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3,605,117

HOCKEY GLOVES

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12 Claims

ABSTRACT OF THE DISCLOSURE

A hockey glove has a hand receiving portion which is adapted to receive and envelope the user's hand. That portion includes an open-ended palm area and thumb and finger stalls which open into the palm area. A padded back portion overlies the palm area and finger stalls and is connected to the ends of the finger stalls and to the outer side of the palm area, but otherwise remains detached from the hand receiving portion. A padded thumb protector overlies the thumb stall, but is connected thereto only through a connecting flap extending from and beyond the end of the thumb stall. The rear ends of the back portion and the thumb protector as well as the open end of the hand receiving portion are all connected to a padded arm guard in the vicinity of the user's wrist so that the arm guard encircles the user's forearm. Since the hand receiving portion is for the most part detached from the overlying back portion and thumb protector, it is extremely flexible, affording the user a high degree of control over a hockey stick.

BACKGROUND OF THE INVENTION

This invention relates to athletic protective equipment and more particularly to hockey gloves.

The rough nature of ice hockey, and the character of skates used, requires elaborate and extensive protective equipment for those who participate in that sport. The hands are particularly vulnerable portions of the body, since they are often in the path of opposing players' hockey sticks and skates, and are similarly often scraped or rammed into the side boards during the fierce checking encountered in the sport. For this reason hockey gloves possess considerable padding across the back of the fingers and thumb as well as across the back of the hand proper.

In hockey gloves of current manufacture the flexible portion thereon which forms a pocket for receiving the player's hand is stitched directly to the overlying padding along the entire periphery of its finger stalls and palm area. Consequently, the finger stalls and palm area are relatively inflexible. Also, to prevent the overlying padding from restricting the flexibility of the glove too much, gloves of current manufacture fit the hand rather loosely. This inflexibility and looseness detracts from the control the player has over the stick, making stick handling of the puck difficult and causing shots and passes to go astray.

The palm area and finger stalls also incur the most wear since they are constantly shifted along the hockey stick. Consequently, when the palm area and finger stalls wear out, the glove must undergo a complete reconstruction on specialized machines to replace them.

Moreover, the finger and thumb stalls and also the palm areas of conventional hockey gloves are formed from heavy leather which detracts from the flexibility of those areas. The flexibility of such gloves is further impaired by leaving inwardly turned and longitudinally extending seams in the leather of those critical areas. The consequence of this stiffness is that the player does not have the necessary "feel" of the stick to control the puck in a more positive manner.

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SUMMARY OF THE INVENTION

One of the principal objects of the present invention is to provide a hockey glove which affords a high degree of control over a hockey stick. Another object is to provide a hockey glove in which the flexibility of the palm area and finger stalls is not significantly impaired by the overlying padding. A further object is to provide a hockey glove which is comfortable and does not feel overly cumbersome. An additional object is to provide a glove of the type stated in which individual portions thereof may be easily replaced without specialized machinery. Still another object is to provide a hockey glove which, while being highly flexible, provides a high degree of protection for the user's hands. Yet another object is to provide a hockey glove which fits the hand snugly and brings the hand close to the overlying padding. These and other objects and advantages will become apparent hereinafter.

The present invention is embodied in a hockey glove having a hand receiving portion adapted to receive and envelope the user's hand and padding means overlying the hand receiving portion. The hand receiving portion is for the most part detached from the overlying padding means so that it remains highly flexible. The invention also consists in the parts and in the arrangements and combinations of parts hereinafter described and claimed.

DESCRIPTION OF THE DRAWINGS

In the accompanying drawings which form part of the specification and wherein like numerals refer to like parts wherever they occur:

FIG. 1 is a perspective view of a hockey glove constructed in accordance with and embodying the present invention;

FIG. 2 is a plan view of the palm side of the hockey glove;

FIG. 3 is an exploded perspective view of the hockey glove;

FIGS. 4 and 5 are sectional views taken along lines 4—4 and 5—5, respectively of FIG. 1; and

FIG. 6 is a fragmentary sectional view taken along line 6—6 of FIG. 2.

DETAILED DESCRIPTION

Referring in detail to the drawings, 2 designates a hockey glove including (FIGS. 1 and 2) a protective outer padding or shell 4 and a highly flexible hand receiving portion 6, the former of which generally overlies the latter and protects the back side thereof. While the shell 4 is connected to the hand receiving portion 6 at a few selected locations to maintain it in the proper overlying position, it is for the most part detached from the hand receiving portion 6 so that the hand receiving portion 6 remains highly flexible.

