

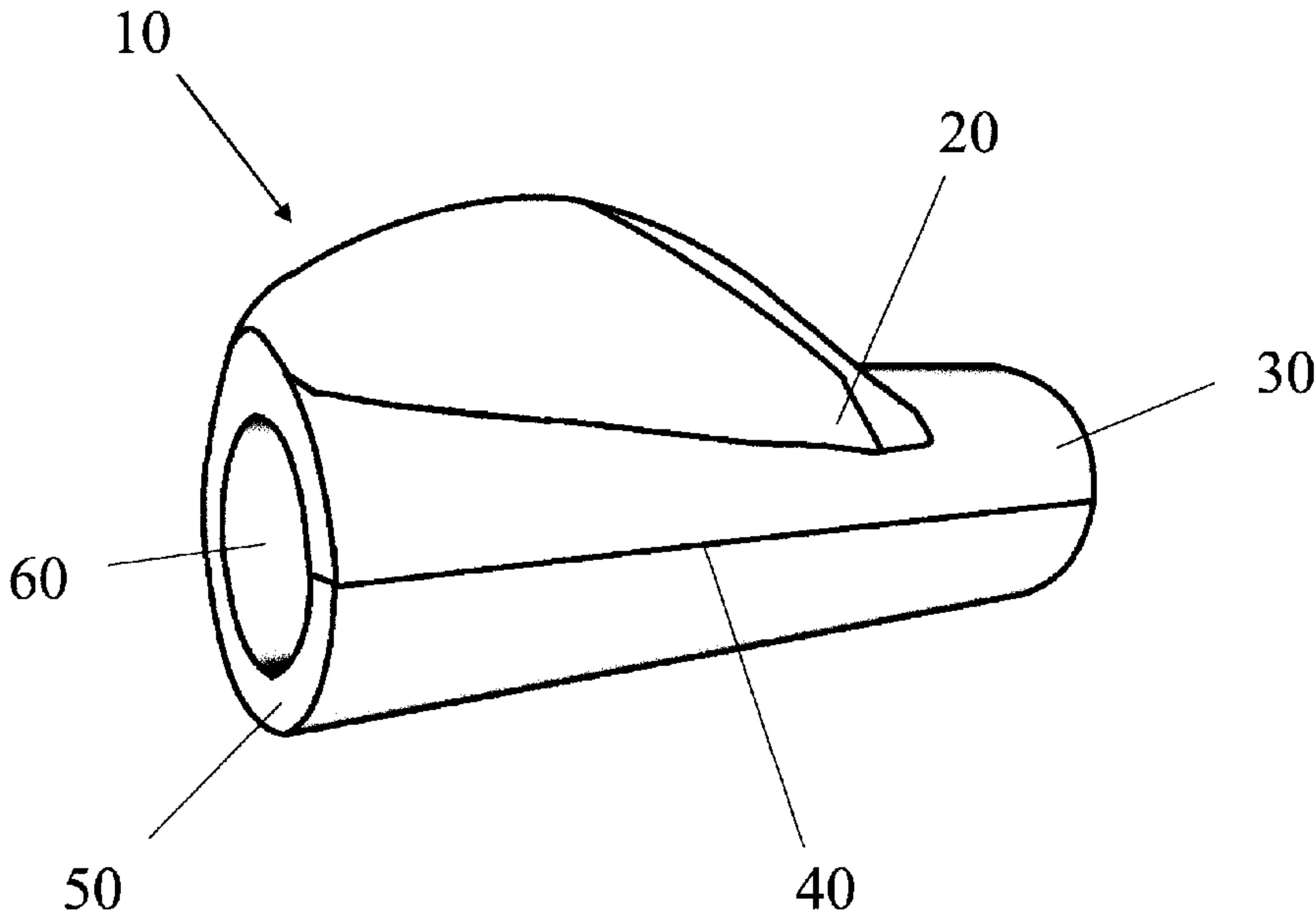


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(54) Titre : DISPOSITIF DE SUPPORT DE POIGNEE D'EXERCICE ERGONOMIQUE A VOILETS
(54) Title: WINGED ERGONOMICALLY DESIGNED EXERCISE GRIP SUPPORT DEVICE



(57) **Abrégé/Abstract:**
An ergonomically wing shaped exercise grip support device is disclosed that is portable and attaches/detaches to and from exercise and weight lifting bars or various sizes. The winged grip support device is ergonomically designed to allow superior comfort when held that prevents the bar from moving and rolling in one's hands, thus helping to prevent strains, sprains and other injuries. The winged grip support device ensures proper ergonomic alignment when held as well as distributes the weight being lifted to a greater surface area of one's hands, thus allow for the maximum and most superior exercise and weight lifting performance.

TITLE

WINGED ERGONOMICALLY DESIGNED EXERCISE GRIP SUPPORT DEVICE

ABSTRACT

An ergonomically wing shaped exercise grip support device is disclosed that is portable and attaches/detaches to and from exercise and weight lifting bars or various sizes. The winged grip support device is ergonomically designed to allow superior comfort when held that prevents the bar from moving and rolling in one's hands, thus helping to prevent strains, sprains and other injuries. The winged grip support device ensures proper ergonomic alignment when held as well as distributes the weight being lifted to a greater surface area of one's hands, thus allow for the maximum and most superior exercise and weight lifting performance.

FIELD OF THE INVENTION

This invention relates to an ergonomic exercise grip support device and more particularly a portable and attachable/detachable, ergonomically designed winged exercise grip support, that attaches to a bar which is used for the purposes of exercise and lifting weights, while offering an enhanced wing designed grip, improved support stability, sophisticated ergonomics and comfort, for the fingers, hands, wrist, elbows, shoulder, neck, back, torso, knees, ankles and feet when using the device in conjunction with exercise and lifting weights.

BACKGROUND OF THE INVENTION

There is no point in history that people are more health conscious than the modern day. Since the revolutionary invention of the home computer, people have been searching for ways to not only stay healthier with proper exercise, but do so in more ergonomically sound ways, that not only improve our health with exercise, but do so in a way to help prevent us from hurting ourselves and causing injuries in the process of exercise.

One such way people exercise is through joining and becoming members of their local health clubs, fitness centers and gyms. One such advantage of these locations is not only do they offer many different types of exercise equipment that members may not have access to at home, but they can offer professional support to accommodate one's fitness goals. Of course many people have their own home gyms, and workout areas, that they fill with their own favorite pieces of exercise equipment.

One common way people exercise is by lifting weights. By lifting weights one can not only develop attractive biceps and the 'six-pack abs' but also even decrease stress, heart disease and even some forms of cancer. It is proven that lifting weights can burn more calories and help shed pounds of fat. Another great thing with lifting weights, includes being healthier, which can lead to less stress in one's life, which obviously can make a person happier in one's life. Some research has said people

who lift weights will live longer, be more productive and even smarter. It is no wonder everyone wants to include lifting weights as part of their exercise routines.

For those who do lift weights they may find themselves using an assortment of weight lifting equipment. Some of this equipment that is well known include free weights, barbells, Olympic bars, dumbbells, the bench press and many styles of home gyms to name just a few. In conjunction with using these types of weight lifting pieces of equipment, many inventions have evolved to help aid in using these devices. Some of these inventions involve gloves and other forms of devices such as gripping devices that may attach to the bar being used. Most of these inventions involve offering the lifter a better grip of the bar. Prior to some of these devices, and still used, was chalk or rosin that a lifter, especially lifting heavier weights, may apply onto their hands for a better grip. The drawbacks to these older (but still used) methods of aiding in a better grip are numerous, not just limited to the availability of the product. Many such products are not sanitary while others, like rosin are generally very messy. To help aid in improvements many previous patents have been filed with creative measures to aid in exercise and weight lifting.

In Canadian Patent, Numbered CA 2,675,537 to Graham and Hartman, is disclosed an “Exercise Grip Device” that is used for working out various arm muscles and can be used as a stand-alone device for exercising the hand. Although Graham and Hartman disclose a device that may be attached to a weight lifting bar, the similarities in functionality and appearance with that of the present invention seem to end there.

In United States Design Patent, Numbered US D616,950 to Hersee and Bruggemann, is disclosed a “Thick Grip”. Although it appears this invention was designed for the use of fitting over a bar, the utility of the design is pretentious and vague as to its purpose. The present invention in no way resembles this design patent and the many enhanced improvements of the present invention will become apparent to one skilled in the art when compared with this design patent.

In another United States Design Patent, Numbered D474,370 to Margolin, is disclosed a “Hand Grip” that also appears to fit over a bar, however, The present invention in no way resembles this

design patent and the many enhanced improvements of the present invention will become apparent to one skilled in the art when compared with this design patent.

While some previous art has disclosed devices that fit onto an exercise bar, in yet another attempt to improve the grip of the user when lifting weights, United States Patent, Numbered US 5,775,756 to Rozenich, is disclosed a “Secure Gripping System”. Rozenich discloses a wrapping device that is wrapped around and secured to a bar to replace the use of rosin or wearing gloves that can be damaged due to sweat. Although the Rozenich patent does act as an enhanced grip the differences in appearance and functionality with that of the present invention are in no other way alike.

With references to prior art there have been other attempts to disclose inventions that either attach to exercise bars, aid in weight lifting for added grip as well as attaching to bars that are not weight lifting bars, such as the bar (handle) of a golf club or bicycle (handle bar), for added grip of a device one holds with their hands. The most obvious of all prior art patents in conjunction with that of the present invention are noted. In United States Design Patent, Number US D546,659 to Smith, is disclosed a “Tool Grip”. In United States Patent, Number US 5,459,883 to Garceau-Verbeck, is disclosed an “Ergonomic Hand Covering and Grip Enhancer”. In United States Patent, Numbered US 8,777,816 to Grafman et al, is disclosed a “Bar Grip”. In United States Patent, Numbered US 9,643,073 to Pellegrino, is disclosed an “Exercise Grip”. In United States Patent, Numbered US 9,061,728 to Galstad et al, is disclosed a “Bicycle Handlebar and Grip Assembly”. In United States Patent, Numbered US 8,776,321 to Doherty et al, is disclosed an “Ergonomic, Shock-Absorbing Hand Grip”. In United States Patent, Numbered US 8,113,087 to Arnold, is disclosed a “Bicycle Handle-Bar Grip”. In United States Patent, Numbered US 7,736,284 to Andrews, is disclosed a “Hand-Grip Accessory.” In United States Patent, Numbered US 4,487,412 to Meeko, is disclosed “Weight Lift Grips”. While many of these applications involve grips or weight lifting aids, none of them by themselves, or collectively, disclose the advantages of the present invention of a portable and attachable/detachable, winged ergonomically designed exercise grip support, that attaches to a bar which is used for the purposes of exercise and lifting weights while offering an enhanced grip, improved support stability and more sophisticated ergonomics and comfort for the fingers, hands, wrist, elbows, shoulder, neck, back, torso, knees, ankles and feet when using the device in conjunction with exercise and lifting weights.

It is an aim of the present invention to offer a winged ergonomically designed exercise grip support. It is a further aim of the present invention to offer a winged ergonomically designed exercise grip support that improves the grip of a weight lifted bar and allows for more comfort while lifting weights. It is still a further aim of the present invention to offer a winged ergonomically designed exercise grip support that offers superior improvements in regards to proper alignment when lifting weights, aligning the lifted weight in one's hands, in an ergonomic way, to allow for reduced stress and injuries when weight lifting, to the fingers, hands, wrist, elbows, shoulder, neck, back, torso, knees, ankles and feet. It is yet still a further aim of the present invention to offer a winged ergonomically designed exercise grip support that further distributes the weight being lifted over a greater surface contact area of one's hand, than just the bar itself when weight lifting in relation to one's hands holding a lifted bar. Yet it is still a further aim of the present invention to offer a winged ergonomically designed exercise grip support that through proper alignment and enhanced comfort when lifting weights, as well as distributing weight to a greater surface contact area, an increased user ability to perform more repetitions and lift more weight in a lift when lifting weights with the present invention. Another aim of the present invention is to offer a winged ergonomically designed exercise grip support that is portable as well as attachable and detachable to and from different pieces of exercise equipment.

