Dec. 11, 1962 E. T. IMPARATO 3,067,717

PORTABLE RESILIENT MARKER

Filed June 1, 1961

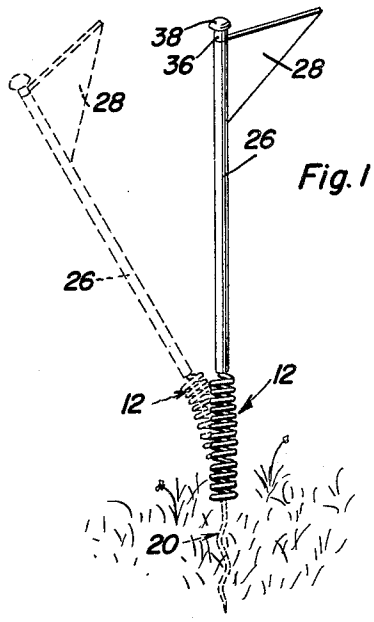


Fig. 1

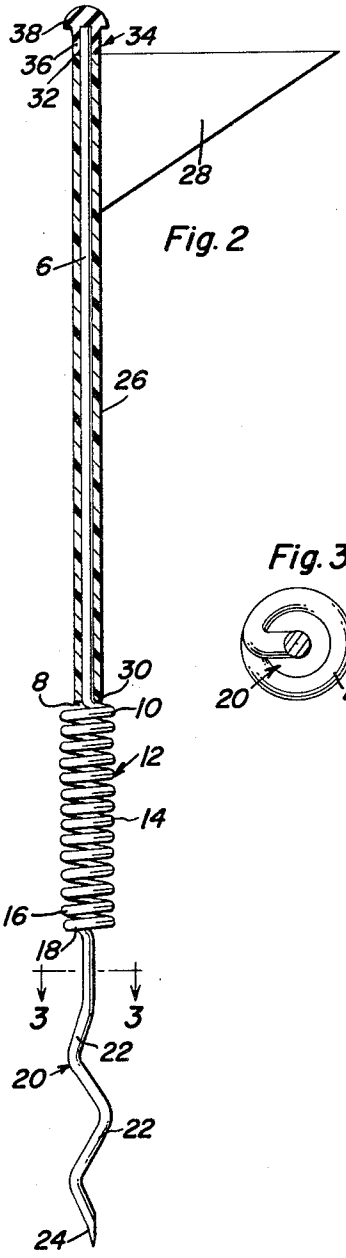


Fig. 2

Fig. 3

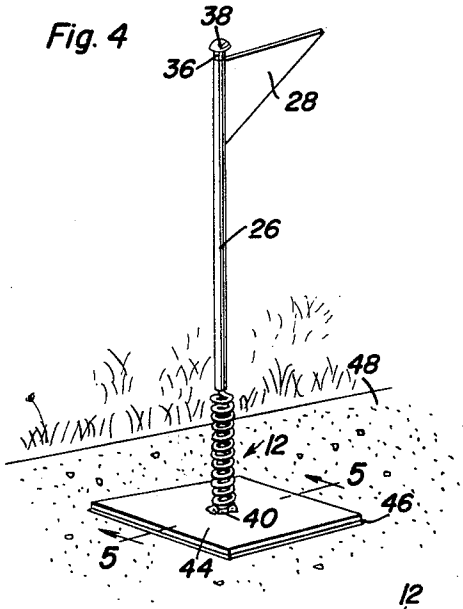


Fig. 4

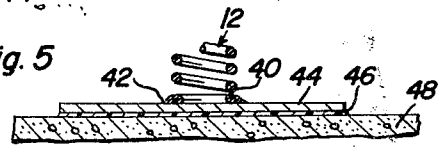


Fig. 5

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PORTABLE RESILIENT MARKER

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The present invention relates to a portable marker which provides a practical device to effectively identify and designate a predetermined area or place on a game staging field or parade ground to mark boundary limits for sports events and athletic games such as badminton, archery, soccer fields and the like.

As above suggested limitary-type and out-of-bounds markers are customarily employed in many and various outdoor games, sports events and for other generally analogous purposes including surveying, roadbuilding, subdivision planning and the like. A marker of this character comprises a stake, a staff with a flag atop the same or some equivalent visual signaling means.

More specifically, the instant invention is of one-piece construction. In fact, it is made from a single rod of prerequisite material and suitability. To this end a median portion of the rod is fashioned into a resilient linearly straight helically coiled spring the purpose of which is to maintain the visual signal in a normal properly displayed position. A major upper portion of the rod has its lower end joined to the uppermost coil of the spring and assumes a perpendicular position. The lowermost coil of the spring has an extension and this extension in turn is formed with suitable undulations defining an anchoring screw which may be readily forced and anchored in the ground at the selected place of use.

