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2,154,197

GLOVE FOR RESTRAINING WRIST MOTION

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Fig. 1.

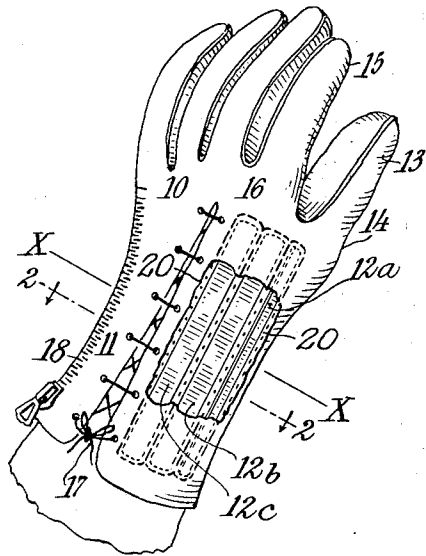


Fig. 3.

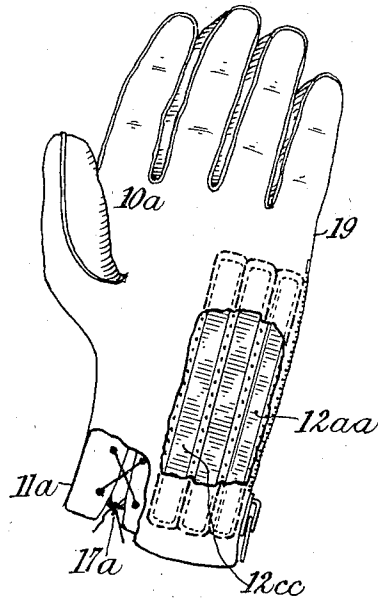


Fig. 2.

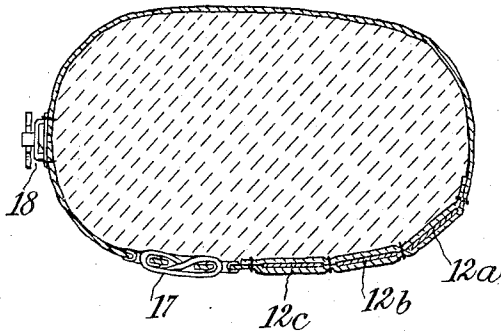
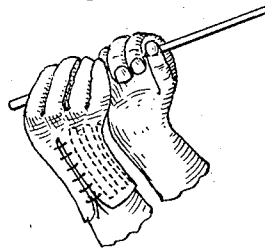


Fig. 4.



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GLOVE FOR RESTRAINING WRIST MOTION

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4 Claims. (Cl. 2—159)

The present invention relates to a device for controlling wrist motion, and in its more particular aspects to a glove having means incorporated therein for restraining, but not preventing, wrist movements of the wearer. Since the glove is particularly designed, though not necessarily limited, for use as an aid in the instruction of golfers in the execution of a proper swing, it will be particularly described hereinafter with reference to that problem.

The power which can be imparted to a golf ball through a club is, of course, dependent upon the momentum given to the head of the club in swinging it. Best results can be obtained only by the controlled use of the body, arms and wrists. The body and arms are principally effective in starting the club on its downward movement; the wrist to impart a snap and obtain maximum velocity of the head at the moment of impact. A great deal, if not the major portion of the momentum, is achieved by that wrist snap.

Obviously a proper down swing must be predicated upon an equally proper backswing. Many golfers fail to attain maximum distance, and accuracy, simply because of a failure to back swing correctly. Instead of pivoting as the club approaches the top of its backward movement, they "break" their wrists and lay the club across the shoulder. Thereafter, of course, the wrist must first be brought in action to lift the club from the shoulder to a position from whence the body and arms can become effective. Then, however, as the club is brought downwardly the wrists are not in a position to impart the necessary snap and the club can only be pushed against the ball.

The fault results not from a lack of knowledge of what should be done, but from an inability to analyze the stroke as it progresses, and a consequent inability to recognize the error at its inception. Without that knowledge it becomes substantially impossible to apply a correction.

The principal object of the present invention is to provide means for opposing any incorrect wrist movement during the course of the execution of a backswing. The aim is to provide a device for warning the golfer of incipient failure, not one for preventing it; an aid to the learning of the game, not a mechanical cure for acquired faults.

The invention may be briefly described as comprising a glove which is adapted to be fitted tightly to the wearer's hand and a part of the fore-

arm, and a plurality of resilient stays affixed to the glove and extending across the wrist joint in such a way as to oppose movement of the wrist in certain directions. Its full nature, along with other objects and various features thereof will be more apparent from a consideration of the following description in the light of the accompanying drawing, in which:

Figure 1 is a perspective view of a glove incorporating the principles of the present invention;

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a perspective view of the palm side of a glove in which the inventive concept is applied in a manner different from that of Fig. 1; and,

Fig. 4 is a perspective view of a golfer's hands and forearms, with a glove of the present invention applied to one of them, and illustrates the positions of his wrists and fingers at substantially the top of a backswing.