Thus there is a considerable need for the present invention and one skilled in the art will continue to understand this need in the following summary and furthermore in the drawing and detailed description of the drawing.

SUMMARY OF THE INVENTION

The present invention is directed to an exercise grip support and more particularly a winged ergonomically designed exercise grip support that attaches to a bar, like a weight lifting bar. More specifically the present invention is a formed or molded wing designed exercise grip support that attaches to a weight lifting bar for the purposes of allowing for enhanced grip, improved support stability, more sophisticated ergonomics and comfort with further purposes of preventing injuries by allowing for proper alignment of the fingers, hand and wrist when lifting weights. The present invention also distributes weight to a greater surface contact area of the hand which allows for an increased user ability to perform more repetitions and lift more weight in a lift, when lifting weights with the winged ergonomically designed exercise grip support of the present invention.

In accordance with the preferred embodiment of the present invention the wing designed exercise grip support (also referred to throughout as the winged grip support or grip support) of the present invention is manufactured by a mold maker using the process of liquid mold rubbers that can be poured to form the present invention. These liquid molded rubbers may also be called Polyurethane molded rubbers and used in a variety of industries. Some advantages of Polyurethane rubber is it is easy to use, cost effective, versatile, as well as may be produced in a plurality of degrees of hardness, from a soft to medium hard rubbers all the way to very hard rubbers. Although it should be understood that present invention may be made from different materials that would serve the desirable purposes of the present invention found herein, the winged grip support of the present invention is preferably made from Polyurethane rubber. In this process a mold maker would fill a hollowed out block with a liquid or pliable material, such as Polyurethane rubber, that conforms to the degree of hardness most suitable and desired of the present invention. In the preferred embodiment of the present invention the desired hardness is known as 60 shore, however, it is understood degrees of hardness that are various degrees harder or softer than 60 shore may be used to form the winged grip support without taking from the scope of the present invention. The liquid rubber then hardens or sets inside the mold, adopting the shape of the desired object, in this case that of the winged grip support of the present invention. The current process may use one, two or more molds, one for each or different sides of the object made and advancements in technology, such as 3D printers and the like may alter the best process to manufacture the present invention without ever taking from the scope of the present

invention. The present invention is molded in such a way to include the key features of the winged grip support design, with each feature, or different part, of the winged grip support playing a part in making the present invention complete.

In the preferred embodiment of the present invention the winged grip support is molded in one piece. The one piece winged grip support consists of different parts, sections and features which are best used to describe and illustrate the winged grip support of the present invention and also enable one skilled in the art to fully understand and appreciate the many advantages of the present invention. For illustration purposes we have named the different parts, sections and features of the winged grip support of the present invention to include a Winged Palm Support, Winged Thumb Support, Hand Surface, Slit Clamp, Grip Support Wall, Inside Cylinder and Inside Cylinder Wall.

In the preferred embodiment of the present invention the winged grip support that may be offered in an assortment of colors comes with a left and right handed winged grip support. Like many every day commonly used accessories such as gloves or shoes, whereas one is specifically designed for the left hand or foot and the other of the pair for the right hand or foot, the winged grip support comes in a pair, one specifically designed for each hand. In the preferred embodiment the left and right handed grips are clearly marked with words or letters such as "Left" or "L" and "Right" or "R" so it is clearly identified on the winged grip support of the present invention. More specific details of how to properly attach the winged grip support will be laid out in the detailed description.

In the preferred embodiment of the present invention the winged grip support is attached to a bar, and more specifically an exercise style bar, that would be used in fitness for different kinds of known lifts in weight lifting and exercise. Some of the more common bars that the present invention may attach to are known as free-weights, barbells, Olympic bar, dumbbells, cables and other bars used in exercise and weight lifting such as for use of the bench press, weights with cables, chin-ups and more. There are many different kinds of bars, including slight variations in the diameter of weight lifting bars. For example an Olympic bar is a metal bar that has outer ends that are 50 millimeters (2.0 inches) in diameter, while the grip section is 28 millimeters (1.1 inches) in diameter. Although the winged grip support of the present invention is most commonly molded to precisely fit the most

common bar diameters, such as the Olympic bar, it is understood to one skilled in the art that the present invention may also come in slight variations in size that would allow the present invention to fit onto an assortment of bar sizes of varying degrees in diameter.

In the preferred embodiment of the present invention the winged grip support attaches to the exercise or weight lifting bar in one simple motion. The winged grip support of the present invention is formed or molded with a cut line, more specifically referred to as a Slit Clamp that is either: a) formed and molded into the mold of the winged grip support or; b) is cut into place after the manufacturer has formed and molded the winged grip support. In either process the winged grip support of the present invention will have this Slit Clamp which is used to open the winged grip support of the present invention so it may be slid onto an exercise or weight lifting bar and allows the winged grip support of the present invention to attach to the bar, enabling the winged grip support and the bar to be fitted and work together. For illustration purposes if you tried to attach the center cardboard tube found in the center of a toilet paper roll to an exercise bar you could either slide the tube over the end of the bar, or more easily, you could cut a line down the length of the cardboard tube, which would then allow the tube to be pried open and very easily slide over and onto the exercise bar. With that simple analogy anyone can now understand the winged grip support of the present invention acting like that cardboard tube (but highly more sophisticated) and the cut line being the Slit Clamp so the winged grip support of the present invention may now easily be spread opened, or pried opened, and easily slide onto an exercise or weight lifting bar. Due to the fact the present invention is made from durable rubber it will rather easily open along the length of the Slit Clamp for the purposes of easily attaching to the exercise or weight lifting bar. A more detailed and specific process of steps of attaching the winged grip support to an exercise or weight lifting bar will be in the detailed description but would in its most simplistic form require the steps of: a) holding the left handed winged grip support with one or both hands and; b) gently spreading open, or prying open, the winged grip support along the Slit Clamp and; c) sliding onto the proper side of the exercise or weight lifting bar and over and onto the bar in the normal location you would place your hands when lifting the bar and; d) releasing the winged grip support which will enable the winged grip support to form and be fitted onto the bar and; e) then slightly adjusting (if need be) the winged grip support to the desired exact position on the bar and; f) repeating steps A to E now but for the right handed winged grip support. The entire process of attaching the winged grip supports to the bar for both the left and right handed grips, in actual time, takes less than 15 seconds. The winged grip supports of the present invention

are detachable in mere seconds by simply using one or both hands and prying open the Slit Clamp and pulling the winged grip support from the exercise or weight lifting bar, making the winged grip supports of the present invention portable and transferrable between many different bars even at different locations such as the home and fitness center.

The winged grip support of the present invention attaches to the exercise or weight lifting bar in the exact position one would place their hands to lift the bar if one was not using the present invention. A standard Olympic bar is 2.2 meters (7.2 feet) long with the grip section of the bar 1.31 meters (4.3 feet) in length. There is no specific spot each and every person uses to grasp or hold the bar when lifting and this is more an individual preference. If multiple people were all sharing the same winged grip support of the present invention, say on a bench press for instance, they could very easily grab the winged grip support along the Slit Clamp and slightly pry open the winged grip support to slide to their desired location along the length of the bar for each the left and right handed winged grip support. In actual time to readjust the winged grip support would take under 10 seconds. Of course it is possible each lifter would have their own winged grip support that is unique, and used by only them, when in use, which in the preferred embodiment of the present invention has its own advantages.

When the winged grip support of the present invention is attached to an exercise or weight lifting bar it is attached in a way so that the Winged Palm Support of the winged grip support is facing the lifter in a way that when the winged grip support is grasped in one's hand, the Winged Palm Support comfortably and ergonomically rests in the palm of the lifter's hand. The left winged grip support's Winged Palm Support fits into the palm of the left hand of the lifter and the right winged grip support's Winged Palm Support fits into the palm of the right hand of the lifter. Of course there are many different methods used in lifting. For example in a Dead Lift the lifter lifts the weights off the floor, so the winged grip support's Winged Palm Support would be facing upwards (or slightly upwards and offset depending on the lift) so that when a lifter bends over or squats to grab onto the winged grip supports, that would be attached to the bar, the lifter's left and right hands would grab onto the winged grip support in such a way that the lifter's palms of their left and right hand fit comfortably over the Wing Palm Support for the left and right handed winged grip support. When grabbed properly the feeling of the Winged Palm Support is instantly understood by the lifter as the Winged Palm Support

contours and conforms to and with the shape of the palm of the lifter. A first time lifter would instinctively understand they are holding the winged grip support properly because how comfortable the Winged Palm Support rests into the lifter's palm. Of course the winged grip support's Winged Palm Support of the present invention would face downwards (or slightly downwards and offset depending on the lift) if the lifter was lifting from under the bar in what is commonly known as squats or the bench press. In a bench press for example, the lifter is laying or seated on a bench, like a flat bench or one that is inclined or declined. So with each different style of lift the lifter is approaching the bar from varying degrees with their hands to grasp onto the bar. From these varying degrees the winged grip support's Winged Palm Support also rotates around the bar so that the lifter's palms fit securely and comfortably onto the Winged Palm Supports of the left and right winged grip supports.

There are numerous different hand held grips lifters use when lifting weights and one skilled in the art would understand these different grips are used for lifting different weights, doing different lifts and as well as exercising different muscles. Some of the more common lifts that can be used with the winged grip support of the present invention include, but is not limited to, the Overhand Grip, Underhand Grip, Hammer Grip, Alternate Grip, False Grip, Hook Grip, Wide Grip and Close Grip. The winged grip support of the present invention enhances a lifter's ability to use each grip and the advantages of using the winged grip support in conjunction with different lifts will become more apparent to one skilled in the art as the present invention is understood. Of the grips listed two of the most common grips in exercise and weight lifting are known as the Overhand Grip and the Underhand Grip. With the Overhand Grip the palms are facing away from the lifter. The Overhand Grip is used for many different types of exercises and is commonly used from a bench press as well as when exercising the biceps with reverse curls. Mostly when using the Overhand Grip one is working the wrist extensor muscles (muscles on top of the forearms). With the Underhand Grip the palms are usually facing towards the lifter when doing such bicep exercises like barbell bicep curls or reverse grip chin-ups. One common issue with both the Overhand and Underhand Grips is that the bar often rolls in the palm of one's hands when using these popular lifting and exercise grips. The issue of a rolling bar in one's palm is even more prevalent the more weight that is lifted on the bar at one time. This is why the Hook Grip is often used when powerlifting. The Hook Grip is when the lifter wraps their thumb around the bar and places their index, big and ring finger over their thumb in a way to pin the thumb to the bar, helping to hold the bar in place. For a novice lifter the Hook Grip may not be practical as it is a somewhat potentially difficult art to master as well as it can be uncomfortable.

The winged grip support of the present invention is designed to offer many advantages that help aid a user in exercise and lifting weights. One such advantage when using the winged grip support of the present invention is when the user grips the winged grip support and the lifter's palm rests in the Winged Palm Support the lifter may wrap their thumb behind the Winged Palm Support and onto the Winged Thumb Support. This important design feature may be used with the Overhand or Underhand Grips and allows the user of the winged grip support of the present invention to mimic the Hooked Grip. Now the winged grip support of the present invention offers a more secure way to lift a bar which now aids in preventing the bar from rolling in one's hand. The bar's Winged Palm Support prevents the bar from rolling as it is pressed firmly and securely into one's palms and the combination of a user wrapping their thumb around and onto the Winged Thumb Support, in conjunction with the force of one's grip, now helps aid in preventing the bar from rolling either way in one's palm. The winged grip support of the present invention offers superior gripping ability when applied with each of the most common grips associated with exercise and weight lifting.

