A. B. KENDRICK.

ABDOMINAL BELT.

APPLICATION FILED SEPT. 16, 1916.

1,274,892. Patented Aug. 6, 1918.

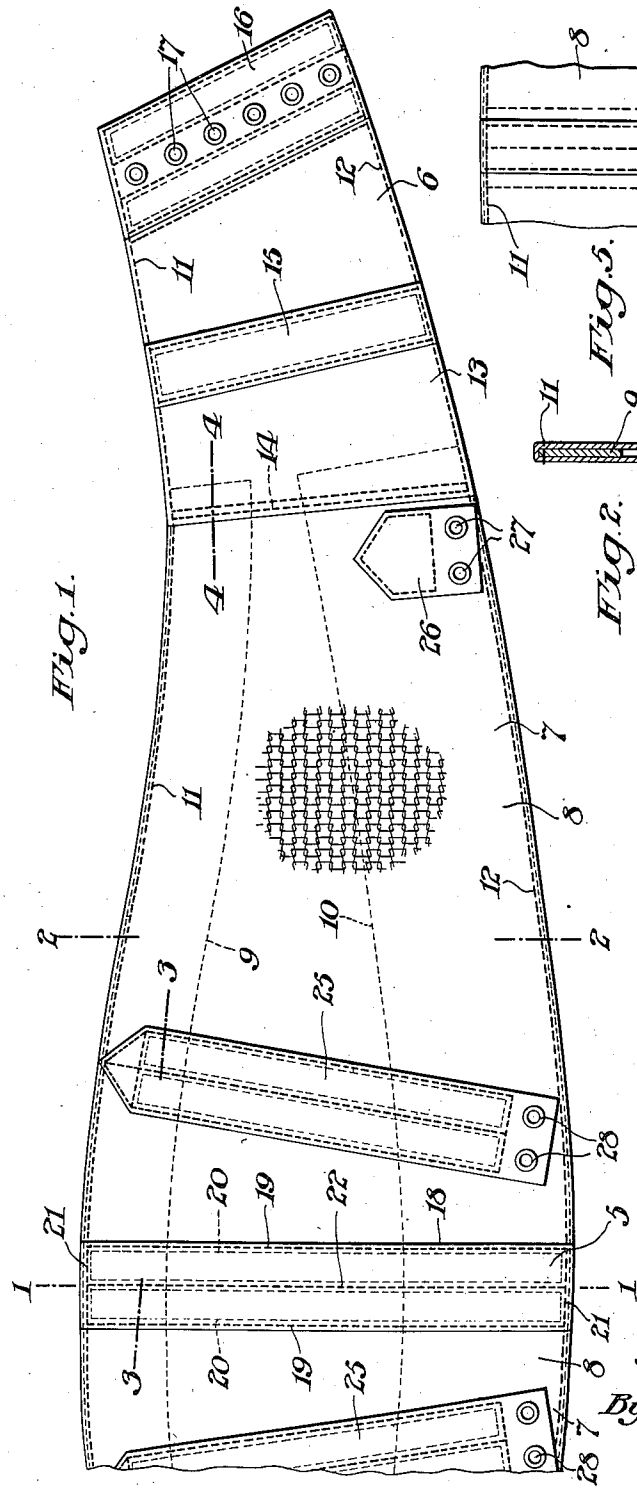


Fig. 1.

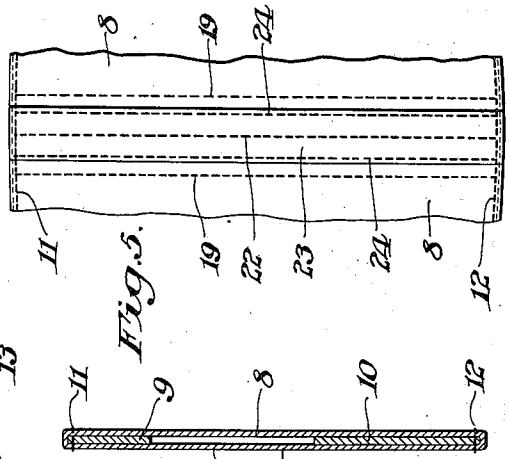


Fig. 5.