With the construction above briefly described it will be evident that the upper portion of the rod or flagstaff, normally assures a vertical position and yet when deflected will be automatically returned to its normal perpendicular position. The screw-type anchor permits screwing the lower portion of the device into the ground or an equivalent foundation.

Further novelty is predicated on enclosing the staff portion in a plastic colorful sleeve which facilitates spotting the device from a reasonable distance. A cap is fitted over the upper end of the staff and is fashioned into an enlarged head so as to prevent one being injured if and when the staff springs back forcibly from a deflector position and assumes its normal vertical display position.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a view in side elevation of a spring-return portable marker showing the invention and illustrating how it is used and operates;

FIGURE 2 is a view on a larger scale with the principal component parts in elevation and other component parts being in central vertical section through the flagstaff portion of the device.

FIGURE 3 is an enlarged horizontal section on the line 3—3 of FIGURE 2;

FIGURE 4 is a view in perspective showing the marker in conjunction with a base plate, the latter being cemented or otherwise secured to a road surface or an equivalent surface; and

FIGURE 5 is an enlarged vertical transverse section on the line 5—5 of FIGURE 4.

With reference in particular to FIGURE 2 the single or one-piece rod is of requisite cross-section and stock and the major upper portion thereof is linearly straight

as at 6 and constitutes what may be conveniently designated as a flagstaff. A lower end portion of the staff is bent laterally as at 8 and joins with or merges into the uppermost coil or convolution at 10 of a helical coil spring 12 which provides the desired flexibly resilient properties relied upon in the automatic spring action return depicted in dotted and full lines in FIGURE 1. Such devices as this are sometimes referred to as self-erecting, automatically returnable, and the like. The main coils are denoted at 14 and the lowermost coil 16 is bent toward the axis of the spring as at 18 where it joins with an integral extension 20. This extension is undulated or suitably bent to provide long coils or turns 22 which define a screw-type anchoring stake. The lower end is suitably pointed at 24 to penetrate the ground for secure anchorage and retention as depicted in FIGURE 1.

The staff casing comprises a sleeve 26 of colorful plastic material and this sleeve extends from the bend 8 but stops short of the upper end. The upper end portion of the sleeve is provided with an integral molded suitably shaped flag 28. The lower end of the sleeve is denoted at 30 and the upper end at 32. The cap 34 comprises a neck 36 fitted over the upper end of the staff, said neck carrying an enlarged semi-spherical or an equivalent cushioning and protective head 38. With this construction the likelihood of the device springing back violently and injuring one standing nearby is minimized.

A salient feature of the invention is a single-piece item, except for the attachment of a flag which would normally be made to the user's specifications or requirements. The simplicity of manufacturing having only one part, eliminates assembly problems. The screw anchor permits use in many types of surfaces without the need for additional implements such as screwdriver or hammer for installation.

With reference now to the modification of in FIG. 4, the lower end of the rod or staff is not restricted to a screw-in ground anchor 20 (FIG. 2) but is adapted for use on hard surfaces such as stones, concrete and equivalent roadways and the like. For this purpose a suitable base construction is provided. Specifically, the lowermost coil or convolution 40 is welded or otherwise fixed at 42 to the central flat top of a square or an equivalent base plate 44 and the latter is cemented or adhesively joined at 46 to the foundation 48.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention claimed.

What is claimed as new is as follows:

1. A visual marker comprising a one-piece vertically elongated standard consisting of a laterally resilient lower portion and a straight rod-like upper portion, a sleeve slidably received upon and embracing said upper portion throughout its length, a signal member rigidly secured to and projecting laterally from the upper end of said sleeve, a retaining cap received upon the upper end of said upper portion and retaining said sleeve thereon against axial displacement upon said upper portion, said lower portion comprising a coil spring axially alined with said upper portion, said upper portion being integrally united at its lower end to said coil spring by a transverse member upon which the lower end of said sleeve is engaged, an anchoring means united to the lower end of said coil and adapted for ground engagement to support said marker in a normally vertical position.

2. The combination of claim 1 wherein said upper por-

tion is of uniform cross sectional area throughout its length, said sleeve being rotatable thereon.

3. The combination of claim 1 wherein said anchoring means is rigidly connected to the lowermost convolution of said coil spring and depends centrally therebeneath.

4. The combination of claim 1 wherein said cap includes a tubular stem of the same outside lateral dimensions as those of the adjacent portion of said sleeve whereby to provide a surface forming a continuation of that of the sleeve and a laterally enlarged head on top of said stem.

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