June 5, 1934. R. CROWTHER 1,962,088

FOOTBALL PRACTICE APPARATUS

Filed June 29, 1933 2 Sheets-Sheet 1

Fig. 1.

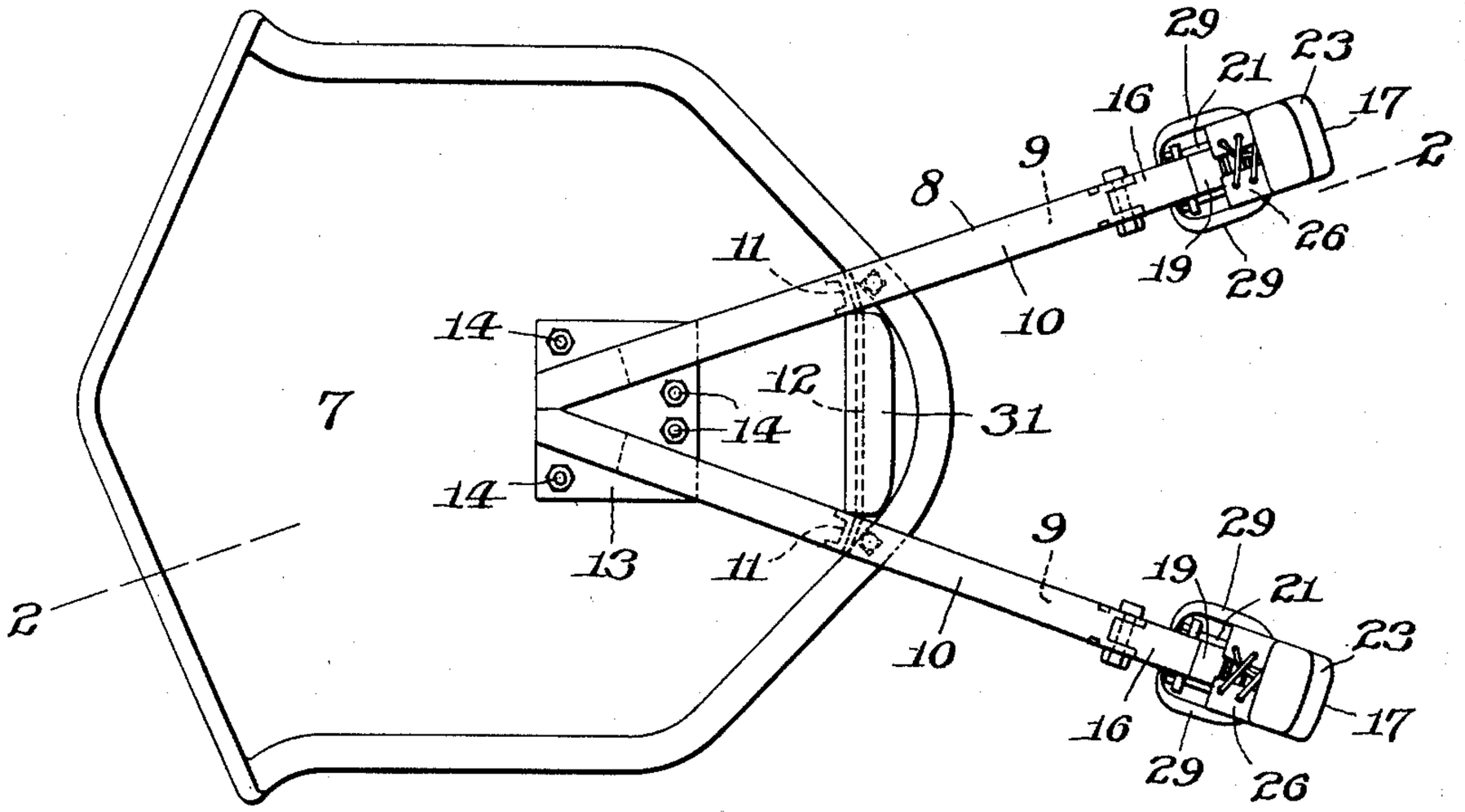
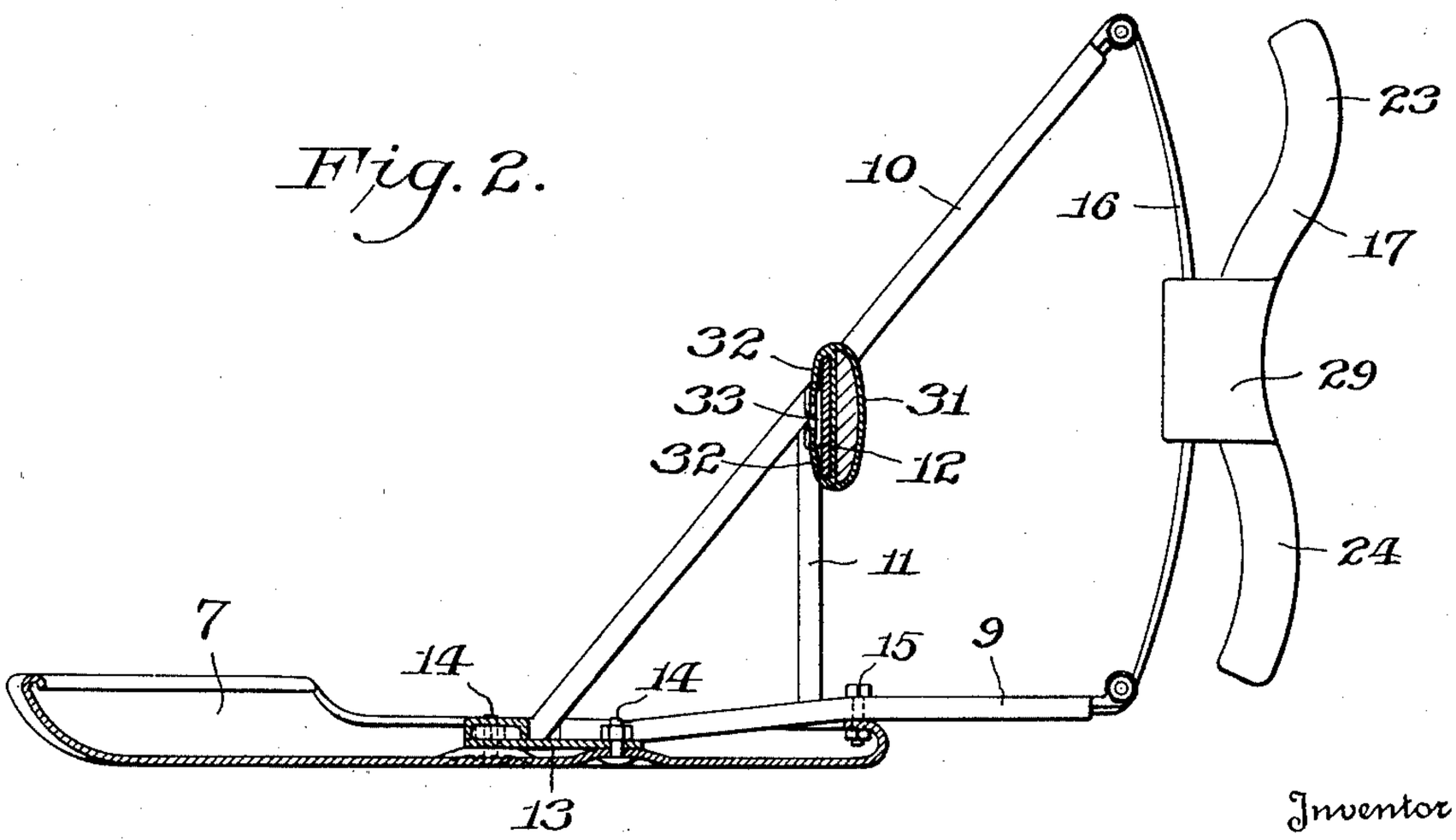


Fig. 2.



