongated supports and from the panel. It is, therefore, an object of the present invention to provide elongated supports with elongated slots in the rear faces thereof that accommodate projections on fasteners.

Other and further objects and advantages of the present invention should become apparent from an examination of the drawing and accompanying description.

In the drawing and accompanying description, a preferred embodiment of the present invention is shown and described but it is to be understood that the drawing and accompanying description are for the purpose of illustration only and do not limit the invention and that the invention will be defined by the appended claims.

In the drawing,

FIG. 1 is a partially-sectioned, broken-away, front elevational view of one preferred embodiment of display sign that is made in accordance with the principles and teachings of the present invention,

FIG. 2 is a sectional view, on a larger scale, through part of the display sign shown in FIG. 1, and it is taken along the plane indicated by the line 2—2 in FIG. 1,

FIG. 3 is a sectional view, on a still larger scale, through part of the display sign shown in FIG. 1, and it is taken along the plane indicated by the line 3—3 in FIG. 1,

FIG. 4 is a further sectional view, on the scale of FIG. 3, through part of the display sign shown in FIG. 1, and it is taken along the plane indicated by the line 4—4 in FIG. 1,

FIG. 5 is a perspective view, on a still larger scale, of the fastener shown in FIGS. 2 and 3, and

FIG. 6 is a perspective view, on the scale of FIG. 5, of the fastener shown in FIG. 4.

Referring to the drawing in detail, the numeral 20 generally denotes a display board which is part of one preferred embodiment of display sign that is made in accordance with the principles and teachings of the present invention. That display board 20 includes a perforated panel 22 which has a large number of holes 24 therein. Those holes are preferably arranged in vertically-directed and horizontally-directed rows. One material which can be used in making the perforated panel 22 is commercially available and is known as peg board. A frame 26, which may consist of elongated members with slots in the inner edges thereof telescoping over the edges of the perforated panel 22, can be used to reinforce and strengthen that panel. Where the display board 20 is small and where a functional appearance is desired for that display board, the frame 26 will not be used.

The numeral 28 denotes a fastener which has a knurled cylindrical portion 30, has a larger diameter rear portion 32, and has an annular groove 34 intermediate the knurled cylindrical portion and the outer end thereof. The knurled cylindrical portion 30 has an axial dimension which is closely comparable to the thickness of the perforated panel 22. This means that when the fastener 28 has had the outer end thereof and the annular groove 34 thereof telescoped forwardly through an opening 24 in the perforated panel 22, the larger diameter rear portion 32 of that fastener will abut the rear face of that perforated panel and will prevent further forward movement of that fastener relative to that panel.

The numeral 36 generally denotes an elongated support which is T-shaped in cross section; and that support is preferably made as an extrusion. That support will preferably be made from a weather-resistant and sun-resistant material; and, while various metals could be used in making the support 36, a light-weight inexpensive plastic has been found to be useful. The outer end of the stem of the T-shaped support 36 has a cylindrical portion 38 thereon. The cross arm of the T-shaped support 36 has an elongated recess 40 therein; and that recess is dimensioned to accommodate the outer end of the fastener 28. An elongated slot 41 in the cross arm of the T-shaped support 36 communicates with the recess 40; and that slot is narrower than the diameter of the outer end of the fastener 28. The portions of the cross arm of the T-shaped support 36 which define the slot 41 will extend into the annular groove 34 intermediate that outer end and the knurled cylindrical portion 30 of the fastener 28; and those portions will prevent accidental separation of that support from that fastener.

To assemble the T-shaped support 36 with the perforated panel 22, two or more fasteners 28 will have the outer ends thereof and the annular grooves 34 thereof pressed forwardly through openings 24 in that panel until the larger diameter rear portions 32 thereof abut the rear face of that panel. Those fasteners can be disposed on the panel 22 to define a horizontal line, a vertical line, or a line that is inclined to the horizontal at any one of a number of desired angles. No tools are needed to press those fasteners into position within the openings 24 in the perforated panel 22. However, once those fasteners have been pressed into position within the openings 24 in the perforated panel 22, the engagements between the knurled cylindrical portions 30 of those fasteners and the portions of the panel 22 which define the openings 24 will prevent accidental separation of those fasteners from that panel.

