Sept. 2, 1969 V. A. HOOKER 3,464,696

FOOTBALL TACKLING DUMMY APPARATUS

Filed March 8, 1967 2 Sheets-Sheet 1

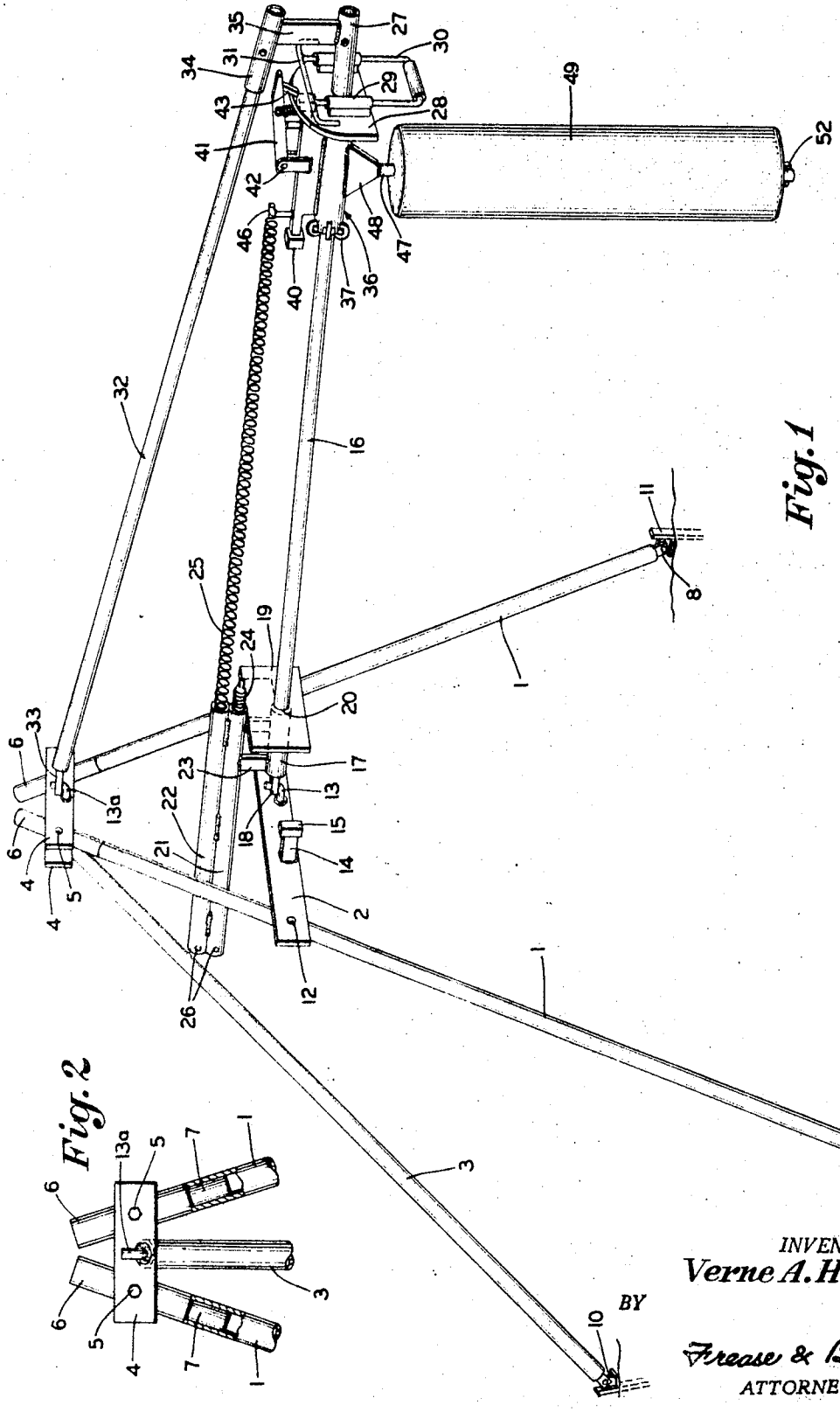


Fig. 1

Fig. 2

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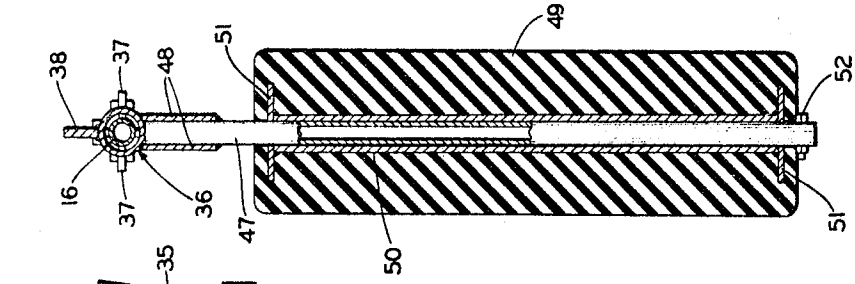


