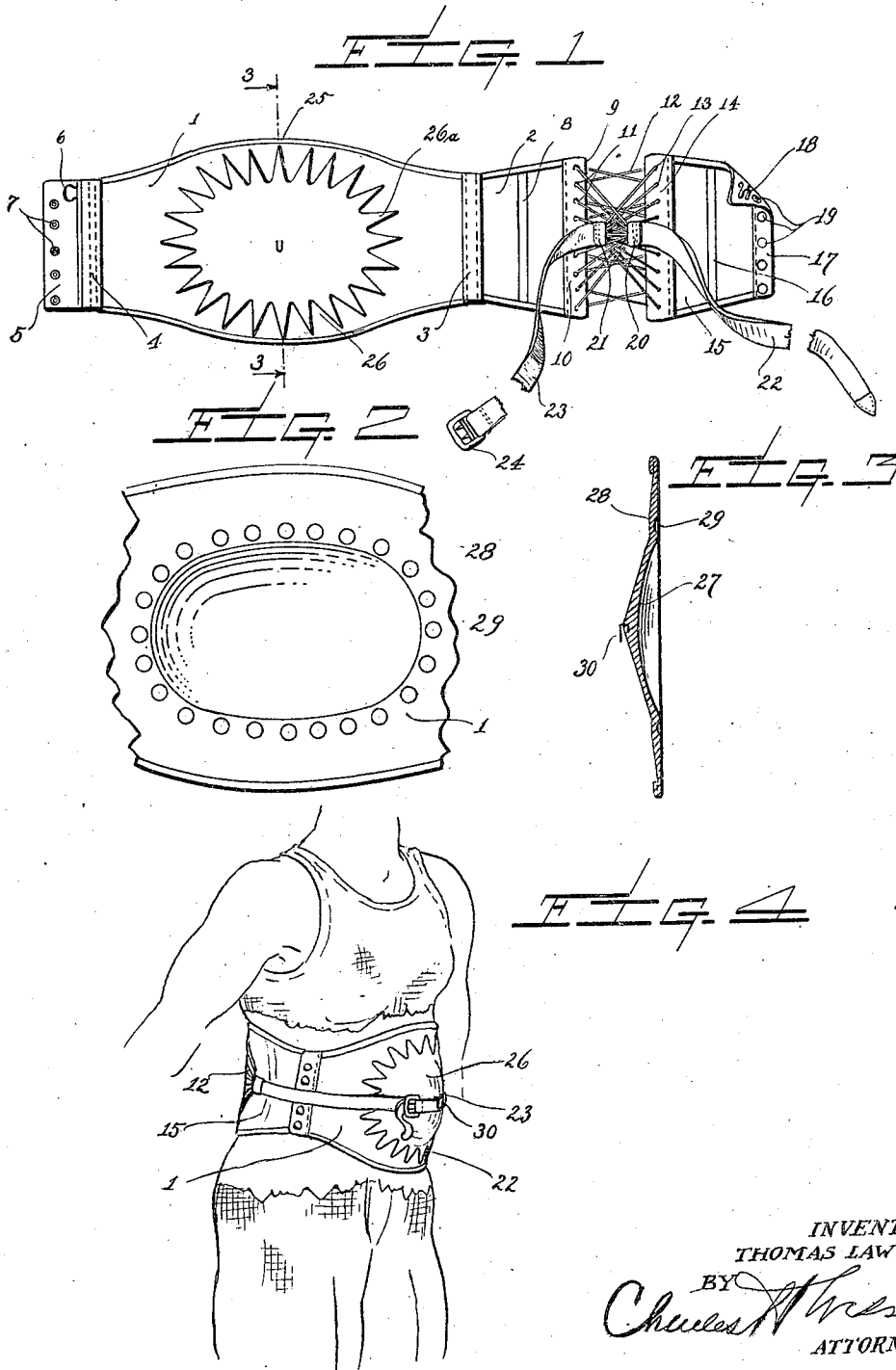


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T. LAWTON.
OBESITY REDUCING BAND.
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OBESITY-REDUCING BAND.

