Nov. 6, 1951 R. F. LOGAN 2,574,046

PORTABLE DUMMY FOR ATHLETIC TRAINING

Original Filed May 10, 1950 2 SHEETS—SHEET 1

Fig. 1.

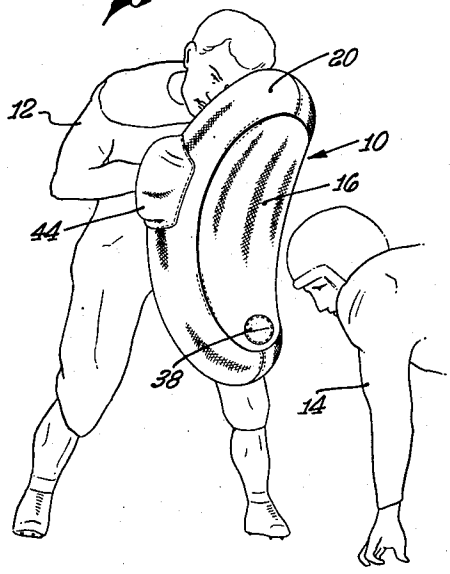


Fig. 2.

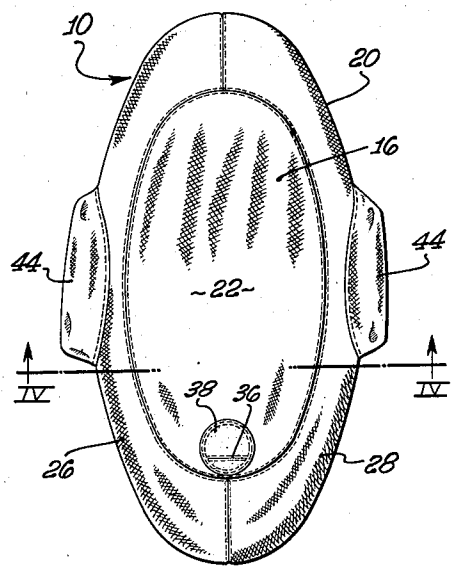


Fig. 3.

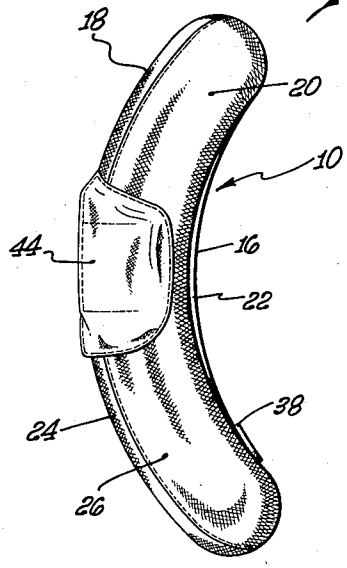
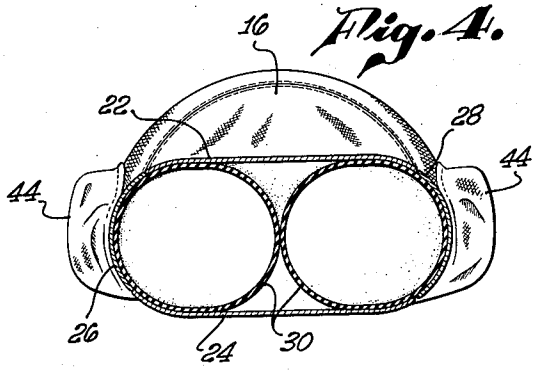


Fig. 4.



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PORTABLE DUMMY FOR ATHLETIC TRAINING

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Fig. 5.

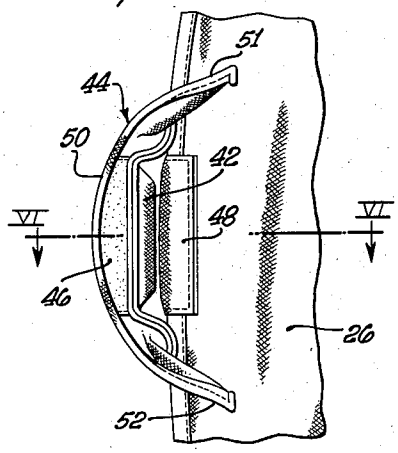


Fig. 6.

