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APPARATUS FOR PROVIDING PHYSICAL HEALTH TREATMENT

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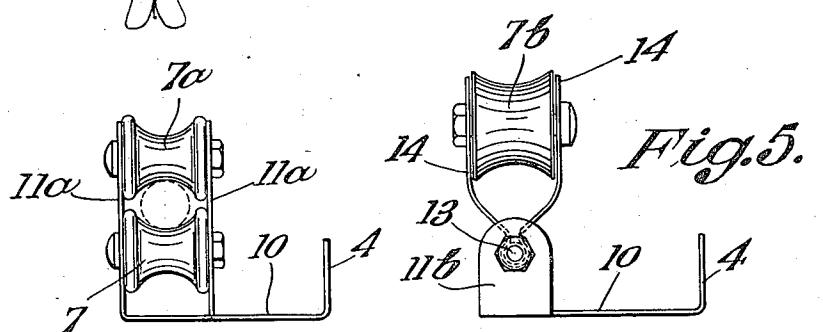
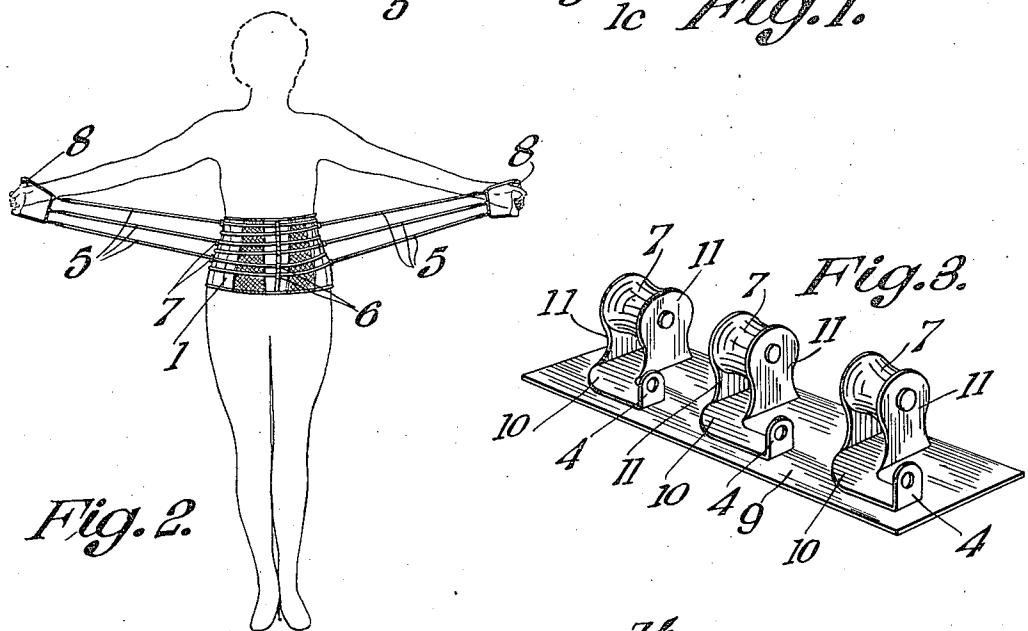
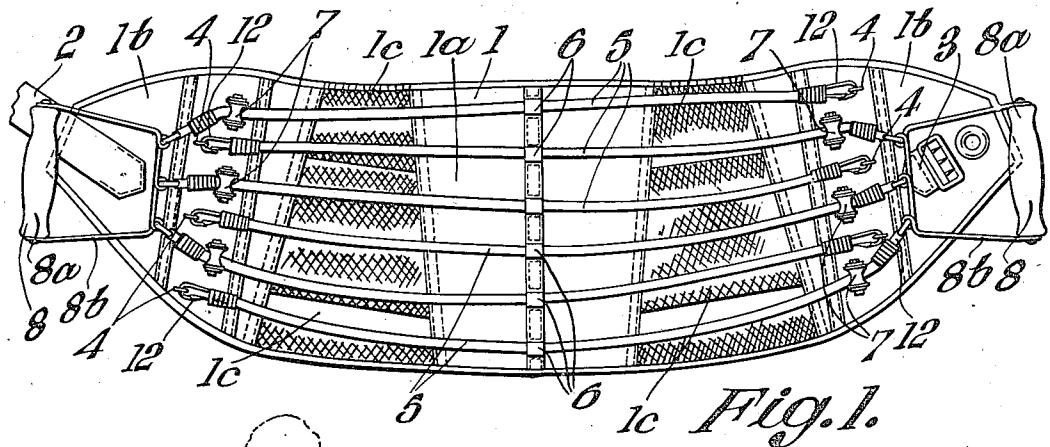


Fig. 4.

