Sept. 2, 1930. M. VOYNE 1,774,739

BODY PROTECTOR

Filed Aug. 22, 1928

Fig. 1.

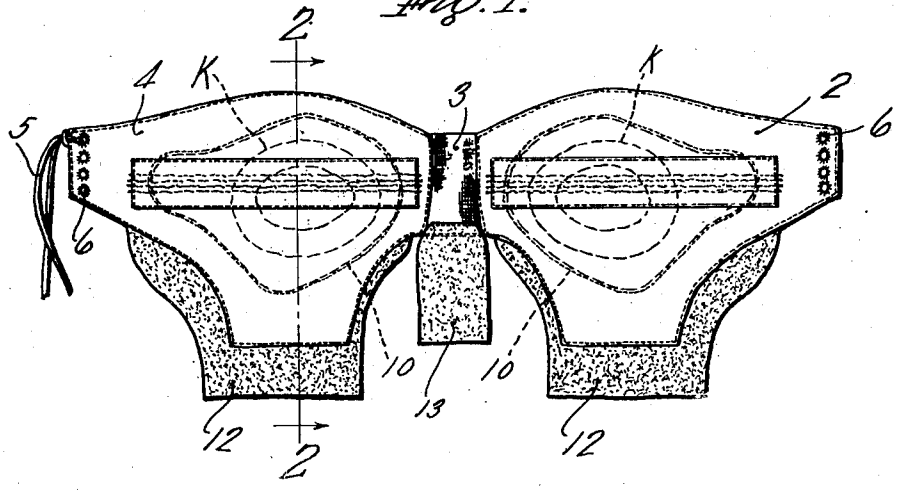


Fig. 2.

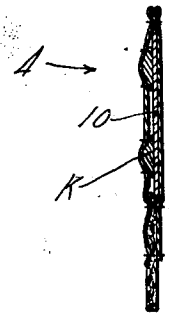
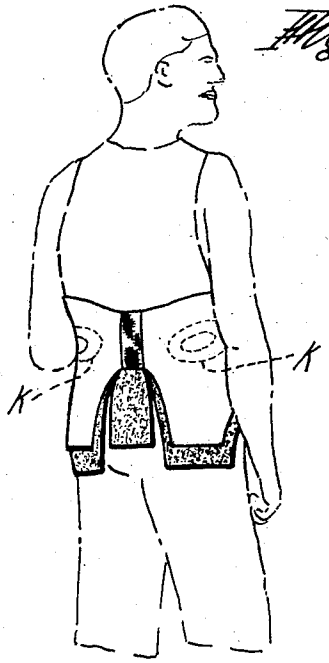


Fig. 3.



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UNITED STATES PATENT OFFICE

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BODY PROTECTOR

Application filed August 22, 1928. Serial No. 301,389.

This invention relates to improvements in body protectors for football players and those engaged in similar games. In the playing of football, it is desirable to have protection for the hips, lower ribs and small of the back, particularly in the area of the kidneys, which portion of the body quite frequently receives serious injury in a game of this sort.

Various protectors have been heretofore produced for the purpose described, but they have consisted in large measure of padded rigid plates disposed over the region of the kidneys but nevertheless in direct contact with the body at such areas. Such prior constructions have been found to be defective in furnishing the needed protection to the kidney because a blow may be transmitted through the plate with sufficient force to cause injury. A blow which would not ordinarily be considered serious for any part of the body in the region of the hips is likely to have serious effects when transmitted to the kidney, as it is by the ordinary protector heretofore used.

A principal feature of this invention, therefore, is a protecting device comprising a substantially rigid plate adapted to embrace the hips and waist of a wearer for the protection thereof and which is provided with means for spacing the plate away from the body at a point over the kidney so that a blow struck against the plate will not be imparted to the body at the kidney but in the bordering region only.

The invention in the form at present preferred consists in the novel combination and arrangement of parts now to be described and which is illustrated by means of the accompanying drawings, in which:

Fig. 1 is a plan view of a protector which has incorporated therein the novel features of the invention;

Fig. 2 is a sectional elevational view taken on the line 2—2 of Fig. 1; and

Fig. 3 is a view showing how the protector is worn by an athlete.

By reference to the drawings in detail, the invention will now be described. The protector comprises a pair of similar garment sections 2 and 4, each of which consists of outer and inner covers of flexible material such as fabric which are joined together at their marginal edges by stitching. The adjacent inner ends of the sections are hinged together by a hinge member 3 which is preferably of some stretchable material such as rubber fabric to permit a relative movement of the sections. By means of the tie string 5 and eyelets 6 in the ends of the sections, they may be drawn snugly about the hips of the wearer. Plates 10 are secured between the fabric covers forming the sections by stitching the covers together around and outside the marginal edges of the plates to provide holding pockets therefor, which pockets serve to locate the plates over the kidneys of the wearer. The plates preferably consist of some relatively stiff material such as papier-mâché, fiber board, sole leather or the like. These plates are preferably formed after the manner shown so that when the protector is in place they overlie and embrace the hips and lower waist and permit free relative movements of the body above the hips and of the limbs below the waist line. The plates are also preferably contoured to correspond to the curvature of the body and to fit snugly therearound.

