United States Patent [19]

Hollman

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[45] **Mar. 18, 1975**

[54] **BOWLING GLOVE**

[76] Inventor: **George A. Hollman,** 7127 Proctor Ave., Detroit, Mich. 48210

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[52] **U.S. Cl.** ..... **2/161 A,** 273/54 B
[51] **Int. Cl.** **A63b 71/14,** A41d 19/00
[58] **Field of Search** ..... 2/16, 159, 161 A; 273/54 B

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Primary Examiner—Geo. V. Larkin
Attorney, Agent, or Firm—Cullen, Settle, Sloman & Cantor

[57] **ABSTRACT**

The glove is primarily designed for a bowler, athlete or worker where it is required that the hand and wrist remain straight or in line without the wrist being permitted to bend. The glove is open at its ends to permit it to be inserted over the fingers and hand and includes a generally rectangular elongated relatively stiff pad engageable with the back side of the hand and wrist to keep the wrist from bending. An elastic band at one longitudinal edge is secured to one longitudinal edge of the pad and has the front portion at the other longitudinal edge thereof secured to the pad. The rear portion of the elastic band is provided with a strap having means for removably securing the band over the hand and wrist to the pad. The portion of the elastic band along the other longitudinal edge between the aforesaid front and rear portions define with the pad an opening therethrough which the thumb of the hand extends when the glove is applied to the hand and wrist.