Fig. 6

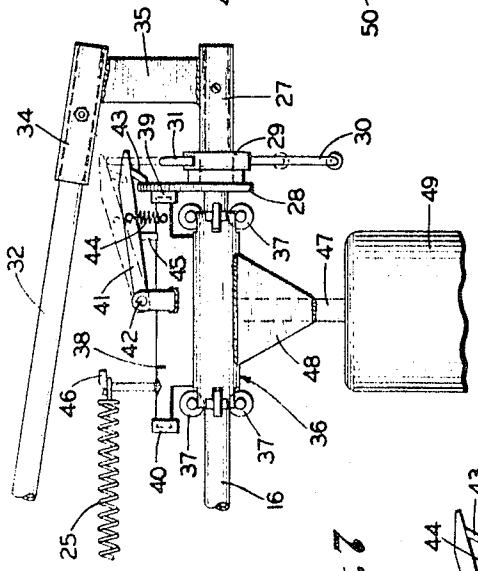


Fig. 5

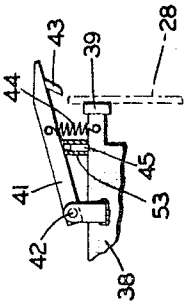


Fig. 7

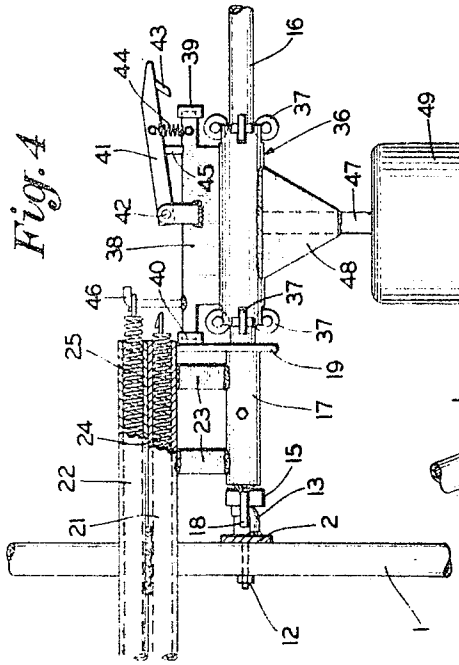


Fig. 4

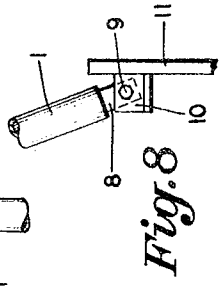


Fig. 8

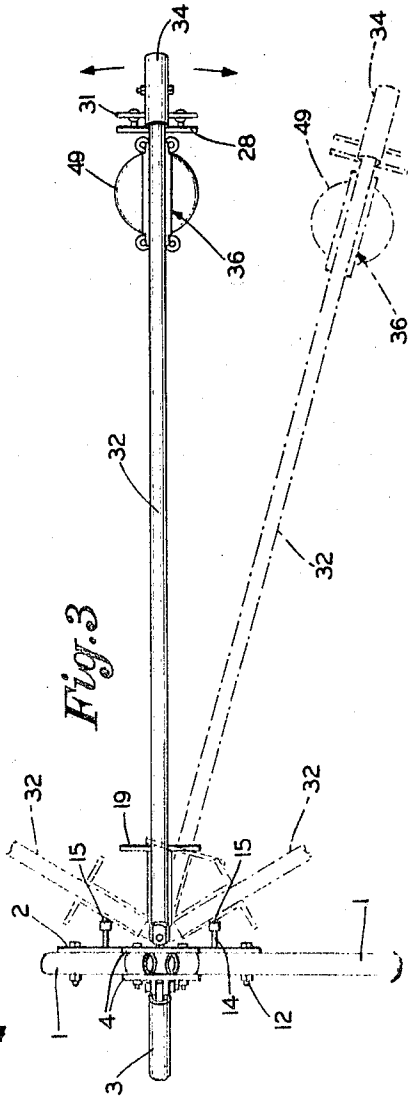


Fig. 3

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FOOTBALL TACKLING DUMMY APPARATUS

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Int. Cl. A63b 69/34
U.S. Cl. 273—55 8 Claims

ABSTRACT OF THE DISCLOSURE

A football tackling dummy apparatus having a track pivotally mounted at one end to a point overhead, with a carriage slidable upon the track and a tackling dummy suspended from the carriage. Means for urging the carriage toward the pivoted end of the track, and means for latching the carriage to the free end of the track. The tackling dummy is adapted to swing laterally but not longitudinally relative to the track, and the tackling dummy being rotatable upon its axis.

