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[54] **FIELD MARKING SYSTEM AND A MARKER THEREFOR**

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[51] **Int. Cl.** **E01f 9/10**

[58] **Field of Search** ..... 116/63, 114, 63 P, 116/173, 174, 175; 40/125 J, 125 H, 145 A; 94/1.5; 52/113, 103, 104, 116

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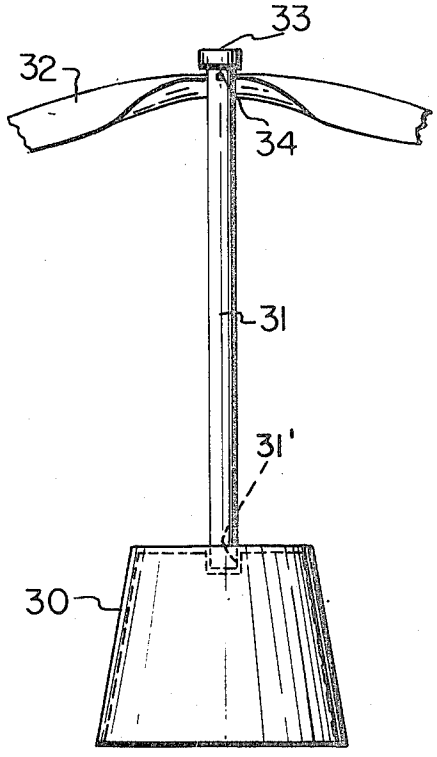
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[57] **ABSTRACT**

Predetermined distances are visually marked by a plurality of markers so arranged that a progressively varying distance from a predetermined point is designated by a progressively darker color. The individual markers comprise a hollow, nestable, substantially conical base provided with a receptacle means in the upper surface of said base; a flexible shaft one end of which is adapted to removably engage the receptacle means; and an indicator means affixed to the other end of the shaft.

