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[54] **EXERCISE WEIGHT APPARATUS**

[75] Inventors: **Dennis Ronca**, Phoenixville; **David Altopiedi**, Broomall, both of Pa.

[73] Assignee: **Altoron Inc.**, Pheonexville, Pa.

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[51] **Int. Cl.**[6] **A63B 21/065**

[52] **U.S. Cl.** **482/105**; 482/74

[58] **Field of Search** 482/105, 74

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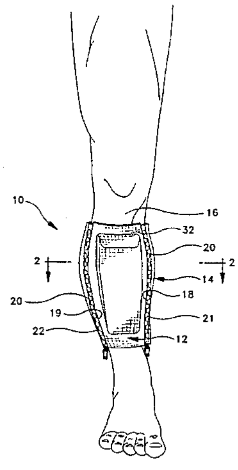
Primary Examiner—Lynne A. Reichard
Attorney, Agent, or Firm—Eric A. LaMorte

[57] **ABSTRACT**

A weight apparatus adapted to be worn on the shank position of either the arm or the leg and the associated method of attaching such a weight apparatus to the body. The weight apparatus includes at least one weight between one half pound and ten pounds. A biasing device is used to bias the weight against the shank portion of the limb. The biasing device biases the weight in a specific orientation whereby the weight is held against the shank in the region where the predominant bone in the shank is most discernable. By biasing the weight in such a position, there is little muscle



or tendons disposed between the weight and the bone. As a result, as the muscles and tendons in the shank are flexed, there is little change in the shape of the surface against which the weight rests. As a result, the weight can be worn comfortably in a manner that does not restrict the natural movements of any muscles or tendons within the limb. Additionally, by positioning the weight on a consistent region of the shank, the weight can be firmly retained in one position, despite any movements of the limbs.

