No. 715,935. Patented Dec. 16, 1902.

S. W. ALVORD.

LEGGING.

(Application filed Apr. 2, 1901.)

(No Model.) 2 Sheets—Sheet 1.

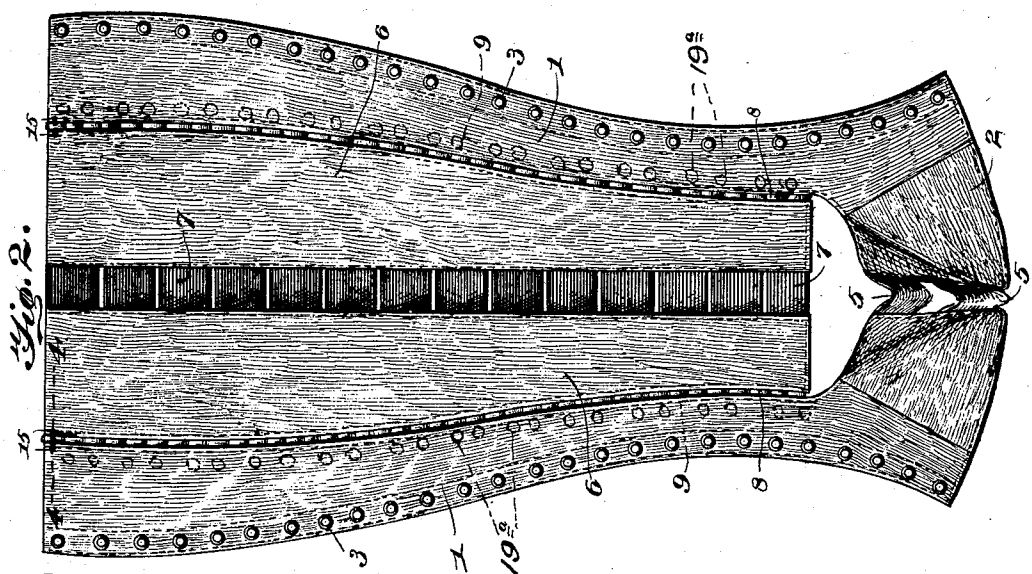

Fig. 2.

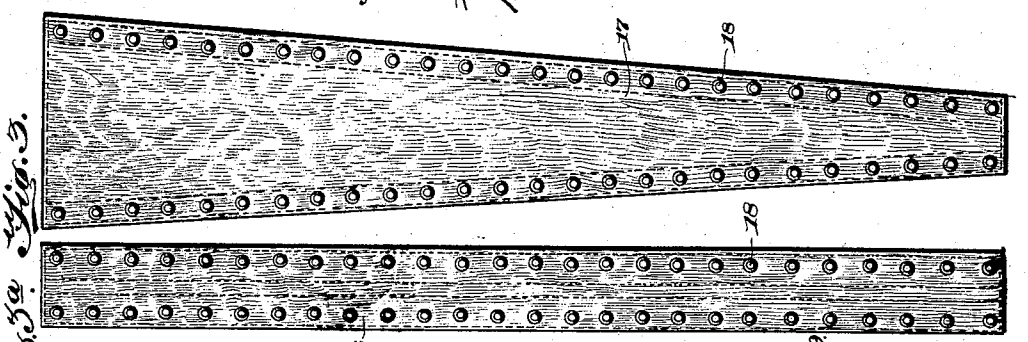

Fig. 3.

Fig. 3a.

