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T. LAWTON

OBESITY REDUCING BAND

Filed Nov. 29, 1922

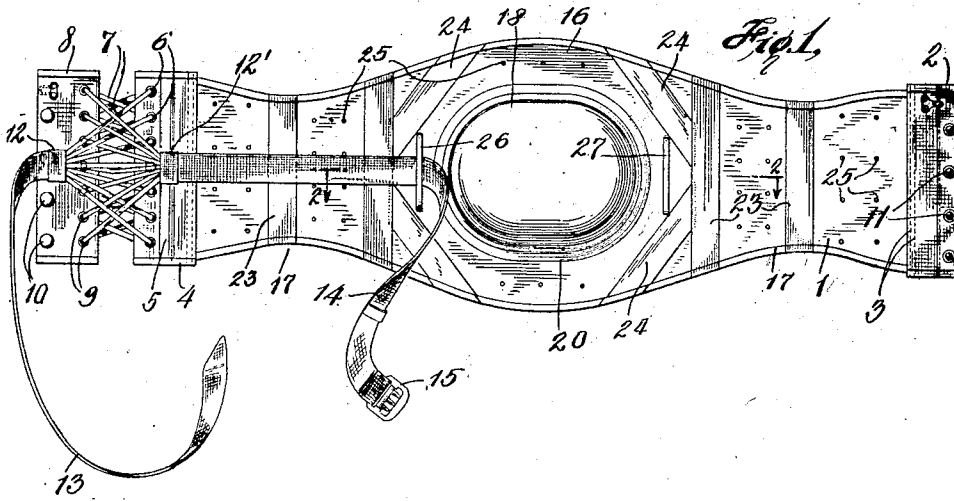


Fig. 2,

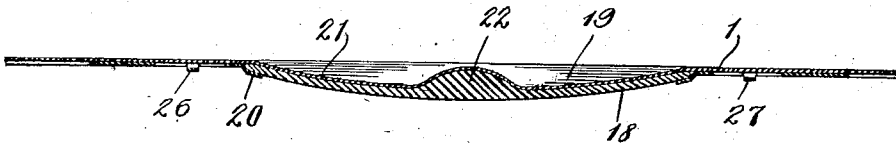
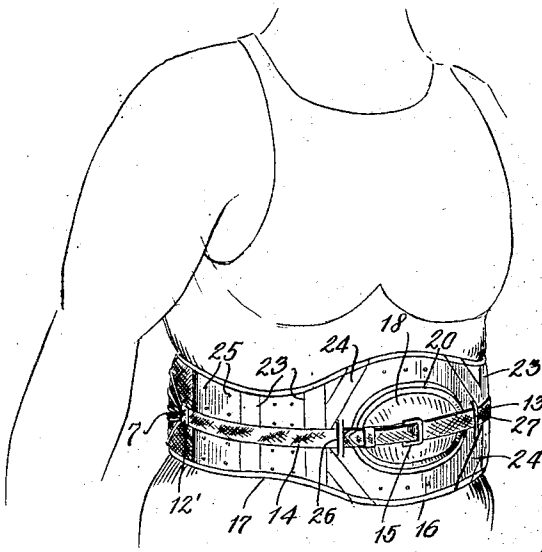


Fig. 3,



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THOMAS LAWTON, OF NEW YORK, N. Y.

OBESITY-REDUCING BAND.

Application filed November 29, 1922. Serial No. 603,899.

To all whom it may concern:

Be it known that I, THOMAS LAWTON, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in an Obesity-Reducing Band, of which the following is a specification.

My invention relates to resilient bands used in the conditioning of the human body, and is especially adapted for use in the reduction or removal of fatty tissue and also as a support for weakened members of the body.

It will be understood that the reduction and removal of fat are best accomplished by exercise and massage of the affected part, accompanied by natural perspiring. The end sought in each case is to cause the muscles to do a certain amount of work. This results in increased circulation of blood through the muscles, to supply material to the tissues being torn down, and at the same time the increased flow of blood absorbs the poisonous products which give the fatigue effect. When adipose tissue interlies the muscles, the result of exercise and massage is to cause a consumption of the fatty material so as to give off heat, and as stated the waste products are borne off through the blood capillaries. The adipose tissue under normal conditions would then be built up again, when the exercise ceased, but if the muscles are used regularly the fatty matter cannot accumulate in the rest periods as rapidly as it is consumed, so that it eventually disappears in part or in toto. It will be seen that if some means can be provided to produce a suction effect which insures not only a sure grip on the flesh so as to make certain that it will be subjected to a massage or kneading effect, these muscles will be doing more than the ordinary amount of work. If in addition thereto, means can be provided to prevent the radiation of the body warmth of the part under treatment so that excessive perspiration will be induced, the reduction and eventual elimination of the fatty material may be readily accomplished.

It is found also that a massage or kneading effect is produced by maintaining a partial vacuum over the part to be treated, and this partial vacuum is most easily produced by mounting an elastic cup-shaped

member of some sort in position over the flesh. By the partial collapse of this member with the resultant expulsion of air therefrom, the desired partial vacuum is produced. It is necessary, of course, to provide suitable means so that the cup-shaped member may be securely anchored in position. An important feature is to insure that no undue discomfort will result.

