Jan. 12, 1971 R. BENCHLEY, JR 3,553,871

POLE SUPPORT BASE, AND DISPLAY INCLUDING IT

Filed July 16, 1969 2 Sheets-Sheet 1

FIG. 1

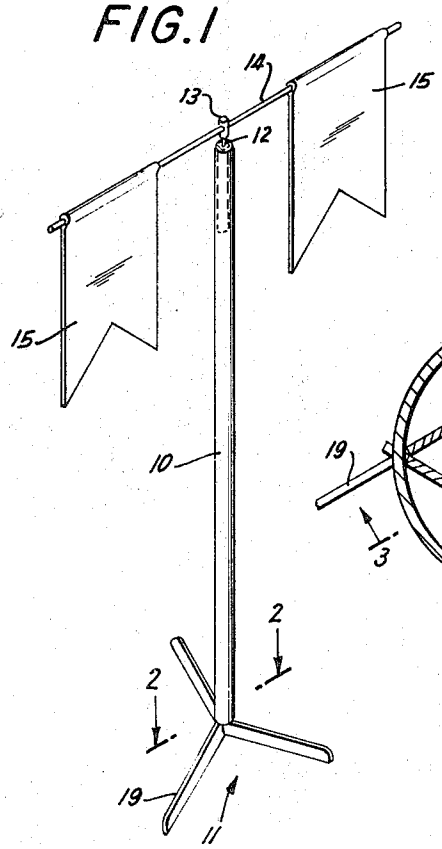
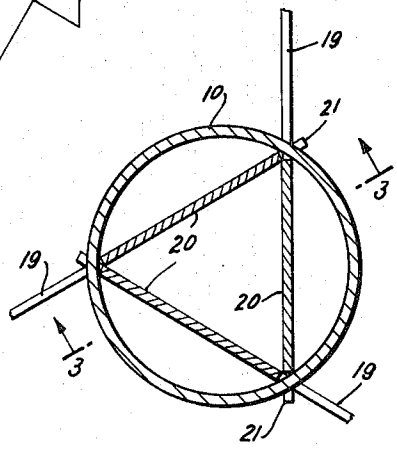