9 Claims, 6 Drawing Figures

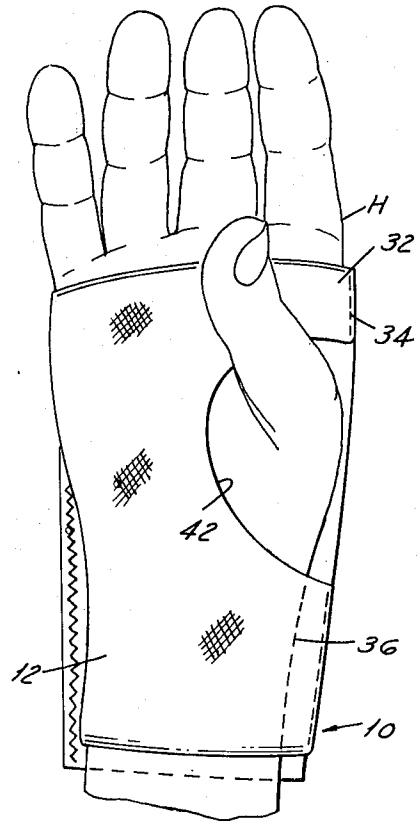


FIG. 1

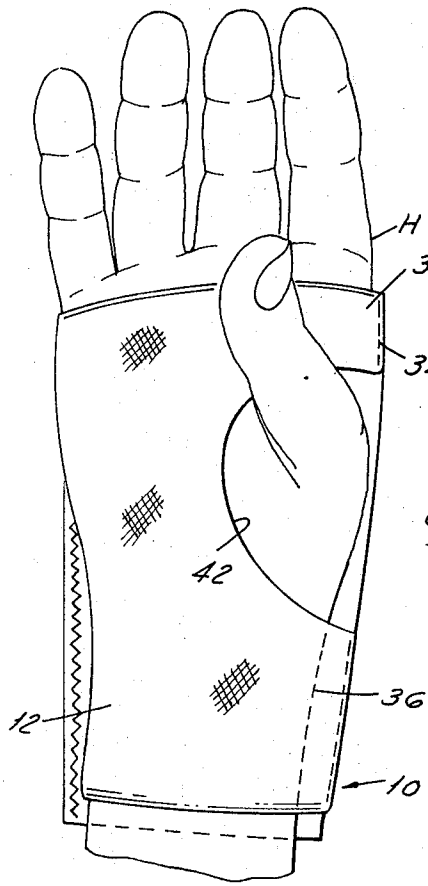


FIG. 2

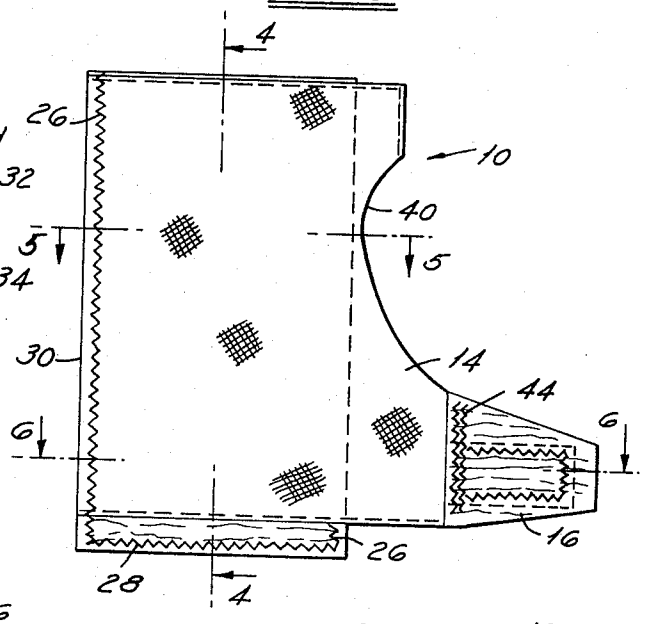


FIG. 3

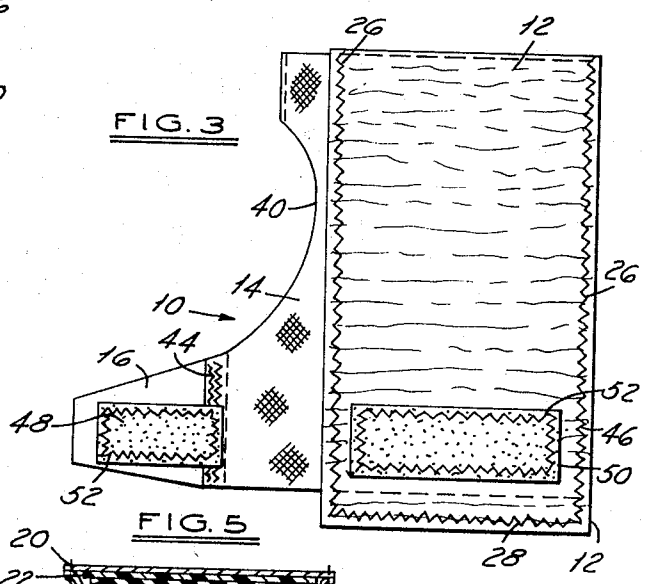


FIG. 4

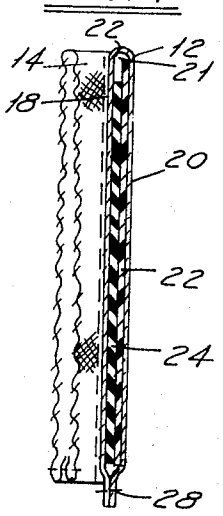


FIG. 5

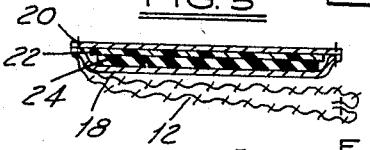
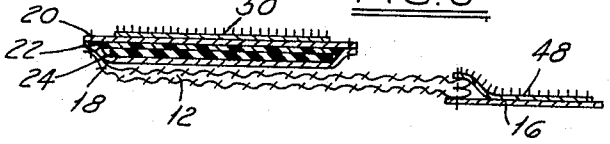


FIG. 6



BOWLING GLOVE

BACKGROUND OF THE INVENTION

1. Field of the Invention

The glove is primarily designed for use by bowlers or other athletes where it is required to maintain the hand and wrist straight. The glove can be utilized by beginning bowlers in order to teach them correct techniques on how the wrist must remain straight for effective bowling. The glove forms a restriction on the hand and wrist and keeps the wrist straight at all times.

2. Description of the Prior Art

Various types of athletic gloves have been utilized heretofore. However, none of them have been provided with a rigid stiffening element and with an elastic band having a strap armed with interlocking loop and hook fabric material which is adapted to engage corresponding material provided on the pad in order to maintain the glove on the hand and wrist, with the elastic band conforming to the shape of the hand and wrist.