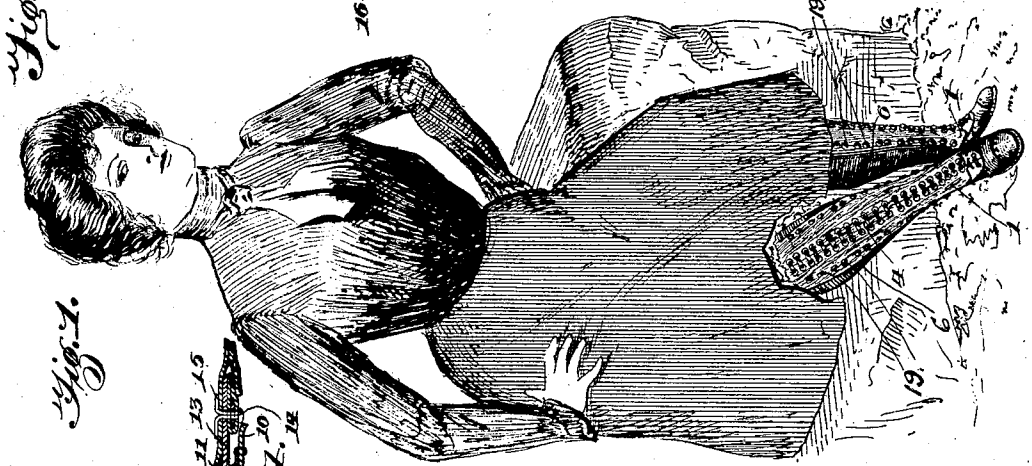

Fig. 1.

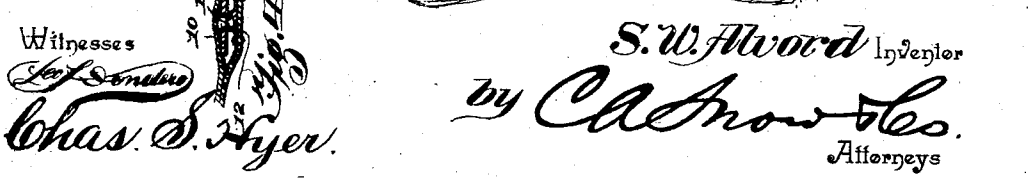

Fig. 4.

Witnesses
Chas. S. Fyer.

S. W. Alvord Inventor
by C. A. Snow & Co.
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 715,935. Patented Dec. 16, 1902.

S. W. ALVORD.

LEGGING.

(Application filed Apr. 2, 1901.)

(No Model.) 2 Sheets—Sheet 2.

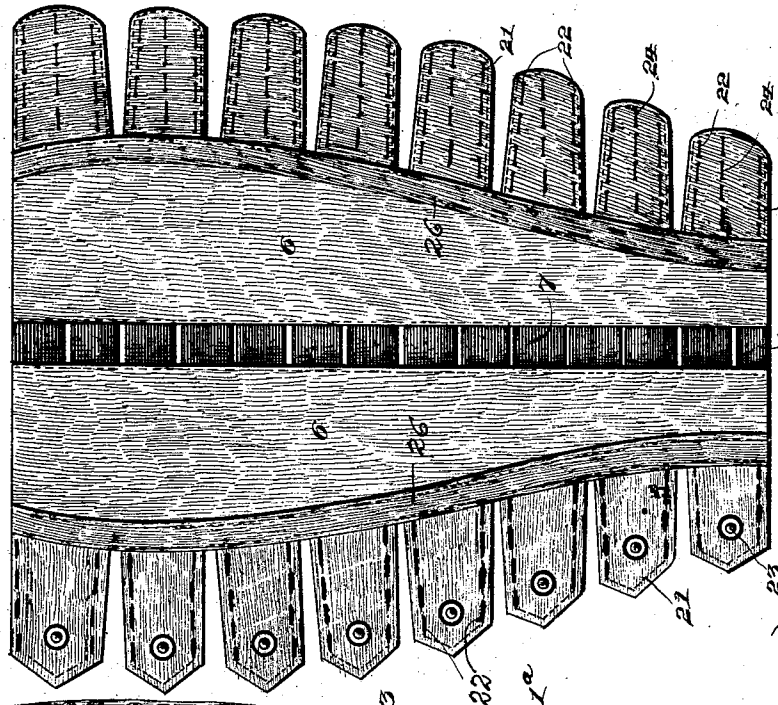

Fig. 7.

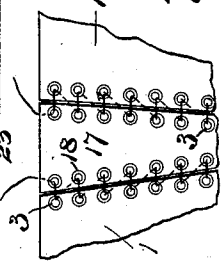

Fig. 8.