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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 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 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 then that if some means can be provided by which a resistance preferably of varying intensity can be opposed to the normal movements of the muscles, and if at the same time 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 pro-

duced 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 produces 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.

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 consists of a view in elevation of the band.

Figure 2 is an elevational view of the back of a detail of the band.

Figure 3 is a sectional view through the band on the line 3—3 of Figure 1; and

Figure 4 is a view showing the belt in adjusted position about the human body.

In the drawings in which similar reference characters refer to similar parts throughout the several views thereof, reference character 1 designates a part of the band, formed of an elastic impervious material, such as sheet rubber, to which is attached a fabric extension 2, united to the member 1 and provided along the line of union with a suitable reinforcing member 3. At the opposite end the member 1 is provided with a second reinforcing member 4, which has a portion 5 provided with suitable fastening means to engage the other end of the belt. These fastening means consist of an eye 6 and a series of snap fasteners 7, or other fastening means of a suitable character.

The fabric extension 2 is provided with a suitable stiffening member 8, and along its marginal edge 9 it is provided with a reinforcing member 10 in which there is located a series of eyelets 11. Passing through the eyelets 11, is a series of cords 12, which pass through similar eyelets 13, in a reinforcing member 14 in a fabric portion of the belt 15. The portion 15 is also provided with a stiffening member 16 and along its marginal edge it is reinforced by a member 17, which is provided with a hook 18 to engage the eye 6, and with a series of fasteners 19 which are positioned to engage the corresponding fasteners 7.

The opposite ends of the cords 12 are united in reinforcing members 20 and 21, which are provided with extending straps 22 and 23, the strap 23 having a buckle 24 on its end through which the end of strap 22 may be inserted and securely held. It will be noted that the cords 12 are interlaced in such a way that when straps 22 and 23 are pulled in opposite directions, that portion of the cord which extends between eyelets 11 and 13 is shortened, so that the portions 2 and 15 of the band are brought more closely together.

It will be noted further that the elastic portion of the band, which as stated, con-

sists of a sheet of sheet rubber, or other material of that character, is made wider along its median line, as indicated at 25, and this is for the purpose of covering as large an area of the flesh of the abdomen as possible without undue discomfort. At the ends of the elastic section of the band the band is considerably narrower, the points at which the reinforcing members 3 and 4 are located being situated as indicated in Figure 4 on the sides of the body, and by narrowing the band at this point greater freedom of movement is possible without lessening the desirable results. The fabric portion of the band consisting of the members 2 and 15 lies across the back of the wearer when the band is in operative position, and this portion is widened along its median line so that when the band is tightened, the fabric will not produce discomfort.

As indicated at 26, the elastic member of the band is provided with an oval suction member, slightly cupped as indicated at 27. The suction member 26 is made in the oval form so as to cover a region of the abdomen of considerable extent, and is formed of a slightly heavier and stiffer material than the elastic member 1 as partially to retain its cup shape when the band is positioned about the body of the wearer. The member 26 will be seen to have a plurality of darts 26^a projecting outwardly from its periphery used for the purpose of strengthening the union of members 26 and 1, the two being held together by vulcanizing, cementing or other similar methods. Adjacent the depression 27, the peripheral margin 28 of the member 26 is provided with a plurality of suitable cup-shaped recesses 29, which form small vacuum cups. The margin 28 lies in the plane of the elastic member 1 and the suction cups lie on the inner surface of the band so as to lie against the body of the wearer.

When the band is to be worn, it is placed about the body of the wearer, as indicated at Figure 4, the member 26 lying in front and covering the area at which reduction is to take place. The members 2 and 15 are now passed about the body toward the rear, and the hook 18 first engaged with the eye 6, so that the band may be held in position while the wearer is engaging the fasteners 19 and 17. With the band in this position, it will be understood that it forms a closed ring about the wearer, but the surface of the band is not in close contact with the body of the wearer. For this purpose it is necessary to adjust the straps 22 and 23, the straps are passed about the body toward the front in opposite directions, the strap 22 being inserted through the buckle 24, and drawn up until a suitable degree of tautness is obtained. By reason of the central cup 26 being provided with peripheral recesses 29, this portion of the band will be firmly held in posi-

tion against the abdomen, since when the band is tightened the member 26 has a tendency to flatten slightly aided in this movement by the pressure of the straps with the consequent expulsion of air both from beneath the cup and from beneath the recesses 29.

