Oct. 9, 1928. 1,687,276

M. H. WINKLER

INDICATOR

Filed June 28, 1927

Fig. 1.

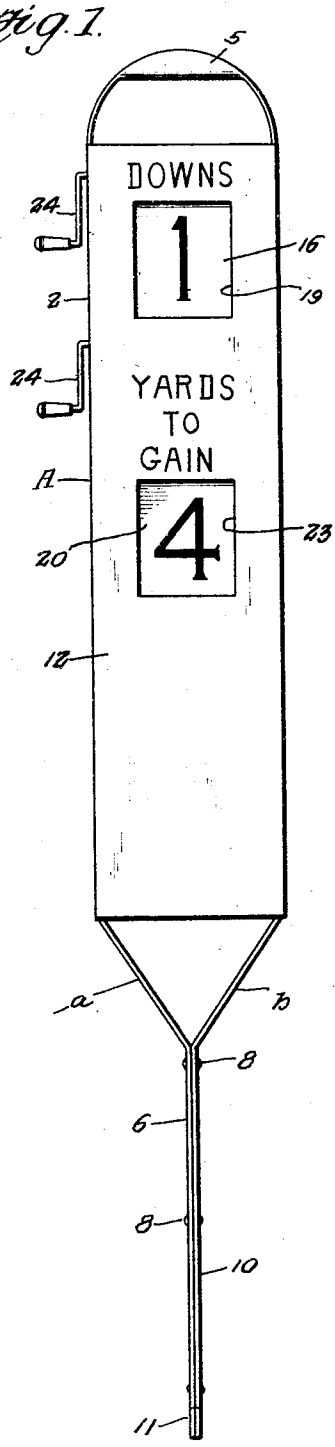


Fig. 2.

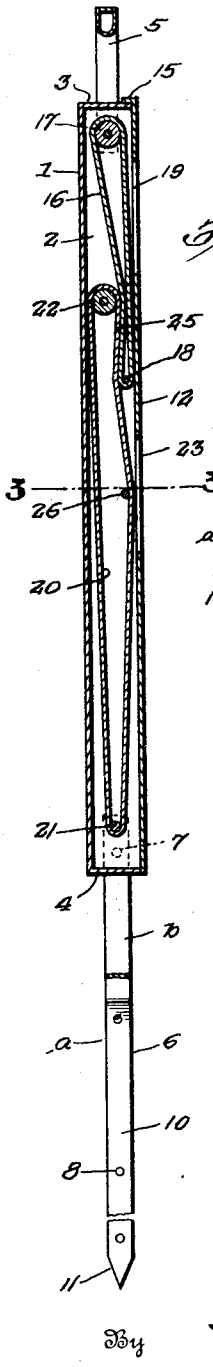
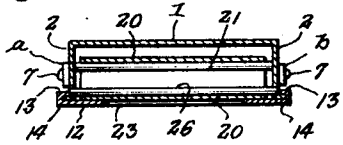


Fig. 3.



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UNITED STATES PATENT OFFICE.

MOSES H. WINKLER, OF MERIDIAN, MISSISSIPPI.

INDICATOR.

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This invention has reference to an indicator for use in a foot-ball game, and the object of the invention is to avoid any misunderstanding on the part of the players and officials as to the immediate situation of the game after each play or "down" by visibly indicating the impending down and the yardage to be gained.

This information is usually given verbally by the linesmen to the officials and players but as there is naturally a great amount of noise and confusion during foot-ball games, the information conveyed is frequently misunderstood and it has been necessary from time to time for the linesmen to repeat the same. However, by visibly indicating after each play the "downs" and "yards to gain", the possibility of a misunderstanding between the linesmen and the officials and players is reduced to a minimum.

It is a further object of the invention to provide an indicator of the character described which is of a light, durable, structure so as to be easily carried upon occasion by the head linesman or his assistants, and which has a pointed end for thrusting in the ground as the sole supporting means for the device.

With the above and other objects in view, the invention consists in the construction, combination, and arrangement of parts hereinafter described, and illustrated in the accompanying drawing, in which:

Figure 1 is a front elevation of an indicator constructed in accordance with the invention,

Figure 2, a central, longitudinal, sectional view of the indicator, and

Figure 3, a cross sectional view taken on line 3—3 of Figure 2.

Describing the invention in detail, the body portion of the same is indicated at A, which consists in a galvanized casing so formed as to present a long and relatively narrow or shallow receptacle composed of the back wall 1, side walls 2, and the top and bottom walls 3 and 4. At its top, the casing is provided with a handle 5 whereby it can be conveniently carried and at its lower end it has a pointed supporting bracket 6 which is adapted to be thrust into the ground for maintaining the indicator in an upright position. As illustrated, the supporting bracket may be composed of two bracket members *a* and *b* secured to opposite sides of the casing, as shown at 7, and converging towards the center line of the casing so as to meet and be fastened together as shown at 8; the fastened portions 10 extending in a straight line with the center of the casing and being pointed at the end 11, so as to be easily forced into the ground a sufficient depth to hold the device upright.