2 Claims, 3 Drawing Figures



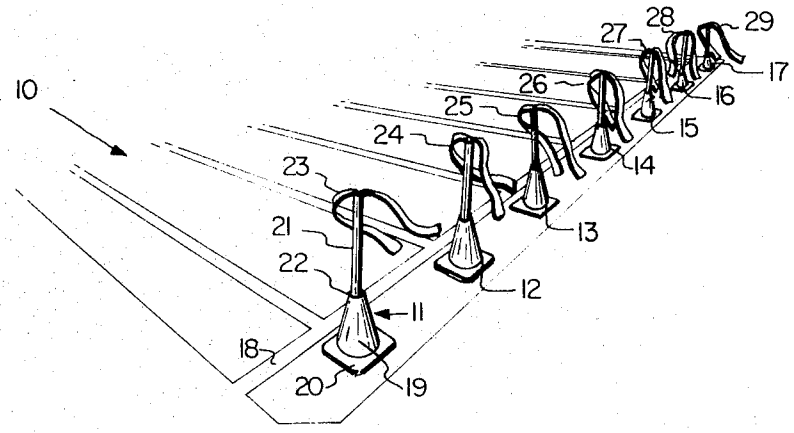


FIG. 1

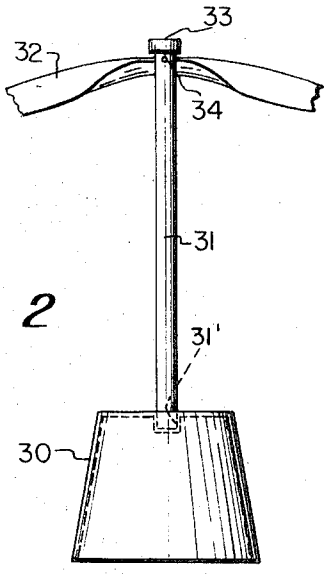


FIG. 2

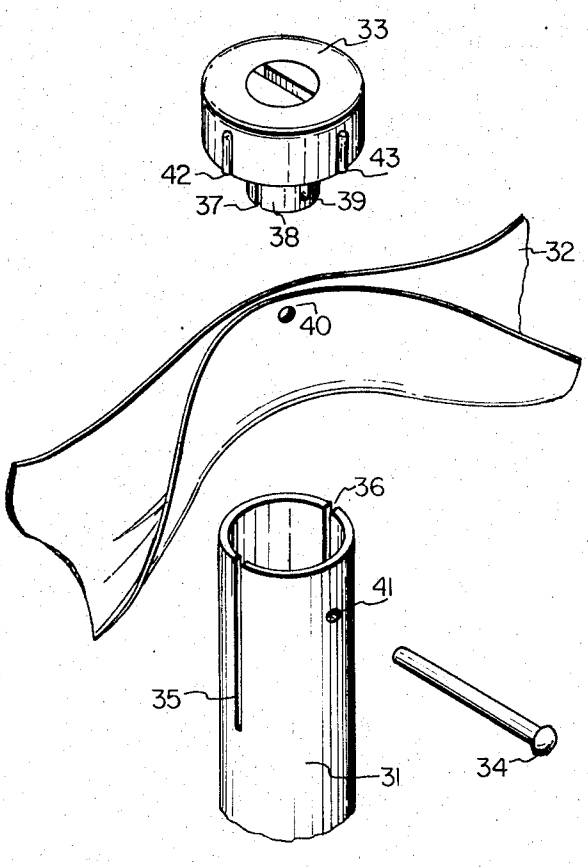


FIG. 3

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FIELD MARKING SYSTEM AND A MARKER THEREFOR

BACKGROUND OF THE INVENTION

This invention relates to distance and/or boundary markers. In one particular embodiment this invention relates to sideline markers for football fields.

Heretofore yardline markings have been in the form of numbered rubber or plastic plates which are inserted into the ground along a playing field or erected into position at a desired location. Such yardline indentification devices are necessarily bulky so as to allow large, readily visible numerals to be imprinted thereon. The bulk of the device also contributes to the weight thereof. Moreover, the bulk and weight of these devices make it necessary for them to have a relatively low profile relative to the ground which materially reduces the visibility of the numerals and makes it difficult to ascertain the exact location of the reference point both by the players and the spectators.

In order to enhance the visibility of the numerals a dark or black background is provided. This results in markers which are rather stark and unattractive in appearance, especially when contrasted with the colorful uniforms normally associated with athletic events.

Furthermore, low positioning for the markers is also required because the entire marker must collapse, spin, bend, or otherwise offer little resistance if fallen upon or struck by a player.

It is an object of the present invention to provide light-weight markers which obviate the foregoing problems, which are readily visible, and which can be easily handled and stored when not in use. Still other objects will readily present themselves to one skilled in the art upon reference to the ensuing specification, the drawing, and the claims.

SUMMARY OF THE INVENTION

The present invention contemplates a light-weight plastic marker comprising a hollow, nestable, substantially conical base which is provided with a receptacle means in the upper surface thereof. A flexible shaft is also provided, one end of the shaft being adapted to removably engage the receptacle means so as to hold the shaft in a substantially upright position when engaged by said receptacle means. An indicator means is affixed to the flexible shaft.

This invention also contemplates a method for visually marking predetermined distances by providing a set or plurality of markers each individual marker being coded with a different color and arranging the markers so that a progressively varying distance from a predetermined location is designated by a progressively darker color.

BRIEF DESCRIPTION OF THE DRAWING

In the drawing,

FIG. 1 is a perspective view of a portion of the sideline of an athletic field showing the markers of this invention arranged therealong;

FIG. 2 is a side elevation of an individual marker in accordance with another embodiment of the invention with portions of the indicator means broken away; and

FIG. 3 is a fragmentary perspective view of the upper portion of a flexible shaft, exploded to show assembly details.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to FIG. 1, football field 10 is provided with a set of markers 11, 12, 13, 14, 15, 16 and 17 along sideline 18. Each marker such as 11 comprises a nestable, frusto-conical base 19 which can be provided, if desired, with outwardly extending flange 20 for enhanced stability. Flexible shaft 21 is removably received in opening 22 in the upper surface of base 19 and retains shaft 21 in a substantially upright position. Indicator means 23 in the form of a pennant or a streamer is affixed to the upper end of shaft 21. In the alternative, the shaft itself can be color coded. Similarly, indicator means 24, 25, 26, 27, 28 and 29 are provided for markers 12, 13, 14, 15, 16 and 17, respectively.

The pennants or streamers can be color coded so as to serve the same function as the heretofore utilized numerals in identifying the particular yardlines. For example, the pennant can be white at midfield or 50-yard line, yellow at 40-yard line, orange at 30-yard line, blue at 20-yard line, and green at 10-yard line. The goal line and the end zone could be marked by a red pennant, if desired. As a further embodiment of one aspect of this invention the colors of the pennants are chosen so that a progressively varying incremental distance, for example from mid-field to the end zone, is designated or identified by a progressively darker color.