The hand receiving portion 6 (FIGS. 2 and 3) resembles a common glove and includes a front piece 10 shaped to extend outwardly from the vicinity of the user's wrist across his palm as well as along his thumb, index finger, and little finger. The hand receiving portion 6 also includes a back piece 12 which for the most part overlies the front piece 10 and similarly extends outwardly over the back of the user's hand proper as well as over his thumb and index and little fingers. In addition the back piece 12 extends over the user's intermediate, that is his second and third, fingers. The front and back pieces 10 and 12 are attached together by a run of stitching 14 which follows the common periphery of the thumb, index finger, and little finger sections as well as the sides of those pieces. The run of stitching 14 also follows the periphery of the second and third finger sections in the back piece 12 where it secures an intermediate finger piece 16 to the back piece 12. The intermediate finger piece 16 has two

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attached finger sections which underlie the second and third finger sections of the back piece 12 and form a continuation of the front piece 10. The intermediate finger piece 16 is attached to the outer end of the front piece 10, that is to the portion extending between the index and little finger sections thereof by another run of stitching 18. Thus, the back piece 12 may be termed the back ply of the hand receiving portion 6, whereas the front piece 10 and intermediate finger piece 16 may be termed the

The run of stitching 14 extending along the common peripheries of the back piece 12 and the underlying front and intermediate pieces 10 and 16 creates a thumb stall 20 and four finger stalls 22, 24, 26 and 28 within the hand receiving portion 6, as well as a palm area 30 into which each of the foregoing stalls opens. The palm area 30 in turn opens outwardly at the unattached ends of the front and back pieces 10 and 12, and those ends are located in the vicinity of the user's wrist so that the hand receiving portion 6 covers and envelopes substantially the entire hand from the outer extremities of the user's fingers to the vicinity of the user's wrist. In particular, the finger stalls 22, 24, 26 and 28, and the thumb stall 20 receive the fingers and thumb, respectively, while the palm area 30 envelopes the hand proper, that is the portion of the hand between the wrist and fingers. In the vicinity of the knuckles along the bank of the hand the back piece 12 is provided with a plurality of transversely spaced apertures 31 (FIG. 3) to provide ventilation for the interior of the hand receiving portion 6. The back piece 12 furthermore continues somewhat beyond the end of the thumb stall 20 in the provision of a connecting flap 32.

The front piece 10, back piece 12, and intermediate piece 16 should all be formed from a very flexible sheet material so that the hand receiving portion 6 possesses a high degree of flexibility. Deer hide has been found to be ideally suited for this purpose.

Broadly speaking, the outer shell 4 shields or protects the hand receiving portion 6 while for the most part remaining detached therefrom. It includes (FIGS. 1 and 3) a back portion 34, a forearm protector or arm guard 36, and a thumb protector 38, all of which contain padding. The back portion 34, thumb protector 38, and arm guard 36 may be termed first, second and third padding means or portions, respectively.

The back portion 34 possesses a leather base piece or ply 40 which extends across the backside of the palm area 30 on the hand receiving portion 6 and has finger sections 42 which are presented over the finger stalls 22-28. Indeed, the base piece or ply 40 extends uninterrupted from the wrist opening in the hand receiving portion 6 to the outer extremities of the finger stalls, 22, 24, 26 and 28 (FIG. 4). The finger sections 42 have padding rolls 44 extending over them, and each padding roll 44 includes (FIGS. 4 and 6) a cushioning strip 46 and a leather cover 48 presented over and encasing the cushioning strip 46. In particular, the cushioning strip 46 is preferably formed from a flexible cellular material such as polyvinyl chloride. The leather cover 48, on the other hand, has ends which are tucked inwardly so that the cover 48 assumes an inverted trough- or channel-shaped configuration suitable for retaining its respective cushioning strip 46 in place over one of the finger sections 42. Intermediate its ends the cover 48 is transversely slit and spread, and a leather spreader ply 50 is stitched across the spread apart margins formed by the slit so that a slight bend is imparted to the cover 48 and the cushioning strip 46 therein. The inner or rear ends of the covers 48 are attached to the base piece 40 slightly rearwardly of the inner ends of the finger sections 42 by means of stitching, while the opposite ends of the covers 48 and finger sections 42 are attached together in a manner which will subsequently be described.

