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3,431,560

SHOULDER GUARD FOR FOOTBALL PLAYERS

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Sheet 1 of 2

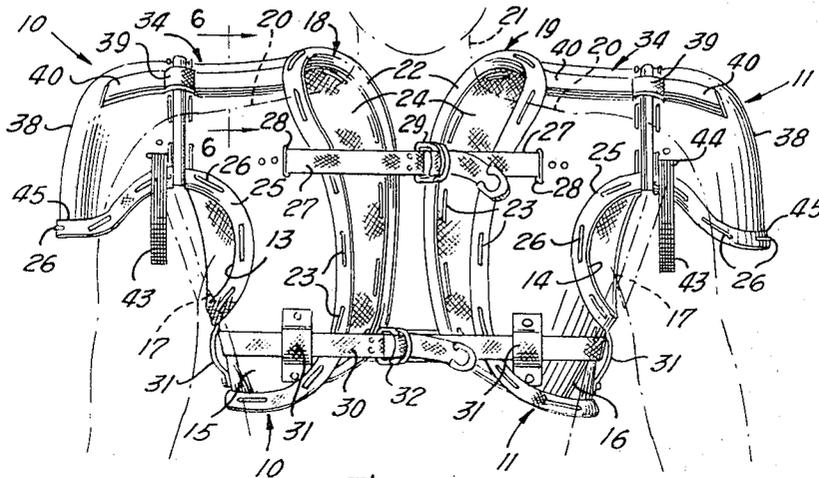


Fig. 1

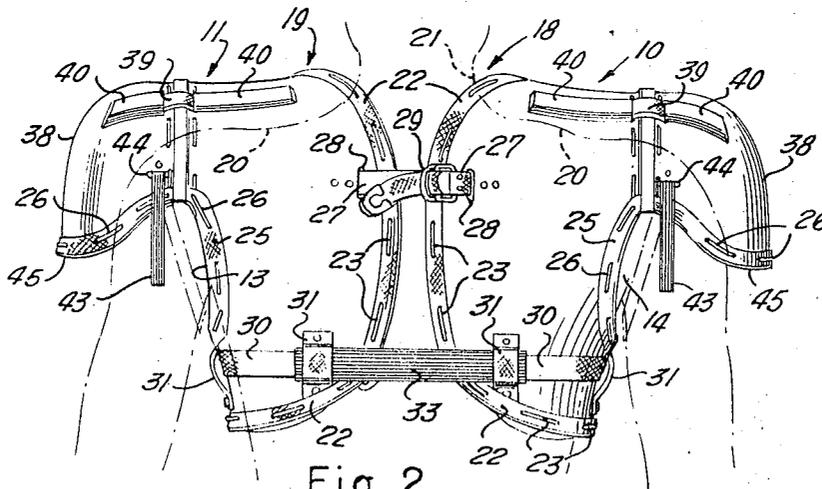


Fig. 2

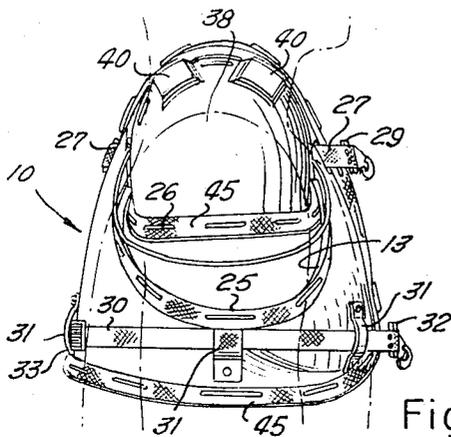


Fig. 3

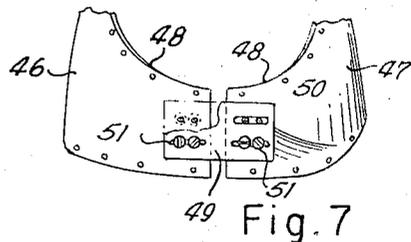


Fig. 7

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SHOULDER GUARD FOR FOOTBALL PLAYERS

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2 Claims

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ABSTRACT OF THE DISCLOSURE

The invention generally comprises a semi-rigid protective covering for the breast, back and shoulders of players engaged in the game of football, or similar sports, and in its preferred form consists of a pair of like body members, the shoulder portions of which are substantially inverted U-shaped in transverse section and having caps or epaulets hingedly connected thereto, the inner rims of which conformably abutting the outer rims of the body members in their normal positions while overreaching the wearer's shoulders.