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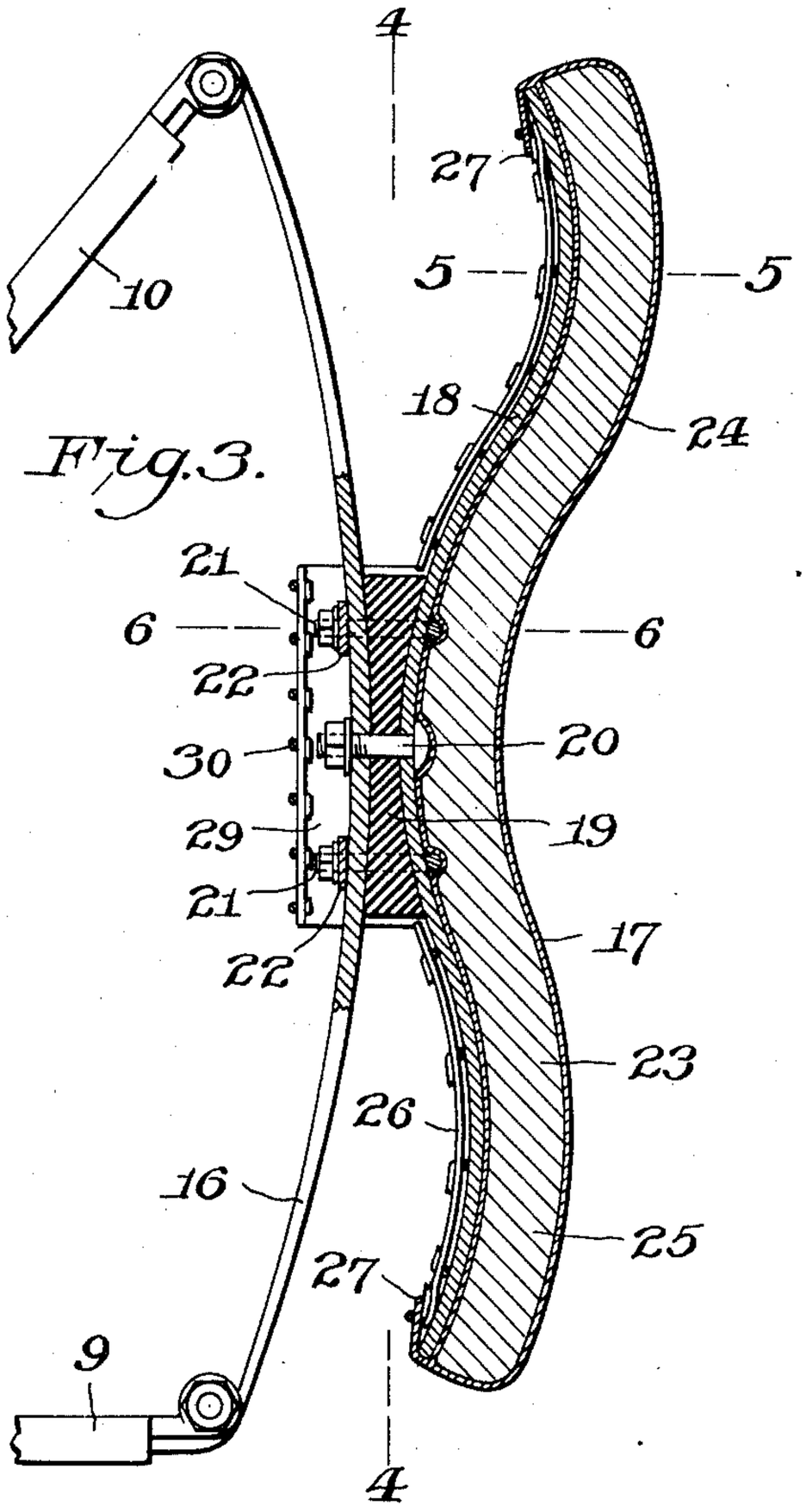

Fig. 3.