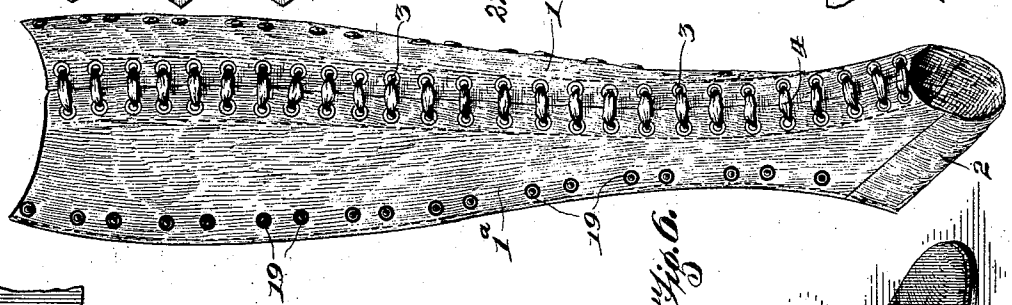

Fig. 6.

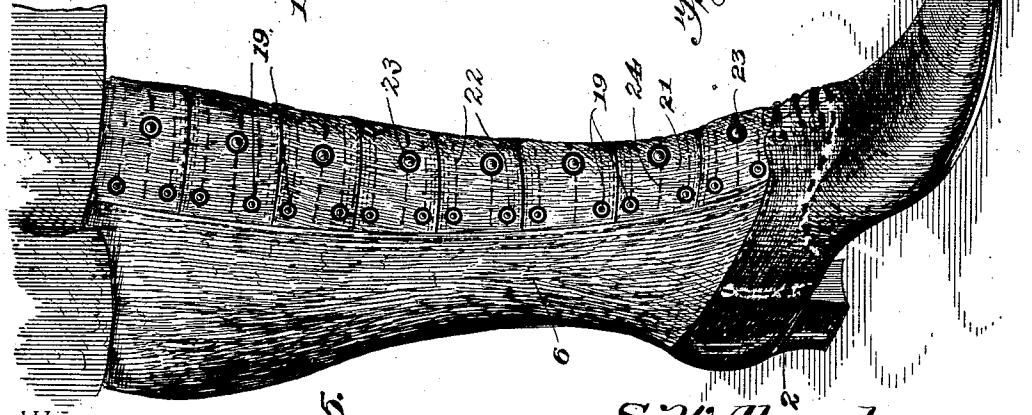

Fig. 5.

Witnesses
Leo. L. Dondero.
Chas. D. Hyer.

S. W. Alvord Inventor
by C. A. Snow & Co.
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SOPHIE W. ALVORD, OF PHILLIPSBURG, NEW JERSEY.

LEGGING.

SPECIFICATION forming part of Letters Patent No. 715,935, dated December 16, 1902.

Application filed April 2, 1901. Serial No. 54,078. (No model.)

To all whom it may concern:

Be it known that I, SOPHIE W. ALVORD, a citizen of the United States, residing at Phillipsburg, in the county of Warren and State of New Jersey, have invented a new and useful Improvement in Leggings, of which the following is a specification.

This invention relates to certain improvements in elastic leggings for the treatment of varicose veins and weaknesses of various character in the lower limbs, and has for its principal object to provide a device of this character which may be readily applied or removed and which may be worn outside an ordinary stocking and present the appearance of an ordinary ornamental legging.

A further object of the invention is to so construct the legging as to enable its manufacture on a commercial scale without the necessity of making a number of sizes, the legging being adjusted to suit different shapes and sizes of limbs by the insertion of separate strips of proper size and contour.

A still further object of the invention is to provide an elastic legging in which the amount of elastic employed will be reduced to a minimum and in which provision is made for ventilation of that portion of the limb covered by the elastic.

With these and other objects in view the invention consists in the novel construction and combination of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a figure illustrating the application of a legging constructed in accordance with my invention. Fig. 2 is a face view of the legging unlaced and opened out. Figs. 3 and 3^a are face views of two forms of sections which may be inserted between the laced front of the leggings for changing the shape and size of such leggings. Fig. 4 is a sectional plan view of a portion of the device drawn to an enlarged scale. Fig. 5 is a perspective view of a limb, illustrating a modified form of the improved legging applied thereto. Fig. 6 is a detail perspective view of the front portion of the legging embodying the modified features of construction. Fig. 7 is a face view of the rear section of the modified form of legging. Fig. 8 is a front elevation of portions of the front sections of either of the forms of the device, showing the application of one of the enlarging pieces illustrated in Figs. 3 and 3^a.

