

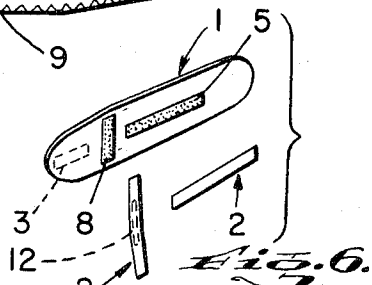
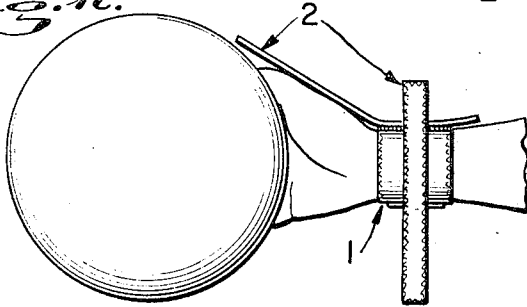
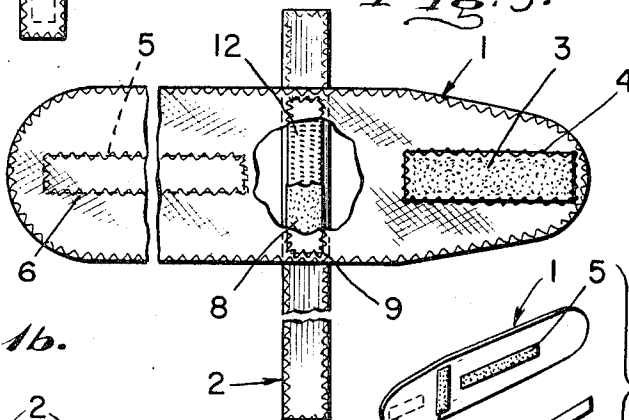
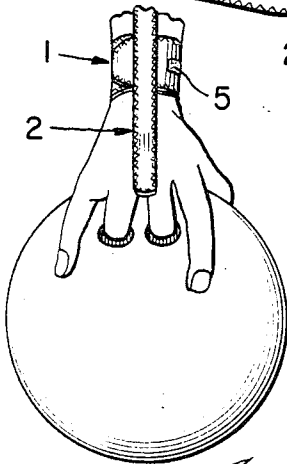
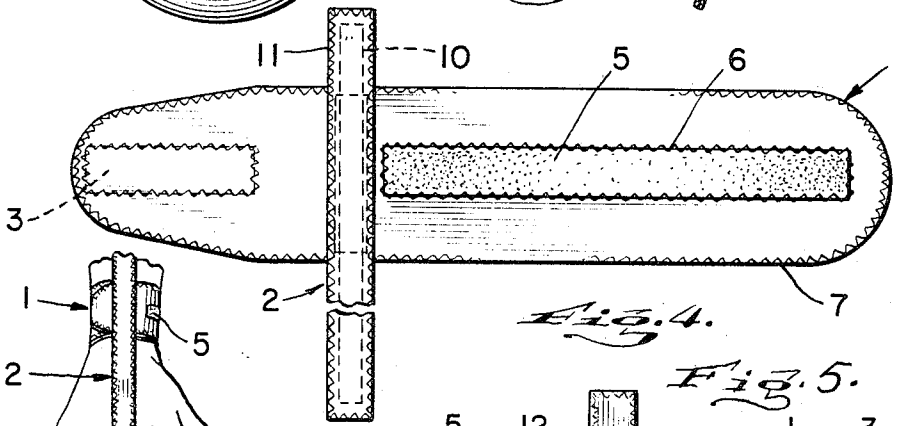
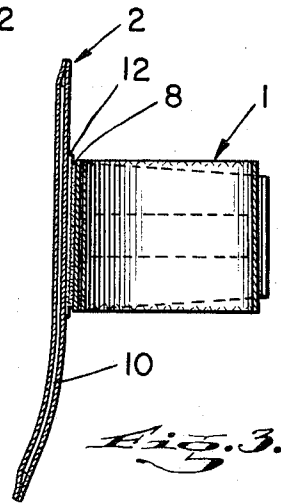
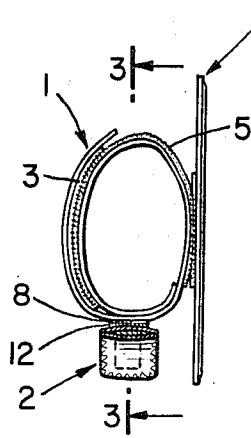
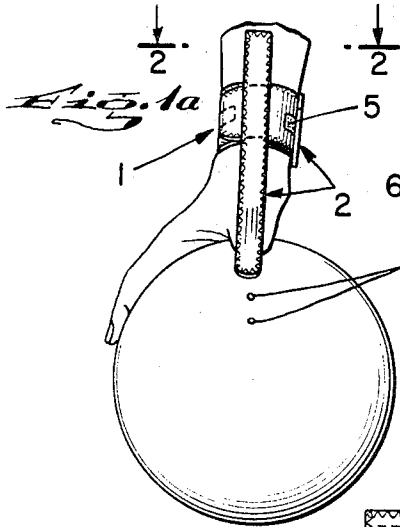
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BOWLING BALL GRIP POSITION INDICATOR

