

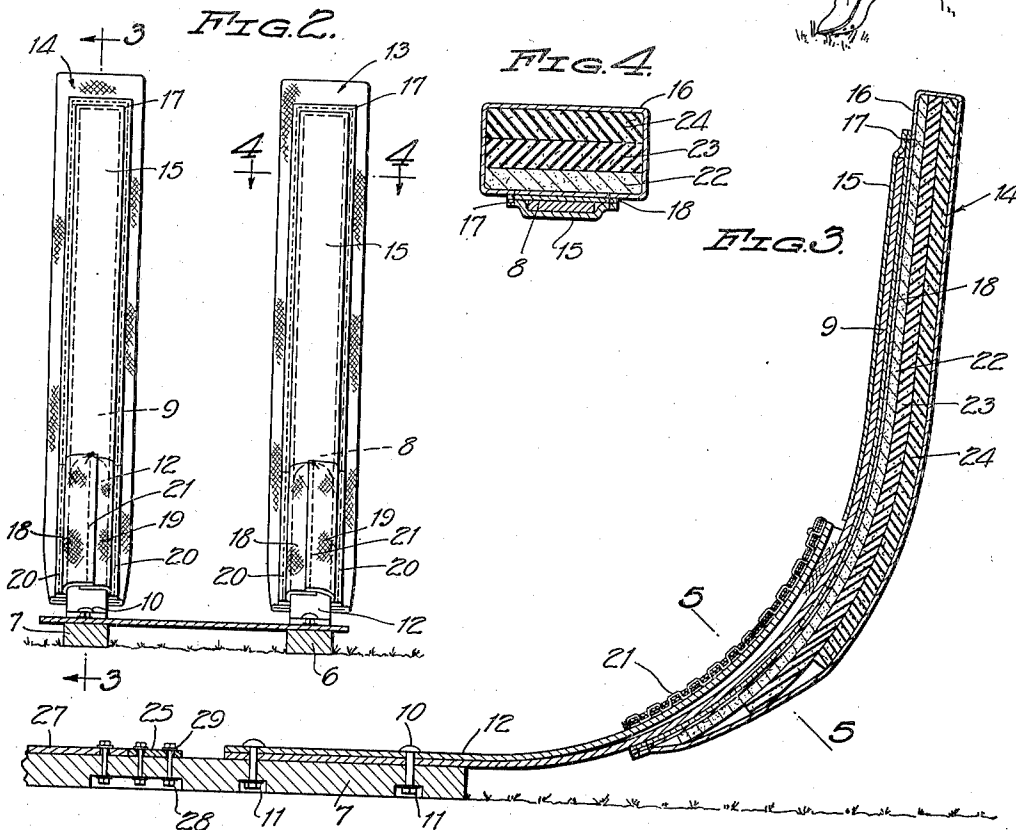
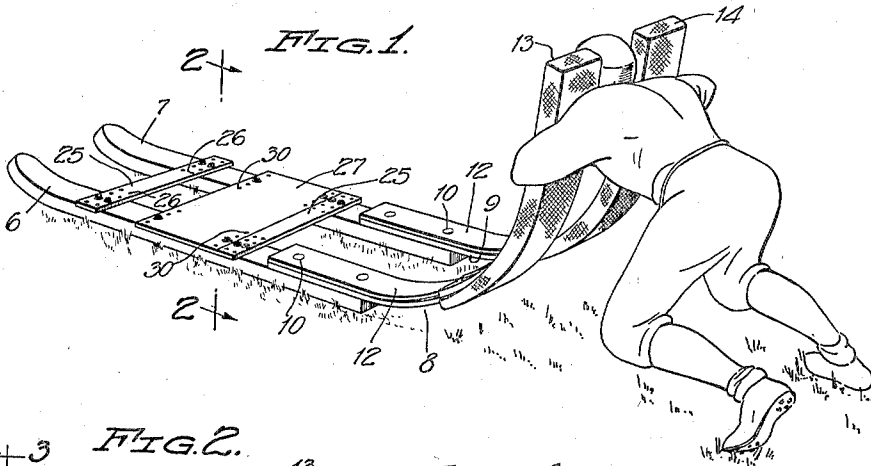
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M. J. GILMAN

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CHARGING SLED

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W. H. T. Lusk
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MARTIN JOHN GILMAN
INVENTOR.

BY

Robert J. Smith
ATTORNEY.

UNITED STATES PATENT OFFICE

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CHARGING SLED

Martin John Gilman, Gilman, Conn.

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8 Claims. (Cl. 273—55)

This invention pertains to athletic training devices and more particularly to a device commonly referred to as a charging sled.

