July 19, 1966 B. W. JOSEPH 3,261,026

WRIST SUPPORT

Filed July 12, 1965 2 Sheets-Sheet 1

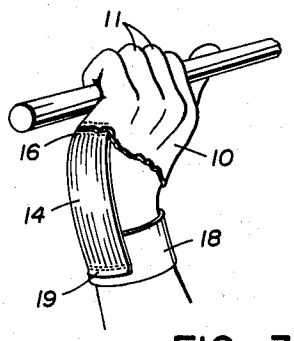


FIG 3

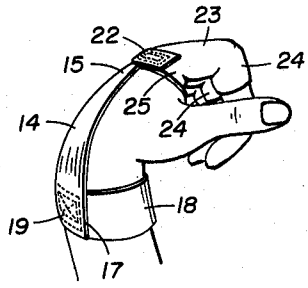


FIG 5

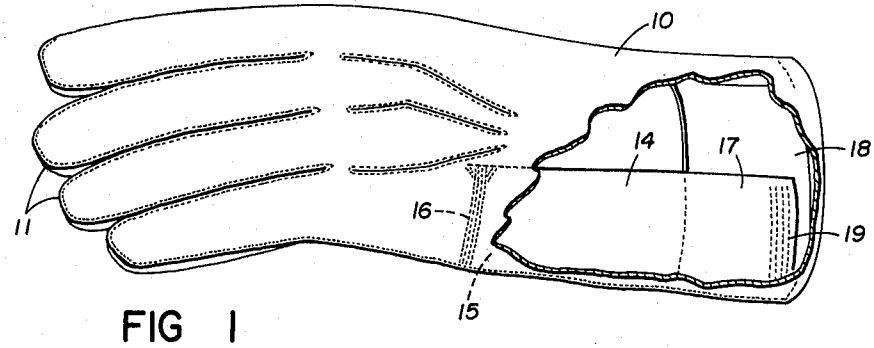


FIG 1

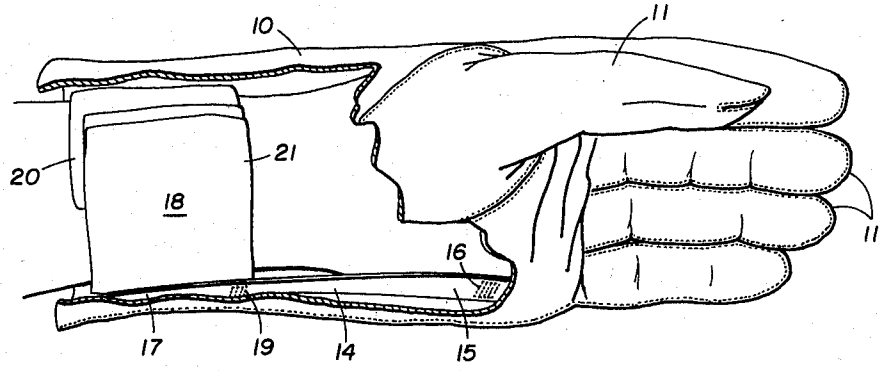


FIG 2

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WRIST SUPPORT

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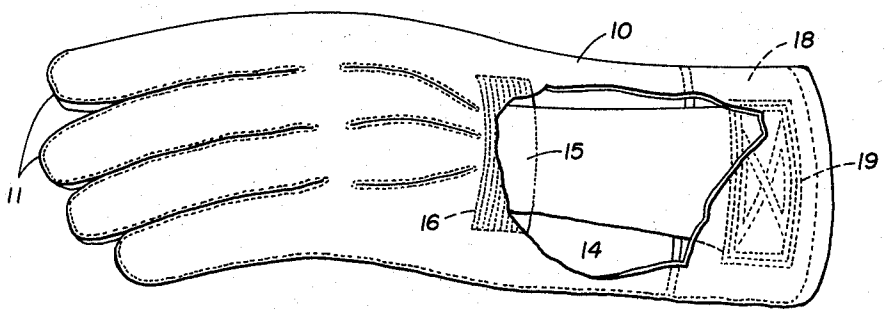