FIG. 2



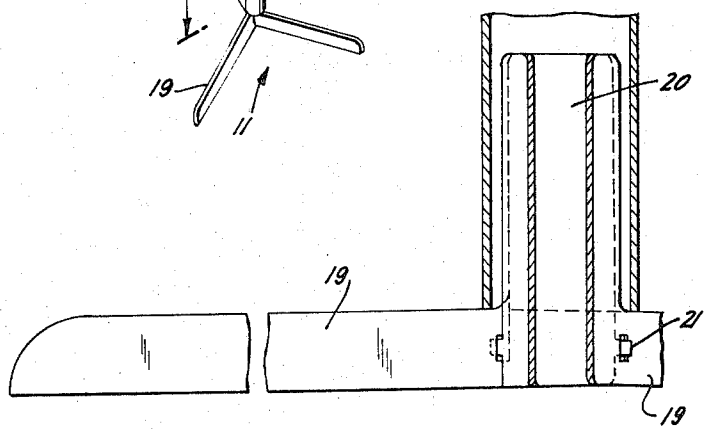


FIG. 3

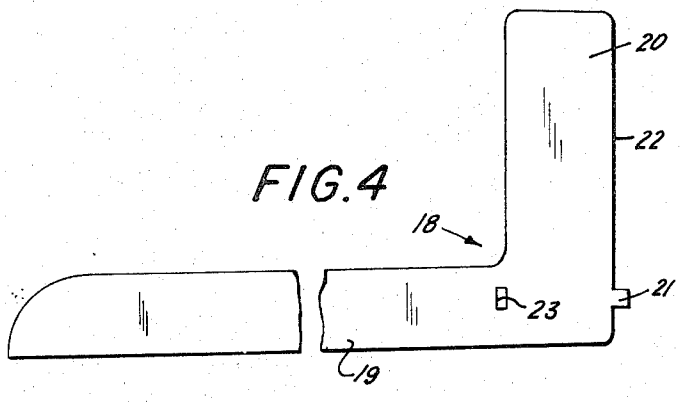
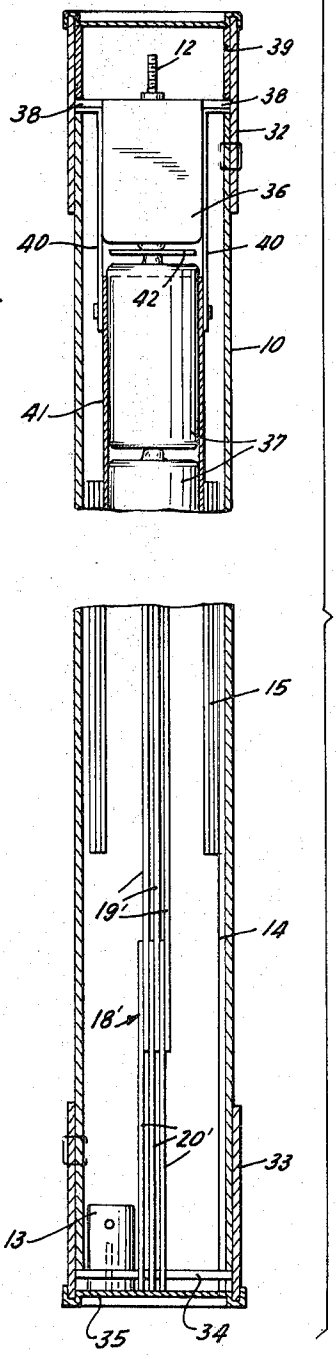


FIG. 4

FIG. 9



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Filed July 16, 1969 2 Sheets-Sheet 2