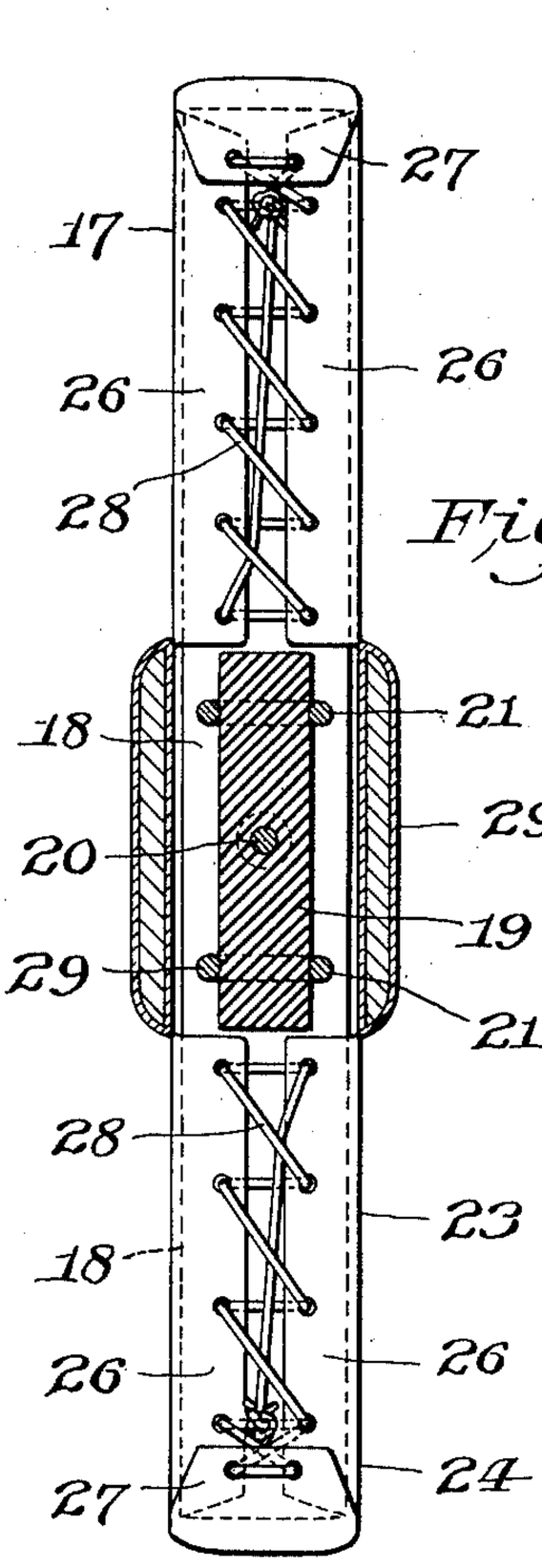

Fig. 4.

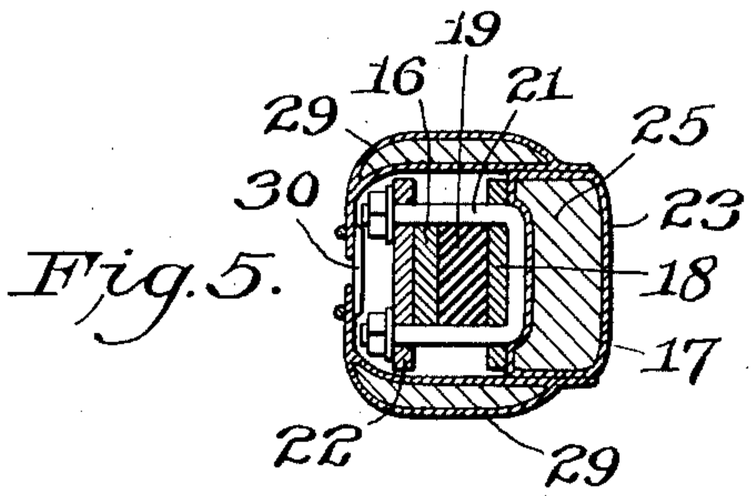

Fig. 5.