SUMMARY OF THE INVENTION

A feature of the invention is providing a glove which is open at its ends to permit it to be inserted over the fingers and hand of a bowler or the like and is adapted to extend along the hand and wrist for preventing the wrist from bending. The glove includes a generally rectangular elongated relatively stiff pad engageable with the back side of the hand and wrist to keep the wrist and hand straight and an elastic band secured at one longitudinal edge thereof to one longitudinal edge of the pad.

A further feature of the invention is in providing a pad which includes a pair of layers of sheet material having interposed therebetween a relatively flat stiffening element, with the mating edges of the layers being secured together to enclose the stiffening element. The front portion of the elastic band along the other longitudinal edge thereof is secured to the pad. The rear portion of the band is provided with means for removably securing the band over the hand and wrist to the pad. With such a construction the portion of the pad along the other longitudinal edge between the front and rear portions define with the pad an opening through which the thumb of the hand extends when the glove is applied to the hand and wrist.

Another feature of the present invention is to provide a glove including a strap attached to the free edge of the elastic band with the strap having a portion of the surface thereof armed with first interlocking loop and hook fabric material. The top side of the pad also is armed with second interlocking loop and hook fabric material. With such a construction the first fabric material on the strap is engageable with the second fabric material to secure the glove on the hand.

Still another feature of the present invention is to provide a glove wherein the flat stiffening element is formed of plastic material.

A further feature of the present invention is to provide a glove wherein the layers of sheet material are formed of Vinyl plastic material.

A still further feature of the present invention is to provide a glove wherein the pad includes a yieldable or soft cushion between said stiffening element and the layer adjacent the hand and wrist.

Another feature of the present invention is to provide a glove wherein the elastic band is made from a porous

fabric material which stretches in several directions to conform the elastic band to the shape of the hand and wrist.

IN THE DRAWING:

FIG. 1 is a plan view of the glove applied to the hand;

FIG. 2 is a front view of the glove;

FIG. 3 is a back view of the glove.

FIG. 4 is a longitudinal sectional view taken on line 4—4 of FIG. 2;

FIG. 5 is a transverse sectional view taken on the line 5—5 of FIG. 2; and

FIG. 6 is a transverse sectional view through the glove and strap taken on the line 6—6 of FIG. 2 and showing the interlocking loop and hook fabric material means.

DESCRIPTION OF A PREFERRED EMBODIMENT

The glove **10** is illustrated in FIG. **1** applied to the hand H. The glove **10** is elongated and is adapted to snugly fit the hand and wrist as illustrated. The glove **10** includes an elongated and relatively stiff pad **12** which overlies and engages the back side of the hand and wrist and an elastic fabric type band **14** having a strap **16** thereon, with the fabric band **14** engaging the front side of the hand and wrist and conforming to the shape thereof as shown in FIG. **1.**

The relatively rigid pad **12** is of rectangular configuration and comprises front and back layers **18** nd **20** respectively of sheet material such as "Vinyl". The layers **18** and **20** may be made from one piece as illustrated and folded at **22** as shown in FIG. **4** to form a pair of layers or may be made from two separate pieces which are superimposed together and secured throughout the entire periphery thereof. The layers **18** and **20** are spaced apart (FIG. **4**) and located within the space **21** is a relatively rigid stiffening element **22** made, as an example, from a plastic material such as polyethylene and a soft and yieldable cushion **24** made, as an example, from sponge rubber or other yieldable material. The soft cushion **24** abuts the front layer **18** which in use is against the hand and wrist.