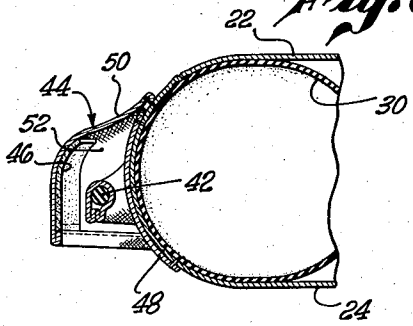


Fig. 7.

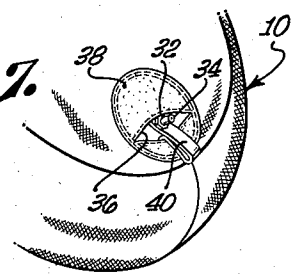
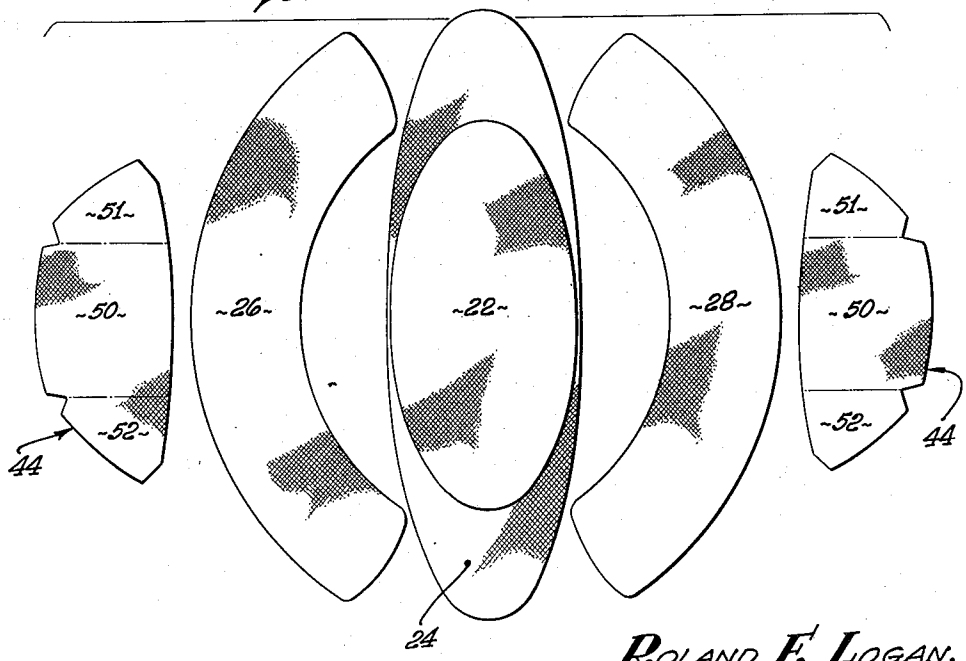


Fig. 8.



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UNITED STATES PATENT OFFICE

2,574,046

PORTABLE DUMMY FOR ATHLETIC TRAINING

Roland F. Logan, Los Angeles, Calif.

Continuation of application Serial No. 161,230, filed May 10, 1950. This application filed January 13, 1951, Serial No. 205,855

8 Claims. (Cl. 273—55)

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This invention relates to athletic training devices, and more particularly to an improved portable dummy for use in training football players.

Athletic training dummies have heretofore been known which were intended to be held in front of a defensive player to absorb and block the drive of an offensive player. However, such dummies have heretofore been formed either with a cylindrical configuration or with flat faces and flat edges, and have proved awkward and unwieldly for the defense player to handle. Further, the weight of the dummies has been excessive, which fact, together with the shape of the dummy limited the maneuverability of the player carrying the device, and thus the training achieved by use of the dummy has not been of maximum effectiveness.

It is, therefore, an object of the invention to provide an improved training dummy which is formed on one side with a concave surface to fit the body contour between the knees and head of a defensive player in partially crouched position in order that the force of the opponent may be partly absorbed and distributed over an increased portion of the defensive player's body.

Another object of the invention is to provide an improved training dummy adapted to be held by a defensive player which is provided with a convex surface against which the offensive player may dissipate the force of his attack without injury to either the defensive or offensive player.

Another object of the invention is to provide an improved training dummy formed of resilient material which is provided with spaced apart faces that have a generally elliptical shaped contour.

Another object of the invention is to provide an improved training dummy having the characteristics as above enumerated which is provided with a protective covering and an interiorly positioned resilient air impervious bag that is equipped with a filling tube and valve by means of which the bag may be inflated and deflated.

