

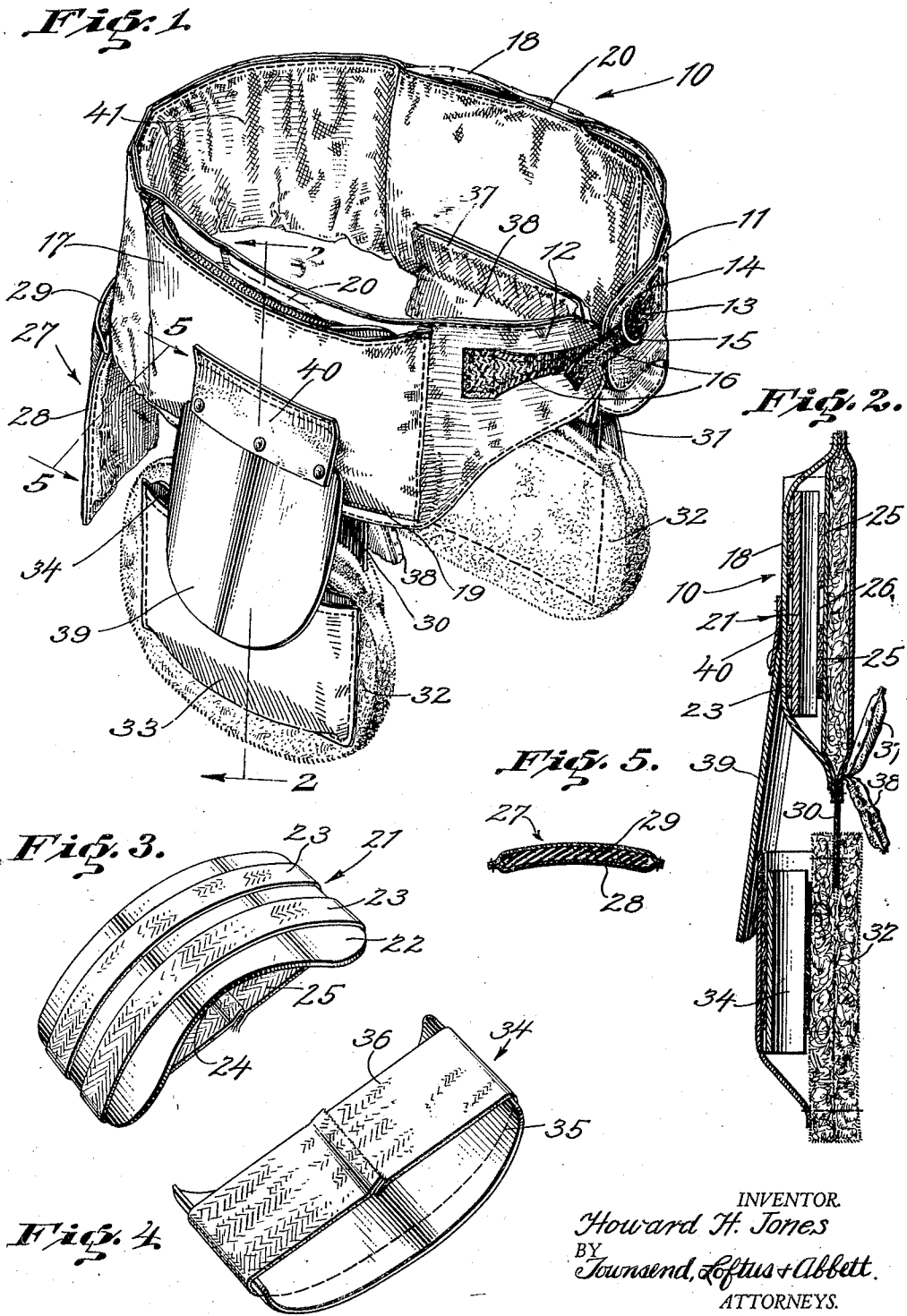
May 19, 1931.

H. H. JONES

1,805,734

PAD FOR FOOTBALL PLAYERS

Filed Sept. 9, 1929



INVENTOR
Howard H. Jones
BY
Townsend, Loftus & Abbott.
ATTORNEYS.