Another such advantage of the winged grip support of the present invention relates to the comfort and ergonomics of holding a bar in the palm of one's hand. A bar is not naturally shaped to fit across the palm of one's hand and a close up of a weight lifter's hand and wrist holding a heavy bar is almost a painful thing to view. The present invention was ergonomically designed to contour to the palm of one's hand using scientific hand data of men, women, and children factoring in hand length, breadth, finger length, dorsum length and thumb length. Included in and factored into the design were that of the different diameters of bars, as well as, men and woman's finger grip and hand grasp formulas. One skilled in the art would understand by taking all these formulas into account the winged grip support of the present invention may be designed to ergonomically fit into the hand of a man and a woman and slight variations in design to accommodate both would in no way alter or take from the scope of the present invention.

By forming the winged grip support of the present invention to the perfect measurements of both a man and woman's hand the present invention has accomplished more than just maximum comfort when used in exercise and lifting weights. One such advantage now offered by the present invention is the distribution of weight within the user's palm, of the weight lifted, during exercise and weight lifting. The Winged Palm Support that contours to the entire palm of the lifter acts to distribute

the weight over a greater surface contact area within each hand, as compared when with not using the present invention when lifting weights. By creating a greater surface area and distributing the lifted weight over this greater surface area, the ergonomics creates a more comfortable weight lifting experience. If one finds it more comfortable to lift a weight, it can be argued that they may do more repetitions, the number of times they lift and lower a weight in one set of an exercise. Also if one finds it more comfortable to lift a weight, in theory, it now becomes more comfortable to lift a greater amount of weight in one lift using the winged grip support of the present invention.

Another such advantage of forming the winged grip support of the present invention to the perfect measurements of both a man and woman's hand is that the Winged Palm Support forces a lifter to use proper ergonomically aligned lifting techniques when using the winged grip support of the present invention. The Winged Palm Support, through the wing construction, the hand is supported and the wrist is automatically put in an ergonomically idea position. Many recreation and professional gym goers know the problem when the hands fall asleep and begins to tingle. The hand is a very complex and sensitive part of the body with a lot of nerves running through the wrist which acts as a bottleneck and thus a problem area. Due to low fat and muscle, the hand is less protected and thus vulnerable to pressure load. The hands bolster a large part of the upper body weight onto the barbell and thus there is constant and high pressure onto a small area causing nerves to become irritated. Compounding the issue is many lifters bend their wrists to much resulting in sensory loss, tingling, numbness or abnormal sensations in the little finger and ring finger. In extreme cases even the grasping function of all fingers is limited. Strong pressure points may lead to kinking off the Ulnar nerves further leading to numbness or impaired mobility. The wing grip of the winged grip support not only enlarges the contact area of the hand, allowing for pressure to be more widely distributed over a larger area, thus relieving the Ulnar nerve and increasing comfort, but also helps prevent the wrist from bending. Heavy weights, with increasing fatigue, complicate the ergonomically correct position of the hand and cause a bent wrist, however, with the winged design of the present invention the wrist is actively prevented from kinking or falling downward, thus offering maximum hand comfort and support by putting the wrist automatically in an ergonomically idea position. By creating a greater contact surface area, and distributing the lifted weight over this greater surface area, and now also allowing for the proper alignment of the wrist in the most ergonomically position, it can be argued that lifters may do more repetitions, the number of times they lift and lower a weight in one set of an exercise, when using the present invention. Also if one finds it more comfortable to lift an amount of

weight, and the weight is distributed over a greater area, and maximum proper alignment is used, in theory, it now becomes more comfortable, and possible, to lift a greater amount of weight in one lift using the winged grip support of the present invention.

The present invention should now start to become more apparent as to its many design features as stated earlier in the aims of the present invention. One such aim of the present invention is to offer a winged ergonomically designed exercise grip support. A further aim of the present invention is to offer a winged ergonomically designed exercise grip support that improves the grip of a weight lifted bar and allows for more comfort while lifting weights. Still a further aim of the present invention is to offer a winged ergonomically designed exercise grip support that offers superior improvements in regards to proper alignment when lifting weights, aligning the lifted weight in one's hands, in an ergonomic way, to allow for reduced stress and injuries when weight lifting, to the fingers, hands, wrist, elbows, shoulder, neck, back, torso, knees, ankles and feet. It is yet still a further aim of the present invention to offer a winged ergonomically designed exercise grip support that further distributes the weight being lifted over a greater surface contact area of one's hand, than just the bar itself, when weight lifting in relation to one's hands holding a lifted bar. Yet it is still a further aim of the present invention to offer a winged ergonomically designed exercise grip support that through proper alignment and enhanced comfort when lifting weights, as well as distributing weight to a greater surface contact area, an increased user ability to perform more repetitions and lift more weight in a lift when lifting weights with the present invention. Another aim of the present invention is to offer a winged ergonomically designed exercise grip support that is portable as well as attachable and detachable to and from different pieces of exercise equipment.

While the present invention is susceptible to various modifications and alternative forms, specific embodiments have been shown by way of example found in the drawing herein. It should be understood that the invention is not intended to be limited to the particular forms disclosed. Rather the invention is to cover all modifications, equivalents and alternatives falling within the spirit and scope of the invention. The detailed description and figures will describe many of the embodiments and aspects of the present invention and the present invention will become clearer and more precise to one skilled in the art in the following sections.

BRIEF DESCRIPTION OF THE DRAWING

The novel features of the various embodiments of the winged grip support of the present invention are set forth with particularity in the appended claims. The various embodiments, however, both as to the physical invention and the methods of operation may best be understood by way of example with references to the following description and taken in conjunction with the accompanying drawing as follows. In the following Figures like components are shown with like numbers.

FIGURE 1 (FIG. 1) is a slightly rotated side perspective view, showing the end and side of a left handed winged grip support of the present invention.

FIGURE 2 (FIG. 2) is the left handed winged grip support as shown in FIGURE 1 with an opened slit clamp for illustration purposes.

FIGURE 3 (FIG. 3) is a top view of the left handed winged grip support as shown in FIGURE 1, showing the wing palm support and the winged thumb support areas of the present invention.

FIGURE 4 (FIG. 4) is showing the reverse end and side view of FIGURE 1 when rotated or spun 180 degrees.

FIGURE 5 (FIG. 5) shows a left and right handed winged grip support of the present invention attached to a grip section of a weight lifting bar.

FIGURE 6 (FIG. 6) shows the palm side of a left hand holding the winged grip support of the present invention that is attached to a weight lifting bar.

FIGURE 7 (FIG. 7) shows the back hand side of a left hand holding the winged grip support of the present invention that is attached to a weight lifting bar.

FIGURE 8 (FIG. 8) is a cross section of FIGURE 7 showing the back hand side of the left hand holding the winged grip support of the present invention that is attached to a weight lifting bar, while also showing the palm support in the palm of the hand.

FIGURE 9 (FIG. 9) is showing the palm side of a right hand holding the winged grip support of the present invention.

DETAILED DESCRIPTION OF THE DRAWING

The present invention is directed to an exercise grip support and more particularly a winged ergonomically designed exercise grip support that attaches to a bar, like an exercise or weight lifting bar. More specifically the present invention is a formed or molded wing designed exercise grip support that attaches to a weight lifting bar for the purposes of allowing for enhanced grip, improved support stability, more sophisticated ergonomics and comfort with further purposes of preventing injuries by allowing for proper alignment of the fingers, hand and wrist when lifting weights. The present invention also distributes weight to a greater surface contact area of the hand which allows for an increased user ability to perform more repetitions and lift more weight in a lift, when lifting weights with the winged ergonomically designed exercise grip support of the present invention.

In accordance with the preferred embodiment of the present invention the wing designed exercise grip support of the present invention is manufactured by a mold maker using the process of liquid mold rubbers that can be poured to form the present invention. These liquid molded rubbers may also be called Polyurethane molded rubbers and used in a variety of industries. Some advantages of Polyurethane rubber is it is easy to use, cost effective, versatile, as well as may be produced in a plurality of degrees of hardness, from a soft to medium hard rubbers all the way to very hard rubbers. Although it should be understood that present invention may be made from different materials that would serve the desirable purposes of the present invention found herein, the winged grip support of the present invention is preferably made from Polyurethane rubber. In this process a mold maker would fill a hollowed out block with a liquid or pliable material, such as Polyurethane rubber, that conforms to the degree of hardness most suitable and desired of the present invention. In the preferred embodiment of the present invention the desired hardness is known as 60 shore, however, it is understood degrees of hardness that are various degrees harder or softer than 60 shore may be used to form the winged grip support without taking from the scope of the present invention. The liquid rubber then hardens or sets inside the mold, adopting the shape of the desired object, in this case that of the winged grip support device of the present invention. The current process may use one, two or more molds, one for each or different sides of the object made and advancements in technology, such as 3D printers and the like may alter the best process to manufacture the present invention without ever taking from the scope of the present invention. The present invention is molded in such a way

to include the key features of the winged grip support design, with each feature, or different part, of the winged grip support playing a part in making the present invention complete.

In the preferred embodiment of the present invention the winged grip support is molded in one piece. The one piece winged grip support consists of different parts, sections and features which are best used to describe and illustrate the winged grip support of the present invention and also enable one skilled in the art to fully understand and appreciate the many advantages of the present invention. For illustration purposes we have named the different parts, sections and features of the winged grip support of the present invention to include a Winged Palm Support, Winged Thumb Support, Hand Surface, Slit Clamp, Grip Support Wall, Inside Cylinder and Inside Cylinder Wall.

Now referring to FIGURE 1 (FIG. 1) of the drawing, a slightly rotated side perspective view, showing the end and side of a left handed winged grip support 10 of the present invention is shown. The winged grip support 10 that may be offered in an assortment of colors also comes as a set, one for each hand. The winged grip support 10 in FIG. 1 is meant for the use with the left hand. Like many things that are sold, such as gloves and shoes, where one is sold for the left hand or foot, and one is sold for the right hand or foot, but yet sold as a pair or set, the winged grip support 10 of the present invention also is designed, one specifically for each hand. Although only FIGURE 5 and FIGURE 9 show the right handed winged grip support 10 of the present invention, the left and right handed supports 10 are mirror images of one another. Other than the winged grip support 10 being specifically designed for each hand, the features of the winged grip support 10 would be the same for the left and right handed grips. In the preferred embodiment the left and right handed grips are clearly marked with words or letters such as "Left" or "L" and "Right" or "R" so it is clearly identified on the winged grip support 10 of the present invention.

Still referring to FIG 1, in the preferred embodiment of the present invention the winged grip support 10 is molded in one piece. The one piece winged grip support consists of different parts, sections and features which are best used to describe and illustrate the winged grip support 10 of the present invention and also enable one skilled in the art to fully understand and appreciate the many advantages of the present invention. For illustration purposes we have named the different parts,

sections and features of the winged grip support 10 of the present invention to include a Winged Palm Support (not shown in FIG 1, 70 FIG. 3). The Winged Palm Support would not be visible from FIG. 1 as it is on the other side of the Winged Thumb Support 20. Also shown in FIG. 1 is the Hand Surface Area 30, Slit Clamp 40, Grip Support Wall 50, Inside Cylinder (referring to the hole through the winged grip support 10) and Inside Cylinder Wall 60. Each of the numbered parts of the winged grip support 10 serve a purpose and will become more clear as to their functions here in the detailed description of the present invention.

Now referring to FIGURE 2 (FIG. 2) of the drawing, the left handed winged grip support 10 as shown in FIG. 1 is shown again in FIG. 2, however, with a slightly opened Slit Clamp 40 for illustration purposes. In FIG. 1 the Slit Clamp 40 is shown in a closed view. In the preferred embodiment of the present invention the winged grip support 10 is attached to a bar (not shown in either FIG. 1 or FIG. 2), and more specifically an exercise or weight lifting style bar, that would be used in fitness for different kinds of known lifts in weight lifting and exercise.