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## UNITED STATES PATENT OFFICE

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APPARATUS FOR PROVIDING PHYSICAL  
HEALTH TREATMENT

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7 Claims. (Cl. 128—32)

This invention relates to apparatus for providing physical health treatment and has for its object the provision of improved apparatus whose application will inter alia effect weight reduction particularly in the region of the waist and at the same time will provide health giving exercise.

The invention consists broadly of a belt provided with means whereby the wearer may alternately increase and decrease the tension of said belt.

In order that the invention may be the more clearly understood a belt in accordance therewith will now be described, reference being made to the accompanying drawing wherein:—

Fig. 1 is a face view of the belt in its open position.

Fig. 2 is a view of the belt in use.

Fig. 3 is a perspective view of an integral part 20 of the belt.

Fig. 4 is an elevation of a modified form of one of the elements shown in Fig. 3.

Fig. 5 is an elevation of a further modified form of said element.

Referring to Figures 1-3, the belt proper 1 is some ten inches wide throughout the major portion of its length and narrows somewhat towards its two ends as shown where it is attached to fastening straps 2 and 3 the latter of which is 30 provided with a buckle. Part of the belt is elastic so that it is free to contract and expand with the waist of the wearer while exercises are being performed as hereinafter described.

Connected to fastenings 4 mounted on the belt 35 at the region of each side of the wearer and at points spaced apart transversely of the belt are say three flexible steel or elastic strands 5. These three strands 5 extend round the belt parallel to one another passing, at the centre of the belt, 40 under respective guide loops 6, and, when they reach the other side of the wearer, they pass under respective grooved pulley wheels 7 spaced apart transversely of the belt. From these pulley wheels 7 the strands 5 extend to a common handle 8.

It will be seen that the pulley wheels 7 appertaining to one set of the strands 5 are spaced across the belt at the roughly same region as the 50 fastenings 4 appertaining to the other set of the strands. In practice these pulleys 7 and fastenings 4 are located more or less in a row traversing the belt, with the pulleys 7 and fastenings 4 arranged alternately. In order to maintain the 55 strands 5 of the two sets parallel the arrange-

ment of the pulleys 7 and fastenings 4 of the two rows is reversed so that each pulley of one row is opposite to a fastening of the other as shown.

In use the belt is strapped on the wearer with the centre guide loops 6 either at the front or at the back, the handles 8 are taken in the two hands and the arms are swung alternately outwards (say to the position shown in Fig. 2) and inwards. As the arms are swung outwards the 10 flexible steel or elastic strands 5 are stretched and this in effect increases the tightness of the belt. At the same time, the waist is naturally contracted by the outward movement of the arms. Thus the belt is alternately tightened and loosened around the waist in conformity with the natural contraction and expansion of the waist caused by the exercise. Usually the tightening of the belt during outward movement exceeds the natural contraction of the waist so that the tension is increased during the outward movement of the arms. The general effect is that of abdominal or back massage during the time that health giving and waist reducing exercise is being performed. The result is that of extensive and 15 harmless waist reduction.

In construction the fastening 4 and pulleys 7 at each side of the wearer are mounted on a common flexible metal plate 9 (Fig. 3) let into the material of the belt. This metal plate 9 carries 30 three integral stamped sheet metal brackets 10 each of which comprise three outwardly projecting lugs two of which 11 constitute bearings for the shaft of a pulley 7 and the third of which 35 constitutes a fastening 4. The strands 5 are connected to the fastenings 4 by means of clips 12 which may be of the dog leash type and which engage in holes in the fastenings 4 as shown.

The two flexible metal plates 9 together with the brackets 10 which they carry are made identical with one another but are arranged the reverse way up so that the pulleys 7 of each will be opposite to the fastenings 4 of the other as hereinbefore stated.

The six guide loops 6 for the two sets of 45 strands 5 are all constituted as shown by a single strip of material sewn transversely of the belt and looped at intervals.

The belt 1 may suitably be made in five sections, viz. a small centre section 1a of ordinary 50 fabric carrying the strip of material forming the guide loops 6, two end sections 1b of ordinary fabric, in which the metal plates 9 are respectively included, and two intermediate sections 1c of elastic fabric between said centre section 1a 55

and said end sections **1b**. These intermediate sections **1c** give the belt the required elasticity.

The handles **8** may each consist as shown of a handle proper **8a** and a loop of thick stiff metal wire **8b** formed at one side with three small loops to which the strands **5** are respectively connected by means of similar clips to those which connect them to the fastenings.

In Fig. 4, the arrangement shown in the preceding figures, is modified by the lugs **11** being made of increased height as shown at **11a**, and two rollers **7a** being mounted between each pair of lugs. In this arrangement the strands **5** pass between the rollers **7a** of each pair so that there is a roller above, as well as beneath, each strand.