6 Claims, 7 Drawing Sheets

FIG-1

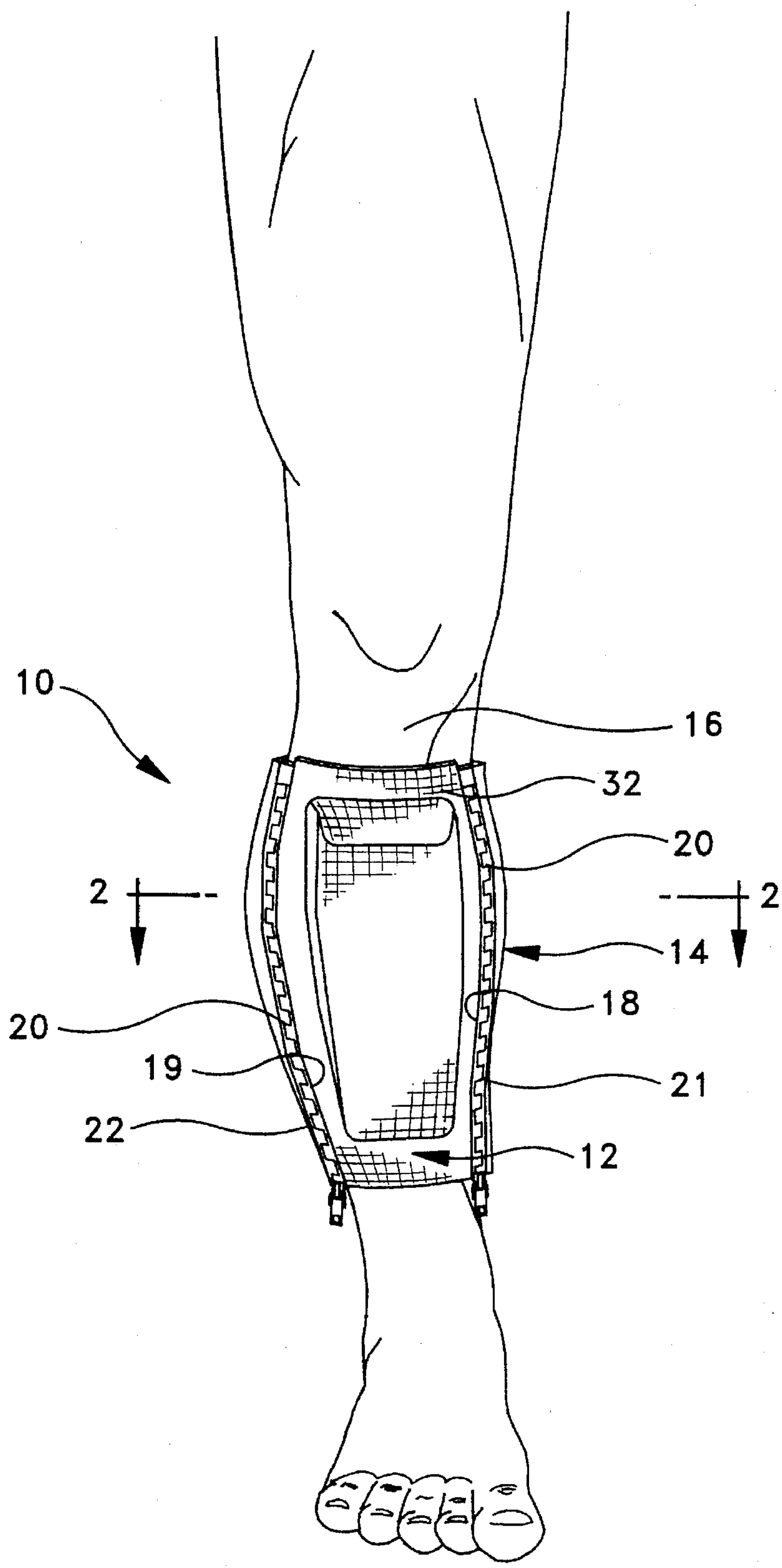


FIG-2

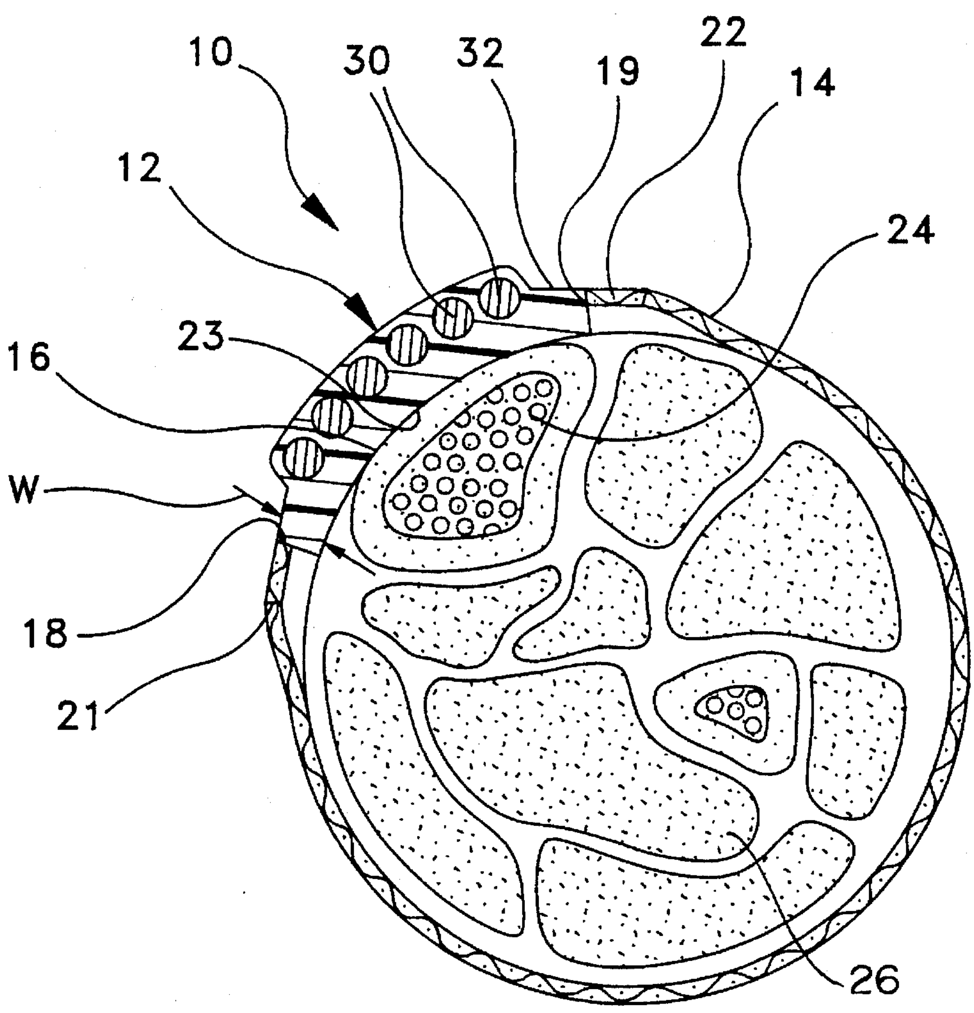


FIG-3

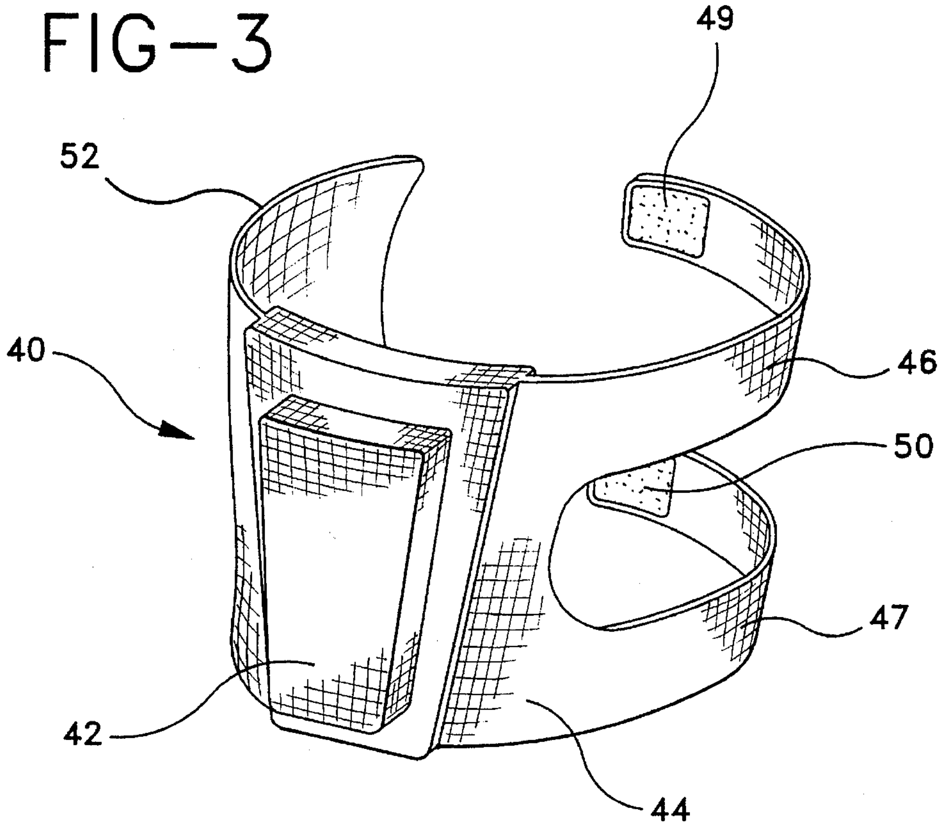


FIG-7

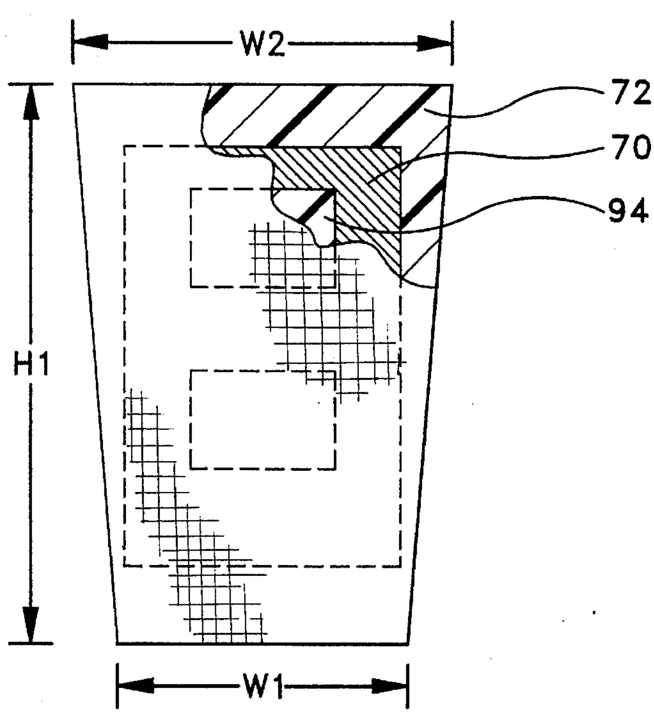


FIG-4

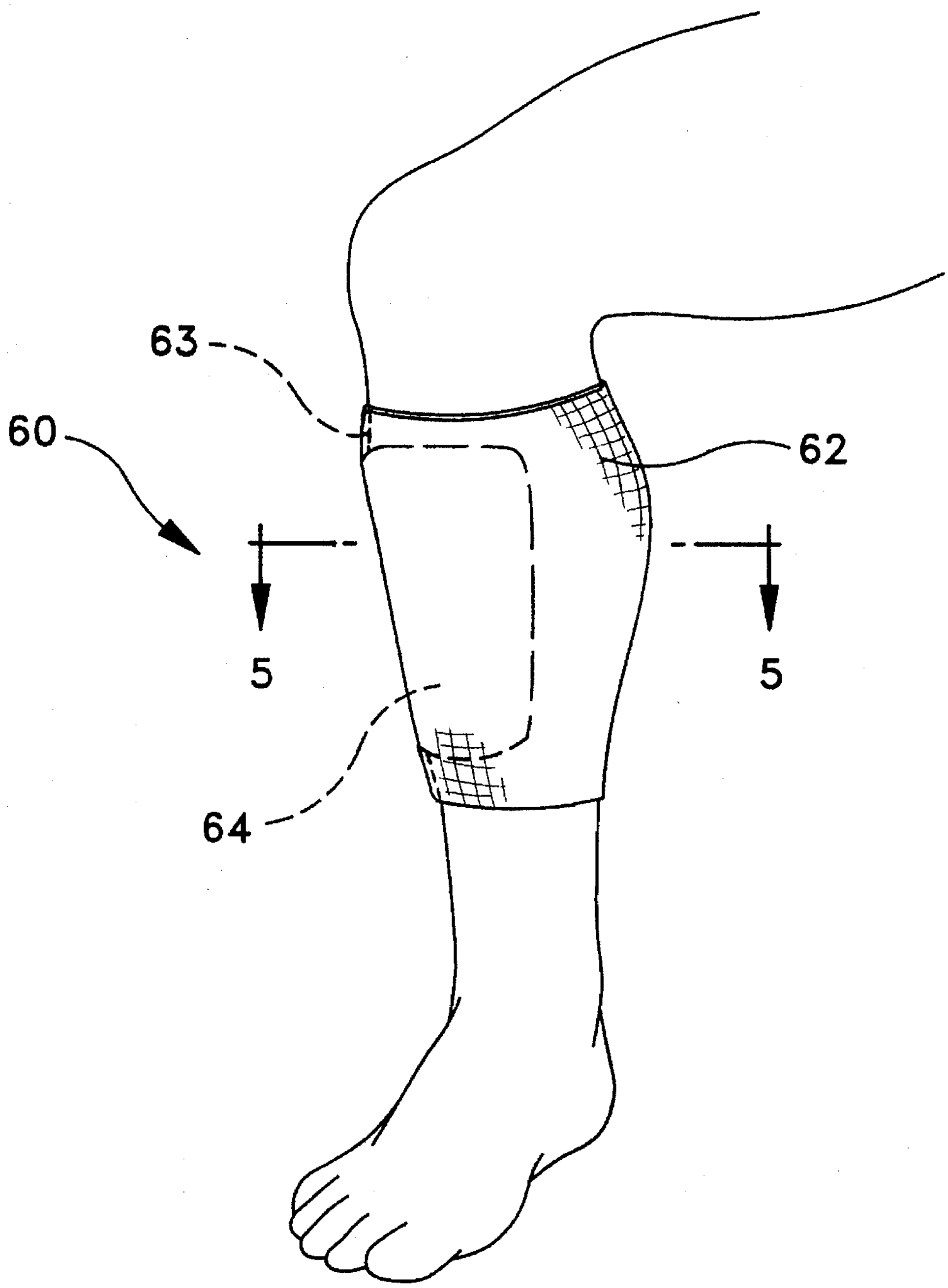


FIG-5

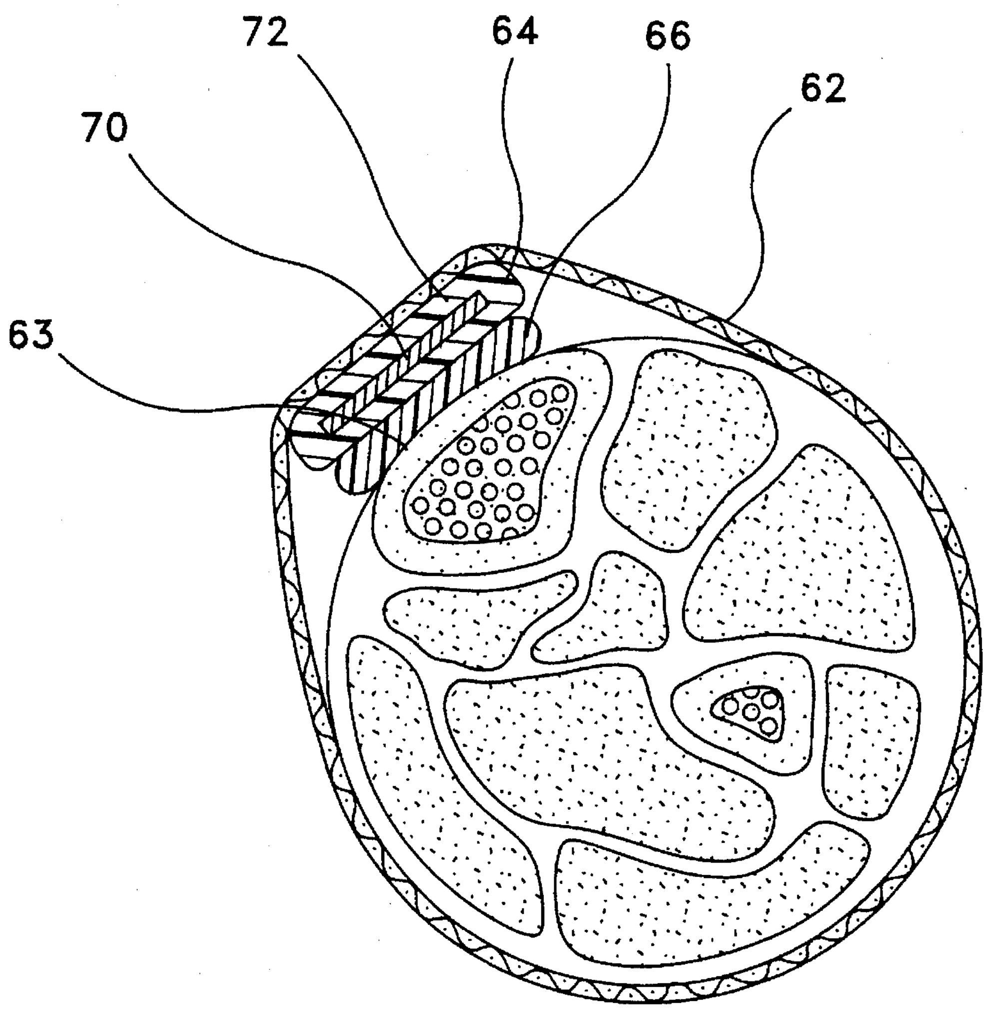


FIG-6

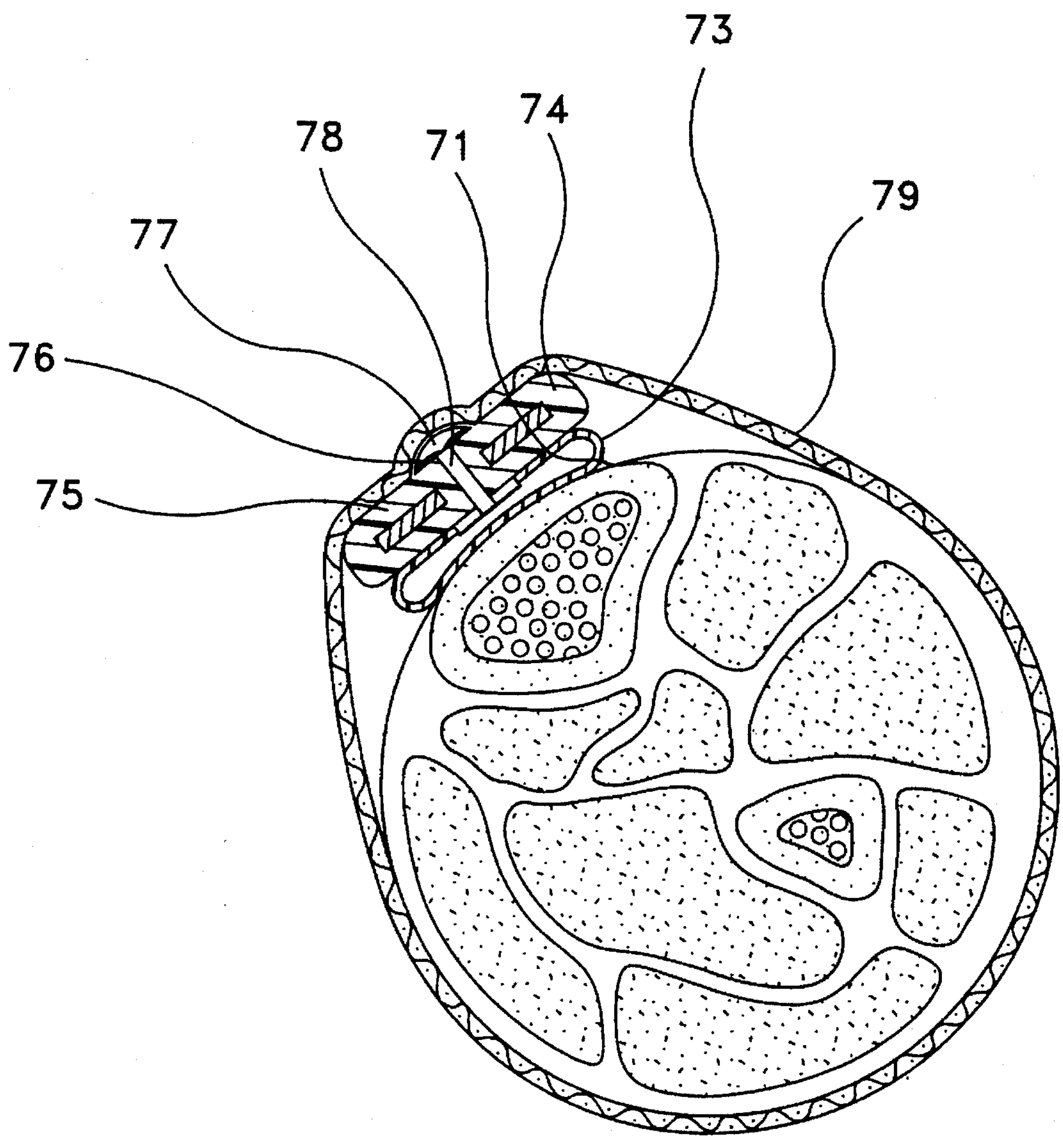


FIG-8

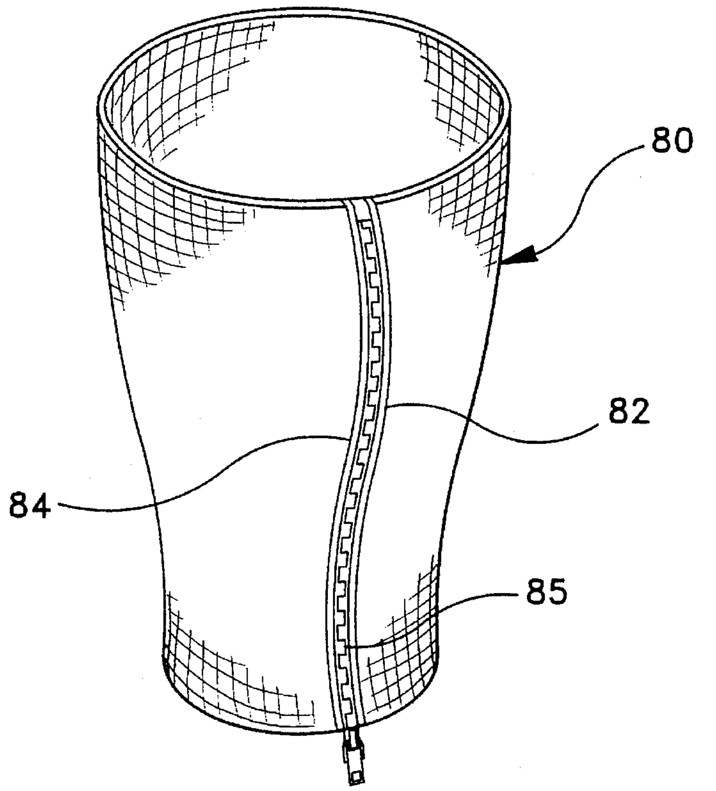
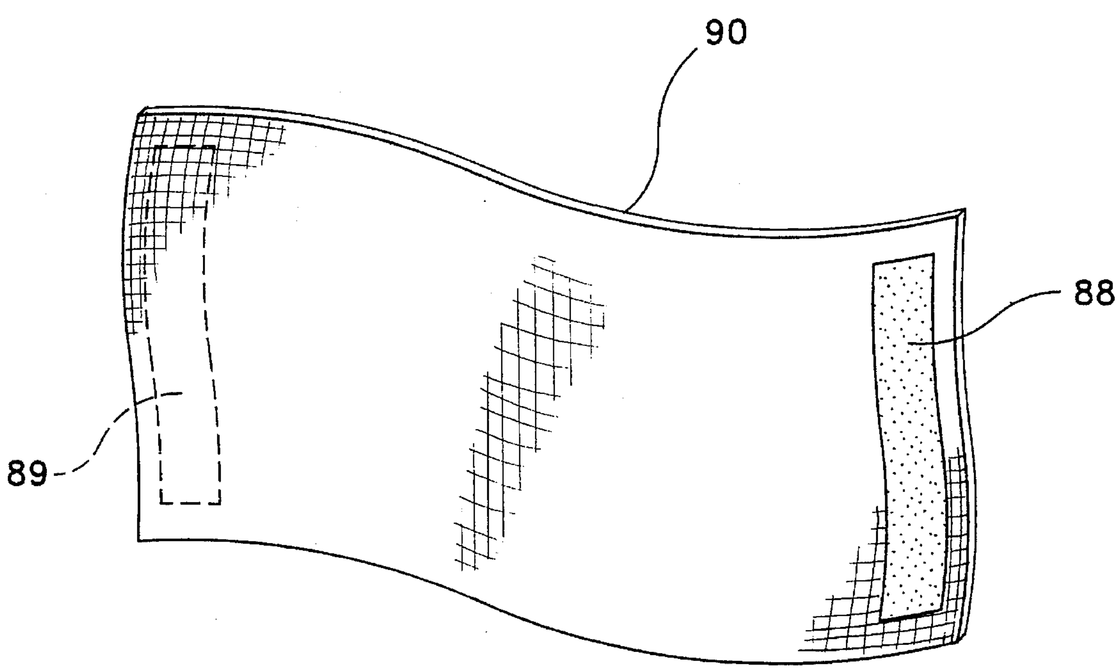


FIG-9



EXERCISE WEIGHT APPARATUS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to weights that can be attached to the legs or arms of a person so as to increase the mass of the limb and assist in the development of the muscle groups that act to move the weighted limb. More particularly, the present invention relates to a weight apparatus and associated method for the attachment of a weight to the limb of a person in a manner that does not restrict the movement of any joint or muscle group acting within the limb.

2. Prior Art

The prior art is replete with different weight devices that are designed to be attached to the limb of a person. Such weight devices are commonly used to increase the mass of the legs or arms, thereby aiding in the development of the various muscle groups that act to move the weighted arm or leg. Examples of weight devices that attach to the legs are exemplified by U.S. Pat. No. 4,838,546 to Winston, entitled ANKLE EXERCISE WEIGHT and U.S. Pat. No. 4,997,183 also to Winston, entitled ANKLE WEIGHT EXERCISE DEVICE. In both of the prior art devices, weights are connected