United States Patent [19]

Cornett

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[54] **SUPPORT**

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[51] **Int. Cl.** **A45f 3/44;** E02d 5/80

[58] **Field of Search** 47/38.1; 52/155, 156, 165; 61/53; 175/19–21; 248/85–88, 156

[56] **References Cited**

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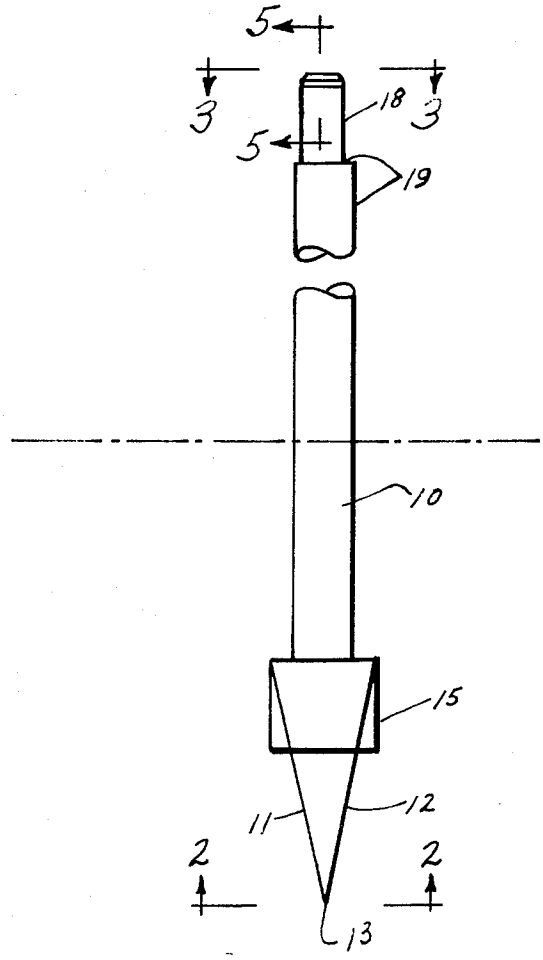
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[57] **ABSTRACT**

The disclosure relates to a support such as a soil-supported post having a chisel-like end and stabilizing fins angularly disposed relative to the chisel-like end. A ribbed frusto-conical portion is connected to the post and readily permits entry thereof into the ground but resists removal therefrom as well as twisting therein. The post includes water storage means for preventing over saturation of adjacent soil and for providing moisture thereto when said soil is too dry.