Vulcanized or otherwise secured in the outer surface of the suction member 26, is a hook 30, which projects slightly so that the tightening straps may be held in position thereunder and prevented from slipping off the slightly concave outer surface of member 26 when drawn tight. The partial collapse of the cup shaped member produces a partial vacuum in such recess under the cup, and this vacuum consists in anchoring the member 26 in its adjusted position.

By reason of the partial vacuum so produced, the flesh of the abdomen will be slightly drawn into the hollow interior of the member 26, and by reason of the fact that the elastic member is formed of an impervious material, the body heat and perspiration will be retained thereunder. This, together with the action of the cup is most effective in reducing, and as the wearer performs the usual bodily movements, the cup by reason of the partial vacuum thereunder tends to draw the flesh therewithin at all times. This suction effect, causes an increased circulation, and by reason of the resistance offered to bodily movements, the tissues located under the cup are subjected to a pulling and kneading which in turn 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. An elastic reducing band comprising a relatively wider middle portion constructed to fit the torso 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 torso, 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, the said wider portion of the band having a resilient outwardly cupped member about which the said band lies closely against the body, the said cupped member having adjacent thereto an annular series of recesses opening upon the body of the wearer, 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, the said wider portion of the band having a resilient outwardly cupped member provided with a margin about which the said band lies closely against the body, the said margin of the cupped member being provided with recesses spaced apart and arranged to open upon the body of the wearer, 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 an elastic band fitting the torso closely, the said band having an outwardly cupped member surrounded by closely fitting elastic portions of the band, and means for securing the band upon the person of the wearer.

5. A band for reducing adipose accretions by movements of the body of the wearer, comprising a band fitting the body closely, the said band having an outwardly cupped member surrounded by closely fitting portions of the band, the said band having a plurality of recesses formed in the said closely fitting portion thereof and at a distance from the said cupped member, and means for securing the band upon the person of the wearer.

6. A reducing band adapted to be worn about the human body comprising an elastic impervious portion, a cup-shaped member incorporated therein and having a peripheral margin adapted to lie in engagement with the flesh, and provided with anchoring cups, a stiffened fabric extension united to one end of said elastic portion, a fabric portion united to said extension by adjustable means and means to fasten said fabric portion to said elastic portion.

7. A reducing band adapted to be worn

about the human body, comprising an elastic impervious portion, a cup-shaped member incorporated therein and having a peripheral margin adapted to lie in engagement with the flesh and provided with anchoring cups, a stiffened fabric extension united along a reinforced line of union to one end of said elastic portion, a fabric portion provided with fastening means, a plurality of laces uniting said fabric portion and said extension, fastening means located in a reinforcing member on the other end of said elastic portion, whereby said fabric portion may be united to said elastic portion, and means on said laces whereby said extension and fabric portions may be moved relatively to vary the circumference of said band.

8. An elastic band for reducing adipose accretions by movements of the body of the wearer, comprising a band fitting the torso closely, the said band having an outwardly cupped member surrounded by closely fitting

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

9. A band for reducing adipose accretions by the movements of the body of the wearer, comprising a band fitting the body closely, the said band having an outwardly cupped member surrounded by closely fitting portions of the band, the said band having on its inner side a plurality of recesses, and means for securing the band upon the person of the wearer including a strap provided with fastening devices, the said strap passing over and upon the said cupped member.

In testimony whereof, I affix my signature in the presence of two witnesses.

THOMAS LAWTON.

Witnesses:

EMMA WEINBERG,
DOROTHY A. WARD.