BACKGROUND OF THE INVENTION

Field of the invention

The invention relates to football practice apparatus and more particularly to tackling dummy apparatus for use by football players when practicing tackling, charging and blocking.

Description of the prior art

Practice dummies have been commonly used for training football players, but such devices do not too closely simulate the conditions of tackling a live opponent. The type of tackling dummy most generally used comprises a suitably stuffed body usually suspended from overhead in such a manner that it may swing about freely in any direction.

In some instances such dummies have been suspended from a bodily movable carriage upon an overhead track, or have been supported upon a carriage movable upon an underground track.

However, it is not known that any practice dummy apparatus heretofore produced has been mounted upon a carriage on a movable track whereby the dummy may change direction at the will of the coach. Nor is it known that any such tackling dummy apparatus has been made in which the dummy is rotatable around an axial shaft.

SUMMARY OF THE INVENTION

The invention may be briefly described in general terms as comprising an overhead track, pivotally connected at one end to a suitable supporting structure and having means at its free end by which it may be manually moved upon its pivot.

A carriage is radially and longitudinally movably mounted upon the track and is spring loaded so as to be normally urged toward the pivoted end of the track. The dummy is rotatable around an axial shaft rigidly suspended from the carriage. Latch means is provided for latching the carriage to the free end of the track.

It is an object of the invention to provide a tackling dummy apparatus which is constructed, arranged and operated so as to closely simulate the conditions of tackling a live opponent in actual play.

Another object of the invention is to provide a tackling dummy apparatus of the character referred to in which the dummy is longitudinally movable upon a pivotally movable track.

A further object of the invention is to provide such a tackling dummy apparatus in which the dummy is rotatable upon its axis.

The above and other objects, apparent from the drawings and following description, may be attained, the above

described difficulties overcome and the advantages and results obtained, by the apparatus, construction, arrangement and combinations, subcombinations and parts which comprise the present invention, a preferred embodiment of which illustrative of the best mode in which applicant has contemplated applying the principle, being set forth in detail in the following description and illustrated in the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Having thus briefly described the invention, reference is now made to the accompanying drawings, in which:

FIG. 1 is a perspective view of a football tackling dummy apparatus embodying the invention, showing the carriage carrying the dummy latched at the free end of the track;

FIG. 2 is a detail sectional elevation of the upper end of the supporting structure upon which the track is pivoted;

FIG. 3 is a top plan view of the apparatus in the position shown in FIG. 1 with parts of the uprights forming the supporting structure broken away;

FIG. 4 is a fragmentary sectional elevation of the pivoted end portion of the track and associated parts, showing the carriage in retracted position;

FIG. 5 is a fragmentary side elevation of the free end portion of the track and associated parts, showing the carriage latched in the position of FIGS. 1 and 3;

FIG. 6 is a longitudinal sectional view through the tackling dummy showing the manner of connection of the same to the carriage;

FIG. 7 is a detail sectional elevation of the carriage latch showing the use of a stop sleeve for preventing latching operation of the same; and

FIG. 8 is a detail elevation of the lower end of one of the uprights showing the manner of anchoring the same to the ground.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now more particularly to the embodiment of the invention illustrated in the drawings, in which similar numerals refer to similar parts throughout, the improved football tackling apparatus includes a supporting structure or frame in the form of a tripod comprising an A-frame formed of the uprights **1**—**1** and cross member **2**, and the third upright **3**.

The uprights **1** and **3** are both preferably formed of suitable lengths of pipe. The upper ends of the uprights **1** are connected together in the manner best shown in FIG. 2. A pair of plates **4** are bolted as shown at **5** to short sections of pipe **6** diverging downwardly from each other. A short piece of rod or smaller diameter pipe **7** is welded or otherwise connected to each of the short sections **6** and received within the upper ends of the pipe uprights **1**. The upper end of the upright **3** may be connected to the plates **4** in any suitable manner.

In FIG. 8 is shown the manner in which each of the uprights is anchored to the ground. A short piece of smaller diameter rod or pipe **8** is welded or otherwise secured in the lower end of each upright and has a suitable aperture therein for receiving a bolt **9** located through an ear **10** upon the upper end of an anchoring stake **11** which may be driven into the ground.

