United States Patent [19]

Brigidi

[11] **3,772,706**

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[54] **BOWLING GLOVE**

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[52] **U.S. Cl.** ..... **2/161 A, 273/54 B**

[51] **Int. Cl.** **A41d 19/00**

[58] **Field of Search** ..... 273/54 B; 2/16, 20, 2/161 A, 161, 159, 160

[56] **References Cited**

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[57] **ABSTRACT**

The front panel of a bowling glove is provided with a pocket for receiving a quadrant-shaped spring means for accelerating a bowling ball at the time of the thumb release.

10 Claims, 5 Drawing Figures

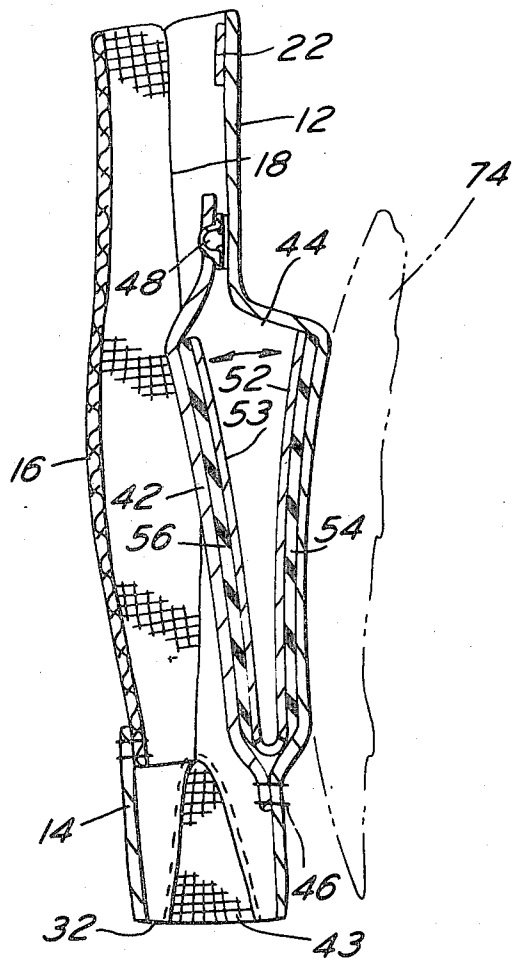


FIG. 1

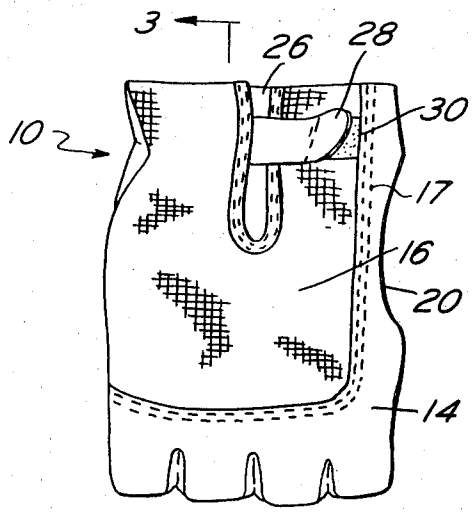
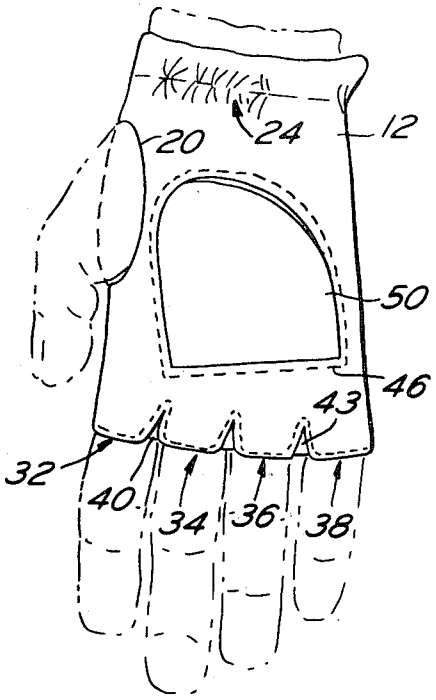