FIG 4

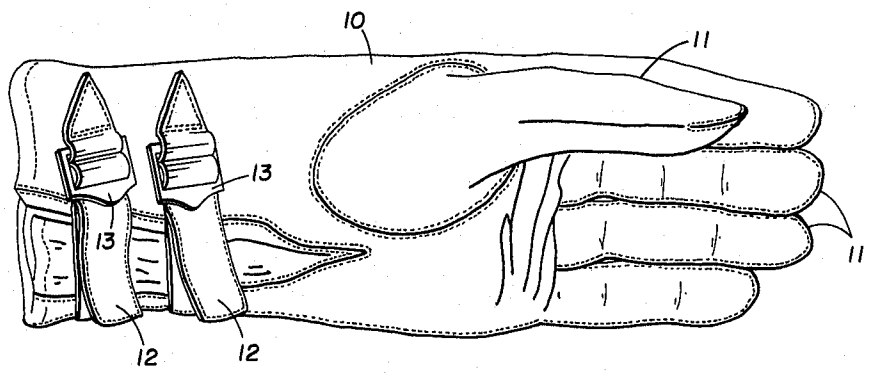


FIG 6

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WRIST SUPPORT

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1 Claim. (Cl. 2—161)

This invention concerns wrist supports, especially for athletic purposes, providing added power to wrist action as well as tending to strengthen the wrist itself.

Wrist supports incorpoarting the present invention emploly a "catapult" principle; that is to say, bending of the wrist in one direction applies tension to a resilient member so that when the wrist is flexed in the opposite direction for the "power" stroke, the contraction of the resilient member provides added force increasing the effective power of the wrist movement. Generally described, the support takes the form of one or more elastic bands secured by suitable means at one of their corresponding ends above the wrist joint, extending therefrom along the hand, their other corresponding ends being anchored adjacent the base of the fingers. The use of elastic bands, or other nonmetallic or nonrigid members, largely eliminates discomfort arising from supports employing metallic springs or other rigid devices. Preferably, the support is incorporated into a glove of one form or another, depending particularly upon the use or sport in which the support is employed.

For instance, in the case of a support suitable for tennis, a pair of elastic bands may be used, one extending along the back and the other along the front or palm of the hand for increased power when the wrist is flexed for backhand or forehand shots, respectively. Similar arrangements might be used in the case of baseball for pitching or batting or in the case of bowling. In the case of golf, with which the present invention is particularly concerned, a single elastic band may be used, extending either centrally along the back of the hand for those players employing a "hinge" bend of the wrist, or asymmetrically along the back of the hand toward the far side of the wrist for those players employing a "cocked" bend of the wrist. In either event, the support is incorporated in a glove which may be of any suitable nature.

Accordingly, the chief object of the present invention is the provision of a wrist support providing increased power to wrist action by the wearer thereof, tending at the same time to strengthen the wrist itself, yet which does not cause the wearer any discomfort. This and other objects, features and advantages of the present invention will be apparent from the following detailed description of two preferred forms thereof, for use particularly by golfers, read in conjuiction with the following drawings, in which:

FIGURE 1 is a prospective view of the back of a glove, certain portions thereof being cut away in order to show a first form or embodiment of the invention for use by golfers using a "cocked" wrist bend;

FIGURE 2 is a prospective view of the front of the glove of FIGURE 1, certain portions being cut away for better illustration;

FIGURE 3 illustrates the glove and wrist support of FIGURES 1 and 2, certain portions of the glove being broken away, and the type of "cocked" wrist bend for which the first embodiment is used;

FIGURE 4 is similar to FIGURE 1 and illustrates the second form or embodiment of the invention;

FIGURE 5 illustrates the wrist support of FIGURE 4 and the type of "hinge" wrist bend for which the second embodiment is used, additionally illustrating a form of such embodiment for use without a glove proper; and

FIGURE 6 illustrates a typical glove which may be used with either embodiment of the invention.

