

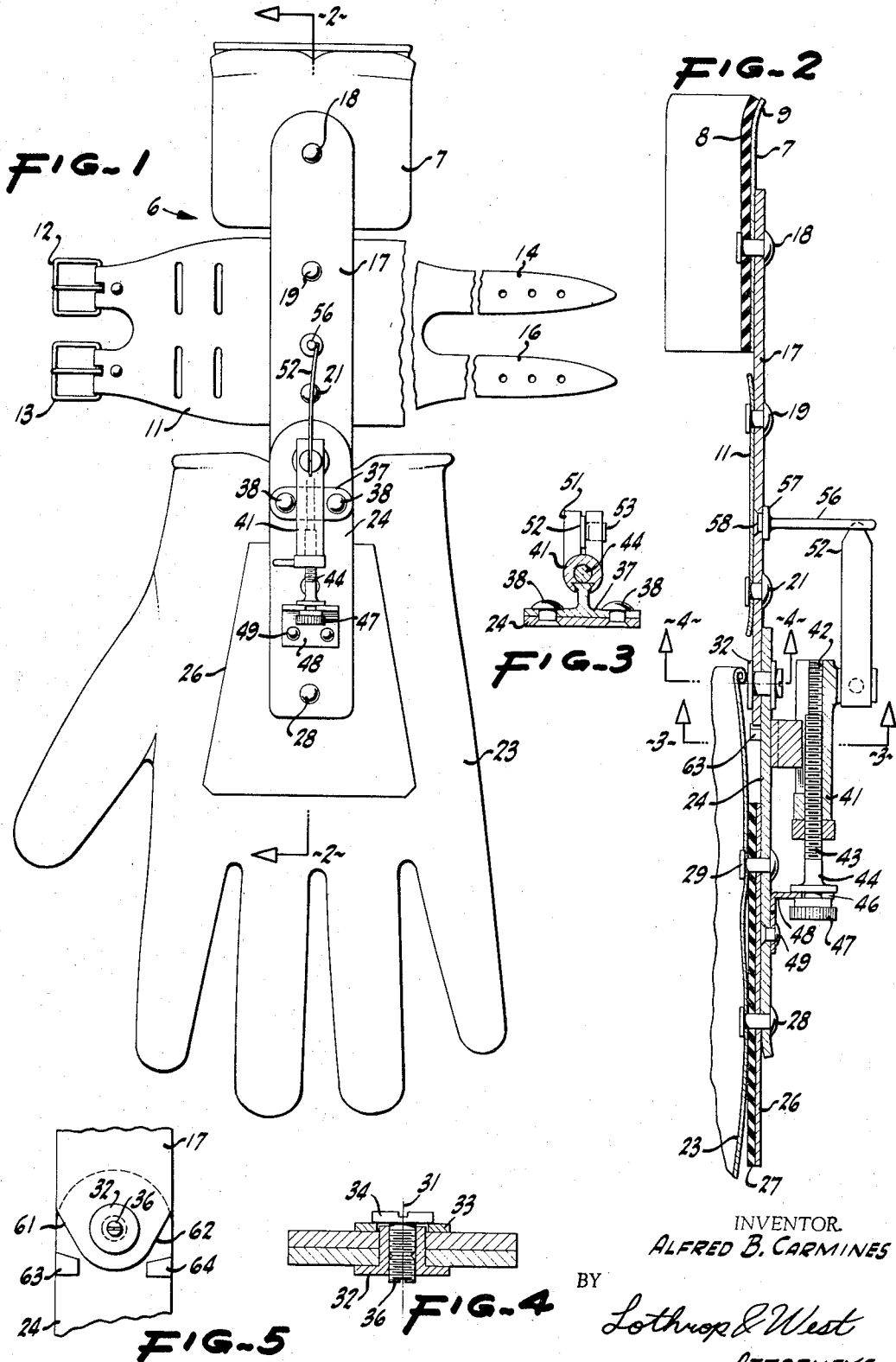
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GOLFER'S TRAINING AID INCLUDING WRIST MOVEMENT INDICATOR MEANS

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**GOLFER'S TRAINING AID INCLUDING WRIST  
MOVEMENT INDICATOR MEANS**

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My invention relates to means adapted to be worn by a golfer to give him an indication when he has exceeded the bounds of the preferred manner of motion for accomplishing a golf stroke.