The stiffening element **22** and cushion **24** are each elongated and of generally rectangular configuration and are placed between the layers **18** and **20** after which time the layers are stitched at **26** along the longitudinal edges and stitched at **28** along the transverse adjacent edges of the layers noted in FIGS. **2** and **3.**

The elastic fabric band **14** has a length slightly less than the pad **12** and may be made from any of the commercially available stretchable fabric materials on the market such as "Lykra". The band **14** has a longitudinal edge **30** secured by stitching throughout its longitudinal extent to one longitudinal edge of the pad **12.** The front portion **32** of the band **14** at the other longitudinal edge of the elastic band **14** is secured at **34** by stitching to the pad **12.**

The rear portion **36** of the band **14** at the other longitudinal edge of the elastic band is removably secured to the pad **12** by fastening means to be subsequently described. The elastic band **14** is cut away at **40** and is not secured to the pad **12.** Thus the intermediate cut-a-way portion **40** of the elastic band **14** forms with the pad **12** an opening **42** through which the thumb extends as illustrated in FIG. **1.** The strap **16** is secured to the elastic band **14** by stitching as indicated by the numeral **44** in FIGS. **2** and **3.**

In accordance with the preferred embodiment of the present invention, the strap **16** and a matching portion **46** on the back side of the pad **12** are provided with strips **48** and **50** formed from fabric material, such as nylon tape, wherein the fabric surface is covered with minute hooks and minute loops respectively. When a hook armed fabric surface is pressed into contact with a loop armed surface, the respective surfaces lock together and can be peeled apart only by the exertion of a certain amount of force.

It should be appreciated that the fabric of strip **48** may be hook armed or loop armed, but that in any event the strip **50** should be equipped with the opposite armament. In accordance with the preferred embodiment of the present invention, the strip **48** is hook armed and the strap **50** is loop armed. The loops can be easily discerned by the fact that they form a pile surface; while the hooks form a surface that is harsh and unyielding to the touch. A commercial form of this fabric structure is known as VELCRO. The strips of fabric **48, 50** are fastened to the strap **16** and pad **12** by stitching **52** or by other conventional means such as adhesive.

VELCRO (VELCRO S.A., Fribourg, Switzerland) is a velvet type fabric comprising a structure including a plurality of auxiliary warp threads of a synthetic resin material in the form of raised pile threads, the terminal portions of which are at least in part in the form of material-engaging hooks; U.S. Pat. No. 2,717,437.

The elastic fabric **12** is of two way stretchable material used in body garments.

What I claim as my invention is:

1. A glove open at its ends to permit it to be inserted over the fingers and hand of a bowler or the like and adapted to extend along the hand and wrist for preventing the wrist from bending comprising a generally rectangular elongated relatively stiff pad engageable with the back side of the hand and wrist to keep the wrist and hand straight and an elastic band secured at one longitudinal edge thereof to one longitudinal edge of said pad, said pad including a pair of layers of sheet material having interposed therebetween a relatively flat stiffening element, the mating edges of said layers being secured together to enclose said stiffening element, the front portion of said band along the other longitudinal edge thereof being secured to said pad, the rear portion of said band having means for removably securing the band over the hand and wrist to said pad, the portion of said pad along said other longitudinal edge between said front and rear portions defining with said pad an opening through which the thumb of the hand extends when the glove is applied to the hand and wrist.

2. The glove according to claim **1** wherein said means include a strap having a portion of the surface thereof armed with first interlocking loop and hook fabric material, the top side of said pad also being armed with second interlocking loop and hook fabric material, said first fabric material on said strap being engageable with said second fabric material.

3. The glove according to claim **2** wherein said elastic band is made from a porous material which stretches in several directions to conform to the shape of the hand.

4. The glove according to claim **2** wherein said flat stiffening element is made from polyethylene, said layers of sheet material being formed from vinyl plastic material, a soft and yieldable cushion interposed between said stiffening element and the layer adjacent the hand and wrist, said elastic band being made from a porous material which stretches in several directions in order to conform to the shape of the hand.

5. The glove according to claim **4** wherein said mating edges of said layers are secured together by stitching.

6. The glove according to claim **1** wherein said flat stiffening element is formed of plastic material.

7. The glove according to claim **6** wherein said layers of sheet material are formed of vinyl plastic material.

8. The glove according to claim **1** wherein said pad includes a yieldable cushion between said stiffening element and the layer adjacent the hand and wrist.

9. The glove according to claim **5** wherein said yieldable cushion is formed of sponge rubber material.

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