The cross member **2** is secured near each end to the uprights **1** as by bolts **12**. At the center of the cross member **2** an upturned hook **13** is welded or otherwise secured thereto. A stop member **14** is mounted on each side of the center of the cross member **2** and provided at its outer end with a rubber bumper **15**. An upturned hook **13***a* is welded or otherwise secured to the front

plate 4 in vertical alignment with the hook 13 upon cross member 2.

A track is provided in the form of a length of pipe 16, one end of which is secured within a short section of larger pipe indicated at 17. An ear 18, upon the end of the pipe section 17, has a suitable aperture which receives the hook 13 upon the cross member 2. A stop plate 19 is fixed to the end of the short pipe section 17 and has an aperture 20 therein through which the track 16 is inserted into the pipe section 17.

A pair of cylindrical spring housings 21 and 22 are mounted, one above the other, and are supported upon the pipe section 17 as by the bars 23 welded or otherwise attached thereto. A pair of coil springs 24 and 25 are mounted in the spring housings 21 and 22, respectively, their inner ends being anchored within the spring housings as by pins 26. One of these springs is a relatively heavy spring and the other a relatively light spring.

The free end of the track 16 is connected to a short section of larger pipe 27 upon the inner end of which is mounted a stop plate 28 preferably having a curved or arcuate upper edge as best shown in FIG. 1.

Upon the outer side of the plate 28 is provided a pair of vertically disposed tubular guides 29 within which are slidably mounted the legs of a U-shaped handle member 30. The upper ends of the legs of this handle member are attached to a cross bar 31. As later will be explained, this handle member is used for swinging the track 16 upon its pivot and also for unlatching the carriage which is longitudinally movable upon the track.

In order to support the free end of the track, as well as the weight of the carriage and dummy carried thereon, an upper support member in the form of a pipe 32 is provided. An ear 33 is fixed to the inner end of the pipe 32 and provided with a suitable aperture for pivoting upon the hook 13*a*. The outer end of the pipe 32 is secured within a short section 34 of larger pipe which is connected to the pipe section 27 as by bar 35 welded thereto.

The carriage, indicated generally at 36, is longitudinally slidable upon the track 16. This carriage comprises a short section of larger diameter pipe having a plurality of rollers 37 at each end which roll upon the track 16. It will thus be seen that the carriage is both longitudinally and radially movable upon the track 16. The carriage includes a plate 38 welded or otherwise secured upon the top of the pipe section 36, longitudinally thereof, and having rubber bumpers 39 and 40 at opposite ends for respective engagement with the stop plates 28 and 19.

A latch bar 41 is pivoted as at 42 upon the top of the carriage plate 38 and provided at its outer end with a downwardly and inwardly inclined latch projection 43 adapted to engage over the upper edge of the stop plate 28 as shown in FIGS. 1 and 5.

A pull spring 44 is connected to the latch bar 41 and the outer end portion of the carriage plate 38 for the purpose of normally urging the latch bar down into contact with the stop stud 45 upon the top of the carriage plate 38. A hook 46 extends upward from the inner end portion of the carriage plate 38 and the outer ends of the springs 24 and 25 may be selectively connected thereto as desired.

For the purpose of suspending a tackling dummy from the carriage, a shaft, which may be a piece of pipe 47, is suspended from the underside of the carriage pipe 36 as by the gusset plates 48 welded or otherwise secured thereto.

The dummy comprises a cylinder 49 of plastic, rubber or the like, having a pipe 50 with discs 51 at its ends embedded therein. A bolt and nut 52 through the lower end of the shaft 47 retains the dummy on the shaft. It will thus be seen that the dummy is rotatable upon the shaft and that while the shaft may swing laterally relative to the track 16 it is rigidly connected to the carriage pipe 36 so that there is no forward or rearward swinging movement thereof relative to the track.

For the purpose of preventing the latch from engaging over the stop plate 28, if so desired, a sleeve 53, of greater length than the stop stud 45, may be placed over said stud, as shown in FIG. 7, so as to stop the latch bar 41 before the latch member 43 thereof reaches the top of the stop plate 28.

OPERATION OF THE APPARATUS

In the operation of the tackling dummy apparatus, the spring 24 or 25, as the case may be, normally holds the carriage 36 at the rear or left hand end of the track 16, as shown in FIG. 4. The dummy 49 is thus suspended from the carriage in the initial or starting position as shown in FIG. 4.