FIG.5

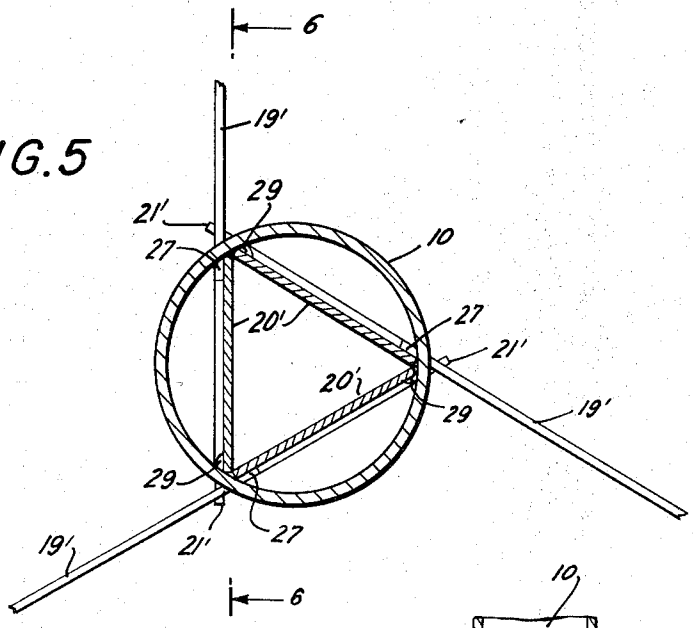


FIG.6

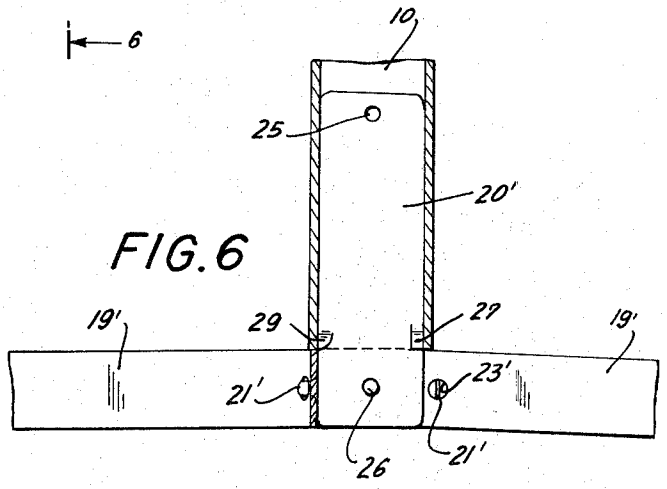


FIG.8

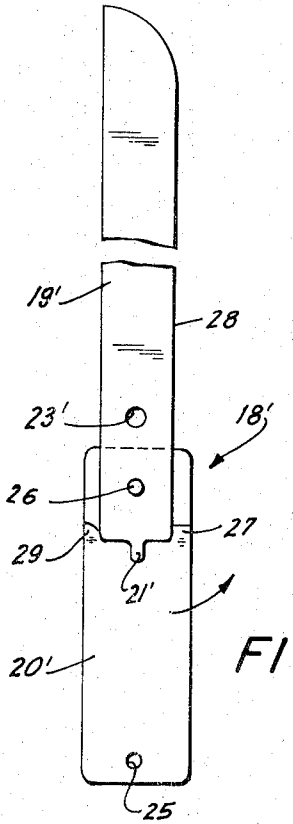
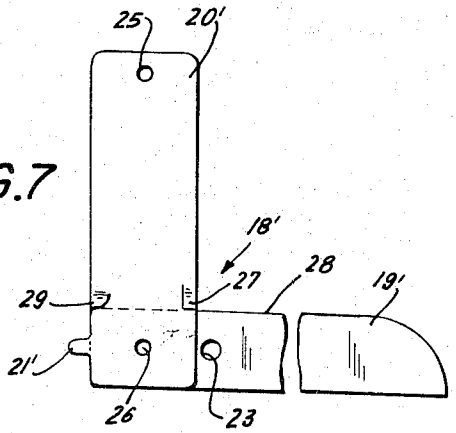


FIG.7



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POLE SUPPORT BASE, AND DISPLAY INCLUDING IT

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Int. Cl. G09f 7/18
U.S. Cl. 40—145 11 Claims

ABSTRACT OF THE DISCLOSURE

A base for supporting a hollow pole includes three L-shaped feet, each foot having a hole and a projecting tab. The vertical legs of the feet are arranged in a triangular configuration, for engaging a pole, with the tab of each foot located in the hole of another, and the horizontal legs projecting radially outwardly and arranged 120° to one another. The legs of each foot may be integrally formed, or may comprise two pieces pivotally connected. In the latter case, each foot with its legs aligned can be packed within the pole it will ultimately support.

This invention relates to so-called pole displays of the type wherein a hollow pole is supported in upright condition by a base, and carries advertising and display material at its upper end. In particular, the invention relates to a base for supporting such a pole, and to a pole display assembly including the base.

It is an object of the invention to provide a pole base formed of individual interlocking feet which can be produced rapidly and inexpensively on a mass production basis, and yet which give more rigid support than conventional bases.

It is another object of the invention to provide a base comprising individual feet adjustable between a collapsed condition and an operative condition, whereby the feet when collapsed can be packed inside the pole they will ultimately support.

Furthermore, it is contemplated that all the other components of the display may also be packed within the pole, the ends of which are closed by caps. In this way, the display device is reduced to a very compact form, desirable from the points of view of shipment and storage, and involves very little waste of material at the time the display is erected.

Additional features and advantages of the invention will be apparent from the following description in which reference is made to the accompanying drawings.

In the drawings:

FIG. 1 is a perspective view of a pole display embodying the present invention;

FIG. 2 is a horizontal cross-sectional view, on an enlarged scale, taken along line 2—2 of FIG. 1;

FIG. 3 is a vertical cross-sectional view taken along line 3—3 of FIG. 2;

FIG. 4 is an elevational view of one of the feet forming the base of the display in FIG. 1;

FIG. 5 is a view similar to FIG. 2, but showing an alternative embodiment of the base feet;

FIG. 6 is a vertical cross-sectional view taken on line 6—6 of FIG. 5;

FIG. 7 is an elevational view of one of the feet forming the base illustrated in FIG. 5, in its operative condition;

FIG. 8 shows the foot of FIG. 7 in its collapsed condition; and

FIG. 9 is a longitudinal cross-sectional view through the pole display of FIG. 1 but in condition for shipment.

The term "pole display" as used herein is intended to

encompass any type of display, whether for advertising purposes or other uses, including a hollow pole which when the display is erected is maintained in a vertical condition and supports display material.

The display chosen to illustrate the present invention, and shown in FIG. 1, includes a hollow pole 10, which may be a thick-walled paper tube, supported in upright condition by a base 11. In the present example, the pole 10 houses within its upper end a battery operated motor, the shaft 12 of which projects upwardly out of the pole. A hub 13 is fixed to the motor shaft, and a transverse hole through the hub accommodates a horizontal rod 14. Display members 15, in the form of pennants, are carried by the rod 14, and when the motor is energized the rod and pennants rotate about the longitudinal axis of the pole.

