Dec. 6, 1966 P. B. STEPHENS 3,289,338

SUPPORT FOR DETACHABLE SIGNS

Filed Aug. 11, 1964 2 Sheets-Sheet 1

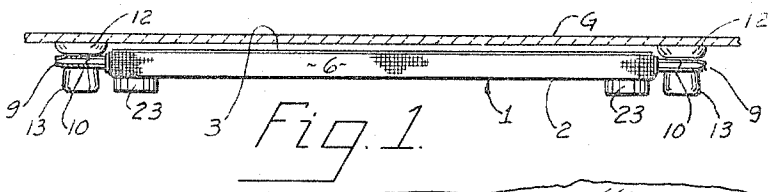


Fig. 1.

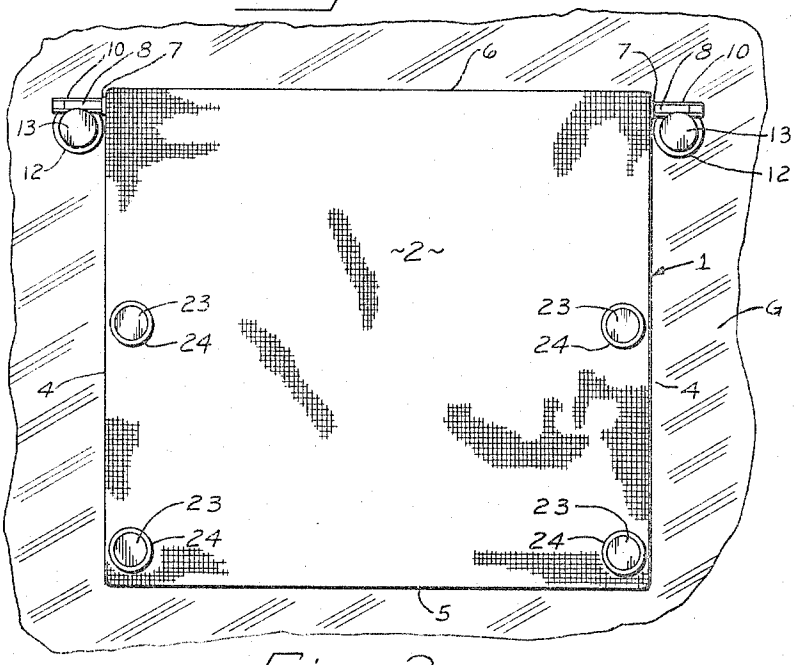


Fig. 2.

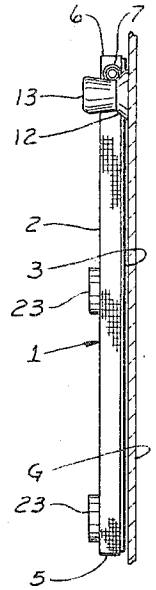


Fig. 3.

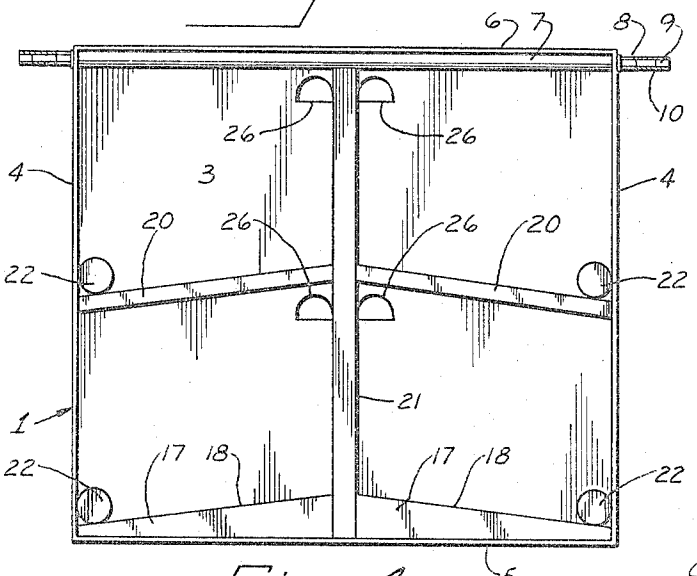


Fig. 4.

