

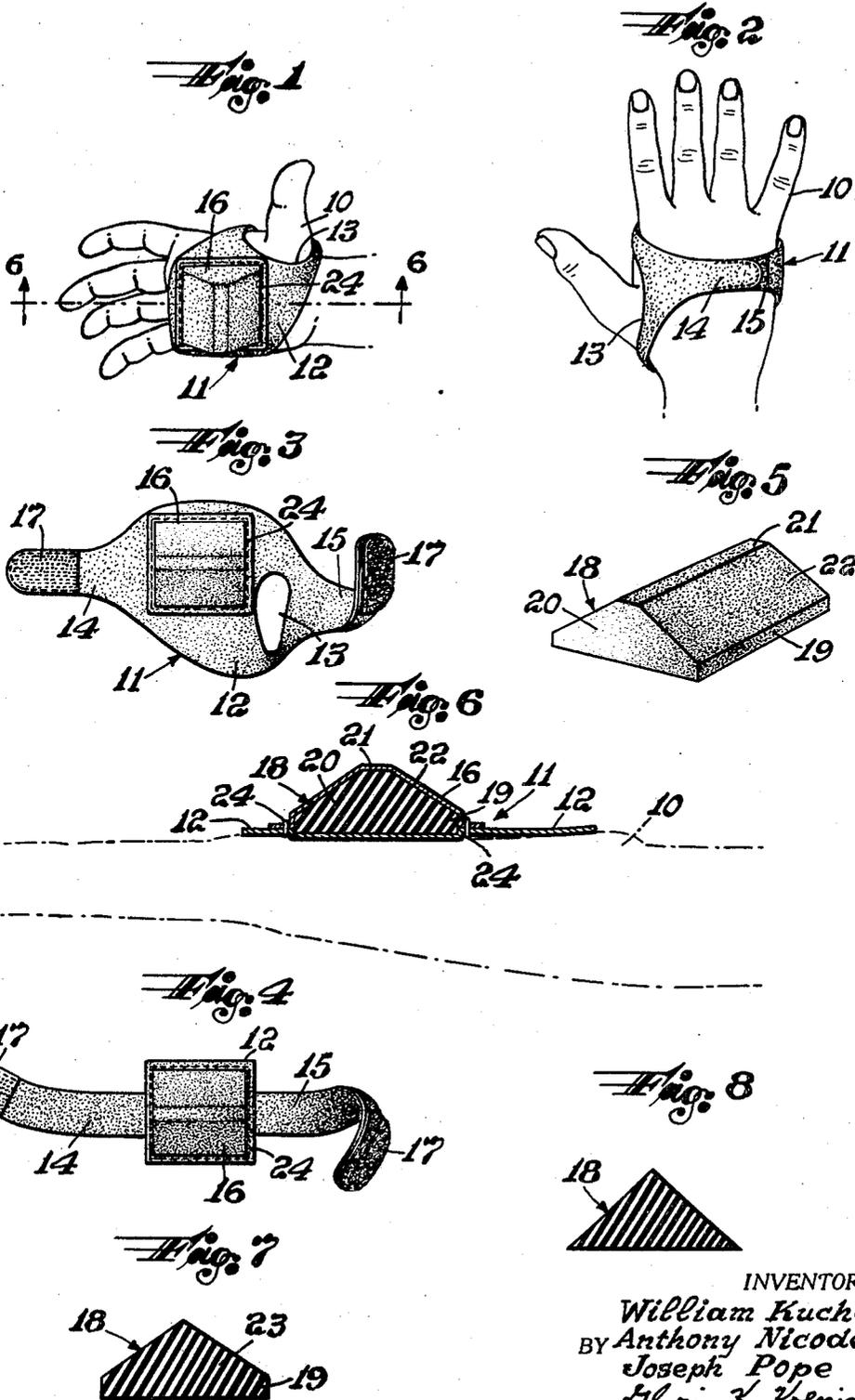
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PALM COVERING

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PALM COVERING

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5 Claims

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Still another object of this invention is to provide a palm covering which is inexpensive to manufacture and can be made with a variety of easily available materials.