Once the fasteners 28 have been pressed into the position indicated by FIG. 3, one end of a T-shaped support 36 can be set adjacent the outer end of one of those fasteners so the slot 41 in the cross arm of that support is in register with the annular groove 34 in that one fastener. Thereafter, the recess 40 in the cross arm of that T-shaped support can be telescoped over the outer

end of that one fastener so the portions of the cross arm of that support, which define the slot **41**, will extend into the annular recess **34** of that one fastener. The said one end of that T-shaped support will then be directed toward the next fastener **28**; and that end of that support will be guided so the recess **40** therein will telescope over the outer end of that next fastener and so the portions of the cross arm of that support which define the slot **41** in that support will extend into the annular recess **34** of that next fastener. That T-shaped support will continue to be telescoped relative to those, and to any further fasteners **28** which are to be used to help hold that support, until that support has reached its desired position relative to the perforated panel **22**.

At such time, the fasteners **28** will be held against movement forwardly of the perforated panel **22** by the larger diameter portions **32** thereof which engage the rear face of that panel. Those fasteners will be held against movement rearwardly of that panel by the engagements between the outer ends of those fasteners and the portions of the cross arm of the T-shaped support **36** which define the slot **41**. As a result, the fasteners **28** and the T-shaped support **36** will constitute mutually supporting members that will hold themselves in assembled relation with the perforated panel **22**.

The T-shaped support **36** will releasably receive resilient clips **44** of one or more indicia **42**. While just one indicia **42** is shown in FIGS. 2 and 3, many indicia of different sizes and configurations can have the resilient clips **44** thereof releasably secured to the cylindrical portion **38** at the outer end of the stem of that T-shaped support.

Each of the resilient clips **44** has arcuate fingers **46** at the free end thereof, and tips **48** are provided at the free ends of those fingers. Some of the fingers **46** are bent to overlie the upper surface of the cylindrical portion **38** at the outer end of the stem of the T-shaped support **36**, while other of the fingers **46** are bent to under-lie the lower surface of that cylindrical portion, as shown particularly by the FIG. 3. The tips **48** on the fingers **46** are bent outwardly and away from those fingers, as shown by FIG. 3; and those tips perform dual functions. First, those tips help separate the fingers **46** as the resilient clips **44** are moved into assembled relation with the cylindrical portion **38** at the outer end of the stem of the T-shaped support **36**. Second, those tips serve to limit rotation of the resilient clips **44**, and hence of the indicia **42**, about the axis of the cylindrical portion **38** at the outer end of the stem of the T-shaped support **36**. This limit on the rotation of these clips is desirable; because if the installer of an indicia **42** were to release his grip upon that indicia, after he had secured just the clips adjacent the upper or the lower portion of that indicia to a T-shaped strip **36**, the tips **48** of some of the fingers **46** on those resilient clips could engage the planar portions of the stem of that T-shaped support and halt further rotation of that indicia relative to that support.

Where fasteners **28** are used with the display board **20**, each of these fasteners can help hold only one elongated T-shaped support **36**. Where it is desirable for each fastener to help hold two elongated supports **36**, the fastener **52** will be used. As shown particularly by FIGS. 4 and 6, the fastener **52** has a knurled cylindrical portion **54** at the center thereof, and has annular grooves **56** and **58** intermediate that knurled cylindrical portion and the front and rear outer ends thereof. The front and rear outer ends of the fastener **52** are dimensioned to telescope through openings **24** in the perforated panel **22**; and those front and rear outer ends are dimensioned to fit within the recesses **40** in the cross arms of T-shaped supports **36**. Furthermore, the annular grooves **56** and **58** in the fasteners **52** are dimensioned to accommodate those portions of the T-shaped support **36** which define the slot **41** in that support.