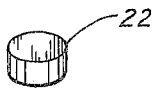


Fig. 5.

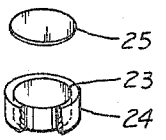


Fig. 6.

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SUPPORT FOR DETACHABLE SIGNS

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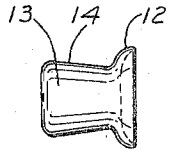


Fig. 7.

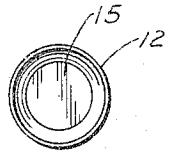


Fig. 8.

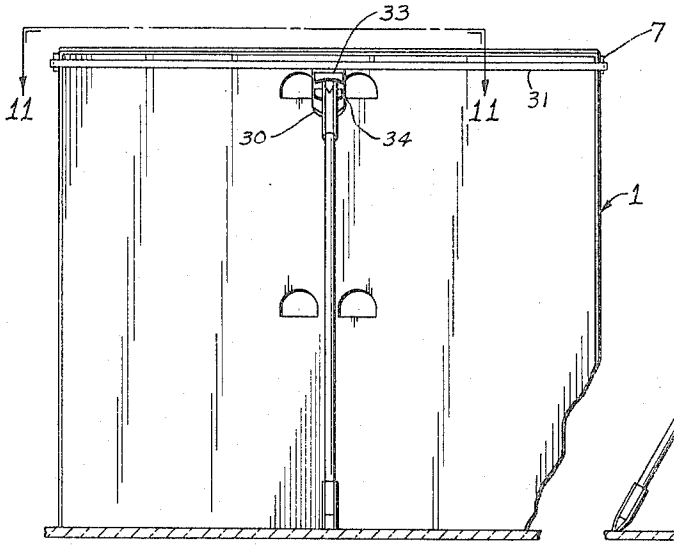


Fig. 9.

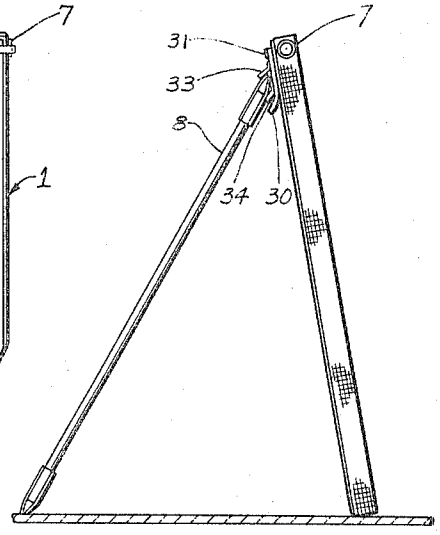


Fig. 10.

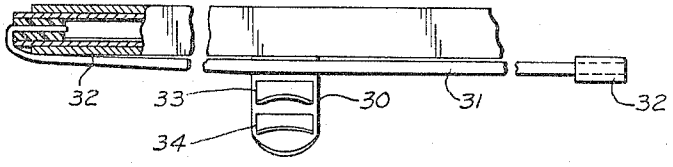


Fig. 11.

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SUPPORT FOR DETACHABLE SIGNS

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13 Claims. (Cl. 40—125)

This invention relates to a support for advertising signs and the like which are printed on thin sheet material such as sheets of paper, and which are to be changed frequently.

More specifically, the support of the present invention is one which can be secured to window panes or disposed on glass counters and show case tops without danger of breaking the glass if the support should accidentally fall, or be knocked over on the counter or top, or be blown or knocked against the window pane.

For the purpose of illustration, the support is shown as one adapted to be mounted on the inside of a restaurant window for supporting a menu at the inner face of the window for display through the window, or to rest on a glass counter or show case top. The support has no part which can damage the window or glass top should the support strike the pane or counter with impacts which are likely to occur as a result of accidents.

The support is such that a sign or menu to be displayed can be removed readily therefrom and a new sign quickly attached by magnetic means. The support includes suspending devices which can be attached to a window pane and, when so attached, can detachably connect the support thereto so that the support is continuously urged toward, and into parallelism with, the window pane.

The support also includes means which can readily be rearranged for holding the support in generally upright position on a counter top.