The remaining portion of the base piece 40, that is the portion over the back side of the palm area 30 on the

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hand receiving portion 6, is also covered with padding rolls 52 which are very similar to the padding rolls 44, but are oriented transversely of the glove 2 instead of longitudinally as are the rolls 44. However, the trough- or channel-shaped pockets for the cushioning strips in the padding rolls 52 are formed in a single leather cover 54 (FIGS. 4 and 5) so that each of the rolls 52 is attached to its adjacent roll 52. The padding rolls 52 are attached to the outwardly presented surface of the base piece 40 by stitching 58, and that stitching passes through the portion of the single cover 54 located at the ends of the rolls 52 as well as between the rolls 52. The cover 54 is slit across the center of each roll 52 and a spreader ply 60 (FIG. 5) is stitched across the slit so that the rolls 52 are bent and flexed slightly at their centers.

The base piece 40 terminates in the vicinity of the user's wrist where it is attached to the arm guard 36 which has a pair of closely spaced longitudinally extending edges 62 and extend across the upper side of the arm guard 60 the one edge 62 to the other edge 62 the arm guard 36 extends around the user's forearm, providing protection for the portion of the forearm so covered. The edges 62 merge into an end edge 64 which lies in part along a connecting lip 65 (FIGS. 2-4) at the forward end of the arm guard 36. The connecting lip 65 in turn projects beyond and overlies the rear end of the base piece 40 on the back portion 34 and the open end of the palm area 30 in the hand receiving portion 6. Slightly inwardly from the edges 62 the arm guard 60 has a plurality of longitudinally spaced grommets 66 set into it, and those grommets receive a lacing 68 for drawing the pair of edges 62 together and thereby reducing the internal size of the arm guard 60. The outer periphery of the arm guard 60 including the edges 62 and 64 is bounded by a binding material 70 which is stitched thereto.

The arm guard 36 itself is formed from two plies 72 and 74 (FIGS. 3 and 4) of leather having a padding material 75 inserted between them, and the padding 75 is held in place by runs of stitching 76. The outer ply 74 is slit in two locations between its ends, and the margins of those slits are spread apart and maintained in the spread condition by spreader plies 78.

In the vicinity of the user's wrist that is adjacent to the connecting lip 65, the arm guard 36 is provided with additional padding in the form of a pair of padding rolls 80 (FIGS. 1 and 3-5) which commence near the edge 62 and extend across the upper side of the arm guard 60 parallel to the edge 64 and then turn downwardly along the inner side thereof. The padding rolls 80 are similar in construction to the padding rolls 44 but are longer. They will therefore not be described in further detail, other than to note that their covers are slit and fitted with spreader plies 82 at the location where they turn downwardly along the inner side of the arm guard 36. The padding rolls 80 do not extend along the underside of the arm guard 36.

The portion of the connecting lip 65 located immediately beyond the downwardly turned portions of the padding rolls 80 is connected with the thumb protector 38 which projects forwardly therefrom along the thumb stall 20 of the hand receiving portion 6. The thumb protector 38 includes a longitudinally extending inner section 84 which projects generally in the same direction as the inner margin of the back portion 34 and overlies the thumb stall 20 of the hand receiving portion 6. The inner section 84 has padding encased in leather and contains a metal reinforcing segment 86 which extends substantially the entire length thereof. Toward its rear end the inner section 84 is covered by a pair of overlapping pads 88 and 90. The inner section 84 of the thumb protector 38 is connected to the base piece 40 of the back portion 34 by a flexible web 92. To permit maximum flexibility of the thumb protector 38 the web 92 is attached to the inner section 84 thereof for only a relatively short span of stitching

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located in the vicinity of the forward ends of the two overlapping pads 88 and 90.

Both the back portion 34 and the thumb protector 38 are attached to the arm guard 36 along the connecting lip 65 by wrist lacing 94, and that lacing also loops through the underside of the arm guard 36 adjacent to the end edge 64 so that it passes from one longitudinal edge 62 to the other. The lacing 94 further extends through the front and back pieces 10 and 12 at the open end of the hand receiving portion 6 so that the unobstructed interior of the arm guard 36 opens into the interior of the hand receiving portion 6. In addition, the front and back pieces 10 and 12 of the hand receiving portion 6 are connected to the outer side of the back portion 34 by side lacing 96 which extends along the base portion 40 at the outer ends of the transverse padding rolls 52. Thus, the side lacing 96 extends along the periphery of the hand receiving portion 6.

Each finger stall 22-28 is connected to its respective finger section 42 and padding roll 44 through a separate finger lacing 98. In particular each finger lacing 98 passes spirally through its finger stall 22, 24, 26 or 28 along the tip thereof and also through the finger section 42 and the padding cover 48 which overlies that finger stall. No lacing 98 extends further inwardly than about the location of the spreader ply 50 in the cover 48 through which that lacing passes. Those spreader plies 50 are located approximately over the last knuckles in the fingers so that each finger stall 22-28 remains detached from the overlying back portion 34 from at least the location of the user's last knuckle rearwardly.

