

Nov. 10, 1936.

S. E. BORLESKE

2,060,165

LINESMAN'S INDICATOR FOR FOOTBALL GAMES

Filed May 1, 1934

3 Sheets-Sheet 2

Fig. 2.

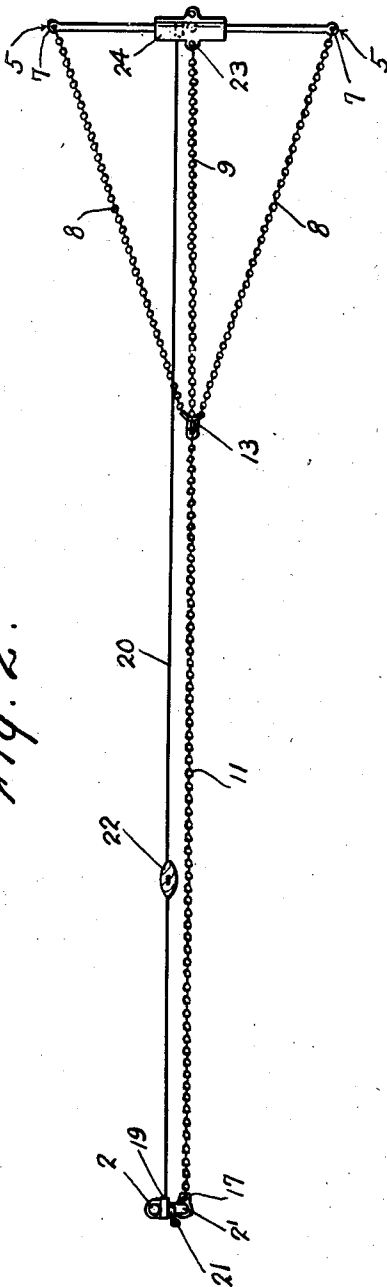


Fig. 3.

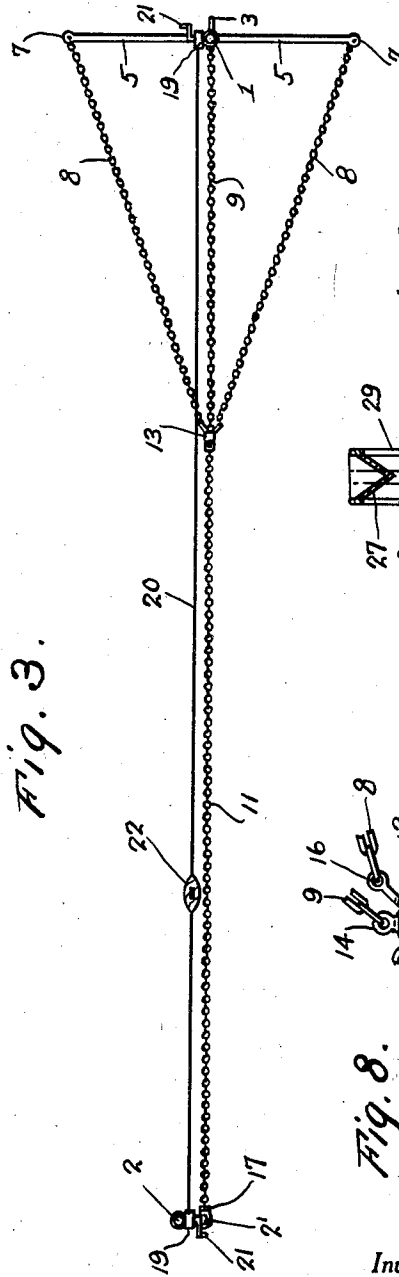


Fig. 9.

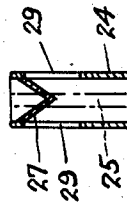
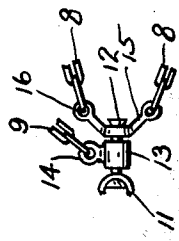


Fig. 8.