In FIGURE 5 (FIG. 5) a left 10 (L) and right 10 (R) handed winged grip support 10 of the present invention is shown attached to a grip section 100 of a weight lifting bar 80. Some of the more common bars 80 that the present invention may attach to are known as free-weights, barbells, Olympic bar, dumbbells, cables and other bars used in exercise and weight lifting such as for use of the bench press, weights with cables, curls, chin-ups and more. Although the winged grip support 10 of the present invention may fit all these different types of bars, in FIG. 5, the present invention is shown on what would resemble an Olympic bar 80. There are many different kinds of bars 80, including slight variations in the diameter of weight lifting bars 80. For example an Olympic bar 80 is a metal bar that has outer ends 90 that are 50 (fifty) millimeters (2.0 inches) in diameter, while the grip section 100 is 28 (twenty-eight) millimeters (1.1 inches) in diameter. Although the winged grip support 10 of the present invention is most commonly molded to precisely fit the most common bar diameters 100, such as the Olympic bar 80, it is understood to one skilled in the art that the present invention may also come in slight variations in size (diameter of the inner cylinder) that would allow the present invention to fit onto an assortment of bar sizes of varying degrees in diameter. The winged grip support of the present invention is designed so that when the Slit Clamp 40 (FIG. 1) is pried open and pushed into the grip section 100 of a bar 80 the winged grip support 10 wraps around the grip section 100 of the

bar 80 in a way as so the Inside Cylinder Wall 60 (FIG. 1) is in tight contact completely around the circumference of the grip section 100. When the winged grip support 10 is properly in place, the Inside Cylinder Wall 60 grips onto the grip section 100 of the bar 80 and the Slit Clamp 40 would be completely, or just about completely, in a closed position in such a way that both sides of the Slit Clamp 40, made up of the Grip Support Section 50 (FIG. 1) would close or be close to closing (touching) at the area along the length of the Slit Clamp 40. When a person now places their left and right hands onto the winged grip support 10, and more specifically their left hand onto winged grip support 10 (L) in such a way as to allow their left palm to grasp onto the Wing Palm Support 70 of the winged grip support 10 (L) and their right hand grasping onto the winged grip support 10 (R) in such a way that allows for placing their right palm over the Wing Palm Support 70 of the winged grip support 10 (R). By grasping onto the winged grip support 10 (L & R) in a natural way of lifting the bar 80 the Inside Cylinder Wall 60 would tighten further along the grip section 100 of bar 80 and the Slit Clamp 40 would further close (tighten) along the length of the Slit Clamp 40.

In the preferred embodiment of the present invention the winged grip support 10 attaches to the exercise or weight lifting bar 80 (FIG. 5) in one simple motion. The winged grip support 10 of the present invention is formed or molded with a cut line, more specifically referred to as a Slit Clamp 40 (FIG. 1 showing it closed and FIG. 2 showing it slightly open) that is either: a) formed and molded into the mold of the winged grip support 10 or; b) is cut into place after the manufacturer has formed and molded the winged grip support 10. In either process the winged grip support 10 of the present invention will have this Slit Clamp 40 which is used to open the winged grip support 10 of the present invention so it may be slid onto an exercise or weight lifting bar 80 (FIG. 5) and allows the winged grip support 10 of the present invention to attach to the bar 80, enabling the winged grip support 10 and the bar 80 to be fitted and work together. For illustration purposes, and to further understand the importance of the Slit Clamp 40, if you tried to attach the center cardboard tube found in the center of a toilet paper roll to an exercise bar 80 you could either slide the cardboard tube over the end of the bar 80 (if possible because the diameter of the bar would have to be smaller than the cardboard tube), or more easily, you could cut a line down the length of the cardboard tube, which would then allow the tube to be pried open and very easily slid over and onto the exercise bar. With that simple analogy anyone can now understand the winged grip support 10 of the present invention acting like that cardboard tube (but highly more sophisticated) and the cut line being the Slit Clamp 40 so the winged grip support 10 of the present invention may now easily be spread or pried opened, and easily slide

onto an exercise or weight lifting bar 80. Due to the fact the present invention is made from durable rubber it will rather easily open wide enough along the length of the Slit Clamp 40 for the purposes of easily attaching to the exercise or weight lifting bar 80.

The winged grip support of the present invention attaches to and detaches from exercise or weight lifting bars in mere seconds. In a more detailed and specific process, referring to FIG. 1, 2 and 5, of the steps involved in attaching the winged grip support 10 to an exercise or weight lifting bar 80 as shown in FIG. 5, the steps would include: a) holding the left handed winged grip support 10 (L) with one or both hands and; b) gently spreading open, or prying open, the winged grip support 10 along the Slit Clamp 40 (FIG. 2) and; c) sliding onto the proper side of the exercise or weight lifting bar 80 and over and onto the bar 80 in the normal location you would place your hands when lifting the bar, somewhere along the grip section 100 of the weight lifting bar 80 and; d) releasing the winged grip support 10, and more specifically the Slit Clamp 40, which will enable the winged grip support 10 to form and be fitted onto the bar 80 and more specifically the grip section 100 of bar 80 and; e) then slightly adjusting (if need be) the winged grip support 10 to the desired exact position on the grip section 100 of bar 80 which may be accomplished by grabbing the Slit Clamp 40 and gently prying it open enough to allow the winged grip support 10 to release its grip on the grip section 100 of the bar 80 and sliding the winged grip support 10 to the left or right to the most desired location and; f) repeating steps A to E now but for the right handed winged grip support 10 (R). The entire process of attaching the winged grip supports 10 (L) 10 (R) to the bar 80 for both the left 10 (L) and right handed 10 (R) grips, in actual time, takes less than 15 seconds with adjustments if required. The winged grip supports 10 of the present invention are detachable in mere seconds by simply using one or both hands and prying open the Slit Clamp 40 and pulling the winged grip support 10 from the exercise or weight lifting bar 80, making the winged grip supports 10 (L) 10 (R) of the present invention portable and transferrable between many different bars, even at different locations such as the home and fitness center. It should be understood to one skilled in the art that although we have walked through the steps of attaching and detaching the winged grip support 10 of the present invention to that of what would most resemble an Olympic bar 80, that the steps could vary slightly depending on the exact style of the bar 80 that the present invention is being attached to and there are many bar types and styles that the present invention may attach to and the precise steps involved does not take from the scoop of the present invention if those steps vary slightly between the various types and styles of bars.

As shown in FIG. 5, the winged grip support 10 (L) 10 (R) of the present invention attaches to the exercise or weight lifting bar 80 in the exact position one would place their hands to lift the bar 80 if one was not using the present invention. A standard Olympic bar 80 is 2.2 meters (7.2 feet) long with the grip section 100 of the bar 80 is 1.31 meters (4.3 feet) in length. There is no specific spot each and every person uses to grasp or hold the bar 80 when lifting and this is more an individual preference. However, a person lifting bar 80 would place their hands somewhere along the grip section 100 of bar 80 and possibly, for illustration purposes, their left hand where the winged grip support 10 (L) is located along the grip section 100 and their right hand where the winged grip support 10 (R) is located along the grip section 100. If multiple people were all sharing the same winged grip support 10 of the present invention, say on a bench press for instance, they could very easily grab the winged grip support 10 along the Slit Clamp 40 (FIG. 2) and slightly pry open the winged grip support 10 to slide do their most preferred and desired location along the length of the grip section 100 of bar 80 and for each the left 10 (L) and right 10 (R) handed winged grip support. In actual time to readjust the winged grip support 10 would take under 10 seconds. Of course it is possible each lifter would have their own winged grip support 10 that is unique, and used by only them, when in use, which in the preferred embodiment of the present invention has its own advantages.

As shown in FIG. 5 the winged grip support 10 (L) 10 (R) of the present invention attaches to the exercise or weight lifting bar 80 in the exact position one would place their hands to lift the bar 80. When each winged grip support 10 (L) 10 (R) is placed along the grip section 100 of the bar 80 the winged grip support 10 grips onto the grip section 100 of bar 80 in such a way to form a very secure grip with the grip section 100. The winged grip support 10 is designed to securely fit onto any bar it is placed on, in such a way the bar 80 does not move on the insides of the winged grip support 80. Obviously any weight lifting grip used on a bar is designed in this way, to securely adhere to the bar in such a way to prevent it from moving when in place. The winged grip support 10 of the present invention is also designed this way and without grabbing onto the Slit Clamp 40 (FIG. 2) and prying open to release the grip the winged grip support 10 has onto the grip section 100 of the bar 80, or any style of bar, it would be extremely difficult to slide the winged grip support 10 along the grip section 100 of the bar 80. This is clearly for safety purposes as so the bar 80 does not slide to the left or right when a person is lifting weights using the present invention.

As shown in FIGURE 6 (FIG. 6) when the winged grip support 10 of the present invention is attached to an exercise or weight lifting bar 80 along the grip section 100, it is attached in a way so that the Winged Palm Support 70 (FIG. 3) of the winged grip support 10 is positioned in relationship to the lifter in a way that when the winged grip support 10 is grasp in one's hand 110, the Winged Palm Support 70 comfortably and ergonomically rests in the palm of the lifters hand 110. The left winged grip support's 10 (L) (FIG. 5) Winged Palm Support 70 fits into the palm of the left hand 110 of the lifter and the right winged grip support's 10 (R) (FIG. 5) Winged Palm Support 70 fits into the palm of the right hand of the lifter (the right hand is also shown in FIG 9). Of course there are many different methods used in lifting. For example in a Dead Lift the lifter lifts the weights off the floor, so the winged grip support's Winged Palm Support 70 would be facing upwards (or slightly upwards and offset depending on the lift) so that when a lifter bends over or squats to grab onto the winged grip supports 10, that would be attached to the bar 80, the lifter's left and right hands would grab onto the winged grip support 10 in such a way that the lifter's palms of their left and right hand fit comfortable over the Wing Palm Support 70 for the left and right handed winged grip support 10. When grabbed properly the feeling of the Winged Palm Support 70 is instantly understood by the lifter as the Winged Palm Support 70 contours and conforms to and with the shape of the palm of the lifter. A first time lifter would instinctively understand they are holding the winged grip support 10 properly because how comfortable the Winged Palm Support 70 rests into the lifters palm (illustrated in FIG. 6, FIG. 7, FIG. 8 and FIG. 9). Of course the winged grip support's 10 Winged Palm Support 70 of the present invention would face downwards (or slightly downwards and offset depending on the lift) if the lifter was lifting from under the bar in what is commonly known as squats or the bench press. In a bench press for example, the lifter is laying or seated on a bench, like a flat bench or one that is inclined or declined. So with each different style of lift the lifter is approaching the bar from varying degrees with their hands to grasp onto the bar. From these varying degrees the winged grip support's 10 Winged Palm Support 70 also rotates around the bar so that the lifters palms fit securely and comfortably onto the Winged Palm Supports 70 of the left and right winged grip supports, no matter the lift being used. In FIG. 6 the position of the left hand 110 holding onto the winged grip support 10 so that the winged grip support's Wing Palm Support comfortably sits into the palm of the lifters hand 110. From this view we see the fingers 140 of the left hand 110 wrap around the winged grip support 10 and the thumb 130 grasp onto the Winged Thumb Support 20 area that is opposite the Winged Palm Support which is resting against the palm of the hand in this view. A popular such exercise shown in FIG. 6 could be a curl where the lifter is lifting the weights towards their chest then

back away from their body. Not shown in FIG. 6 is the mirrored image of the lifter's right hand holding onto the other end of the bar 80 and their right hand holding onto the winged grip support 10 designed for the right hand.