Various other objects and advantages will become apparent from the following description, wherein reference is made to the drawings, in which:

FIGURE 1 is a top plan view of the sign support of the present invention, showing it supported by an upright window pane and, in turn, supporting a menu;

FIG. 2 is a front elevation of the support and a portion of the window pane;

FIG. 3 is a right end elevation of the support, and a portion of the pane, illustrated in FIG. 2;

FIG. 4 is an enlarged front elevation of the support with the front wall removed to show the magnetic means for connecting a sign thereto and to show other portions of the support;

FIG. 5 is a perspective view of one of a number of roller members mounted within the support;

FIG. 6 is a perspective view of one of a number of companion roller members used on the outside of the support;

FIG. 7 is a side elevation of a suction cup suspending device which may be used for suspending the sign support from a window pane;

FIG. 8 is a left end elevation of the suction cup suspending device of FIG. 7;

FIG. 9 is a rear elevation of the sign support showing the manner in which some parts can be rearranged in connection therewith to provide an easel type structure for use on counters and show case tops;

FIG. 10 is a right end elevation of the structure illustrated in FIG. 9; and

FIG. 11 is an enlarged fragmentary top plan view showing a connection socket for use when the support is to be used as an easel type structure, part thereof being shown in section, as indicated by the line 11—11 of FIG. 9.

Referring first to FIGURES 1 through 4, the support

comprises a shallow box 1, the walls of which, when the box is supported in its normal operating position, comprise a front display wall 2, a rear wall 3, lateral or edge walls 4, a bottom wall 5, and a top wall 6. The box 1 preferably is composed of cardboard, but may be made of plastic or other lightweight nonmetallic material. Preferably the board has an imitation velvet finish on its outwardly exposed surfaces, or has a velvet overlay cemented thereto.

Mounted within the box, and extending therethrough parallel to the top wall, is a rigid cardboard or plastic tube 7 in which is inserted a nonmetallic rod 8. The ends of the rod 8 protrude edgewise of the box beyond the lateral edges 4 of the box. The protruding ends of the rod are tapered to a wedge shape, as indicated at 9, and are covered with flexible plastic sleeves 10. The sleeves 10 extend from the outer ends of the rod partway toward the lateral edges 4 of the box 1. The rod is readily insertable endwise into the tube 7 and can readily be withdrawn endwise therefrom. It fits the tube 7 with sufficient clearance so that it can rotate in the tube 7.

The box 1 is shown in FIG. 1 as supported in upright position on a window pane G. In such case, detachable suction cup suspending devices are provided. Each of these devices comprises a suction cup 12 having a supporting finger 13 extending outwardly therefrom in a direction away from the suction face so that when the suction cup is connected to an upright window pane by suction, the finger 13 extends outwardly therefrom, preferably horizontally. The cup 12 and finger 13 are nonmetallic and preferably are integral with each other. The finger has an upwardly facing supporting ledge or surface 14 on its outer surface. This is preferably provided by making the finger 13 frusto-conical and coaxial with the cup, and disposed with its larger base outwardly. With a finger so shaped, regardless of the rotated position of the finger about the axis of the cup, an upwardly facing supporting ledge 14 is provided which slopes inwardly toward the axis of the finger from the outer end of the finger in a direction toward the cup.

With the cups 12 of the suspending devices secured on an upright pane, the protruding ends of the rod 8 can be disposed on the ledges 14 and can roll or skid down the ledges toward the pane G, being urged so to do by gravity, thus retaining the box 1 near to and parallel to the surface of the glass pane on which the suction cups are attached.

If desired, the suction faces of the suction cups 12 may include discs 15 carrying advertising indicia, and hence present a more attractive appearance from the outside of the pane. The advertising discs 15 may be of paper and should terminate short of the outer peripheral margin of the suction face so as not to interfere with proper suction. Thus the box 1 may be suspended, as illustrated in FIGURES 2 and 3, by the supporting fingers 13.

Generally the box 1 is supported with its forward face 2 exposed outwardly toward the outside of the window, but it may be exposed inwardly, depending upon the particular use.