Heretofore charging sleds were utilized primarily for teaching football tactics, primarily charging and blocking for double-teaming, wherein two men engaged a charging sled. A large broad base was used which permitted a stronger player to oppose the force exerted by his team-mate in the double-teaming drill. This frequently resulted in the charging sled swirling on its base which caused the charging sled to move at an angle instead of a substantial straight line in a forward direction. No suitable charging sled has been devised to permit one man to use the sled for training since the sled ordinarily used in double-teaming was heavy, cumbersome, and could not be properly used by an individual player.

The present invention is used primarily for individual drill and employs spaced runners with padded uprights so that an individual player can contact both pads simultaneously and force the sled ahead. In this manner an individual player can utilize the light weight charging sled for the purpose of developing speed in his charge. To do this the player must keep his hands and arms in close to his body and contact the charging sled pads with the front part of his shoulders which are the most important blocking surface.

An object of the invention is to provide a light weight charging sled for individual drill.

A further object of the invention is to provide a charging sled having dual runners for individual use for the purpose of developing speed and proper one-man charging and blocking.

A further object of the invention is to provide a unitary charging sled having a plurality of spaced runners with supporting members having pads thereon to permit several players to utilize the charging sled.

A further object of the invention is to provide a charging sled extremely simple in design that could be manufactured at a low cost while still retaining the desired objective for which the charging sled is intended.

Other and further objects will become apparent to those skilled in the art from a perusal of the drawing and specification.

In the drawing:

Fig. 1 is a perspective view of the charging sled in actual use by a player.

Fig. 2 is a sectional view taken along lines 2—2 of Fig. 1.

Fig. 3 is a sectional view of the runner, up-

right support, and padded member, said view being taken substantially along lines 3—3 of Fig. 2.

Fig. 4 is a sectional view taken substantially along lines 4—4 of Fig. 2 to show the method of positioning the pad on the upright support.

Fig. 5 is a view taken along lines 5—5 of Fig. 3 showing the master upright and means for controlling the resiliency of the master upright support when in use.

Referring to the drawing and particularly Fig. 1, runners 6 and 7 are preferably made of wood but may be made of metal. Upright or master supports 8 and 9 are secured to the runners 6 and 7 respectively by means of bolts such as 10 having nuts 11 (Fig. 3). A metallic spring or leaf 12 which engages the upright support at the lower end thereof is slightly spaced from the upright support at the upper extremity of the leaf 12. Pads 13 and 14 are affixed to the uprights by having a pocket 15 sewed to the canvas shield 16, by stitching 17 so that the metallic upright will fit into the pocket.

The pocket which fits over the upright has preferably a layer of leather 18 sewed on to the canvas covering and another layer of leather 19 sewed over the underneath layer of leather. The leather is used since it will afford more wear than a fabric such as canvas.

Figs. 2, 3, 4 and 5 give a more comprehensive showing of the manner of making the pad and the method in which the pad is secured to the upright. The spring 12 will be seen in Fig. 5 to be spaced at its upper end from the upright 9. The two flaps 18 and 19 are stitched at 20 to the back of the pad 16. These flaps overlap and are drawn in place by a lacing 21 which may be of rawhide, or other suitable material. The padding is shown in detail in Fig. 4 wherein a layer of felt goes substantially the entire length of the pad while layers 23 and 24 are preferably of sponge rubber and are staggered in relation to the length of felt so that the lower portion of the entire pad gradually tapers towards the bottom.

Spacing bars 25 connect the runners together and hold the uprights in a vertical position. Additional holes 26 are made in the spacing bars to permit a variation in the width between the runners so that they may be adjusted for individual use by a player with broad shoulders, or the runners may be brought closer together to permit a smaller player to train with the light weight charging sled.

A platform 27 is fastened to the runners by

means of nuts and bolts 28 and 29 respectively and the platform has adjustment holes 30 therein to permit the platform to be shifted if necessary when the spacing between the runners is changed. The purpose of the platform is to permit additional weight to be added to the sled such as by means of sand bags. The uprights are inclined away from the runners so that when the major force is applied by a player against the pads the uprights will not move in a rearward direction past vertical line substantially at right angles to the runners. The spring 12 is interchangeable so that a heavier spring may be added which spring may afford greater resistance against the force of a player in charging practice. The upper end of the spring 12 is spaced from the master upright so that the effect of the spring is not immediately realized until after the impact of the charging player moves the master upright rearwardly so that it definitely engages the spring. It will be seen that the spring is so bent that the rearward movement of the master upright member will engage the lower part of the spring and the continued force against the pad will cause the spring to gradually become engaged with the upright. In this manner, the effect of the spring is gradually increased.