to a fabric body, which is then wrapped around the ankle of the user. The problem with such prior art weight devices is threefold. First, the weight device is not positively attached to the leg. Consequently, as the person runs or jumps, the weight device moves on the person's legs, repeatedly striking the foot and ankle, thereby causing bruises, blisters, callouses or other discomfort to the person using the device. Second, since the weight device does not positively engage the leg, the force of gravity pulls the weight device over the ankle. This inhibits the movement of the ankle, thereby reducing the agility of the person wearing the weight device. Third, since prior art weight devices are not firmly affixed to the leg, the weight develops significant momentum as it moves up and down along the leg. The momentum of the weight is experienced by the joints of the knee and the ankle. The repeated stresses created by the momentum of the weight can act to strain ligaments and tendons in these joints, thus causing injury to the person using the weight system. The possibility of injury becomes greater the more forcefully the leg is accelerated. Accordingly, such prior art weights are particularly dangerous for high impact activities or high acceleration activities such as a quick kick used in practicing karate or another martial art.

Similar disadvantages are also experienced when a person wears an arm supported weight device such as that exemplified by U.S. Pat. No. 5,127,891 to Winston, entitled WRIST EXERCISE DEVICE. Such prior art devices do not attach to the arm in a set position, but rather change position on the arm as the arm is manipulated. Furthermore, such prior art devices typically lay over the wrist, thereby significantly restricting the ability of the person wearing the weight to move his/her wrist.

Recognizing the disadvantages of weights that do not stay in a set location, weight devices have been developed in the prior art that positively engage either the shin or forearm thereby preventing the weight device from either moving or restricting the movement of the wrist or ankle. Such prior art weight devices are exemplified by U.S. Pat. No. 4,905,991 to Alston, entitled SWIM WEIGHTS, U.S. Pat. No. 2,241,833 to Waller, entitled EXERCISING MACHINE, U.S. Pat. No. 4,974,398 to Kaski, entitled WEIGHT STRAP FOR A HORSE'S LEG. In these references, weights are attached to

a flexible backing. The flexible backing is then wrapped around the forearm or lower leg and is coupled back to itself. The compression created by the flexible backing being wrapped around the limb retains the weights in one set position on the limb.

The disadvantages of prior art weight devices that attach to the forearm or shin, is that they are designed to fit around a static shape. No consideration is given to the fact that a person's lower leg or forearm is comprised of both bone and muscle and as a person exercises and flexes his/her muscles, the shape of the lower leg and forearm change. In prior art weight devices, the weights are typically distributed evenly throughout the weight device. As a result, as the weight device is wrapped around the lower leg, weights completely surround that portion of the limb. Weights are not typically flexible. Therefore, the weights that abut against muscle cannot conform to the muscle as the muscle contracts and relaxes, changing shape. The contact of the relatively rigid weights against the flexible muscle, restricts the muscle and often causes discomfort to the person wearing the weights.

Another disadvantage of weight devices where weights are wrapped completely around a limb, is that it is very difficult to maintain the weight device in a set position on the limb. A weight device that fits snugly around a limb at rest, may become loose as the muscles in the limb flex and the cross section of the limb changes shape. Consequently, such prior art weight devices must typically be tightly wrapped around the limb utilizing an elastic backing that expands and contracts with the muscles. This construction can inhibit proper blood flow and biases the hard weights against the muscles, thereby restricting the muscles, the detriment of which was previously explained. The ability of such prior art weight devices to remain in a set position becomes even more complex depending upon the purposes for which the person is wearing the weight device. For instance, it does not take a large amount of force to maintain a half pound weight on the leg of a person who is leisurely walking. However, it takes a great deal of force to maintain a 2–5 pound weight on the leg of a boxer, gymnast or other person who is engaging in high impact aerobic exercise.