There are numerous different hand held grips lifters use when lifting weights and one skilled in the art would understand these different grips are used for lifting different weights, doing different lifts and as well as exercising different muscles. Some of the more common grips that can be used with the winged grip support 10 of the present invention include, but is not limited to, the Overhand Grip (FIG. 7), Underhand Grip (FIG. 6), Hammer Grip, Alternate Grip, False Grip, Hook Grip, Wide Grip and Close Grip. The winged grip support 10 of the present invention enhances a lifter's ability to use each grip and the advantages of using the winged grip support 10 in conjunction with different lifts and grips will become more apparent to one skilled in the art as the present invention is understood in its entirety. Of the grips listed, two of the most common grips in exercise and weight lifting are known as the Overhand Grip and the Underhand Grip. With the Overhand Grip the palms are facing away from the lifter (as shown in FIG. 7). The Overhand Grip is used for many different types of exercises and is commonly used from a bench press as well as when exercising the biceps with reverse curls. Mostly when using the Overhand Grip one is working the wrist extensor muscles (muscles on top of the forearms). With the Underhand Grip the palms are usually facing towards the lifter (as shown in FIG. 6) when doing such bicep exercises like barbell bicep curls or reverse grip chin-ups. One common issue with both the Overhand and Underhand Grips is that the bar often rolls in the palm of one's hands when using these popular lifting and exercise grips. The issue of a rolling bar in one's palm is even more prevalent the more weight that is lifted on the bar at one time. This is why the Hook Grip is often used when powerlifting. The Hook Grip is when the lifter wraps their thumb around the bar and places their index, big and ring finger over their thumb in a way to pin the thumb to the bar, helping to hold the bar in place. For a novice lifter the Hook Grip may not be practical as it is a somewhat potentially difficult art to master as well as it can be uncomfortable.

The winged grip support of the present invention is designed to offer many advantages that help aid a user in exercise and lifting weights. One such advantage when using the winged grip support 10 of the present invention is shown in FIG. 6. When the user grips the winged grip support 10 and the lifter's palm rests in the Winged Palm Support the lifter may wrap their thumb 130 behind

the Winged Palm Support 70 (FIG. 3) and onto the Winged Thumb Support 20. This important design feature may be used with the Overhand or Underhand Grips and allows the user of the winged grip support 10 of the present invention to mimic the Hooked Grip, or a Hooked Grip style of grip now unique to the winged grip support 10 of the present invention. Now the winged grip support 10 of the present invention offers a more secure way to lift a bar 80 which now aids in preventing the bar 80 from rolling in one's hand 110. The bar's Winged Palm Support 70 (FIG. 3) prevents the bar from rolling into the palm as it is pressed firmly and securely into one's palms (illustrated in FIG. 6) and the combination of a user wrapping their thumb 130 around the winged grip support 10 and onto the Winged Thumb Support 20, in conjunction with the force of one's grip, now helps aid in preventing the bar 80 and more specifically the grip section 100 from rolling either way in one's palm. The winged grip support 10 of the present invention offers superior gripping ability when applied with each of the most common grips associated with exercise and weight lifting.

Another such advantage of the winged grip support 10 of the present invention is also illustrated in FIG. 6 and relates to the comfort and ergonomics of holding a grip section 100 of a bar 80 in the palm of one's hand. A bar is not naturally shaped to fit across the palm of one's hand and a close up of a weight lifters hand and wrist holding a heavy bar is almost a painful thing to view. The present invention was ergonomically designed to contour to the palm of one's hand as shown in FIG. 6 and using scientific hand data of men, women, and children factoring in hand length, breadth, finger length, dorsum length and thumb length. Now holding onto the winged grip support 10 of the present invention is a more comfortable experience, than only holding on the bar 80 by itself, as unlike the bar 80 which is nothing more than round in shape, the winged grip support 10 was ergonomically designed to contour to one's hand 110. Included in and factored into the design were that of the different diameters of bars 80, as well as, men and woman's finger grip 140 and hand grasp formulas. One skilled in the art would understand by taking all these formulas into account the winged grip support 10 of the present invention may be designed to more ergonomically fit into the hand 110 of a man and a woman and slight variations in design to accommodate both would in no way alter or take from the scoop of the present invention.

By forming the winged grip support of the present invention to the perfect measurements of both a man and woman's hand the present invention has accomplished more than just maximum

comfort when used in exercise and lifting weights. One such advantage now offered by the present invention is the distribution of weight within the user's palm (Illustrated in FIG. 6), of the weight lifted during exercise and weight lifting. The Winged Palm Support 70 (FIG. 3) that contours to the entire palm of the lifter (as shown in FIG. 6) acts to distribute the weight over a greater surface contact area within each hand 110, as compared when with not using the present invention when lifting weights. When viewing FIG. 6 one can clearly understand that removing the winged grip support 10 from this view would leave the bar 80, and more specifically the grip section 100, in the palm of the hand 110 and the part of contact of the grip section 100 in the hand 110 would be much less than the contact surface area of the winged grip support 10 in the hand 110. By creating a greater contact surface area and distributing the lifted weight over this greater contact surface area, the ergonomics creates a more comfortable weight lifting experience when using the winged grip support 10 in conjunction with exercise and lifting weights. If one finds it more comfortable to lift a weight, it can be argued that they may do more repetitions, the number of times they lift and lower a weight in one set of an exercise. Also if one finds it more comfortable to lift a weight, in theory, it now becomes more comfortable to lift a greater amount of weight in one lift using the winged grip support of the present invention than a person may usually lift.

Another such advantage of forming the winged grip support of the present invention to the perfect measurements of both a man and woman's hand is that the Winged Palm Support forces a lifter to use proper ergonomically aligned lifting techniques when using the winged grip support of the present invention. As illustrated in FIG. 6 through FIG. 9, the Winged Palm Support 70 (FIG. 3), through the wing construction, the hand 120 and 160 (in FIG. 9, showing more specifically the right hand) is supported and the wrist 120 is automatically put in an ergonomically ideal position. Many recreation and professional gym goers know the problem when the hands fall asleep and begins to tingle. The hand is a very complex and sensitive part of the body with a lot of nerves running through the wrist which acts as a bottleneck and thus often a problem area when lifting weights. Due to low fat and muscle, the hand is less protected and thus vulnerable to pressure load. The hands bolster a large part of the upper body weight onto the barbell and thus there is constant and high pressure onto a small area causing nerves to become irritated. Compounding the issue is many lifters bend their wrists too much resulting in sensory loss, tingling, numbness or abnormal sensations in the little finger and ring finger. In extreme cases even the grasping function of all fingers is limited. Strong pressure points may lead to kinking off the Ulnar nerves, further leading to numbness or impaired mobility.

The Winged Palm Support 70 (FIG. 3) of the winged grip support 10 not only enlarges the contact surface area of the hand, allowing for pressure to be more widely distributed over a larger area, thus helping to relieve the Ulnar nerve and increasing comfort, but also help prevent the wrist from bending. Heavy weights, with increasing fatigue, complicate the ergonomically correct position of the hand and cause a bent wrist, however, with the Winged Palm Support 70 of the present invention the wrist is actively prevented from kinking or falling downward, thus offering maximum hand comfort and support by putting the wrist automatically in an ergonomically idea position. By creating a greater contact surface area, and distributing the lifted weight over this greater contact surface area, and now also allowing for the proper alignment of the wrist in the most ergonomically position, it can be argued that lifters may do more repetitions, the number of times they lift and lower a weight in one set of an exercise, when using the present invention. Also if one finds it more comfortable to lift an amount of weight, and the weight is distributed over a greater contact surface area, and maximum proper alignment is used, in theory, it now becomes more comfortable, and possible, to lift a greater amount of weight in one lift using the winged grip support of the present invention, than a person would normally lift.

Another such advantage of forming the winged grip support of the present invention to the perfect measurements of both a man and woman's hand is that the Winged Palm Support 70 (FIG. 3) forces a lifter to use proper ergonomically aligned lifting techniques when using the winged grip support of the present invention thus helping to prevent numerous injuries that are associated with improper alignment. By forcing proper alignment the winged grip support 10 helps reduce stress caused by improper alignment which leads to injuries when lifting. It is well documented the leading injuries when lifting and one leading cause is created by improper alignment. This can lead to stress on many parts of a lifters body, from their head to their feet. One skilled in the art would know that wrists, elbows, shoulders, neck and lower back are all potential problem areas for lifters but the fingers, hands, torso, knees ankles and feet all require proper alignment as well to help reduce the stress lifting weights places on one's entire body. The winged grip support ergonomics will improve performance by ensuring proper alignment. The winged grip support ergonomics improves safety and helps lifters reach their fitness goals such as increased strength and muscle tone, weight loss and improved muscle density while reducing injuries, sprains, strains and stress.

The present invention should now start to become more apparent as to its many design features as stated earlier in the aims of the present invention. The present invention offers a winged ergonomically designed exercise grip support. Further the present invention offers a winged ergonomically designed exercise grip support that improves the grip of a weight lifted bar and allows for more comfort while lifting weights. Still further the present invention offers a winged ergonomically designed exercise grip support that offers superior improvements in regards to proper alignment when lifting weights, aligning the lifted weight in one's hands, in an ergonomic way, and allowing for reduced stress and injuries when weight lifting, to the fingers, hands, wrist, elbows, shoulder, neck, back, torso, knees, ankles and feet. Still further the present invention offers a winged ergonomically designed exercise grip support that further distributes the weight being lifted over a greater surface contact area of one's hand, than just the bar itself, when weight lifting in relation to one's hands holding a lifted bar. Yet still further the present invention offers a winged ergonomically designed exercise grip support that through forcing proper alignment and enhanced comfort when lifting weights, as well as distributing weight to a greater surface contact area, an increased user ability to perform more repetitions and lift more weight in a lift when lifting weights with the present invention. The present invention also offers a winged ergonomically designed exercise grip support that is portable as well as attachable and detachable to and from different pieces of exercise equipment.

While the present invention is susceptible to various modifications and alternative forms, specific embodiments have been shown by way of example found in the drawing herein. It should be understood that the invention is not intended to be limited to the particular forms disclosed. Rather the invention is to cover all modifications, equivalents and alternatives falling within the spirit and scope of the invention.

CLAIMS

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A molded winged grip support device, for attaching to different sizes of exercise and/or weight lifting bars, the winged grip support comprising:
 - a hollowed cylinder shaped design that securely fits onto an exercise and/or weight lifting bar;
 - a cylinder wall of slight various sizes between the hollowed inside and the outside surface of the cylinder;
 - a cut line through the length of the cylinder wall for the purposes of spreading open the cylinder shaped device;
 - a winged shaped formed area that is part of the outside surface area of the cylinder shaped device.
2. The molded winged grip support device according to Claim 1 wherein the molded winged grip support is formed by a process of liquid mold rubbers of a preferred material and hardness.
3. Forming the molded winged grip support according to Claim 1 and Claim 2, whereas the molded winged grip support device is molded in one piece.
4. Forming the molded winged grip support according to Claim 1 and Claim 2, whereas the molded winged grip support device's hollowed cylinder is formed in various diameters to securely fit around different sized exercise and/or weight lifting bars
5. Forming the molded winged grip support according to Claim 1 and Claim 2, whereas the wing shaped formed area is ergonomically designed to fit comfortably in the palm of a person holding the molded winged grip support device.
6. Forming the molded winged grip support according to Claim 5, whereas the wing shaped formed area is ergonomically designed to fit comfortably in the palm of various sized hands including specifically to both a male and female hand.
7. Forming the molded winged grip support according to Claim 1, Claim 2, Claim 5 and Claim 6, whereas one molded winged grip support device is specifically formed for the

left hand and one molded winged grip support device is specifically formed for the right hand.