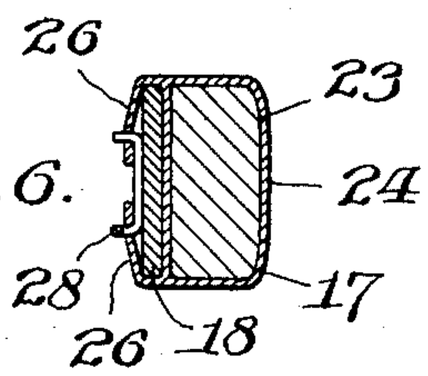

Fig. 6.

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UNITED STATES PATENT OFFICE

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FOOTBALL PRACTICE APPARATUS

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Application June 29, 1933, Serial No. 678,232

16 Claims. (Cl. 273—55)

This invention relates to improvements in football practice apparatus for use in teaching, training and developing football players.

An object of the invention is to provide a novel and advantageous apparatus by means of which players may be taught, trained and developed in the art of charging and blocking under conditions more closely approximating those which are present in similar plays or encounters in an actual game of football than has been heretofore attained.

Another object is to provide my improved apparatus with means whereby it may be supported upon the ground and moved over the surface thereof so as to not only oppose the initial impact of the practicing player but also to oppose his follow up movements in a manner to permit the player to charge and follow up the charge with a continued forward movement without going down on his hands and with the same force and effect required of the player in an actual game of football.

Another object is to so constructed and support the dummy of the apparatus that it will yield and resist the practicing player and permit him to charge and block the same with all the force and tactics necessary to be employed in a regular game and with no danger of injury to the player.

Another object is to provide the apparatus with two laterally spaced dummies supported and related to provide a means of teaching, drilling and practicing two players in charging and blocking in that part of the game which is known as "double-teaming".

Another object is to so construct and support the dummy or dummies as to simulate the parts and the positions thereof of an opposing player or players in the various forms of the blocks and charges of the game.

Another object is to provide a means for drilling and developing arm charges with leg drives.

A further object is to so construct and relate the various parts of the apparatus as to form an effective aid to the coach in teaching, drilling and checking up proper head, shoulder, body, leg and arm positions and actions in the various plays of the game.

The invention resides in the elements of my improved apparatus and in the combinations of them hereinafter described and claimed.

In the accompanying drawings, illustrating the invention,

Figure 1 is a top view of a football practice apparatus, showing one form of embodiment of my invention.

Figure 2 is a vertical section thereof, on line 2—2 of Fig. 1.

Figure 3 is a central longitudinal section showing one of the dummies and adjuncts.

Figure 4 is a vertical section on line 4—4 of Fig. 3.

Figures 5 and 6 are horizontal sections on lines 5—5 and 6—6, respectively, of Fig. 3.

Referring to the drawings, 7 designates a supporting base and 8 a frame structure rising fixedly therefrom.

The base 7 may be of any suitable shape and size for its intended purpose. The base, as herein illustrated is formed of stiff and rigid sheet metal the bottom surface of which is flat and is adapted to rest upon the surface of the ground and to slide over the same, as will be hereinafter described. The surrounding edge portions of the metal forming the base are turned first upwardly and outwardly and then inwardly, thereby providing the entire edge portion of the base with surfaces which form continuations of the bottom surface thereof and which extend upwardly and outwardly therefrom and permit the base easily to ride over any irregularities or unevenness in the ground over which the base is pushed or pulled.