SUMMARY OF THE INVENTION

This invention contemplates a palm covering comprising a body member which is formed with a pocket or sac and which may or may not be formed with a thumb hole, having a gable-like wedge disposed in the sac across the upper palm portion of the hand, the body member narrowing on each side into straps which may be detachably connected on the back of the hand or which may be made back of the hand. The gable-like wedge is positioned so that the thickest portion of the wedge extends along the horizontal axis of the palm and is substantially parallel with the upper palm of the hand. The downward slant of one side of the gable toward the fingers directs the ball toward the fingers and permits the player to grasp and control the ball with his fingertips and thumb, whereas the downward slant of the other side of the gable toward the heel of the palm substantially prevents any control of the ball by the player by directing the ball away from the fingers and preventing any control of the ball by friction with the center portion of the palm of the hand.

It is contemplated that a training glove will be worn on each hand of the basketball player since either hand is used in dribbling, and the development of the strength and flexibility of the fingers of both hands is important. In football and baseball, it is contemplated that the training glove will be worn on the dominant or stronger hand, since passing, throwing and pitching are usually done only with the stronger hand.

These and various other objects and advantages of this invention will be more fully apparent from a detailed consideration of the following description, the appended claims and accompanying drawings showing preferred forms of this invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIGURE 1 is a perspective view showing the front of the hand with the palm covering on the right hand of the user.

FIGURE 2 is a perspective view showing the back of the right hand with the palm covering on the hand of the user.

FIGURE 3 is a perspective view of the palm covering in an open position.

FIGURE 4 is a perspective view of a modified form of the palm covering to that shown in FIGURE 1.

FIGURE 5 is a perspective view showing in its detached position the wedge which is positioned in the palm covering as illustrated in FIGURES 1, 3 and 4.

FIGURE 6 is a sectional view taken on line 6-6 of FIGURE 1.

FIGURE 7 is a sectional view of a modified form of the wedge in a view similar to FIGURE 6.

FIGURE 8 is a sectional view of another modified form of the wedge in a view similar to FIGURE 6.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now specifically to the drawings, the numeral 10 designates a hand which, as shown in FIGURES 1 and 2, is the right hand and the numeral 11 indicates generally the palm covering embodying a gable-like wedge. The palm covering 11 comprises a body member 12 which substantially covers the palm of the hand formed with a thumb hole 13, two straps 14 and 15 which are detachably connected at the back of the hand and a pocket or sac 16 disposed across the palm portion of the body member 12 and extending from the base of the fingers to the middle of the palm. The body member 12 extends to the base of

ABSTRACT OF THE DISCLOSURE

A palm covering for use as a training device for basketball, volleyball, football and baseball and similar sports requiring finger control of the playing ball, having a gable-like wedge positioned across the upper palm of the hand to train a player to use his fingertips and thumb for control of the ball and to prevent the use of the palm in the control of the ball.

BACKGROUND OF THE INVENTION

This invention relates to a palm covering for use as a training device in playing athletic games, and more particularly to a palm covering formed with a gable-like wedge which is adapted to fit across the upper portion of the palm for use in such games as basketball, volleyball, football, baseball and the like.

In playing games such as basketball, volleyball, football and baseball, all of which involve the handling of a ball, the tendency of the beginning player is to use his entire hand including the palm to guide and control the ball. Experienced basketball players have found that better control of the ball during dribbling and passing and more accuracy in shooting baskets is accomplished when the ball is controlled completely with the fingertips and not with the palm of the hand. Likewise, experienced football players and baseball players have found that the player can control the ball, pass and pitch more accurately when he does so with his fingertips.