The base 11 comprises three feet 18 (FIG. 4) each of which is L-shaped to define a horizontal leg 19 and a vertical leg 20. The descriptive term "horizontal" and "vertical" are used for convenience, and refer to the orientation of these legs when in pole-supporting position. Each foot 18 is identical to the others, and the feet are preferably formed from sheet metal by a stamping operation. However, other suitable materials and fabrication methods may obviously be employed.

An integral tab 21 projects horizontally from the edge 22 of vertical leg 20 remote from the horizontal leg 19, and an opening 23 is provided in horizontal leg 19 in the region where it merges with the vertical leg 20, i.e., hole 23 is spaced from edge 22 a distance about equal to the width of vertical leg 20. The tab 21 and opening 23 are in horizontal alignment, and the opening in each foot is adapted to accommodate the tab of one of the other feet.

The three feet 18 forming the base 11 are assembled, as shown in FIGS. 2 and 3, by arranging the vertical legs 20 in a triangular cross-sectional configuration with the tab 21 of each foot located within the opening 23 of an adjacent foot. Engagement of the tabs and openings serve to interlock the feet and insure their stability. The width of vertical legs 20, and the location of openings 23, are such that the triangular arrangement of legs 20 is snugly accommodated within the lower end of pole 10. The arrangement is such that the apices of the triangular configuration lie on a circle whose diameter is at least equal to, and preferably slightly larger than, the internal diameter of the pole 10. As a result, when the pole is pushed down over the legs 20, the material adjacent to its interior face is compressed slightly so that it grips the legs 20 tightly. It will be appreciated, therefore, that the three feet 18 constitute a simple, yet very sturdy, base for the pole.

FIGS. 5–8 illustrate an alternative base according to this invention, each foot 18′ of which may be provided in a collapsed condition. Foot 18′ comprises two, preferably sheet metal, members 19′ and 20′ defining horizontal and vertical legs, respectively, when the foot is in operative condition. The members 19′ and 20′ are pivotally joined by a rivet 26. Horizontal leg member 19′ is formed with a horizontally extending tab 21′ and an opening 23′, similar to the tab 21 and opening 23 of FIGS. 2–4. Vertical leg member 20′ is formed with a suspension hole 25 near its free end.

Vertical leg member 20′ is provided adjacent to one longitudinal edge with an L-shaped cut, and the material adjoining the cut is bent slightly out of the plane of member 20′ to define a stop 27. When foot 18′ is in collapsed conditions (FIG. 8) with the leg members 19′ and 20′ in longitudinal alignment, the end portion of the upper edge 28 of horizontal leg 19′ abuts the side of stop 27. The foot is shifted to operative condition by rotating leg member 20′, in the direction of the arrow in FIG. 8, with respect to leg member 19′ about rivet 26. This rotation

continues until the end of stop **27** abuts the upper edge of leg **19'**, as shown in FIG. 7.

Adjacent to its other longitudinal edge, vertical leg **20'** may be provided with an arcuate cut, and the material adjoining the cut is bent slightly out of the plane of member **20'** to define a latch **29**. The curved nature of the latch **29** permits it to pass between the legs **19'** and **20'**, by camming leg **19'** away from leg **20'** as the leg **20'** is rotated in the direction of the arrow in FIG. 8. However, when the parts reach their operative condition (FIG. 7), latch **29** snaps over the edge **28** of leg **19'** and prevents return of the legs to their collapsed condition. Once in its operative condition, foot **18'** is used in precisely the same manner as foot **18** of FIGS. 2–4, as shown in FIGS. 5 and 6.

Provision of a base comprising collapsible feet as illustrated in FIGS. 5–8 permits a complete pole display to be packed within the pole **10** forming part of the display, as shown in FIG. 9. The hollow pole **10** is closed at its ends by cylindrical caps **32** and **33**. Feet **18'** when in the collapsed condition of FIG. 8 can be accommodated within the pole. The feet are suspended at one end of pole **10** from a pin **34** passing through holes **25** in leg members **20'**. The pin **34** is slightly longer than the internal diameter of the pole so that its ends rest on the end edge of the pole. It should be mentioned that although in FIG. 9 the feet **18'** are shown at the lower end of the pole **10**, the package has no top or bottom, and hence as it is carried or stored either end of the pole may be on top. Thus, when cap **33** is on top, the feet **18'** are suspended from pin **34**. In the orientation shown in FIG. 9, the lower ends of legs **20'** rest upon the end wall **35** of cap **33**. Also resting on the end wall **35** is the hub **13** which is packed loosely within the pole.