5 Claims, 5 Drawing Figures



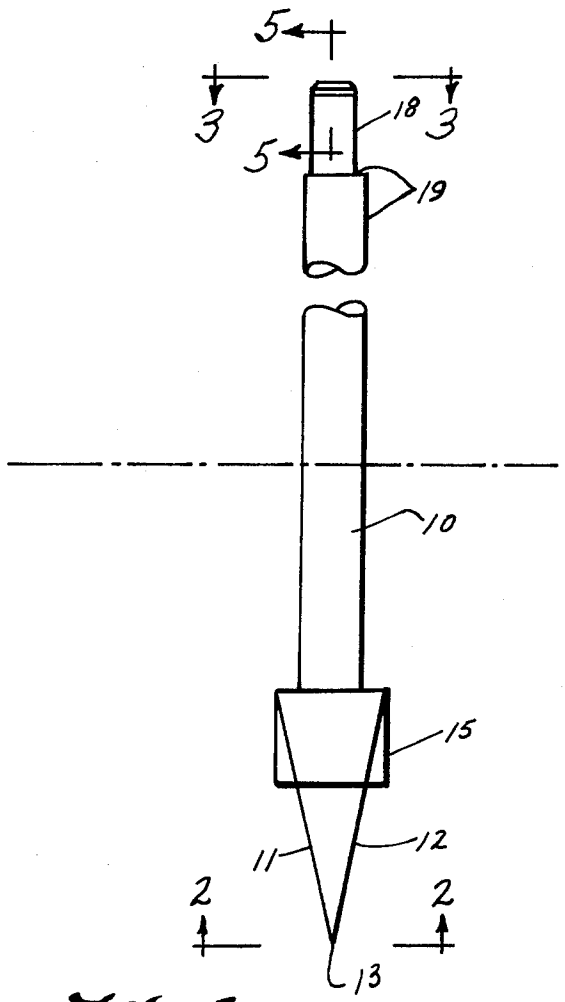


Fig. 1

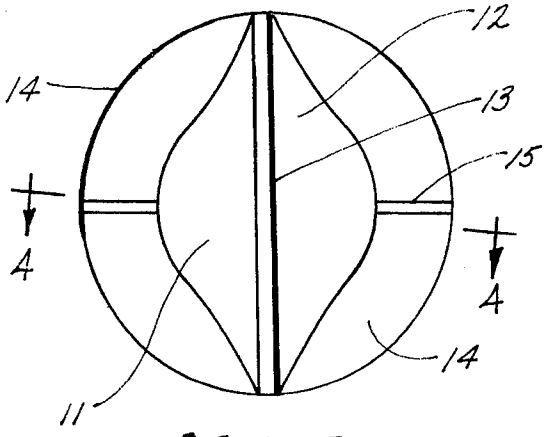


Fig. 2

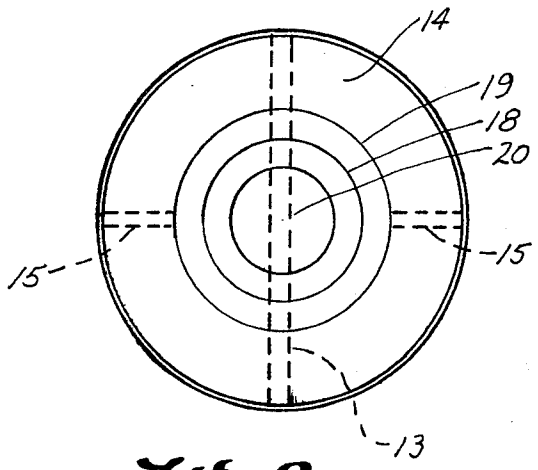


Fig. 3

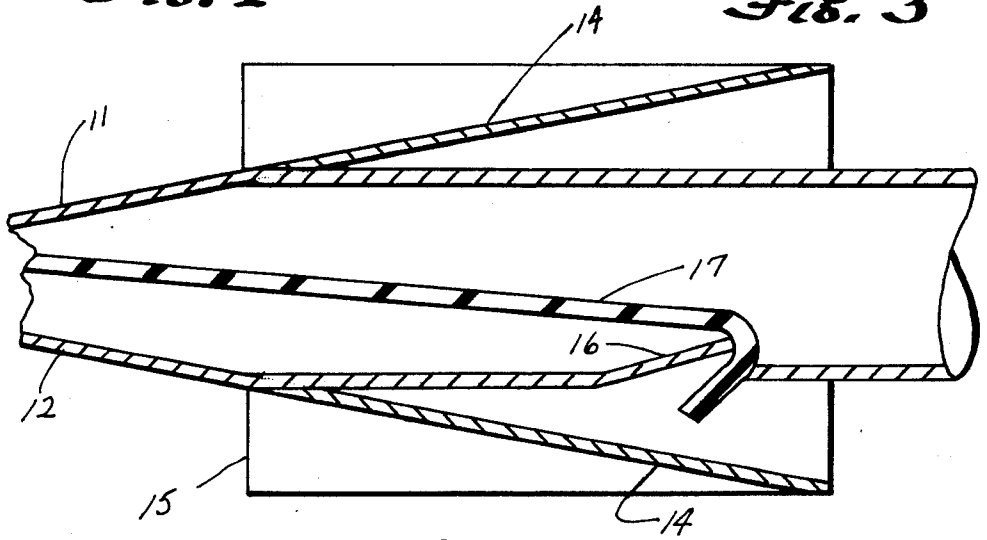


Fig. 4

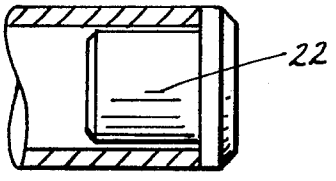


Fig. 5

SUPPORT

BACKGROUND

The present invention relates to a structural support and, more particularly, to an improved post for supporting an object such as a rural mailbox and the like.

