Dec. 17, 1963 V. HOOKER 3,114,549

FOOTBALL TACKLING DUMMY

Filed Oct. 6, 1961 4 Sheets-Sheet 1

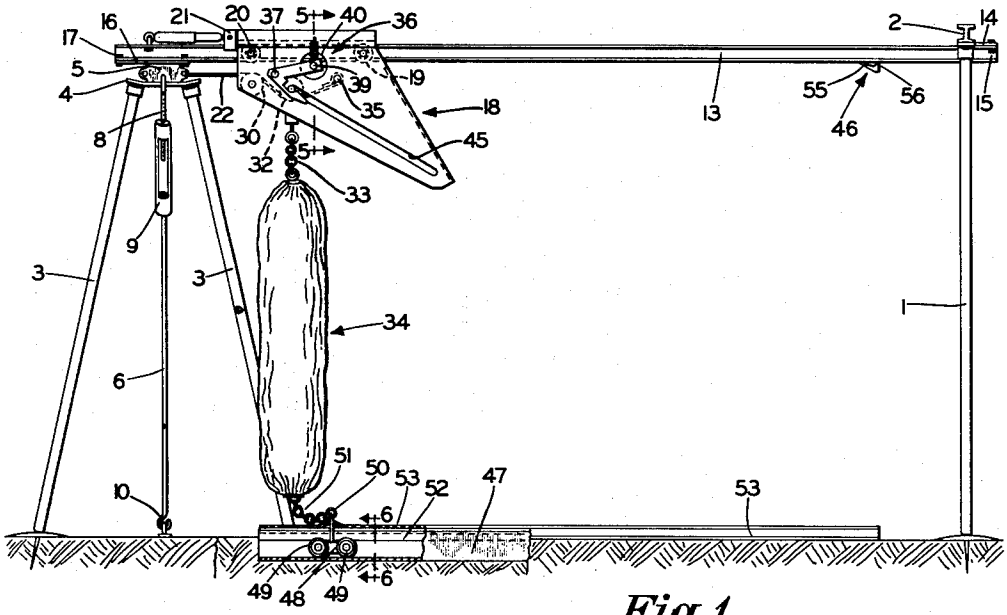


Fig. 1

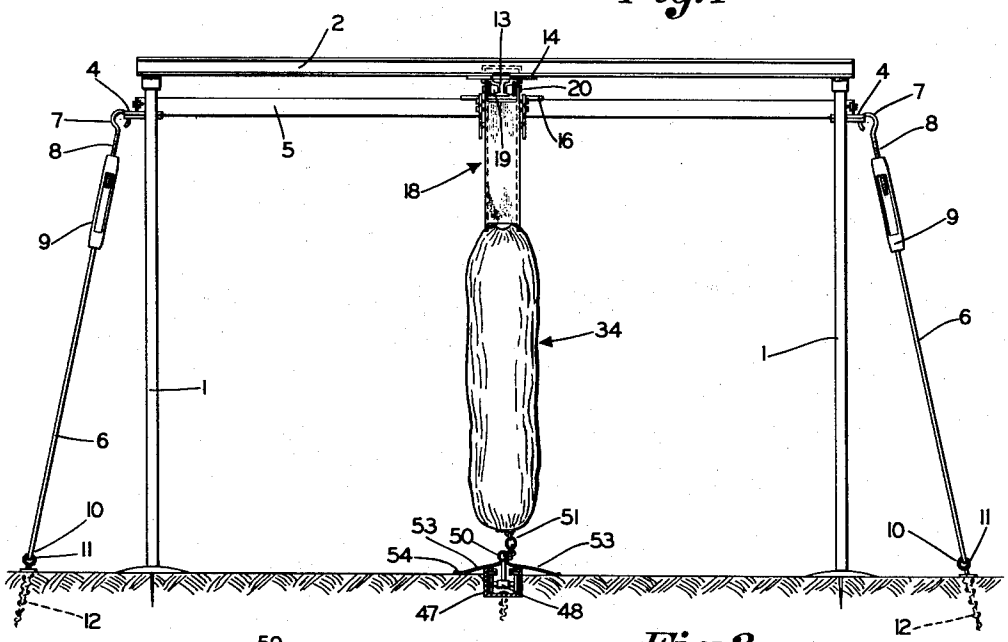


Fig. 2

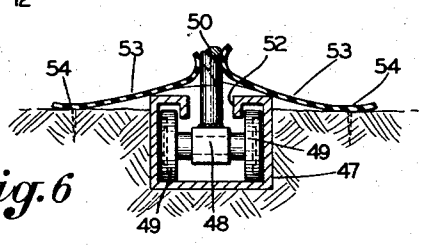


Fig. 6

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FOOTBALL TACKLING DUMMY

