Dec. 6, 1938. L. E. CASSELL ET AL 2,139,300

YARDAGE MEASURING DEVICE FOR FOOTBALL GAMES

Filed April 19, 1938

FIG. 1.

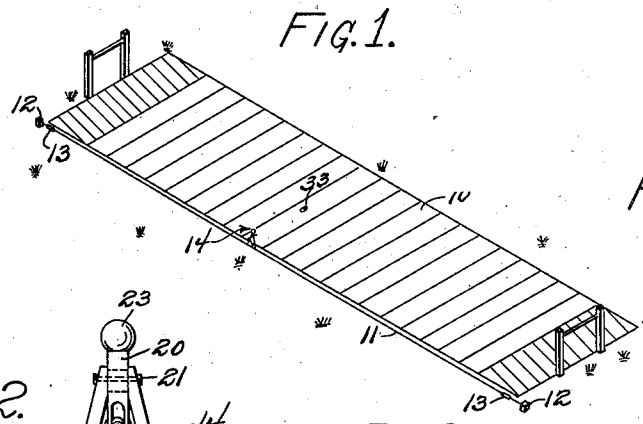


FIG. 2.

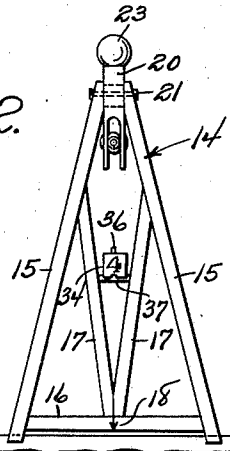


FIG. 9.

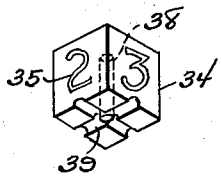
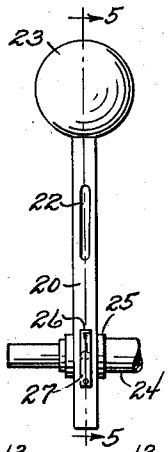


FIG. 4.



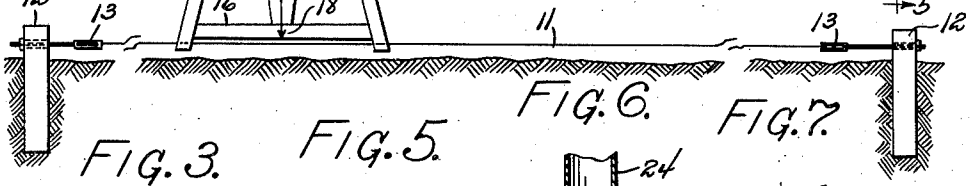


FIG. 6.

FIG. 7.

FIG. 3.

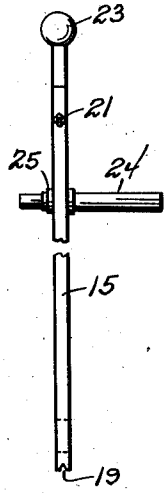
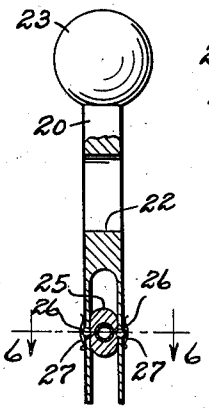


FIG. 5.



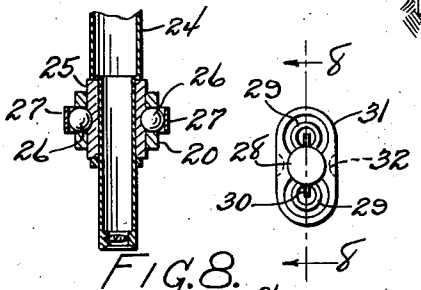
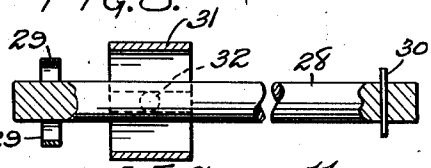


FIG. 8.



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YARDAGE MEASURING DEVICE FOR FOOT-BALL GAMES

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Application April 19, 1938, Serial No. 202,954

2 Claims. (Cl. 33—46)

This invention relates to a yardage measuring device for foot ball games.

An object of the invention is to provide a device having legs spaced at the bottom one yard apart, the device being adapted to be stepped along a wire stretched parallel to the playing field to more accurately measure yardage gained and lost than is possible by the use of the conventional measuring chain.

A further object is to provide a device of this character having a sighting bar or a telescope arranged at a right angle to the playing field to facilitate properly locating the device by sighting the ball in the position placed by the referee after a play, there being a pointer disposed directly below the sighting bar or telescope to indicate on the wire the exact position of the ball longitudinally of the playing field.

A further object is to provide a device of this character which will be formed of a few strong simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a perspective view of a foot ball playing field showing the application thereto of a yardage measuring device constructed in accordance with the invention.

Figure 2 is a front elevation of the yardage measuring device and showing a marker associated therewith to indicate "downs".