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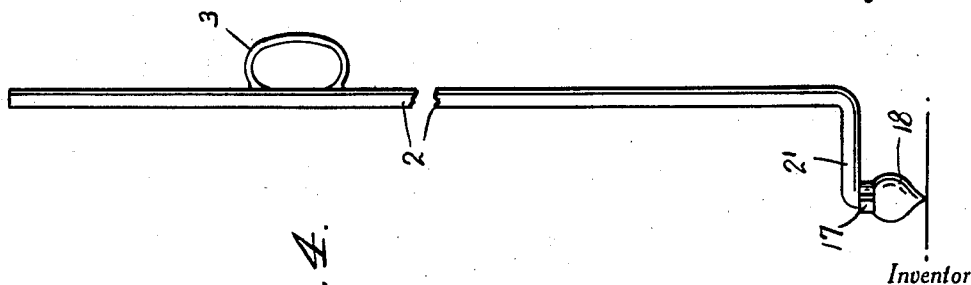
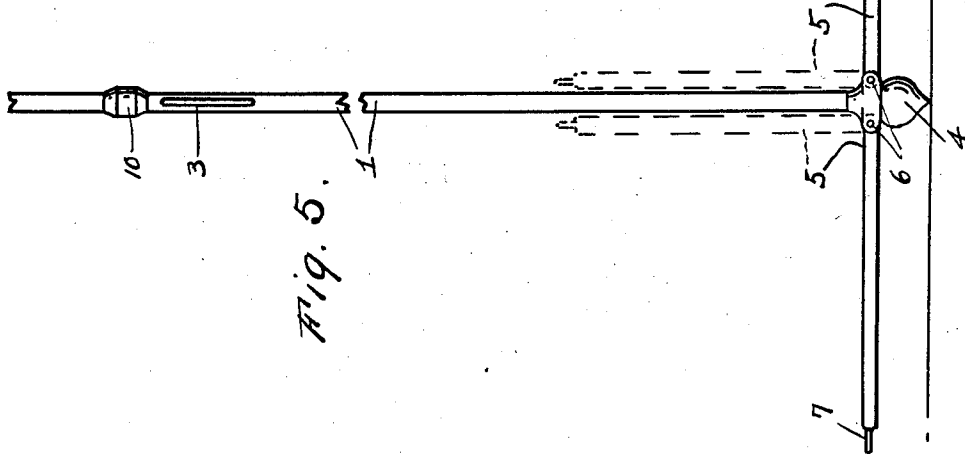
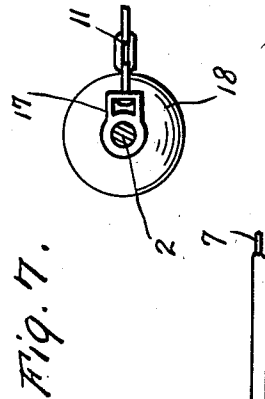
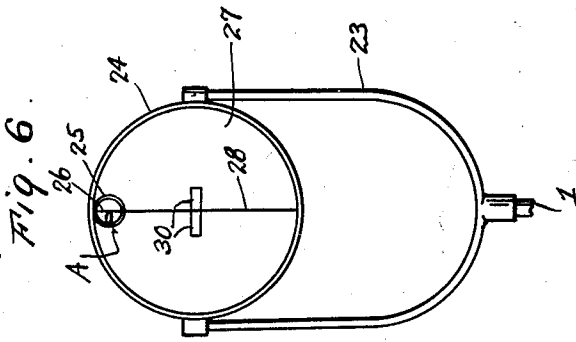
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UNITED STATES PATENT OFFICE

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LINESMAN'S INDICATOR FOR
FOOTBALL GAMES

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Application May 1, 1934, Serial No. 723,395

10 Claims. (Cl. 33—137)

This invention relates to a linesman's indicator for football games, the general object of the invention being to provide means for determining, without delay or "time out" when a first down has been made, and for determining just where the stakes should be set when a new series of downs occur following a gain resulting in a first down.

Another object of the invention is to provide an adjustable marker whereby a record is kept of the point from which the last scrimmage started so that penalties in yardage can be accurately marked off.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is an elevation of the device.

Figure 2 is a top plan view thereof.

Figure 3 is a view similar to Figure 2, but with the sight tubes omitted.

Figure 4 is a view of the rear post.

Figure 5 is a view of the front post.

Figure 6 is a view looking through the eye piece of the sight tubes and showing the yoke which supports the tubes.

Figure 7 is a section on line 7—7 of Figure 1.

Figure 8 is a view of the swivel between the chains.

Figure 9 is a diagrammatic sectional view through the large sight tube.

In these drawings, the front or forward post is shown at 1 and the rear post at 2. Each post has a handle 3 intermediate its ends and the front or forward post has a pointed pedestal 4, the point of which is adapted to penetrate the ground, and said post, adjacent its lower end, has a pair of oppositely extending arms 5 pivoted thereto, as shown at 6, so that the arms can be swung to horizontal position, as shown in full lines in Figures 2, 3 and 5, and in Figure 5 in dotted lines, the folded position of the arms permitting the device to be stored or transported from place to place. The outer end of each arm is formed with an eye 7 and a pair of short chains 8 each has one end connected to one of said eyes. A third diagonally arranged chain 9 has one end swiveled to the post 1, as shown at 10.

