FOOTBALL PRACTICE APPARATUS

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ABSTRACT

An apparatus for practicing football passing in which a carriage is mounted on an inclined track and supports a target consisting of a vertically positioned hoop with a net on the side opposite the passer for catching the ball tossed thereto as the target moves along the track. A control unit is preferably used which, while supporting the football, holds the carriage and target in their initial starting position on the track and releases them for movement down the track when the ball is removed from the control unit. The track is supported in an elevated position on standards and may be of rigid construction, or may consist of a rigid upper section and a flexible lower section.

9 Claims, 13 Drawing Figures
FOOTBALL PRACTICE APPARATUS

The skill necessary to be a reliable and accurate passer in the game of football requires intensive practice at frequent sessions throughout the year. While some skill is normally acquired at practice sessions under the supervision of the coach, these sessions are not adequate to master the art of placing the ball at the right place, at the right time for the receiver to catch the ball as a play is executed. The forward pass involves passing the ball to a player running at various angles to the passer, and hence for proper and meaningful practice in preparation for all probable contingencies in executing a play during a game, all those contingencies must be simulated in practice. The usual way of obtaining actual passing conditions during practice is to use two or more players besides the passer. In the past the use of the additional players has been necessary since the play usually involves a receiver running down or across the field, i.e., a moving target for the ball passer who must instantaneously determine the lead required to place the ball and ball carrier at a given spot. Since the ball passer normally requires more time and practice in order to acquire the necessary skill for the game than the player catching the ball, the time of the additional players used in practice is often wasted or is of little or no benefit to those additional players or to the team. It is therefore one of the principal objects of the present invention to provide a football practice apparatus which simulates various passing conditions encountered by a ball passer during an actual game and during the usual practice sessions, and which permits a player to practice all usual plays without the assistance of another person.

Another important object of the invention is to provide a game apparatus with which persons of any age, and with no particular previous football skill can enjoy the simulated position of a football quarterback (or passer).

Another object of the invention is to provide an apparatus for use in practicing football passing, which can be set up and used in almost any open area either outside or inside, and can easily be adapted to the shape and size of the area, and which can be assembled in various positions to give the player the kind of practice needed to obtain maximum benefit.

A further object of the invention is to provide a football practice target apparatus which can readily be moved from one position and location to another and which can be easily disassembled, transported, stored and reassembled.

Still another object of the invention is to provide a practice target for football passing which includes a mechanism automatically tripping and releasing the target when the ball is lifted for executing a play, and which includes a target that catches the ball in a net or the like when the pass has been completed.

Another object is to provide a practice target apparatus of the aforementioned type which is simple in construction and operation, and which can be used to simulate the complete play with one or more players if desired without the additional players having to acquire any supplemental skill in order to effectively use the practice apparatus.

Additional objects and advantages of the present invention will become apparent from the following description and accompanying drawings, wherein:

FIG. 1 is a perspective view of one form of my football passing practice target, showing how the apparatus may be used to simulate the execution of an actual play;

FIG. 2 is a fragmentary elevational and partial cross-sectional view of the apparatus shown in FIG. 1;

FIG. 3 is a cross-sectional view of a detail of one form of my practice apparatus, the section being taken on line 3—3 of FIG. 2;

FIG. 4 is an enlarged perspective view of a portion of the mechanism embodied in the practice apparatus;

FIG. 5 is a side elevational view of that portion of the operating mechanism which releases the target when a play is to be executed;

FIG. 6 is a perspective view of a portion of the target release mechanism;

FIGS. 7 and 8 are transverse cross-sectional and elevational views of the track and supporting structure, the sections being taken on Lines 7—7 of FIG. 2 and Line 8—8 or FIG. 1, respectively;

FIG. 9 is a longitudinal cross-sectional view of the track and supporting structure, the section being taken on Line 9—9 of FIG. 8;

FIG. 10 is a perspective view of a modified form of my football practice apparatus;

FIG. 11 is an enlarged elevational view of the carriage and a portion of the target of the modified form; and

FIG. 12 is an enlarged elevation view of the control unit of the apparatus shown in FIG. 10.