UNITED STATES PATENT OFFICE

HOWARD H. JONES, OF NORTH HOLLYWOOD, CALIFORNIA

PAD FOR FOOTBALL PLAYERS

Application filed September 9, 1929. Serial No. 391,115.

This invention relates to an article of athletic apparel, and particularly pertains to a football player's pad of the general construction shown in my co-pending application filed by me in the United States Patent Office on March 19, 1928, Serial No. 262,735, and entitled "Football player's pad."

In order to insure that a football player shall play under the most favorable conditions, it is desirable to properly protect the vulnerable parts of his body against injury due to collision or otherwise, so that the player may concentrate upon the game without the constant self-conscious fear of possible injury; and it is also desirable that in order to insure maximum speed and stamina, the protecting devices must be so positioned upon the body of the player as to permit free movement of the player's body and limbs while running, blocking or clipping, and by structures which will be of light weight whereby the body will not be excessively heated to produce overheating and perspiration with a resultant loss of strength. It is well recognized that the mental attitude of the player is most healthy when the player is clad in a light weight but effective protecting equipment so disposed and concealed upon the body of the player as to give him a trim appearance and while eliminating loose garments and pads which might be conveniently grasped by an opponent during the game.

It is the principal object of the present invention, therefore, to provide a football player's pad adapted to shield and protect the viscera of the body of the player, and particularly the liver, kidneys and the muscles covering the same, as well as the muscles of the hips and thighs, which structure is relatively light in weight, having great strength and so positioned upon the player's body as to be entirely concealed by the jersey and pants of the player. The structure is further designed to embody semi-rigid shield members for the kidneys and thighs, with a flexible shield protecting the area between the kidney and thigh shields without limiting the bending or twisting movement of the player's body.

It is a further object of the present invention to provide semi-rigid shield structures which will prevent the contact of hard and unyielding members with the body of the player, and will insure that the force of a blow otherwise delivered to a vulnerable part of the player's body will be distributed over a large area and thus materially dissipated.

The present invention contemplates the provision of a protecting girdle circumscribing the player's body in the region around and over the kidneys and the ilium bones, and which girdle carries removable trussed kidney pads. Said girdle being further provided with dependent thigh protecting means and a protecting pad for the sacrum region.

The invention is described by way of example in the accompanying drawings in which:—

Fig. 1 is a view in perspective showing the football player's pad with which the present invention is concerned.

Fig. 2 is a view in vertical transverse section through the pad as seen on the line 2—2 of Fig. 1.

Fig. 3 is a view in perspective showing one of the kidney pads.

Fig. 4 is a view in perspective showing the reverse side of one of the thigh pads.

Fig. 5 is a view in transverse section taken through the sacrum pad on the line 5—5 of Fig. 1.

Referring more particularly to the drawings, 10 indicates a girdle structure adapted to encircle the waist of the player in the area around and over the kidneys. The height of the girdle is such as to cause its upper edge to lie directly below the floating ribs, and its lower edge to extend across the thigh and at a point lower than the ilium bone whereby the ilium bone will be substantially midway the height of the girdle. The girdle is quilted throughout its length and terminates in reduced end portions 11 and 12, which are cut away at their lower edge to prevent binding of the abdominal area. The portion 11 carries a flexible loop 13, within which a pair of rings 14 and 15

are secured. The portion 12 carries a fabric strap 16 adapted to be threaded through the two rings and then bent upon itself to be threaded between the rings and through the lowermost ring, whereby an adjustable slip fastening will be formed without the use of buckles or other fastening elements which might prove injurious to the player wearing the pad or the player coming in contact with the buckle.

At opposite sides of the girdle, and in the area occurring over the kidneys of the player pockets 17 and 18 are formed. These pockets are substantially rectangular in shape, and extend for a greater length along the opposite sides of the girdle than the width of the girdle. These pockets are stitched to the girdle along their lower edges as indicated at 19 and are adapted to be tacked to the girdle along a portion of their upper edge as indicated by dotted lines at 20 in Fig. 1 of the drawings. The pockets receive kidney pads 21, one of which is disposed in each of said pockets, and which pads are shown in perspective in Fig. 3 of the drawings.

