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C. G. FOWLER

3,564,613

BOWLING GLOVE

Filed Oct. 20, 1969

FIG. 1

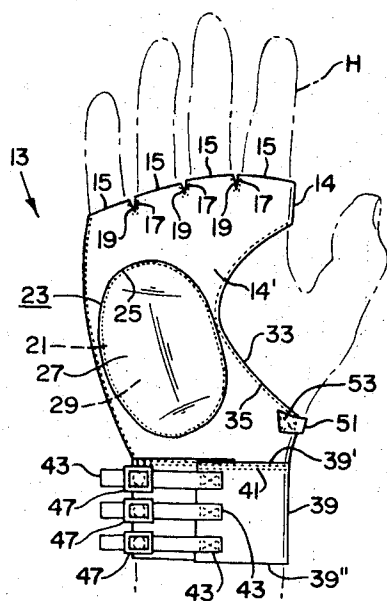


FIG. 2

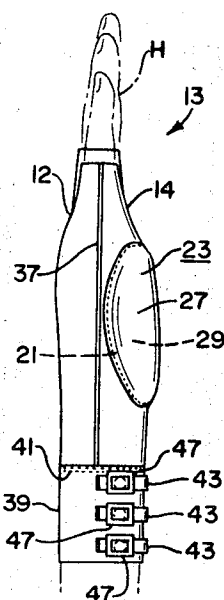


FIG. 3

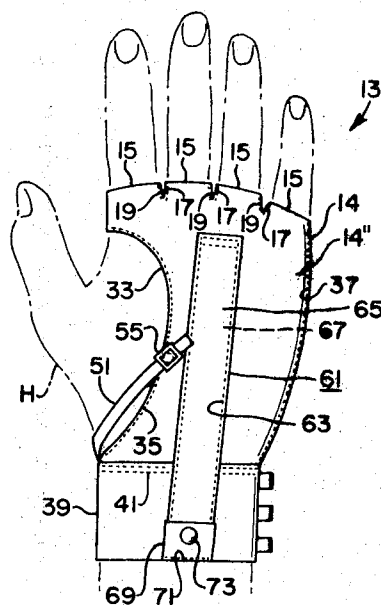


FIG. 4

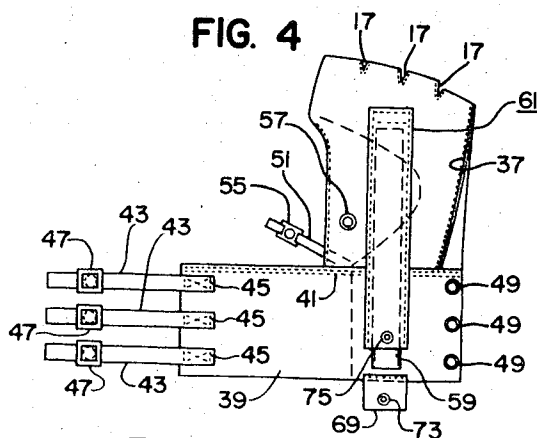


FIG. 5

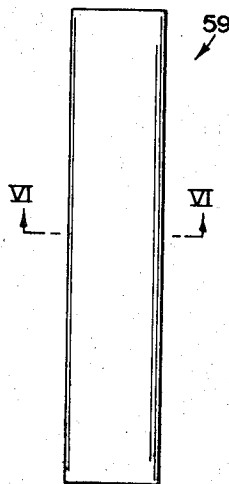


FIG. 6



FIG. 7

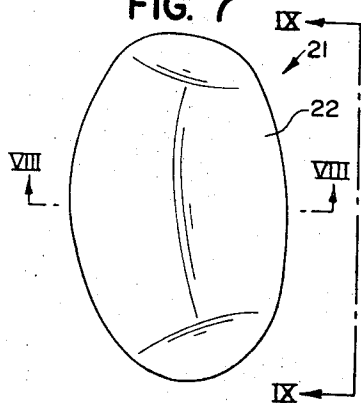


FIG. 8

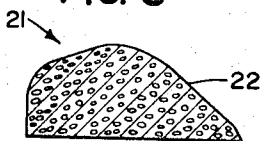
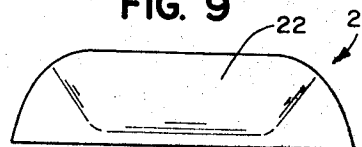


FIG. 9



INVENTOR.
CARL G. FOWLER

BY

John L. Walker, III
Attorney

1

3,564,613

BOWLING GLOVE

Carl G. Fowler, 417 Huntington,
Jonesboro, Ark. 72401

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8 Claims

ABSTRACT OF THE DISCLOSURE

A bowling glove for use by a person while participating in the sport of bowling, as an aid to him in his endeavor to develop skill or control of the bowling ball. The bowling glove includes a removable rigid stiffener piece which fits into a pocket on the back side of the glove and substantially keeps the bowler's wrist straight. The palm side of the glove includes a bulbous pad enclosed in a pocket situated over the heel of the hand and adapted to rest against the bowling ball and provides the beginning with a better feel or grip on the bowling ball.