A great deal of attention is paid by golfers to the movement of particular parts of the body in performing a golfing stroke in order that their movements will be so coordinated and related as to produce a maximum result. Occasionally golfers depart from the ideal or preferred movements and do so unwittingly, impairing their game without realizing the difficulty. This occurs often in connection with wrist motions or the relative motions between the golfer's hand and his forearm.

It is therefore an object of my invention to provide a golfer's aid which can be worn by the golfer and will afford an indication to him whenever there is movement of an unwanted character between his forearm and hand.

Another object of the invention is to provide a golfer's aid which will in no wise distract from or interfere with the normal playing by the golfer, but will assist him in determining when his bodily movements, particularly his forearm and hand movements, are in accordance with his preferences.

Another object of the invention is to provide a golfer's aid which will be of assistance to a golfer in improving the motions he utilizes in playing the game.

Another object of the invention is in general to provide an aid to golfers which will assist them in improving their playing of the game.

Other objects are attained in the embodiment of the invention described in the accompanying description and illustrated in the accompanying drawings, in which:

FIGURE 1 is a plan of a golfer's aid constructed in accordance with the invention, certain portions being broken away to reduce the size of the figure;

FIGURE 2 is a longitudinal cross section to an enlarged scale, the plane of the section being indicated by the line 2-2 of FIGURE 1;

FIGURE 3 is a detail in cross section, the plane of which is indicated by the line 3-3 of FIGURE 2;

FIGURE 4 is a detail in cross section, the plane of which is indicated by the line 4-4 of FIGURE 2; and

FIGURE 5 is a fragmentary view to an enlarged scale and from below showing the construction adjacent the pivot structure.

While the golfer's aid pursuant to the invention can be embodied in a number of different ways, it has successfully been made and used as shown herein as an example. In this arrangement the user is provided with a wrist band generally designated 6 and including two parts. The first part is a partial bracelet 7 conveniently of relatively stiff metal so as to afford a firm or stiff mounting. It is of flattened circular contour and is provided with a resilient lining layer 8 of rubber or the like. The bracelet 7 is provided with a flared edge 9 so as not to interfere with the golfer's movement and so as to be quite comfortable.

Also included in the wrist band 6 is a wrist strap 11. This is a wide band of leather or like flexible material provided with a pair of buckles 12 and 13 and a corresponding pair of perforated straps 14 and 16. The straps can be engaged with the buckles after they encompass the user's forearm so that they are in firm engagement

with the forearm and provide a flexible yet secure attachment.

Adjoining the portions of the wrist band 6; that is, the bracelet 7 and the band 11, is a rigid first strap 17. This is a relatively stiff metallic member rounded at both ends and secured by suitable fastenings such as rivets 18, 19 and 21 to the bracelet 7 and to the wrist strap 11. In this way there is afforded a firm mounting for the first strap 17 so that such strap is relatively immovable with respect to the user's forearm adjacent his wrist.

A flexible glove 23 is likewise provided, and this is either a complete glove or is a mitt, depending upon the user's preference, and is adapted to be worn on his hand in the customary fashion. The glove 23 is secured to a rigid second strap 24 through the medium of a reinforcing plate 26 and a cushion liner 27, the fastening of the parts being accomplished by rivets 28 and 29 so that there is provided a second strap 24 relatively immovable with respect to the golfer's hand.

