Feb. 15, 1966 C. E. STROBURG 3,235,258

HAND GUIDE FOR BOWLERS

Filed Feb. 27, 1963

FIG. 1

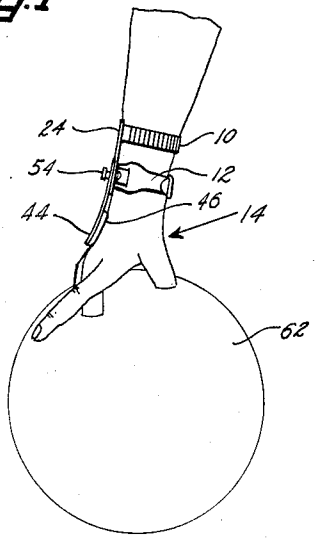


FIG. 6

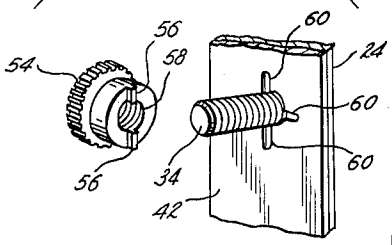


FIG. 4

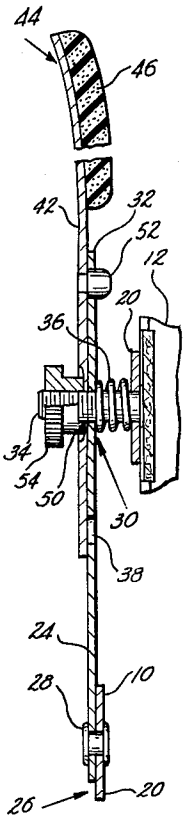


FIG. 5

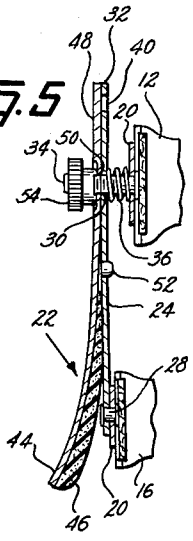


FIG. 2

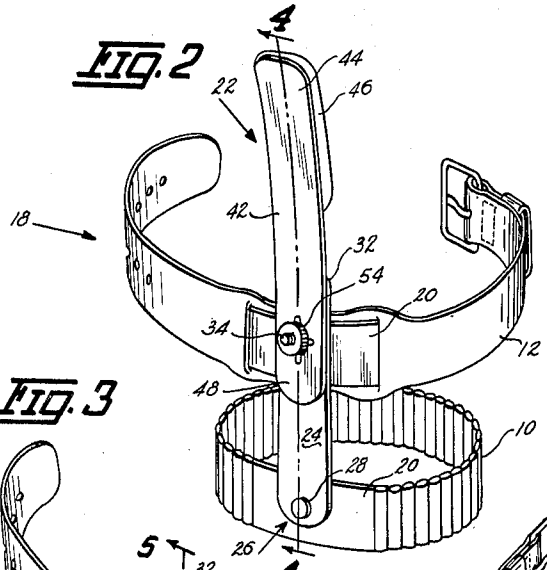
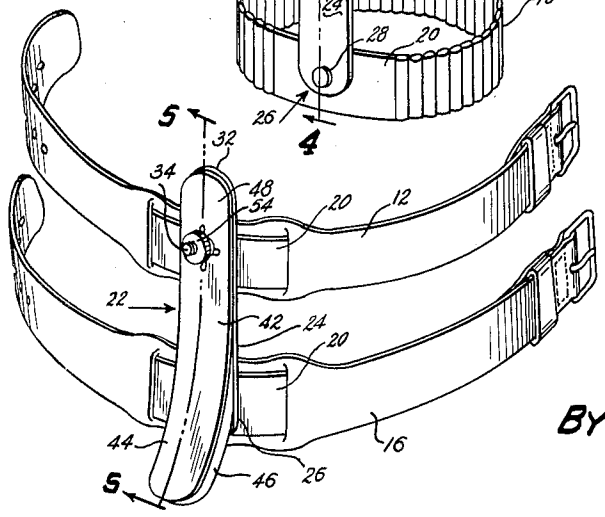


FIG. 3



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HAND GUIDE FOR BOWLERS

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9 Claims. (Cl. 273—54)

This invention relates to an aid in the sport of bowling and more particularly to a hand-worn accessory designed to maintain a correct relationship of the hand to the wrist when the ball is released.

Bowling balls are delivered either as a straight ball or with a curve of varying degree and according to the degree and type of curve imparted thereto, they are designated as a curve ball, a hook ball or a backup ball. The hook ball is most commonly used by those proficient in the sport and results in the ball veering sharply to the left (for a right-handed bowler) about two-thirds of the way down the alley in order to strike the pins in what is known as the 1–3 pocket. To accomplish this result consistently, it is necessary to maintain the back of the hand on the same plane as the wrist with the thumb hole at the nine o'clock position at the time of release in order to impart the proper spin to the ball.