The kidney pads are trussed and comprise a semi-rigid shield 22 and a plurality of trussed bands 23. The shield is formed of a non-metallic material, such as fiber board, or the like. It is formed of a sheet of material which is convexed while being straight vertically. The lower edge of the shield terminates in a straight line while the upper edge of the shield is shaped with a convex recess 24 adapted to fit around the lower ribs and to prevent painful pressure against the body when the player bends over or crouches as would occur if the upper edge of the shield 22 terminated along a straight line. The shield 22 is flexed outwardly and is held in its flexed position by the truss bands 23. These bands are of lesser length than the developed longitudinal length of the shield, whereby the bands will always tend to hold the shield in its flexed position, and will resist a blow delivered against the convex face of the shield which would tend to flatten the shield and straighten it longitudinally.

In Figs. 2 and 3 of the drawings, two of the trussed bands 23 are shown on the kidney shields 21, thus the chord lengths 25 of the bands will be spaced from each other to form a longitudinal opening 26 into which the ilium bone may project to spread the chord sections of the bands and to permit the force delivered against the shield to be received by the body without being delivered directly upon the point of the ilium bone.

Dependent from the girdle 10 and at the back thereof, is a pad 27 which hangs downwardly over and protects the sacrum and coccyx. This pad structure consists of a pocket 28 within which a pad 29 of sponge

rubber is inserted. The upper edge of this pocket is open so that these pads may be interchanged when desired.

Upon opposite sides of the girdle and secured along the lower marginal edge thereof in the area beneath the kidney pads are flexible straps 30 and 31. These straps may be of heavy fabric or leather. Stitched upon opposite sides of the straps and adapted to depend therefrom is a quilted pad 32. These pads may be formed of felt, if desired, and are substantially oval in configuration. The diameters of the pads and their dependent positions being such as to cause them to cover the thigh portion of the player's body. Stitched to the outer face of each of the pads is a pocket 33. These pockets are stitched along their lower edge and their ends. The upper edge of each pocket is unattached, to the pad, providing an opening into which a trussed thigh pad 34 may be inserted to assume the position shown in Fig. 2 of the drawings. The thigh pads are formed from a sheet of stiff material, such as fiber as indicated at 35 in Fig. 4 of the drawings, and are flexed horizontally in the same manner as previously described for the kidney pads 21.

A truss band 36 is secured around the flexed sheet of material and edgewise thereof. This band is of relatively great width and its unsupported chord portion is intended to lie across the thigh muscles of the player and to absorb and distribute the force of blows delivered to the convex face of the pad. Consideration of the truss pads here shown will disclose the fact that they may be easily removed from the pockets within which they are carried, and that the pad plates may be cleansed and the truss straps washed. It will also be evident that since the flexure of the pads is longitudinally thereof, there will be a space within the pad through which air may circulate vertically, thus eliminating overheating of the body due to a lack of free circulation thereof.

In order to insure that the lower edge of the trussed kidney pad 21 and the upper edge of the adjacent trussed thigh pad 34 shall not cut into the body of the wearer when the body is bent along the waistline, cushion pads 37 and 38 are secured to the inner face of the girdle at a point along its lower edge and extending longitudinally thereof. The outer ends of these pad members are free, the free end of the pad 37 extending above the lower edge of the trussed kidney pad 21, and the free end of the lower pad 38 extending below the upper edge of the trussed thigh pad 34, thus insuring that the cushion pads 37 and 38 will be interposed between the body of the wearer and the edges of the trussed pads.

