A. T. VAN ALSTYN.

SUPPORTER.

APPLICATION FILED MAY 15, 1916.

1,328,406.

Patented Jan. 20, 1920.

2 SHEETS—SHEET 1.

Fig. 1

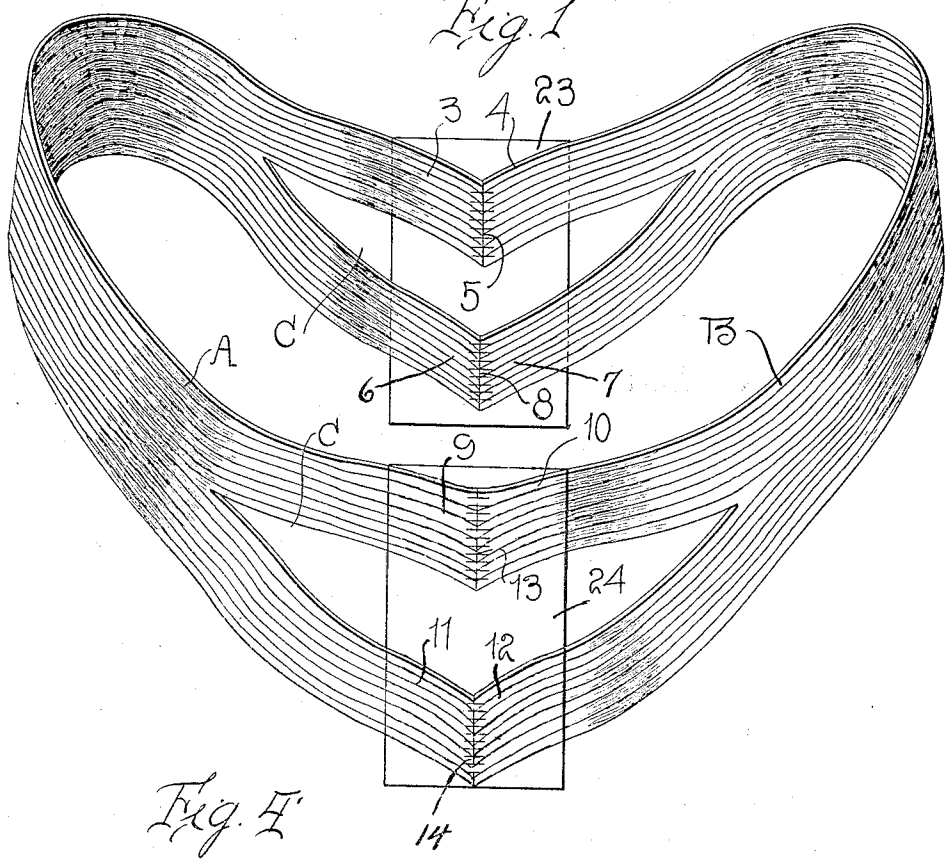
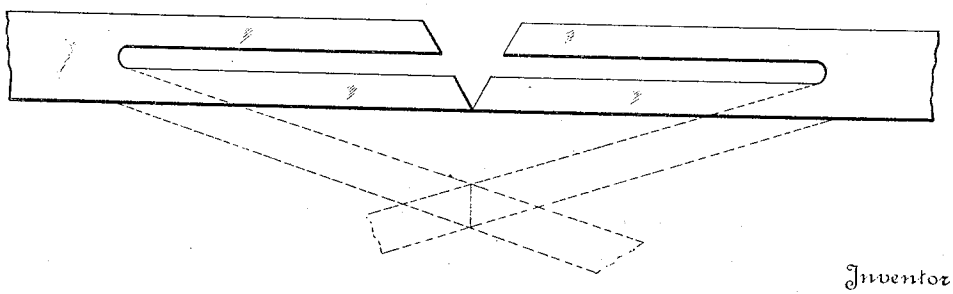


Fig. 2



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2 SHEETS—SHEET 2.