Many types of hand-worn accessories have been devised to aid in maintaining the desired hand position but it appears that most of them are quite cumbersome and are quite restrictive on hand movement both when being used for their intended purpose and when being worn intermediate periods of use.

Accordingly, one of the important objects contemplated by this invention is the provision of a new and improved hand guide for bowlers which incorporates a resilient strip or band overlying the back of the hand and secured at one end to a pair of spaced bracelets or straps which are attached to the wrist at respective opposite sides of the wrist joint.

Another object inhering herein is the provision of a hand guide as characterized in which the rearmost bracelet may be of the endless expansion type and the forwardmost bracelet, next to the hand, is preferably of a buckle-type pliable strap which may be securely tightened about the wrist. By having a rear bracelet as described, this device is most conveniently mounted and avoids the difficulties that would be encountered in attaching the same to the wrist if all of the straps were of two-piece buckle types.

Still another important feature in this device resides in providing that the overlying strap is made in two sections longitudinally arranged in partial overlapping relationship and pivotally attached to each other whereby the hand engaging portion may be easily and quickly pivoted away from the hand and positioned to overlie its other part. This permits the guide to be worn without the restrictive contact of the strap on the hand when the user is not engaged in delivering the ball.

A further object in this invention includes a means to adjust the tension of the strap on the hand.

To attain these objects and such further objects as may appear herein, or be hereinafter pointed out, reference is made to the accompanying drawings forming a part hereof, in which:

FIG. 1 is a perspective view of this invention shown attached to a user's hand and with the hand shown holding a bowling ball,

FIG. 2 is an enlarged perspective view showing a preferred embodiment of this invention in operable position,

FIG. 3 is a view similar to FIG. 2 but showing a modified form using two pliable buckle-type bracelets and also showing the hand engaging portion of the strap moved to an inoperable position,

FIG. 4 is a cross-sectional view taken on the line 4—4 of FIG. 2,

FIG. 5 is a cross-sectional view taken on the line 5—5 of FIG. 3, and

FIG. 6 is an enlarged exploded view of the tension adjusting nut to illustrate the novel construction thereof.

Referring to the drawing, a pair of wrist bracelets or straps are designated by the numerals **10** and **12** with strap **10** being referred to as the rear strap or bracelet and strap **12** and the forward strap or bracelet in relation to their position on the hand **14** when in use. Strap **10** is preferably shown in the form of an endless expansion bracelet (FIG. 2) although it may be a buckle-type pliable strap of leather or the like as shown at **16** in FIG. 3 which is the type employed for strap **12**. By using an expansion bracelet for the rear strap, one can easily slip it over the wrist whereby the entire device **18** is supported while the forward strap **12** is being tightly secured. With both bracelets of the open buckle-type, one can experience considerable fumbling and awkwardness at times before the straps are secured.

The bracelets are provided with rigid plate members **20** in a well-known manner to which attachments can be affixed and connected to plates **20** on both bracelets as shown in a relatively rigid but resilient band or hand guide assembly **22** which includes the flat connecting strip or link **24** pivotally attached at one end **26** to the rear bracelet **10** as by a rivet **28** and pivotally attached at point **30** to the forward bracelet **12**, point **30** being near but spaced inwardly from the opposite end **32** of link **24**. At point **30** the fastening member is in the form of an upstanding threaded pin **34** which carries a small coil spring **36** intermediate plate **20** and link **24** as shown in FIG. 4, it being noted that point **30** defines a hole through which pin **34** projects. Link **24** is also provided with the longitudinally spaced holes **38** and **40** on respective opposite sides of hole **30** and equally spaced therefrom, with hole **40** being at link end **32**.

The hand engaging portion of assembly **22** includes an elongated flat relatively firm but resilient band **42** curved slightly upwardly at its forward end **44** and having the underside of portion **40** provided with a padding **46**. The rear end portion **48** of band **42** is pivotally mounted on pin **34** through a hole **50**, and spaced longitudinally from hole **50** toward band end **44** is a depending lug or boss **52** so spaced as to seat in either hole **38** or **40** of link **24** as follows:

In the operable position of assembly **22** (FIGS. 2 and 4), the rear portion **48** of band **42** overlies the forward portion of link **24** and lug **52** is snapped into and through hole **40** to effectively lock band **42** against any movement away from longitudinal alignment with link **24**. A nut **54** is threaded to pin **34** to hold band **42** in place whereby assembly **22** may be susceptible of yieldable movement toward and away from bracelet **12** due to spring **36**. Such yieldability may be adjusted by tightening or loosening nut **54**. In this respect it is pointed out that the underside of nut **54** (FIG. 6) has oppositely disposed depending keys **56** relative to the bore **58** which will seat in the recesses **60** extending radially from the upper surface of band **42** relative to hole **50**. This arrangement permits quarter turn adjustments of nut **54** and serves to lock the nut from accidentally becoming loosened.