The frame structure 8 comprises two lower bars 9, 9, two upper bars 10, 10 extending above the lower bars 9, 9, two brace bars 11, 11, connecting the lower bars 9, 9 and the upper bars 10, 10, a bar 12 extending horizontally between and connecting the upper portions of the brace bars 11, 11 and a bottom plate 13 to which the inner or rearward end portions of the bars 9, 9 and 10, 10 are secured. The bars 9, 9 and 10, 10 and 11, 11 are preferably of channel formation and the bars 9, 9 and 10, 10 are secured to the bars 11, 11 and to the plate 13 by being welded thereto. The bars 10, 10 are arranged directly over and are paired with the bars 9, 9, and the bars of the two pairs diverge laterally from the plate 13 and they project forwardly beyond the forward edge portion of the base 7. The bars 9, 9 rise slightly between the plate 13 and the forward edge portion of the base 7 from which the free end portions of the bars extend forwardly substantially parallel to but spaced a few inches above the plane of the bottom surface of the base; and the upper bars 10, 10 diverge upwardly and forwardly with respect to the lower bars 9, 9, as clearly shown in the drawings. The entire frame structure 8 is secured to the base 7 by suitable bolts 14 which extend through the plate 13 and base 7, and bolts 15 which extend through the lower bars 9, 9 and the inturned forward edge portion of the base 7.

The forward or free ends of the upper bars 10, 10 are located directly over the forward or free ends of the lower bars 9, 9; and the forward end of each upper bar 10 is connected to the forward end of each lower bar 9 by a forwardly bowed spring 16 formed of suitable flat spring

metal and having its respective ends pivotally connected to the bars.

The springs 16, 16 carry two laterally spaced dummies 17, 17 each of which has a rearwardly bowed central portion which is connected to the central portion of its spring 16, as will be hereinafter described, and each of which has rearwardly turned upper and lower end portions, as illustrated in the drawings.

The construction of the dummies 17, 17 and the means which connect them to the springs 16, 16 are alike and therefore a description of one will suffice for both, as follows:

The rearward, inner portion of the dummy 17 is formed by an elongated flat metal spring 18 having a rearwardly bowed central portion whose ends terminate in end portions which are bowed forwardly or reversely of the central portion. The central portion of the dummy spring 18 is seated against a resilient rubber pad 19 which is interposed between it and the central portion of its companion spring 16, and the springs 16 and 18 and the interposed pad 19 are secured together by a centrally arranged bolt 20. The dummy spring 18 is made wider than its carrying spring 16, and the elongated dummy is maintained substantially in vertical position and in alinement with its spring 16 by two U-bolts 21, 21 arranged above and below the central bolt 20 and extending through openings in the dummy spring 18 and embracing the carrying spring 16 and the rubber pad 19. The end portions of each U-bolt 21 extend through a bar 22 which engages the rearward surface of the carrying spring 16, and such end portions are provided with nuts which are tightened against the bar 22 to draw it and the dummy spring toward each other to clamp the carrying spring 16 and pad 19 between them.

Conforming substantially to the shape and length of the dummy spring 18, and arranged with its rearward surface in contact with the forward surface thereof, is a yieldable pad 23 comprising an outer casing 24 of suitable flexible material, such as canvas, and a filling 25 of yieldable cushioning material, such as curled hair.

The respective sides of the pad 23 are provided with upper and lower longitudinally extending flaps 26 which embrace the upper and lower portions of the dummy spring 18; and the respective ends of the pad 23 are provided with transversely extending flaps 27 which embrace the respective end portions of the dummy spring 18. The spring 18 is confined between the body of the pad 23 and the flaps 26 and 27, and the flaps are provided with suitable holes or eyelets for the reception of laces 28 as a means of connecting the flaps rearwardly of the spring 18 and thereby confining the spring within the dummy and holding the pad 23 in place thereon. The central portion of the pad 23 is provided with rearwardly extending, padded flaps 29 which embrace the central portions of the springs 16 and 18 and their connecting bolts 20 and 21 and which are connected rearwardly of the spring 16 by a lace 30 which extends through holes or eyelets in the flaps 29. These padded flaps 29 are provided to protect the players from being injured by the parts which connect the dummy spring 18 and the carrying spring 16.