Fig. 2

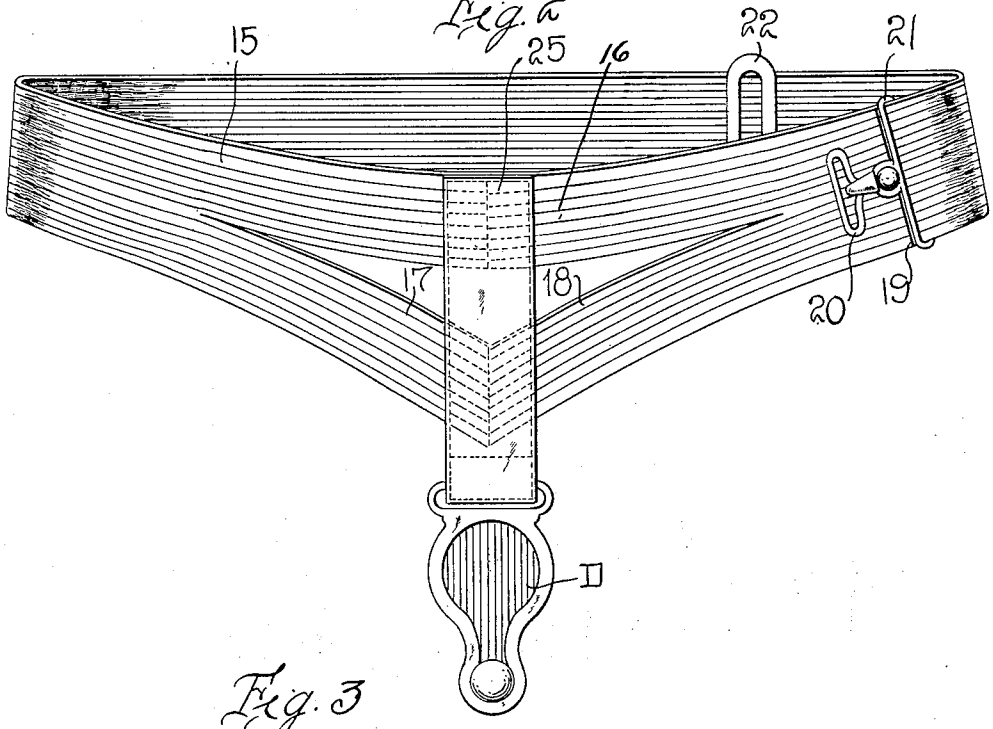


Fig. 3

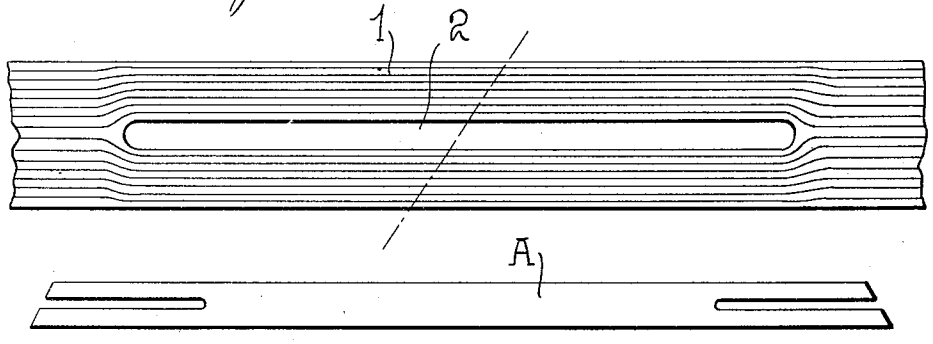


Fig. 5

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UNITED STATES PATENT OFFICE.

ALBERT T. VAN ALSTYN, OF GRAND RAPIDS, MICHIGAN.

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1,328,406. Specification of Letters Patent. **Patented Jan. 20, 1920.**

Application filed May 15, 1916. Serial No. 97,559.

To all whom it may concern:

Be it known that I, ALBERT T. VAN ALSTYN, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Supporters, of which the following is a specification.

My invention relates to a supporter especially of that class which is adapted to be used to support sanitary bandages and the like, and, in a modified form, may be used as a stocking supporter; or still further, may be modified for use in whatever capacity girdles may be used.