In its preferred embodiment (Fig. 1) the invention comprises a glove having a portion 10 covering the hand of the wearer, a cuff 11 extending across the wrist joint (indicated by the line X—X), and over some considerable part of the forearm, and a plurality of resilient stays 12 extending lengthwise across the wrist and so located as to be capable of opposing movement of the wrist in certain directions. In the golf glove of this figure these stays are arranged partly on the back and partly on the inner side. Specifically, the first stay 12a is applied to the inside of the hand, in line with the thumb 13, and extends from a point adjacent the thumb knuckle 14 to the wrist X—X, and for substantially an equal distance from that point along the cuff 11; the third stay 12c is located on the back of the glove, aligned with the forefinger 15, and extends from a point adjacent the knuckle 16 thereof substantially parallel to the first one 12a; and the intermediate stay 12b lies between the two and is of substantially the same length. In the preferred embodiment the stays are carried in pockets 20 formed on the glove as is shown in Figs. 1 and 2. They are not rigidly attached to the glove and may, accordingly, have some slight movement relative to the glove. In practice it has been found that these stays should be fairly soft and their length should be substantially as above defined. If, however, the material of which they are made is fairly stiff, then their length may be considerably reduced. The prime factor is to have them arranged across the wrist joint, and extending in opposite directions for substan-

tially equal distances from that point so as to be capable of opposing wrist motion.

In order for the stays to perform their functions the glove should be fitted fairly snugly over the hand, wrist and forearm of the wearer; and proper adjustment can, in the preferred embodiment, be obtained by drawing the lacing 17 to a greater or lesser extent. This lacing may be used, if desired, to loosen the glove whenever it is applied or removed. That can be done more easily, however, by the use of the separable fastener 18.

The particular utility of the glove, and its advantages, can best be understood by considering the functions which it performs during the execution of a golf stroke. Assuming that a right-handed golfer has drawn the glove over his left hand, and has laced it to a proper tightness, then as he lifts the club by the combined use of the wrists and the arms, he will find that the resilient stays do not appreciably hinder his movements until he approaches the top of the backswing shown in Fig. 4. If, at that point he should "break" his wrists, and his grip on the club, in an effort to lay its shaft across his shoulder, then he will find that the resilient stays immediately oppose any such action. The normal, natural, and correct thing to do in that event is to maintain the grip on the club, and hold the wrists in their cocked position, and to complete the backswing by pivoting the body. From that position the downswing can be executed properly, with the body first re-pivoting, the arms then uncoiling, and as the club approaches the nadir of its arcuate movement, the wrists snapping to impart a final impetus to the club head.

The resilient stays 12, as has hereinbefore been mentioned, are not designed, nor do they have sufficient strength, to preclude movement of the wrist in any particular direction; nor are they capable of imparting any additional snap to the wrist as the swing is completed. Their sole function is to oppose incorrect movement, and by that opposition to give warning of an incipient fault.

A modified form of the invention is illustrated in Fig. 3. In that figure the glove is substantially identical with the one shown, in Fig. 1, having the same hand portion 10a and the same cuff 11a. The difference will be found in the positioning of the stays 12, which, instead of being placed on the back, are placed on the palm side. The arrangement, however, is generally similar, the first one 12aa being placed along the outer side of the hand, and extended from a joint adjacent the knuckle 19 across the wrist and for some considerable distance along the cuff, and with the second and third ones 12bb and 12cc paralleling the first and extending for substantially an equal distance along the cuff.

In Fig. 1 and also in Fig. 3, the gloves shown have separate sheaths for each of the fingers of the hand. It will be readily apparent from the foregoing that these sheaths have no particular

utility in connection with the present invention, and the gloves might just as well be reduced to mitten-like proportions.

While the invention has been shown and particularly described in connection with its use as an aid to the instruction of golfers, it can readily be adapted to any situation wherein wrist motion restraint is desirable. In playing tennis, for example, the wrist must in a large majority of instances be cocked in its strongest position. For this purpose the gloves of Figs. 1 and 3 would preferably be modified by molding the stays 12 to a shape corresponding to that of the wrist when cocked to the preferred position. Whether so shaped or not, however, it will be evident that the stays, extending across the wrist joint as they do, will tend to oppose movement of that wrist in a desired way; and will thus be highly useful.

Since certain changes may be made in the embodiments of the invention without in any way departing from the concepts thereof, it is intended that the foregoing shall be construed in a descriptive rather than in a limiting sense.

What I claim is:

1. A golf glove comprising a hand portion and a cuff made of soft pliable leather or the like and adapted to fit fairly snugly over the hand, the wrist and a part of the forearm of the wearer, and a plurality of stays carried on the back and inner side of the glove and extending across the wrist joint of the wearer in a direction generally parallel to the forearm, said stays being made of softly resilient material such as will oppose without preventing movement of the wrist of the wearer in any normal direction.

2. A golf glove according to claim 1 further characterized in that one of the stays extends from a point adjacent the crotch between the thumb and forefinger along the side of the hand portion and the cuff of the glove, and another extends from a point adjacent a finger knuckle across the back of the hand portion and cuff so that the first opposes movement of the wearer's wrist in a sidewise direction while the second opposes back and forth movement.

3. A golf glove according to claim 1 further characterized in that the stays are carried in pockets formed on the glove so that they may have some movement relative to the glove.

4. A golf glove comprising a hand portion and a cuff adapted to cover the hand and to extend over the wrist and a part of the forearm of the wearer, means for adjusting such glove to fit the wearer's wrist and forearm with a desired degree of snugness, a plurality of pockets formed on the back and side of the glove, and a plurality of resilient stays disposed in such pockets and extending across the wrist joint of the wearer parallel to the forearm, the resilience of said stays being such that they will oppose but will not prevent movement of the wrist of the wearer in any normal direction.

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