Finally, the connecting flap 32 which continues beyond the thumb stall 20 in the hand receiving portion 6 extends along the inner surface of the inner section 84 on the thumb protector 38 and is attached to the extreme outer end of that inner section 84 by thumb lacing 100.

The user of course inserts his hand through the arm guard 36 and into the interior of the hand receiving portion 6, allowing his fingers and thumb to pass through the palm area 30 and enter the finger stalls 22-28 and the thumb stall 20. Since the finger stalls 22-28 are attached to the padding rolls 44 only at their ends, a limited amount of displacement between the finger stalls 22-28 and the overlying finger sections 42 on the back portion 34 is provided so that when the user closes his hand to grasp a hockey stick, the hand protector 34 and particularly the relatively stiff padding rolls 44 on it will not unduly restrict closing of the hand receiving portion 6. Yet the padding rolls 44 are maintained in the proper position over the finger stalls 22-28 to afford maximum protection to the user's fingers.

Similarly, the palm area 30 is connected to the back portion 34 along the lacing 96 which extends only along the outer side of the palm area 30. Except for its outer side and for its open end located at the wrist the palm area 30 is otherwise detached from the back portion 34. Consequently, when the user places the handle of his hockey stick across the palm area 30 and folds the finger stalls 22-28 around that handle, the palm area 30 will assume the shape of the handle without encountering undue resistance from the overlying padding rolls 52 and base piece 40 on the back portion 34.

Likewise, the thumb stall 20 is connected with the thumb protector 38 only through the highly flexible connecting flap 32 which attached to the extreme outer end of the inner section 84 on that thumb protector 38. Accordingly, the thumb stall 20 can draw away from the thumb protector 38 and bear against the handle of the hockey stick so as to obtain a firm grip on it. Also the flexible web 92 between the thumb protector 38 and hand protector 34 permits considerable movement between the two so that as the thumb stall 20 is drawn inwardly toward the palm area 30 the entire thumb protector 38 flexes inwardly to a limited extent without offering much resistance. While the thumb stall 20 does draw away from

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the thumb protector 38, the thumb protector 38 still remains in the correct position over the thumb stall 20 and forms a protective shield for it.

It should be noted that the front piece 10, back piece 12, and intermediate finger piece 16 of the hand receiving portion 6 are all cut and stitched so that no seams extend through the portion of the palm area 30 in which the stick is held or along the portions of the finger stalls 22-28 which bear against the stick handle. As a result maximum flexibility is provided, and there are no seams at critical pressure points to detract from the feel of the stick. In this connection, the run of stitching 18 extends across the stick grasping side of the hand receiving portion 6, but it does not extend across the portion thereof which actually bears against the stick with significant pressure. Furthermore the stitching 18 extends transversely in the direction which the hand receiving portion 6 normally folds so that it will merely form a crease in the hand receiving portion 6 when the user's hand is brought around the stick handle.

The hand receiving portion 6 fits or envelopes the player's hand relatively snugly in comparison to conventional hockey gloves, and by reason of this fact the hand is brought up closer to the overlying padding rolls 44 and 52 of the back portion 34, thereby preventing the rolls 44 and 52 from assuming a position which does not afford adequate protection to the hand. This relatively snug fit further eliminates excessive gathering of the front and intermediate pieces 10 and 16 as the hand is closed and thereby enhances the control over the stick.

Since the front piece 10 and intermediate piece 16 engage and are constantly moved along the stick and furthermore absorb much perspiration from the hand, they tend to deteriorate faster than the remaining portions of the glove 2. When the front and intermediate pieces 10 and 16 do wear out, the entire glove 2 need not undergo a reconstruction, but only the lacings 94, 96, 98 and 100 need be withdrawn and a new hand receiving portion 6 installed. This may be done manually and does not require specialized skills.

This invention is intended to cover all changes and modifications of the example of the invention herein chosen for purposes of the disclosure which do not constitute departures from the spirit and scope of the invention.