While the spring 12 is shown having a specific function, it has been found in actual practice that where conditions permit, the proper resiliency of the master upright in itself may be sufficient to attain the desired result without employing the additional spring. The simplicity in design permits the charging sled to be manufactured by the use of only four elements, namely, the runners, uprights, pads, and runner connecting strips. This simplicity and reduction of parts permits the sled to be manufactured at an extremely reasonable price to afford a wider distribution of the charging sled, and permits same to be purchased by schools and organizations which have an extremely limited fund for the purchase of training materials.

From the foregoing it will be seen that the charging sled per se, with its wooden runners, will not be heavy and therefore permit speed and a sustained drive by the player in actual practice. If the sled is to be used by a heavier player, weight can be added thereto to increase the resistance to obtain the desired effect.

When the fundamental features of this sled are desired to be incorporated into a sled for double-teaming or for multiple charging practice it will only be necessary to increase the length of the connecting members such as 25, and add the runners, master uprights and springs which will be substantially the same as those described for a one-man charging sled.

While I have described certain aspects of the charging sled it is to be understood that all modifications are intended which come within the scope of the subjoined claims.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A charging sled of the class described comprising a plurality of spaced runners, a metallic arcuate member having one end thereof secured on one end of each of the runners, a spring member secured above the lower portion of each of the arcuate members to increase resistance of said arcuate members when the arcuate member is contacted by a player, and a padding on the free ends of the arcuate members to prevent

physical contact of the individual with the metallic arcuate member.

2. A charging sled of the class described comprising a plurality of runners to be moved on the ground, spacing means intermediate the runners to vary the distance therebetween, means supported by said runners to carry an additional weight to increase the friction between the sled and the ground, a plurality of resilient means each having one end thereof connected to the sled while the opposing end thereof protrudes upwardly, and a padded member affixed to each end of the upwardly protruding resilient members.

3. A charging sled of the class described comprising a plurality of spaced runners, means for securing the spaced runners in fixed relation one to the other, a plurality of arcuate resilient members each having one end thereof secured to one end of each runner, a plurality of springs each having one end thereof secured to one end of the charging sled while the free ends of the springs curve upwardly and are spaced slightly from said arcuate resilient members, and a protective covering on each of said arcuate resilient means, whereby sufficient pressure exerted on the protective covering will urge the resilient means rearwardly to engage the free end of the spring means.

4. A charging sled of the class described comprising a plurality of spaced runners to slide upon the ground, means to retain said runners in spaced relationship, an arcuate metallic member having one end thereof secured adjacent one end of each of the runners, the opposing ends of said arcuate members being free and having substantially an upright position, and a padded member covering a greater portion of the arcuate member and adapted to be engaged by an individual when the charging sled is in use.

5. A charging sled adapted for frictional engagement with a surface thereunder to be used for training athletes comprising a base member, a plurality of resilient means each having one end thereof connected to said base member while the other end is free and extends upwardly away from the runners, and a protective covering for the free end of said resilient means adapted to be placed thereon so that an individual may engage same when the charging sled is in use.

6. A charging sled of the class described adapted to be used for training athletes, comprising a base portion, resilient means connected to said base portion with the free end of the resilient means extending upwardly having a spring associated therewith adapted to increase the resistance of the resilient means when said resilient means is urged rearwardly, a protective covering for the free end of said resilient means comprising a padded member having a pocket which is adapted to slip over the free end of said resilient member substantially embracing same, and means to affix said padded member substantially securely in a given position on the free end of said resilient member.

7. A charging sled of the class described to be used for the training of athletes, said sled comprising a plurality of spaced runners, means to retain said runners in fixed spaced relationship and adapted to receive a weighted mass, a yieldable arcuate member having one end thereof secured adjacent one end of each of said runners while the opposing end of each of said arcuate members is free and inclined upwardly and away from said runners, and a cushioning means on each of the free ends of the arcuate members, whereby

a player may engage the cushioning means to cause the free end of the arcuate member to yield and increase the resistance of the arcuate member adjacent the runners.

8. A charging sled of the class described to be used for the training of athletes, said sled comprising a base member adapted to slide upon the ground, a resilient arcuate member having one

end thereof connected to the base member the free end thereof extending upwardly, and cushioning means secured to the upwardly extending end of the arcuate member, whereby the impact of a player contacting the cushioning means on the upwardly extending end of the arcuate member will cause said arcuate member to yield.

MARTIN JOHN GILMAN.