FIG. 2



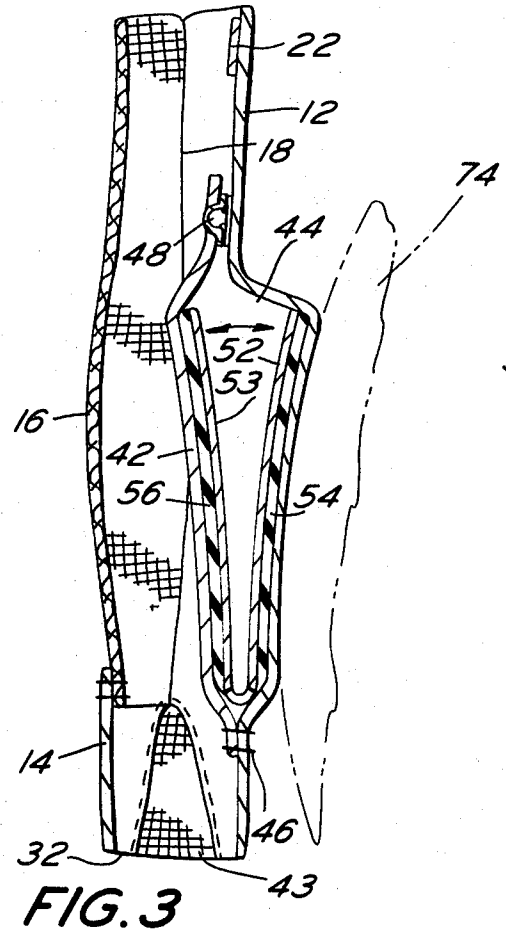
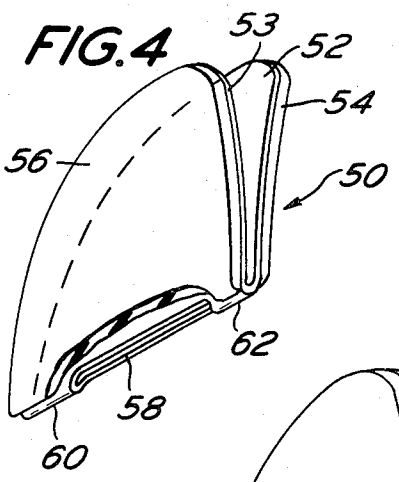


FIG. 3

FIG. 4



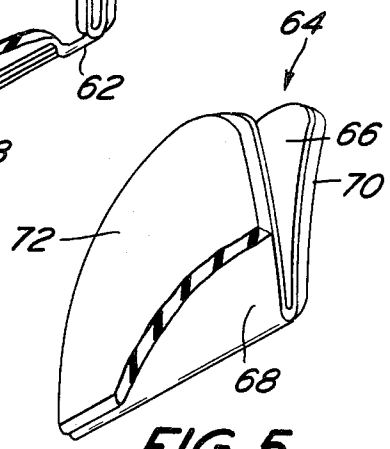


FIG. 5

BOWLING GLOVE

This invention is directed to a bowling glove wherein the front panel is provided with a pocket for receiving spring means. The spring means is preferably quadrant-shaped with at least one concave surface. The spring means is compressed while the bowling ball is held. At the time of thumb release, the spring means expands to accelerate the bowling ball with overspin.

Details with respect to the major portion of the glove may be conventional. A preferred type of glove is disclosed hereinafter. The preferred type of spring means is quadrant-shaped in elevation and V-shaped in cross section so as to have quadrant-shaped legs. The legs are connected together by hinge means and each leg is preferably concave on its major face with the radius of curvature of each leg preferably equating that of a bowling ball, namely about 4 to 5 inches. Each major face of the legs of the spring means may be provided with a cushioning pad made from hard rubber or the like.

The use of bowling gloves having cushioning members associated therewith is known. See, for example, U.S. Pat. Nos. 3,031,680; 3,123,832; 3,421,160; 3,564,613; 3,581,312; and 3,606,319. However, none of these patents teach or suggest the use of a compressible spring means which is expanded at the time of thumb release to aid in acceleration of the bowling ball.

It is an object of the present invention to provide a novel bowling glove.

It is another object of the present invention to provide a bowling glove wherein a front panel is provided with spring means for accelerating the ball at the time of the thumb release.

It is another object of the present invention to provide a bowling glove having replaceable spring means so that spring means of different strengths may be substituted for one another depending upon the weight of the ball being utilized.

It is another object of the present invention to provide a bowling glove having discharge or acceleration means while being structurally interrelated in a manner which is simple, reliable, and economical to manufacture.

