

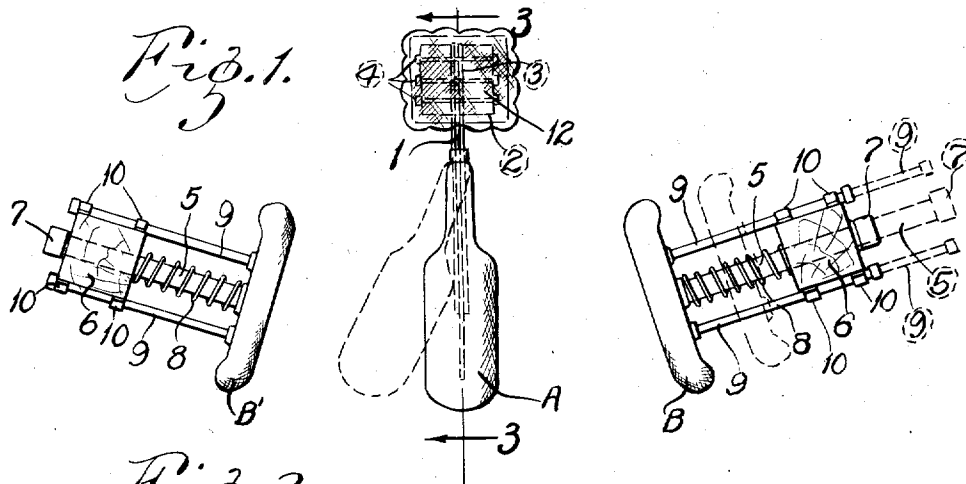
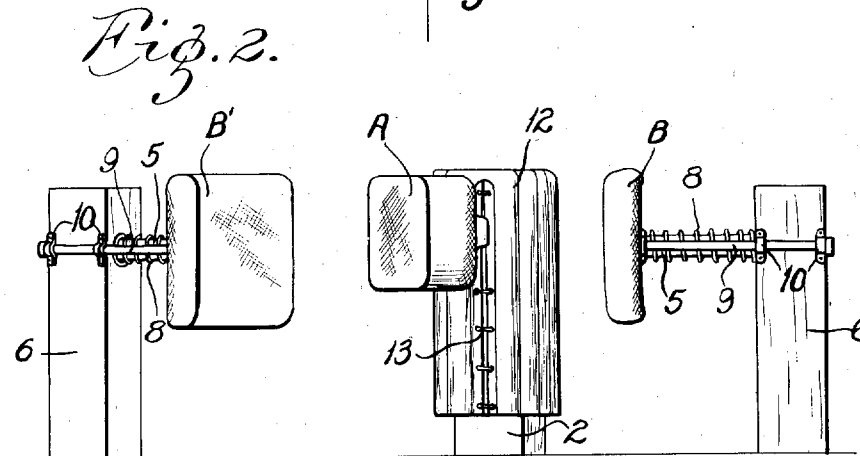
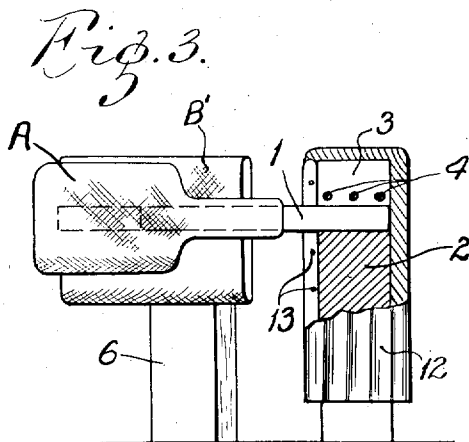
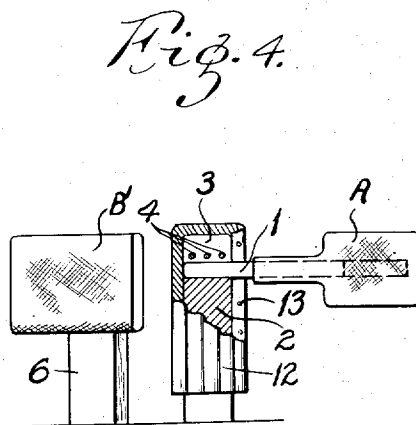
July 4, 1933.

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1,916,385

FOOTBALL LINE CHARGING APPARATUS

Filed Jan. 22, 1931



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FOOTBALL LINE CHARGING APPARATUS

Application filed January 22, 1931. Serial No. 510,341.

This invention relates to an apparatus that is adapted to be used in the operation of instructing or coaching football players.

One object of my invention is to provide an apparatus, which, in addition to being of material assistance in instructing football players in the fundamentals of defensive line play, will also develop co-ordination and quickness of action in the persons who use the apparatus.