For detachably connecting a sign to the front face 2 of the box, magnetic means are provided. As illustrated in FIGURE 4, the box is shown with the forward face 2 removed to expose the interior wherein one or more trackways are provided. In the form illustrated, two trackways are provided. A primary trackway 17 is arranged near the bottom of edge 5 of the box 1. If desired, the trackway 17 can extend the full width of the box and slope for its entire length toward one edge of the box, but it is preferred that it have two separate trackway portions sloping from its midportion to the opposite lateral edges, and such is shown for purposes of illus-

tration. The trackway 17 has an upwardly facing supporting surface 18. The supporting surface 18, beginning at a location spaced inwardly from the lateral edges 4 of the box, slopes downwardly toward the lateral edges.

Also, if desired, supplemental trackway 20 may be provided and spaced from the edge 6 and from the surface 18 of the trackway 17. Preferably the trackway 20 is arranged so that its upwardly facing supporting surface is parallel to the supporting surface 18 of the trackway 17.

A barrier strip 21 is arranged in the box and extends from the tube 7 to the surface 18 of the trackway 17 at the highest point of the trackways 17 and 20 and provides a barrier within the box between the oppositely sloping portions of the trackway 17 and the oppositely sloping portions of the trackway 20. The barrier 21 and the trackway 20 thus divide the interior of the box into four compartments.

Within the compartments are roller members 22, respectively. Each roller 22 is preferably of disc shape and is arranged with its axis normal to the front wall 2 and so as to roll along the top surface of its associated trackway freely and skid along the inner face of the wall 2. The roller members, when free, drop onto their associated trackways and normally roll by gravity therealong to well known predetermined locations. In the illustrative example, these locations are at the lower outer corners of the compartments. The trackways 17 and 20 are spaced vertically so that the lower outer corners of the two upper compartments are about halfway between the bottom edge 5 and top edge 6 of the box.

Companion members 23 are provided and arranged to be disposed on the front face 2 of the box 1 and slide thereover as desired. The members 22 and 23 are magnetically attractive, at least one of each companion pair being of magnetic metal and the other being of magnetically attractive metal. In the present instance, in order to obtain greater attractive power, all of the members 22 and 23 are magnets. The members 22 are left unclad as they are fully confined within the box 1. The members 23, however, are provided on their peripheries with coating 24 of a soft resilient material, such as plastic, so that, should a member fall and strike the pane G or a counter top, no direct impact of any sharp metal edge or face can occur.. Each member 23 preferably terminates at its faces substantially coplanar with the peripheral coating 24. If desired, however, advertising discs 25 of soft material may be glued over the outer faces of the members 23, respectively, so as to present an attractive appearance and further act as a protective coating to reduce impacts.

By placing one of the members 23 in alignment with one of the roller members 22 within the box, the member 22 can be moved as a slave to the companion member 23. When a member 23 is moved manually to a position overlying the corner of a sheet of printed matter juxtaposed on the front face 2, while a companion member 22 is moved as a slave to the member 23, the corner of the sheet is magnetically clamped between the member 23 and front wall 2 with sufficient force to support the sheet. It is to be noted that the locations of the members 22 when at rest are always in the lower outer corners of their associated compartments, so they can be located readily and enslaved by disposing the companion members 23 at these corners. Since the members 22 are, when free, always at the lateral edges 4 of the box, they can be moved inwardly to underlie the corners of the paper sign on the front face 2 without scuffing the body of the sign or its plastic coating.

Should a member 22 escape, it drops down on the track and rolls exactly to its original pick-up position and can be readily retrieved.

The rear wall 3 of the box 1 is provided with windows 26 arranged at opposite sides of the barrier 21, one near the upper edge 6 and one near the under side of the track 20. These windows are preferably semi-circular and of

a diameter slightly larger than the diameter of the members 22. They permit removal of the members 22, when desired, by effecting magnetic attraction between a member 22 and its outer companion member 23, pulling the member 22 to its associated window, and then using another member 23 to cause the member 23 to tilt it and be drawn out through the window.