By reference to Fig. 2 of the drawings, 130

it will be seen that the lower edge of the trussed kidney pad 21 and the upper edge of the trussed thigh pad 34 are a considerable distance apart. This makes it possible for the pads to have relative movement with relation to each other, when the player is crouching or when his body is being twisted without interference of one pad with the other, and without a resulting difficulty experienced by the player in bending over. The space between the trussed kidney pad and the trussed thigh pad leaves an exposed vulnerable area and a shield member 39 is provided to span this space and to protect the area of the body therebeneath without interfering with free relative movement of the kidney pads with relation to the thigh pads. The shields 39 are adequately connected by their upper edges to the girdle structure by means of hinge straps 40. These straps are sewed to the outer face of the pockets 18 at their upper edges and are riveted to the upper edges of the shields. The upper edge of each shield is positioned a considerable distance above the lower edge of the corresponding trussed kidney pad 21 and the lower edge of each shield occurs at a point a considerable distance below the upper edge of the corresponding trussed thigh pad 34. The shield curves horizontally and thus conforms to the convex curvature of the kidney pad and thigh pad while being supported thereby. This makes it possible for the shields 39 to at all times span and cover the gap between the contiguous edges of the kidney and thigh pads, while permitting free articulate movement between the kidney pad, shield, and thigh pad on each side of the player's body.

When the football pad structure is worn by a player the rear padded portion 41 of the girdle will lie across the small of the player's back, protecting the same, and the trussed kidney pad structures will lie around and over the kidney area, the reduced ends 11 and 12 of the girdle will be secured around the front of the player's waist and held in position by the straps 13 and 16, and the rings 14 and 15. The thigh pad structures and the sacrum pad will then depend from the girdle and lie over the parts intended to be protected thereby. The player may then conceal the entire pad structure beneath his jersey and football pants with the result that the player will present a neat appearance, giving the impression of alertness and speed, and make it impossible for the pad structure to be grasped by opposing players as is now often done by the use of protecting kidney pads which extend upwardly from the waist of the trousers and are free along the upper edges. The football pad while thus worn is of light weight and its pads even

though having great protecting value are ventilated throughout so as not to add to the heat of the player's body. When the player "blocks" or "clips," he may throw his body in front of an opposing player without fear of incurring great bodily pain or injury since the kidney and thigh pads will cover these vulnerable areas and are so constructed as to insure that blows delivered to their convex faces will tend to straighten them out to exert tension on the circumscribing bands 23 or 36, whereby the force of the blow will be dissipated and it will be delivered to the body by a flexible and yieldable member which will conform to the contour of the portion of the body against which it is forced. When the player crouches, or is required to otherwise bend or twist his body, the cushion pads 37 and 38 will prevent the contiguous edges of the kidney and thigh pads from producing painful pressure upon the player's body and the shields 39 will act to further protect this vulnerable intermediate area.

Attention is also directed to the fact that the kidney and thigh pads here disclosed possess great strength and durability, due to the fact that the bands 23 and 36 completely embrace the pads, and that the ends of the bands are stitched together. This insures a relatively permanent fastening as compared to that which would be obtained by stitching the fabric to the non-yielding sheets 22 and 35 by which the stitching would be cut upon the edges of the holes in the shields through which the threads pass and in addition, this particular shield structure makes it possible to readily remove the fabric from the shield for the purpose of cleansing them, since their close proximity to the player's body would cause them to become moistened with perspiration.

It will thus be seen that the pad structure here disclosed is simple in construction, comparatively inexpensive and that it provides a device having maximum protecting qualities, a minimum of weight, and a maximum of strength in a structure which will not act to create an overheated condition of the player's body.

While I have shown the preferred form of my invention as now known to me, it will be understood that various changes might be made in the combination, construction and arrangement of all parts without departing from the spirit of the invention as claimed.

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

1. A protecting device for football players which comprises a girdle adapted to circumscribe the waist of the player, said girdle being formed of quilted material, a pair of pockets on the outside of the girdle and at opposite sides thereof adapted to overlie the

region of the kidneys of the player, a pair of convex shield members, one of which is disposed in each of said pockets with its concave portion facing inwardly and having flexible straps extending longitudinally thereof to bear against the girdle, a pair of thigh pads articulately connected to the girdle at points beneath the kidney pads, a pocket on the outside of each of said thigh pads, a pair of convex thigh shields, one disposed within each of said thigh pad pockets and having a fabric portion stretched longitudinally thereof to rest against the pad, and a pair of convex shield members, one articulately secured by its upper edge to the pocket of each kidney pad with its concave portion adapted to lie down thereover and with its lower concave edge resting against the convex face of a corresponding thigh pad, said shields bridging the space occurring between the kidney and thigh pads.