Other objects will appear hereinafter.

For the purpose of illustrating the invention, there are shown in the drawings forms which are presently preferred; it being understood, however, that this invention is not limited to the precise arrangements and instrumentalities shown.

FIG. 1 is a rear elevation view of the glove of the present invention.

FIG. 2 is a front elevation view of the glove with the hand of the wearer shown in phantom.

FIG. 3 is a sectional view taken along the line 3—3 in FIG. 1, with a bowling ball shown in phantom.

FIG. 4 is a perspective view of the spring means shown in FIG. 3 but partly broken away for purposes of clarity of disclosure.

FIG. 5 is a perspective view of another type of spring means in accordance with the present invention, and partially broken away for clarity of disclosure.

Referring to the drawing in detail, wherein like numerals indicate like elements, there is shown in FIG. 1 a bowling glove in accordance with the present invention designated generally as **10**. The bowling glove **10** is shown in rear elevation in FIG. 1 and in front elevation in FIG. 2.

The glove **10** includes a front panel **12** and a rear panel **14**. If desired, the rear panel **14** may be provided with a knit fabric insert **16**. The front and rear panels **12** and **14** are joined together in any convenient manner with one or more seams **18**. The front and rear panels **12** and **14** may be made from a wide variety of materials and preferably are made from a polymeric plastic material simulating leather and coated with knited fabric on their inner surface. Such materials enable the glove to be sold at a reasonably low price. More expensive materials could be used if desired.

If the rear panel **14** is provided with a fabric insert **16**, the same are joined together by the stitching **17**. The insert **16**, when made from a knitted fabric, provides comfort, an amount of stretch satisfactory to accommodate the different positions of the person's hand during bowling, and provides for a satisfactory amount of air flow to the hand to prevent undesired sweating of the hand. In place of the insert **16**, the rear panel **14** could be provided with a large number of perforations.

At the intersection of the front and rear panels **12** and **14** there is provided a thumb opening **20**. The thumb opening **20** is located so as to have a major portion thereof in the front panel **12**. If desired, the elastic strip **22** may be stitched to the inner surface of the upper edge of the front panel so as to provide gathers **24**.

The insert **16** is provided with a notch **26** extending downwardly from the upper edge. The notch is defined by binding stitched thereto. A strap **28** has one end joined to the binding and extends across the notch **26**. The free end of strap **28** may be secured in any convenient manner but is preferably adjustable by the use of Velcro strips **30**. In this manner, the glove may be adjustable to accommodate the hands of different sized persons.

The front and rear panels **12** and **14** are open at the top and bottom. At the bottom edges, the panels **12** and **14** are provided with finger holes **32, 34, 36** and **38**. A knitted fabric strip **40** is stitched to the lower edges of the front and rear panels **12** and **14** to delineate finger hole **34** from finger hole **32**. A similar strip is provided to delineate finger hole **34** from finger hole **36** and a similar strip **43** delineates finger hole **36** from finger hole **38**.

A pocket panel **42** is stitched to the inner surface of front panel **12** by stitching **46** thereby defining a pocket **44** therebetween. As shown in FIG. **2**, the upper edge may be sewn to panel **12** when it is desired to permanently secure panel **42** to the panel **12**. The upper edge of panel **42** is preferably releasably connected to the panel **12** in any convenient manner such as by snaps **48** as illustrated in FIG. **3**. In place of snaps **48**, other equivalent devices could be utilized such as a button and buttonhole, Velcro strips, etc.

A spring means **50** is disposed within the pocket **44**. As shown more clearly in FIGS. **2** and **4**, the spring means **50** is quadrant-shaped in elevation whereby it represents approximately one-quarter of a circle. As shown more clearly in FIG. **3**, the spring means **40** is V-shaped in cross section and provided with legs **52** and **53** of spring steel. I have found that the legs may be made from spring steel having a thickness of about 0.02 inch.