Most previous palm devices have had as their purposes the protection of the palm from the impact of the ball or the mere filling of the palm cavity in an effort to force a player to use his fingers in controlling the ball. This invention is an improvement over previous devices in that the construction of the wedge guides the ball to the fingertips and thereby trains the player to use fingertip control. Further, this invention prevents the use of the palm by directing the ball away from the palm thus preventing the use of the palm in the control of the ball.

It is an object of this invention to provide a palm covering formed with a wedge which fits across the upper palm which will force the player to use his fingertips to control the ball during all phases of ball handling such as passing, dribbling, catching, shooting, and pitching, thus helping the player to develop strength and flexibility in his fingers.

It is another object of this invention to provide a palm covering formed with a gable-like wedge which guides the ball toward the fingertips and away from the palm during ball handling and prevents the use of the palm during ball handling.

It is another object of this invention to provide a palm covering which is light in weight, comfortable for the player to wear and adjustable in size. The fingerless construction of the palm covering avoids any constriction of the fingers and avoids the necessity of having a variety of sizes to fit ball players with fingers of different lengths and diameter, although at least two sizes of palm coverings are contemplated, one for an adult's hand and one for a child's hand.

the fingers, but does not cover the finger joints, so that finger movement is completely unrestricted.

The body member 12, straps 14 and 15, and pocket 16 may be made of any type of flexible material, such as plastic, leather, elastic or suede. The straps 14 and 15 may be formed in one piece with the body member 12 or may be strips of material sewed to the sides of the body member. As shown in the drawing a hook and pile tape 17, known in the trade by the trademark Velcro, is affixed to the outer surface of one strap 14 and to the inner surface of the second strap 15, permitting the user to quickly attach and detach the straps by pressing the ends together or pulling them apart. It will be understood that other means of fastening, such as buckles or snaps or an elastic connecting the ends of the body portion may be used without departing from the spirit and scope of the invention. The use of hook and pile tape, buckles, snaps or elastic permit the palm covering to be fully adjustable over a wide range of hand sizes.

The body member 12 of the palm covering is provided with a pocket or sac 16 to hold the gable-like wedge 18, as hereinafter described. The pocket 16 containing the wedge 18 is sewed to the body member 12. Stitching is indicated by the numeral 24.

The adjustable straps 14 and 15 and the thumb hole 13 which permits a section of the body member 12 to wrap around the thumb, cause the wedge 18 to be held comfortably but firmly in a fixed position against the palm of the hand.

A modified form of the invention is shown in FIGURE 4 wherein the body member 12 of the palm covering is formed with two straps 14 and 15 which are detachably connected at the back of the hand as described above and is formed with a pocket 16 to hold a gable-like wedge 18. This embodiment of the invention does not have a thumb hole and is less expensive to manufacture than the embodiment with the thumb hole.

The most important feature of the present invention is the gable-like wedge 18 shown in FIGURES 5, 6, 7 and 8. The term "gable-like" has been used to describe the forms of polyhedral wedges more particularly described hereafter. The wedge may be formed of any semi-rigid, resilient material, such as sponge rubber, hard rubber, soft wood or plastic. A semi-rigid resilient material is preferred to a rigid material, such as steel, because it is relatively light in weight and serves to protect the hand when the player receives the ball.

The wedge has four substantially straight edges, one edge extending along the horizontal axis of the palm across the base of the fingers, one edge extending along the longitudinal axis of the palm adjacent the thumb, one edge extending along the horizontal axis of the palm across the middle portion of the palm, and one edge extending along the longitudinal axis of the palm adjacent the little finger. The wedge substantially covers the area extending from the base of the fingers to the middle of the palm.

One embodiment of the wedge 18, as shown in FIGURES 5 and 6 is a polyhedron having a rectangular solid base 19 above which is formed a quadrangular prism having two parallel trapezoidal faces 20, the edges of one rectangular face of the prism joining to and coinciding with the edges of the upper face of the rectangular base. The trapezoidal faces 20 of the prism each form a plane surface with two perpendicular faces of the rectangular base 19.