BACKGROUND OF THE INVENTION

(1) Field of the invention

This invention relates to a bowling glove worn by a person while participating in the sport of bowling.

(2) Description of the prior art

During this decade there have been several patents issued for devices designed to fit onto the bowler's hand in one way or another and each having one distinct objective of improving the control on the bowling ball. Shirey Patent No. 3,203,006 approached the problem by putting a weighed glove on the left hand for righthanded bowlers and on the right hand for lefthander bowlers. Kovas, in his Patent No. 3,262,702, believed the solution was to somehow hold a novel pad between the ball and the bowler's hand, forming an artificial palm surface. He doesn't teach just how the bowler is supposed to don the pad so that the bowler doesn't drop it or throw it when releasing the bowling ball. Barry Patent No. 2,924,458; Anderson Patent No. 3,117,786; Stroburg Patent No. 3,235,258 and Blough Patent No. 3,269,728 each have quite massive, grotesque and cumbersome hardware intended to keep the bowler's wrist rigid, and no doubt this is precisely what each of them does. The bowler's wrist should be free to a certain degree so he may develop a feel for the correct posture, otherwise he will always be dependent upon the brace. None of the above patents provide this very important element. Meyer Patent No. 3,049,717 appeared to have an insight into this feature, but his stiffening ribs were too flexible which more or less defeated the purpose. Petti Patent No. 3,438,630 is intended to help the more experienced bowler develop advanced skills, i.e., controlling the amount of spin imparted to a bowling ball as it is released. Compiano Patent No. 3,031,680 uses a pad for the palm side of the glove but states; "It is highly desirable that the glove have good flexibility at the wrist area." He has insured that the glove will not restrict the flexibility of the wrist by forming the back side of his glove from "ordinary resilient elastic material."

SUMMARY OF THE INVENTION

The present invention is directed towards overcoming the inherent problems encountered by most beginner

2

bowlers and as a corrective device for the more experienced bowler.

It is a primary concept of the present invention to provide a glove which, when worn by a beginner bowler, will train him in developing the proper wrist posture when releasing the bowling ball and, in addition, teach him the proper way to grip the ball. The natural tendency, when swinging a bowling ball, is to bend the wrist when releasing the ball. This is due to the weight of the ball plus the force created by swinging the ball. To develop skill in bowling, one must learn to keep his wrist stiff in order to control the ball, i.e., aim at a bowling pin and roll the ball down the alley in such a manner that the ball hits the pin. This tendency to bend the wrist when releasing the bowling ball is usually very difficult to overcome. This is not hard to understand when one considers the tremendous force that is developed in the running swing of a heavy bowling ball by the bowler.

An object of this invention is to provide the beginning bowler with a training device that will assist him in keeping his wrist substantially stiff during the entire delivery sequence. The bowler's wrist must be free to a certain extent to enable him to develop a feel for the correct posture. In other words, he should constantly try to keep his wrist stiff but when he doesn't, the training device of subject invention takes over and prevents him from bending his wrist. This in effect accomplishes two things: (1) It develops enthusiasm for the game because his score is consistently higher than before; and (2) it applies pressure on the wrist letting him know he weakened and did not hold his wrist stiff but did so only because of the training device. The feature of subject invention that meets this objective is a stiffener which is removably inserted in a pocket on the back side of the bowler's glove. The stiffener extends from the first knuckles of the two middle fingers to the lower forearm. Wrist straps secure the glove to the wrist and the pocket secures the stiffener, formed of rigid aluminum or the like, to the back of the bowler's hand. Soft leather being flexible will stretch somewhat. In wearing the glove of the present invention with stiffener in the pocket, one can almost begin to bend his wrist but when he does, he feels the leather stretch, holding his wrist substantially stiff. The pocket enclosing the stiffener includes a flap which is secured with a snap fastener. After the beginning bowler believes he has achieved the necessary proficiency, he may open the flap and remove the stiffener and test his skill without the aid of this feature, then replace it when desired. The stiffener can be removed and inserted so quickly and easily that the user can remove it to facilitate drinking or smoking or the like, rather than remove the glove.