In using the fastener **52**, that fastener will have the rear outer end thereof pressed rearwardly through an opening **24** in the perforated panel **22** until the axial midpoint of the cylindrical portion **54** is approximately midway between the front and rear faces of that perforated panel. That insertion can easily be made without any need of tools. Once the fastener **52** has been so inserted, the annular groove **56** will be disposed forwardly of the front face of the perforated panel **22** and the annular groove **58** will be disposed rearwardly of the rear face of that panel; as shown particularly by FIG. 4. Thereafter, the ends of elongated T-shaped supports **36** will set adjacent that fastener; and the slot **40** in one of those support will be telescoped into holding engagement with the front outer end of that fastener **52** while the slot **40** in another of those supports will be telescoped into holding engagement with the rear outer end of that fastener. Those T-shaped supports will then be telescoped along the front and rear faces, respectively, of the display board **20** until the recesses **40** thereof extend over and confine the front and rear outer ends of other fasteners **52** which are intended to help hold those T-shaped supports. At such time, the various fasteners **52** and the T-shaped supports **36** will be mutually supporting, and will coact with the display board **20** to prevent accidental separation thereof from that display board. The cylindrical portions **38** at the outer ends of the stems of the T-shaped supports **36** can then accommodate the fingers **46** of resilient strips **44** on indicia **42**, as shown particularly by FIG. 4. Those indicia can be disposed at both the front and rear faces of the display board **20** to provide an attractive display sign which can be viewed from both the front and rear thereof.

If it ever becomes desirable to change the orientations or positions of the T-shaped supports **36**, it is only necessary to telescope those T-shaped supports out of engagement with the fasteners **28** or **52** and then re-locate those fasteners in other openings **24** in the perforated panel **22**. Thereafter, the elongated T-shaped supports **36**, or further elongated T-shaped supports **36**, can be set in assembled relation with the fasteners **28** and **52**.

Whereas the drawing and accompanying description have shown and described a preferred embodiment of the present invention it should be apparent to those skilled in the art that various changes may be made in the form of the invention without affecting the scope thereof.

What I claim is:

1. A display sign which comprises:

(a) a panel that has a plurality of openings therein,

(b) a fastener that is disposed within one of said openings,

(c) a second fastener that is disposed within another of said openings,

(d) each of said fasteners having a portion thereof that projects outwardly in rigid and unyielding fashion beyond the edge of the opening, in said panel, in which said fastener is disposed and that coacts with said panel to resist movement of said fastener forwardly through said opening in said panel,

(e) each of said fasteners having a further portion thereof that is disposed forwardly of the front of said panel and that is dimensioned to pass forwardly through said opening in said panel,

(f) a support that is selectively securable to or separable from the first said and said second fasteners and that has a portion thereof which is adapted to releasably receive a resilient clip that is secured to an indicia to releasably secure said indicia to said support,

(g) said support being too large to pass through the first said or said other opening and being dimensioned to span the distance between the first said and said other openings in said panel, and

(h) interacting surfaces on said support and on said further portions of said fasteners that releasably engage each other and that enable said support to resist movement of said fasteners rearwardly through said

openings, in said panel, in which said fasteners are disposed whenever they are in engagement with each other,

(i) whereby the first said and said second fasteners can be passed forwardly through said one opening and said other opening until said further portions thereof are disposed forwardly of said panel and said interacting surfaces can be moved into engagement with each other so said support and said fasteners can coact with said panel to constitute mutually-interlocking elements that can remain in assembled relation with each other despite the application to said support and fasteners of rearwardly-directed and forwardly-directed forces as said resilient clip is releasably secured to and separated from said support.

2. A display sign which comprises:

(a) a panel that has a plurality of openings therein,

(b) a fastener that is disposed within one of said openings,

(c) a second fastener that is disposed within another of said openings,

(d) each of said fasteners having a portion thereof that is disposed rearwardly of the rear of said panel,

(e) each of said fasteners having a further portion thereof that is disposed forwardly of the front of said panel,

(f) one of said portions of each of said fasteners being dimensioned to fit within an opening in said panel, whereby each of said fasteners can be introduced into and passed at least part way through said opening,

(g) a support that is selectively securable to or separable from the first said and said second fasteners and that has a portion thereof which is adapted to releasably receive a resilient clip that is secured to an indicia to releasably secure said indicia to said support,

(h) a second support that is selectively securable to or separable from the first said and said second fasteners and that has a portion thereof which is adapted to releasably receive a further resilient clip that is secured to a further indicia to releasably secure said further indicia to said second support,

(i) said support being too large to pass through the first said or said other opening and being dimensioned to span the distance between the first said and said other openings in said panel,

(j) said second support being too large to pass through the first said or said other opening and being dimensioned to span the distance between the first said and said other openings in said panel,