Resilient or yieldable kidney cushion pads K of sponge rubber, felt or the like are provided for each plate so as to be interposed between said plate and the body of the wearer. The pads K are preferably secured by stitching at their marginal edges to the inner cover of material forming the section as shown in Fig. 2 so as to be contained within the pockets and held in proper position on said plates 10. These pads K are preferably in the form of a ring-like, elliptical annulus and are disposed with reference to the sections so that the open center thereof will be located at that part of the body which is directly over the kidneys when the protector is in place, as shown in Fig. 3. By being formed in the shape shown and disposed in the particular location indicated, these pads function to space the protector plates from the body at points directly over the kidneys so that when a blow is delivered to the plate at this point its effect is cushioned and distributed to the

body around or circumjacent the kidney rather than directly to the body portion overlying the kidney, as would be the case if the entire surface of the plate were in contact with the body. Also, whenever a blow is delivered to any part of the plate, the kidney pads K absorb and cushion the force thereof and prevent the effects being transmitted to the body at a point over the kidney.

Layer pads 12 and 13 of felt or of some other suitable padding material are secured to the lower marginal edges of the sections and serve to act as cushioning means for the body below the waist line, and of course may be formed in any desired shape to accomplish the desired purposes. The pad 13, if desired, may be extended upwardly over the elastic portion 3.

As will be observed, the protector comprises joined together sections for embracing the hips and lower ribs, each of which sections includes a substantially non-yieldable protecting plate for the hips which is spaced from the body in zones around the vital parts so as to protect those parts against the effects of a blow applied to any part of the plate.

The pads K may be made in other forms and shape than shown in order to space the plate from the body at points over the kidney and prevent the effects of a blow being transmitted to the kidney and various other equivalent forms of the kidney protector may be employed for accomplishing the purpose described and therefore I do not wish to be limited to the exact form of the invention shown and described.

What I claim and desire to secure by Letters Patent is:

1. A body protector for football players and the like adapted to be secured around the waist of the wearer adjacent the hips and comprising in combination, side plates of hard relatively rigid character fitted for the sides of the body, a fabric cover for said plates, an elastic connecting member for said plates and covers, an annular cushioning pad associated with each of said plates and covers for contacting with the body around the region of the kidneys to prevent blows or pressure from being transmitted through said plates directly to the kidneys of the wearer, and cushioning pads carried by said covers at the marginal edges thereof for contacting with the body at regions outside the plate.

2. A kidney protector for football players and the like comprising two plates of relatively rigid and hard material one for each side of the body, inner and outer fabric covers for said plates stitched together beyond and adjacent the marginal edges of said plates to provide holding pockets for said plates and serving to locate said plates over the kidneys of the wearer, each plate having within its pocket and interposed between it and the body of the wearer an annular cushioning pad which bears against body portions of the wearer circumjacent the kidney.

3. A kidney protector for football players and the like comprising two plates of relatively rigid and hard material one for each side of the body, inner and outer fabric covers for said plates stitched together beyond and adjacent the marginal edges of said plates to provide holding pockets for said plates and serving to locate said plates over the kidneys of the wearer, each plate having interposed between it and the body of the wearer an annular cushioning pad which bears against body portions of the wearer circumjacent the kidney, and means for securing said annular cushoning pads to said inner fabric cover and within said pockets for positioning the same on said plates.

4. A kidney protector for football players and the like, comprising a pair of garment sections adapted to be secured around the waist of the wearer adjacent the hips, each section comprising an inner and outer fabric cover secured together and providing a pocket, a plate of relatively rigid and hard material free of attachment to said fabric cover and positioned within said pocket and over the region of the wearer's kidney, a thick annular pad of cushioning material secured adjacent the inner side of said plate for bearing against the body of the wearer circumjacent the kidney and providing a free space between said plate and the body of the wearer overlying the kidney.

5. A kidney protector for football players and the like, comprising a pair of garment sections adapted to be secured around the waist of the wearer adjacent the hips, each section comprising an inner and outer fabric cover secured together and providing a pocket near the upper portion thereof, a plate of relatively rigid and hard material positioned within said pocket and over the region of the wearer's kidney, a thick annular pad of cushioning material secured adjacent the inner side of said plate for bearing against the body of the wearer circumjacent the kidney and providing a free space between said plate and the body of the wearer overlying the kidney, and a layer pad of cushioning material extending from the lower marginal edge of said pocket portion and substantially coextensive in thickness with the depth of said pocket portion.

In testimony whereof I have affixed my signature.

MECHIAL VOYNE.