The angles formed between the non-parallel faces 22 of the quadrangular prism extending upwardly from the base 19 and the upper face of the base 19 of the wedge may vary, thus changing the slope of the non-parallel faces to suit the length of the palm and fingers. In the preferred form of this embodiment of the invention the trapezoidal faces 20 of the wedge are in the form of isosceles trapezoids, the dimensions and angles of the two rectangular faces 22 extending upwardly from the rectangular base 19 being equal, but if desired the dimensions and angles of

the non-parallel faces may differ without departing from the spirit of the invention.

The flat surface of the relatively narrow face 21 at the top of the wedge 18 prevents excessive wearing of the material of the pocket 16 from continuous contact with a ball. The edges of the top face 21 may be slightly rounded to further protect the material of the pocket 16.

The wedge 18 as described may be made in various sizes, a convenient size for an adult sized palm covering having a rectangular base 19 approximately 2" long, 2" wide and $\frac{1}{4}$ " high and the quadrangular prism portion having a maximum height of approximately $\frac{1}{2}$ " forming a wedge with an overall height or thickness of $\frac{3}{4}$ ".

Another embodiment of the invention is shown in sectional view in FIGURE 7. In this form the wedge 18 is a polyhedron having a rectangular solid base 19 above which is formed a triangular prism 23 having two parallel triangular faces, the edges of one rectangular face of the prism joining to and coinciding with the edges of the upper face of the rectangular base. The triangular faces of the prism each form a plane surface with two perpendicular faces of the rectangular base 19. In the preferred form of this embodiment of the invention the triangular sections of the faces of the wedge are isosceles triangles, the two equal sides extending upwardly from the rectangular base 19, however, the angle between the rectangular faces of the prism portion and the upper face of the base 19 of the wedge may vary, as previously explained, to suit the length of the palm and the fingers.

It is to be understood that the wedge may be constructed in one piece, the above descriptions involving two geometrical figures in each wedge being used to more clearly define the shape of each embodiment of the invention.

Another embodiment of the wedge 18 as shown in sectional view in FIGURE 8 is a triangular prism having two parallel triangular faces. In the preferred form of this embodiment the triangular faces are isosceles triangles and the wedge is positioned in the pocket 16 of the palm covering so that the rectangular faces of equal dimensions and angles are upward from the palm.

The wedge 18 as described is secured in the pocket 16 so that the parallel triangular or trapezoidal faces of the wedge are disposed substantially parallel to the direction of the length of the finger, the edges of these faces being adjacent the thumb and little finger, respectively. The thickest portion of the wedge is upward from the palm and disposed horizontally across the palm perpendicular to the length of the fingers. The wedge substantially covers the palm from the base of the fingers to the middle of the palm.

The wedge decreases in thickness as it extends from its thickest portion toward the edge at the base of the fingers, the resulting slant of one rectangular face of the prism causing a ball to be directed toward the fingers for control by the fingers and thumb. The wedge also decreases in thickness as it extends from its thickest portion to the edge across the middle of the palm, the resulting slant of the second rectangular face of the prism causing a ball which hits this face to be directed toward the heel of the palm and out of the control of the fingers and thumb. The ball directed toward the heel of the palm is substantially out of the control of the player. The player is thus trained to handle the ball with his fingertips and thumb.

It will thus be seen that we have provided a new and improved palm covering for use as a training device for many sports.