A chain 11 has swiveled to one end a shaft 12 to which a collar 13 is pivoted and this collar has an eye 14 for receiving the lower end of the chain 9. A double arm 15 is swiveled to the shaft 12 and has eyes 16 at its ends for receiving the other ends of the chains 8. The other end of the chain 11 is swiveled in an eye on a collar 17 which is swiveled to the lower end of the rear post 2, this lower end of the post being bent at right angles to provide the horizontal part 2' and then bent downwardly at right angles and this latter portion is formed with the pedestal 18 which is also pointed to penetrate the ground and the collar 17 is carried by the downwardly extending portion, as shown in Figure 4.

A reel casing 19 is suitably supported on each post and a flexible member 20 has its ends connected with the spools of these reels, each spool being manually turned by a handle 21, and a marker 22, preferably of football shape, is suitably clamped to a part of the flexible member 20, which may be a wire.

A yoke 23 is connected with the upper end of the post 1 and supports a large sight tube 24 which contains, in its upper portion, a small sight tube 25. This small tube is provided with a vertical hair-line 26 and a substantially V-shaped reflector or mirror 27 is arranged in the large tube with its apex forming a continuation of the hair-line, as shown at 28. Windows 29 are formed in the large tube so that the images 30 of the line flags will appear on the reflector, as shown in Figure 6, when the sight tubes are arranged at exactly right angles to the side line, between the flags and in alignment with a transverse line on the football field. The chains are of such a length that when the chains are taut, the two poles or posts 1 and 2 will be spaced exactly ten yards apart.

As will be seen, by swiveling the four chains to each other by the shaft 12, the setting of the forward post will be facilitated, for by placing the rear pole or post 2 at the point in line with the football after a first down has been made and carrying the forward post 1 forwardly, as soon as the chains have become taut, the forward post will be ten yards in advance of the rear post and the chains, when taut, will hold the forward post in vertical position. The posts can be easily reversed when the ball is taken from one team by the other as it is simply necessary to lift the forward post 1 and carry it over one of the chains 8 and place the pedestal of this post in the hole made by the pedestal of the post 2, the post 2 being removed so that the post 1 can take its place

and then the post 2 is placed at the point formerly occupied by the post 1. As the post 1 is being carried toward the post 2 the chains will move on their swivel connections so that when the posts are finally reversed the chains 8 and 9 and 11 will extend from the right of the post 1 instead of the left as shown in Figures 2 and 3. As will be noted, the handle 3 is below the swivel 10 of the pole 1 so that the chain 9 can readily swing around when the poles are reversed. The circumference of the spools of the reels are calculated so as to give a definite number of turns of the reel for each yard the ball progresses backwardly or forwardly and the marker 22 is used to indicate to the spectators the progress of the ball and is for the use of officials when inflicting penalties from the point of the preceding down. The offset part 2' of the rear pole places said pole out of line of the rear flag and the window in the large sight tube. The sight tubes establish a line of vision perpendicular to the side line and passes through the point to which the ball must be advanced in order to result in a first down and when the ball reaches a position where it can be seen through the small tube, as shown at A in Figure 6 and the images of the flags meet at the apex 28, the observer will know that a first down has been made. For rough work or approximation, it is simply necessary to sight along the tubes, but for really accurate work, it is advisable to sight through the small tube. The chains are the mechanical means for keeping the sight tubes in rough adjustment and the reflector and apertures or windows are the means for a scientific accurate adjustment.

Thus it will be seen that I have provided a simple device for accurately determining the first downs in football games without delaying of the game and the device can also be used for determining more accurately just where the stakes should be set when a new series of downs occur following a gain resulting in a first down.

By means of the football-shaped marker 22, a record is kept of the point from which the last scrimmage started and this is important for purposes of enforcing penalties from the spot of the previous down. It enables one to make a check on the accuracy or inaccuracy of a distance penalty which may be inflicted. Such errors occur either by a mistaken count in steps by the referee or because of the fact that his strides are too short or too long or in starting the penalty from the wrong point.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What is claimed is:—

1. A device of the class described comprising a forward post and a rear post, a chain having one end swiveled to the lower part of the rear post, a pair of oppositely extending arms connected to the lower end of the forward post, a pair of chains connected to the outer ends of said arms, means for swiveling the chains to the other end of the first chain, a diagonally arranged chain having one end swiveled to an intermediate part of the forward post and its other end swiveled to the said other end of the first chain, and a sight tube supported on the forward post in a vertical plane

at right angles to the first mentioned chain when all the chains are taut.