Another object of the invention is to provide an improved inflated training dummy which is light in weight and readily movable by a defensive player holding the dummy so that the player may quickly maneuver into a defensive position to counter the attack of an offensive player.

Another object of the invention is to provide an improved inflated training dummy provided with a flexible waterproof covering formed of heavy textile or plastic material which is adapted to withstand hard usage during the training of football players.

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Another object of the invention is to provide an improved inflated training dummy having spaced apart forward and rear faces and a concavely shaped edging or wall extending between said forward and rear faces.

A still further object of the invention is to provide a training dummy which is provided with handle grips adjacent to each side thereof that are shielded by gaunlet type protectors which extend over said handles having an opening which is directed toward the concave face of the training device.

A still further object of the invention is to provide improved handle grips on a training device that have a protective layer of soft flexible materal positioned both above and below said handles to serve as cushioning means to protect the hands of the user against blows and abrasion.

The invention also resides in certain novel structural characteristics which facilitate the carrying out of the foregoing objects and which contribute both to the simplicity of the improved athletic training device and its ruggeddness of construction, as well as to its convenience in use.

This invention contemplates an improved training dummy having a flexible wear resistant covering or container shaped when expanded to a desired concave contour having outer smoothly merging curved surfaces. The covering includes an elliptical front wall, an elliptical rear wall having a major axis of greater length than the major axis of the front wall and a pair of interconnecting peripheral side panels of virtually partial circular form in plan, the inner edge of each panel corresponding in length to the peripheral distance between points of intersection of the major axis of the front wall with said edge, and the outer edge having a length likewise related to the peripheral distance of the corresponding edge portion of the rear panel. Opposite end edges of each side panel are convexly curved. When the covering is expanded, the front and rear walls are joined by the side panels in a continuous convexly curved surface smoothly merging with adjacent marginal portions of the walls.

This application is a continuation of my application Serial Number 161,230 filed May 10, 1950, now abandoned.

Other objects and advantages of the invention will become apparent from the following detailed description taken in connection with the accompanying drawings, in which:

Fig. 1 is a perspective view showing the improved training dummy held by a player in de-

fensive position to block the attack of an offensive player.

Fig. 2 is an elevational view of the concave face of the training dummy.

Fig. 3 is a side elevational view of the training dummy shown in Fig. 2.

Fig. 4 is a cross-sectional view taken on line IV—IV of Fig. 2.

Fig. 5 is a fragmentary view disclosing one of the handle members positioned on a side of the training dummy.

Fig. 6 is a cross-sectional view taken on line VI—VI of Fig. 5.

Fig. 7 is a perspective view disclosing the filling tube and valve for an air bag positioned within the covering member of the training dummy.

Fig. 8 is an exploded plan view of the several patterns forming the walls, side panels, and handle gauntlets of the covering, the smaller front wall panel being superposed on the larger rear panel.

While this invention is susceptible of various modifications and constructions, I have shown in the drawings and will herein describe in detail the preferred embodiment. It is to be understood that I do not intend to limit the invention by such disclosure and I aim to cover all modifications and alternative construction falling within the scope and spirit of the invention as defined in the appended claims.

Referring to Fig. 1, the reference numeral **10** indicates the improved portable dummy having the characteristics of my invention being held in position by a defensive player **12** to protect himself and to absorb a portion of the force of the charging offensive player indicated by reference numeral **14**. It will be noted that the defensive player **12** has shifted the bulk of his weight to his rearwardly placed right leg, has inclined his body forwardly and lowered his head to resist and brace himself against the anticipated force of the oncoming player **14**. Thus from knee to head the body of the player **12** presents a general arcuate surface against which the portable dummy **10** is held and virtually corresponds to in curvature as indicated in Fig. 1.

The portable dummy **10**, as is best shown in Figs. 2 and 3, is formed with a generally elliptical shaped body member with the elongated portion of the dummy extending along the major axis of the ellipse. The portable dummy is provided with a forward face **16** which faces outwardly or in the direction of the offensive player when the training device is held in a protective position by the defensive player **12**. The opposite side or rear face **18** of the portable dummy is formed with a convexly curved surface in order that it may virtually fit the concave body contour of the defensive player when he assumes a partially crouched position, as is shown in Fig. 1. A peripheral edging or side wall **20** is positioned between the spaced apart convex and concave faces of the training device, and this peripheral wall is formed with a concavely curved surface to present a smoothly curved transition between the forward and rear sides of the training dummy. It will be noted that the concave and convex faces of the dummy extend substantially parallel to each other throughout their arcuate lengths and are positioned in spaced apart relationship.