Referring more specifically to the drawings wherein several embodiments of the present invention are illustrated, numeral 10 designates generally my football target apparatus, numeral 12 the target, 14 an inclined track structure for movably supporting the target, and 16 a control mechanism for releasing the target and permitting it to traverse the track when a play involving a forward pass is to be executed. Two embodiments are illustrated in the drawings and, while these embodiments differ from one another in certain details, they are basically the same.

Track structure 14 consists of a track 20, shown in a right angle arrangement, having a first section 22 which carries the target away from the passer, and a second section 24 which carries the target in front of the passer, i.e., corresponding to across the football field. The two sections are connected by a curved section 26 which permits the target to move smoothly from the first section to the second section. The track is mounted on a plurality of support standards 28, 30, 32, 34, 36, 38 and 40, each consisting basically of a tripod leg structure 42, vertical member 44 mounted on the leg structure, and a laterally extending bracket 46 attached to the vertical member at one end and attached to the track at the other end.

In the embodiment illustrated in FIGS. 1 through 9 the track is a trough shaped channel iron configuration and is adapted to support and guide a carriage 50. The carriage has four rollers or wheels 51, 52, 53, and 54 journaled on axles 56 and 58 connected to one another by a body member 60. The carriage rolls freely in the track and carries target 12 from the start of the first section to the end of the second section at a substantially constant or slightly increasing rate of travel.
Target 12 consists of a circular shaped bar 70 forming a hook 71 and suspended from the track by two arms 72 and 74 connected at their upper ends to body member 60 of the carriage and at their lower ends by interlocking eyes 76 and 78 to a cross member 80 which in turn is connected to the upper ends of bar 70 by nuts 82 and 84. A closed bottom net 90 is secured to bar 70 and hangs from the side of the bar away from the passers so that the ball can pass through hook 71 and be caught in the bag-like net. The brackets hold the target outwardly away from the vertical member of the standard so that the standard will not interfere with the smooth travel of the target along the track.

The target control mechanism 16 of the embodiment of Figs. 1 through 9 is mounted on standard 28 and consists of a rigid bracket 100 connected to the bottom of the vertical member by a tube 102 held in various adjusted positions by a screw 104. A lever 106 is pivotally connected to the outer end of bracket 100 by a hinge 108 and is urged angularly upwardly by a spring 110 connected at one end to bracket 100 by an eye 112 and at the other end to lever 106 by an eye 114. A football retainer 116 consisting of two arms 118 and 120 near the outer end of lever 106 holds the football until it is snapped to the player or thrown to the passer, the ball being sufficiently heavy to hold the lever in its horizontal position and prevent release of the target. A cord or wire 122 attached to carriage 50 is held by the pinching action of the lever 106 against the end of bracket 100 when the lever is in its horizontal position, thus retaining the carriage and target in position to traverse the track, and when released to provide a moving target for the passer. The cord is attached to the carriage and passes over roller 124 mounted in bracket 126 at the starting end of the track.

In the operation and use of the present apparatus, when the ball is lifted from lever 106, the cord is released, permitting the carriage and target to move freely along the track, thereby providing an effective moving target for the passer. The manner in which the apparatus is used is best illustrated in Fig. 1. The carriage can be returned to its initial starting position and releasably held there by pulling the cord and locking it between lever 106 and bracket 100 as explained above.

