

April 22, 1941.

M. J. GILMAN

2,239,223

BLOCKING ARMOR

Filed Nov. 3, 1938

2 Sheets-Sheet 1

FIG. 1.

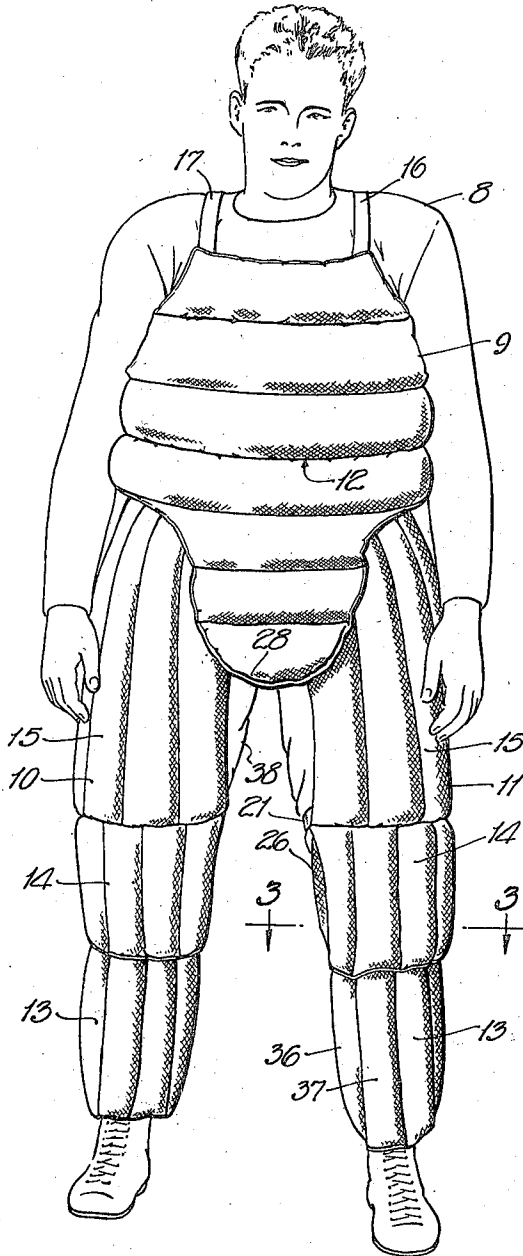


FIG. 2.

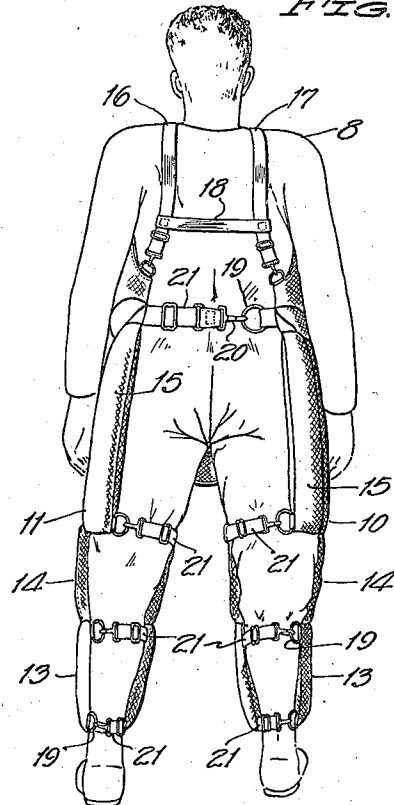
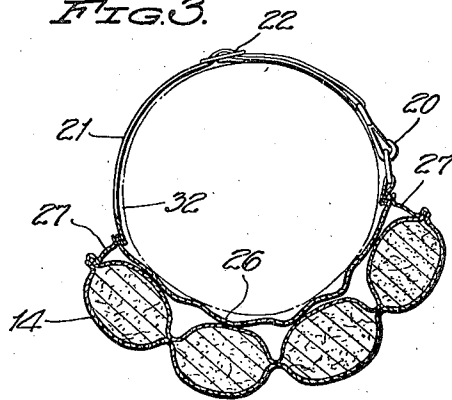


FIG. 3.