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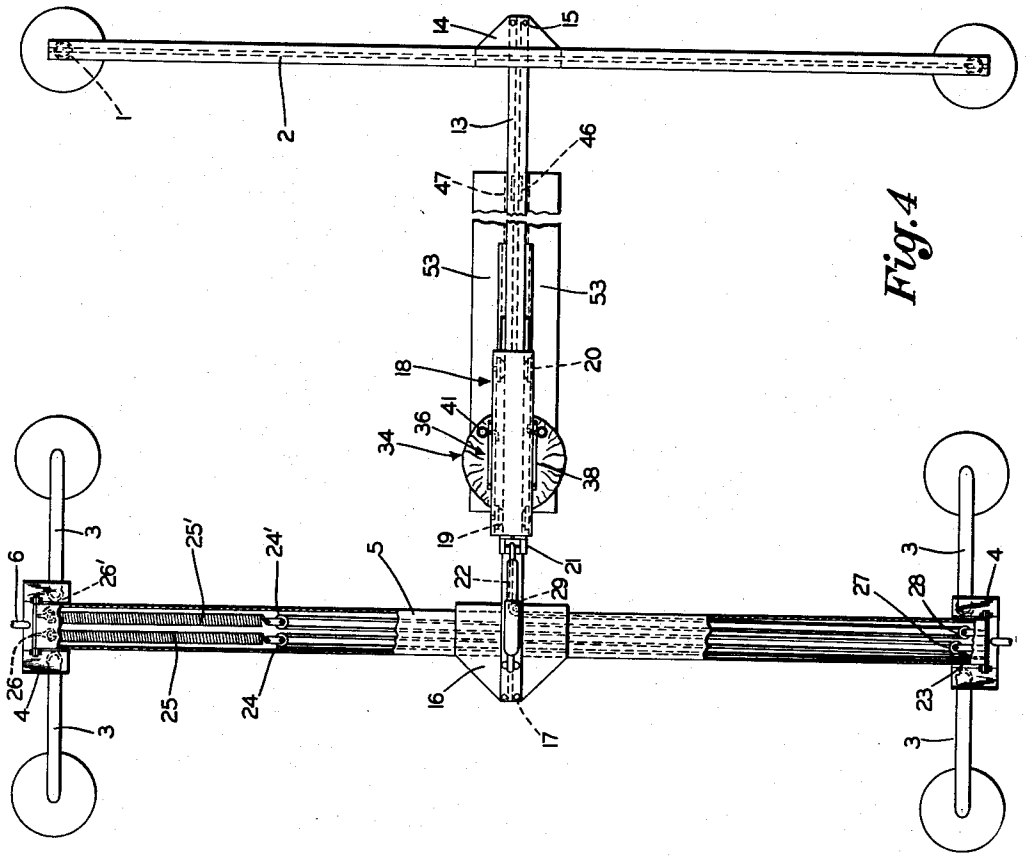


Fig. 4

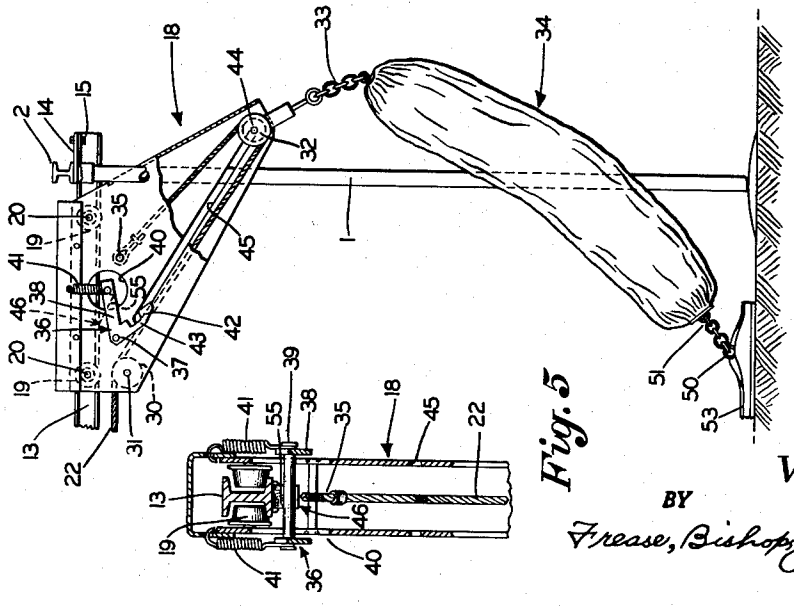


Fig. 5

Fig. 3

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FOOTBALL TACKLING DUMMY

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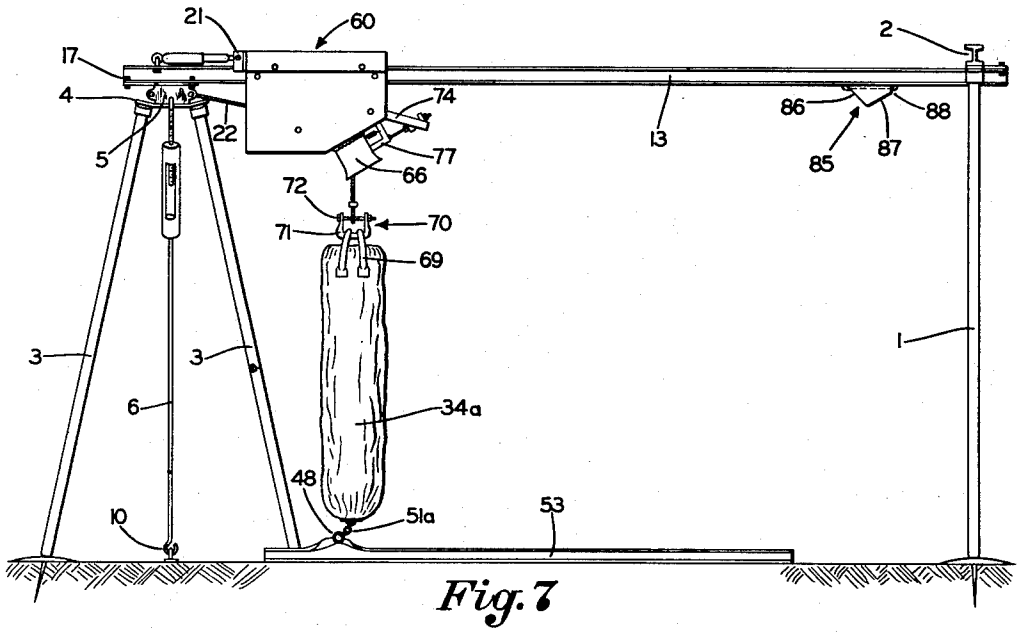