Consequently, there exists a need in the field of weight devices for a weight system where heavy weights can be attached in a set position on a person's forearm or lower leg in a comfortable and non-constricting manner.

The need also exists for a weight device that firmly engages a person's forearm or lower leg and maintains its position despite the anatomical changes that occur as a person is exercising.

Lastly, the need exists for a weight device that attaches to a limb without compromising the flexibility or performance of the limb and maintains the weight device in a set position despite the accelerations of high impact activities.

The present invention fulfills the needs present in the prior art, by providing a unique weight device as defined in the following description and claims.

SUMMARY OF THE INVENTION

The present invention is a weight apparatus adapted to be worn on the shank position of either the arm or the leg and the associated method of attaching such a weight apparatus to the body. The weight apparatus includes at least one weight between one half pound and ten pounds. A biasing means is used to bias the weight against the shank portion of the limb. The biasing means biases the weight in a specific orientation whereby the weight is held against the shank in the region where the predominant bone in the shank is most discernable. For instance, in the leg, the weight is biased against the tibia in the shin. By biasing the weight against the predominant bone, where that bone is most discernable, there is little muscle or tendons disposed between the weight and the bone. As a result, as the muscles and tendons in the shank are flexed, there is little change in the shape of the surface against which the weight rests. This is contrary to the other regions of the shank of a limb that greatly change in shape as the limb is flexed. By positioning the weight in a region of the shank that remains relatively consistent, the weight can be worn comfortably in a manner that does not restrict the natural movements of any muscles or tendons within the limb. Additionally, by positioning the weight on a consistent region of the shank, the weight can be firmly retained in one position, despite any movements of the limbs. The combination of comfortable fit, firm placement and lack of constrictions makes the present invention device ideal for retaining weights on the arms and legs of people who exercise, especially if that exercise is too strenuous for use of the weight systems available in the prior art.

BRIEF DESCRIPTION OF THE DRAWINGS

For a better understanding of the present invention, reference is made to the following description of exemplary embodiments thereof, considered in conjunction with the accompanying drawings, in which:

FIG. **1** is a perspective view of one preferred embodiment of the present invention shown in conjunction with the lower leg to facilitate consideration and discussion;

FIG. **2** is a cross-sectional view of the embodiment shown in FIG. **1**, viewed along section line **2—2**;

FIG. **3** is a perspective view of a second preferred embodiment of the present invention;

FIG. **4** is a side view of a third preferred embodiment of the present invention shown in conjunction with the lower leg to facilitate consideration and discussion;

FIG. **5** is a cross-sectional view of the embodiment shown in FIG. **4**, viewed along section line **5—5**;

FIG. **6** is a cross-sectional view of a fourth preferred embodiment of the present invention shown in conjunction with the lower leg to facilitate consideration and discussion;

FIG. **7** is a partially segmented forward view of an alternate embodiment of a weight pad as used in accordance with the present invention;

FIG. **8** is a front view of an alternate embodiment of an open-ended compression sleeve as used in accordance with the present invention; and

FIG. **9** is a perspective view of a second alternate embodiment of an open-ended compression sleeve as used in accordance with the present invention.

DETAILED DESCRIPTION OF THE INVENTION

Although the present invention weight device can be used on either the forearm or lower leg of any person or on the lower leg of an animal, such as a horse, the present invention weight device is especially suitable for use on the shin region of the human leg. Accordingly, the present invention weight device will hereinafter be described in an application on the lower portion of the human leg and will address the advantages associated with such an application.

Referring to FIG. **1**, there is shown a first embodiment of the present invention weight device **10** having a weight pad **12** removably connected to an elastic support **14**. As will be later explained, the weight pad **12** is adapted to fit over the flat face surface of the tibia within the shin **16**, wherein the weight pad **12** is biased against the shin **16** and substantially conforms to the contours of the shin **16**. The elastic support **14** connects to the distal and proximal side edges **18**, **19** of the weight pad **12** and pull the weight pad **12** flush against the shin **16**. In the shown embodiment, the weight pad **12** interconnects with the elastic support **14** with the use of zippers **20** that are sewn along the distal and proximal side edges **18**, **19** of the weight pad **12** and along the two side edges **21**, **22** of the elastic support **14**. It should be understood that the use of zippers **20** is merely exemplary and the use of any other detachable fastener such as laces, snaps, buckles or the like may also be used.

The use of a separate weight pad **12** and elastic support **14**, as shown in FIG. **1**, is desirable in that the weight pad **12** and elastic support **14** can each be separately replaced. All different people have different shaped and sized legs. A person, therefore, may purchase an elastic support **14** that is sized to comfortably fit that person's leg. With the elastic support **14** properly sized for a person's leg, different weight pads **12** can be attached to the elastic support **14** as desired. As will be later explained, weight pads **12** of different masses can all be manufactured with the same general dimensions. As such, weight pads **12** of different masses can each be attached to the elastic support **14** and held on a person's leg in the same manner.

Referring to FIG. **2**, in conjunction with FIG. **1**, it will be seen that as the present invention weight device **10** is attached to a person's lower leg, the elastic support **14** pulls the weight pad **12** flush against the person's shin **16**. The shin is the common usage term for the front portion of the lower leg where there is little muscle between the external skin and the flat forward surface **23** of the tibia **24**. Although the forward surface **23** of the tibia **24** is partially covered by the tibialius anticus and various other muscles, tendons and ligaments, the shape of this shin region changes very little as the leg moves and the various muscles contract and tendons and ligaments stretch. This is in direct contrast to the calf region **26** of the lower leg which contains the soleus, tibialis posticus, flexor longus digitorum and other major muscles, tendons and ligaments that radically change shape as the leg is flexed.

In FIG. **2** it can be seen that the weight pad **12** is pulled taut over the shin **16** by the elastic support **14**. Since the shape of the shin remains relatively constant, the weight pad-to-shin interface remains relatively constant as the leg is flexed. The elastic support **14**, however, passes over calf region **26** of the leg that varies widely in shape as the leg is flexed. The elastic support **14** is made of any elastomeric or elastic material that exhibits a high degree of elasticity. As a result, as the calf region **26** of the lower leg changes in shape, the elastic support **14** also changes in shape to instantaneously conform to the changing shape of the calf region **26**.