The first strap 17 and the second strap 24 are secured together for pivotal movement about an axis 31 (FIGURE 4). This axis is substantially perpendicular to the back of the user's wrist and is located substantially above his wrist when his palm is horizontal and below. The pivotal connection is provided by a flanged bushing 32 passing through openings in the first strap 17 and the second strap 24 and held in position against a friction washer 33 by a machine screw 34. A lock screw 36 is turned into abutment with the stem of the machine screw 34 when an appropriate frictional interengagement has been provided about the axis 31. With this arrangement, the two straps 17 and 24 can easily be rotated relative to each other about the axis 31 as a pivot and with substantially no friction or an adjusted amount of friction. In this fashion, and because of the interconnection of these parts with the user's forearm and hand, the motions of the user are relatively controlled and confined.

Since it is desired to have substantially no relative rotation about the axis 31 during certain parts of the user's movements, or it is desirable to know in just what part of the user's swing substantial wrist motion occurs, means are provided for affording an audible sound or warning to indicate when such motion takes place.

For that purpose there is provided on the second strap 24 a ribbed bracket 37 secured in position by a pair of rivets 38. The bracket extends upwardly to engage a longitudinally movable tubular slide 41. The slide is provided with internal threads 42 engaged by external threads 43 on a screw 44. A groove 46 adjacent the head 47 of the screw permits rotation thereof but holds the screw against axial translation by interengagement with an L-shaped bracket 48 held by a rivet 49 on the second strap 24. When the screw head 47 is rotated, the threads 43 in engagement with the threads 42 move the slide 41 to and fro, and the interengagement of the ribbed bracket 37 prevents rotation of the member 41.

Pursuant to the invention, the slide 41 carries a fork 51 between the tines of which is disposed a spring finger 52 secured in position by a screw 53. The spring finger is preferably pointed at its free end, and if there is pivotal movement about the axis 31, the spring finger moves in accordance therewith and in response to the relative motion between the strap 17 and the strap 24.

To cooperate with the spring finger 52 there is provided on the other strap, in this instance the first strap 17, an upstanding abutment 56 in the shape of a round rod having an enlarged base 57 and a riveted head 58 for securing the abutment in position. Whenever there is motion through a predetermined range near center so that the spring finger encounters the abutment 56 in such motion, the spring finger is restrained temporarily and then is released by the abutment and in releasing vibrates

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rapidly and emits an audible signal so that the wearer knows that he has moved his wrist with respect to his forearm. This is true for either direction of motion since the spring finger will act similarly no matter from which side of the abutment 56 it is sprung.

By turning the adjustment 47, the spring finger 52 is advanced or retracted with respect to the abutment 56 and can thus be changed to emit a very slight sound or to emit a rather penetrating loud sound. This also changes the timing of the sound relative to the position of the parts. The golfer can adjust this to suit his own fancy and can thus get warning of improper or undesired relative motion of his wrist between his hand and his forearm.

In order to maintain the parts within a certain range of motion, the bottom or nether side of the first strap 17 is preferably provided with a pair of tangential faces 61 and 62 which come against abutments 63 and 64 protruding from the nether face of the second strap 24 when the straps have turned through the maximum desired rotation.

What is claimed is:

1. A golfer's aid comprising a glove adapted to be worn on the golfer's hand, a wrist band adapted to be worn on the golfer's forearm just above the wrist, a first strap secured to said wrist band, a second strap secured to said glove, means for pivotably connecting said first strap and said second strap together, a spring finger, means for mounting said spring finger on one of said straps to extend over the other one of said straps, and

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abutment means on said other one of said straps in the path of said spring finger and adapted to flex and release said spring finger with an audible sound when said first strap and said second strap pivot with respect to each other through a predetermined range.

2. A golfer's aid as in claim 1 in which said mounting means is movable to afford more or less engagement of said spring finger with said abutment means.

3. A golfer's aid as in claim 1 in which the axis of said pivoting means is approximately normal to and is disposed substantially above the back of the user's wrist when said aid is worn by the golfer.

4. A golfer's aid as in claim 1 in which said wrist band includes a strap adapted to encircle and fasten around the user's forearm just above the wrist.

5. A golfer's aid as in claim 1 in which said wrist band includes a bracelet adapted partially to encircle the user's forearm.

6. A golfer's aid as in claim 1 in which means are provided for limiting the relative pivotal movement of said first strap and said second strap.

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