July 7, 1970 J. R. HOWLETT ET AL 3,519,269

PULLING FRICTION TYPE EXERCISING DEVICE

Filed Feb. 19, 1968

Fig. 1

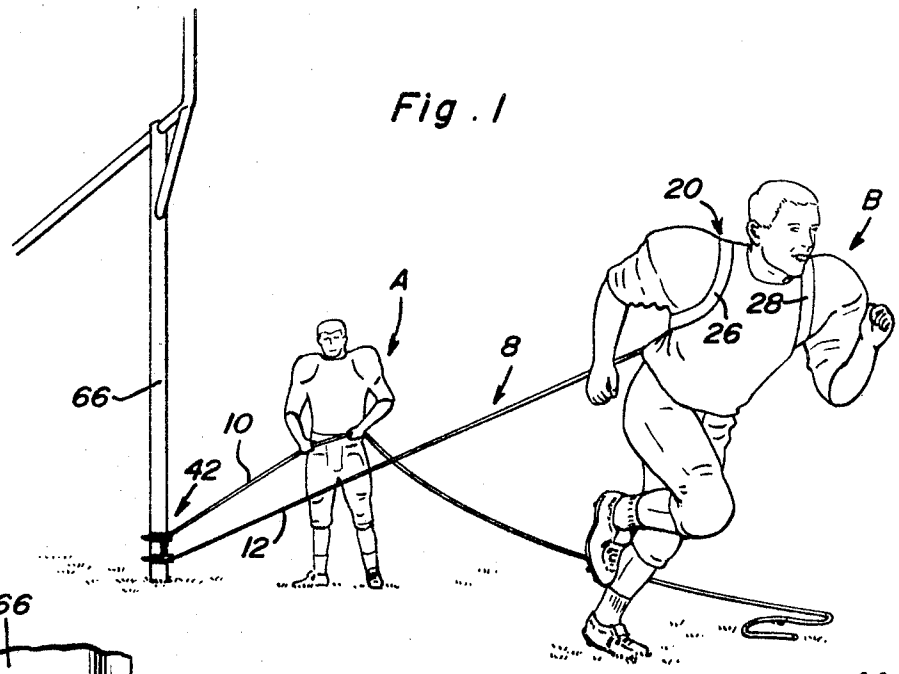


Fig. 2

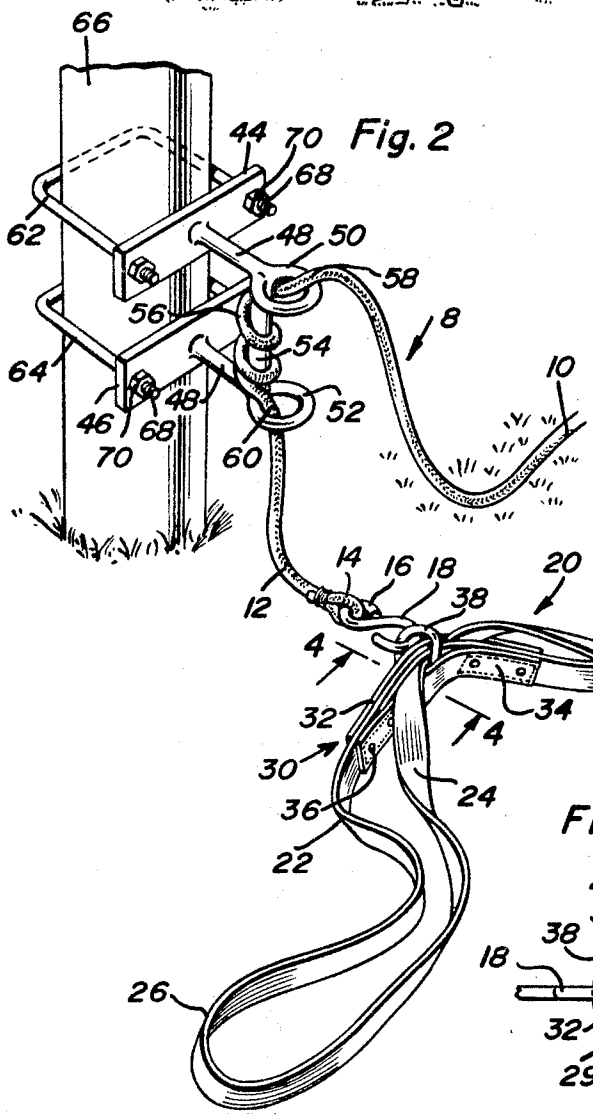


Fig. 3

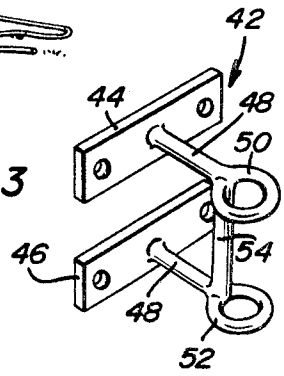


Fig. 5

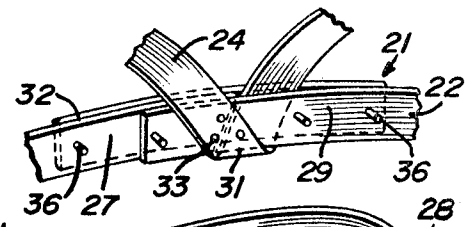
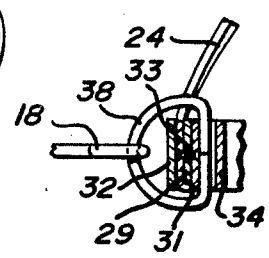


Fig. 4



Joe R. Howlett
Guy D. Penny
INVENTORS.

BY Clarence A. O'Brien and Harvey B. Jacobson
Attorneys

United States Patent Office 3,519,269 Patented July 7, 1970

3,519,269

PULLING FRICTION TYPE EXERCISING DEVICE

Joe R. Howlett, 1 Caldwell St., Auburn, Ky. 42206, and Guy D. Penny, 432 Second St., Morehead, Ky. 40351

Filed Feb. 19, 1968, Ser. No. 706,562
Int. Cl. A63b 21/12
U.S. Cl. 272—80 8 Claims

ABSTRACT OF THE DISCLOSURE

An exercising and training apparatus adaptable to indoor and outdoor use. It enables football players, baseball players, basketball players, trackmen and others to obtain needed exercising by exerting a running pull against a resisting force by way of a restraining rope, more specifically, a suitable harness-equipped rope whose median portion is snubbed around—by coiling or wrapping—a polished snubbing rod or shaft. This shaft is a component stationary part of a shacking fixture which is anchored on a goal post or the like. The player is the trainee while the coach acts as the trainer and holds and controls the inward end of the running rope.

This invention relates to certain new and useful improvements in a controllable pull-responsive rope wherein and through the medium of which a trainee cooperating with and under the watchful eye of a coach or duly appointed trainer can develop and perfect the explosive power, speed, body lean, balance and strength required for conditioned reflexes during offensive as well as defensive play.