Fig. 2.

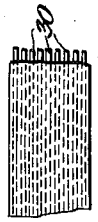


Fig. 6.



Fig. 3.

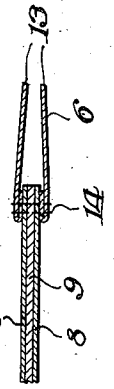


Fig. 4.

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UNITED STATES PATENT OFFICE.

ARTHUR B. KENDRICK, OF EAST ORANGE, NEW JERSEY, ASSIGNOR OF ONE-HALF TO JAMES R. KENDRICK COMPANY, INC., OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

ABDOMINAL BELT.

1,274,892. Specification of Letters Patent. Patented Aug. 6, 1918.

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To all whom it may concern:

Be it known that I, ARTHUR B. KENDRICK, a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Abdominal Belts, of which the following is a specification.

My invention relates to improvements in abdominal belts or supporters; and the object of my invention is to provide a belt or supporter of novel construction which shall be efficient and durable in operation and which can be manufactured at less cost than belts heretofore used for the same purposes and having the same general characteristics. Accordingly, my invention includes the employment of elastic strips having rubber entering into their construction in combination with knit fabric having certain characteristics and being devoid of rubber in its construction and being associated with the elastic strips and other parts of the belt in a novel manner to accomplish the object of my invention which consists in the novel construction, combinations and arrangements of parts hereinafter described and claimed.

In the accompanying drawings, illustrating my invention:

Figure 1 is a front view of an abdominal belt embodying my invention, one side and end portion of the belt being broken away, the continuation of the belt from the left hand side of the central vertical line 1—1 being the same as the continuation of the belt from the right hand side of said line.

Fig. 2 is a transverse section through the belt, on line 2—2 of Fig. 1.

Fig. 3 is a longitudinal section, on line 3—3 of Fig. 1.

Fig. 4 is a longitudinal section, on line 4—4 of Fig. 1.

Fig. 5 is a back view of the central portion of the belt.

Fig. 6 is a view of a portion of one of the strips of elastic material.

Referring to the drawings, the belt there illustrated, and as generally stated, comprises a central member 5, end members 6 and side portions 7 interposed between and connecting the central member 5 and end members 6.

Each side portion 7 comprises an elastic body 8 formed of flattened, tubular, knit fabric and strips 9 and 10 formed of elastic material and extending through the upper and lower portions, respectively, of the tubular body 8. Each tubular body 8 is formed of a suitable length of seamless, tubular knit fabric, having substantially annular courses of stitches, each course containing substantially the same number of stitches and the stitches being formed of a continuous thread. This tubular fabric is the product of the well known knitting machine and in its normal flattened condition it is of substantially the same width throughout its length. In forming the side portion 7, the strips of elastic material 9 and 10 are passed through the flattened tubular fabric 8 and attached thereto adjacent to the upper and lower edges thereof, by stitching 11 and 12, respectively. The stitching 11 and 12 retains the strips 9 and 10 in the upper and lower portions, respectively, of the tubular fabric 8 and in spaced relation to each other, as shown. The strip of tubular fabric with the inserted elastic strips are then cut into lengths corresponding with the length of the side portions 7 of the belt. The cut lengths are then fashioned into the form shown in the drawings by stretching each portion 8 so that each portion 8 will gradually grow narrower from its junction with the central member 5 of the belt to its junction with its end member 6 of the belt, as clearly shown in Fig. 1.