2. A device of the class described comprising a forward post and a rear post, a chain having one end swiveled to the lower part of the rear post, a pair of oppositely extending arms connected to the lower end of the forward post, a pair of chains connected to the outer ends of said arms, means for swiveling the chains to the other end of the first chain, and a diagonally arranged chain having one end swiveled to an intermediate part of the forward post and its other end swiveled to the said other end of the first chain.

3. A device of the class described comprising a forward post and a rear post, a chain having one end swiveled to the lower part of the rear post, a pair of oppositely extending arms connected to the lower end of the forward post, a pair of chains connected to the outer ends of said arms, means for swiveling the chains to the other end of the first chain, a diagonally arranged chain having one end swiveled to an intermediate part of the forward post and its other end swiveled to the said other end of the first chain, a sighting tube supported on the forward post in a vertical plane at right angles to the first mentioned chain when all the chains are taut, said sight tube having windows therein, a V-shaped mirror in the sight tube for receiving images of the marking flags, a small tube in the sight tube, and a vertically arranged hairline in the small tube providing an extension of the apex of the V-shaped mirror.

4. A device of the class described comprising a forward post and a rear post, a chain having one end swiveled to the lower part of the rear post, a pair of oppositely extending arms connected to the lower end of the forward post, a pair of chains connected to the outer ends of said arms, means for swiveling the chains to the other end of the first chain, a diagonally arranged chain having one end swiveled to an intermediate part of the forward post and its other end swiveled to the said other end of the first chain, a sight tube supported on the forward post in a vertical plane at right angles to the first mentioned chain when all the chains are taut, said sight tube having windows therein and a V-shaped mirror in the sight tube for receiving images of the marking flags, the rear post having an offset lower portion.

5. In a device of the class described, a pair of posts, a pair of oppositely extending arms connected to the lower end of one of the posts, a pair of flexible members connected to the outer ends of said arms, a third flexible member, means for swiveling one end of the last mentioned flexible member to the first mentioned flexible members, a diagonally arranged flexible member having one end swiveled to said end of the third flexible member and its opposite end connected to said one post, means for connecting the other end of the third flexible member to the other post, and a sight tube mounted on the said one post in a vertical plane at right angles to the third flexible member when all the said flexible members are taut.

6. In a device of the class described, a post, a chain connected with said post and adapted to be connected to another post, a sighting tube carried by the first-mentioned post and arranged at right angles to the chain when said chain is taut, a V-shaped mirror in the sighting tube, a small tube in the sighting tube and extending in the same direction as the sighting tube, and

a vertically arranged hair-line in the small tube providing an extension of the apex of the V-shaped mirror, said sighting tube having in its sides and alongside said mirror windows laterally of the tube.

5 7. In a device of the character described, a post, a chain connected with said post and adapted to be connected to another post, a sighting tube carried by the first-mentioned post and arranged at right angles to the chain when the latter is taut, said sighting tube having a V-shaped mirror therein and also having in its sides and alongside said mirror windows laterally of the tube.

15 8. In a device of the class described, a post, oppositely extending arms connected to the lower end of the post, flexible members connected to the outer end of the arms, a third flexible member connected to the first-named flexible members and adapted to be connected to another post, a diagonally arranged flexible member having one end connected with the third flexible member and its other end connected to the first-mentioned post, and a sight tube mounted on the first-mentioned post in a vertical plane at right angles to the third flexible member when said member is taut, and the other flexible members are drawn taut.

9. In a device of the class described, a post, a chain adapted to be connected to another post, oppositely extending arms connected to the lower end of the first-mentioned post, chains connected to the outer ends of said arms, means for swivelling said chains to the first-named chain, a diagonally arranged chain having one end swivelled to an intermediate part of the first-mentioned post and its other end swivelled to the first-named chain, and a sight tube carried by the first-mentioned post and arranged at right angles to the first-named chain when the latter is taut and the other chains are drawn taut.

10. In a device of the class described, a post, a chain adapted to be connected to another post, oppositely extending arms connected to the lower end of the first-mentioned post, chains connected to the outer ends of said arms, means for swivelling said chains to the first-named chain, and a diagonally arranged chain having one end swivelled to an intermediate part of the post and its other end swivelled to the first-named chain.

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