8. A method of attaching the molded winged grip support according to Claim 1 and Claim 2, to exercise and/or weight lifting bars of various sizes comprising the steps of: holding the molded winged grip support device; and gently spreading open the molded winged grip support device along the cut line; and sliding the molded winged grip support device onto an exercise or weight lifting bar in an area of the bar where one would normally place their hand when lifting the bar; and releasing the molded winged grip support device as so the molded winged grip support device fits securely onto the exercise or weight lifting bar; and adjusting the position, if need be, of the molded winged grip support device on the bar; and doing this same set of steps for both the left handed and right handed molded winged grip support devices.
9. A method of detaching the molded winged grip support according to Claim 1, Claim 2, and Claim 8, from exercise and/or weight lifting bars of various sizes comprising the steps of: grabbing onto the molded winged grip support device; and gently prying open the molded winged grip support device along the cut line; and pulling the molded winged grip support device off the exercise or weight lifting bar it was attached to; and doing this same set of steps for both the left handed and right handed molded winged grip support devices.
10. A molded winged grip support according to Claim 1 and Claim 2, whereas the molded winged grip support device offers improved grip of an exercise and/or weight lifting bar it is attached to.
11. A molded winged grip support according to Claim 1 and Claim 2, whereas the molded winged grip support device forces proper alignment when gripping the molded winged grip support device with the palm of one's hand when attached to an exercise and/or weight lifting bar.
12. A molded winged grip support according to Claim 1 and Claim 2, whereas the molded winged grip support device prevents the bar from moving or rolling when gripping the molded winged grip support device with the palm of one's hand when attached to an exercise and/or weight lifting bar.
13. A molded winged grip support according to Claim 1 and Claim 2, whereas the molded winged grip support device distributes the weight being lifted to a greater surface contact

area of one's hand when gripping the molded winged grip support device with the palm of one's hand when attached to an exercise and/or weight lifting bar.

14. A molded winged grip support according to Claim 1 and Claim 2, whereas the molded winged grip support device offers enhanced and additional grip by way of allowing the person holding the molded winged grip support device with their thumb wrapped around the wing shaped area.
15. A molded winged grip support according to Claim 1 and Claim 2, whereas the molded winged grip support device helps reduce stress, strains, sprains and injuries by supporting the wrist in the most idea ergonomic position.
16. A molded winged grip support according to Claim 1 and Claim 2, whereas the molded winged grip support's ergonomic design allows for more repetitions, the number of times they lift and lower a weight in one set of an exercise.
17. A molded winged grip support according to Claim 1 and Claim 2, whereas the molded winged grip support device is portable, attachable and detachable from exercise and/or weight lifting bars.