The horizontal frame bar 12 carries a yieldable pad 31 engaged with the forward surface thereof and provided with rearwardly extending flaps 32 which are connected by a lacing 33 to hold the pad in place. The bar 12 is provided, not only to stiffen and strengthen the frame structure of the apparatus, but also, in combination with its pad 30, to provide a suitable abutment to receive the hands and the impact of a player in practicing arm charges with leg drive.

The forward portions of the dummies 17, 17 are shaped and related to the ground on which the apparatus rests to present to practicing players the parts and the positions thereof which correspond with the like parts and positions of the opposing players into which the shoulders, arms, bodies and legs of the practicing players come into contact in practicing the various blocking and charging plays of the game.

The ability of the entire apparatus to move over the surface of the ground upon which it rests under the influence of the impact of a charging or blocking practicing player, coupled with the resiliency of the dummy carrying springs 16, 16 and some resiliency in the frame structure 8 and in the broad dummy springs 18, 18, provides cushioning abutments for receiving the impacts of the practicing players which very closely approximates the opposition presented by opposing players in an actual game; and the frictional resistance of the apparatus to forces tending to move it over the ground provides a resistance which enables the practicing players to follow up the initial impact of a charge or block by a continued forward movement which closely approximate the opposition encountered in a follow up movement in an actual game.

The weight of the entire apparatus is such as to produce the desired pressure of the base upon the ground to provide the desired resistance of the base 7 to movement for follow up plays, when a single player is practicing. When, however, two players are charging the two dummies, in practicing "double-teaming" plays, additional weight is required to provide the necessary resistance of the base to movement under the pressure of the two players, and this additional weight is provided by having the instructing coach or another person stand upon the base when two players are charging the two dummies.

The two dummies 17, 17 are set the desired distance apart for practicing the "double-teaming" plays and also for providing a passage between them for a player to reach the pad 30 on the bar 12 in practicing the arm charges with leg drive, previously referred to.

The rearward edge portion of the base 7 is made somewhat pointed and it is turned upwardly and outwardly from the bottom surface of the base to a greater extent than the remaining edge portion of the base, to insure the proper movement of the base over irregularities in the ground when the apparatus is moved rearwardly by the charging players.

I claim as my invention:

1. In a football practice apparatus and in combination, a supporting base adapted to rest upon the ground, a supporting frame rising from the base, a dummy, resilient means supported by the frame and supporting the dummy and permitting the dummy to yield under the impact of a person, and said base being constructed to be moved over the surface of the ground under the influence of the impact of a person against the dummy.

2. In a football practice apparatus and in combination, a supporting base adapted to rest upon the ground, a supporting frame rising from the base and having parts projecting forwardly there-

of, a dummy, resilient means supported by said parts and supporting the dummy and permitting the dummy to yield under the impact of a person, and said base being constructed to be moved over the surface of the ground under the influence of the impact of a person against the dummy.

3. In a football practice apparatus and in combination, a supporting base formed of sheet metal having an upwardly bent edge portion and a bottom surface adapted to rest upon the ground, a supporting frame rising from the base, and a dummy carried by the frame, said base being wider than said dummy and constructed to be moved over the surface of the ground under the influence of the impact of a person against the dummy.

4. In a football practice apparatus and in combination, a supporting base formed of sheet metal having an upwardly bent edge portion and a bottom surface adapted to rest upon the ground, a supporting frame rising from the base, and a dummy carried by the frame, said frame being provided with resilient means permitting the dummy to yield under the impact of a person, and said base being constructed to be moved over the surface of the ground under the influence of the impact of a person against the dummy.