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3,436,075

BOWLING BALL GRIP POSITION INDICATOR

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2 Claims

ABSTRACT OF THE DISCLOSURE

A position indicating means for hand and arm position determination in games and sports characterized by an infinitely adjustable wristband and a pair of pointer elements separately detachably mountable on the wristband in selected positions either lengthwise or transversely of the length of the wristband to indicate to the user a correct position of the hand and arm in a movement in the game or sport in which the user is engaged.

This invention relates to action sports such as bowling, tennis, golf and the like wherein the correct manipulation of a ball, as, for example, a bowling or duckpin ball, or a ball impelling implement such as a golf club, a tennis or squash racket or even a baseball bat, is essential to proficient performance.

The principal object of the invention is to provide a readily applicable and detachable means including a wristband by which a player either in practice or in an actual game, may judge his arm and hand position while playing and to be enabled thereby to maintain his hand and arm in a most nearly correct attitude for the actions thereof being executed; said means comprising generally a quickly applied and removed wrist encircling band element and one or more elongated, semirigid pointer elements which are readily attachable to and detachable from the band in various positions thereon with resultant establishment of reference points or planes of movement of the hand and arm from which the maximum efficiency in playing is deemed to be derived.

Another object of the invention is to provide a device in which the foregoing objective is realized in practice and which is economical to manufacture, convenient to use, and which may be employed by the user for checking characteristics of his movement in the game involved and thereby improving his performance of those movements.

With the foregoing objects in view, together with such additional objects and advantages as may subsequently appear, the invention resides in the parts, and in the combination, construction and arrangement of parts, described, by way of example, in the following specification of a presently preferred embodiment of the invention, reference being had to the accompanying drawings which form a part of said specification and in which drawings:

FIG. 1a is a view of the right hand of a bowler to which the illustrated embodiment of the invention has been applied including a pointer element positioned to indicate the manner in which the device is most often used by bowlers, i.e., to insure that the hand is properly turned to bring the ball into the thrust line of the swing by which the ball is delivered, the view being taken as from in front of the bowler and the hand and ball being deemed to be that occupied just prior to the time of release of the ball,

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FIG. 1b is a view taken as looking at the left hand side of FIG. 1a with the device arranged to check another factor in hand position in bowling,

FIG. 1c is a view of the device applied as in FIG. 1a with an additional pointer element applied thereto to afford a means of reference for indicating or detecting variations in the position of the hand in the swing thereof for delivery of the ball, the view being taken looking to the right with the hand of the bowler holding the ball being disposed horizontally in front of the bowler preparatory to starting his forward step and back swing for delivery of the ball,

FIG. 2 is an enlarged top plan view of the applied device as viewed from the plane of the line 2-2 of FIG. 1a, a portion of the pointer element shown in edge elevation being broken away to conserve space,

FIG. 3 is a transverse sectional view as on the line 3-3 of FIG. 2, a portion of the pointer element shown in edge elevation being broken away to conserve space,

FIG. 4 is an external plan view of the device before application to the wrist of the user with two of the pointer elements attached thereto,

FIG. 5 is an internal face plan view of the device with a pointer element attached thereto, a portion of the band component being broken out to conserve space, and

FIG. 6 is a reduced scale, perspective view of the wrist band element and the two pointer elements in exploded relation to one another.