In the manufacture of the training device, a protective covering of tough textile, plastic, or other flexible and waterproof material is preferably constructed with a front panel member **22** forming the forward face of the covering and a panel member **24** forming the rear face **18** of the training device. Both the panels **22** and **24** have a generally elliptical contour and may be stitched or otherwise secured along their peripheral edges to form the enclosure or covering of the training device.

An exemplary manner of constructing the casing or covering is shown from patterns in plan view detailed in Fig. 8. The front wall panel member **22** is formed of elliptical shape, the longer axis of the panel being the axis normally disposed vertically when the training dummy is being used. A rear wall panel member **24** is likewise formed of elliptical shape with the minor axis virtually the same length as that of the front wall **22**. The major axis of the rear wall **24** is substantially longer than that of the front wall **22**. The front and rear walls **22** and **24** may be symmetrically disposed, the points of intersection of their major and minor axes lying along a line perpendicular to said axes at said points of intersection. Each panel **24** and **26** presents a continuous elliptical peripheral edge.

Two side wall panels **26** and **28**, of virtually identical circular ring sector configuration, and of virtually uniform width serve to inter-connect edges of the front and rear panels as by inwardly directed seams secured by stitching in well-known manner. Opposite ends of each panel **26** and **28** are provided with convex edges and opposed panel end edges are likewise secured as by inwardly directed seams. The side panels, connected to each other along convex edges, provide, when the casing is expanded, a convex peripheral edge which smoothly merges with adjacent marginal portions of the front and rear walls. A casing is thus provided which will readily assume the desired concave shape without the presence of folds or irregularities throughout the entire surface of the casing which may result in injury to a player or damage to the training dummy.

While it is contemplated that any suitable lightweight resilient material such as, for example, excelsior, cotton, or foam rubber may be positioned within the protection covering of the training dummy, in the preferred embodiment of my invention, provision is made for inflating the training dummy with air or other suitable gas. In order that this may be accomplished, a flexible thin walled resilient gas-impervious bag **30**, which is best shown in Figs. 4 and 6, is positioned and retained with the protective covering. The air bag **30** may comprise an annular tubular member preferably formed of rubber as, for example, a vehicle tire tube. The annular member may be folded about a diameter so that generally opposed portions of the member lie in side-by-side relationship and generally approximates a semi-circle when viewed from the side.

When the air bag has been folded and positioned within the dummy and the covering closed by stitching or the like, the adjacent walls of the tubular air bag will be positioned upon inflation of the bag in substantial contact with each other as shown in Fig. 4, and the training device will assume the form shown in Figs. 1, 2, and 3. The air bag is inflated with air or other gas under sufficient pressure to maintain the shape of the training device and to provide force absorbing resilient surfaces. Pressures in the vicinity of one pound per square inch have been found satisfactory but either higher or lower pressures may be employed without departing from the scope of invention.

The resilient air bag **30** is provided with a flex-

ible filler tube 32, air valve, and filler tube closure cap 34 whereby the bag may be inflated or deflated. The terminal end of the filler tube 32 may be removed through a slit-type aperture 36 in the protective covering of the training dummy 10. Preferably the aperture 36 is placed in the lower portion of the forward face 16 of the covering, and in order to prevent the tearing or ripping of the textile or plastic covering material about said aperture a reinforcing tab 38 is positioned and secured around opening 36. In order to facilitate removal of the filler tube terminal, a strap 40 is preferably attached to the filler tube which may be readily grasped by the user reaching through aperture 36.

Protected handle members 42 are positioned adjacent to each of the sides of the training dummy and at a selected point of balance. As best shown in Figs. 5 and 6, the handles comprise elongated strap members which are secured at each end in suitable manner to the protective covering of the dummy. In order to shield the hands of the player holding the dummy against blows or abrasion, a gauntlet type shield 44 is positioned to extend over and to enclose each of the handle members. The shields 44 are formed in the general nature of a pocket with sides 50, 51, and 52 (Fig. 8) secured to the covering and the opening thereof is directed towards the convex face 18 of the training dummy so that a player holding the training device may readily insert his hands into the gauntlet and grasp the handle member or grip 42. In order to provide additional protection to the hands of the player, the interior surface of the gauntlet type shield 44 is provided with a layer 46 of padding material and another layer of protective material 48 is secured on the surface of the training dummy beneath each of the handle members. The layers of protective material 46 and 48 preferably consist of moleskin, although other soft, durable materials, such as felt, sponge rubber and the like, may be employed.