The weight pad **12** is comprised of a flexible backing **32** having side edges **18**, **19** that attach to the side edges **21**, **22** of the elastic support **14**, via the zippers **20**. Although the flexible backing **32** can be any flexible material, the flexible backing **32** is preferably made from an elastomeric material with a high degree of elasticity. Such a construction cooperates with the elastic nature of the elastic support **14** to help bias the weight pad **12** against the shin **16** and hold the weight pad **12** in place. In a preferred embodiment, the flexible backing **32** of the weight pad **12** has a width W that provides padding between the leg and the weights **30** that the weight pad **12** supports. In an alternate embodiment, supplemental foam cushioning (not shown) can be attached to the inner surface of the flexible backing **32**. As such, the foam cushioning would be juxtaposed between the flexible backing **32** and the shin **16**.

In the shown embodiment, multiple cylindrical weights **30** are molded into elastomeric material at positions on the outside of the flexible backing **32** so that the flexible backing **32** is disposed between the weights **30** and the shin **16**. The actual weight of the weights to be used in this invention may vary from between one half a pound to ten pounds as desired. The use of cylindrical weights **30** that run longitudinally in the same direction as the tibia **24**, allows the weights **30** to substantially conform to the contours of the shin **16**. This provides a very comfortable fit and eliminates pressure points between the individual weights **30** and the shin **16**. The use of multiple weights **30** also enables the weight pad **12** to conform to the contours of any person's shin no matter the size of that shin or its shape.

Although the embodiment of FIG. **2** shows the weights **30** molded within the elastomeric material of the weight pad **12**, it should be understood that other constructions are available. For instance, a pocket could be constructed on the outer surface of the flexible backing **32** into which the weights can be placed. Such constructions are intended to be covered by the scope of this invention, however, the integrally molded weights **30** are specifically shown as an example of the best contemplated mode of construction.

The elastic support **14** firmly biases the weight pad **12** against the shin **16**. However, the surface area of the elastic support is relatively large, thereby limiting the pressure by which the elastic support **14** constricts the leg. This construction ensures that the elastic support **14** does not prevent proper blood circulation through the leg. The large surface area also provides a large amount of friction between the elastic support **14** and the leg that ensures that the elastic support **14** and weight pad **12** remain in place despite the most energetic movements of the leg.

The weight pad **12** itself has a long length (see FIG. **1**) measured longitudinally up and down the leg. This long length provides a large area for supporting weights and provides a long area of contact between the weight pad **12** and the shin **16**. This long area of contact dispenses contact pressures and provides a great deal of friction that helps hold the weight pad **12** in place. Since the weight pad **12** is detachable from the elastic support **14**, different weighted weight pads **12** may be selectively worn. The forces retaining the weight pad **12** onto the shin are sufficient enough to hold up to a 15 pound weight in place regardless of how energetically the leg is moved.

Referring to FIG. **3**, there is shown a first alternate embodiment of the present invention weight device **40**. In this embodiment, the weight pad **42** is much the same as in the previous embodiments of FIGS. **1** and **2** except that the weight pad **42** is now permanently affixed to the elastic support **44**. As such, the weight pad **42** and elastic support **44** are now a single integral unit. The elastic support **44** of the shown embodiment has an upper and lower strap **46, 47**. Each strap **46, 47** has a patch of either a hook or loop fastener material **49, 50** proximate their distal ends. The hook or loop fasteners **49, 50** attach to opposite patches of hook or loop fasteners (not shown) that are disposed on a flap **52** of elastic material that extends from the opposite side of the weight pad **42**. As a result, the weight pad **42** is positioned over the shin. The upper and lower straps **46, 47** are then wrapped around the calf and attached to the opposite flap **52**, thereby holding the weight pad **42** firmly in place.

Referring to FIG. **4**, there is shown a second alternate embodiment of the present invention weight device **60**. In this embodiment, a continuous tubular elastic support **62** is used to retain a weight pad **64** against the shin **63**. The tubular elastic support **62** is worn by placing one's foot through the tubular elastic support **62** and pulling the support up over the weight pad **64** and the shin **63**. The tubular elastic support **62** envelops the entire lower leg in the area of the shin **63**. The tubular elastic support **62** is made from either elastic material or is elastomeric, whereby the tubular elastic support **62** compresses the lower leg and conforms to the contours of the lower leg as the leg muscles are flexed.

Referring to FIG. **5** in conjunction with FIG. **4**, it can be seen that the weight pad **64** is placed over the shin **63** before the tubular elastic support **62** is pulled over the weight pad **64** and the corresponding areas of the lower leg. Since the tubular elastic support **62** surrounds the weight pad **64**, the weight pad **64** is evenly biased against the shin **63**, thereby creating a comfortable fit against the leg. Similarly, since the tubular elastic support **62** envelops the entire region of the lower leg, the compression force is evenly distributed and there is no discomfort created by concentrated loads acting along narrow straps.

In FIG. **5**, it can be seen that supplemental padding **66** is disposed between the weight pad **64** and the shin **63**. The compression force of the tubular elastic support **62** compresses the weight pad **64** against the supplemental padding **66** and compresses the supplemental padding **66** against the shin **63**. The use of supplemental padding **66** is optional. The weight pad **64** may be relatively stiff. As such, it is desirable to cushion the surface of the weight pad **64** that is biased against the shin **63**. The desired cushion may be formed as part of the weight pad **64** which will be later explained. However, in the shown embodiment, supplemental padding **66** is added between the weight pad **64** and shin **63**. The supplemental padding **66** can be any foam material, soft elastomeric material or other material commonly used to create padding. The supplemental padding **66** would cover the entire interface between the weight pad **64** and shin **63**. As such, the supplemental padding **66** may be removably affixed to the weight pad **64** with adhesive, hook and loop fasteners, snaps or the like. Adversely, the supplemental padding **66** may be a separate piece held in place by the compression force of the tubular elastic support **62**. By using a separate unit of supplemental padding **66**, the weight pad **64** is prevented from actually contacting the leg. As such, only the tubular elastic support **62** and the supplemental padding **66** contact the leg. The relatively light weight tubular elastic support **62** and supplemental padding **66** are far more easily washed and maintained in a sanitary condition than is the heavy weight pad **64**. The presence of the padding also acts as a means for compensating for muscle flexure. As the mucsles of the leg expand and contract, the padding contracts and expands thereby helping the elastic support maintain a relative constant force around the leg. Consequently, there are advantages achieved by preventing contact between the weight pad **64** itself and the leg.