Figure 3 is an end elevation of the device disengaged from the supporting wire.

Figure 4 is an enlarged detail end elevation of the device with one of the legs removed to show the slot for adjusting the height and the handle through the medium of which the device is manipulated.

Figure 5 is a longitudinal sectional view taken on the line 5—5 of Figure 4.

Figure 6 is a cross sectional view taken on the line 6—6 of Figure 5.

Figure 7 is a front elevation of a sighting bar which may be substituted for the telescope.

Figure 8 is a longitudinal sectional view of the sighting bar taken on the line 8—8 of Figure 7.

Figure 9 is a detail perspective view of a marker for indicating "downs".

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates a conventional foot ball playing field. In carrying out the invention a wire 11 is stretched between posts 12 located at the ends of the field and is provided with turnbuckles 13 through the medium of which the wire may be maintained taut at approximately the level of the ground. The wire extends parallel with the playing field and forms a support for a yardage measuring device indicated in general by the numeral 14.

The yardage measuring device comprises a pair of diverging legs 15 connected above the lower ends by a cross bar 16 and braced by inclined braces 17 which converge to the center of the cross bar 16. The cross bar is marked with an arrow 18 at the center thereof. Both legs are provided in the bottom with notches 19, best shown in Figure 3, to receive the wire 11.

A bar 20 is interposed between the upper ends of the legs and a bolt 21 is passed through the legs and through a slot 22 in the bar to adjust the vertical height of the bar for manipulation as a handle by a tall man or a short man to step off yardage on the wire similar to the use of draftsmen's dividers in stepping off measurements on drawing paper. The bar is equipped at the top with a ball grip 23. The distance between the centers of the bottoms of the legs 15 is exactly one yard so that by stepping the device forwardly or rearwardly along the wire after a play and again placing the arrow in alignment with the new position of the ball, gains or losses may be accurately measured.

The lower end of the bar is bifurcated to receive a conventional telescope 24, as best shown in Figures 4, 5 and 6. The telescope is disposed at a right angle to the playing field so as to point at all times in a direction parallel with the yardage lines marked on the field. The telescope may be held in place by a compressible sleeve 25 of rubber which surrounds the telescope and against which balls 26 are pressed by spring clips 27 carried by the bar to deform the sleeve and force it to tightly grip the telescope.

In lieu of the telescope a sighting bar 28 may be used. The bar is simply a solid bar provided at one end with upper and lower open sights 29 and provided at the opposite end with upper and lower pin sights 30. A frame 31 is fixed to the bar and is provided in its sides with sockets 32

to receive the spring pressed balls **26** carried by the legs **15**.

In operation the legs of the device are placed on the wire and the operator sights along the sighting bar or through the telescope directly opposite the point from where the ball **33** is to be put in play. The arrow **18** will indicate the exact position of the ball longitudinally of the field. When the ball comes to rest after the play the device is stepped along the wire until the ball is again picked up over the sights of the sighting bar or through the telescope whereupon the exact number of yards gained or lost may be determined by calculating the number of steps taken by the device from its initial position to its new position upon the wire **11**.

The advantage of upper and lower front and rear sights on the sighting bar is that should the pin sight be turned away from the field and the open sight toward the field the sighting bar may be swung downward in an arc on the retaining balls **26** as a pivot and reversed to locate the pin sight toward the field and the open sight away from the field. In the same manner the telescope may be reversed as the long end is pressed to the operator's eye after stepping off yardage along the wire.

A cubical marker **34** is provided on four of its faces with numerals **35** designating "downs" from 1 to 4 consecutively. A pin **36** mounted on a transverse bracket **37** connected to the braces **17**, is received in an axial opening **38** formed in the marker. The bottom of the marker is provided with a cruciform groove **39** to receive the bracket **37** and anchor a selected numeral in position to be seen by the players.

The device may be used in connection with the conventional linemen's chain and when so used will render the locating of the chain at any new position much more accurate than hitherto possible.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

1. A yardage measuring device for foot ball games comprising a wire adapted to be stretched parallel with the playing field, legs forming an inverted V, each leg having a groove at its free end to receive said wire, said legs having their ends fixed one yard apart, a bar connected to the adjacent upper ends of the legs and forming a handle for swiveling the legs to step off distances on the wire, and a sight carried by said bar, said sight having its sight line fixed in a normally vertical plane at right angles to the plane of said legs.

2. A yardage measuring device for foot ball games comprising a wire adapted to be stretched parallel with the playing field, legs forming an inverted V, each leg having a groove at its free end to receive said wire, said legs having their ends fixed one yard apart, a cross bar connecting said legs near the bottom, there being an arrow marked on the center of the cross bar, a bar connected to the upper ends of the legs and forming a handle for swiveling the legs to step off distances on the wire, there being a slot in the handle bar, a sight in said slot, and means for adjustably mounting the sight in the slot, said sight having its sight line fixed in a normally vertical plane at right angles to the plane of said legs.

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