From the foregoing description it will be observed that the training dummy of my invention is light in weight and easily maneuvered due to its convenient shape by the defensive player to counter the attack of an offensive player. The portable dummy serves as a buffer between the defensive and offensive players to absorb the forces without injury to either player. Due to the curvature of the training device, the concave face thereof readily fits the contour between the knee and head of a blocking player, and the shielded handles give protection to the hands of the player holding the device. In deflated condition, the portable dummy may be stored or transported in a minimum of space and may be quickly inflated when it is desired to place the device in service.

I claim:

1. In an easily maneuverable light-weight smooth surfaced, portable training dummy, the combination of: an outer casing comprising an elliptical front wall and an elliptical rear wall spaced from the front wall, the major axis of the rear wall being of greater length than the major axis of the front wall, the minor axes being of virtually the same length, the points of intersection of the major and minor axes of said front and rear elliptical walls lying on a common straight line perpendicular to said axes at the points of intersection; a pair of circular ring sector side wall portions of virtually uniform width interconnecting peripheral edges of the front and rear walls, said side wall portions having convex end edges joined together; an annular pneumatic tube folded about a diameter and received and retained in folded position within said casing; handle members carried by the side wall portions on opposite sides of the casing adjacent the balance point of the dummy; and flexible shielding elements enclosing said handle members and side wall portions adjacent thereto, each shielding element having a rearwardly directed opening for access to the enclosed handle.

2. In an easily maneuverable light-weight smooth surfaced, portable training dummy, the combination of: an outer casing comprising an elliptical front wall and an elliptical rear wall, the major axis of the rear wall being of greater length than the major axis of the front wall, said front and rear walls being symmetrically arranged with respect to each other; a pair of circular ring sector side walls of virtually uniform width interconnecting peripheral edges of the front and rear walls, said side walls having convex end edges joined together; an annular pneumatic tube folded about a diameter and received and retained in folded position within said casing; and handle members carried by the side walls on opposite sides of the casing adjacent the balance point of the dummy.

3. An inflatable training dummy comprising in combination, an elongated closed covering member formed of flexible material and having a generally elliptical shaped contour, said covering member being provided with substantially parallel faces positioned in spaced relationship to each other, said faces being curved along the major axis of the elliptical shaped covering, and an annular air bag formed of resilient, gas impervious material positioned within said covering member with opposite wall portions of the annular bag folded upon themselves and positioned within the curved sections on said major axis of the elliptical shaped covering.

4. In an easily maneuverable light-weight smooth surfaced, portable training dummy, the combination of: an outer casing comprising an elliptical front wall and an elliptical rear wall, the major axis of the rear wall being of greater length than the major axis of the front wall, said front and rear walls being symmetrically arranged with respect to each other; arcuate sector-shaped side walls of virtually uniform width interconnecting peripheral edges of the front and rear walls, said side walls having convex end edges joined together; an annular pneumatic tube folded about a diameter and received and retained in folded position within said casing; and handle members carried by the side walls on opposite sides of the casing adjacent the balance point of the dummy.

5. An inflatable dummy for athletic training comprising in combination, an elongated closed covering member formed of flexible material and having a generally elliptical shaped contour, said covering member having a convex face on one side thereof and a concave face positioned in spaced relationship thereto on the opposite side thereof, and an annular pneumatic tube folded about a diameter and inflated within the covering member to hold said covering member under tension to stretch and smooth said convex and concave faces.

6. An inflatable, portable training dummy comprising: a casing made of flexible, pliant material and including a front elliptical face member, a rear elliptical face member, said rear member being longer along its major axis than the front face member, and side wall portions connecting

peripheral edges of the front and rear face members, said side wall portions being arcuate when in flat, extended form, whereby said side walls maintain the front face with a concave surface and the rear member with a convex surface; and an annular pneumatic tube folded about a diameter and inflated within the casing to hold the side walls and face members under tension.

7. A portable training dummy of the character stated in claim 6, including a plurality of said side wall portions, end edges of said side wall portions being convex when in flat, extended form, adjacent ends of such side wall portions being connected to said end edges, whereby said side walls assume a curved form when the inner, folded tube is inflated.

8. A portable training dummy of the character

stated in claim 6, including handle members carried by the side walls virtually parallel to the major axes of the front and rear members.

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The following references are of record in the file of this patent:

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