Another object is to provide an apparatus for the general purpose described, that will reproduce with substantial accuracy the conditions which a player in a defensive line encounters or is subjected to in charging an offensive line.

Another object is to provide an apparatus of the kind above described, that has provision for enabling a defensive line player to be instructed in the use of his right arm and in the use of his left arm in charging an offensive line.

And still another object of my invention is to provide a practicable football line charging apparatus of simple design that can be used in instructing all of the players of a defensive line, and which can be easily adjusted, changed or modified to alter the relationship of the elements of the apparatus that represent offensive line players and to vary the tension of the springs or other means used to resist movement of said elements when said elements are subjected to blows or thrusts by the user of the apparatus.

To this end I have devised an apparatus, which, in its simplest form, will consist of one element that represents the head or head and shoulders of an offensive line player, and a second element that represents one shoulder or one side portion of the body of an adjacent offensive line player. Said elements are spaced apart so as to form a pathway through which the user charges forwardly in the use of the apparatus, and the element first mentioned, which, for convenience, I will refer to as the "head element", is preferably arranged a trifle in advance of the other element, referred to, for convenience, as the "body element", so as to represent the approximate position of the head of an offensive

line player and the body of the adjacent player of the offensive line. The head element is sustained by a supporting structure located behind said element, and is mounted on said supporting structure in such a way that it is capable of vibrating, yielding or moving laterally out of the forward path of the user when said element is subjected to a sidewise thrust, blow or push from one or both hands of the user. The body element is sustained by a supporting structure located at the side of same and is reciprocatingly mounted on said supporting structure in such a way that it is capable of yielding or moving laterally out of the forward path of the user of the apparatus when subjected to a lateral thrust, blow or push from the shoulder or body of the user in the operation of charging forwardly between said elements. In view of the fact that it is essential to instruct defensive line players in the use of both the right hand and the left hand in charging an offensive line, a complete apparatus embodying my invention will comprise two body elements arranged at opposite sides of a head element located at a point substantially midway and preferably slightly in advance of said body elements, said three elements co-operating with each other to represent three players of an offensive line through which the user of the apparatus endeavors to charge, either to the right or to the left of the offensive line player represented by the head element.

The elements above referred to will usually consist of padded members carried by springs or by devices backed up by springs, and arranged in sufficiently close proximity to the ground to require the user to assume a substantially stooping posture in charging forwardly between two elements of the apparatus that represent offensive line players. The particular shape, design and details of construction of the head element and the body elements is immaterial and various means may be used to sustain said elements and support them in such a manner that they will be capable of yielding or moving laterally, but will require a blow or thrust of considerable force to deflect them laterally

out of the forward path of the user. In the preferred form of my invention herein illustrated the head element is carried by a horizontally-disposed, laterally-flexible leaf spring that projects forwardly from a post imbedded in the ground, and the two body elements that are arranged at opposite sides of said head element are connected to spring-pressed reciprocating plungers mounted in posts imbedded in the ground and arranged at an angle of approximately 20° to the center post that carries the head element. I wish it to be understood, however, that the details of construction of the apparatus are immaterial, and that the co-acting elements or parts of the apparatus may be changed or modified in various ways without departing from the spirit of my invention.

Figure 1 of the drawing is a top plan view of a football line charging apparatus constructed in accordance with my invention.

Figure 2 is a front elevational view of said apparatus, taken at a slight angle to Figure 1, so as to more clearly illustrate the centrally-disposed head element and the body element at the left of same.

Figure 3 is a vertical sectional view, taken on the line 3—3 of Figure 1; and

Figure 4 is a view similar to Figure 3, reduced in size, showing the head element reversed.

In the preferred form of my invention herein illustrated A designates the part of the apparatus previously referred to as the "head element", and B and B' represent the right hand and left hand "body elements" that co-act with said head element A to represent three players of an offensive line. Said elements are usually mounted so that they will be positioned about 2 or 2½ feet above the surface of the ground, and the head element A is disposed substantially midway and preferably slightly in advance of the body elements B and B', in view of the fact that the element A is intended to represent the head of a player which is usually extended slightly forwardly beyond his shoulders. As previously stated, the elements A, B and B' may be of any preferred construction, but they will usually be constructed from heavy boards covered with suitable padding that will be capable of successfully withstanding the rough usage and wear to which they are subjected in the normal use of the apparatus.