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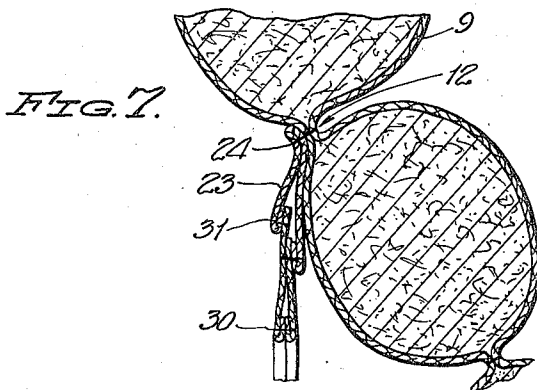
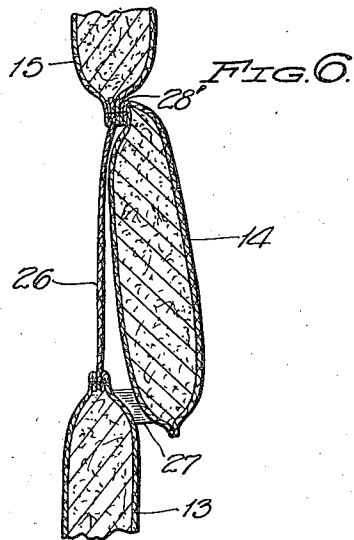
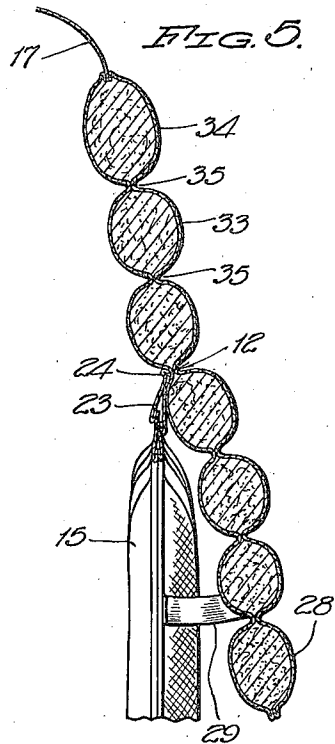
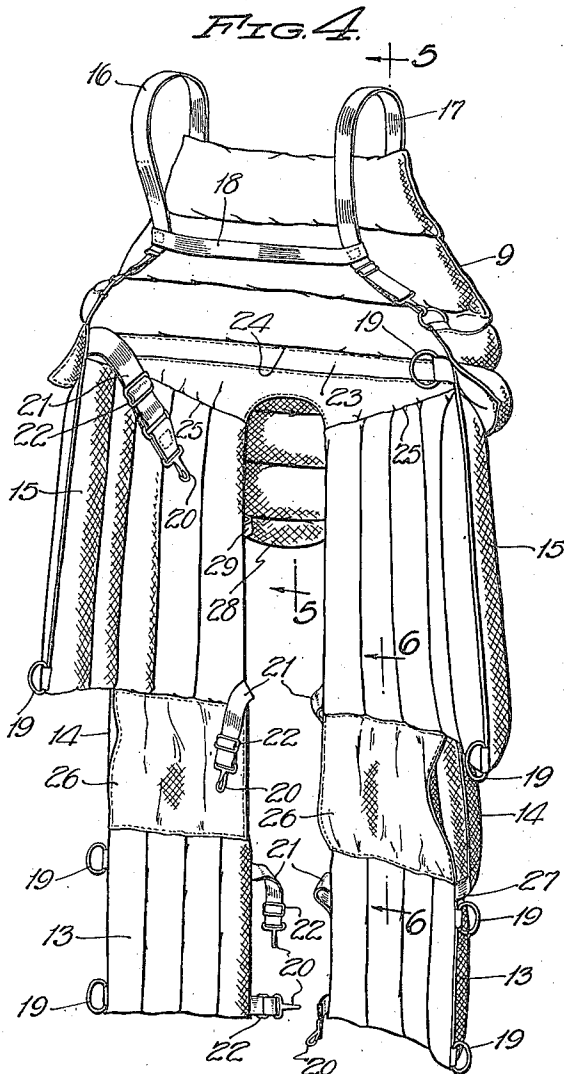
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BLOCKING ARMOR

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2 Sheets-Sheet 2



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2,239,223

BLOCKING ARMOR

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Application November 3, 1938, Serial No. 238,504

8 Claims. (Cl. 2—2)

This invention pertains to blocking armor, and more particularly, to a body protective device to be used by athletes or others in connection with sports, and more particularly in conjunction with the game of football.

It is well known that in teaching the game of football, the players are subjected to bruises, injury and serious body punishment by the impact of one player against the body of another.