Before going into a detailed description of the illustrated embodiment of the invention it should be stated that while the disclosure thereof relates only to bowling, experimental uses of the device have disclosed it to be useful also in those sports which, as in golf, baseball, tennis, squash, and the like, involve implements for impelling the ball and in which the correctness of holding and swinging such implements is essential to the most proficient playing of the game or sport. Accordingly, the invention is not to be deemed to be limited to the use here disclosed by way of example.

Referring now to the drawings, the illustrated embodiment of the invention comprises a flexible wristband component or element 1 hereinafter, for convenience, called the "band" and at least one elongated, semi-rigid pointer element 2, hereinafter called the "pointer," said band and pointer having means by which they may be detachably interengaged for various purposes, some of which will be described by way of example. Portions of the surfaces of these components are adapted to be detachably interengaged by suitable means, the illustrated means being sections of a commercially available device generally known by the trademark "Velcro" and including one member having a loosely felted surface and another member having a plurality of closely spaced hook elements adapted to have the rounded ends thereof capable of penetrating the felted surface component and engaging the fibers thereof until forcibly pulled therefrom. For convenience these surfaces will be referred to as the "felted" and "hook" surfaces or materials, respectively.

The band component comprises a strip of flexible, fabric lined plastic material of sufficient length to extend around the wrist with a considerable amount of overlap whereby to be enabled to encircle even very large wrists. Adjacent to one end thereof, the fabric coated or inner face of the band carries a short length 3 of the "hook" surface material disposed in the longitudinal center line and secured thereto by zigzag stitching 4. On

the outer surface thereof, the band carries a complementary centrally disposed strip 5 of the felted surface material extending from the opposite end of the band to a point approximately at the midlength of the band and said felted material is similarly secured by zigzag stitching 6, the length of this felted material affording a margin of adjustment for various sizes of wrists while also leaving a portion of the felted material 5 exposed for other purposes to be later referred to.

The ends of the band component are preferably rounded to facilitate ornamentation and protection thereof by suitable overedge stitching as shown at 7, the rounded ends thus facilitating application of the edging without stopping for corners. At about the midlength thereof the outer surface of the band component 1 is provided with a transversely extending length 8 of felted material secured thereto by zigzag stitching 9.

Each pointer element 2 comprises at least two plies of the said plastic material disposed with the fabric surfaces thereof facing each other and housing an interposed stiffening strip 10, the plies being stitched together along their edges by overedge stitching 11 which also secures a length of hook material 12 on one side of the pointer and which extends from one end of the pointer to a point slightly short of the opposite end. As will now be described, after the wristband element 1 is placed about the wrist and turned thereon to the desired position, one or both of the pointer elements may be attached to the felted material in desired positions for various uses, some of which will now be described.

Referring first to FIG. 1a, one of the pointers 2 is attached to the transverse felted strip 8 in such position that it extends generally parallel to the center line of the forearm and with the end thereof disposed at about the first joint of the thumb when the hand is holding a bowling ball in the position shown. The pointer in this position enables the bowler to assure himself that the ball is being held correctly and with the thrust line developed by the swing of his arm vertically intersecting the center of the ball as it is released to the alley surface. For practice and instruction purposes, this may be facilitated by painting or otherwise applying small aligned dots as at A to the ball surface or drawing a line thereon in a line represented by the dots which are intended to be maintained in line with the pointer. Such marking of a ball is, of course, not tolerated except for training and instruction or practice purposes. The idea is that the thumb hole of the ball at the moment of release of the ball should be in the center of a vertical plane intersecting the center of the ball and in the line of delivery of the ball or, in other words, the whole forward swing should be in the vertical plane defined by this pointer. This enables the bowler to guard against crooking the wrist sideways.