Each end member 6 of the belt is formed of two correspondingly shaped pieces of suitable substantially nonelastic woven fabric 13. The narrow end of each side portion 7 and its inserted strips 9 and 10 are inserted between the two pieces of fabric 13 of adjacent end member 6 and secured thereto by stitching 14 which extends to other parts of the member 6 and secures the pieces of fabric 13 thereof together. The end members 6 thus serve to prevent the expansion of narrow ends of the side portions 7 of the belt. Each end member 6 is provided with suitable transverse stays 15 and 16, to hold them in shape, and with suitable eyelets 17 to receive a lacing to draw the ends of the belt together and hold the belt in place when it is placed around the body of the wearer in the usual manner.

The central member 5 is formed of a

strip of suitable substantially non-elastic fabric 18 to the rearward face of which the adjacent wide ends of the side portion 7 and their inserted elastic strips 9 and 10 are attached by lateral stitching 19. Between the strip 18 and the side portions 7 stays 20 of steel or other suitable material are inserted and retained by end stitching 21 which also secures the strips 9, 10 and 8 and fabric 18 together. A central line of stitching 22 is provided to form separate pockets for the stays 20. On the rearward face of the belt a strip of material 23 is sewed to the side portions 7 by lateral stitching 24 and to the forward strip 18 by the central stitching 22. This serves to finish the rearward face of the belt and to strengthen the union between the side portions 7 and forms, in effect, a part of the central member 5. The central member 5, including the stays 20 serve to retain the widened central portion of the belt in shape and to prevent the contraction of the wide ends of the knit fabric 8 of the side portions 7. Each side portion 7 is provided with a stay 25 sewed thereto a suitable distance from the central member or stay 5 and serves to prevent the contraction of the portion of the side member to which it is sewed.

Each strip of elastic material 9 and 10 is formed of woven fabric having longitudinally extending strips or strands of rubber 30 woven therein like the well known elastic strips used in the manufacture of garters, suspenders, etc., and the tubular knit fabric 8 is devoid of rubber in its construction. These two fabrics, combined as herein shown and described, provide an inexpensive, efficient and durable belt which will readily conform to the body of the wearer due to the natural elasticity both longitudinally and transversely, of the tubular knit webs 8 forming the side portions 7, and which will properly support the abdomen, due to the inserted elastic strips 9 and 10 having greater strength and greater recovering power when stretched than the knit fabric 8 forming the side portions 7. The spaces between the strips 9 and 10 form comparatively soft pockets for the reception of the projecting hip bones of the wearer and thus provide a belt which may be worn with ease and comfort.

To provide for the attachment of thigh straps to the belt when desired, I sew to the bottom of the narrow end of each side portion 7 a piece of material 26 having eyelets 27 therein to which one end of a thigh strap may be attached, and I provide the bottoms of the stays 25 with eyelets 28 to which the ends of thigh straps extending from the pieces 26 may be attached.

I claim:

1. An abdominal belt comprising a portion formed of elastic material, a strip of elastic material extending adjacent to said portion, and means to attach said strip to said portion, said strip having greater recovering power when stretched than said portion.

2. An abdominal belt provided with a portion formed of a tubular knit fabric, the opening in the tubular fabric extending in the direction of the length of the belt, and having a strip of elastic material extending through said portion.

3. An abdominal belt comprising a portion formed of elastic material, two spaced strips of elastic material extending adjacent to said portion, and means to attach said strips to said portion, said strips having greater recovering power when stretched than said portion.

4. An abdominal belt provided with a portion formed of a tubular knit fabric, the opening in the tubular fabric extending in the direction of the length of the belt, and having two spaced strips of elastic material extending through said portion.

5. An abdominal belt including a portion formed of a tubular knit fabric having courses of stitches extending transversely of the belt, the opening in the tubular fabric extending in the direction of the length of the belt, a strip of elastic material extending through the upper portion of said tubular fabric, a strip of elastic material extending through the lower portion of said tubular fabric and spaced from the first named strip, and means for attaching said strips to said fabric.