Similar numerals of reference are employed to designate corresponding parts throughout the several figures of the drawings.

The front portion of the legging is formed of two similarly-shaped sections 1, the lower ends of which are united by a lower connecting-section 2, adapted to fit under the sole of the foot, the lower extremities of such sections being curved outwardly, as indicated in Fig. 2, in order that when connected they may fit snugly over the instep. The meeting edges of the front sections in both the preferred and the modified constructions are provided with a continuous row of eyelets 3, which may be connected by a suitable lace 4, and the connecting-section 2, which extends under the sole of the foot, may be formed in a continuous piece, as indicated in Fig. 6, or may be made in two sections connected at the rear by the elastic bands 5, as indicated in Fig. 2.

The back of the legging is formed of two similarly-shaped sections 6, the adjacent edges of which are connected by a series of transversely-disposed bands 7, of elastic material, said bands being spaced in order to permit of the entrance of air and to minimize the injurious effect due to the contact of the elastic with the skin. This construction permits of the use of but a small quantity of elastic material, materially reducing the cost of production, and as the elastic sections are very small they can be readily removed and replaced by others when necessary. The sections of the rear portions of the legging terminate at some little distance above the lower ends of the front portions in order to form an opening for the reception of the heel of the wearer.

The adjacent edges of the sections of both the front and rear portions of the legging are provided with alternately-arranged interfitting loops 8, of tape or analogous material, secured to the rear edges of the front sections and to the front edges of the rear sections, and through all of the loops is passed a stay 9, formed of bone or metal and serving to securely hold the portions of the legging to-

gether and at the same time stiffen the sides of the legging to any desired extent. In order to gain ready access to the upper end of the stay 8, the upper rear edges of the front sections are formed in the manner illustrated in Fig. 4, the plies being separated and forming flaps 10, the inner side of the rear flap having a ball member 11 and the inner side of the front flap having a socket member 12, these forming an ordinary ball-and-socket fastening. The adjacent portions of the rear sections have straps 13, one on each side, connected to the uppermost of the loops 8 and provided with openings adapted to fit over the ball members 11 and to be locked in place by the ball-and-socket fastening when the members are united. To lock the stays 9 in position, the upper portion of each stay is provided with an opening which may be brought into alinement with similar openings in the uppermost of the loops 8, and through the openings thus formed is passed a fastening device 14, the legs 15 of which may be bent to hold it in position. By this means the stays may be readily removed and replaced at any time, as when it is desired to employ a lighter or a heavier stay or to replace a broken stay.

The device as thus far described may be manufactured on a commercial scale, and generally all of the parts will be of a predetermined size and shape suitable for application to a small limb, the size of the legging being enlarged or its shape changed to conform to any limb by the insertion between the two sections of the front of a filling-piece, such as that illustrated in Figs. 3 and 3ª. The filling-piece 16 is of uniform width throughout its length and is provided along each edge with eyelets spaced to correspond to the eyelets 3, said section when inserted and laced in position by the employment of a pair of laces serving to increase the size of the legging without material alteration in its shape. When the legging is to be employed on a limb in which the calf is of larger size, a filling-piece, such as that indicated at 17 in Fig. 3ª, may be employed. This filling-piece is also provided with eyelets 18, corresponding with the eyelet 3 of the front sections. The legging may be adapted to a limb of any shape or any size by the employment of one or more filling-pieces the contour of which will as a matter of course be governed by the shape and size of the limb.