2. A protecting device for football players which comprises a girdle adapted to circumscribe the waist of the player, said girdle being formed of quilted material, a pair of pockets on the outside of the girdle and at opposite sides thereof adapted to overlie the region of the kidneys of the player, a pair of semi-rigid convex shield members, one of which is disposed in each of said pockets with its concave portion facing inwardly and having flexible straps extending longitudinally thereof to bear against the girdle, a pair of thigh pads articulately connected to the girdle at points beneath the kidney pads, a pocket on the outside of each of said thigh pads, a pair of semi-rigid convex thigh shields, one disposed within each of said thigh pad pockets and having a fabric portion stretched longitudinally thereof to rest against the pad, and a pair of semi-rigid convex shield members, one articulately secured by its upper edge to the pocket of each kidney pad with its concave portion adapted to lie down thereover and with its lower concave edge resting against the convex face of a corresponding thigh pad, said shields bridging the space occurring between the kidney and thigh pads.

3. A protecting device for football players which comprises a girdle adapted to circumscribe the waist of the player, said girdle being formed of quilted material, a pair of pockets on the outside of the girdle and at opposite sides thereof adapted to overlie the region of the kidneys of the player, a pair of convex shield members, one of which is disposed in each of said pockets with its concave portion facing inwardly and having flexible straps extending longitudinally thereof to bear against the girdle, a pair of thigh pads articulately connected to the girdle at points beneath the kidney pads, a pocket on the outside of each of said thigh pads, a pair of convex thigh shields, one

disposed within each of said thigh pad pockets and having a fabric portion stretched longitudinally thereof to rest against the pad, and a pair of cushion pads secured to the inner face of the girdle along its lower edge and along their longitudinal median line, the free upper and lower portions of said cushions being interposed between the respective upper and lower edges of the kidney and thigh pads and the body of the player.

4. A protecting device for football players which comprises a girdle adapted to circumscribe the waist of the player, said girdle being formed of quilted material, a pair of pockets on the outside of the girdle and at opposite sides thereof adapted to overlie the region of the kidneys of the player, a pair of convex shield members, one of which is disposed in each of said pockets with its concave portion facing inwardly and having flexible straps extending longitudinally thereof to bear against the girdle, a pair of thigh pads articulately connected to the girdle at points beneath the kidney pads, a pocket on the outside of each of said thigh pads, a pair of convex thigh shields, one disposed within each of said thigh pad pockets and having a fabric portion stretched longitudinally thereof to rest against the pad, and a removable sacrum pad dependent from the girdle at the rear thereof.

5. A protecting device for football players which comprises a girdle adapted to circumscribe the waist of the player, said girdle being formed of quilted material, a pair of pockets on the outside of the girdle and at opposite sides thereof adapted to overlie the region of the kidneys of the player, a pair of convex shield members, one of which is disposed in each of said pockets with its concave portion facing inwardly and having flexible straps extending longitudinally thereof to bear against the girdle, a pair of thigh pads articulately connected to the girdle at points beneath the kidney pads, a pocket on the outside of each of said thigh pads, a pair of convex thigh shields, one disposed within each of said thigh pad pockets and having a fabric portion stretched longitudinally thereof to rest against the pad, and a removable sacrum pad dependent from the girdle at the rear thereof, said pad including a pocket carried by the girdle and within which a pad element is inserted.

6. In a football player's pad structure, a shield insert adapted to fit over the ilium bone which comprises a semi-rigid longitudinally flexed shield member, the concave portion facing the body of the player, and a pair of non-stretching truss bands encircling the shield longitudinally with their chord portions extending substantially par-

allel across the shield from edge to edge and adapted to bear against the body of the player, said bands being spaced apart to permit the point of the ilium bone to extend between them and the bands to conform to the contour of the bone, the upper edge of said shield being recessed to accommodate the lower ribs of the player's body.

HOWARD H. JONES.

10

15

20

25

30

35

40

45

50

55

60

65