In the apparatus herein illustrated the head element A is attached to the front end of a horizontally-disposed leaf spring 1 that is sustained by a vertical post or upright 2 imbedded in the ground and set far enough to the rear of the body elements B and B' so that it will not interfere with the forward movement of a person who charges between the head element A and one of the body elements at the side of said head element. One convenient way of mounting the

leaf spring 1 is to form a vertically-disposed slot, represented by the reference character 3, in the upper end portion of the post 2 and provide said post with horizontally-disposed through bolts 4 that can be tightened so as to cause the bifurcated upper end portion of the post to securely clamp and hold the leaf spring 1. This method of mounting the head element A causes said element to be maintained in such a position that there is no obstruction underneath or at the sides of said element, and moreover, maintained in such a position that it is capable of vibrating horizontally relatively to a fixed point of support that is located considerably in advance of the body elements at opposite sides of said head element. The above described method of mounting the head element A on its supporting post 2 is also desirable, in that it permits the spring 1 to be shortened or lengthened easily to vary the tension of same or to shift the head element A forwardly or rearwardly, and it permits said head element to be reversed, as shown in Figure 4, in the event that the blow or movement being taught to the use of the apparatus is of such a nature that the user requires an unobstructed space between the body elements B and B', or requires an unobstructed space surrounding the head element A.

The body elements B and B' are of the same construction, and each of said elements is attached to the front end of a horizontally-disposed reciprocating plunger 5 that slides through a horizontally-disposed hole or tubular guide in the upper end portion of a supporting post or upright 6 located at a point to one side of and in advance of the center post 2 which carries the head element A. The plunger 5 is provided at its rear end with a stop or abutment 7 that limits the forward movement of the body element relatively to its supporting post 6, and a coiled expansion spring 8 is mounted on said plunger, as shown in Figures 1 and 2, so as to normally maintain the body element in spaced relationship with the head element A, as shown in full lines in Figure 1, but permit said body element to move laterally, as shown in broken lines in Figure 1, out of the path of the user who charges forwardly between said body element and the head element A. In order to prevent the body element from twisting or turning, said element is provided with horizontally-disposed guide rods 9 that project rearwardly from same through guides 10 attached to the side faces of the supporting post 6.

The center post 2 and the two side posts 6 are arranged in substantially triangular relationship, as shown in Figure 1, and if desired, the imbedded portion of the center post 2 may be provided with cross pieces 11 or any other suitable means that will prevent said center post from turning or rotating, due

to the lateral blows, thrusts or forces that the user exerts on the head element A in the normal use of the apparatus. I also prefer to equip the center post 2 with a cushion or pad 12, so as to eliminate the possibility of the user being injured by striking against said post in the operation of charging forwardly through the apparatus. The pad 12 is preferably constructed in such a way that it can be easily removed from the post and reversed when it becomes necessary or desirable to reverse the head element A, and while any preferred means may be used to retain the pad 12 in position on the post 2, I prefer to use a lacing 13 to hold said pad in operative position, as shown in Figure 2.

An apparatus of the construction above described, in addition to being of great value in instructing football players in the fundamentals of defensive line play, also develops co-ordination and quickness of action in the persons who use the apparatus. It is capable of being used in instructing all of the players of a defensive line, and while its method of use may vary somewhat, according to the theories of the coach or instructor, it is of great assistance in teaching those fundamentals of defensive line play commonly referred to as the "blow and step", "straight arm shiver", "double co-ordination charge", "straight arm divide" and "hooking". In using the apparatus in practising the "blow and step" the coach or instructor will assume a position at the rear of the apparatus, at one side or the other of the center post 2, and the user will assume a position at the front of the apparatus at a point slightly to the right or to the left of the head element A, depending upon whether the user is to charge forwardly to the right or to the left of the element A. In charging forwardly through the apparatus to the right of the head element A, the user maintains his right arm in a straightened condition and exerts a blow or thrust on the head element A in a direction to move said element laterally to the left, as indicated in broken lines in Figure 1; the blow or thrust being of sufficient force to divert the opponent's charge (represented by the head element A) to the left. At practically the same instant the user strikes the head element A a blow, he moves forwardly with his right foot and drives his right shoulder against the body element B, which represents the adjacent player of the offensive line. In so doing, the user diverts the charge of the adjacent offensive lineman to the right, and tends to spread or separate the two offensive linemen represented by the head element A and the right hand body element B. The right arm and elbow of the user are now quickly driven hard to the right into the body element B, so as to wedge the user's opponents farther apart, the user's left hand being thrown over the opponent lo-

cated at his left (represented by the head element A), and used to exert a push or thrust on said element A in a direction to force the user forwardly through the offensive line. The above described action of going through the apparatus reproduces with substantial accuracy the action of a defensive line player going forwardly between two offensive line players, and it is done quickly and without hesitation in the forward movement of the user, although the user takes a somewhat zig-zag course in charging forwardly between the head element A and the right hand element B. In order to become proficient it is essential that the user learn to employ both hands in the "blow and step" movement, as it is more natural for the average player to use the right hand than the left hand in charging an offensive line. If the left hand of the user is to be employed in the operation of deflecting the head element A laterally, the user lunges forwardly between the head element A and the left hand body element B', and uses his left shoulder to exert a lateral thrust or push on the body element B' substantially simultaneously with the operation of exerting a lateral thrust to the right on that portion of the apparatus, to wit, the head element A, that represents the head or head and shoulders of the offensive line player standing at one side of the player represented by the body element B'.