The desired functions which have been set forth may best be performed by the use of a resilient impervious band or bandage adapted to be worn over and in close contact with the part to be treated. Such a band will not only support and strengthen the portions of the body under treatment, but may be in turn held against the part with a variable pressure. It is desirable further that the band be non-absorbent so as to retain the body heat and to induce a more copious perspiration. By providing a band of resilient characteristics, suitable resistance may be offered to the muscles which produce an effect similar to that of gentle exercise. Resilient bandages of rubber or other elastic material have been previously constructed, either in the adjustable or non-adjustable form, the former type being of relatively little service, inasmuch as the resulting pressure and support will vary within wide limits depending on the size of the part being treated. Adjustable bandages eliminate this undesirable feature, but ordinarily are not provided with means by which the vacuum effect may be produced.

One object of my invention is to produce a new and improved resilient band of the class described, which may be adjusted about various parts of the body, and held securely in position.

Another object of my invention is to provide a new and improved resilient band which combines suitable elements to produce a vacuum effect over the part to be treated, and which also offers resistance to the muscular movements.

A further object of my invention is to provide a resilient band formed of an impervious material which permits of the retention of the body heat, which induces copious perspiration, and which subjects the part under treatment to a vacuum effect.

A further object of my invention is to provide a resilient band formed of an im-

pervious material which combines suitable elements to produce a vacuum and massage effect over the part to be treated, and which also offers resistance to the muscle movements.

A still further object of the invention is to provide a resilient band formed of impervious material which, while permitting the retention of the body heat is of such construction that the perspiration will be discharged through the band, permitting it to evaporate through the clothing of the wearer.

Other objects and aims of the invention, more or less specific than those referred to above, will be in part obvious and in part pointed out in the course of the following description of the elements, combinations, arrangements of parts and applications of principles, constituting the invention; and the scope of protection contemplated will be indicated in the appended claims.

In the accompanying drawing, wherein I have shown a preferred form of embodiment of my invention:

Figure 1 is an elevational view of my improved band.

Figure 2 is a sectional view taken through the band substantially on the line 2—2 of Figure 1; and

Figure 3 is a view showing the belt or band adjusted in position upon the human body.

In the drawing, in which similar reference characters refer to similar parts throughout the several views thereof, the reference character 1 designates the band proper, preferably formed of an elastic impervious material, such as sheet rubber, to which is attached at one end a fabric extension 2 united to the member 1 as by lines of stitching 3. At the opposite end of the member 1 is provided a second fabric extension 4 having a suitable stiffening member 5. The fabric extension 4 is provided with a plurality of eyelets 6 adapted to receive a plurality of lacing members 7.

The reference numeral 8 designates a strip of fabric provided near one edge with a plurality of eyelets 9 and at its opposite edge with female parts of a plurality of snap fasteners 10, the latter being adapted to cooperate with the male parts 11 of a plurality of snap fasteners provided upon the fabric extension 2, whereby the belt or band is fastened about the body.

The opposite ends of the cords 7 are united in and fastened to reinforcing members 12' and 12 respectively, which are provided with extending straps 13 and 14, the latter being provided with a buckle 15 through which the end of the strap 13 may be inserted and securely held. It will be noted that the cords 7 are interlaced in such a way that when the straps 13 and 14 are pulled in opposite di-

rections, those portions of the cords which extend between the eyelets 6 and 9 are shortened, so that the portions 4 and 8 of the band are brought closer together. When the band is let out, due to the resiliency of the belt, the portions 4 and 8 are pulled away from each other. Thus it will be seen that this strap and lace construction provides for a ready and easy adjustment of the belt about the body.

It will be noted further that the elastic portion of the band, which as stated, consists of a sheet of rubber or other material of that character, is made wider along its median line as indicated at 16 and this is for the purpose of covering as large an area of the abdomen as is possible without producing undue discomfort. At the ends of the elastic section of the band it is considerably narrower and between the end portions and the intermediate portions are still narrower portions 17. By narrowing the band in this way a greater freedom of movement is possible without lessening the desirable results. The fabric portions of the band consisting of the members 2, 4 and 8 lie across the back of the wearer when the band is in operative position and this portion being widened along its median line so that when the band is tightened, the fabric will not produce discomfort.

As indicated at 18 the elastic member of the band is provided with an oval suction member, slightly cupped as at 19. The suction member 18 is preferably made in oval form so as to cover a region of the abdomen of considerable extent and is formed of a slightly heavier stiffer resilient material than that of the elastic member 1 so as to partially retain its cup shape when the band is positioned upon the body of the wearer. The cup shaped member 18 is preferably secured to the band by means of a reinforcing member 20; the cup shaped member and that portion of the band 21 lying within it being vulcanized together. The reinforcing member 20 is also vulcanized to the band 1 and to the cup shaped member 18.