A simplified version of the present invention is illustrated in Figs. 10, 11 and 12, consisting basically of high and low standards 130 and 132, respectively, a track 134, carriage 136, target 138, and control unit 140 for releasably holding the carriage and target ready for the execution of a play. The standards each consist of a quadrupled leg arrangement 141 rigidly supporting a vertical member 142, which in turn supports the respective end of track 134. In this embodiment, the track consists of a rigid bar or tubular section and a flexible line section in the nature of a wire cable, cord or small rope attached at one end to the outer end of the rigid section and at the other end to the top of the low standard. The upper or inner end of the rigid section is attached to the upper end of the high standard and slopes downwardly at a rather steep angle to give the carriage and target an initial fast start and sufficient momentum that they continue at a relatively fast constant rate of speed throughout the length of the flexible line section.

The carriage consists of two sheaves or grooved wheels 144 and 146 connected by a body member 148 and two arms for supporting the target, which is essentially the same as the target of the first embodiment described herein, consisting of a hoop and closed bottom net for catching the football. The hoop is attached to arms 144 and 146 by a member 150 through which the ends of the rod forming the hoop extend and in which they are secured by nuts 152 and 154 or cotter pins.

The control unit 140 consists of a stand 160 having a hollow bar 162 or lever mounted thereon by a pivot means 164 which permits the bar to tilt from the position shown in broken lines in Fig. 12 when a ball is on the ball positioning end 166, to the position shown in solid lines. As shown in Fig. 12, a control cord 168 is attached to carriage 136 and trained through eyes or pulleys 170 and 172 and looped and held on a pivoted peg or trigger 174 on the end of bar 162. The trigger is held in the cord retaining position by a pin 175 and is pivoted on a stem 176. A ball 177 in the tube disengages the peg from pin 175 as it rolls down the bar when the football is lifted. When the bar is in its ball holding position, the loop of the cord remains on trigger 174; however, when the ball is removed from the bar, the bar tilts downwardly, permitting a steel ball 177 inside the tubular bar to run the length of the tube and strike the peg and thereby permitting the loop to slip from the trigger, releasing the cord, which then releases the carriage and target for movement down the track. The cord is normally used to pull the carriage and target to their initial starting position illustrated in Fig. 10.

The use and operation of the apparatus of the two embodiments described in detail herein are essentially the same. When the ball is removed from the control unit or mechanism and "snapped" to the passer, the carriage and target move rapidly down the track. The target functions as a moving ball receiver, thereby giving the passer the opportunity to practice proper leads for running ball receivers. The apparatus can be operated using two players, or one player can practice without the assistance of any other player by merely lifting the ball from the control unit and throwing it to the target as the target moves down the track.

While only two embodiments of the present football practice target apparatus have been described in detail herein, various changes and modifications can be made without departing from the scope of the invention.

I claim:

1. A football practice and game apparatus comprising an inclined track, standards supporting said track in an elevated position, a carriage on said track, a football target attached to and supported by said carriage for movement along said track, and a control means for releasably retaining said carriage and target in their initial starting position at the higher end of said track, said control means including a lever for supporting a football and a line connecting said lever to said carriage for releasing said carriage when the football is lifted from said lever.

2. A football practice and game apparatus as defined in claim 1 in which said track is of rigid construction throughout its length.

3. A football practice and game apparatus as defined in claim 2 in which said track is of channel iron and said carriage has a plurality of rollers for engaging said track.

4. A football practice and game apparatus as defined in claim 3 in which said target consists of a hoop sus-
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5. A football practice and game apparatus as defined in claim 1 in which said target consists of a hoop suspended from said carriage and includes a net for receiving the football.

6. A football practice and game apparatus as defined in claim 1 in which a portion of said track consists of a flexible line.

7. A football practice and game apparatus as defined in claim 1 in which the upper section of said inclined track is of rigid construction and the lower section of said track is of a flexible line construction connected to said rigid upper section.

8. A football practice and game apparatus as defined in claim 7 in which said target consists of a hoop suspended from said carriage and includes a net for receiving the football.

9. A football practice and game apparatus as defined in claim 1 in which said control means includes a tiltable lever, a football support at one end and a trigger at the other end, a cord connected to said trigger and target and a ball rollable on said lever to operate said trigger when the football is lifted from said control means.

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