5. In a football practice apparatus and in combination, a supporting base, a supporting frame rising from the base and having upper and lower parts projecting forwardly thereof, a spring connecting said parts, and a dummy carried by said spring.

6. In a football practice appartaus and in combination, a supporting base, a frame rising from the base and provided with a forward projecting upper arm and a forwardly projecting lower arm, a bow spring having its respective end portions pivotally connected to said arms, and a dummy carried by said spring and connected thereto in spaced relation to the ends thereof.

7. In a football practice apparatus and in combination, a supporting base, a frame rising from the base, a forwardly bowed spring having an upper end portion and a lower end portion each pivotally connected to the frame, and a dummy forwardly of the spring and having a rearwardly bowed central portion connected thereto in spaced relation to the ends thereof.

8. In a football practice apparatus and in combination, a supporting base, a frame rising from the base, a forwardly bowed spring having an upper end portion and a lower end portion each pivotally connected to the frame, and a dummy forwardly of the spring and having a rearwardly bowed central portion connected thereto in spaced relation to the ends thereof, said dummy having rearwardly turned upper and lower end portions.

9. In a football practice apparatus and in combination, a supporting base, a frame rising from the base, a forwardly bowed spring having an upper end portion and a lower end portion each pivotally connected to the frame, and a dummy forwardly of said spring and comprising a rearwardly bowed spring connected to the first named spring and a yieldable pad carried by the rearwardly bowed spring and extending forwardly thereof.

10. In a football practice apparatus and in combination, a supporting base, a frame rising from the base, a forwardly bowed spring having an upper end portion and a lower end portion each pivotally connected to the frame, and a dummy forwardly of said spring and comprising a spring having a rearwardly bowed central portion connected to the first named spring and rearwardly turned upper and lower free end portions, and a yieldable pad carried by the said spring portion and extending forwardly thereof.

11. In a football practice apparatus and in combination, a supporting base, a frame rising from the base, a spring having an upper end portion and a lower end portion each pivotally connected to the frame, a dummy spring forwardly of the first named spring, a resilient pad between the springs, means connecting the springs and the pad, said springs extending divergently from the pad, and a yieldable pad carried by the dummy spring and extending forwardly thereof.

12. In a football practice apparatus and in combination, a supporting base, a frame rising from the base, a spring having an upper end portion and a lower end portion each pivotally connected to the frame, a dummy spring forwardly of the first named spring, a resilient pad between the springs, a centrally arranged bolt securing the springs and pad together, bolts connecting the springs above and below the centrally arranged bolt in the region of the pad and permitting relative movement between the springs, and a yieldable pad carried by the dummy spring and extending forwardly thereof.

13. In a football practice apparatus, a dummy comprising an elongated, flat metal spring having reversely curved portions, an elongated yieldable pad engaging a flat side of the pring and having longitudinally extending side flaps enclosing the spring between them and the body of the pad, and connecting means for the flaps.

14. In a football practice apparatus, a dummy comprising an elongated, flat metal spring having reversely curved portions, an elongated yieldable pad engaging a flat side of the spring and having longitudinally extending side flaps and transversely extending end flaps enclosing the spring between them and the body of the pad, and connecting means for the flaps.

15. In a football practice apparatus and in combination, a supporting base adapted to rest upon the ground, a supporting frame rising from the base and having forwardly projecting diverging portions, and two laterally spaced dummies carried by said frame, said portions being provided with resilient means permitting the dummies to yield under the impact of persons, and said base being constructed to be moved over the surface of the ground under the influence of the impact of persons against the dummies.

16. In a football practice apparatus and in combination, a supporting base formed of sheet metal having an upwardly bent edge portion and a bottom surface adapted to rest upon the ground, a supporting frame rising from the base and having forwardly projecting diverging portions, and two laterally spaced dummies carried by said portions, said portions being provided with resilient means permitting the dummies to yield under the impact of persons, and the said base being constructed to be moved over the surface of the ground under the influence of the impact of persons against the dummy.

RAE CROWTHER.