Another use of the device is shown in FIG. 1b in which the band and pointer are turned on the wrist so that the pointer extending at right angles to the band now extends toward the knuckles of the hand as it holds the ball. In this position, the bowler can check the angle of his hand in the plane of ball delivery while adhering to the principle of the first described use. With the pointer directed along the line of the center of the forearm and the hand held so that the pointer is aligned with the space between the knuckles of the second and third fingers, the released ball will have a full roll down a line between the thumb hole and the nearest of the finger holes to the thumb hole. With the wrist cocked rearwardly or so that the pointer is directed more toward the knuckle of the index finger, the ball will have only a partial roll and the ball track or plane of roll will not be perpendicular to the alley surface. Experimentation with various angular positions of the wrist will enable the bowler to employ various types of roll of the ball for given results. Once the techniques are mastered, the device is no longer used except to check for faults which may develop.

A third use is shown in FIG. 1c in which a second pointer 2 is applied to the exposed portion of the felted material strip 5 so that it extends vertically when the ball is held as shown in that figure. This pointer, by its position, determines the angular position of the hand as the ball is to be released and, as viewed by the bowler, this indicator is moved clockwise to about the one o'clock position, having reference to the circle of the ball held with the hand held horizontal facing the bowler and being positioned approximately centrally thereof the swing of the arm will produce a normal full roll ball. If, maintaining the said thumb hole position of the ball, the hand is turned so that the pointer is in effect turned counterclockwise, the ball will tend to curve or "hook" to the left for a right handed bowler and turning the hand further clockwise past the said "one o'clock" position tends to give the ball a backup or "reverse hook" for a right handed bowler. As before stated, this device is useful as a teaching, training and checking aid, and while the uses above described have been confined to bowling, experiments have shown that tennis players, golfers, and baseball players have found it useful as affording a means for giving them points of reference in studying their movements in swinging the ball impelling implements of those sports. In this connection, it is to be noted that while the pointers shown and described have been shown as applied longitudinally of and transversely of the band component, the "Velcro" material enables the pointers to be placed on the exterior surface of the band material not only in the illustrated positions but in any other angular position which the user may find advantageous for such study as he may be making.

While in the foregoing specification there has been disclosed a presently preferred embodiment of the invention, such disclosure has been by way of example, wherefore, it is not to be deemed that the invention is limited to the precise details of construction thus shown by way of example and it will be understood that the invention includes as well, all such changes and modifications in the parts and in the construction, combination and arrangement of parts as shall come within the purview of the appended claims.

I claim:

1. A device for indicating and determining correct hand and arm position and movement in execution of movements in games and sports in which correct hand and arm position and movement is essential to proficient activity in the sport or game involved; said device comprising a wristband formed from a strip of flexible material and provided with fastening means adapted to adjustably detachably secure said wristband about the wrist of a user, and at least one, elongated, semi-rigid pointer element, interengageable means on the outer surface of said band and a surface of said pointer element effective to permit detachable mounting of said pointer element on said wristband at a desired point longitudinally of said pointer element and selectively either longitudinally of the length of the strip constituting said wristband or transversely thereof, and at a point thereon in alignment with a selected digit of the hand, the inner face of said wristband strip at one end thereof being provided with one component of a Velcro fastening means and the outer face of said strip at the opposite end thereof being provided with the other component of said fastening means whereby said band is infinitely adjustable for various sizes of wrists and desired degrees of tightness, said outer surface of said wristband strip being further provided with second and third portions of a component of Velcro fastening means extending, respectively, transversely and longitudinally of the length of said strip, and said pointer element being provided with the complementary component of Velcro fastening means on one surface thereof for selective engagement with either of said second and third portions of Velcro fastening means.

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2. A device as claimed in claim 1 in which said second and third portions of Velcro fastening means components are so disposed relative to each other that two of said pointer elements may be mounted one each thereon without interference with each other.

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U.S. Cl. X.R.

10 33—174; 116—114; 273—29, 54, 189