Formed centrally of the cup shaped member 18 is an inwardly extending rounded protuberance 22 preferably formed integrally with the material comprising the suction member 18. This protuberance 22 constitutes a massage means, which, during the movements of the body presses upon the flesh of the wearer producing a massaging effect.

The belt or band 1 is provided with a plurality of reinforcing members 23 which tend to hold the band in a lateral extended position when worn and the portion 16 of said band is also provided with a plurality of angularly disposed reinforcing members 24 which tend to hold that part in an extended condition.

These reinforcing straps are preferably

vulcanized to the surface of the band, although they may be secured thereto in any approved manner.

The band 1 is also provided with a plurality of minute apertures 25 through which perspiration may escape where it will evaporate through the clothing of the wearer.

Provided opposite the longitudinal axis of the suction member 18 are guide members 26 and 27 respectively, through which pass the straps 13 and 14 as clearly shown in Figure 3.

When the band is to be worn, it is placed upon the body of the wearer as noted in Figure 3, the suction member 18 lying in front and covering the area at which reduction is to take place. The snap fasteners 10 and 11 are then engaged with it. If desired, the operation of connecting the snap fasteners can be performed at the front or side of the wearer and the band then slid around the body until it assumes its proper position. The straps 13 and 14 are then adjusted as indicated in Figure 3, the adjustment being preferably made in such a way that the buckle 15 will be engaged with the suction member 13 directly over the massage member 22. The straps 13 and 14 are of course, drawn up until a suitable degree of tautness is obtained.

With the band in the position shown during the movements of the body a partial collapse of the suction member 18 takes place which produces a partial vacuum over the region above the suction member.

By reason of this partial vacuum so produced, the flesh of the abdomen will be slightly drawn into the whole interior of the suction member 18 and the movements of the body will cause the massage member 22 to massage the flesh of the wearer of the band while the same is under the influence of the vacuum. This, together with the action of the cup is most effective in reducing and as the wearer performs the usual body movements, by reason of the vacuum and the massage there is produced increased circulation, and by reason of the resistance offered to body movements by the band, the tissues located under the suction member are subjected to a pulling and kneading, which also increases the circulation.

The effect is also somewhat similar to that which is produced by exercise, and it will be readily appreciated that the combination of exercise, the diffuse perspiration, and the increased circulation will be most effective to attain the purposes desired. By reason of the fabric members being provided with suitable stiffening, there is no tendency for the fabric to roll over along the edges, and this in turn keeps the elastic member flat at all times. The belt may be adjusted for persons of different girths and the belt may be worn as tightly or as loosely

as may be desired, within such limits, of course, as permit the cup to perform its functions.

It will be seen that the band which I have shown herein is well adapted to attain in a simple and effective manner all the objects set forth. It is constructed of such materials that it may be worn without undue discomfort and may be adjusted to be worn by persons of different waist measures.

As many changes could be made in this construction without departing from the scope of the following claims, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative only and not in a limiting sense.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A reducing band comprising a relatively wider middle portion constructed to fit the body of the wearer closely, the said wider portion of the band having a resilient outwardly cupped member about which the said band lies closely against the body, a massage member located within said cupped member, and means for securing the band upon the person of the wearer.

2. A reducing band comprising a relatively wider middle portion constructed to fit the body of the wearer closely, said wider portion of the band being provided with a resilient cupped member having an inwardly extending massaging protuberance, said cupped member lying closely against the body, and means for securing the band upon the person of the wearer.

3. A reducing band comprising a relatively wider middle portion constructed to fit the body of the wearer closely, said wider portion of the band having a resiliently outwardly cupped member provided with a margin about which said band lies closely against the body, and said cupped member having a centrally arranged inwardly extending protuberance adapted to engage with the body and massage the same, and means for securing the band upon the person of the wearer.

4. A band for reducing adipose accretions by movements of the body of the wearer, comprising a band fitting the body closely, said band having an outwardly cupped member surrounded by closely fitting portions of the band, and inwardly extending massaging means formed centrally of said cupped member, and means for securing the band upon the person of the wearer.

5. A band for reducing adipose tissue by movement of the body of the wearer, comprising a band fitting the body closely, said band having an outwardly cupped member surrounded by closely fitting portions of the band, said cupped member being provided

with an inwardly extending massaging member, and means for securing the band upon the person of the wearer, including a strap provided with fastening devices, said strap
5 passing over and upon said cupped member.

6. A band for reducing adipose accretions by movements of the body of the wearer, comprising a band fitting the body closely, said band having an outwardly cupped member,
10 ber, provided with an inwardly extending centrally disposed massaging means, and means for securing the band upon the person of the wearer.

7. A band for reducing adipose accretions by movements of the body of the wearer, 15 comprising a perforated band of resilient material, fitting the body closely, said band having an outwardly cupped member provided with an inwardly extending centrally disposed massaging means, and means for 20 securing the band upon the person of the wearer, including a strap provided with fastening devices, said strap passing over and upon the cupped member.

In testimony whereof, I affix my signature.

THOMAS LAWTON.