Fig. 7

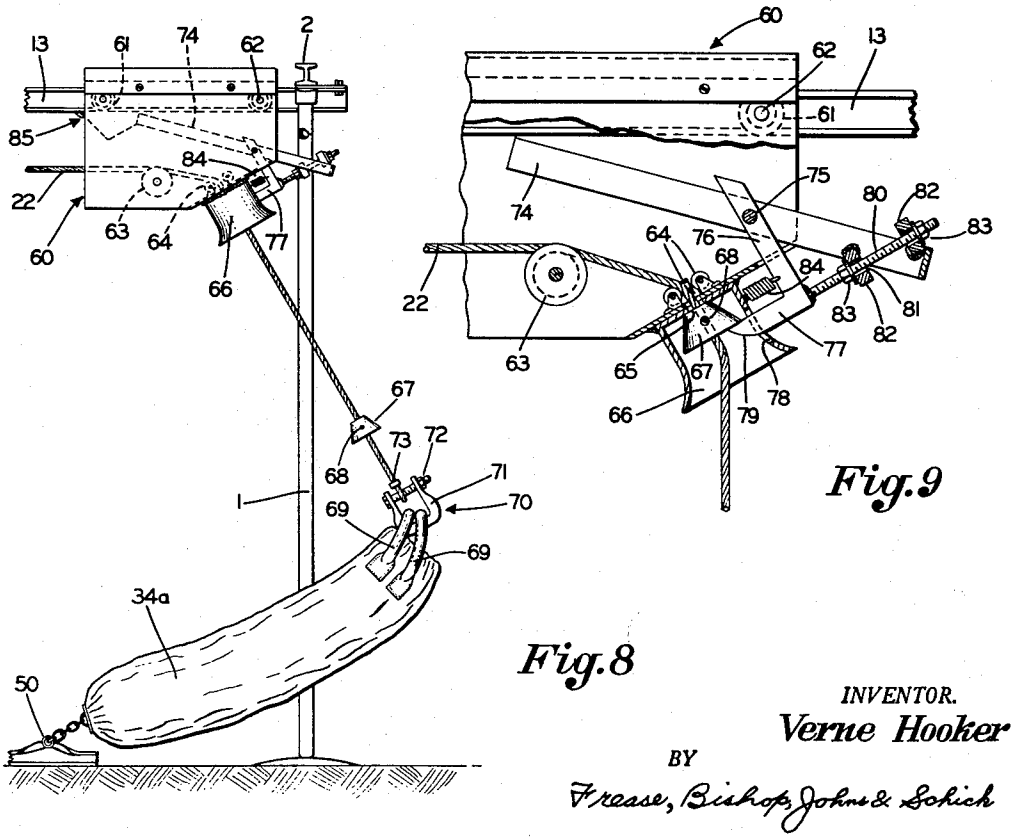


Fig. 9

Fig. 8

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FOOTBALL TACKLING DUMMY

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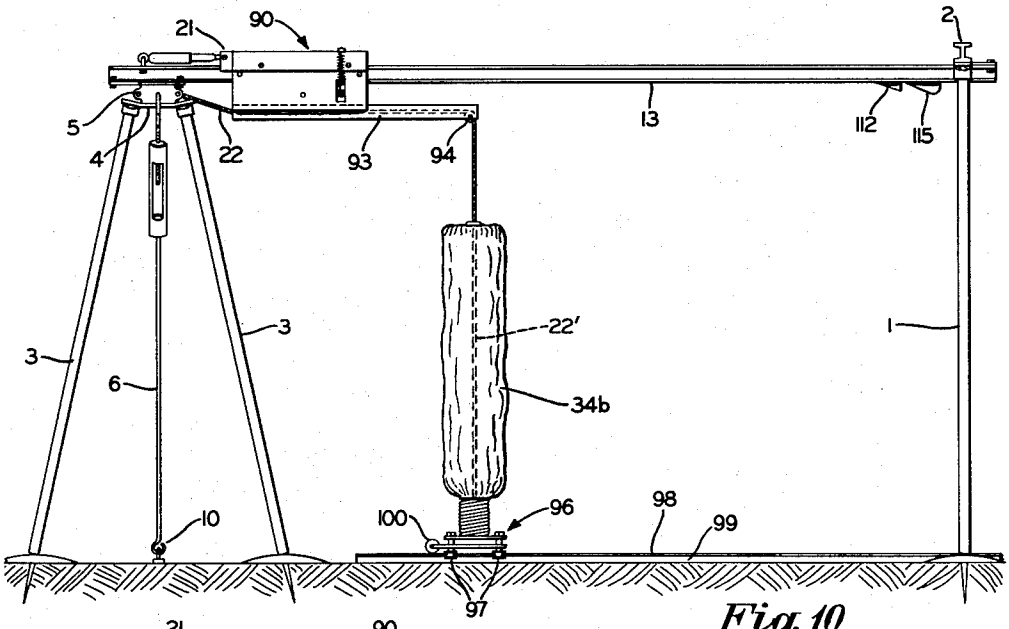