In practice it is proposed to have each of the elastic bands 7 in alinement with two eyelets 3 of the front sections, so that the tension exerted on the several bands will be equally distributed. On the outer portions of the front sections 1 and 1ª adjacent to the rear edges of the latter are rows of buttons or analogous fastening devices 19 and 19ª, respectively, the buttons being arranged in pairs and adapted to buttonholes 22, formed in transversely-extending connecting straps or tabs 21. In the modified form of legging illustrated in Figs. 5, 6, and 7, wherein the laced side sections are separate from the rear sections, said straps 21 are sewed or otherwise secured to the front edges of said rear sections and are provided each with a series of upper and lower buttonholes 22, and the opposite or mating straps or tabs are provided with centrally-disposed buttons 23, adapted to engage in centrally-disposed buttonholes 24 in the straps having the buttonholes 22. The pairs of alined buttons 19 on the front sections of the device, as shown in Fig. 6, are employed to adjustably secure the straps 21 by insertion in the buttonholes 22, the series of holes in each strap or tab permitting the adjustment of the device to accommodate the size of the limb and permitting of the insertion of a filling-piece between the two front sections of the legging, the buttons 23 being engaged in different buttonholes 24 and tightly bind the rear portion of the legging over the laced front sections to cover the latter and provide additional bracing means. In view of the additional bracing means embodied in the form of the device shown by Figs. 5, 6, and 7 the stays employed in the form shown in Fig. 2 are dispensed with, and to strengthen the front edges of the rear sections binding or reinforcing tapes 26 are employed, and while it is preferred that the simplified form of legging, as shown in Figs. 1 and 2, be employed without the straps, yet in many instances they can be used in connection therewith and engage the buttons 19ª and can be supplied independently for this purpose and employed by the user at will.

The form of the device illustrated in Figs. 1 and 2 dispenses with the use of the straps 21 shown in Figs. 5 and 7; but the buttons 19ª are applied to the form shown in Figs. 1 and 2 in the same position and correspond precisely with the buttons 19 shown in Figs. 5 and 7, so that, if desired, said straps 21 may be used in connection with the structure shown in Figs. 1 and 2 to cover the lacing employed to connect the front sections together and also to provide additional bracing means. As hereinbefore set forth, the foot-engaging portion of the legging is integral in the form shown in Figs. 1 and 2, whereas in the form shown in Figs. 5, 6, and 7 the foot-engaging portion is carried by the front sections 1ª, and the latter when in use are located within and covered by the remaining portion of the legging, as shown in Fig. 5.

The improved device can be made of any suitable material and can be worn either inside or outside of the stocking and in the latter case may be ornamented in any desired manner to form a riding or walking legging.

Having thus described my invention, what I claim is—

1. A legging comprising a plurality of elastically-connected rear sections, front sections of uniform size having lacing-eyelets along adjacent edges, and removable and interchangeable shape varying and enlarging

pieces having eyelets along their opposite edges and adapted to be secured between said front sections, to alter the shape and size of the legging, substantially as specified.

2. A legging of the class set forth, comprising a back formed of a plurality of sections, elastic bands connecting said sections and spaced apart to permit ventilation, front sections having a connecting-band adapted to fit under the sole of the foot, means for securing the front sections to the rear sections, there being lacing-eyelets along the adjacent edges of the front sections, and a lacing to engage in said eyelets.

3. A legging of the class set forth, comprising a front section having a connecting-band adapted to fit under the sole of the foot, lacing-eyelets carried by the adjacent edges of the front sections, a lacing to engage said eyelets, elastically-connected rear sections and means for securing the rear sections to the front sections.

4. A legging of the class set forth, comprising elastically-connected rear sections, front sections attached to the adjacent edges of the rear sections, said front sections having lacing-eyelets along the adjacent front edges, a lacing device for engaging said eyelets, alined pairs of buttons adjacent to the rear edges of the front sections, and straps carried by the rear sections and having buttonholes for engaging said buttons.

5. A legging of the class set forth having elastically-connected rear sections with loops along the front edges thereof, front sections having loops at their rear edges that loosely enter between those of the back sections, connecting-stays adapted to engage all of said loops, lacing-eyelets disposed adjacent to the meeting edges of the front sections, and lacings adapted to engage in said eyelets.

6. A legging of the class set forth, comprising elastically-connected rear sections having spaced loops along the front edges thereof, front sections having loops at their rear edges that enter loosely between those of the rear sections, stays passing through all of said loops, eyelets and a lacing device for connecting the front sections together, straps attached to the upper portions of the rear sections and adapted to be removably secured to the adjacent portions of the front sections, and a fastening device for securing the stays in position, substantially as specified.

7. A legging of the class set forth, comprising a plurality of elastically-connected sections converging toward their lower ends, and a foot-strap serving to connect the front sections only of the legging and adapted to pass under the sole of the foot.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SOPHIE W. ALVORD.

Witnesses:
JOHN BRUNNER,
CHAS. B. BRUNNER.