FOOTBALL KICK TRAINING APPARATUS
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6 Claims

ABSTRACT OF THE DISCLOSURE

Apparatus for training and practice in properly kicking a football, especially in punting, wherein the ball is initially supported and released at a predetermined time to make contact with the kicker’s foot in an optimum position.

This invention relates to training apparatus for developing skill in kicking a football.

In the game of football the ball may be kicked in the air as it is dropped from the kicker’s hands, or kicked from the ground while being held on end by a player other than the kicker. The former type of kick is known as a punt and the latter as a place kick. In making either of these types of kicks there is an optimum relative position between the ball and the kicker’s feet, legs and body at the time contact with the ball is made. In the case of the punt, of course, coordination with the hands is also required since the ball must be held and released by the kicker at the proper time with respect to movement of the feet and legs.

It is a principal object of the present invention to provide apparatus which will assist in training a player to kick properly, especially with regard to the punt. To this end, the most basic embodiment of the apparatus includes a pair of opposed members for engaging the sides of a football and supporting it above the ground in the position which it should occupy at the time it is contacted by the kicker’s foot. The opposed members are mounted on flexible, or otherwise movable arms, so that they will be easily moved out of the way without damage when the ball is kicked. In a more sophisticated embodiment, means are provided for simultaneously moving the opposed members apart at a desired time before it is actually kicked so that the ball is falling at the proper angle and position when contact is made.

Further objects of the invention are: to provide football punt training apparatus which permits the ball handling portion of the punt to be eliminated and taught separately from the actual kicking portion; to provide kick training apparatus which may be used for both punt and place kick training; and, to provide novel training apparatus which allows a football to be properly positioned in mid-air for punting without the necessity of the player dropping, or otherwise handling the ball.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises the apparatus possessing the obstruction, combination of elements and arrangement of parts which are exemplified in the following detailed disclosure, and the scope of the application of which will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description taken in connection with the accompanying drawings wherein:

FIGURE 1 is a perspective view of a first embodiment of the apparatus of the invention;

FIG. 2 is a perspective view of a second embodiment shown in a first position;

FIG. 3 is a perspective view of the apparatus of FIG. 2 in a second position; and

FIG. 4 is a perspective view of the apparatus as used in place kick practice or training.

Referring now to the drawings, in FIG. 1 is a basic embodiment of the kick training apparatus with a football held thereby in position for punting. The apparatus includes base 19 which rests on the ground and serves as a level, stabilizing support for the other portions of the apparatus. Although base 10 is shown in FIG. 1 as being U-shaped and generally flat, it will be understood that both the shape and cross sectional configuration may be varied as desired.

A pair of arms, denoted generally by reference numerals 12 and 14, extend from opposite sides of base 10. Arms 12 and 14 include, respectively, hollow tubes 16 and 18, into which are inserted rods 20 and 22, and flexible elements 24 and 26. Tubes 16 and 18 are connected to base 10 by means of ball and socket joints 28 and 30, whereby arms 12 and 14 are pivotally movable in any direction about their connection with the base. Rods 20 and 22 are telescoped in tubes 16 and 18 so that the length of arms 12 and 14, and therefore the height of the ball, may be adjusted as desired, and fixed in any given position by means of set screws 32 and 34. Ball holding members 36 and 38 are affixed to the ends of flexible elements 24 and 26, respectively. In addition to the movement and adjustment provided by ball and socket joints 28 and 30, and the telescoping of rods 20 and 22 in tubes 16 and 18, flexible elements 24 and 26 are constructed of a material such as flexible metal cable of the common type formed in a series of convolutions. Thus, arms 12 and 14 may be easily and quickly adjusted to engage a football at virtually any desired height and angular disposition with respect to the ground.

In practice, the apparatus is first adjusted to hold the ball at the proper height at which it should be contacted by the foot of the particular kicker being trained. The ball is also set at the angle which it should assume when contact is made, giving the kicker an opportunity to observe the ball in this static condition before making the punt. Instruction is given on the proper approach and follow-through, but there is no necessity at this point to introduce the functions of holding and dropping the ball. The kicker may then kick the ball, approaching from the side opposite base 10, which will be easily released from between holding members 36 and 38 due to the flexibility of elements 24 and 26 as well as the ball and socket connection of arms 12 and 14 to base 10.

Referring now to FIGS. 2, 3, and 3, an embodiment of the apparatus is shown which permits release of the ball as the kicker approaches so that contact is made while the ball is falling, as in the actual punt. Like reference numerals are used in FIGS. 2 and 3 to denote elements cor-
Springs 40 and 42 are attached, respectively, to tubes 16 and 18 at one end and to extending portions 44 and 46 of the biasing force on arms 12 and 14, tending to rotate the latter away from one another about their respective connections with base 10.

Attached to tubes 16 and 18 for loose, pivotal movement with respect thereto are links 48 and 50. Pin 52 extends fixedly from one end of link 48 to be placed in notch 54 (FIG. 3) in link 50 when arms 12 and 14 are moved toward one another, against the bias of springs 40 and 42, to the proper position. Engagement of pin 52 in notch 54 will effectively join the two links and prevent arms 12 and 14, to which the links are attached, from being moved apart under the spring bias. Crank arm 56 is pivotally attached by means of pin 58 to link 50 and is so constructed and arranged that one end thereof bears against a portion of pin 52 which extends past notch 54. Trip cord 60 is attached to the opposite end of crank arm 56 so that a pull on the cord will rotate the crank arm in a clockwise direction as seen in FIG. 2. This will cause the end of crank arm 56 to push pin 52 upward, out of notch 54, thus releasing the connection between links 48 and 50 and allowing springs 40 and 42 to move arms 12 and 14 apart.