Fig. 10

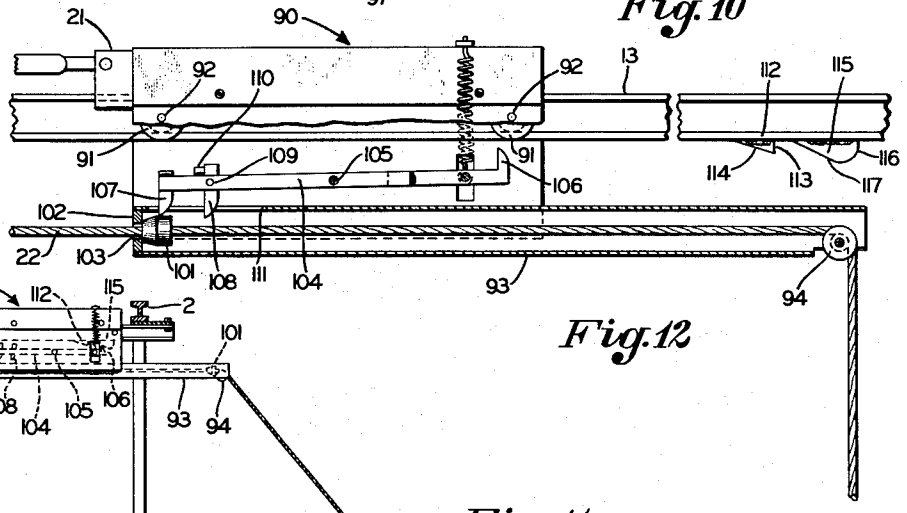


Fig. 12

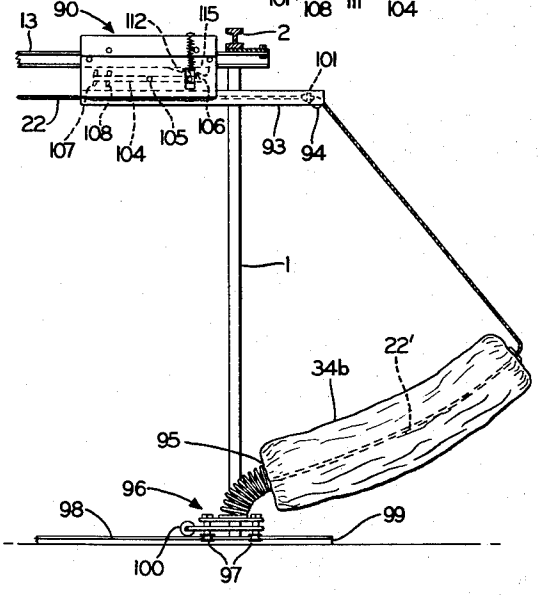


Fig. 11

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3,114,549

FOOTBALL TACKLING DUMMY

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Filed Oct. 6, 1961, Ser. No. 143,411
11 Claims. (Cl. 273—55)

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

It is known that practice dummies have been commonly used for training football players in order to avoid the danger of injuries attendant upon training against live opponents, but with such devices it is not possible to closely simulate the conditions of actual tackling.

Heretofore, the type of practice dummy most generally used comprises a suitably stuffed body usually suspended from the top in such a manner that it can swing about freely. In tackling such a dummy, the conditions are quite different from those in actual play where a live player is tackled.

Attempts have been made to improve upon such practice devices, by suspending the dummy from a bodily movable overhead carriage, or by supporting the dummy rigidly upon a bodily movable underground carriage.

However, none of such types of practice dummies heretofore produced or suggested are capable of being forced backward and finally downward in the manner of a live opponent when charged or tackled, and therefore are of little value in teaching the art of charging, blocking or tackling a live player.

A primary object of the invention is to provide a tackling dummy device which is so constructed, arranged and operated that the conditions of tackling a live opponent in actual play are closely simulated.

Another object of the invention is to provide a tackling dummy of the character referred to which may be moved backward and then downward toward the ground, in the manner of tackling or charging a live player.

A further object of the invention is to provide such a tackling dummy device comprising an overhead track and an underground track, a carriage movable upon each track, means offering resistance to movement of the carriages in one direction, means flexibly connecting the lower end of the dummy to the lower carriage, means flexibly and resiliently connecting the upper end of the dummy to the upper carriage, and stop means for the carriage on the tracks, whereby the dummy may be moved forwardly and then downwardly, simulating the conditions of actual tackling of a live player.

A still further object of the invention is to provide a tackling dummy of this character, in which the upper end of the dummy is flexibly connected to the upper carriage by a springloaded rope and pulley coupling device, and an uncoupling release and stop device upon the upper track releases the coupling device and locks the upper carriage in that position so that the dummy may then by forced downward toward the ground.

Another object of the invention is to provide a tackling dummy device of the character referred to in which guide means on the upper carriage guides the upper end of the dummy downwardly and forwardly when the coupling device is released.

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, sub-combinations 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.

In general terms, the invention may be briefly described as comprising a tackling dummy device including upper and lower parallel tracks, a carriage movable upon each track and a dummy flexibly connected at its upper and lower ends to the upper and lower carriages.

A spring-loaded cable is connected at its rear end to a stationary portion of the frame carrying the upper track, and the forward end of the cable extends forwardly beneath the upper track, over a pulley in the upper carriage, and under a pulley upon the upper end of a flexible member connected to the upper end of the dummy, the terminal end of the cable being connected to the upper carriage.

This spring-loaded cable normally holds the dummy near the rear end of the tracks, in the initial or starting position, and provides an adjustable amount of resistance to the forward movement of the dummy along the tracks.

A coupling device is provided upon the upper carriage normally engaging the shaft of the pulley connected to the upper end of the dummy, normally preventing downward movement of the dummy relative to the upper carriage.

A coupling release device is mounted upon the upper track to release the coupling member, so that the dummy may be forced downwardly away from the upper carriage. The coupling release device also provides a stop for holding the upper carriage in this position while the dummy is in the lowered position.

When the dummy is released from the grounded position by the player, it is returned to its upright position by the pull of the spring-loaded cable, and the coupling device is automatically operated to again couple the upper end of the dummy to the upper carriage and simultaneously disengage the carriage from the stop means, whereby the spring-loaded cable pulls the dummy back to the initial or starting position.

Guide means is provided upon the upper carriage, engaging the axle or shaft of the pulley connected to the upper end of the dummy so as to guide the same downward and forward when the coupling is released.