The paired body members, being formed of a light but resilient material, such as semi-rigid plastics, are shaped to generally conform to the contours of the upper body of the wearer, in right- and left-hand configurations, and united across the front and back by suitable fastening devices, which may be adjustable, to protect the breast, shoulder blades, clavicular area, and the rib cage.

The material of which the protective members are formed should be sufficiently rigid to resist pressures and shocks encountered in football activity yet yieldable to a limited degree, and lined throughout with a cushion material, such as foam rubber, or the like.

SUMMARY

This invention relates to sporting equipment and it has particular reference to shoulder guards for football players.

A prime object of the invention is that of providing a protective device for the shoulders, the breast, the shoulder blades in back of the body, the rib cage and the clavicular area in front and over the shoulders between the neck and the shoulder tips, with especial emphasis on the hinged caps which overreach the shoulders and are limited in their downward and inward movements by the impingement of their inner rims against the respective body members being rarely, if ever, in direct contact with the shoulders.

PRIOR ART

Numerous protective apparatus for football players have been devised which are usually designed for application to the breasts in front of the body and over the shoulders and the shoulder blades in back of the body, and also providing for flexibly mounted shoulder protectors or epaulets. Such known devices, however, are rarely found to afford adequate protection for the rib cage, or the areas on each side of the breast and under the arms of the wearer.

In most instances the conventional armour devices have shoulder protectors which, while hingedly connected to the body members, are capable of being depressed against the shoulder under substantial stresses encountered in scrimmage and often permit injury to the clavicle bone and the acromis-clavicular joint these devices are designed to protect, a factor which the present invention seeks to overcome.

DESCRIPTION OF THE DRAWINGS

While the foregoing objects are paramount, other and lesser objects will become apparent as the description proceeds when considered in connection with the appended drawings wherein:

FIGURE 1 is a front elevational view of the invention as applied to the wearer, the latter being shown in broken lines.

FIGURE 2 is a rear elevational view showing the adjustable and yieldable securing devices.

FIGURE 3 is a right side elevational view showing one of the shoulder caps or epaulets.

FIGURE 4 is a top plan view of the connected protective members showing the shoulder caps and the front and rear securing devices.

FIGURE 5 is an enlarged elevational sectional view, on line 5-5 of FIGURE 4, of the left protective member, showing the left shoulder cap in seated position, and in raised position in broken lines, the wearer's body being shown also in broken lines.

FIGURE 6 is a fragmentary sectional view on line 6-6 of FIGURE 1, showing the flexible connecting straps for the shoulder caps, and

FIGURE 7 fragmentarily illustrates, in elevation, a modified device for connecting the body members when formed in front and back complementary elements.

DETAILED DESCRIPTION

In its preferred form the invention primarily comprises two opposingly shaped protective members 10 and 11 contoured, respectively, to fit comfortably over the right- and left-sides of the upper body of the wearer 12, as shown in FIGURES 1 and 2, each member 10 and 11 having an arm hole 13 or 14 beneath which are side portions 15 and 16 which embrace the rib cage of the wearer immediately below the armpits 17, the latter being defined in broken lines in FIGURES 1, 2 and 3.

The confronting edges or marginal rims 18 and 19, respectively, of the members 10 and 11 are curved outwardly over the shoulders 20 adjacent to the neck 21, and downwardly over the breast area in front of the wearer, thence downwardly and outwardly along each side portion 15 and 16 and thence inwardly and upwardly toward the center of the back of the wearer between the shoulder blades, as shown in FIGURES 1 and 2. Binding strips 22 are attached to the marginal rims 18 and 19 as by lacings 23 which may be applied in a variety of arrangements.