(k) interacting surfaces on the first said support and on the first said portions of said fasteners that releasably engage each other and that enable the first said support to resist movement of said fasteners forwardly through said openings, in said panel, in which said fasteners are disposed whenever they are in engagement with each other, and

(l) further interacting surfaces on said second support and on said further portions of said fasteners that releasably engage each other and that enable said second support to resist movement of said fasteners rearwardly through said openings, in said panel, in which said fasteners are disposed whenever they are in engagement with each other,

(m) whereby the first said and said second fasteners can be set within said one and said further openings until the first said portions thereof are disposed rearwardly of said panel while said further portions thereof are disposed forwardly of said panel and said interacting surfaces on the first said support and on the first said portions of said fasteners and said interacting surfaces on said second support and on said further portions of said fasteners can be moved into engagement with each other so the first said and said second supports and said fasteners can

coact with said panel to constitute mutually-interlocking elements that can remain in assembled relation with each other despite the application to said supports and fasteners of rearwardly-directed and forwardly-directed forces as the first said and said further resilient clips are releasably secured to and separated from said supports,

(n) said supports overlying and concealing said fasteners whenever said supports are assembled with said fasteners.

3. A display sign which comprises:

(a) a panel,

(b) a support mounted on said panel,

(c) an indicia, and

(d) a resilient clip that is secured to said indicia and that is releasably securable to said support,

(e) said support having a stem and having a cylindrical portion at the outer end of said stem,

(f) said resilient clip having at least one finger that overlies said cylindrical portion at the outer end of said stem,

(g) said resilient clip having at least one finger that underlies said cylindrical portion at the outer end of said stem,

(h) said fingers of said resilient clip having tips that can respond to rotation of said indicia relative to said cylindrical portion at the outer end of said stem to engage said stem and thereby halt further rotation of said indicia relative to said cylindrical portion at the outer end of said stem.

4. A display sign as claimed in claim 3 wherein said tips are short and are bent outwardly from said fingers.

5. A display sign which comprises:

(a) a panel that has a plurality of openings therein,

(b) a fastener that is disposed within one of said openings,

(c) a second fastener that is disposed within another of said openings,

(d) each of said fasteners having a portion thereof that coacts with said panel to resist movement of said fastener forwardly through the opening, in said panel, in which said fastener is disposed,

(e) each of said fasteners having a further portion thereof that is disposed forwardly of the front of said panel,

(f) a support that has a portion thereof which is adapted to releasably receive a resilient clip that is secured to an indicia to releasably secure said indicia to said support, and

(g) interacting surfaces on said support and on said further portions of said fasteners that engage each other and that resist movement of said fasteners rearwardly through said openings, in said panel, in which said fasteners are disposed,

(h) whereby said support and said fasteners coact with said panel to constitute mutually-interlocking elements that can remain in assembled relation with each other despite the application to said support and fasteners of rearwardly-directed and forwardly-directed forces as said resilient clip is releasably secured to and separated from said support,

(i) the first said portions of said fasteners being radially-extending flanges adjacent the rear faces of said fasteners,

(j) said further portions of said fasteners having annular grooves therein, and

(k) said support having a slot in the rear face thereof to accommodate said further portions of said fasteners.

6. A display sign which comprises:

(a) a panel that has a plurality of openings therein,

(b) a fastener that is disposed within one of said openings,

(c) a second fastener that is disposed within another of said openings,

(d) each of said fasteners having a portion thereof that coacts with said panel to resist movement of said fastener forwardly through the opening, in said panel, in which said fastener is disposed,

(e) each of said fasteners having a further portion thereof that is disposed forwardly of the front of said panel,

(f) a support that has a portion thereof which is adapted to releasably receive a resilient clip that is secured to an indicia to releasably secure said indicia to said support, and

(g) interacting surfaces on said support and on said further portions of said fasteners that engage each other and that resist movement of said fasteners rearwardly through said openings, in said panel, in which said fasteners are disposed,

(h) whereby said support and said fasteners coact with said panel to constitute mutually-interlocking elements that can remain in assembled relation with each other despite the application to said support and fasteners of rearwardly-directed and forwardly-directed forces as said resilient clip is releasably secured to and separated from said support,

(i) said fasteners having body portions intermediate the first said and said further portions,

(j) said body portions having surfaces thereon that penetrate the opening-defining surfaces of said panel to help hold said fasteners in assembled relation with said panel.