As mentioned, preferably the wrist support of the present invention is incorporated into a suitable glove, indicated at **10** in the drawings. Glove **10** may have full or truncated fingers and thumb portions **11** and is secured about the wearer's wrist by suitable means such as straps **12** and buckles **13**. The support proper comprises essentially a flexible band **14** of suitable, tensionally resilient elastic disposed so that its elastic force acts generally longitudinally along the wearer's hand. The outer end **15** of band **14** is suitably secured, as by stitching **16**, to the inner surface of glove **10** adjacent the base of the finger portions **11**. The remaining end **17** of band **14** is likewise secured to suitable means surrounding the wrist just above the wrist joint so as to anchor same thereto and prevent slippage when tension is applied to band **14**. The means illustrated employs a flexible circlet **18** of so-called nap type of fastening to which the end of band **14** is stitched at **19**. The fasteners of circlet **18** employ barbs or hooks on one surface thereof and a raised nap on the other surface such that when the ends **20** and **21** are overlapped and pressed together the hooks of one end interengage the nap of the overlapping portion of the other end. An opposite force readily disengages the ends for removal of the support. Fastening material of this sort is sold under the trademark Velcro by American Velcro, Inc., of New York, N.Y. Preferably, a circlet **18** itself is also elastic in nature in order to permit the inner end **17** of band **14** to be anchored tightly to the wrist.

In the embodiment shown in FIGURES 1 through 3, the band **14** is asymmetrically disposed between the back of the hand and the far side of the wrist in order to accommodate the "cocked" wrist bend illustrated in FIGURE 3. In the embodiment shown in FIGURES 4 and 5, on the other hand, the band **14** is disposed centrally along the back of the hand in order to accommodate the "hinge" type of wrist bend shown in FIGURE 5. Generally speaking, the band **14** is disposed so that it is operative chiefly in the plane of the particular movement of the wrist employed in whatever sport or other use in which the support is to be utilized. The same is true in those cases where two bands may be used to affect wrist movement in two opposite directions, such as in tennis. It may also be preferable to arrange the support so that even in the "neutral" position of the hand with respect to the wrist a certain amount of tension is nevertheless applied by band **14**, tending initially to bend the hand somewhat in the direction of the intended "power" stroke. The fact that the band or bands **14** act along the hand in the general direction of its movement greatly increases the comfort and effectiveness of the support in contrast to prior art devices which, although designed to prevent or minimize wrist flexure, act more or less in a direction normal to the surface of the hand and are often quite bulky.

The support may be employed alone, without being incorporated into a glove proper, as illustrated in FIGURE 5, it being only desirable that the outer end **15** of the band **14** be anchored to the base of all of the fingers of the hand. As shown in FIGURE 5, this may be easily accomplished by stitching the outer end **15** of band **14** at **22** to the inner end of a kind of abbreviated "glove" **23** having only truncated finger portions **24** for each finger joined at their bases to form a sort of "cap" **25**.

While the present invention has been described in particular terms and detailed descriptive langauge has been employed, it is nevertheless not so limited. Instead, the following claim is to be read as encompassing all modifications and adaptations of the invention falling within the spirit and scope thereof.

I claim:

In combination with a glove having finger portions individually receiving the fingers of the hand of a wearer and a hand enveloping portion, a wrist support comprising a flexible, tensionally resilient band secured at one end to said finger portion along the base thereof and extending therefrom generally along the far side of the hand to the wrist, the other end of said band carrying means effective to secure said end about the wrist of the wearer just above the wrist joint against displacement when there is tension upon said band, said band having a length such that there is tension thereon when the hand of the wearer is in a position in which it is bent at the wrist to its maximum extent in the direction toward the far side of the hand, the tension on said band increasing as the wearer's hand is bent away from said position in the direction toward the near side of the hand.

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