Another feature of subject invention is a bulbous pad enclosed in a pocket situated on the heel of the bowler's hand. This is also a training device and may be used independently of the stiffening training device. The beginner will find that the two devices working in conjunction with each other are necessary for a long time. Eventually he will want to remove the stiffener and train with the glove using the pad portion on the heel of his hand only. The pad is formed from foam plastic or like substance having similar resilient characteristics and is shaped to substantially conform the bowler's hand to the spherical surface of the bowling ball. The pad of present invention serves two purposes: First, it insures that the bowler will always pick up the ball the same way. This is very im-

3

portant if one hopes to develop any degree of consistency or achieve a high score. It is common knowledge to those skilled in the art of bowling that consistency is probably the key factor toward achieving a higher score. Just the slightest change in the manner in which a bowler holds the ball could adversely affect his game. Secondly, the pad of present invention provides more lift on the ball which results in better control. Continued use of bowling glove of present invention will develop a high degree of skill by: (1) Teaching the bowler to hold the ball properly, thus developing just the right grip and (2) teaching the bowler to hold his wrist stiff. Both of which are essential in maintaining a high score.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a plan view showing the glove of the present invention on the right hand of bowler with palm side up.

FIG. 2 is a side view of the right hand of bowler with heel side up.

FIG. 3 is a plan view of back side of right hand of bowler.

FIG. 4 is a plan view of the back of glove with wrist straps spread and stiffener pocket unsnapped.

FIG. 5 is a plan view of the stiffener removed from the pocket.

FIG. 6 is a sectional view taken as on the line VI—VI of FIG. 5.

FIG. 7 is a plan view of the pad before being enclosed in the glove.

FIG. 8 is a sectional view taken as on the line VIII—VIII of FIG. 7.

FIG. 9 is a front elevational view taken as on the line IX—IX of FIG. 7.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The bowling glove 13 of the present invention would be used by a person while participating in the sport of bowling. More specifically, bowling glove 13 of the present invention would be used by a person while participating in the sport of bowling in the training and early learning phases or by the more experienced bowler for correcting any bad habits such as a "break," bending of the wrist or improper grip of the bowling ball.

Referring now to the drawing, FIG. 1 depicts a hand H of an intended bowler wearing bowling glove 13 of the present invention, which is preferably made of soft leather or the like. Glove 13 has four minified finger openings 15 including three fourchettes 17 held in place by stitches 19, with seams out-turned to present a smooth surface for contacting the user's hand H. A substantially elliptical-shaped bulbous pad 21 having an inclined plane face 22 and being formed of a resilient plastic foam substance or the like is positioned in an enclosed pocket 23 well up on the heel of user's hand H. Pocket 23 has a shape conforming to pad 21 and includes a top layer of leather 27 and a bottom portion 29, which is preferably a part of the handpiece or body 14 of the glove beneath layer 27, and is attached by stitches 25, having been positioned with its longitudinal axis substantially parallel to the longitudinal axis of user's hand H and with face 22 adjacent a thumb opening 33 in glove 13. FIGS. 7-9 depict the shape of pad 21 and FIGS. 1 and 2 depict the location and substantial positioning of pad 21. Pad 21, when positioned on glove 13 as above-described, presents the maximum area of face portion 22 in contact with the spherical surface of a bowling ball and serves a two-fold purpose. First, it insures that the bowler will always pick up the ball the same way. This is very important if one hopes to develop any degree of consistency or achieve a high score. It is common knowledge to those skilled in the art of bowling that consistency is probably the key factor toward achieving a higher score. Just the slightest change in the manner in which a bowler holds the ball

4

could adversely affect his game. Secondly, pad 21 provides more lift on the ball which results in better control, that is, to aim at a bowling pin and roll the ball down the alley, hitting the pin aimed at more consistently.

Glove 13 has a large thumb opening 33 with stitches 35 sewn around the perimeter thereof, and having seams turned in to present a smooth surface to the bowling ball. Glove 13 is formed so that the palm and back of user's hand H is covered by the body portion 14 of the glove which is preferably a single piece of soft leather or the like doubled around the forefinger and with the edges brought together at the heel of user's hand H and joined by side stitching 37, with seams out-turned to present a smooth surface for contacting the user's hand H. For purposes of clarity, the portion of body 14 which is adapted to be adjacent the palm side of hand H will be designated palm portion 14' and the portion of body 14 which is adapted to be adjacent the back side of hand H will be designated back portion 14''.