When a player charges the dummy, from the left as viewed in the drawings, he will carry the dummy forwardly or to the right, against the resistance of the spring 24 or 25. As the carriage reaches the forward or right hand end of the track 16, as shown in FIGS. 1, 3 and 5, the inclined latch projection 43 will ride up over the top of the stop plate 28 and the coil spring 44 will pull the latch bar 41 down to latched position, as shown in FIGS. 1 and 5, latching the carriage at the forward or free end of the track.

If the coach desires to prevent the latch from operating to latch the carriage in this position, so as to require the player to continue to force the dummy forward against the pull of the spring 24 or 25, the short sleeve 53 may be placed over the stop stud 45 as shown in FIG. 7 so as to prevent the latch bar 41 from being pulled down by the spring 44 a sufficient distance to engage the inclined latching member 43 over the top edge of the stop plate 28.

Assuming that the carriage 36, from which the dummy is suspended, has been latched in the position shown in FIGS. 1 and 5, the coach may release the latch by pushing up upon the U-shaped handle member 30 causing the cross bar 31 thereon to engage the inclined latching member 43 and raise the latch bar to the broken line position shown in FIG. 5, whereby the spring 24 or 25 will return the carriage, with the dummy suspended therefrom to the position of FIG. 4.

By means of the U-shaped handle 30, the coach may swing the track 16 upon its pivot so as to change the direction of the dummy as the player charges the same. As shown in FIG. 3, the track 16 and its upper support 32, may be swung upon the pivot in either direction until striking the corresponding stop bumper 15, thus providing a variation of a considerable angle at which the dummy may be directed toward the tackler.

It will be seen that if a player hits the dummy 49 at either side of the vertical axis thereof, the dummy will be rotated upon its axis by the force of the impact tending to cause the player to be thrown to that side of the dummy so that he will charge past the dummy rather than to properly tackle the same.

It will be obvious that although the carriage may oscillate upon the track 16 so that the dummy may swing laterally therefrom, the rigid connection of the shaft 47 to the carriage 36 prevents any forward or backward oscillation or swinging movement of the dummy relative to the track.

In the foregoing description certain terms have been used for brevity, clearness and understanding, but no unnecessary limitations are to be implied therefrom beyond the requirements of the prior art, because such words are used for descriptive purposes herein and are intended to be broadly construed.

Moreover, the embodiments of the improved construction illustrated and described herein are by way of example, and the scope of the present invention is not limited to the exact details of construction.

Having now described the invention or discovery, the construction, the operation, and use of preferred embodiments thereof, and the advantages new and useful results obtained thereby; the new and useful construction, and reasonable mechanical equivalents thereof obvious to those skilled in the art, are set forth in the appended claims.

I claim:

1. Football tackling dummy apparatus comprising a supporting structure, a substantially horizontal track, means pivotally supporting one end of the track upon the supporting structure, the other end of the track being free so that the track is freely movable upon the pivot means, a handle at the free end of the track for manually swinging it upon its pivot, stop means for stopping pivotal movement of the track in either direction adjacent the supporting structure, a carriage slidable longitudinally upon the track, means normally urging the carriage toward the pivoted end of the track, a dummy rigidly suspended perpendicularly from the carriage, an upper support member above and in the same vertical plane as the track, one end of said upper support member being pivoted to the supporting structure, and means connecting the other end thereof to the free end of the track.

2. Football tackling dummy apparatus as described in claim 1, in which the means urging the carriage toward the pivoted end of the track comprises selective relatively heavy and light springs.

3. Football tackling dummy apparatus as defined in claim 1, including a spring loaded latch bar pivoted upon the carriage and a cooperating member rigidly mounted upon the track for latching the cariage at the free end of the track.

4. Football tackling dummy apparatus as defined in claim 1, in which there is a stop plate at each end of the track and bumpers at opposite ends of the carriage for contact with the stop plates.

5. Football tackling dummy apparatus as defined in claim 3, in which the handle is slidably mounted upon said rigidly mounted member and adapted to engage said latch bar to unlatch the carriage.

6. Football tackling dummy apparatus as defined in claim 5, in which the track comprises a section of pipe and the carriage includes a relatively short section of larger diameter pipe.

7. Football tackling dummy apparatus as defined in claim 1, in which there is a shaft suspended from the carriage, the dummy being axially rotatably mounted upon said shaft.

8. Football tackling dummy apparatus as defined in claim 3, including a stud upon the carriage and a stop sleeve detachably mounted upon the stud for preventing the latch bar from engaging said rigidly mounted member.

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