A slide cover 12 fits over the open side of the casing and is slidably retained in place by means of the cover flanges 13 which engage over the flanges 14 of the casing. A stop-flange 15 at the top of the slide cover abuts with the top of the casing and limits the downward sliding movement of the cover, as will be apparent from Figure 2.

Two sets of indicating means are employed; one to indicate the "downs", and the other to indicate the "yards to gain". The means for indicating the "downs" consists of a comparatively short belt or web of canvas 16 disposed in the upper portion of the casing and having on its face the indicating numerals "1", "2", "3", and "4", arranged consecutively and suitably spaced. At its upper end, the belt 16 travels around a roller 17 and at its lower end around a fixed rod 18. The numerals are displayed through an opening or window 19 in the upper part of the slide cover 12, above which opening is printed or otherwise placed the word "Downs". The means for indicating the "yards to gain" consists of a comparatively long belt or web of canvas 20, the lower end of which travels around a fixed rod 21 placed near the bottom end of the casing. The belt 20 extends for about three fourths of the length of the casing and travels at its upper end around a roller 22. The face of the long belt is provided with indicating numerals from "1" to "10" inclusive which are displayed through an opening or window 23 in the cover, above which opening is printed or otherwise placed the legend "Yards to gain." Each roller 17 and 22 is provided with a handle 24 whereby it may be rotated for moving the belt to cause a selected numeral to appear in the adjacent opening or window in the cover of the device.

In order that the belts may be held taut and smooth, they are so arranged within the casing that they overlap and press against each other at their adjacent ends, the pressure being sufficient to accomplish this without preventing the belts from moving when the handles are turned. This is accomplished in the present instance, as shown to advantage in Figure 2, by having roller 17 of belt 16 and rod 21 of belt 20 substantially centered between the front and back walls of the casing

and by placing roller 22 of belt 20 and rod 18 of belt 16 respectively on opposite sides of the center of the casing, the rod 18 being below the roller 22 so that the overlapping portions of belts 16 and 20 contact, as seen at 25. To insure such contact of the overlapping belt portions, and to cause the belt 20 to travel close to the opening 23, a stretcher rod 26 is supported by the side walls of the casing close to opening 23 and about midway the top and bottom edges of the opening, the belt 20 being caused to pass between the stretcher rod and the opening. This arrangement not only provides for the displaying of the indicating numerals free from wrinkles and folds, but also insures sufficient friction between the belts and rollers, so that the former will move readily upon rotation of the rollers to expose selected numerals.

During the game, the indicator is carried by the head linesman or one of his assistants in following the play of the contesting teams, and is preferably positioned on or near the side lines of the foot-ball field with the indicating numerals facing the players and officials. After each play, the one in charge of the device may, by simply turning the handles to cause the selected numeral or numerals to be displayed, make known quickly and clearly the impending down and the number of yards remaining to be gained in the allotted number of downs.

Being of light weight and portable, the indicator can be readily transported from one part of the playing field to another and quickly positioned at any desired point by merely thrusting the pointed end into the ground, no other means of support being required.

The above description has reference to only one particular embodiment of the invention but it is to be understood that the invention is not limited to the precise details of construction herein shown and described. Modifications and variations may be made without departing from the spirit of the invention as set forth in the claims.

I claim:

1. A portable indicator for foot-ball games comprising a casing having windows, a pair of endless belts within the casing having indicating numerals adapted to be exposed through the windows, said belts being so arranged that they overlap and press against each other at adjacent ends, and independent means for moving the said belts to cause selected numerals to appear in the windows.

2. A portable indicator for foot-ball games comprising a casing having windows, indicating means within the casing having signal characters adapted to be exposed through said windows, a handle at one end of the casing, and a supporting bracket at the other end, said bracket comprising a ground-penetrating blade having at its upper portion diverging branches between which the casing is mounted.

3. A portable indicator for foot-ball games comprising a casing having supporting means, said casing being formed to present a long shallow receptacle, a slide cover for the casing having relatively upper and lower windows, a belt in the upper portion of the casing having signal characters adapted to be exposed through the upper window, a belt in the lower portion of the casing having signal characters adapted to be exposed through the lower window, and independent means for operating the belts to expose selected characters at the respective windows.

4. A portable indicator for foot-ball games comprising a casing formed to present a long shallow receptacle, a slide cover for the casing having relatively upper and lower windows, a short belt in the upper portion of the casing having signal characters adapted to be exposed through the upper window, a long belt in the lower portion of the casing having signal characters adapted to be exposed through the lower window, said belts overlapping and pressing against each other at their adjacent ends, and independent means for operating the belts to expose selected characters at the respective windows.

5. A portable indicator for football games comprising signalling means, handle means on the said signalling means, and supporting means comprising a ground-penetrating blade having diverging portions between which the signalling means is mounted.

In testimony whereof I have affixed my signature.

MOSES H. WINKLER.