Coaches of various institutions have refrained from taking their men into active contact drills just prior to a game since an injured muscle or ligament, or even a bruise may prevent the player from actually engaging in an anticipated game. It is well known that contact drill and scrimmage are a vital necessity to a team in practice in order to actually go through the intended drills which are to be used in a game as given plays. Since one of the greatest problems coaches face is that their men are liable to be placed on the injured list as a result of contact drill, the coaches are reluctant to practice live blocking in view of the existing hazards without adequate protection for the players.

In an attempt to overcome these difficulties, and create a moving target for the blocker, the blocking apron was devised. This blocking apron was simply a large pad which was suspended about the neck of the player, and hung in front of the body from a point on the chest and reaching almost to the ground. While the player wearing the blocking apron was permitted to move from one position to another, he was unable to use his hands effectively; in many instances, he was unable to use his hands at all.

A further attempt to provide the necessary protection resulted in simply padding the football trousers, but this resulted in cumbersome equipment which did not properly protect the player, or else was so binding that the individual could not move around freely as is required to properly play his position.

The body cannot absorb the punishment of hard blocking without having the results show up with a reaction on the player. Applicant's invention is therefore designed to give this needed protection. While it also permits the freedom of action, it definitely protects the blocking player as well as the player wearing the armor.

In blocking, the blocking backs or blocking linemen make an effort to block the defensive man wearing the blocking armor. The defensive man is instructed to use his hands on the offensive player; the defensive man wearing the

armor must run at top speed, side step, or execute any other maneuvers known to the defensive player. To do this the blocking armor must be light, tailor made to fit the body, provide means for readily putting on the armor and removing same; and must provide suitable protection for the individual.

While the use of the blocking armor has been described in relation to its use on one individual, it is to be understood that an entire team may be equipped with the blocking armor as set forth herein. This would permit the entire team to work and train under actual conditions experienced in a competitive game of football.

With the blocking armor as presented herewith, the players not only simulate the old idea of moving targets for drills, but are actual human moving targets with the added quality of having a human brain to instantaneously change the tactics of the moving targets on both the offensive and defensive maneuvers. A deficiency of proper protective armor had deprived coaches of observing reactions and players on new problems. The device presented herewith will permit the player to move freely without fear of bodily harm, to properly carry out his assignment, and to have him definitely observed for reaction by the coach.

One of the objects is to provide equipment to safeguard athletes against the danger of bruises and bodily injury generally.

A further object is to provide protective armor for an athlete and permit live blocking practice.

A further object is the provision of an articulated garment to be worn by a human moving target.

A still further object is to provide a unitary protective armor with means for readily fastening the armor in place.

A further object is to provide a unitary protective pad for athletes having a protector for substantially the upper part of the body and at least two padded sections for protection of the lower part of the body.

A further object is to provide a protective garment for the leg and hip portion of the body comprising an upper section and a lower section having a front moving pad substantially overlapping the joint intermediate the upper and lower leg sections.

Further and other objects may become apparent to those skilled in the art by a perusal of the specification and drawings presented herewith.

For a better understanding of the present in-

vention reference may be had to the drawings in which:

Fig. 1 is a front view showing the invention as actually used.

Fig. 2 is a rear view showing the invention in operative position on the user.

Fig. 3 is a section taken on lines 3—3, of Fig. 1, to show the construction of the knee pad and associated parts.

Fig. 4 is a back perspective view of the protective armor per se.

Fig. 5 is a sectional view of the upper bib taken on lines 5—5 of Fig. 4.

Fig. 6 is a sectional view showing the knee joint taken on lines 6—6 of Fig. 4.

Fig. 7 is an enlarged sectional view showing the joint construction of the leg portion and connection with the upper bib.

Referring to Fig. 1, 8 represents a player who is wearing a protective or blocking armor. The blocking armor is a unitary structure having an upper portion 9, which covers the front part of the torso and extends around the sides under the arms so that a player could effectively be tackled or contacted in any normal position. It will be noted that in Fig. 2, the player is not covered by the protective armor since in legitimate football playing the player would not be contacted in the back. To contact a man from behind would properly come under the category of "clipping" which is not permitted in football. The lower part of the protective armor comprises two leg sections 10 and 11, which are joined together by a fabric band which is attached at a point 12 on the torso pad 9. Each of the leg sections has three distinct padded sections which are united with the torso section 9, to make the entire armor a unitary structure. Each leg section has a shin protector 13, a knee protector 14, and a thigh and hip protector 15.