6. An abdominal belt including a portion formed of tubular fabric, the opening in the tubular fabric extending in the direction of the length of the belt, a strip of elastic material extending through the upper portion of said tubular fabric, a strip of elastic material extending through the lower portion of said tubular fabric and spaced from the first named strip, and means for attaching said strips to said fabric.

7. An abdominal belt including a fashioned side portion formed of seamless, knit, tubular fabric gradually narrowing from the central portion of the belt and having its courses of stitches extending transversely of the belt, and a strip of elastic material extending through said tubular fabric.

8. An abdominal belt including a fashioned side portion formed of seamless, knit, tubular fabric gradually narrowing from the central portion of the belt and having its courses of stitches extending transversely of the belt, means to prevent the contraction of the wide end of said side portion, and means to prevent the expansion of the narrow end of said side portion.

9. An abdominal belt including a fashioned side portion formed of seamless, knit,

tubular fabric gradually narrowing from the central portion of the belt and having its courses of stitches extending transversely of the belt, means to prevent the contraction of the wide end of said side portion, means to prevent the expansion of the narrow end of said side portion, and a strip of elastic material extending through said tubular fabric.

10. An abdominal belt including a fashioned side portion formed of seamless, knit, tubular fabric gradually narrowing from the central portion of the belt and having its courses of stitches extending transversely of the belt, means to prevent the contraction of the wide end of said side portion, means to prevent the expansion of the narrow end of said side portion, and a strip of elastic material extending through said tubular fabric and attached to said means.

11. An abdominal belt including a fashioned side portion formed of seamless, knit, tubular fabric gradually narrowing from the central portion of the belt and having its courses of stitches extending transversely of the belt, means to prevent the contraction of the wide end of said side portion, means to prevent the expansion of the narrow end of said side portion, and a strip of elastic material extending through said tubular fabric and attached thereto and to said means.

12. An abdominal belt including a fashioned side portion formed of seamless, knit, tubular fabric gradually narrowing from the central portion of the belt and having its courses of stitches extending transversely of the belt, means to prevent the contraction of the wide end of said side portion, means to prevent the expansion of the narrow end of said side portion, and having two spaced strips of elastic material extending through the upper and lower portions respectively of said tubular fabric and attached to said means.

13. An abdominal belt comprising a central member, end members, and two fashioned side portions attached to and connecting the central member with the respective end members, said side portions being formed of seamless, knit tubular fabric, gradually narrowing from the central member to the end members and having their courses of stitches extending transversely of the belt, said central member preventing the contraction of the side portions attached thereto, and said end members preventing the expansion of the ends of the side portions attached thereto.

14. An abdominal belt comprising a central member, end members, and two fashioned side portions attached to and connecting the central member with the respective end members, said side portions being formed of seamless, knit tubular fabric, gradually narrowing from the central member to the end members and having their courses of stitches extending transversely of the belt, said central member preventing the contraction of the side portion attached thereto, said end members preventing the expansion of the ends of the side portions attached thereto, and strips of elastic material extending through said side portions and attached to said members.

15. An abdominal belt comprising a central member, end members, and two fashioned side portions attached to and connecting the central member with the respective end members, said side portions being formed of seamless, knit tubular fabric, gradually narrowing from the central member to the end members and having their courses of stitches extending transversely of the belt, said central member preventing the contraction of the side portions attached thereto, said end members preventing the expansion of the ends of the side portions attached thereto, and two spaced strips of elastic material extending through the upper and lower portions respectively of each of said side portions and attached thereto and to said members.

16. An abdominal belt comprising a central member, end members, and two fashioned side portions attached to and connecting the central member with the respective end members, said side portions being formed of seamless, knit tubular fabric, gradually narrowing from the central member to the end members and having their courses of stitches extending transversely of the belt, said central member preventing the contraction of the side portions attached thereto, said end members preventing the expansion of the ends of the side portions attached thereto, and stays attached to said side portions and preventing the contraction thereof between said central member and said end members.

In testimony whereof I affix my signature hereto.

ARTHUR B. KENDRICK.