

1

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METHOD OF MAKING FLEXIBLE WEIGHTED BELT OR EXERCISE ARTICLE

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1 Claim

ABSTRACT OF THE DISCLOSURE

A method of producing an article of manufacture comprising a flexible elongated enclosure wherein a flattened tubular member is first made from an elongated strip of material having a finished side surface and an unfinished side surface with the finished surface being on the inside. Then the tubular member is turned inside out, a longitudinal seam is sewn into the article, the longitudinal sections are partially filled with small metal particles, and cross seams are formed in the article.

The present invention relates to a flexible, weighted belt or exercise article, and particularly to an article of manufacture comprising a flexible enclosure or carrier article having a plurality of weights therein, which enclosure can be removably and readily secured to a person, such as around one's waist, for therapeutic or exercise purposes.

Heretofore there have been various types of articles provided for exercise purposes where extra weights can be carried by the hand, or can be tied to a person's shoe. However, insofar as I am aware, there have been no satisfactory weight means provided for ready attachment to a person in a convenient, easily adjustable manner to obtain exercise action automatically when the person moves. Nor to provide a load on a person's waist to aid in weight reduction.

The general object of the present invention is to provide a novel and improved flexible, weighted, exercise article of manufacture, such as a belt, that is characterized by the ease of applying, adjusting, retaining and ultimately removing the weight containing article from operative association with a person and to a method of making the same.

Another object of the invention is to provide a novel, easily practiced method of forming a flexible weighted belt or exercise article wherein a tubular article is formed from an elongate strip of material with the finished outer surface of the material being on the inside of the tube which thereafter is turned inside out.

Another object of the invention is to sew special seam and partition means in a weight belt while it is partially filled with small metal particles.

A further object of the invention is to provide an easily practiced method of making a flexible weight belt.

The foregoing and other objects and advantages of the invention will be made more apparent as the specification proceeds.

Attention is now particularly directed to the accompanying drawings, wherein:

2

FIG. 1 is a front elevation of an article of the invention showing it in its opened, inoperative form;

FIG. 2 is a rear elevation of the article of FIG. 1;

FIG. 3 is an enlarged fragmentary section of the fastening means on the article of the invention; and

FIG. 4 is a vertical section taken through the fastening means when engaged.

When referring to corresponding members shown in the drawings and referred to in the specification, corresponding numerals are used to facilitate comparison therebetween.

Generally speaking, the invention relates to an article of manufacture that comprises a flexible, elongate sectional enclosure, a plurality of small weight members received within the sections of the enclosure and flexible with the enclosure, and relatively flat interengaging means operatively secured to or carried by opposite end portions of the enclosure whereby such opposed end portions can be adjustably engaged with each other to form a closed loop whereby the article of manufacture can be temporarily secured to a person's waist for applying desired weights thereto for temporary periods, such sections in the enclosure being longitudinally spaced from at least one of the interengaging means.

Reference now is particularly directed to the details of the structure shown in the drawings, and an article of manufacture or belt is shown in FIG. 1 and indicated as a whole by the numeral 1. This article of manufacture is adapted to be secured around a person's waist. This article of manufacture includes a flexible, elongate enclosure 2 that normally is made, for example, from any suitable fabric, sheet means, or plastic material, and thus the enclosure can be made from two layers of one folded sheet 3 of material, as indicated at 4a and 4b, and marginal portions of the layers 4a and 4b are sewed or otherwise secured together adjacent the edges thereof, as indicated at 5. In this particular embodiment of the invention, a center seam 6 is also formed, or provided in the flexible enclosure 2 to divide it into upper and lower compartments and cross seams 7 are provided to divide the enclosure for a major portion of its length into substantially rectangular pockets, sections, or compartments 8.

In the production of the article of the invention, it is desirable in many instances to use a sheet of suitable plastic material in forming the enclosure 2. Thus some simulated leather type of a plastic substance can be used for forming the enclosure 2, and such leather-like material normally has a finished side and an unfinished side with a layer of fabric 9 usually being integrally attached to such unfinished side. In order to provide an attractive appearing enclosure from the material as described, it normally is desirable to form the seam 5 and then to turn the layer 3 of such sheet material inside out and complete the enclosure with the finished side showing. In all events, after such seam 5 has been formed on the material or layer 3, a hollow or tubular article is made therefrom, then such member or sheet 3 is turned inside out and the finished surface of the sheet is provided on the outer surface thereof. The sewn seam is now positioned inside the enclosure and an attractive container or enclosure is made therefrom. Preferably the next step in forming the finished article of the invention from the enclosure partially formed by the steps previously outlined, is to

3

sew another seam 6 that extends longitudinally of the enclosure 2 intermediate the marginal portions thereof, which seam 6 may extend the complete length of the enclosure so formed. Or, the seam 6 may extend down to an end section thereof at which attaching means, as hereinafter described, can be sewn to or otherwise applied to the end portion of the enclosure 2 and have the seam 6 terminate adjacent such means.

Of course, it can be or it will be realized that the enclosure 2 or compartment forming member of the invention can be formed from two separate pieces or layers of fabric or other material, as desired, and then in such instance, it would be necessary to form two longitudinally extending seams in this enclosure member when initially assembling the enclosure from two strips or sheets of material with the finished surface thereof being on the inside of the then temporarily formed enclosure. The enclosure 2 then is turned inside out to provide longitudinally extending seams on the inner surface of the enclosure.