A rectangular wristband portion 39, having an inner edge 39' and an outer edge 39'', is positioned so that the greater dimension is passed circumferentially around the wrist of the bowler with one end being adjacent the palm side terminator of thumb opening 33. Wristband portion 39 being positioned as above and with mating edge overlapping the outer surface of previously joined palm and back of hand piece 14 the two are joined together by a double row of stitching 41. Wristband portion 39 having a length greater than the circumference of the bowler's wrist has a portion overlapping one end when passed around the bowler's wrist. A plurality of elongated straps 43 are attached by stitches 45 to the overlapping end of wristband 39, as best viewed in FIG. 4. Each strap 43 is threaded through an adjustable buckle and snap fastener 47 which has teeth, not shown, which grip the soft leather or the like and hold snap fastener 47 at any desired point along strap 43. A plurality of snap retainers 49, one for each snap fastener 47, is positioned on wristband 39 so that the center of each snap fastener 49 is substantially the same distance from the longitudinal centerline of wristband 39 as is the longitudinal centerline of its corresponding wrist strap 43. A line passing through the center of the plurality of snap retainers 49, substantially forms an extension of a line formed by side stitching 37. Snap retainers 49 being typical are attached to wristband 39 in the conventional manner, i.e., a hole is punched through the material and one portion of snap retainer is inserted through the hole from one side of the material, then the other portion of snap retainer is placed over portion protruding through the hole on the other side of the material, and next the two portions are united with the use of a specially designed crimping tool. Snap fastener 47 having a female portion containing a snap ring is adapted to snappingly engage around male snap retainer 49. Wrist straps 43 are adjustable by sliding strap 43 through buckle and snap fastener 47 which assures a snug fit around a variety of different sized wrists.

An elongated soft leather or the like palm snigger strap 51 is positioned at the palm side terminator of thumb opening 33 so that a line representing the longitudinal axis of strap 51 is substantially an extension of lines formed by stitching 41. With strap 51 positioned as above, and one end overlapping palm portion 14' on the outside surface and this same end terminating or abutting against the end of wristband 39, it is attached to palm portion 14' by stitching 53. A buckle and snap fastener 55 identical to buckle and snap fastener 47 is threaded onto strap 51 in like manner as described for wrist straps 43. A snap retainer 57, identical to snap retainers 49, is positioned substantially midway between wristband stitching 41 and the fourchette adjacent the forefinger on back of hand piece 14 adjacent thumb opening stitches 35 where it is attached in like manner as described for snap retainers 49. Palm snigger strap 51 is adjustable by sliding back and forth through buckle and snap fastener 55 and

can be used in conjunction with wrist straps 43 to shift position of pad 21 inwardly toward the thumb or outwardly to a position well up on the heel of user's hand H. This adjustment feature not only compensates for different size hands, but also enables user to position pad 21 in a manner that best suits his individual liking or feel. It should be understood that once a user makes the necessary adjustments, glove 13 can be taken off and put on again repeatedly by unsnapping buckle and snap fasteners 47, 55, thus maintaining the same adjustments.

A rigid stiffener 59, as best viewed in FIGS. 5 and 6, formed from rigid aluminum or the like, is inserted in a pocket 61 attached to back side of glove 13. Pocket 61 includes an elongated top layer of soft leather 65 or the like, a bottom portion 67, which is a part of the back side of the body 14 beneath layer 65, a flap 69 formed of soft leather or the like having a snap fastener 73 attached and a snap retainer 75. Top layer 65, being rectangular-shaped, has a length great enough to extend from the first knuckles of the two middle fingers of user's hand H to the lower forearm, terminating on wrist band 39 near the edge thereof. Top layer 65 is positioned on the back side of glove 13 with its longitudinal axis parallel to the longitudinal axis of user's hand H with the centerline substantially forming an extension of a line formed between the two middle fingers, with the fingers being extended and brought together. After being positioned as above-described, top layer 65 is attached to glove 13 by stitching 63, with stitching 63 extending around the perimeter of top layer 65 on three sides only, leaving the end portion adjacent wristband 39 open, thus forming a main portion of pocket 61. A substantially square piece of soft leather or the like forms flap 69 which is positioned with two opposing edges in alignment with sides of top layer 65 and overlapping the open end of the main portion of pocket 61 with one edge substantially even with the uppermost edge of wristband 39, as best viewed in FIG. 3. When flap 69 has been positioned as above-described, it is attached to wristband 39 by stitching 71.

A typical snap fastener 73 is crimped in place through a hole punched in flap 69 and includes a rather flush button appearance on the top side of flap 69, and a female recess on underside of flap 69. A snap retainer 75, being a typical mate for snap fastener 73, is attached in a typical manner to top layer 65 adjacent the mouth opening of pocket 61. Snap retainer 75 has a substantially flush surface on the underneath side of top layer 65 and a protruding male portion on the top side of top layer 65 for engaging snap fastener 73. Stiffener 59, having a concave and a convex side and length extending from bottom of pocket 61 to uppermost edge of wristband 39, is inserted into the mouth opening of pocket 61 with the concave side facing user's hand H.