It is believed to be unnecessary to describe in detail the precise method of using the apparatus in instructing players in all of the important fundamentals of defensive line play for which the apparatus is applicable, but I desire to point out that one desirable characteristic of my apparatus is that the head element A of same is capable of being reversed, as shown in Figure 4, or arranged in such a position that it projects rearwardly from its supporting post 2 in instances where it is essential or desirable to have an unobstructed space between the body elements B and B', for example, in practising the fundamentals commonly referred to as the "straight arm shiver", and in instances where it is essential or desirable to have an unobstructed space surrounding the head element A, for example, in practising the fundamental commonly referred to as "hooking".

I am aware of the fact that training apparatus have heretofore been suggested for use in instructing football players, but my apparatus is distinctly different, both in construction and in principle of operation, from prior football training apparatus. The function of football training apparatus of the kind disclosed in the prior art is to assist in instructing a player how to block players in the line of an opposing team, or to form theoretical openings in the opposing line. The function of my apparatus is entirely different, and as previously pointed out, is

to assist in teaching football players the fundamentals of defensive line play. My apparatus also differs in construction and principle of operation from prior training apparatus, in that it comprises a laterally-deflectable element that represents the head or head and shoulders of a defensive line player, and which is mounted in such a manner that it is capable of vibrating or flexing horizontally either to the right or left of a center line, and it comprises co-acting reciprocating elements that represent the bodies of adjacent players of the offensive line, mounted in such a manner that the user must exert a direct lateral thrust or blow on the head element with one or both hands, and exert a direct lateral thrust or push on one of the body elements with his shoulder or body, in order to force said elements apart sufficiently to permit the user to lunge forwardly between the same.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a football line charging apparatus, the combination of a head element that represents an offensive lineman, a supporting structure, a carrier for said head element consisting of a horizontally-disposed leaf spring mounted on said supporting structure so that the length of said spring can be varied, a movable body element arranged in spaced relationship with said head element at one side of same, and a resilient means for resisting outward movement of said body element relatively to said head element.

2. In a football line charging apparatus, the combination of a head element that represents an offensive lineman, a supporting structure, a horizontally disposed laterally-flexible device reversibly mounted on said supporting structure for carrying said element, a laterally movable body element arranged in spaced relationship with said head element at one side of same, and a spring for resisting outward movement of said body element, relatively to said head element.

3. A football line charging apparatus, comprising three elements that represent three offensive linemen in the act of starting or moving towards a defensive line, one of said elements being arranged substantially midway between the other elements and in such a manner that it is capable of flexing or vibrating laterally to the right or to the left from a center line, and the side elements being mounted so that either of same is capable of moving outwardly relatively to said center element, when subjected to a lateral thrust or push from the user who is passing between the center element and one side element.

4. A football line charging apparatus, comprising three elements that represent three offensive linemen, disposed so that one

element is arranged substantially midway the other two elements, a horizontally disposed, laterally flexible device that carries said center element and permits the same to flex laterally in opposite directions from a center line, and resilient means for resisting outward movement of said side elements away from said center element.

5. A football line charging apparatus, comprising three elements that represent three offensive linemen disposed so that one of said elements is located substantially midway the other two elements, a horizontally-disposed, laterally flexible supporting device for the center element arranged at the rear of said center element and adapted to permit said element to flex or vibrate in opposite directions from a center line, and resilient means for resisting outward movement of said side elements relatively to said center element.

6. A football line charging apparatus, comprising three posts or uprights imbedded in the ground and disposed in substantially triangular relationship, a head element arranged in advance of said center post and mounted so as to be capable of flexing laterally in opposite directions from a center line, and reciprocating body elements carried by said side posts and mounted so as to be capable of yielding laterally relatively to said head element.

7. A football line charging apparatus, comprising three posts or uprights imbedded in the ground and arranged in substantially triangular relationship, a horizontally-disposed leaf spring projecting forwardly from said center post and arranged so as to be capable of flexing laterally, means for enabling the relationship between said spring and center post to be changed, a head element carried by said spring, body elements arranged at opposite sides of said head element, and spring-pressed plungers rigidly attached to said body elements and reciprocatingly mounted in said side posts.

8. In a football line charging apparatus, the combination of a head element and a body element representing offensive linemen, arranged in spaced relation, said head element being mounted so as to be capable of flexing or vibrating laterally, and said body element being mounted so that it is capable of moving outwardly relatively to said head element when subjected to a lateral thrust or push from the user who is passing between said elements.

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