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

FIG. 1 is a side elevation of a tackling dummy device embodying the invention, showing the parts in the initial or starting position;

FIG. 2 is an end elevation of the tackling dummy device in the position shown in FIG. 1;

FIG. 3 is a fragmentary side elevation of the device with parts broken away, showing the coupling device released and the dummy forced downward toward the ground;

FIG. 4 is a top plan view of the tackling dummy device;

FIG. 5 is an enlarged transverse section through the upper carriage, taken on the line 5—5, FIG. 1;

FIG. 6 is an enlarged transverse section through the lower track and lower carriage;

FIG. 7 is a view similar to FIG. 1 of an embodiment of the invention including an alternate form of upper carriage;

FIG. 8 is a view similar to FIG. 3 of the embodiment of the invention shown in FIG. 7;

FIG. 9 is an enlarged, fragmentary sectional view of the upper carriage shown in FIGS. 7 and 8;

FIG. 10 is a side elevation of the tackling dummy device having another and probably preferred form of upper carriage, showing the parts in the initial or starting position, as in FIGS. 1 and 7;

FIG. 11 is a fragmentary side elevation, similar to FIGS. 3 and 8, of the embodiment shown in FIG. 10,

with parts broken away, showing the coupling device released and the dummy forced downward toward the ground; and

FIG. 12 is an enlarged, fragmentary sectional view of the upper carriage shown in FIGS. 10 and 11, showing the same in the initial or starting position.

Referring now more particularly to the embodiment of the invention illustrated in the drawing, in which similar numerals refer to similar parts throughout, the improved tackling dummy apparatus to which the invention pertains includes a frame comprising a spaced pair of uprights 1—1 having a transversely disposed cross member, in the form of an I-beam 2, mounted upon the upper ends thereof.

Longitudinal spaced therefrom are the spaced pairs of upwardly converging uprights 3—3, the uprights of each pair being connected at their upper ends to plates 4 upon which si mounted the transversely disposed member 5, preferably in the form of a hollow beam for a purpose which will be later described.

Guy rods 6 are connected at their upper ends to the plates 4 as by the hook members 7, each of which may be threaded as at 8 and forming a part of the corresponding turnbuckle 9. The lower end of each guy rod 6 may be hooked as at 10 and engaged in an eye 11 upon the upper end of an anchor bolt 12 which is screwed into the ground.

An upper track member, in the form of an I-beam 13, is connected at its forward end to the underside of the transverse beam 2, as by the attaching plate 14 and bolts 15. The rear end of the track member 13 is connected to the top of the hollow cross beam 5 as by the attaching plate 16 and bolts 17.

An upper carriage, indicated generally at 18, is mounted for longitudinal movement upon the upper track member 13. For this purpose spaced pairs of flanged wheels 19 are journalled in the carriage, as at 20, and ride between the upper and lower flanges of the I-beam track 13.

For the purpose of normally holding the carriage in the position shown in FIG. 1, in engagement with the stop member 21 on the track member 13, a spring-loaded cable 22 is provided. One end of this cable is anchored within one end of the hollow cross beam 5, as indicated at 23. The cable then extends through the cross beam 5 and around a pulley 24 connected to one end of a coil spring 25, the other end of which is anchored, as at 26, within the other end of the hollow cross beam 5.

The cable 22 then extends in the opposite direction through the hollow cross beam, around a pulley 27 anchored within that end of the hollow cross beam and then in reverse direction and around a pulley 24' connected to one end of another coil spring 25', the other end of which is anchored within the corresponding end of the hollow cross beam as shown at 26'.

The cable 22 then extends to the opposite end of the hollow cross beam, around the pulley 28 and then back to the center of the cross beam, around the pulley 29 and then forward beneath the upper track member 13 and over a pulley 30, journalled at 31 within the upper carriage 18, then beneath a pulley 32, connected by a chain or other flexible member 33 to the upper end of a suitably stuffed dummy indicated generally at 34, the forward end of the cable being anchored as at 35 to the upper carriage 18.

A coupling device is provided comprising a pair of bell crank members indicated generally at 36, fulcrumed at 37 upon the upper carriage 18. The upper arms 38 of the bell crank members 36 are connected together, as by the rod 39 which extends transversely through the carriage 18, enlarged openings 40 being provided in each side wall of the carriage to receive the same.

Coil springs 41 are connected to the ends of the bell crank arms 38 for normally holding the same in the raised or coupled position as shown in FIG. 1. Each of the lower arms 42 of the bell crank levers has a notch

43 therein to receive the adjacent end of the shaft or axle 44 of the pulley 32, as shown in FIG. 1, so as to normally hold the upper end of the dummy 34 flexibly coupled to the upper carriage 18.

A forwardly and downwardly inclined guide slot 45 is formed in each side wall of the upper carriage 18 for guiding the axle 44 of the pulley 32 forwardly and downwardly when the coupling device is released, in order to permit the upper end of the dummy to move forwardly and downwardly as will be later described in detail.

A coupling release and stop device, indicated generally at 46, is mounted on the underside of the upper track 13 near the forward end thereof, for a purpose to be later described.

A lower track 47, preferably of double-channel shape as best shown in FIG. 6, is mounted on the ground directly beneath and parallel with the upper track member 13. A lower carriage 48, provided with wheels 49, is mounted for movement within the lower track 47. The lower carriage is provided with an eye member 50 extending up through the central slot in the track 47 and connected by chain or other suitable flexible member 51 to the lower end of the dummy 34.

For the purpose of normally covering the longitudinal slot 52 in the top of the lower track 47, a pair of longitudinally disposed flexible strips 53 are provided, one on each side of the lower track, connected at their outer edges as at 54 to the ground, the inner edges thereof being adapted to overlap above the slot 52 in the track.

As the lower carriage 48 is moved longitudinally within the lower track, the upwardly disposed eye member 50 thereof will separate the overlapping edges of the flexible strips 53 as the carriage moves along the track, the edges of the flexible strips automatically closing over the slot 52 behind the carriage.