A most important object of the present invention, when manufactured as a waist encircling supporter, is to provide a device which is so formed that it conforms, without distortion, to the natural configuration of the body to be encircled and yet exerts sufficient tension on the body to hold itself in place without any discomfort whatsoever to the wearer.

Another object is to provide a supporter which is formed from a finished strip of webbing, preferably woven, having an open expanded portion or portions which permit dips to be formed in order that the supporter may properly conform to the shape of the body engirdled and, by reason of the open feature of the expanded portion, this provides a cooler and more sanitary supporter than is the case with the solid or filled in expanded portion of the belt set forth in a co-pending application of mine.

A further object is to provide a supporter which is formed from a woven finished strip of webbing wholly or partially divided longitudinally and separated intermediate the ends of the divided portions to form the expanded open dips, thus providing a belt or supporter which requires no binding or hemming and which has its warp threads disposed circumferentially thereby avoiding permanent distortion. It is however expressly understood that the divided portions may be expanded in any of a number of ways and also that the length from which the supporter is formed may be made up of two separate strips, if desired, sewed together along their edges. The supporter when constructed as a garter is particularly desirable in that it is simple, flexible in every part, and avoids the use of a pad, hence doing away with all the disadvantages of a pad, and yet sacrificing none of the advantages thereof for the reason that the expanded portion forms a pad-shape.

With the above and other objects in view, many of which will hereinafter appear and others of which will be self-evident, I will now proceed to describe specific embodiments of my invention, which embodiments I have shown in the accompanying drawings merely by way of illustration and they are not to be construed as in any way limiting the invention hereinafter claimed.

In the drawings:

Figure 1 is a view, in perspective, of one type of supporter or belt constructed in accordance with the present invention.

Fig. 2 is a similar view of a garter.

Fig. 3 illustrates one type of strip from which the garter or belt may be evolved, and having the warp threads longitudinally disposed.

Fig. 4 diagrammatically illustrates one method of forming a dipped expanded portion; and

Fig. 5 shows a strip from which a garter may be formed, or one-half of a belt such as shown in Fig. 1.

In detail:

With reference to Fig. 1, wherein I have shown a supporter of the belt type which is adapted to support a catamenial bandage or the like, this belt is constructed or made up of two woven halves A and B which are joined as will be hereinafter described. The halves of the belt shown in Fig. 1 are evolved from a strip of material such as is illustrated in Fig. 3 wherein the strip 1 is divided longitudinally during weaving, as shown at 2, to provide a slit or elongated button-hole having finished edges. In making up this strip a plurality of these slits are spaced along the length thereof. The strips thus made are then severed through the slitted portion at about midway thereof to form belt halves such as illustrated in Fig. 5 and which correspond to either the half A or the half B of the belt shown in Fig. 1. When the strip 1 is thus severed to form a half each end of the half is bifurcated and to form the complete belt the adjacent ends of the two halves are joined preferably at an angle, as shown in Fig. 1. For instance, selecting the two halves A and B, I place the members 3 and 4 in angular relation at their ends and join them with a line of stitching 5. Similarly

the ends 6 and 7 are joined by a line of stitching 8 and likewise ends 9 and 10 and 11 and 12 are joined by lines of stitching 13 and 14, respectively. The joining of the ends in this manner leaves an open portion C at each juncture of the halves and furthermore provides an expanded dip as clearly shown in the drawing.

With reference to Fig. 4, this figure clearly shows one manner in which the ends of a severed strip, or rather the ends of two halves, may be joined. In this figure the dotted lines indicate the angular relation in which the ends are brought together and stitched.

The garter illustrated in Fig. 2 is formed similarly to the belt illustrated in Fig. 1 and may comprise either one or two expanded dipped open portions. In this type of supporter the ends 15, 16 and 17, 18 are joined similar to the ends 3, 4, 6, 7, 9, 10, 11 and 12 of the belt shown in Fig. 1. It is desirable, however, to sever the garter at some point such as 19 in order that it may be separated for the purpose of placing it around the limb and hence one end of the garter, where it is severed as at 19, may be provided with a part 20 of any suitable style of clasp; the other part of the clasp being carried by the other extremity as shown at 21, and intermediate the length may be inserted an adjusting slide 22 by means of which the length or size of the garter may be varied.