What is claimed is:

1. A hockey glove comprising: a hand receiving portion adapted to receive the user's hand and to substantially envelope the hand from the outer extremities of the fingers and thumb to at least the vicinity of the wrist, the hand receiving portion including a palm area which envelopes the hand proper of the user, finger stalls which open into the palm area and receive the user's fingers, and a thumb stall which opens into the palm area and receives the user's thumb; first padding means overlying the back of the hand receiving portion and extending uninterrupted from at least the vicinity of the user's wrist to the outer extremities of the finger stalls, finger connecting means attaching the first padding means to the hand receiving portion at the outer extremities of the finger stalls; wrist connecting means connecting the first padding means to the hand receiving portion in the vicinity of the user's wrist; the first padding means being for the most part detached from the hand receiving portion except at the finger and wrist connecting means so that the back of the hand receiving portion can flex relative to and away from the first padding means between the finger and wrist connecting means; second padding means overlying the thumb stall; and thumb connecting means connecting the hand receiving portion to the second padding means at the thumb stall.

2. A hockey glove according to claim 1 wherein the first padding means comprises a base section which is substantially continuous across the back of the palm area and is engaged by the wrist connecting means, and

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individual and separated finger sections extending from the base section and overlying the finger stalls, the finger sections being engaged by the finger connecting means, whereby the finger stalls flex independently of one another.

3. A hockey glove according to claim 2 wherein the second padding means extends outwardly beyond the outer extremity of the thumb stall; and wherein the thumb connecting means comprises a flexible connecting flap extending beyond the outer extremity of the thumb stall and means for connecting the flap to the portion of the second padding means located beyond the outer extremity of the thumb stall, whereby the outer extremity of the thumb stall can move inwardly away from the second padding means.

4. A hockey glove according to claim 1 wherein the thumb connecting means connects the outer extremity of the thumb stall with the second padding means, the wrist connecting means connects the second padding means to the palm area of the hand receiving portion in the vicinity of the user's wrist, and the thumb stall remains substantially detached from the second padding means intermediate the wrist and thumb connecting means so that the portion of the thumb stall located intermediate the wrist and thumb connecting means can flex relative to the second padding means.

5. A hockey glove according to claim 4 and further characterized by third padding means located behind the first and second padding means and extending generally around the user's arm, the third padding means being attached to the first and second padding means in the vicinity of the user's wrist.

6. A hockey glove according to claim 1 and further comprising side connecting means extending along the side of the palm area located remote from the thumb stall and connecting that side of the palm area to the first padding means.

7. A hockey glove according to claim 1 wherein the finger, wrist and thumb connecting means comprise removable lacing whereby the hand receiving portion may be completely detached and withdrawn from the first and second padding means.

8. A hockey glove comprising: a hand receiving portion which envelopes the user's hand and is formed by palm and back plies divided into finger and thumb stalls which receive the user's fingers and thumb, respectively, the hand receiving portion extending rearwardly from closed outer extremities on the finger and thumb stalls to adjacent the wrist of the user where the palm and back plies are detached for providing entrance to the

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interior of the hand receiving portion; a back padding portion having a plurality of padding sections extending over said back ply, the back padding portion being detached from the hand receiving portion except at the outer extremities of the finger stalls and at other selected locations along the periphery of the hand receiving portion so that the hand receiving portion will flex relative to the padding portion; a forearm protective portion adjacent said hand receiving portion; and attaching means connecting said back padding portion and said hand receiving portion to said forearm protective portion adjacent the user's wrist.

9. A hockey glove according to claim 8 wherein the other selected locations are along that side of the hand receiving portion from which the finger stall for the little finger projects.

10. A hockey glove according to claim 8 wherein the back padding portion comprises a base ply which overlies the back ply of the hand receiving portion and has individual finger sections which overlie the finger stalls of the hand receiving portion, the padding sections being attached to and covering substantially the entire outwardly presented surface of the base ply.

11. A hockey glove according to claim 8 wherein a second padding portion extends outwardly beyond the outer extremity of the thumb stall; wherein the thumb stall has a flexible flap projecting from it; wherein the flap is connected to the outer extremity of the second padding portion; and wherein the thumb stall is detached from the second padding portion between the outer extremity of the second padding portion and the attaching means.

12. A hockey glove according to claim 11 and further comprising a flexible web connected to and interconnecting the two padding portions.

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JORDAN FRANKLIN, Primary Examiner

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,605,117 Dated Sept. 20, 1971

Inventor(s) Roland N. Latina

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Col. 4, line 19, after "62" at the beginning of the line, the remainder of the line should be deleted and the following substituted: --
"located along the outer side of the user's forearm. From "

Signed and sealed this 18th day of January 1972.

(SEAL)

Attest:

EDWARD M. FLETCHER, JR.
Attesting Officer

ROBERT GOTTSCHALK
Acting Commissioner of Patents