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CHEST PROTECTOR

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1 Claim. (Cl. 2—2)

This invention relates to chest protectors and more particularly to such protectors of the type worn by catchers in playing baseball.

In prior devices of this type, the body protecting portions have been made with inner and outer or back and front fabric layers sewed together by generally parallel horizontal seams in spaced relationship to one another to retain rows of padding therebetween which extend laterally of the body portion, thereby affording vertical flexibility in the padded protective structure. It has also been customary to provide a vertical seam at the lateral center of the body protecting portion to divide the padded rows and afford some lateral flexibility.

The vertical center seam, although used, was objectionable for different reasons. In one respect, this vertical center seam construction effected a material reduction of padded protection over the sternum or breast bone and the heart of a wearer, where full protection is desirable. In another aspect, the vertical center seam provided flexibility at a position in which it made the sides of the padded protector seem bulky and cumbersome since the side edges thereof would project at the sides of the wearer's body to engage the arms and interfere with arm movements, particularly in a forward direction along the sides of the wearer's body. Furthermore, when engaged by and between a wearer's arms, the center portion of the protector had a tendency to move forwardly to produce an undesirable front bulge.

Having the foregoing factors in mind, it is an object of this invention to provide a padded chest protector affording adequate protection across the mid-portion of a wearer's body and particularly over the region of the sternum and heart, while having adequate flexibility for body conformity and movements.

Another object of my invention is to provide a chest protector wherein the portion covering the lateral mid-portion of a wearer's body is devoid of any vertical seam or means contributing hinge type flexibility in a direction lateral to the wearer's body, but which does have means, such as vertical seams along opposite sides, affording flexibility between the mid-portion and opposite side protective portions, thereby to provide adequate protection for the sides of the wearer's body and adequate body conformity to avoid interference with the wearer's arm movements and bulges resulting from engagement of the wearer's arms with the sides of the protector.

This invention further has within its purview the provision of a chest protector adapted to use by baseball catchers and which is equipped with a harness connected to a padded chest protecting portion by separable fasteners, so that parts thereof are readily replaceable.

Other objects and advantages of the invention will be apparent from the following description and the accompanying drawings in which similar characters of reference indicate similar parts throughout the several views:

FIGS. 1 and 2 are respectively front and rear perspective views of a chest protector embodying a preferred form of my invention;

FIG. 3 is a top sectional view of the chest protector taken substantially as indicated by a line 3—3 and accompanying arrows in FIG. 1; and

FIG. 4 is a fragmentary side sectional view taken

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substantially as indicated by a line 4—4 and accompanying arrows in FIG. 1.

In the exemplary embodiment of my invention which is disclosed in the accompanying drawings for illustrative purposes, a chest protector 10 includes an inner or back part 12 and an outer front part 13, both of which are made of flexible and relatively thin material, such as fabric. In the structure disclosed, the front and back parts have similar outer contours and are placed together in face-to-face relationship to one another with their edges aligned. Peripherally, the margins of the front and back parts 12 and 13 are bound together by a strip 14 of a flexible material, such as fabric which overlies the peripheral edges of the parts and extends inwardly over the margins of the parts; the parts and the binding strip being secured together, in this instance, by a sewn seam 15 extending peripherally of the parts and through both the parts and the binding strip.

At the mid-portion of the top, a recess 16 is provided in the peripheral contour of the parts to conform generally to a wearer's neckline and to afford upwardly extending shoulder protective portions 17 and 18 on opposite sides of the recess. The side edges of the chest protector are desirably curvilinear in contour with concavely curved portions below the shoulder protective portions which limit the width of the protector along the parts thereof which are adjacent the arms of a wearer. Below the concavely curved side edge portions 19 and 20, the edges are convexly curved to increase the width of the protector, and the lower convexly curved portions adjoin a bottom edge 22 which, in the disclosed structure, is generally straight. In general, it may be observed that the side and top edge contours afford alternate, adjoined and continuing convex and concave curvatures.

Inasmuch as a chest protector structure of the type disclosed must be padded between the front and back parts to provide the protection for which it is worn, and still must be flexible to the extent required for reasonably close body conformity and so that it does not interfere materially with movements of the wearer, the padding is divided into sections and rows, which sections and rows are adjoined in a manner affording the required flexibility, without leaving unprotected areas of appreciable width or poorly protected areas at positions in which protection is particularly desirable and which do not afford the desired body conformity. To accomplish this result, the front and back parts of the protector, as disclosed, are secured together by seams 23 extending laterally from side to side of the parts in relatively straight lines, which seams are generally parallel to one another and are spaced apart longitudinally of the parts. Also, at opposite sides of the mid-region of the parts, generally straight and parallel seams 24 and 25 extend longitudinally of the parts to secure them together. The longitudinal seams 24 and 25, as herein illustrated extend downwardly from opposite sides of the recess 16 at the top of the protector, so that the space therebetween is materially wider than any portion of the sides of the protector outside of the respective seams.