Heretofore, support posts have been erected either by inserting them into the soil with or without anchoring devices and/or by inserting them in concrete which in turn is disposed in the soil. Such installations are not entirely satisfactory in that the post ultimately becomes loosened or the installation is unduly expensive.

Accordingly, it is a principal object of the present invention to provide improved means for obviating such difficulties.

SUMMARY

In accordance with the present invention, this is achieved by the provision of an improved support post that includes means permitting ready entry of the post into the ground but resists removal therefrom as well as twisting therein and also includes means avoiding over- and under-saturation of the ground adjacent the post.

DESCRIPTION

The foregoing and other objects and advantages of the invention will become apparent from the following description taken in connection with the accompanying drawings in which:

FIG. 1 is an elevational view showing a post embodying the present invention;

FIG. 2 is an end view of the embodiment of FIG. 1, and looking in the direction of arrows 2—2;

FIG. 3 is an end view similar to that of FIG. 2, but looking in the direction of arrows 3—3;

FIG. 4 is a fragmentary sectional view, looking in the direction of arrows 4—4 in FIG. 3; and

FIG. 5 is a fragmentary sectional view, looking in the direction of arrows 5—5 in FIG. 1.

In the drawings, a hollow pipe **10** extends partly above and partly below ground level which is indicated by a phantom line. A portion of the pipe adjacent its lower end is flattened and opposed pipe walls **11, 12** form a transition from the essentially circular outer cross section of the pipe to form a chisel-like edge **13** at the lower end of the pipe. At or adjacent said edge, walls **11, 12** are joined together, as by welding, to close the lower end of the pipe for reasons that will appear as the description proceeds.

A frusto-conical wall **14** is connected to pipe **10.** Preferably, the angle included between diametrically opposite sides of wall **14** is equal to or substantially equal to the angle included between walls **11** and **12.** Thus, wall **14** forms an extension of walls **11** and **12,** as is best shown in FIGS. **1** and **4.** Ribs **15** are connected to wall **14,** and they are perpendicular to edge **13,** as shown in FIG. **2.**

As best shown in FIG. **4,** a portion of pipe **16** is bent inwardly and forms a louvre-like opening between the right-hand terminal edge of pipe portion **16** and the adjacent portion of the pipe. A wick member **17** is threaded through said opening and is suspended by the right-hand edge portion of member **16** with one end of the wick extending outwardly through said opening and with the other end of the wick extending into the interior of pipe **10.** Conveniently, wick **17** may be formed of sponge material approximately one-eighth inch thick by about three-fourths inch wide. The length of said opening is preferably somewhat greater than the width of the sponge. The wick, when dry, extends to within about one inch from the bottom of the pipe adjacent the closed end formed by chisel-like edge **13** and the upper end extends slightly beyond the exterior surface of the pipe and within the confines of wall **14,** as shown in FIG. **4.**

At the opposite end of pipe **10,** there is a pipe portion **18** of reduced diameter thus forming a shoulder **19** spaced apart from the upper end portion of the pipe. Accordingly, if desired, another pipe (not shown) may be assembled with pipe **10** in telescoping relationship. The upper end of the pipe is closed by a cap **20** which also serves as an anvil for receiving blows from a hammer when it is desired to drive the post into the ground.

Regarding fabrication, it will be apparent that the frusto-conical portion **14** may be formed either of a single piece of material or may be formed from a plurality of individual pieces suitably connected together to form a unitary structure.