In order to provide the desired weight means for use with the article of manufacture 1, in this embodiment of the invention, a plurality of small metal members, such as beads or shot 10 are positioned in each of the compartments formed in the enclosure 2. Even though a relatively large quantity of such metal beads, or shot 10 are received in each of the compartments, it will not interfere with the flexibility of the elongate enclosure 2. Then the shot 10 is substantially uniformly distributed along the enclosure 2 and the cross seams 7 are sewn to form the pockets or compartments 10. Such enclosure is still quite flexible and can be wrapped around a person's waist.

It is a feature of the invention that relatively thin, flat, flexible attachment means are associated with the opposed ends of this flexible enclosure 2 whereby an adjustable closed loop can be formed therefrom. Hook or burr and fibrous means, or similar removable engagement members as described hereinafter, such as Velcro materials, may be used to provide a convenient means for forming the article of manufacture into a closed loop that would be securely engaged with a person's waist. Such attachment means normally are attached to flattened ends of the enclosure 2 and when overlapped and engaged with each other, still are thinner than the weight carrying compartments.

The material forming the attachment means provides what can be called relatively rigid, short hook or burr means 11 on one surface of a strip or section of fabric which is suitably secured to, for example, the outer surface of the enclosure 2, as two relatively long strips, usually spaced transversely from each other. The hook or burr means 11 primarily comprise a plurality of relatively rigid short overhanging, or split hook members 12, as best shown in FIG. 4, and which hook or burr means 11 are adapted to engage tightly with a relatively soft fibrous section, layer or member 13 secured to the opposed, or inner face or surface of the enclosure 2. The fibrous layer 13 also is provided in two long strips, preferably about twice as long as the strips 11 of burr means usually has at least some loops therein to improve engaging action with the hook members 12. The fibrous layer, or section 13 will engage tightly with a length of the burr means 9 and attach the enclosure 2 snugly to a person's waist for secure but readily removable engagement therewith. These flat, flexible and relatively thin attachment means are shown to be of rectangular shape, obviously may be of any suitable size or shape. Both the hook or burr means 11 and the fibrous layer 13 may have a fabric backing and the attachment means are secured as by sewn seams 14 to the flattened ends of the enclosure 2 where the two layers thereof are abutted. The article of manufacture may be of any desired size and suitable amounts of weights are carried therein. However it is particularly important that the fibrous layer 13 be from between about one and one-half to about two

4

and one-half times as long as the strip or strips of burr means 11. This provides for adjustment in the size of loop formed from the enclosure 2 and one size will adjust readily to fit persons of quite different waist diameters. And, probably two or three different length enclosures 2 could be provided, and sufficient adjustment would be available to fit any person.

A further feature of the belt 1 is that the enclosure 2 has a short flat section 20 extending the width thereof at the inner end of the hook strip 11. Such section 20 is from about one-quarter to about one-sixth the length of the uniform size compartments 8. Hence, when the ends of the enclosure 2 are appreciably overlapped, such flat section 20 avoids having the weights in the end compartments from exerting a separational force on the fastening means. A separate cross seam 21 forms the inner end of such section 20.

It will be realized that any desired types of material can be used in making the enclosures for receiving weights therein, and these enclosures, when made from plastic sheets, could have at least some of its seams made by heat sealing or cementing action. The enclosures may have any desired number of compartments therein. The weight means used in these enclosures in the articles of the invention may be made from any suitable substance, but lead or steel beads or shot are satisfactory materials from which they can be made, or the weights may comprise pieces or strips of flexible lead or other soft ductile metal dependent upon the amount of weight desired in the article and the purposes for which it is to be used.

Sufficient pellets or metal weights can be positioned substantially uniformly in the compartments 8 that the belt may weigh from between 6 to 10 pounds. Initially in making the belt after the seam 6 is formed, lead shot or the like is placed in each of the longitudinally extending pockets. The belt is next kept in a horizontal position and the shot is retained substantially uniformly longitudinally of the belt while sewing the cross seams 7 and the shot is manually or otherwise moved away from the sewing zones prior to forming the seams 7 so that the shot will be retained in the various compartments then being formed. Enough shot is present to cause the pockets to bulge out as indicated in the drawings.

The articles of manufacture are inexpensive but sturdy and can be relatively easily but snugly applied to the wearer to provide resistance to movement of the wearer and to place an extra load on the wearer for weight reduction, or provide other therapeutic action, as desired. Hence, it is believed that the objects of the invention have been achieved.

While one complete embodiment of the invention has been disclosed herein, it will be appreciated that modification of this particular embodiment may be resorted to without departing from the scope of the invention as defined in the appended claim.

What is claimed is:

1. A method of forming a flexible weighted belt or exercise article adapted to be attached to a person comprising the steps of:

sewing an edge seam in overlapped edge sections of an elongate strip of material having a finished side surface and an unfinished side surface to form a flattened tubular member therefrom with the finished surface on the inside of the tubular member, turning the tubular member inside out, sewing a longitudinal seam into the article to form separate longitudinal sections therein, partially filling said longitudinal sections with small metal particles, sewing a plurality of cross seams in said article to form a plurality of small compartments therein while providing a substantially uniform longitudinal distribution of said metal particles, attaching a flat connector means onto one surface of the flattened tubular member at one end thereof, and attaching a second flat connector means engageable

5

with said first flat connector means onto the opposite surface of the flattened tubular member at the other end thereof whereby a closed loop can be made from said tubular member by engaging said first and second connector means.

6

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10

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