Once the connection between links 48 and 50 has been released they will pivot about their respective connections to tubes 16 and 18, as the latter move apart under the spring bias. This leaves a free path for the kicker's foot to make contact with the ball, which is falling freely, as shown in FIG. 3, upon being released from engagement between holding members 36 and 38. In this manner of use of the apparatus, the ball should initially be positioned somewhat higher, of course, than the position which it should occupy at the time contact is made. The apparatus is tripped to release the ball at some point in the kicker's approach, depending on how far it should fall before being kicked. The cord may be arranged as desired through a system of pulleys or guides, such as those shown at 62, for example, for control by a person other than the kicker. Another good arrangement is to tension the trip cord in the kicker's path of approach so that by stepping on the cord with his last approach step, for example, the kicker himself would actuate the apparatus to release the ball. Although the illustrated system is purely mechanical in construction, and shown in rather elementary form for the sake of brevity and simplicity, it is obvious that a wide variety of other mechanical systems, as well as electrical, magnetic, etc., could be devised for effecting the required movement of the apparatus to release the ball. For example, a mechanical latching device could be actuated by a battery powered solenoid in response to the closing of a push-button switch by the kicker or another person.

In addition to its primary function as punt training apparatus, the invention may be used in training or practicing for place kicking. As shown in FIG. 4, arms 12 and 14 are pivoted outwardly from base 10 and the end portion of either or both of holding members 36 and 38 are placed on the proper end of a football to hold the latter in the normal place kick position, as it would be held by another player. It will be noted that this arrangement more nearly simulates actual game conditions of place kicking, where the ball is held endwise on the ground by another player, than do the various kicking tees which elevate the ball somewhat and hold it entirely at the lower end. The ball is held from opposite sides for right and left footed place kickers, of course, and it will be noted that the two arms, extending in opposite directions from the base, may be used when kicking with either foot. Right footed kickers would approach and kick the ball in the direction indicated by the arrows lettered A, and left footed kickers in the direction indicated by the arrows lettered B. Although the stiffness of flexible elements 24 and 26, and the friction in the various connections is great enough to insure that arms 12 and 14 and holding members 36 and 38 will retain the position to which they have been set, the mobility and flexibility thereof is such that the arms are easily moved, if and when contacted by the kicker's foot, without damage.

From the foregoing description it may be seen that the apparatus of the invention is most versatile, as well as extremely simple in operation and economical in manufacture. The provision of apparatus which enables the ball handling function to be eliminated from the punt, while still insuring that the ball is in precisely the proper position when contacted by the kicker's foot, is especially helpful in training younger players who may have initial difficulty in achieving the coordination required in holding and dropping the ball as well as making a proper kick and follow through. The apparatus is equally useful, however, with more experienced kickers in analyzing faults and improving kicking techniques.

Since certain changes may be made in the above apparatus without departing from the scope of the invention herein involved, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. Football kick training apparatus comprising, in combination:
   - (a) a base support member;
   - (b) a pair of arms pivotally secured at one end to said base support member;
   - (c) a pair of holding members, one secured to each of said arms at the ends thereof opposite the pivotal connection with said base support member;
   - (d) biasing means urging said arms toward movement about their respective pivotal mountings in a direction such that said holding members are moved away from one another;
   - (e) securing means for releasably retaining said arms in a first position, against the force of said biasing means;
   - (f) means for adjustably positioning and maintaining said holding members in a desired position relative to one another while said arms are in said first position; and
   - (g) release means actuable to release securing means, thereby permitting movement of said arms away from said first position under the force of said biasing means.

2. The invention according to claim 1 wherein said biasing means comprise a pair of springs arranged to exert a biasing force on each of said arms when the latter are in said first position.

3. The invention according to claim 2 wherein said securing means comprises a mechanical latch arrangement having portions associated with each of said arms and selectively movable between latched and unlatched positions.

4. The invention according to claim 3 wherein portions of said arms adjoin the pivotal connection thereof to said base support member are rigid and portions adjoining the connection of said arms to said holding members are frictionally flexible, thereby permitting said relative positioning and maintaining of said holding members in said desired position.

5. The invention according to claim 4 wherein means are provided for selectively moving said latching arrangement to said unlatched position by an operator at a position remote from said apparatus.

6. Football kick training apparatus comprising, in combination:
   - (a) a base support member;
   - (b) a pair of arms at least portions of which are frictionally flexible, each secured at one end to said base
support member by connections allowing substantially universal pivotal movement of said arms about their respective connections;

(c) a pair of holding members, one secured to each of said arms at the ends thereof opposite the connection with said base support member;

(d) means for maintaining said holding members in a predetermined, elevated position spaced from one another so that a football may be engaged therebetween; and

(e) actuating means selectively operable to move said holding members away from one another, thereby releasing said football.

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