The legs **52** and **53** of the spring means **50** are mirror images of one another. Each leg **52, 53** is concave with the radius of curvature being approximately 4 to 5

inches so as to correspond generally to the radius of a bowling ball. A hard rubber pad **54** is secured to the leg **52** in any convenient manner such as by use of adhesive. A similar pad **56** is attached to the major face of leg **53.**

The bight portion of the spring means **50** is provided with a notch **58** so as to define hinges **60** and **62** at opposite ends thereof. The bight portion of the spring means **50** is straight and disposed at an acute angle of approximately 5° to 10° with respect to the horizontal as shown more clearly in FIG. **2.** The thusly described disposition of the spring means **50** is attained by the shape and location of the pocket **44** which in turn is defined by the stitching **46.**

The glove **10** is shown in FIG. **3** juxtaposed to a periphery of a bowling ball **74.** When the glove **10** is worn, and the wearer's fingers enter the holes in the bowling ball **74,** the spring means **50** is collapsed against the heel of the palm of the wearer. When the ball is released and the thumb withdrawn from the thumb-hole of the bowling ball **74,** spring means **50** expands and accelerates the bowling ball **74** off the tips of the fingers of the wearer with overspin.

In FIG. **5,** there is disclosed a spring means **64** which may be substituted for the spring means **50.** Spring means **64** requires less pressure in order to be collapsed and hence would be used with a lighter weight ball. Spring means **64** is similar to spring means **50** in that it is generally quadrant-shaped in elevation, and V-shaped in cross section. A rubber pad **70** is secured to the concave face of leg **66** and a similar pad **72** is secured to the concave face **68.**

The spring means **64** differs from the spring means **50** in the following respects. There is no notch at the bight of the spring means **64.** Also, the legs **66** and **68** are made from a polymeric plastic instead of metal. If desired, it is possible to attain a spring means requiring a lighter weight to collapse the same by using thinner metal than 0.02 inch. That is, it is not necessary to resort to the use of plastics for interchangeable spring means.

As will be apparent from FIG. **3,** the pocket **44** is larger than the size of the spring means **50.** Thus, it is necessary to provide a pocket of sufficient size so as to accommodate the spring means in its open disposition as shown in FIG. **3.**

The curvature of the legs of the spring means **50** and **64** provides for a successful contact between the palm and the ball, relieves excessive thumb pressure on the ball in addition to the acceleration and overspin. While the size of spring means **50, 64** may vary, I prefer to use the same wherein the bight has a length of about 2-¼ inches. While the pads **54, 56, 70, 72** may be made from various materials, I prefer to use hard rubber about one-eighth inch thick.

The present invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof and, accordingly, reference should be made to the appended claims, rather than to the foregoing specification as indicating the scope of the invention.

I claim:

1. A bowling glove comprising front and rear panels open at the top end, at least one of said panels having finger holes at the bottom end and having a thumb hole, said front panel having a pocket adjacent the heel of the palm, a spring means in said pocket, said spring means being generally V-shaped in cross section with first and second legs connected together at the bight, the ends of said first and second legs remote from the bight being spaced from one another when the spring means is in inoperative uncompressed condition, said bight being closer to the finger holes than to the open top end.

2. A glove in accordance with claim **1** wherein said bight is provided with a notch so as to define a hinge between the legs and said ends of said first and second legs substantially contacting one another when the spring means is in operative compressed condition.

3. A bowling glove in accordance with claim **1** wherein at least one of said legs is concave with a radius of curvature of approximately **4** inches.

4. A bowling glove in accordance with claim **3** wherein said one leg is provided with a hard rubber pad attached thereto.

5. A bowling glove in accordance with claim **1** wherein said legs are connected together along the entire length of the bight.

6. A glove in accordance with claim **1** wherein said first and second legs are provided with hard rubber pads attached thereto, said spring means being adapted to expand upon release of a bowling ball to aid in accelerating the bowling ball.

7. A bowling glove in accordance with claim **1** wherein said pocket is defined by a pocket panel stitched to said front panel, and means releasably connecting the upper edge of the pocket panel to the front panel whereby the spring means is removable and replaceable.

8. A bowling glove in accordance with claim **1** wherein said first leg of the spring means is juxtaposed to said front panel and concave, said second leg being between said first leg and the rear panel, said second leg being concave, with the radius of curvature of said legs being substantially the same and approximately 4 inches.

9. A bowling glove comprising a front panel having a pocket adjacent the heel of the palm, a spring means in said pocket, said spring means being generally V-shaped in cross section with first and second legs connected together at the bight, said spring means being generally quadrant-shaped in elevation, and each leg being concave.

10. A bowling glove in accordance with claim **9** including a rubber pad secured to the concave face of each leg.

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