Pipe **10** is cut to form a slotted opening and an adjacent portion of the pipe is then pushed inwardly to form a louvre-like opening. Wick **17** is then inserted through the slotted opening and the end of the wick that is within the interior of pipe **10** is pulled to the right in FIG. **4,** following which frusto-conical portion **14** is connected to the pipe by any convenient means such as welding. After such connection is completed, the sponge is then pulled to the left, as shown in FIG. **4,** and positioned so that said end of the wick is about 1 inch from the left-hand end of the pipe, and the other end of the wick is extending through the louvred opening.

The chisel-like edge **13** is then formed by flattening wall portions **11** and **12** to form said edge as shown in FIG. **1** and said walls are then joined together, as by welding, to close the lower end of the pipe. Cap **20** is then inserted into the upper end of the pipe and the fabrication of the post is then complete.

Although it is to be understood that the present invention is not limited to a post of any particular dimensions, the following dimensions will be helpful by way of example. For example, with a pipe **10** having a diameter of about 1½ inches, when flattened will form a chisel-like edge **13** approximately 2¼ inches wide. In such case, the larger diameter of the frusto-conical portion **14** should be approximately 2¼ inches in diameter, and conveniently the overall length of the post may be about 29 to 30 inches.

Installation is very simple and merely requires that the post be driven into the ground, which can conveniently be done by directing hammer blows on the top of cap **20.** The post is driven into the ground to a depth of approximately 15 inches. In so doing, the frusto-conical portion **14** provides follow-up which serves to re-tamp the soil at the point of entry. The opening in the ground will then be somewhat greater in diameter than the diameter of the post and this space is then refilled with soil up to ground level.

It will be apparent that the wedge shape of chisel-like edge **13** and the extension thereof formed by frusto-conical portion **14** facilitates entry of the post into the ground and that the difference in the outer diameter of the frusto-conical portion **14** as compared to the diameter of pipe **10** provides resistance to removal of the post from the ground. Additionally, the configuration of frusto-conical portion **14** which is spaced apart from

chisel-like edge **13** provides lateral stability to the post, and ribs **15** disposed perpendicular to chisel-like edge **13** effectively resists any tendency of the post to twist or turn relative to the ground into which the post may be inserted. This completes the installation and the post is now ready to telescopically receive another pipe section which in turn is connected to a mailbox or other object to be supported.

When the soil surrounding pipe **10** contains excessive amounts of moisture, as for example, following rainfall, the frusto-conical portion **14** shields tapered walls **11** and **12** and chisel-like edge **13** from such moisture which wets the exposed end of wick **17** and some of such moisture runs into the interior portion of the post through the aforesaid louvre-like opening. When the soil is relatively dry, the soil immediately adjacent the post does not become excessively dry because capillary action causes a reverse flow of such moisture upwardly through the wick from the interior of the post and outwardly into the surrounding soil.

While a particular embodiment of the invention has been illustrated and described, it will be apparent that various changes and modifications can be made without departing from the invention and it is intended in the appended claims to cover all such changes and modifications that fall within the true spirit and scope of the invention.

What is claimed is:

1. A support for an object such as a mail box, bird feeder, and the like comprising

a hollow annular member having wall portions converging adjacent one end thereof and forming a chisel-like end and having

a frusto-conical sleeve connected to said annular member and having an included angle between opposed wall portions thereof substantially corresponding to the angle included between said converging wall portions and having

a pair of oppositely positioned ribs depending radially and outwardly from said sleeve, and

a wick within said annular member adjacent said chisel-like end, said wick being supported by said latter member and extending outwardly therefrom through an opening therein to admit entry of liquid into said latter member and to effect removal of liquid therefrom by capillary action.

2. Support according to claim **1** wherein said sleeve has a major diameter having a magnitude at least equal to the length of said chisel-like end.

3. Support according to claim **1** wherein said ribs are angularly disposed relative to said chisel-like end.

4. Support according to claim **1** wherein the lateral extent of said opening exceeds the corresponding lateral extent of said wick.

5. Support according to claim **1** and additionally including a closure member connected to the opposite end of said annular member for receiving and transmitting thereto an impact force to drive said support into the ground.

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