The disadvantage of using separate supplemental padding **66** is that it makes the task of orienting the weight pad **64** over both the supplemental padding **66** and the shin **63** slightly more complicated. The weight pad **64** itself may just be formed of metal, wherein the metal weight is placed over the supplemental padding **66** on the leg. However, in a preferred embodiment, the metal weight **70** is molded within an elastomeric casing **72**. The elastomeric casing **72** thereby helps cushion the metal weight **70** against the leg and prevents the metal weight **70** from wearing against the tubular elastic support **62**.

Referring to FIG. **6**, an alternate embodiment is shown where an inflatable bladder **73** is disposed between the weight pad **74** and the shin **71**. The inflatable bladder **73** takes the place of supplemental foam padding and may be either part of the weight pad or a separate element. In the shown embodiment, the inflatable bladder **73** is part of the weight pad **74**. An inflation pump **77** is positioned on the exterior surface **75** of the weight pad **74**. A conduit **78** couples the inflation pump **77** to the inflatable bladder **73**. The inflation pump **77** includes a one-way valve **76** that enables the inflation pump **77** to fill the bladder **73** with air. A separate deflation valve (not shown) is also provided that enables air to be released from the inflatable bladder **73**. As such, it will be understood that by repeatedly depressing the inflation pump **77**, the thickness of the inflatable bladder **73** can be increased and the degree of padding between the weight pad **74** and the shin **71** can also be increased.

An elastic support structure **79** is disposed around both the weight pad **74** and the leg as has been described in previous embodiments. However in this embodiment, the elastic support structure **79** may be slightly oversized and may therefore be loose as it is first attached around the leg. The elastic support structure **79** is made taut by pumping air into the inflatable bladder **73**. This increases the size of the inflatable bladder **73** which acts to push the weight pad **74** away from the leg and expand the elastic support structure **79**. Consequently, a person can create a custom fit and compression force by simply filling the inflatable bladder to his or her liking.

In FIG. **6**, a continuous elastic support structure **79** is shown. The elastic support structure **79** passes over the inflation pump **77**, thereby allowing the inflation pump **77** to be engaged through the material of the elastic support structure **79**. However, it will be understood that an elastic support structure that attaches to the weight pad as in FIG. **1** may also be used, wherein the inflation pump **77** would be directly accessible.

Referring to FIG. **7**, it can be seen that the weight pad **64** has a height **H1**, a top width **W2** and a smaller bottom width **W1**. The dimensions of the height **H1** and widths **W1**, **W2** are sized to enable the weight pad **64** to follow the natural taper of the lower leg and press against the shin. In the shown embodiment, the metal weight **70** is molded within the elastomeric casing **72**. The metal weight **70** can be unistructurally formed or segmented and is preferably constructed of a highly dense metal such as lead, tungsten or steel. Cavities **94** are defined by the structure of the metal weight **70**. By varying the size of the cavities **94**, the overall mass of the weight pad **64** can be varied without changing the size of the weight pad **64**. As a result, numerous weight pads **64** of varying masses can be created in a single size. Therefore, the elastic support element engages each weight pad **64** in the same manner despite the differences in mass between the various weight pads. A person can therefore use the same elastic support element with any number of different weight pads and the fit of each weight pad against the shin would be identical. This provides a much simpler means for changing weights than prior art systems where individual weights must be added or removed from a common device, whereby the size and shape of the device changes with each change in weight.

Although metal weights are shown, it will be understood that plastic weights or metal impregnated plastic weights may also be used. Metal weights were described as being the most cost effective manner of producing the present invention with a significant mass.

Referring to FIG. **8**, there is shown an alternate embodiment for a tubular support structure **80**. In the shown embodiment, the tubular support structure **80** is not continuous, but rather has a first end **82** and a second end **84**. A zipper **85** is disposed between the first end **82** and second end **84**, wherein the first end **82** can be selectively joined to the second end **84** to create a continuous structure. The shown support structure **80** is used in the same manner as was the support structure shown in FIGS. **4** and **5**. However, in the shown embodiment, the support structure **80** need not be pulled up over the leg. Instead, the support structure can be wrapped around the leg over a weight pad and the two ends **82**, **84** of the support structure **80** can be joined. Once the ends **82**, **84** are joined, the support structure compresses the lower leg and biases the weight pad against the bone in the shin as previously explained.

The shown use of the zipper **85** is of course exemplary and any other attachment means can be used. For example, in FIG. **9** the zipper of the previous embodiment is replaced by patches **88**, **89** of hook and loop fasteners. In this embodiment, the support structure **90** is wrapped around the weight pad and the leg until the hook and loop fasteners **88**, **89** engage and create the desired tubular support structure. By utilizing large patches of hook and loop fasteners **88**, **89**, the support structure can be adjusted to various sizes when wrapper around the leg, thereby providing a degree of adjustability not present in the previous embodiment of FIG. **8**.

It will be understood that the present invention weight apparatus described in conjunction with the various drawings are merely exemplary and a person skilled in the art of biomechanical devices may make numerous variations and modifications to the shown embodiments utilizing functionally equivalent components to those described. More specifically, it will be understood that any biasing means can be used to hold the weight pad in place provided the weight pad is biased against the predominant bone in either the forearm or the shin. Similarly, any combination of disclosed features can be used to create embodiments not specifically described. All such variations and modifications are intended to be included within the scope of the invention as defined by the appended claims.

What is claimed is:

1. A weight apparatus to be worn on the lower leg proximate the shin region where the tibia is discernable through the skin, said weight apparatus comprising:

a single weight pad unit between one-half pound and ten pounds, said weight pad unit having two side edges and a contact surface disposed between said side edges;

at least one band of elastic material that is selectively attachable to at least one of said side edges of said weight pad unit, said at least one band of elastic material and said weight pad unit being configurable into a circular configuration through which the lower leg can pass, wherein said at least one band of elastic material is adapted to bias said weight pad unit against said lower leg, whereby said contact surface of said weight pad unit is held in abutment against said shin region.

2. The weight apparatus accordingly claim **1**, wherein said weight pad unit includes at least one weight and padding disposed between said at least one weight and said contact surface.

3. The weight apparatus according to claim 2, wherein said at least one band of elastic material consists of a single band of elastic material having an opposite first end and second end.

4. The weight apparatus according to claim 3, further including a first fastening means disposed proximate said first end of said band and a second fastening means disposed proximate said second end of said band, wherein said first end and second end of said band can be selectively joined to said side edges of said weight pad unit thereby forming said circular configuration.

5. The weight apparatus according to claim 1, wherein said weight pad unit includes a plurality of weights, said plurality of weights being adapted to generally conform to the contours associated with the shin region as said weight pad unit is biased against the shin region.

6. The weight apparatus according to claim 1, wherein at least one weight is enveloped within elastomeric material, whereby the elastomeric material provides padding between said at least one weight and said contact surface.

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