An object of the invention, generally stated, is to provide a simple, practical and efficient apparatus which can be conveniently mounted on a goal post or an equivalent stationary support and which embodies facilities by way of which physical fitness and conditioning of the user's body can be reliably achieved under the supervision of the team's coach or delegated trainer, as the case may be.

Briefly the training apparatus involves the conjoint efforts of the team's coach or trainer and a single trainee and, to the ends desired, an appropriate pull-responsive rope or cable serves as a controlling and restraining element in that it is adapted to pay out when forcibly pulled by the forward moving trainee and is also adapted to be slackened and tightened by the trainer with the aid of a snubbing shaft or an equivalent rope check.

In carrying out a preferred embodiment of the invention the outer or forward end of the restraining rope is provided with an appropriate harness which is adaptably worn by the trainee. The inward end of the controllable rope is held and progressively and properly manipulated by the coach or trainer. The intermediate portion of the rope is cooperable with the aforementioned snubbing shaft. The shaft, in turn, is embodied in a shackling and anchoring device which lends itself to applicable and adjustable use on a goal post or an equivalent stationary support.

In addition to the above, the invention relies for novelty on a strap which is fashioned into a loop which is uniquely constructed to serve as a harness. The respective looped ends provide shoulder straps and the opposed intermediate portions of the respective longitudinal reaches or components of the strap are provided with a reinforced adapter carrying a D-ring. This D-ring constitutes a link to which a keeper hook on the forward end of the restraining rope is detachably connected.