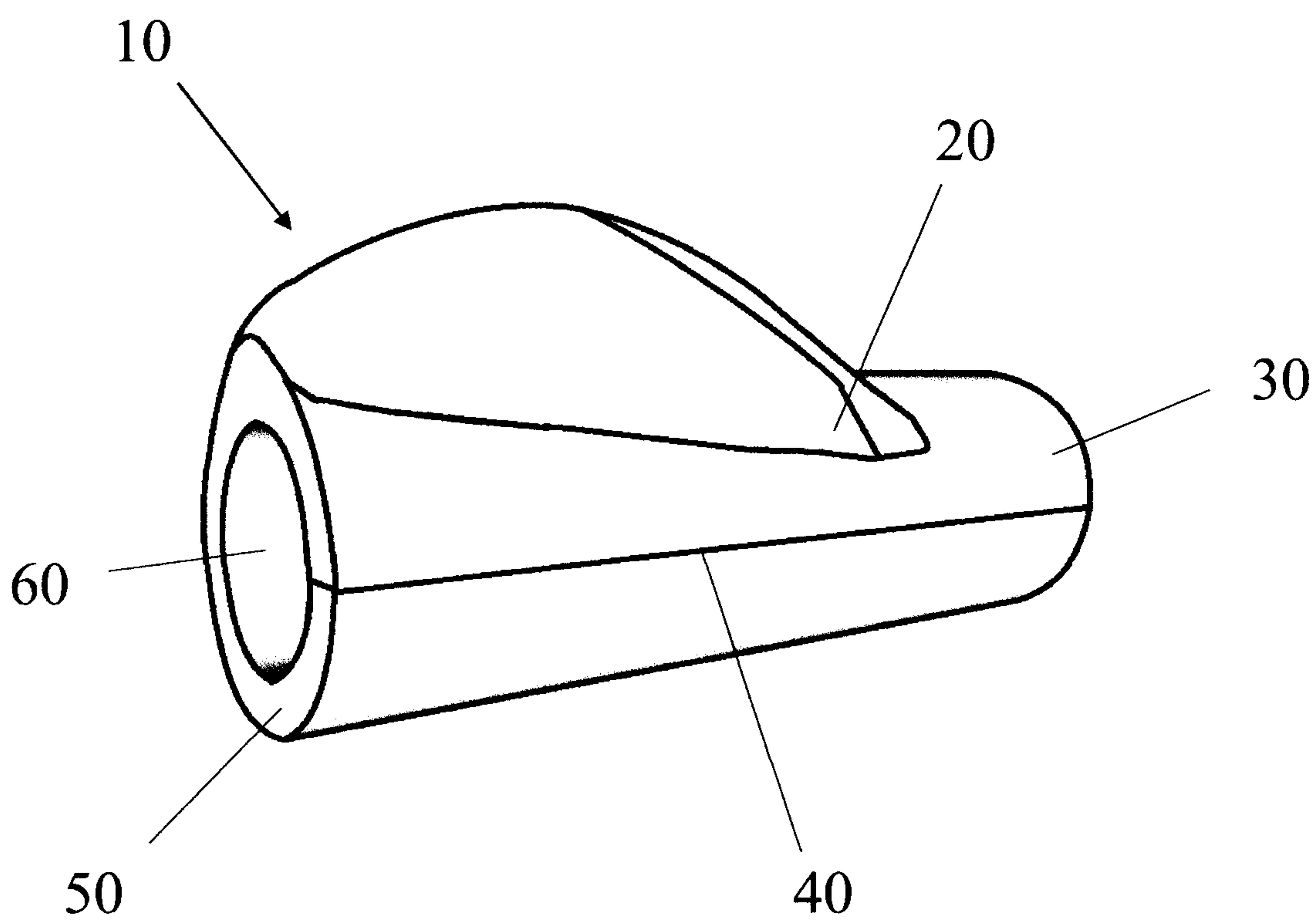


FIGURE 1

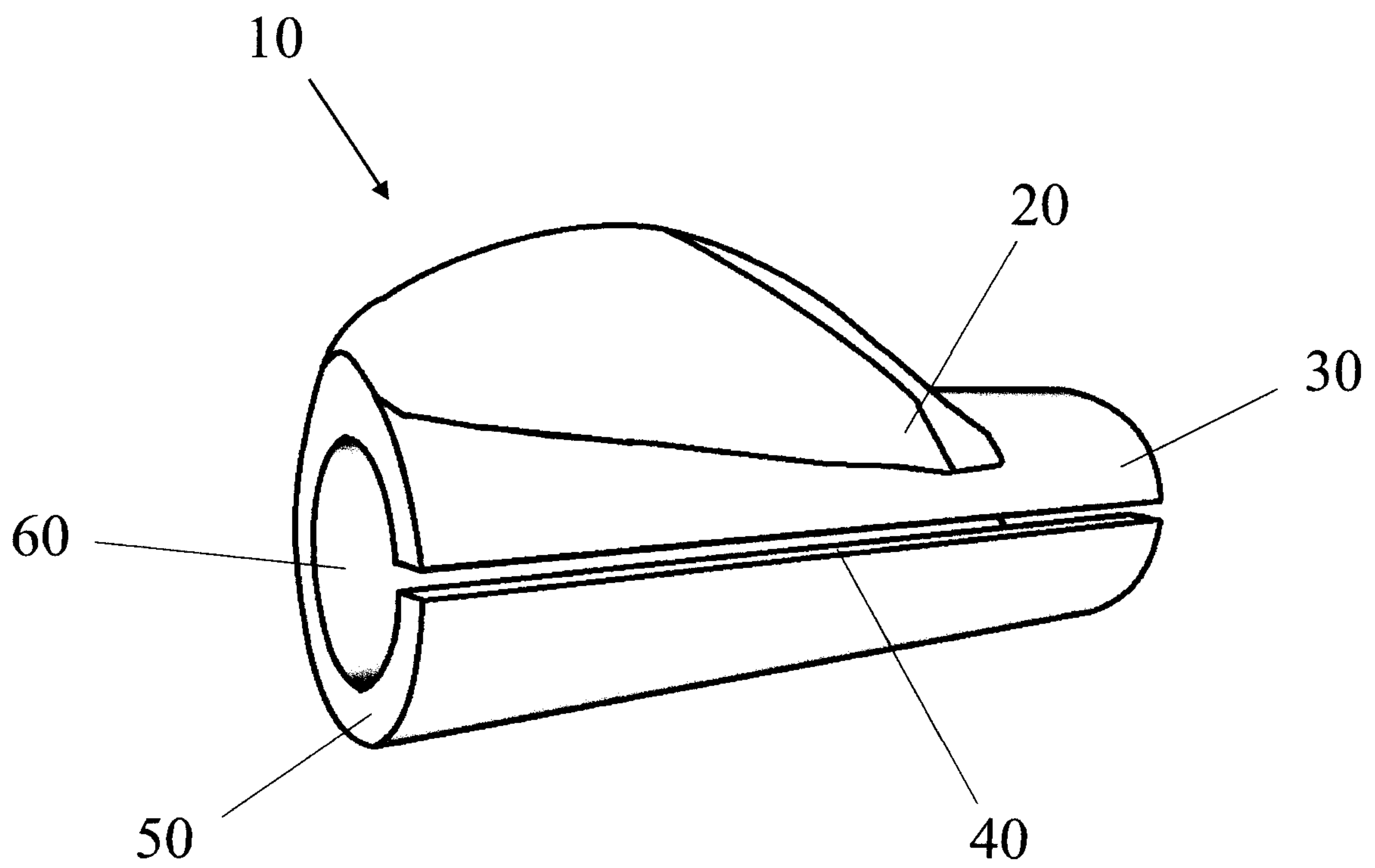


FIGURE 2

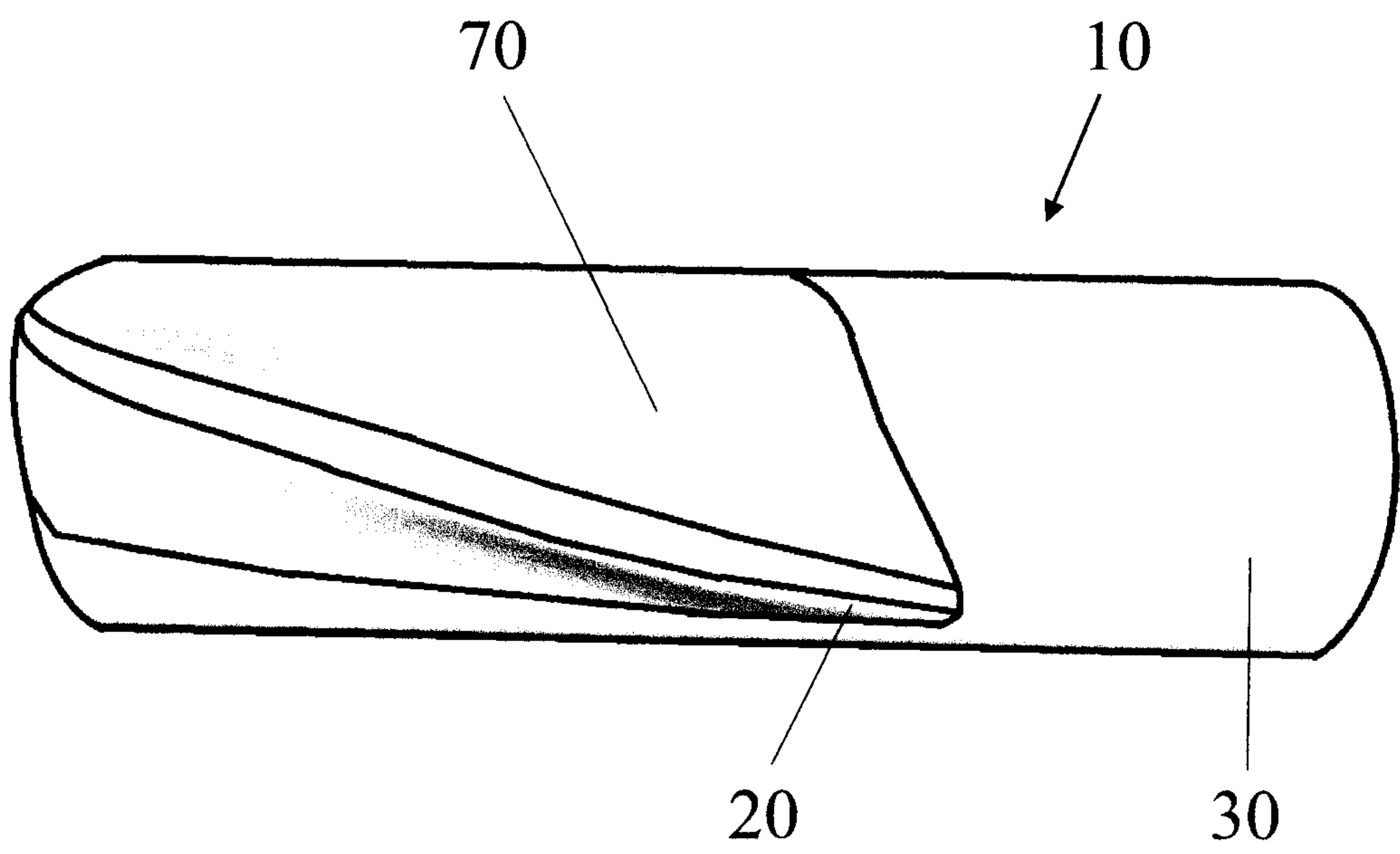


FIGURE 3

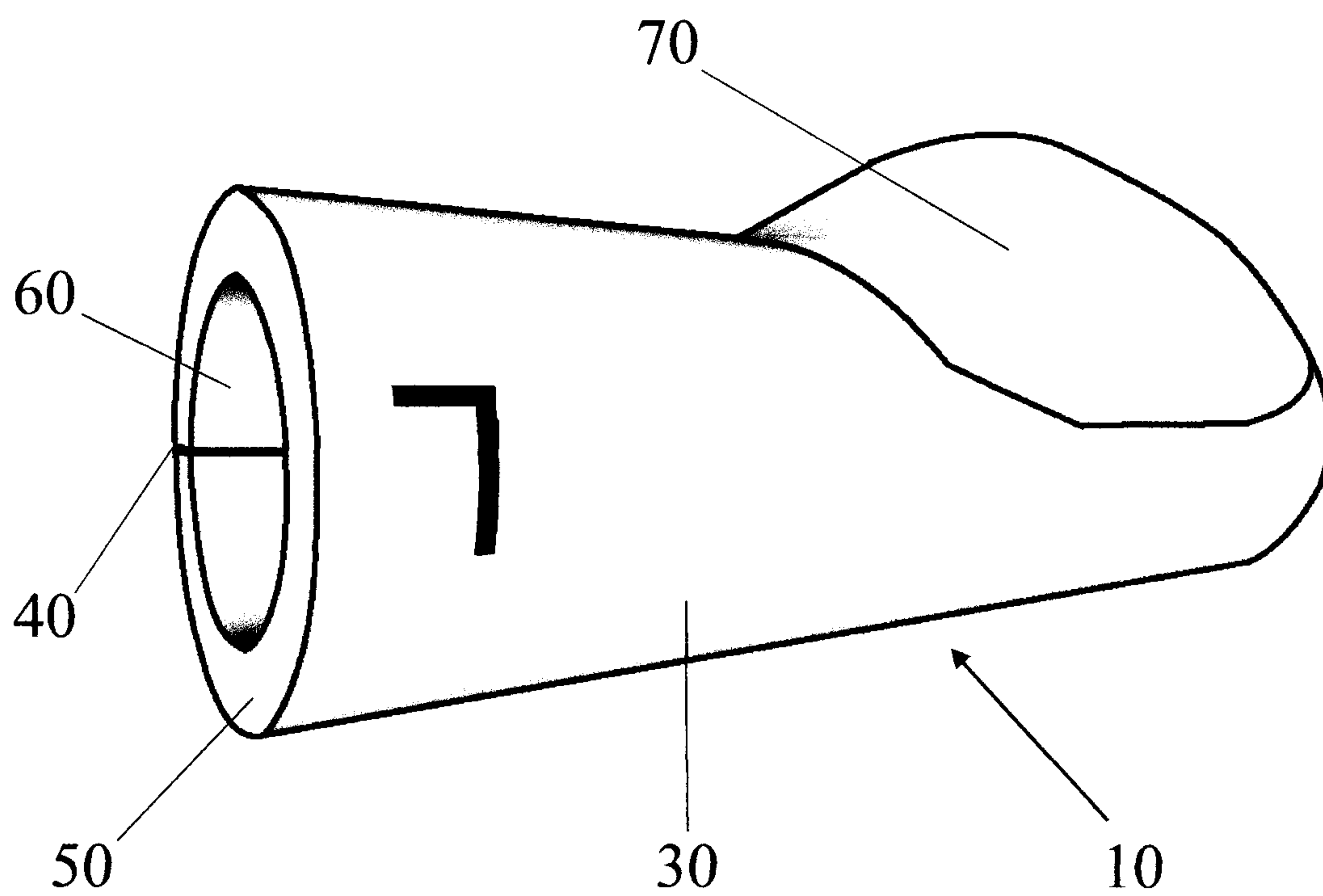


FIGURE 4

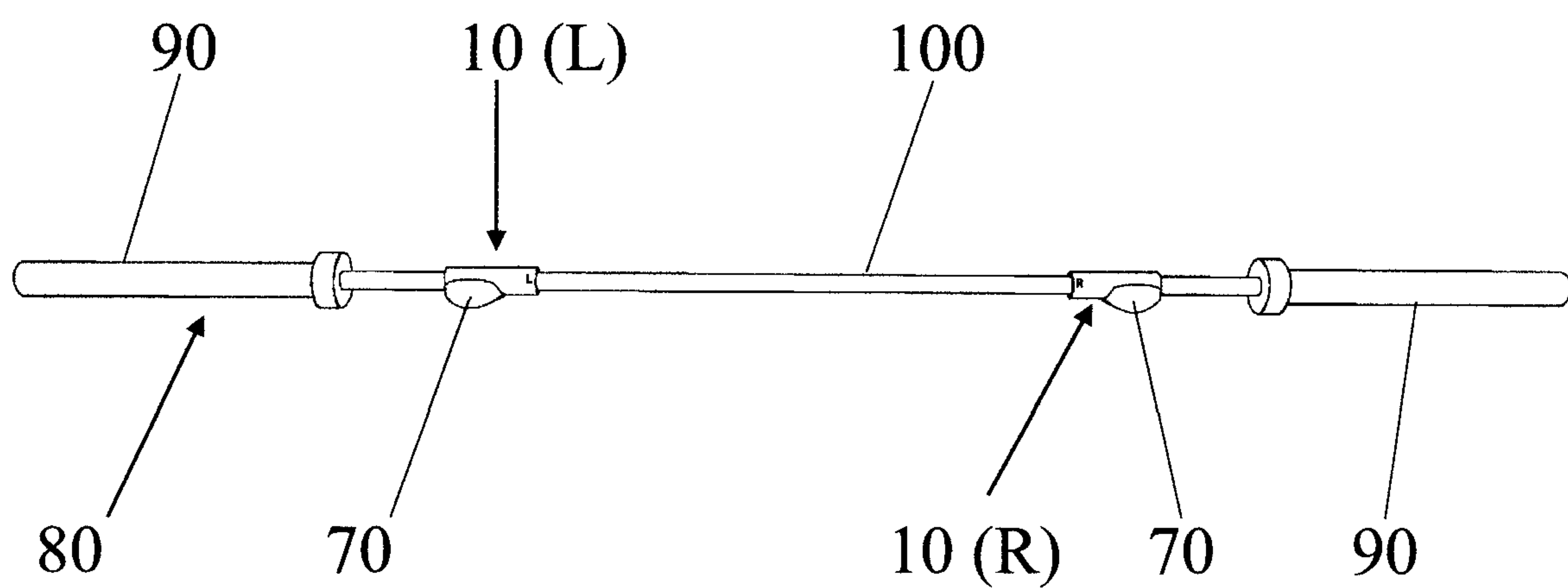