As mentioned, it is sometimes desirable to use the support as an easel type structure. In such a case the rod 8 is used as a stay brace. A detachable socket member 30 is connected to the box 1 at the rear face and is arranged to receive the wedge shaped upper end of the rod 8. The lower end of the rod then rests on the top of the counter, thus supporting the box in generally upright position. To secure the detachable socket member 30 in place so that it can be readily removed, if desired, the socket member 30 is mounted on an elastic band 31 which is provided with rigid elements 32 near its ends. The elements 32 are adapted to be received within the ends of the tube 7, which thus provides sockets for the mounting of the detachable socket member 30. The elements 32 are spaced apart a distance less than the width of the box so that the band must be stressed in order to insert the elements 32 into the ends of the tube 7. The outermost ends of the elements 32 are disposed inwardly of the tube, as illustrated in FIG. 11. When they are placed in this position and the band is stretched along the back of the box 1, the band causes the elements 32 to pinch against the inner wall of the tube 7 and, in turn, hold the band in place.

The socket member 30 has secured thereon upper and lower rubber straps 33 and 34, respectively, which extend transversely of the box 1 and are spaced apart from each other vertically. The straps are arranged so that the lower strap 34 slopes outwardly from the plane of the rear face 3 from its upper to its lower edge. The upper strap is sloped inwardly toward the plane of the wall 3 from its upper to its lower edge. Thus the upper tapered end of the rod 8 can be inserted under the upper strap 33 and the adjacent part of the rod will engage and be pressed outwardly by the lower edge of the lower strap 34. This provides a stressed fit giving an effective grip on the rod 8 and holding it in proper position for retaining the box 1 in generally upright position when the lower end of the rod engages the counter, or show case, top. The sleeves 10 act as anti-skid devices so that the end of the rod 8 which engages the counter will not slide readily over the upper surface of the counter.

Thus, to change a sign, it is only necessary to remove the members 23 from the front wall 2 of the box 1, whereupon the menu can be removed and a new one placed over the front face. Thereupon each member 23 can be caused to pick up its inside companion member 22 and move it to the proper corner of the menu, whereupon the member 23 is allowed to engage the front face firmly and be held by the magnetic attraction so that the two companion members clamp the front face and the aligned part of the menu firmly therebetween, holding the menu in position on the front face 2.

Having thus described my invention, I claim:

1. A support for detachably supporting selected signs of thin sheet-like material for display, and comprising

a nonmetallic body in the form of a shallow box having a front wall of large area on which a sheet-like sign is to be supported in face to face relation, said box being adapted to be supported in substantially upright position with one edge at the top,

an inside metal member within the box arranged for moving freely therein parallel to the plane of the front wall,

a trackway in the body having a supporting surface spaced from and facing toward said one edge and sloping, endwise of the trackway, to a preselected low point, whereby when the box is supported in said substantially upright position, the inside metal

member is normally caused to move by gravity along said surface to said preselected low point and there come to rest,

a companion member for the inside member, said companion member being adapted to be placed detachably against the outer face of the front wall,

at least one of said members being magnetic,

said members being in magnetically attractive relationship to each other, when aligned, such that when in predetermined alignment on opposite faces of the forward wall, the inner member can be moved as a slave to the outer member as the outer member is moved along the front wall, and when so aligned will, under the influence of their magnetic attraction, clamp between them the aligned portions of the front wall and the aligned sign portion juxtaposed against the front wall.

2. A support according to claim **1** wherein the trackway is one which slopes downwardly, away from said one edge, substantially to a lateral edge of the box.

3. A support according to claim **1** wherein the trackway is one which slopes downwardly, away from said one edge, toward both lateral edges of the box from a predetermined location on the track spaced from both lateral edges.

4. A support according to claim **3** wherein a barrier is provided in the box and extends upwardly from said predetermined location toward said one edge of the support and confines the inside member to the portion of the box at one side of the barrier and above the trackway, and another inside member is disposed in the portion of the box at the opposite side of the barrier and above the trackway for movement parallel to the plane of the front wall.

5. A support according to claim **1** wherein a second trackway is provided in the box in spaced relation to, and between, said one edge and said first mentioned trackway, said second trackway has a supporting surface sloping endwise of the second trackway to a preselected low point, said second trackway forms a barrier between said one edge of the support and said first mentioned trackway for confining a first inside member between the trackways, another inside member is disposed in the box in the space between the second trackway, and said one edge and arranged therein for movement parallel to the plane of the front wall of the box.