Assuming the display is to be one with moving parts, as described with reference to FIG. 1, an electric motor **36** and batteries **37** for operating it are located within the pole at its end opposite feet **18'**. The motor casing is formed with ears **38** resting on the end edge of the pole, and a spacer ring **39** within cap **32** presses upon the ears **38** so that the motor **36** is held against longitudinal movement within the package. A pair of straps **40** are riveted at their upper ends to the lower faces of ears **38**, and at their lower ends to a tube **41**, having a closed bottom end (not shown), which houses the batteries **37**. A removable insulator **42** between the terminals of the motor **36** and the upper battery keeps the circuit open while the display is packed.

The rod **14** and pennants **15**, in rolled condition, are also accommodated within the tube **10**.

If it is desired that the height of the display exceed the length of tube **10**, a second pole (not shown) of smaller diameter may be telescopically arranged within tube **10**, together with some means for maintaining the two telescoping pole sections in extended relationship when the display is erected. Furthermore, although in the present example the base is shown and described as having three legs, four or more legs can be used and assembled in the same manner as described above. In such a case, it is desirable, to prevent collapse of the legs, to place an insert in the closed area delimited by the joined portions of the legs (this area being of square shape when four legs are used) corresponding to the triangular area shown in FIG. 2.

It will be apparent that the packed display of FIG. 9 may be erected as the display of FIG. 1 simply by removing the end caps **32** and **33**, shifting the feet **18'** to the operative condition of FIG. 7, assembling one end of the pole **10** with the feet, assembling the hub **13**, rod **14**, and pennants **15** with the motor shaft **12**, and removing insulator **42**. Only the end caps **32** and **33**, pin **34**, and insulator **42** are waste materials which are discarded.

The invention has been shown and described in preferred form only, and by way of example, and it is understood, therefore, that many variations may be made in the invention which will still be comprised within its spirit.

What is claimed is:

1. A base for supporting a hollow pole in upright condition, comprising three independent feet, each foot being substantially L-shaped to define a horizontal leg and a vertical leg, a tab located near the heel of said foot and projecting horizontally beyond the edge of said vertical leg remote from said horizontal leg, and an opening in said horizontal leg in the region where it merges with said vertical leg, said vertical legs being positionable in a triangular cross-sectional configuration with said tab of each foot being located within said opening of the next successive foot and said horizontal legs projecting radially outwardly, each horizontal leg being arranged at approximately 120° to each of the others, said triangular configuration being adapted to supportingly engage the lower end of a hollow pole.

2. A base as defined in claim **1** wherein said three feet are identical to each other.

3. A base as defined in claim **1** wherein each of said feet is formed of sheet metal.

4. A base as defined in claim **1** wherein each of said feet is a one piece member in which said horizontal and vertical legs and said tab are all integrally formed.

5. A base as defined in claim **1** wherein said horizontal and vertical legs are formed of two separate pieces pivotally joined, whereby said legs may optionally be arranged in alignment or in L-shaped configuration.

6. A base as defined in claim **5** including a stop member carried by said vertical leg and adapted to engage the upper edge of said horizontal leg to limit pivotal movement between said legs and define their operative L-shaped relation.

7. A base as defined in claim **6** including a latch member carried by said vertical leg and adapted to engage the upper edge of said horizontal leg at a point on the side of the pivot connection between said legs opposite to the point engaged by said stop member, said latch member serving to prevent return of said legs to an aligned relation.

8. A pole display comprising a base as defined in claim **5**, a hollow pole, the legs of each of said feet comprising said base being arranged in aligned condition within said pole, and a pair of end caps closing the ends of said pole.

9. A pole display as defined in claim **8** including means within said pole for suspending said feet at one end of said pole.

10. A pole display as defined in claim **8** including display material in collapsed condition within said pole.

11. A pole display as defined in claim **10** including an electric motor within said pole for moving said display means with respect to said pole when the display is erected.

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U.S. Cl. X.R.

248—165