FIGURE 5

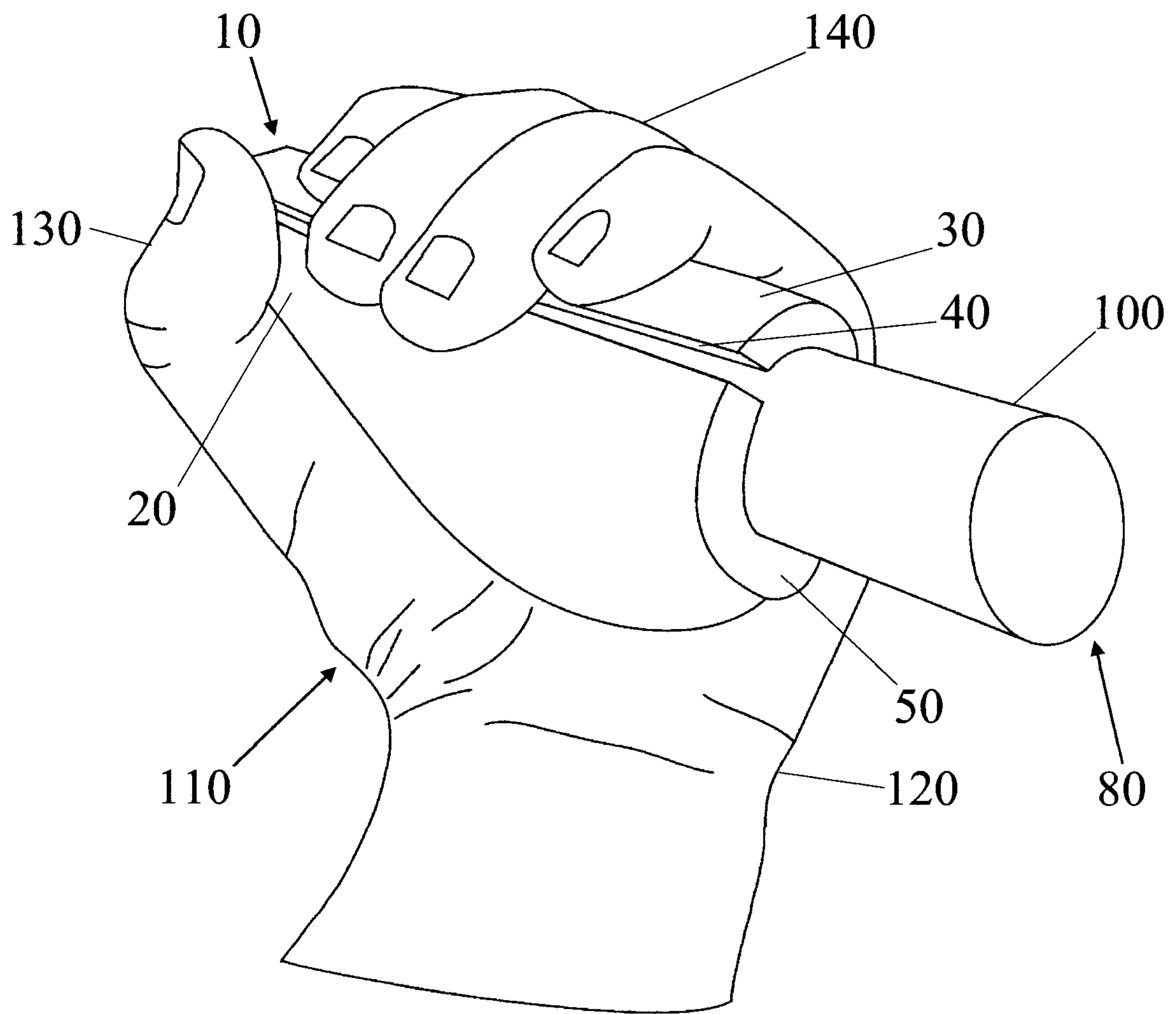


FIGURE 6

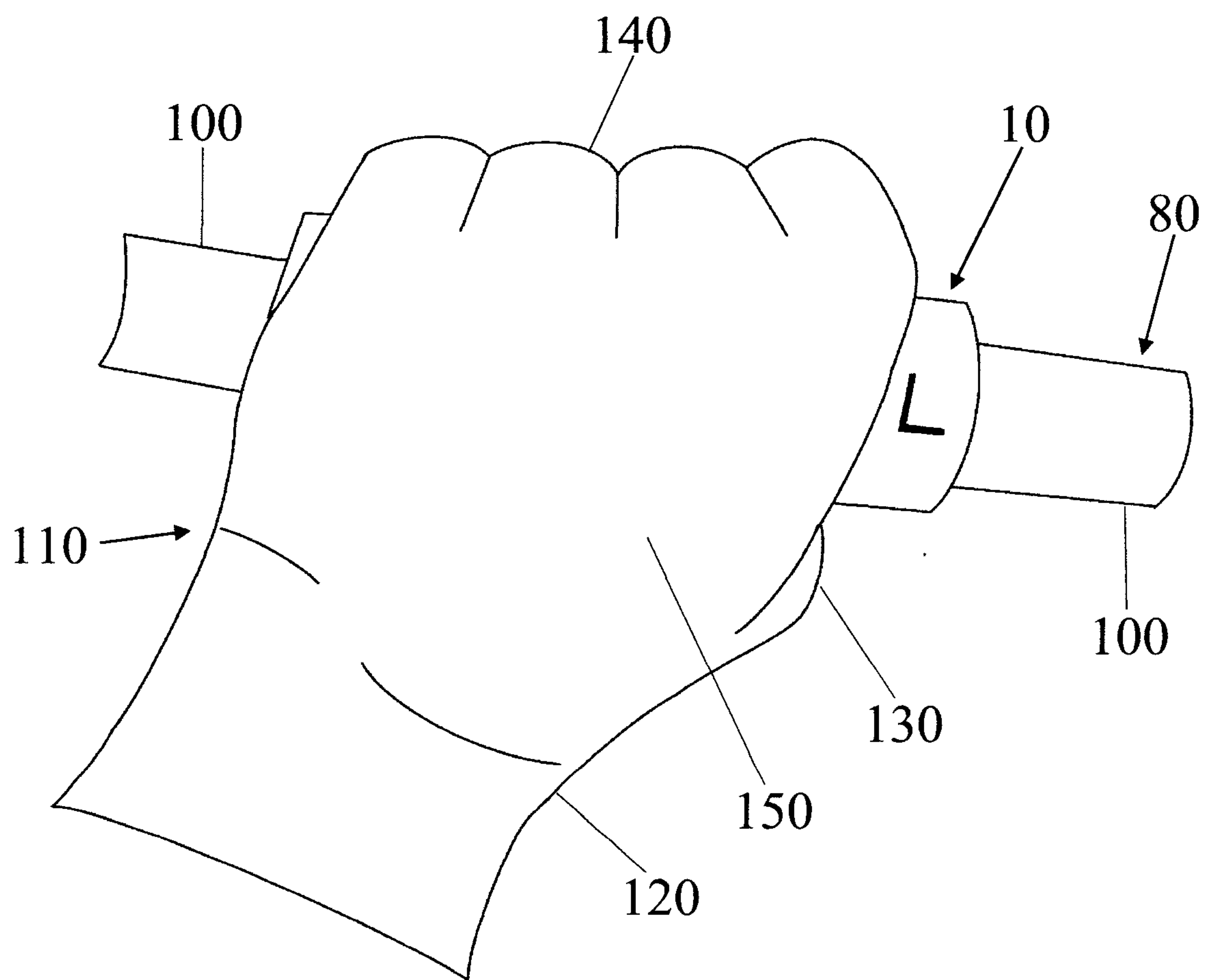


FIGURE 7

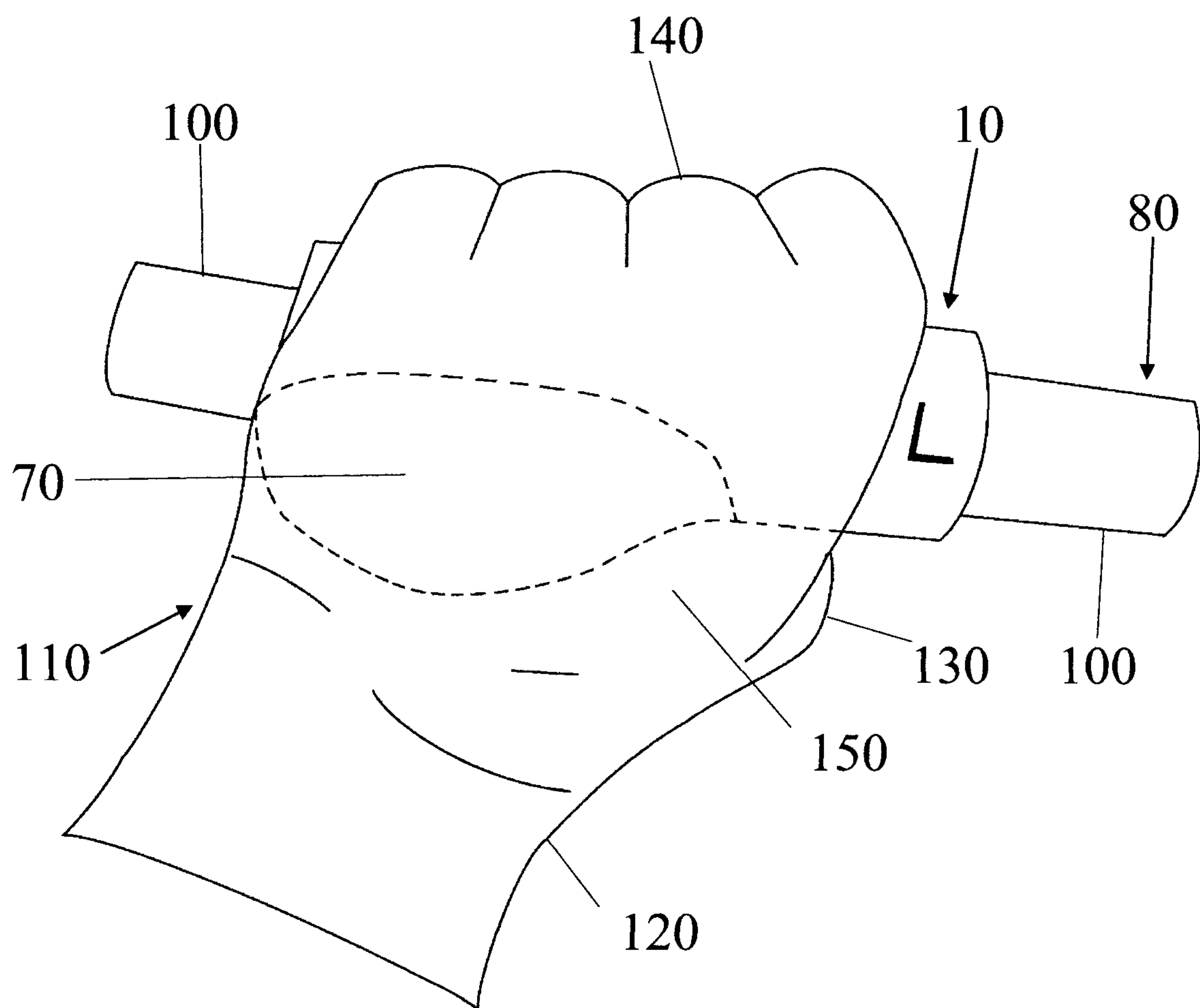


FIGURE 8

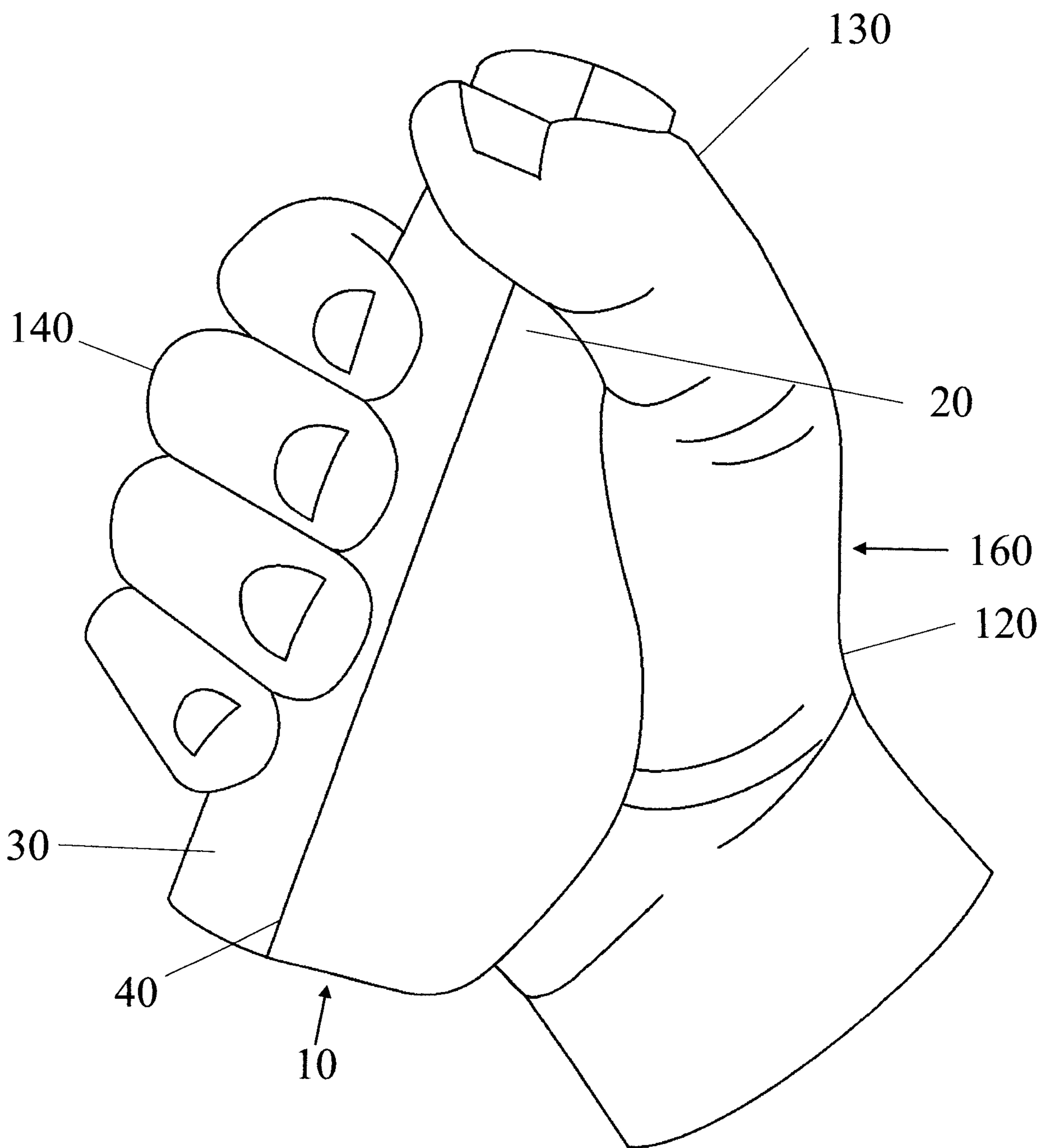


FIGURE 9