These together with other objects and advantages which will become subsequently apparent reside in the

details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a view in perspective of a training apparatus constructed in accordance with the principles of the invention and showing how it is constructed and preferably used for exercising and conditioning needs.

FIG. 2 is a view in perspective on a suitably enlarged scale wherein all of the component parts of the ready-to-use apparatus are shown in readiness for use.

FIG. 3 is a view in perspective of a component unit of shackling means.

FIG. 4 is a detail view with parts in section and elevation taken approximately on the plane of the section line 4—4 of FIG. 2.

FIG. 5 is a fragmentary view in perspective of the overlapping ends of the loop-forming strap and showing how said ends are arranged and riveted together.

The aforementioned pull-responsive controlling and restraining rope is denoted by the numeral **8**. This rope will be of appropriate length, strength and material keeping in mind that it constitutes a significant part of a training harness which lends itself to physical fitness needs when used in conjunction with football, baseball, basketball, track and other sports events and with a view toward developing strength, body lean and other conditioned requirements of the user. The end portion of the rope which is held and skillfully handled by the trainer A is denoted, generally stated, by the numeral **10**. The forward or outer end portion which in practice is hitched to the trainee B is denoted by the numeral **12**. The last-named end portion is provided with an eye **14** to which a coacting end portion **16** of a coupling hook **18** is connected. This hook lends itself to practical use in conjunction with the aforementioned trainee's harness **20**. This harness comprises an elongated looped strap made of inelastic webbing and denoted as an entity in FIG. 5 by the numeral **21**. One reach or component part of the strap is denoted at **22** and the opposed companion reach or component part at **24**. The looped end or bight portions **26** and **28** provide the left and right shoulder straps which are usable in the manner shown in FIG. 1. The overlapping ends **27** and **29** (FIG. 5) at the median part of the reach **22** are provided with an adapter **30**. This adapter comprises a pair of relatively short auxiliary leather straps of the type shown at **32** and **34** in FIG. 2. These straps are opposed to each other and a V-shaped saddle portion **31** of the loop is sandwiched or interposed therebetween in the manner illustrated in FIGS. 2 and 5. The end portions of the straps **32** and **34** are riveted or otherwise secured in place as at **36** and the end portion **29** is saddled in place as detailed in FIG. 5. With this construction and arrangement a D-ring or an equivalent link **38** is securely attached to the adapter **30** and riveted strap portions for proper attachment and equalized balance. The V-shaped saddle portion **31** is riveted and anchored in place as at **33**. With this construction and arrangement the respective shoulder straps **26** and **28** are equalized.

The aforementioned shackling fixture or means is made up of three component parts. One unit or part is denoted by the numeral **42** in FIG. 3 and comprises a pair of substantially rectangular coplanar cleats **44** and **46**. Each cleat is provided with an integral centrally projecting eyebolt which is denoted at **48**. The respective upper and lower eyes **50** and **52** of these eye bolts are joined together by a rigid rope wrapping and snubbing shaft **54**. It follows that the median or intermediate portion of the controlling and restraining rope is wound or wrapped around the snubbing shaft or post **54** as denoted at **56**

in FIG. 2. One portion **58** is passed slidingly through the upper eye **50** and a similar portion **60** passed slidingly through the lower companion eye **52**. The second and third component parts of the shackling and anchoring means are shown in FIG. 2. Each part comprises a clevis. The upper clevis is denoted at **62** and the complemental lower clevis at **64**. These clevises embrace the goal post or equivalent stationary support **66** when applied for use. The screw-threaded ends **68** are passed through bolt holes provided therefor in the cleats **44** and **46** and are retained by assembling and retaining nuts **70**.

With the construction and arrangement shown it will be evident that the shackling and anchoring fixture or means lends itself to feasible use either indoors or outdoors, is readily applicable and removable and adjustable so that the manner of use illustrated for example in FIG. 1 can be advantageously resorted to.

It is believed that the construction and adaptability of the shackling and anchoring means is clearly shown in FIGS. 2 and 3 in particular. The manner in which the fixture is rigged and set up for snubbing use is shown with particularity at the left in FIG. 2. The construction of the harness is likewise effectually shown in this view and its manner of application and use is amply shown in FIG. 1.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described.