Between the front and back parts 12 and 13, and between the horizontal seams 23, as well as between the longitudinal seams 24 and 25 and between those seams and the binding seam 15 at the sides of the protector, a filling of relatively soft padding 26 is provided to space the front and back parts apart and afford the desired shock absorbing and protective quality to the protector. The padding material is desirably one which is relatively soft and has shock absorbing qualities, without sufficient resilience to cause a baseball or the like to rebound therefrom to any material extent. Fabric waste and some

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forms of shredded plastic materials are suitable for the purpose.

In the assembly of the chest protector, the padding material may be inserted between the front and back parts before the seams are sewn, but a better structure results if the seams are sewn directly between the front and back parts to form pockets which are filled with the required padding before the pockets are completely closed by a final seam. In use, it may be understood that the lateral seams afford longitudinal flexibility in the structure, while the relatively board frontal portion or mid-region between the longitudinal seams 24 and 25 affords protection for the wearer's sternum, heart and such parts of the body which should be well protected. In addition, the flexibility along the opposite sides of the mid-region which is provided by the seams 24 and 25 permits the protector to fit snugly against the sides of a wearer's body, so that the edges do not interfere with the movements of the wearer's arm relative to the sides of the body.

For holding the protector in place on the front of a wearer's body, a waist belt 27 and a shoulder harness 28 are provided. The waist belt includes a back strap 29 which, in the present instance, has buckles 30 secured to its opposite ends. Separately adjustable side straps 32 have series of holes therein for individually adjustable connections to the buckles 30. At their outer ends, the side straps 32 are movably secured to hook-type snap fasteners 33, which snap fasteners are engageable with metal rings 34 secured to opposite sides of the lower portion of the chest protector by looped tabs 35 which are secured to the protector.

The shoulder harness 28 includes shoulder straps 36 which extend angularly from a connecting piece 37 to which they are secured. A back strap 38 extends downwardly from the connecting piece 37 and is secured thereto. The back strap has a series of holes therein for adjustable connection to a buckle 39 which is secured to a connecting piece 40; the connecting piece 40 being slotted to provide a movable connection to the back strap 29 of the waist belt. The shoulder straps 36 have releasable fastening means, such as snap fasteners 42 secured to the ends thereof remote from the connecting piece 37, and are releasably securable to metal rings 43 which are secured to the upper shoulder portions of the protector by tabs 44 located outside of the longitudinal seams 24 and 25 on the protector.

From the foregoing description, and by reference to the drawings, it may be readily understood that I have

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provided a chest protector adapted to use by baseball catchers and the like, which protector is constructed and arranged to afford flexibility at opposite sides of the mid-region of the body, where it protects vital parts of the body and does not cause undesirable bulges at the front mid-line of the body or projecting side edges which interfere with arm movements. Furthermore, the protector is provided with a supporting harness which is releasably connected thereto for complete removal and replacement.

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

A padded chest protector for use in playing baseball and the like and comprising, in combination, front and back parts of flexible sheet material having edge contours shaped to conform generally to the front of a wearer's body by having edge portions of externally concave curvature at the mid-region of the top and along the upper regions of opposite sides with externally convex portions adjoined to opposite ends of each of the portions of concave curvature, means peripherally binding the front and back parts together, said parts being additionally secured together by a plurality of substantially parallel seams extending from side to side thereof at positions spaced apart longitudinally of the protector to provide spaces extending laterally of the protector between the parts, said spaces having padding material therein to effect the formation of adjacent and closely spaced and flexibly connected padded ribs extending laterally of the protector, a plurality of additional seams extending longitudinally of the protector and securing the front and back parts together on opposite sides of the mid-portion thereof along lines which are practically coincident with the junctures of said convexly curved portions at opposite sides of the top and said portion of concave curvature at the mid-region of the top, said additional seams providing flexible hinge means for the protector which flex along longitudinal lines at opposite side regions, and a harness including a belt and shoulder straps for holding the protector in place on the front of the wearer's body.

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