6. A support for detachably supporting signs of thin sheet-like material and comprising a nonmetallic shallow box having a rear wall, and a forward wall of large area on which a sign is to be supported in face to face relation, said box being adapted to be supported in upright position, with one edge at the top,

a barrier in the box in spaced relation to its lateral edges and extending in a direction from said one edge to the opposite edge, a first trackway spaced from said one edge and extending from the barrier in opposite directions toward the lateral edges of the box and sloping in directions outwardly from the barrier toward said lateral edges, respectively,

a second trackway spaced from the first trackway in a direction toward said opposite edge, said second trackway extending from the barrier in opposite directions toward the lateral edges of the box, and sloping in directions outwardly from said barrier toward said lateral edge,

whereby the inside of the box is divided into four compartments,

roller members in the compartments, respectively, arranged to move freely parallel to the plane of the front face of the box on their peripheries along their associated tracks, parallel to said plane, by gravity, toward the low points, respectively,

companion members for the roller members, respectively, and adapted to be detachably placed against the outer face of the front wall of the box,

at least one of said members being magnetic,

each roller member and its companion member being magnetically attractive so that, when aligned on opposite faces of the front wall, each roller member will move as a slave to its aligned companion member, as the companion member is moved manually along said front wall, and the members can clamp between them the forwardly and rearwardly aligned portions of the front wall and a thin sheet-like sign juxtaposed against the front wall, and each roller member, when freed by removal manually of its companion member can drop onto its associated track and roll therealong to its associated low point.

7. A support according to claim **6** wherein the roller members within the box are discs with their axes normal to the front wall, windows are provided in the rear wall of the box near the opposite sides of the barrier, said windows open into the compartments, respectively,

two of the windows are near said one edge of the box and two are near to, and below, said second trackway,

said windows are substantially semi-circular and of a diameter slightly larger than that of the associated discs, whereby the discs must be positioned with their axes tilted relative to the plane of the rear wall in order to withdraw them through their associated windows.

8. A support according to claim **1** wherein the inside members are metallic discs, respectively, and the outer members are discs and each has its peripheral edge covered with a layer of nonmetallic, relatively soft, yieldable material.

9. A support according to claim **1** wherein the box has coaxial supporting fingers extending outwardly from opposite lateral edges, respectively, at a location adjacent said one edge,

supporting elements having pliable nonmetallic outer surfaces are provided for the fingers, respectively,

elastomeric suction cups are connected to the supporting elements, respectively, and positioned so that, when the cups are mounted by suction on an upright face of a window pane, the elements extend outwardly from said face, at an abrupt angle, and

the elements have upwardly exposed supporting surfaces on which the fingers rest, respectively, for suspending the support.

10. A support according to claim **9**, wherein the upwardly exposed supporting surfaces are positioned so that they slope downwardly from their outer ends in a direction toward the cups when the cups are so mounted, so that the support is urged by gravity to move toward the plane of the pane.

11. A support according to claim **10** wherein the fingers are the end of a nonmetallic rod which is connected to the box so as to extend edgewise thereof adjacent said one edge, and said rod is connected to the box for rotation about the rod axis, whereby it can roll down said supporting surfaces.

12. A support according to claim **1**, wherein a nonmetallic rod extends alongside said one edge of the box and is detachably connected thereto, the ends of the rod extending outwardly beyond the lateral edges of the box to act as suspending means for suspending the support from supporting ledges, a detachable socket member is provided, attaching means are provided and are adapted to be detachably connected to the support and support the socket member at the rear face near said one edge, means are provided on the socket member to receive one end of the rod accommodated in said end so that the rod extends rearwardly of the support oblique to the plane thereof in a direction from said socket portion toward the opposite edge of the support.

13. A support according to claim **12** wherein the attaching means comprise an elastic band, the socket mem-

ber is attached thereto between the ends of the band and has an opening therein to receive the end of the rod, rigid elements are connected to the ends of the band, said support has cavities at the ends of said one edge opening outwardly through the lateral edges of the support, the rigid elements are receivable in the sockets with their outermost ends disposed inwardly of the sockets and their other ends disposed at the outer ends of the sockets, respectively, while the band extends laterally across said rear wall of the box, and said band is of less length than the width of the box so that it must be tensioned to extend from one of said rigid elements to the other when the rigid elements are installed in the sockets.

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