To place band **42** in its inoperable position (FIGS. 3 and 5), the forward end **44** is elevated sufficiently for lug **52** to be withdrawn from hole **40** and the band is then pivoted on pin **34** until lug **52** snaps into hole **38** and the position of band **42** is changed from overlying the back of hand **14** to overlying the wrist of the user. It will be appreciated that this feature affords a most convenient and simple means to render this device inoperable without having to remove it from the hand. Thus if a

user wishes to bowl without the guide during a part of any game, or to stop for an intermission break, a simple reversal of band 42 permits normal unrestricted use of the hand without disturbing the wrist straps or bracelets. Band 42 is returned to operable position by the same movement described above. Thus the end 44 of band 42 is elevated and turned to move it from or to either position.

From the above description and as seen in FIG. 1, band 42 will overlie the back of the hand 14 with pad 46 actually in contact therewith for obvious reasons. Band 42 is stiff enough, being preferably made of a light gauge spring metal, to act as a splint-like stop against bending of the hand and to thus maintain the back of the hand coplanar with the wrist. Thus if the ball is released with the thumb at the nine o'clock position, the hand is in proper position for imparting the proper spin to the ball 62 and the tendency to bend the hand outwardly will be prevented by assembly 22.

It is submitted that the invention shown and described is aptly suited to achieve the purposes intended and is characterized by a combination of highly useful and mutually cooperating elements that combine their respective and proportionate functions in accomplishing the objects sought to be obtained.

It will be understood that the phraseology employed herein is for the purpose of description and not for limitation and that modifications and changes in the construction and arrangement of this invention can be made within the scope of what is claimed, without departing from the spirit and purpose thereof. It is thus intended to cover by the claims, any modified forms of structure or mechanical equivalents which may be reasonably included within their scope.

I claim:

1. A hand guide for bowlers comprising:
a strap for secure attachment to the wrist of a user,
a relatively rigid but resilient band pivotally attached at one end to said strap and adapted to overlie the back of the hand of the user in operable position so as to maintain the back of the hand coplanar with the wrist,
releasable means to hold said band against pivotal movement relative to said strap, and
means to pivot said band relative to said strap to an inoperable position so as to overlie the wrist of the user.

2. A hand guide for bowlers comprising:
a strap for secure attachment to the wrist of a user,
a relatively rigid but resilient band pivotally and yieldingly attached at one end to said strap and adapted to overlie the back of the hand of the user in operable position so as to maintain the back of the hand coplanar with the wrist,
releasable means to hold said band against pivotal movement relative to said strap, and
means to pivot said band relative to said strap to an inoperable position so as to overlie the wrist of the user.

3. A hand guide for bowlers comprising:
a pair of spaced straps for attachment to the wrist of a user,
a rigid link pivotally secured at respective opposite ends to said respective straps,
a relatively rigid but resilient band pivotally attached at one end to one end of said link and adapted to overlie the back of the hand of a user in operable position so as to maintain the back of the hand coplanar with the wrist,
means releasably interlocking said band and said link in the operable position of said band to prevent relative movement therebetween, and
said band being pivotal relative to said link to an inoperable position so as to overlie the wrist of the user.

4. Apparatus as defined in claim 3 including means releasably interlocking said band and said link when said band is in its inoperable position relative to the wrist of the user.

5. Apparatus as defined in claim 3 including:
yielding means intermediate the pivotal connection of said link and said band, and
means to selectively increase and decrease the yieldability of said yielding means.

6. Apparatus as defined in claim 3 wherein one of said straps is of an endless expansion type, and the other is of a buckle type of pliable material and adapted to be disposed intermediate the hand of the user and the expansion strap.

7. A hand guide for bowlers comprising:
a pair of spaced straps for attachment to the wrist of a user,
a rigid link pivotally secured at respective opposite ends to said respective straps,
a relatively rigid but resilient band pivotally attached at one end to one end of said link and adapted to overlie the back of the hand of a user in operable position so as to maintain the back of the hand coplanar with the wrist,
said link provided with a single pair of longitudinally spaced holes oppositely disposed relative to the point of pivotal attachment of said link and said band,
a depending lug on said band removably seated in one of said holes to lock said band against lateral movement when the band overlies the back of a hand,
said band being pivotal relative to said link to an inoperable position so as to overlie the wrist of a user, and
said lug being removably seated in said other hole to lock said band against lateral movement when overlying the wrist of the user.

8. A hand guide for bowlers comprising:
a pair of spaced straps for attachment to the wrist of a user,
a hand guide assembly connected to said straps,
said hand guide assembly including a band adapted to overlie the back of a hand in operable position and hold it coplanar with the wrist,
means affording movement of said band to an inoperable position overlying the wrist, and
means for selectively locking said band against movement relative to said straps in either of its overlying positions.

9. Apparatus as defined in claim 8 wherein said hand guide assembly is yieldably connected to said straps and including means to selectively increase and decrease the yieldability of said connection.

References Cited by the Examiner

UNITED STATES PATENTS

401,933	8/1889	De Camp	128—88
1,226,160	5/1917	Allis	273—189
1,418,637	6/1922	Flood	273—189
1,976,244	10/1934	Moran	128—88
2,388,330	11/1945	Jungmann	2—16

FOREIGN PATENTS

916,700	1/1963	Great Britain.

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