7. A display sign which comprises:

(a) a panel that has a plurality of openings therein,

(b) a fastener that is disposed within one of said openings,

(c) a second fastener that is disposed within another of said openings,

(d) each of said fasteners having a portion thereof that coacts with said panel to resist movement of said fastener forwardly through the opening, in said panel, in which said fastener is disposed,

(e) each of said fasteners having a further portion thereof that is disposed forwardly of the front of said panel,

(f) a support that has a portion thereof which is adapted to releasably receive a resilient clip that is secured to an indicia to releasably secure said indicia to said support, and

(g) interacting surfaces on said support and on said further portions of said fasteners that engage each other and that resist movement of said fasteners rearwardly through said openings, in said panel, in which said fasteners are disposed,

(h) whereby said support and said fasteners coact with said panel to constitute mutually-interlocking elements that can remain in assembled relation with each other despite the application to said support and fasteners of rearwardly-directed and forwardly-directed forces as said resilient clip is releasably secured to and separated from said support,

(i) said further portions of said fasteners having annular grooves therein,

(j) said support having spaced-apart edges in the rear face thereof which define a slot,

(k) said spaced-apart edges extending into said annular grooves,

(l) said spaced-apart edges and the groove-defining faces of said further portions constituting said interacting surfaces.

8. A display sign which comprises:

(a) a panel that has a plurality of openings therein,

(b) a fastener that is disposed within one of said openings,

(c) a second fastener that is disposed within another of said openings,

(d) each of said fasteners having a portion thereof that is disposed rearwardly of the rear of said panel,

(e) each of said fasteners having a further portion thereof that is disposed forwardly of the front of said panel,

(f) a support that has a portion thereof which is adapted to releasably receive a resilient clip that is secured to an indicia to releasably secure said indicia to said support,

(g) a second support that has a portion thereof which is adapted to releasably receive a further resilient clip that is secured to a further indicia to releasably secure said further indicia to said second support,

(h) interacting surfaces on the first said support and on the first said portions of said fasteners that engage each other and that resist movement of said fasteners forwardly through said openings, in said panel, in which said fasteners are disposed, and

(i) further interacting surfaces on said second support and on said further portions of said fasteners that engage each other and that resist movement of said fasteners rearwardly through said openings, in said panel, in which said fasteners are disposed,

(j) whereby the first said and said second supports and said fasteners coact with said panel to constitute mutually-interlocking elements that can remain in assembled relation with each other despite the application to said supports and fasteners of rearwardly-directed and forwardly-directed forces as the first said and said further resilient clips are releasably secured to and separated from said supports,

(k) the first said portions and said further portions of said fasteners having annular grooves therein,

(l) said supports having slots therein to accommodate the first said portions and said further portions of said fasteners.

9. A display sign which comprises:

(a) a panel that has a plurality of openings therein,

(b) a fastener that is disposed within one of said openings,

(c) a second fastener that is disposed within another of said openings,

(d) each of said fasteners having a portion thereof that is disposed rearwardly of the rear of said panel,

(e) each of said fasteners having a further portion thereof that is disposed forwardly of the front of said panel,

(f) a support that has a portion thereof which is adapted to releasably receive a resilient clip that is secured to an indicia to releasably secure said indicia to said support,

(g) a second support that has a portion thereof which is adapted to releasably receive a further resilient clip that is secured to a further indicia to releasably secure said further indicia to said second support,

(h) interacting surfaces on the first said support and on the first said portions of said fasteners that engage each other and that resist movement of said fasteners forwardly through said openings, in said panel, in which said fasteners are disposed, and

(i) further interacting surfaces on said second support and on said further portions of said fasteners that engage each other and that resist movement of said fasteners rearwardly through said openings, in said panel, in which said fasteners are disposed,

(j) whereby the first said and said second supports and said fasteners coact with said panel to constitute mutually-interlocking elements that can remain in assembled relation with each other despite the application to said supports and fasteners of rearwardly-directed and forwardly-directed forces as the first said and said further resilient clips are releasably secured to and separated from said supports,

(k) said fasteners having body portions intermediate the first said and said further portions,

(l) said body portions being dimensioned to fit snugly within said openings in said panel,

(m) said body portions of said fasteners being disposable within said openings in said panel without any need of tools.

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