In the operation of the device, the spring-loaded cable 22 normally holds the upper carriage 18 at the rear or left end of the upper track 13, as viewed in FIG. 1. The dummy 34 is thus suspended from the upper carriage in the initial or starting position, as shown in FIG. 1, the lower end thereof being flexibly connected to the lower carriage 48 by the chain 51.

When a player charges the dummy, from the left as viewed in FIG. 1, he will carry the dummy forwardly or to the right, as viewed in said figure, against the resistance of the springs 25 and 25'. There is sufficient slack in the chain 51, connecting the lower end of the dummy to the lower carriage, to permit the tackler to raise the dummy 34 slightly relative to the ground in the same manner that a football player may be lifted off of his feet by a tackler in actual play.

As the upper carriage reaches the forward or right hand end of the upper track, the cross bar 39 of the coupling device 36 will engage the coupling release device 46, riding down upon the inclined undersurface 55 thereof.

The bell crank lever arms 38 will thus be swung downward upon the pivot 37, swinging the lower arms 42 thereof downward and releasing the axle 44 of the pulley 32 from the notch 43 in the lower bell crank arms, thus uncoupling the dummy 34 from the upper carriage and supporting the upper end thereof only by the spring-loaded cable 22.

The dummy 34 may thus be thrown down toward the ground, as shown in FIG. 3, the pulley 32 pulling the spring-loaded cable 22 downward and forward in a loop between the terminal end 35 and the pulley 30.

The axle 44 of the pulley 32 will be guided downward and forward in the slots 45 in the lower extension of the upper carriage 18. If desired, this lower extension of the upper carriage, with slots 45 therein, may be dispensed with, permitting the dummy 34 to be drawn downward toward the ground against the pull of the spring-loaded cable 22. However, it is preferable that the pulley 32 be guided downward and forward by the slots 45.

As the cross rod 39 of the coupling device 36 rides off of the lower end of the inclined lower surface 55 of the release and stop device 46, it will be received against the forward end 56 thereof as shown in FIG. 3, locking the upper carriage 18 in this position.

When the player releases the dummy 34, the spring-loaded cable 22 will pull the pulley 32 upwardly and rearwardly until the axle 44 thereof engages the upper surfaces 57 of the end portions of the bell crank arms 42, rocking the bell cranks 36 downward, against the pull of the springs 41, releasing the cross rod 39 from engagement with the forward end 56 of the release and stop device 46, and as the spring-loaded cable 22 starts to pull the upper carriage 18 rearward, or to the left as viewed in FIG. 3, the axle 44 of the pulley 32 will be received in the notches 43 of the coupling device, again coupling the dummy to the upper carriage.

The spring-loaded cable 22 will then return the dummy to the initial or starting position shown in FIG. 1 where it is ready for further use.

In FIGS. 7 to 9 is shown an embodiment of the invention having a simplified form of upper carriage. The frame, the upper and lower tracks and the lower carriage may be the same as shown in FIGS. 1 to 6 and above described, and the same reference numerals are applied thereto.

The modified form of upper carriage is indicated generally at 60, and is mounted for longitudinal movement upon the upper track 13 by means of wheels 61, journalled in the carriage as at 62, and adapted to ride between the upper and lower flanges of the I-beam track 13.

The forward end of the spring-loaded cable 22 is located over a pulley 63, journalled in the upper carriage 60, then between a plurality of small rollers 64 which guide the cable through the opening 65 in the top of the bell 66.

The bell 66 is attached to the forward end of the carriage 60, and is inclined forwardly and downwardly therefrom. A cone 67 is fixed upon the spring-loaded cable 22, as by a set screw 68, and is adapted to be held against the closed top of the bell 66 when the parts are in the position shown in FIG. 7.

The forward end of the cable 22 is attached to the upper end of the tackling dummy 34*a*. For this purpose a pair of U-shaped straps 69 may be attached to the upper end of the dummy for connection to the end of the cable 22 by a shackle-bolt device indicated generally at 70.

The shackle-bolt device comprises a U-shaped member 71 located through the U-shaped straps 69, and a bolt 72 to which the end of the cable 22 is attached by any conventional means, such as the cable clamp 73.

A trip lever 74 is pivoted within the carriage 60, as indicated at 75, and an L-shaped trigger 76 is also pivoted at 75. The downwardly and rearwardly inclined arm 77 of the trigger extends through an opening 78, in the adjacent side of the bell 66, and the lower end thereof is rounded, as indicated at 79.

A threaded rod 80 is rigidly connected to the trigger and extends upwardly and forwardly therefrom, through slots 81 in the block 82 attached to the forward end of the lever 74, nuts 83 being mounted upon said rod for contact with the blocks 82 so as to limit the movement of the trigger 76 relative to the lever 74.

The arm 77 of the trigger is normally held in the path of the cone 67 by a pull spring 84, connected at opposite ends to the bell 66 and the trigger. This arrangement also holds the rear upper end of the lever 74 upward adjacent to the underside of the upper track rail 13, as shown in the drawings.

With the parts in the initial position, as shown in FIG. 7, the end of the arm 77 of the trigger will be located beneath the cone 67, as best shown in FIG. 9, so that the cable 22 cannot be pulled downwardly through the bell 66.

A coupling release and stop device, indicated generally at 85, is mounted on the underside of the upper track 13, near the forward end thereof. This coupling release and stop device is slightly different from the device 46 in the other embodiment of the invention, and has the forwardly and downwardly inclined undersurface 86, the forwardly and upwardly inclined undersurface 87, and the forward vertical surface 88.

In the operation of this embodiment of the invention, the spring-loaded cable 22 normally holds the upper carriage 60 at the rear or left end of the upper track 13, as viewed in FIG. 7. The cone 67 on the cable 22 contacting the upper end of the bell 66 will cause the spring-loaded cable to pull the upper carriage to this position.