In use, glove 13 would be placed on the right hand with fingers extending through appropriate openings 15, with pad 21 on palm side of the hand and stiffener 59 on back side of the hand. Straps 43 are then passed around the wrist with snap fasteners 47 snapped to the appropriate snap retainer 49, palm snugger strap 51 is passed around in back of thumb and snap fastener 55 is engaged with snap retainer 57. Initially it may be necessary to adjust wrist straps 43 and/or adjust the palm snugger strap 51 as heretofore described, for proper fitness or feel. Stiffener 59 substantially makes the wrist rigid in respect to the forearm training the bowler when rolling the ball to keep his wrist stiff during the entire delivery sequence. In bowling terminology, "When you break your wrist, you pull the ball." This means that the ball does not go where you intended it to go. Stiffener 59 is intended to train the user to keep his wrist straight assuring better control of the ball, resulting in a higher score, which stimulates high interest in the game. After the user believes he has achieved the necessary proficiency, he may simply open flap 69 and remove stiffener 59 and test his skill without the aid of stiffener 59.

Stiffener 59 can be removed and inserted so quickly that the user can remove it to facilitate drinking or smoking or the like, rather than remove glove 13. A professional bowler oftentimes develops habits which adversely affect his game and glove 13 would aid him immensely in correcting these bad habits.

Although the invention has been described and illustrated with respect to a preferred embodiment thereof, it is to be understood that it is not to be so limited since changes and modifications may be made therein which are within the full intended scope of this invention.

I claim:

1. A bowling glove comprising a body portion having a palm portion and a back portion, said body portion being provided with a plurality of finger openings and a thumb opening adapted to receive the fingers and thumb of the user with the body portion covering a substantial portion of the palm and back of the user's hand, a wristband portion attached to said body portion and adapted to extend around the wrist of the user, an elongated pocket means attached to said back portion and to said wristband portion; rigid stiffener received in said elongated pocket means and extending substantially longitudinally of said glove from adjacent said finger openings, along a major portion of said back portion and substantially across said wristband portion for teaching the user to hold his wrist stiff during bowling; an enclosed pocket means attached to said palm portion, and pad means received in said enclosed pocket means.

2. The bowling glove of claim 1 in which said stiffener consists of a rigid piece of elongated metal having an arcuate shape in cross section, and in which said body portion consists of flexible and slightly stretchable material.

3. The bowling glove of claim 1 in which said pad is provided with an inclined face disposed on a side of said pad adjacent said thumb opening and adapted to be contiguous with the spherical surface of a bowling ball being held by the user of the glove.

4. The bowling glove of claim 3 in which said pad consists of a piece of resilient foam material.

5. The bowling glove of claim 1 in which adjustable fastening means is included in said glove for correctly positioning said pad adjacent the heel of the user's hand.

6. The bowling glove of claim 5 in which said adjustable fastening means includes an adjustable strap means extending across a portion of said thumb opening.

7. The bowling glove of claim 1 in which said elongated pocket means is provided with an opening at one end thereof for removing said stiffener, and in which is included closure means for said pocket means operable between a closed position covering said opening to retain said stiffener and open positions for removal of said stiffener.

8. A bowling glove comprising a body portion of flexible material having a palm portion and a back portion, said body portion being provided with a plurality of finger openings and a thumb opening adapted to receive the fingers and thumb of the user with the body portion covering a substantial portion of the palm and back of the user's hand, a substantially broad wristband portion having substantially parallel inner and outer edges, means attaching said wristband portion adjacent said inner edge thereof to said body portion in position to extend around the wrist of a user, means attached to said wristband for adjusting the size thereof to firmly grip the wrist of the user, an elongated pocket means attached to said back portion and to said wristband portion; a rigid stiffener removably received in said pocket means, said stiffener extending substantially longitudinally of said glove from adjacent said finger openings, along a major portion of said back portion and over said wristband portion to a place adjacent said outer edge of said wristband portion for teaching the user to hold his wrist stiff during bowling, an enclosed pocket means at-

7

tached to said palm portion, a bulbous pad means received in said enclosed pocket means and positioned to fit over the heel of the user's hand, said pad means including an upper side shaped to fit the spherical surface of a bowling ball held by the user.

8

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JORDAN FRANKLIN, Primary Examiner

G. V. LARKIN, Assistant Examiner

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