Reverting to the belt shown in Fig. 1, the ends 3, 4 and 6, 7 have stitched thereover, as indicated in dotted lines, either an inelastic or elastic piece 23, which forms an attaching element to which a garment may be secured, and the ends 9 and 10 and 11 and 12 are covered by a similar piece 24. The pieces 23 and 24 serve to reinforce the severed portions of the belt and also may be extended to provide tabs which may carry any kind of attaching means.

Likewise the ends 15, 16 and 17, 18 of the garter shown in Fig. 2 have stitched thereacross either an inelastic or elastic piece 25 which besides reinforcing the severed portion carries an attaching member D to which the stocking or sock may be secured in any convenient way. This clasp may be of any ordinary type which I may choose to provide.

While in the foregoing I have described specific embodiments of the present invention it is nevertheless to be understood that any part of the devices herein set forth may be varied in shape or structure so long as it does not depart from the spirit of the invention as defined in the appended claims. Also, it is to be understood that, if desirable, either the garter or the belt may be woven on a cylindrical loom so as to provide a continuous belt circumferentially divided during weaving for a portion of its length, and the circumferentially divided portion may be expanded by a suitable piece fastened transversely thereacross and carrying an attaching tab.

I claim:

1. A supporter comprising an encircling member having spaced circumferentially extending slits forming front and rear dips, and means separating the slitted portions intermediate their lengths to hold said parts in dipped relation when in use in order to conform to the configuration of the body encircled.

2. A supporter comprising an encircling member having spaced circumferentially extending slits forming front and rear dips, and means separating the slitted portions intermediate their lengths to hold said parts in dipped relation in order to conform to the configuration of the body encircled, said means forming article attaching tabs.

3. A supporter forming a webbing belt composed of woven halves having bifurcated terminals, and means connecting the severed ends of the one half with the severed ends of the other half to form a belt having an open expanded portion whereby a dip is located at the front and rear to conform to the configuration of the body of the wearer.

4. A webbing belt composed of woven halves having bifurcated terminals, and means connecting the severed ends of the one half in diagonal relation with the severed ends of the other half to form a belt dipped at diametrically opposite points to conform to the configuration of the body of the wearer.

5. A webbing belt composed of woven halves having bifurcated terminals joined on the bias, and front and rear straps overlying and reinforcing the adjacent severed ends of the respective halves and holding the continuations thus formed in separated relation whereby a continuous belt having open expanded dips at diametrically opposite points is formed.

6. A webbing belt composed of woven halves having bifurcated terminals severed transversely on the bias, and front and rear straps overlying and connecting the adjacent severed ends of the respective halves to form a continuous belt expanded and dipped at the front and rear to conform to the configuration of the body of the wearer, the terminals of said straps forming attaching tabs.

7. The method of forming a belt having narrow side portions connected by front and rear expanded portions dipped to conform to the configuration of the waist-line of the wearer which consists in producing a woven strip of material having lengthwise woven button-hole slits of relatively great length, severing such strip transversely through

said slits to form belt halves each having terminals with two strands, then spreading the strands of each of said terminals relative to each other, and finally connecting the corresponding strands of the adjacent terminals in their spread relation to form open dipped portions.

8. A woven supporter comprising two halves having V-shaped terminals, formed during the weaving and connected, and tabs disposed transversely of such terminals and functioning as a reinforcement therefor, and holding them in dipped relation to conform to the body of the wearer.

9. A supporter comprising a strip of webbing having bifurcated terminals, each end of said bifurcated terminals being angularly cut and of opposite inclination at the opposite ends of the strip, and attaching means connecting said bifurcated terminals of the respective ends in spaced relation to form a supporter having an open expanded portion whereby to provide a dip at said connection to conform to the configuration of the part of the body encircled.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ALBERT T. VAN ALSTYN.

Witnesses:
LEON T. POND,
WM. W. WILLIAMS.