The opposing members 10 and 11 may be of any suitable material, such as fiberglass, or other shock-resistant plastic materials which possess some resilience under stress, and lined with a resilient padding 24 which may consist of foam rubber or the like, as shown in FIGURES 5 and 6. Binding strips 25 are also attached about the lower portions of the arm hole 13 and 14 by lacing 26.

The body members 10 and 11 are secured on the wearer by straps 27 arranged through slots 28 in the upper portions thereof in front and in back of the wearer, and connected by buckles 29, or other suitable device, as shown in FIGURES 1, 2, 3 and 4. A belt 30 embraces the lower portions of the body members 10 and 11 and is arranged through loops 31 spaced about that portion of each member 10 or 11 below the armholes 13, a buckle 32 being provided for joining the belt 30 in front of the wearer, as shown in FIGURES 1, 3 and 4. If desired, a length of elastic 33 may be connected in the belt 30 across the back of the wearer, as shown in FIGURE 2, for desired yieldability.

The upper portion of each body member 10 and 11, or that portion extending outwardly over the shoulder and indicated at 34, terminates above the tip of the shoulder,

the outer marginal edge 35 of which is arched and reinforced by a semi-rigid frame 36 having a peripheral flange 37 therearound, as best shown in FIGURE 5. The open ends 35 of the shoulder portions 34, which are inverted U-shaped, are coextensive with the arm holes 13 and 14.

A shoulder cap or epaulet 38 is hingedly attached to the top of each of the ends 35 of the shoulder portions 34 by straps 39 which are secured at each end by laminated strips 40 of plastic materials, or similar devices, fastened by rivets 41, or other suitable means, to the shoulder portions 34 and the caps 38, as shown more in detail in FIGURES 4 and 6. The caps 38 have flanges 42 formed on their inner faces which seat themselves against the frames 36 and within the flanges 37 thereof and are thus limited with respect to their downward and lateral movements while having the capability of being hinged upwardly, in the manner shown in dotted lines in FIGURE 5, as the occasion presents itself.

Each of the caps 38 is restrained to its seated position against the members 36 by elastic bands 43 attached at each end through slots 44 in each side of the caps 38 and arranged about the upper arm of the wearer, in the manner shown in solid and broken lines, respectively, in FIGURES 1, 2 and 5. The outer perimeters of the caps 38 are trimmed with a binding strip 45 which is secured by lacing 26.

It is apparent, therefore, that the body members 10 and 11 are designed to completely envelope the wearer's shoulders, and those portions of the anatomy in the regions of the breast in front and the shoulder blades in back, and by reason of their one-piece structure, embrace the rib cage on each side of the body. Unlike conventional protective gear the shoulder caps 38 cannot be depressed against the wearer's shoulders although these elements are capable of limited yieldability.

In FIGURE 7 is fragmentarily shown a modified arrangement of securing front and back sections of a modified form of the protective members 10 and 11. In such an arrangement each right- and left-hand sections consists

of a front portion 46 and a rear portion 47 formed so that the armholes are defined by paired arcuate cut-outs 48 in the upper rims of the members 46 and 47. A latch member 49, comprising a strap having slots 50 on each end which receive studs 51.

The invention, though described in substantial detail, is capable of certain changes and modifications in design and structure without departing from the spirit and intent thereof or the scope of the appended claims.

What is claimed is:

1. In a protective device for football players, in combination with a pair of integral semi-rigid right- and left-hand body members contoured to comfortably embrace and enclose the shoulder, breast, clavicular area and rib cage of the wearer on each side, and each having an armhole, the improvements comprising: a semi-rigid frame on each body member having an offset peripheral flange spanning the upper portion of each armhole and forming a seat for a shoulder cap, a shoulder cap hingedly connected to each of said body members at the top of each armhole and overreaching the shoulder tips of the player, a flange formed on each cap and seated within said frame and underlying said offset flange of each body member, and elastic means for limiting the upward displacement of said caps.

2. In the structure as described in claim 1, the said elastic means comprising a band of elastic material connected between and depending from the front and back of each shoulder cap adjacent to the flange on the inner face thereof.

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