By observing Fig. 2, it will be noted that the thigh or hip protector 15 extends sufficiently far around the player to cover the parts of the hips and thighs which would normally be contacted in ordinary defensive blocking and scrimmage. From the front view of Fig. 1, it will be noted that the chest is amply protected while the extended part of the torso section 9 goes around the wearer sufficiently far to protect him from any normal contact work. It is also to be pointed out that this form fitting of the armor is such that the wearer is properly protected and is also able to have complete freedom of his arms without having them forced outwardly by resting against bulging protective armor.

The straps 16 and 17 go over the wearer's shoulders to hold the armor properly in place on the subject. The particular arrangement of the cross-piece 18 is adapted to hold the straps 16 and 17 together and still leave ample room for the subject to put on and remove the protective armor over his regulation football headgear without necessitating the removal of said headgear. The strap 18 performs its function without the necessity of crossing the shoulder straps 16 and 17, which may possibly cause creeping of the shoulder straps and cause an uncomfortable feeling while the armor is being worn.

Fig. 4 shows a detailed perspective view of the armor. This view is taken from the rear and discloses the means for readily putting on and taking off the armor. A series of loops or rings 19 are placed at suitable points to receive the clips or snaps 20, which fasten onto said loops or said rings 19. The straps 21 are fastened at

one side of the protective pad and are provided with adjustment means 22 for adjusting the length of the straps. This assures the wearer a proper fit, affording free movement of the body without binding. The fabric section 23 has no protective padding therein and is used simply as a hinge to join the thigh pads 15 onto the torso pad 9. It will, therefore, be seen that the row of stitching 24 indicates that the upper edge of the fabric 23 is fastened to the torso portion of the armor, but that there is no padding between the row of stitching 24 and the margin 25 of either leg section which margins and row of stitching define a non-padded fabric span 23. The thigh and shin sections are definitely spaced from each other by a non-padded fabric section 26. This section 26 is quite loose over the end so that there is absolutely no binding of the end joint which would be the case if a protective end pad were to be securely fastened across the upper portion of the shin pad and across the lower portion of the thigh pad. To properly cover the end with a protective pad, the free moving end section is used which is securely fastened to a substantial portion of the lower edge of the thigh pad, but is not fastened to the shin section of the pad to hinder movement of the joint. The lower portion of the end pad is free to move up and down and is only engaged with the lower or shin portion 13 by two resilient members or elastic bands 27. The purpose of the elastic bands may best be shown by reference to Fig. 6, where it is indicated that the stretched member 26 is covered by the end pad 14. The end pad 14, is joined to the thigh pad 15, at 28, by stitching the end thigh pads together with one edge of the non-padded end covering 26.

Reference to Fig. 5 indicates that the non-padded section 23 is stitched at 12 to the torso pad 9. The torso pad has a downwardly protruding section 28 which covers the central portion of the non-padded fabric 23, and also covers a part of the thighs where the leg sections ajoin the torso sections. Referring to Figs. 4 and 5, it is pointed out that a resilient member or elastic band 29, connects from the inner portion of the upper leg section 15, to a point on the protruding section 28, to the torso pad 9. The resilient member 29 holds the protruding section 28 in towards the thigh pads 15, but permits the free movement of the player as he bends at the waist thereby avoiding any frictional hindrance, but always the resilient member 29 retains the protruding member 28 close to the upper leg pads 15. This causes the protective armor 28 to be in its proper position at all times.

Reference to Fig. 7 indicates an enlarged view of the special method of securing the member 23 to the torso pad 9, by indicating the stitches 24 through the member 23 and the protective pad 9. The upper portion of the leg sections are bound off by stitches 30, and have the additional stitches 31 which fasten the leg portion to the non-padded fabric 23.

Fig. 3 is a section taken on lines 3—3 of Fig. 1, showing the knee pad 14, with the resilient members 27 on either side thereof which members hold the knee pad 14 into close relationship with the non-padded fabric member 26. Around leg 32, we see an operative position of the strap 21, having the snaps 20 engaging the ring 19, with the adjustment means 22 on the strap 21. It will be noted that each of the padded sections comprises a plurality of elongated strips such as 33 and 34, as seen in Fig. 5. These strips are

filled with a suitable padding material and are stitched at spaced distances such as 35, to properly hold the padding in place. It will be noted that the torso pad has padded ribs 33 and 34 going around the body while the padded ribs such as 36 and 37 on the shin pad 13 of Fig. 1, are vertical. It is further pointed out that normally the leg sections are so fitted to the torso section that they normally hang perpendicular and parallel to each other. This is noted in Fig. 1, where the inside of the thighs 38 may be clearly seen. The reason for this is to prevent engagement between either of the thigh pads 15. To permit the thigh pads 15 to engage each other in the slightest degree would cause an undesirable binding and restraint upon the freedom of movement on the part of the player.