The dummy 34*a* is thus suspended, in substantially vertical position, from the upper carriage to the initial or starting position, as shown in FIG. 7, the lower end of the dummy being flexibly connected to the lower carriage 48 by the chain 51*a*.

When a player charges the dummy, from the left as viewed in FIG. 7, he will carry the dummy forwardly or to the right, against the resistance of the spring-loaded cable 22.

As the upper carriage reaches the forward or right hand end of the upper track, the upper rear end of the lever 74 will engage the coupling release and stop device 85, riding down the downwardly inclined surface 86, thereof, which will rock the lever upon its pivot 75, pulling the arm 77 of the trigger out of the path of the cone 67, thus uncoupling the dummy from the upper carriage and supporting the upper end thereof only by the spring-loaded cable 22. The dummy may thus be thrown down to the ground as shown in FIG. 8.

As the upper rear end of the lever rides up off of the upwardly inclined surface 87 of the coupling release and stop device, it will be received against the forward end 88 thereof, as shown in FIG. 8, locking the upper carriage in this position, and projecting the arm 77 of the trigger through the opening 78 of the bell 66 and into the path of the cone 67.

When the player releases the dummy 34*a*, the spring-loaded cable 22 will be retracted, raising the dummy to upright position. As the cone 67 strikes the rounded end 79 of the trigger arm 77, it will swing the trigger 76 and the lever 74 upon the pivot 75. The cone 67 will thus pass above the arm 77 of the trigger to the position shown in FIG. 9.

As the left end of the lever 74 is thus momentarily swung downward, it will be released from the vertical locking surface of the coupling release and locking device 85. The spring-loaded cable 22 will then pull the upper carriage to the left, the end of the lever 74 riding down the inclined surface 87 of the coupling release and locking device.

After the end of lever 74 passes out of contact with surface 87, the pull spring 84 will return the lever 74 to its normal position and the spring-loaded cable 22 will return the carriage 60 and dummy 34*a* to the initial or starting position of FIG. 7, where the dummy is in position for further tackling practice.

In FIGS. 10 to 12 is shown another embodiment of the invention having a simplified and preferred form of upper carriage and also having a modified form of lower carriage. In this embodiment of the invention the frame and the upper track may be the same as shown in FIGS. 1 to 6 and above described, and the same reference numerals are applied thereto.

The modified form of upper carriage is indicated generally at 90 and is mounted for longitudinal movement upon the upper track 13 by means of the wheels 91, journalled in the carriage as at 92 and adapted to ride between the upper and lower flanges of the I-beam track 13.

The forward end of the spring-loaded cable 22 is located through a longitudinally disposed tube 93 forming

an integral part of the carriage and then over a roller 94 at the forward end of the tube 93 and connected to the tackling dummy 34b.

As indicated at 22' in dotted lines in FIGS. 10 and 11, the cable 22 may extend entirely through the tackling dummy 34b, being connected at its lower end to the upper end of the coil spring 95 which is attached to the lower end of the tackling dummy.

This coil spring is mounted upon the lower carriage, indicated generally at 96, which is provided with horizontally disposed grooved wheels 97 which engage opposite sides of the top flange 98 of the lower track 99. A small roller 100 may be journalled upon the carriage 96 for rolling contact with the top of the flange 98.

A ball or cone 101 is fixed upon the cable 22, and in the initial or starting position of FIGS. 10 and 12, the same contacts the rear end wall 102 of the tube 93, the cable 22 passing through the opening 103 in said end wall.

A trip lever 104 is fulcrumed intermediate its ends within the carriage 90, as indicated at 105, and has an upturned projection 106 at its forward end. A rigid projection 107 depends from the rear end of the lever 104, and a pawl 108 is pivoted as at 109 upon the lever 104 at a point spaced forwardly from the projection 107 and engages a stop 110 upon the lever 104 which prevents the lower end of said pawl from swinging forwardly beyond the upright position shown in FIG. 12.

Both the projection 107 and the pivoted pawl 108 are located through a longitudinal slot 111 in the tube 93 and normally located in the path of the cone or ball 101, as best shown in FIG. 12.

A stop lug 112 is fixed to the underside of the forward end portion of the upper track 13 and has the forward vertical stop surface 113 and the upwardly and rearwardly inclined cam surface 114.

A cam lug 115 is fixed to the underside of the upper track 13 just forwardly of the stop lug 112 and has the curved front surface 116 and the upwardly and rearwardly inclined cam surface 117.

In the operation of this embodiment of the invention, the spring-loaded cable 22 normally holds the upper carriage 90 at the rear or left end of the upper track 13, as viewed in FIG. 10. The cone 101 on the cable 22 contacts the rear end wall 102 of the tube 93, as best shown in FIG. 12, causing the spring-loaded cable 22 to pull the upper carriage to this position, holding it against the stop 21.

At this time, as best shown in FIG. 10, the dummy 34b is thus suspended, in substantially vertical position, from the upper carriage in the initial or starting position, the lower end of the dummy being flexibly connected to the lower carriage 96 by the coil spring 95.

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-loaded cable 22. The cable 22 being thus pulled toward the right, the cone 101 thereon will contact the flat rear surface of the pawl 108 on the trip lever 104 pulling the upper carriage to the right.

As the upper carriage reaches the forward or right hand end of the upper track 13, the projection 106 on the trip lever 104 will ride down upon the inclined cam surface 114 of the stop lug 112, pivoting the trip lever 104 upon its fulcrum 105 so as to raise the projection 107 and pawl 108 thereon above the path of the cone 101, permitting the cable 22 to move forwardly or to the right through the tube 93 until the cone 101 contacts the roller 94 at the forward end of the tube, as the tackling dummy 34b is thrown to the ground as shown in FIG. 11.

The carriage 90 will be pulled further forward by the pull upon the cable 22 riding the projection 106 on the trip lever 104 downward along the inclined cam surface 117 of the cam lug 115.