The indicator means can also comprise a light source situated within or on top of the marker, suitably energized, for example from a self-contained power source such as a battery or the like. The light source can be also situated within the base of a marker, along with the power source, and the marker shaft adapted to glow in response to energization from the light source. Alternatively, the light source can be situated within the shaft, or the shaft can be adapted to glow in response to energization from any suitable power source. Such light source can be made to blink or flash adding numerical identification to the color glow. Electronic equipment is commercially availbale to provide a single repeated flash of green at ten yard marker — dual flash of blue at 20 yard marker — triple flash of orange at 30 yard marker — quadruple yellow flash at 40 yard marker — continuous white flashing light at 50 yard marker.

The length of shaft 21 is not critical and can be selected as desired, being controlled only by the size and/or weight of the base that is used. The receptacle means for the shaft in the base can be a suitably sized socket or a hole in the upper surface of the base through which the shaft can be inserted. When the base and/or the shaft is struck by a player during a game, the base, being made of an elastic material such as rubber or plastic, e.g., polyethylene or the like, will topple over and/or collapse and the flexible shaft will either fly away from the base and/or bend, thereby precluding any injury to the player.

Another marker embodying the present invention is shown in FIG. 2. Base 30 is also conical in shape but of different geometrical configuration than base 11 shown in FIG. 1 and without an outwardly extending lower flange. It has been found that as the lower surface area of base is made larger a lower flange can be dispensed with without sacrificing the overall stability. Shaft 31 is removably received in a blind bare 31' in the top surface of base 30 and extends substantially upwardly

therefrom. Pennant **32** is affixed at the upper end of shaft **31** by means of cap **33** and pin **34** as will be discussed in more detail hereinbelow.

Referring to Fig. **3**, diametrically aligned slits **35** and **36** are provided in the upper portion of shaft **31** within which a doubled over portion of pennant **32** is received. Slit **37** is provided in inner projection **38** of cap **33** and is adapted to engage that portion of pennant **32** situated between slits **35** and **36**. Projection **38** is also provided with slot **39** substantially normal to slit **37** and adapted to receive pin **34** therethrough. Cap **33** is also equipped with ridges **42** and **43** which facilitate gripping.

Pennant **32** is affixed to shaft **31** by first doubling over a portion thereof so that hole **40** near one edge of pennant **32** aligns with hole **41** of shaft and a similar hole (not shown) situated near the opposite edge. The doubled over portion is then inserted in slits **35** and **36** so that hole **40** is situated therebetween and cap **33** placed thereover so that the doubled over portion is also received within slit **37** and hole **40** is in alignment with slot **39** and with hole **41** in shaft **31**. The entire assembly is then secured in place by means of pin **34** which is inserted through hole **41**, slot **39**, hole **40**, and a diametrically opposite hole (not shown) in shaft **31**. Alternatively, the doubled over portion of pennant **32** can be first inserted within slit **37** of cap **33**, this subassembly inserted into the upper end of shaft **31** so that the pennant is received in slits **35** and **36**, and thereafter secured in place by pin **34** as hereinabove set forth.

The pennants or streamers can be manufactured from any convenient fabric or sheet material such as nylon, nylon-vinyl combinations, vinyl, cotton, or the like.

The flexible shaft can be made of rubber, polyethylene, or the like.

The markers of the present invention, while particularly well suited for designating the yardlines of a football field, are also well suited for delineating parking areas, for crowd control, as well as for marking certain locations or points on cross-country or linking courses. The nestability, light weight, and ease of storage of the present markers make them readily portable and particularly well suited for various marking needs.

The foregoing discussion and the accompanying drawing are intended as illustrative but not limiting. Still other variations and rearrangements of parts within the spirit and scope of this invention will readily present themselves to the skilled artisan.

I claim:

1. A light weight marker comprising a hollow, nestable, substantially conical base made of elastic material, said base being provided with an opening at the top thereof, a flexible shaft having its lower end removably engaged in said opening and being held in a substantially upright position, said shaft being provided at its upper end with slot means extending therethrough, a streamer having an intermediate portion thereof disposed in said slot means, said upper end of said shaft and said streamer being provided with aligned apertures therein, and pin means extending through said aligned apertures to fasten said streamer to said shaft.

2. A marker according to claim **1**, further comprising a cap secured upon the upper end of said shaft, said cap having a lower portion provided with a slit for receiving a part of said intermediate portion of said streamer.

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