What is claimed as new is as follows:

1. A training apparatus for indoor or outdoor use by a trainer and a trainee, for example, a football player, basketball player or similar athlete comprising: a shackling device comprising upper and lower cleats each having an integral outstanding eyebolt, a rigid rod interposed between, disposed at right angles to, and joining said eyebolts in aligned relation and fixing said cleats in coplanar relationship, said rod constituting a rope snubbing shaft, a clevis bolted to each cleat, said clevices adapted to be detachably and adjustably connected to and anchored for use on a goal post or an equivalent stationary support post, and a pull-resposive restraining and controlling rope having a median portion wrapped slidingly around said shaft and capable of being snubbed and checked against (1) paying out or (2) retrieving, an inner end portion of said rope being slidingly trained through an upper one of said eyes and an outer end portion being slidingly trained through a lower one of said eyes.

2. The apparatus defined in and according to claim **1**, and, in combination, an inelastic shoulder strap fashioned into and providing a harness, a portion of said strap having paired reinforcing straps secured thereto and providing an adapter, a D-ring carried by said adapter, and a hook-equipped link carried by the outer free end portion of said rope and separably connectible with said D-ring.

3. The apparatus defined in and according to claim **1** and, in combination, a harness designed and adapted to be worn by the trainee in a manner to strenuously pull upon and pay out the rope contingent on the supervisory control of the rope by the trainer, and separable and connectable means affording a linking connection between the outer end of said rope and an adjacent cooperating median portion of said harness.

4. The training apparatus defined in and according to claim **1** and wherein said shaft is fully exposed and viewable by the trainer and comprises a stainless steel rod of predetermined vertical length and cross-section and whose rope wrap-around and snubbing surface is smooth and highly polished for free running coaction of the rope with said surface.

5. A training and exercising apparatus for indoor or outdoor use by a trainer and a trainee, for example, a football player in training comprising a portable readily attachable and detachable shackling device comprising upper and lower spaced parallel coplanar cleats, said cleats having median portions provided with integral outstanding eye-bolts one above the other, a rigid rod interposed between, disposed at right angles to, and joining outer end portions of the shanks of said bolts inwardly of said eyes, said rod constituting a rope coiling and snubbing shaft, clevis means connected to and carried by said cleats and designed and adapted to be operatively anchored on a relatively stationary goal post or the like, and a flexible but substantially inelastic rope having a median portion coiled around said shaft in a position confined between the respective eyes, said rope having (1) an inner end portion trained slidingly through an upper one of said eyes and adapted to be grasped and controllably held by the trainer and (2) an outer end portion trained slidingly through a lower one of said eyes, a harness with separable and connectable means affording a linking connection between the outer end of the rope and a cooperating median portion of said harness, said harness being designed and adapted to be worn by the trainee in a manner to enable him to strenuously pull upon and pay out the rope contingent upon the supervisory control of the inner end portion of the rope by the trainer.

6. The apparatus defined in and according to claim **5** and wherein said harness comprises a flexible strap, said strap being inelastic and fashioned into a loop providing left and right shoulder embracing trainee restraining half-loops.

7. The apparatus defining in and according to claim **6** and wherein said loop embodies rearward and forward strap portions, the median part of said rearward portion being provided with a pair of securely attached ancillary reinforcing straps, the means affording a separable and connectable linking connection comprising a D-ring cooperatively associated and connected with said reinforcing straps, said D-ring providing a keeper link and a connecting hook securely connected to and carried by the aforementioned outer end of said rope, said hook being detachably operatively connectable with said keeper link.

8. The apparatus defined in and according to claim **7** and wherein a median part of the forward strap portion being V-shaped and said V-shaped portion being interposed and sandwiched between said reinforcing straps and securely riveted and anchored in a given position.

References Cited

UNITED STATES PATENTS

1,543,346	6/1925	Titus	272—82
3,184,883	5/1965	McCook	272—82 XR
3,411,776	11/1968	Hockesvick et al.	

RICHARD C. PINKHAM, Primary Examiner

W. R. BROWNE, Assistant Examiner

U.S. Cl. X.R.

272—79; 273—55