We claim:

1. A palm covering for use as a training device in ball game sports in which the fingers and thumb should be used for the principal control of the ball comprising:

(a) a body member of flexible material formed with a pocket and two straps adapted to be connected across the back of the hand, the pocket extending from the base of the fingers to the center palm area;

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(b) means for detachably connecting the straps across the back of the hand; and

(c) a polyhedral wedge secured in the pocket of the body member, said wedge having four substantially straight edges, one edge extending along the horizontal axis of the palm across the base of the fingers, one edge extending along the longitudinal axis of the palm adjacent the thumb, one edge extending along the horizontal axis of the palm across the middle portion of the palm and one edge extending along the longitudinal axis of the palm adjacent the little finger, said wedge substantially covering the palm from the base of the fingers to the middle of the palm, the thickest portion of the wedge disposed upward from the palm and extending along the horizontal axis of the palm, the wedge decreasing in thickness as it extends from its thickest portion toward the edge at the base of the fingers causing a ball to be directed toward the fingers for control by the fingers and thumb, and the wedge decreasing in thickness as it extends from its thickest portion to the edge across the middle of the palm causing a ball to be directed toward the heel of the palm and out of the control of the fingers and thumb.

2. A palm covering as set out in claim 1 in which the body member is formed with a thumb hole, the material of the body member wrapping around the thumb and in cooperation with the connecting straps causing the wedge to be held firmly against the palm of the hand.

3. A palm covering as set out in claim 2 in which the wedge comprises a triangular prism having a rectangular base, two rectangular faces extending upward from the palm and two parallel triangular faces extending upward from the palm, the edges of the bases of the triangular faces being adjacent the thumb and little finger respectively, the thickest portion of the prism being disposed upward from the palm and extending along the horizontal axis of the palm, the prism decreasing in thickness as it extends from its thickest portion toward the edge at the base of the fingers, the resulting slant of one rectangular face of the prism causing a ball to be directed toward the fingers for control by the fingers and thumb and the prism decreasing in thickness as it extends from its thickest portion toward the edge across the middle of the palm, the resulting slant of the second rectangular face of the prism causing a ball to be directed toward the heel of the palm and out of control of the fingers and thumb.

4. A palm covering as set out in claim 2 in which the wedge is a polyhedron comprising:

- (a) a base in the form of a rectangular solid and
 (b) an upper portion in the form of a triangular prism having two parallel triangular faces, one rectangular face coinciding with the upper face of the rectangular base and two rectangular faces extending upward from the rectangular base, the triangular faces of the prism forming a plane surface with two perpendicular faces of the base, the edges of the two faces of the wedge which have triangular portions being adjacent to the thumb and little finger, respectively,

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the thickest portion of the wedge being disposed upward from the palm and extending along the horizontal axis of the palm, the prism decreasing in thickness as it extends from its thickest portion toward the edge at the base of the fingers, the resulting slant of one rectangular face of the prism portion of the wedge causing a ball to be directed toward the fingers for control by the fingers and thumb and the prism decreasing in thickness as it extends from its thickest portion to the edge across the middle of the palm, the resulting slant of the second rectangular face of the prism portion of the wedge causing a ball to be directed toward the heel of the palm and out of the control of the fingers and thumb.

5. A palm covering as set out in claim 2 in which the wedge is a polyhedron comprising:

- (a) a base in the form of a rectangular solid and
 (b) an upper portion in the form of a quadrangular prism having two parallel trapezoidal faces, one rectangular face coinciding with the upper face of the rectangular base, two rectangular faces extending upward from the rectangular base and a narrow top rectangular face parallel to the base of the wedge, said top face protecting the material of the pocket of the body member from excessive wear by distributing the point of contact of the ball against the material of the pocket, the trapezoidal faces of the prism forming a plane surface with two perpendicular faces of the base, the edges of the two faces of the wedge which have trapezoidal portions being adjacent to the thumb and little finger, respectively, the thickest portion of the wedge being disposed upward from the palm and extending along the horizontal axis of the palm, the prism decreasing in thickness as it extends from its thickest portion toward the edge at the base of the fingers, the resulting slant of one rectangular face of the prism portion of the wedge causing a ball to be directed toward the fingers for control by the fingers and thumb, and the prism decreasing in thickness as it extends from its thickest portion to the edge across the middle of the palm, the resulting slant of the second rectangular face of the prism portion of the wedge causing a ball to be directed toward the heel of the palm and out of the control of the fingers and thumb.

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