In Fig. 5 only a single roller **7b** is mounted on each bracket **10**, and this roller is adapted to pivot about an axis **13** at right angles to its own axis. Thus the lugs **11b** are made in a plane parallel to the axis of the roller **7b** instead of at right angles as in the preceding arrangements, and said roller is mounted on a separate bracket **14** which is pivotally mounted between the two lugs about the said axis **13**. By means of this arrangement the rollers remain in correct engagement with the strands even when the latter are pulled out of their normal line.

What I claim and desire to secure by Letters Patent is:—

1. A belt structure for simultaneously providing exercise and affording body treatment, comprising a belt proper adapted to be independently fastened around the waist of the wearer, handles to be held respectively in the hands of the wearer, flexible strands connected at one end of said handles and at the other end to said belt proper at points of attachment spaced around said belt proper, and guide elements for said strands mounted on said belt proper whereby the strands extending to the respective handles are guided round said belt proper so that from their points of attachment they extend past one another in opposite directions, whereby the wearer, by alternately drawing said handles away from, and returning them towards, said belt proper, may alternately increase and decrease the tension thereof.

2. A belt structure for simultaneously providing exercise and affording body treatment, comprising a resilient belt proper adapted to be independently fastened around the waist of the wearer, handles to be held respectively in the hands of the wearer, resilient strands connected at one end to said handles and at the other end to said belt proper at points of attachment spaced around said belt proper, and guide elements for said strands mounted on said belt proper whereby the strands extending to the respective handles are guided round said belt proper so that from their points of attachment they extend past one another in opposite directions, whereby the wearer, by alternately drawing said handles away from, and returning them towards, said belt proper, may alternately increase and decrease the tension thereof.

3. A belt structure for simultaneously providing exercise and affording body treatment, comprising a belt proper adapted to be independently fastened around the waist of the wearer, handles to be held respectively in the hands of the wearer, two sets of flexible strands, said sets being respectively connected at one end to the handles and at the other end to said belt proper at regions of attachment spaced apart from one another around said belt proper, and guide elements for the individual strands mounted on said belt proper

whereby said strands are guided round said belt proper so that the strands of the respective sets extend past one another in opposite directions alternating with one another laterally of said belt proper, whereby the wearer, by alternately drawing said handles away from, and returning them towards, said belt proper, may alternately increase and decrease the tension thereof.

4. A belt structure for simultaneously providing exercise and affording bodily treatment, comprising a belt proper adapted to be independently fastened around the waist of the wearer, handles to be held respectively in the hands of the wearer, two sets of flexible strands, said sets being respectively connected at one end to the handles and at the other end to said belt proper at regions of attachment spaced apart from one another around said belt proper, and guide elements for the individual strands mounted on said belt proper, the guide elements appertaining to one set of strands and the fastening points to said belt proper of the other set of strands being spaced alternately across said belt proper at approximately the same region, the guide elements of each set being opposite the fastening points of the other, whereby the wearer, by alternately drawing said handles away from, and returning them towards, said belt proper, may alternately increase and decrease the tension thereof.

5. A belt structure for simultaneously providing exercise and affording body treatment, comprising a belt proper adapted to be independently fastened around the waist of the wearer, handles to be held respectively in the hands of the wearer, two unit structures carried by said belt proper in spaced relation therearound, each of said structures comprising a plurality of guide elements and a plurality of fastening elements spaced alternately transversely of said belt proper with the guide elements of each structure opposite the fastening elements of the other, two sets of flexible strands, said sets being connected at one end to the respective handles and at the other to the fastening elements of the respective unit structures with the strands of each set passing through the guide elements of the unit structure other than that to which fastening elements they are connected, whereby the wearer, by alternately drawing said handles away from, and returning them towards, said belt proper, may alternately increase and decrease the tension thereof.

6. A belt structure for simultaneously providing exercise and affording body treatment, comprising a belt proper adapted to be independently fastened around the waist of the wearer, handles to be held respectively in the hands of the wearer, two identical unit structures carried by said belt proper in spaced relation therearound, each of said structures comprising a plurality of guide elements and a plurality of fastening elements spaced alternately transversely of said belt proper and said unit structures being arranged the reverse way round so that the guide elements of each structure are opposite the fastening elements of the other, two sets of flexible strands, said sets being connected at one end to the respective handles and at the other to the fastening elements of the respective unit structures with the strands of each set passing through the guide elements of the unit structure other than that to which fastening elements they are connected, whereby the wearer, by alternately drawing said handles away from, and returning them towards, said belt proper, may alternately increase and decrease the tension thereof.

7. A belt structure for simultaneously providing exercise and affording body treatment, comprising a belt proper adapted to be independently fastened around the waist of the wearer, handles 5 to be held respectively in the hands of the wearer, flexible strands connected at one end to said handles and at the other end to said belt proper at points of attachment spaced around said belt

proper, and pulley wheel guides for said strands mounted on said belt proper whereby the strands extending to the respective handles are guided round said belt proper so that from their points of attachment they extend past one another in 5 opposite directions.

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