The foregoing specification and other detailed information clearly indicate that the protective armor set forth in this novel invention satisfies a definite need in this particular art. The blocking armor in practice and actual use has shown itself to properly fit the requirements and is a definite answer to a long felt need in athletic equipment and particularly in regards to the sport of football. All of the padded sections are free to move in conjunction with other padded sections and the chief difficulty of permitting freedom of movement, at the waist and knees has been met. Actual application of the present invention clearly indicates that the objects of the invention have been definitely accomplished in the disclosure of this novel blocking armor.

From the foregoing it will be clear that there are many advantages to the present invention which are not definitely pointed out in the objects but will be more definitely set forth in the claims.

While specific details of the invention have been herein shown and described, the invention is not confined thereto as changes and alterations may be and may become apparent to those skilled in the art without departing from the spirit thereof as defined by the appended claims.

Having thus described the invention what I claim as new and desire to secure by Letters Patent of the United States is—

1. In a blocking armor of the type described, a unitary articulated structure comprising a torso protector and a leg protector, said leg protector consisting of a thigh pad, a shin pad, an unpadded member connecting said thigh pad with said shin pad, and a knee pad member covering said unpadded thigh and shin connecting strip and overlapping the upper portion of the shin pad.

2. A blocking armor comprising a torso protector having a protruding member from the lower portion thereof and a leg protective device connected to said torso protecting section by an unpadded material, said leg protecting device being connected to the torso protecting device at a point above the protruding member forming a part of the torso protector.

3. In a blocking armor of the type described, for wear over a playing uniform, a unitary articulated structure comprising a padded upper section providing protection for the chest and stomach, and of width to extend beneath the arms and well to the rear of the wearer, a padded intermediate section providing thigh pads which extend rearwardly to cover the hips, an unpadded member connecting the upper and intermediate

sections throughout substantially the full width thereof, padded lower sections providing shin guards, and an unpadded member connecting each of the lower sections to a thigh pad throughout substantially the full width of said lower section.

4. In a blocking armor of the type described, for wear over a playing uniform, a unitary articulated structure comprising a padded torso protector and a padded leg protector, said leg protector consisting of thigh pads, shin pads, and an unpadded fabric band connecting each of said thigh pads with a shin pad throughout substantially the full width of the latter.

5. In a blocking armor of the type described, for wear over a playing uniform, a unitary articulated structure comprising a padded torso protector, a padded leg protector, an unpadded fabric band operatively connecting the torso and leg protectors throughout substantially the full width of the latter, said leg protector including thigh pads, shin pads, and an unpadded fabric band connecting each thigh pad with a shin pad throughout substantially the full width of the latter.

6. In a blocking armor of the type described, for wear over the playing uniform, a unitary articulated structure comprising a torso protector having a protruding member from the lower portion thereof, a leg protector, an unpadded fabric band connecting the torso and leg protectors throughout substantially the full width thereof at a point relatively above the protruding member forming a part of the torso protector, said leg protector including thigh pads, shin pads, and an unpadded fabric band connecting each thigh pad with a shin pad throughout substantially the full width of the latter, and a knee pad member covering said last named fabric band and overlapping the upper portion of the shin pad.

7. A protective armor for football players to be worn on the outside of the regulation uniform comprising a padded section covering the entire lower front of the torso, said section being open at the rear and having means thereon for detachably holding the section on the body of the wearer, a pair of padded sections for the leg portions of the body, said sections being open at the rear and having means thereon for detachably holding the sections on the leg portions of the body, said padded upper section having a portion thereof overlapping portions of the lower padded sections to provide an uninterrupted padded covering for the front of the body and at the same time permitting free bending between the sections.

8. A protective armor for football players to be worn on the outside of the regulation uniform comprising a padded section covering the entire lower front of the torso, said section being open at the rear and having means thereon for detachably holding the section on the body of the wearer, a pair of padded sections for the leg portions of the body, said sections being open at the rear and having means thereon for detachably holding the sections on the leg portions of the body, said padded lower sections being flexibly connected to the padded upper section, said lower sections having the padded portions in substantial contact with the padded portion of the upper section to provide an uninterrupted padded covering for the front of the body and being free to bend at the joint.

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