It will be seen that during this operation the tackling dummy will be uncoupled from the upper carriage so that the upper end of the dummy may move downward and forward away from the carriage to the position shown in FIG. 11.

The parts will remain in this position until the player releases the tackling dummy, at which time the spring-loaded cable 22 will be pulled to the left. The cone 101 on the cable will strike the rounded forward surface of the pawl 108 tilting the pawl upon its pivot, and will then strike the rounded front surface of the projection 107 on the lever 104 tilting the lever so that the projection 106 thereon will be moved down to clear the stop lug 112.

As the cone 101 contacts the rear end wall 102 of the tube 93, the upper carriage 90 will be moved back to the initial position shown in FIGS. 10 and 11. As the cable 22 is thus moved to the left through the tube 93, the tackling dummy 34b will be raised to vertical position and the parts will come to rest at the initial or starting position shown in FIGS. 10 and 12.

From the above it will be apparent that the tackling dummy disclosed herein is so constructed and arranged that the conditions of tackling a live opponent in actual play are closely simulated in the teaching of fundamental football blocking, tackling and charging.

The device is so constructed and arranged that the dummy will function in the manner of a live opponent when tackled, being capable of being pushed forward against resistance, lifted slightly relative to the ground, and finally forced down toward the ground.

Although the cable 22 is disclosed as being spring-loaded in order to provide resistance against forward movement of the dummy and to return it to the initial or starting position, it should be understood that any usual and well known means, such as fluid cylinders or weights, may be substituted for the springs 25 and 25', to provide the desired resistance against movement of the dummy.

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 advantageous 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 practice apparatus comprising a track, a carriage movable longitudinally on the track, a dummy, means suspending the dummy from the carriage, means normally urging the carriage toward one end of the track and resisting movement of the carriage and dummy in the opposite direction, means normally preventing movement of the dummy away from the carriage and means permitting downward movement of the dummy relative to the carriage only when the carriage is moved in said opposite direction to a predetermined point.

2. Football practice apparatus comprising a track, a carriage movable longitudinally on the track, a dummy, means flexibly suspending the dummy from the carriage, means normally urging the carriage toward one end of the track and resisting movement of the carriage and dummy in the opposite direction, means normally preventing movement of the dummy away from the carriage and means permitting downward movement of the dummy relative to the carriage only when the carriage is moved in said opposite direction to a predetermined point.

3. Football practice apparatus comprising a track, a

carriage movable longitudinally on the track, a dummy, means suspending the dummy from the carriage, means limiting upward movement of the dummy, means normally urging the carriage toward one end of the track and resisting movement of the carriage and dummy in the opposite direction, means normally preventing movement of the dummy away from the carriage and means permitting downward movement of the dummy relative to the carriage only when the carriage is moved in said opposite direction to a predetermined point.

4. Football practice apparatus comprising spaced upper and lower parallel tracks, a carriage movable longitudinally on each track, a dummy, means suspending the dummy from the upper carriage, means flexibly connecting the lower end of the dummy to the lower carriage, means normally urging the upper carriage toward one end of the upper track and resisting movement of the upper carriage and dummy in the opposite direction, means normally preventing movement of the dummy away from the upper carriage, and means permitting downward movement of the dummy relative to the upper carriage only when the upper carriage is moved in said opposite direction to a predetermined point.

5. Football practice apparatus comprising spaced upper and lower parallel tracks, a carriage movable longitudinally on each track, a dummy suspended from the upper carriage, means flexibly connecting the lower end of the dummy to the lower carriage, a cable connected at one end to a stationary portion of the apparatus adjacent one end of the upper track, means operatively connected to said cable for resisting movement of the upper carriage and dummy in one direction, said cable being operatively connected to the dummy, coupling means normally preventing downward movement of the dummy relative to the upper carriage, and means releasing said coupling means only when the upper carriage is moved in said one direction to a predetermined point, whereby the dummy may be moved downward relative to the upper carriage.

6. Football practice apparatus comprising spaced upper and lower parallel tracks, a carriage movable longitudinally on each track, a dummy flexibly connected at its lower end to the lower carriage, a spring-loaded cable connected at one end to the upper end of the dummy, means connecting the other end of said spring-loaded cable to a stationary portion of the apparatus, said cable being located longitudinally through the upper carriage, a cone fixed upon said cable, means at each end of the upper carriage for engagement by said cone, a trip lever fulcrumed upon the upper carriage, a depending projection at one end of the lever normally located in the path of said cone, a pawl upon the trip lever in the path of said cone for permitting movement of the upper carriage, an upwardly disposed proposed projection at the other end of the lever and a cam stop lug upon the upper track for contacting said upwardly disposed projection to tilt the trip lever.

7. Football practice apparatus as defined in claim 6, in which the cable is located through a longitudinally disposed tube fixed to the upper carriage and passes over a roller at one end of the tube.

8. Football practice apparatus as defined in claim 6, in which a pawl is pivoted upon the trip lever in the path of said cone.

9. Football practice apparatus comprising spaced upper and lower parallel tracks, a carriage movable longitudinally on each track, a dummy suspended from the upper carriage, means flexibly connecting the lower end of the dummy to the lower carriage, spring-loaded cable means normally urging the upper carriage toward one end of the upper track and resisting movement of the upper carriage and dummy in the opposite direction, means normally preventing movement of the dummy away from the upper carriage, and means permitting downward movement of the dummy relative to the upper carriage only when the upper carriage is moved in said opposite direction to a predetermined point.

10. Football practice apparatus as defined in claim 9, in which a cone is fixed upon said spring-loaded cable and engages means on the upper carriage for normally urging the upper carriage toward said one end of the track.

11. Football practice apparatus as defined in claim 10, in which a trip lever is pivoted upont he upper carriage and a member is pivoted upon said trip lever and normally located in the path of the cone.

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