Dec. 2, 1930. P. W. ELLIS 1,783,832

PUNCTUREPROOF LEGGING

Original Filed Nov. 22, 1928

Fig. 1.

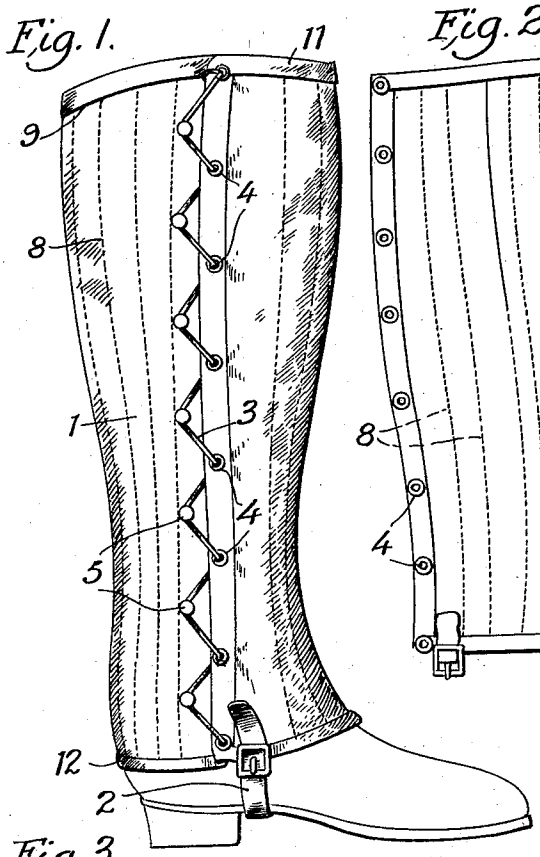


Fig. 2.

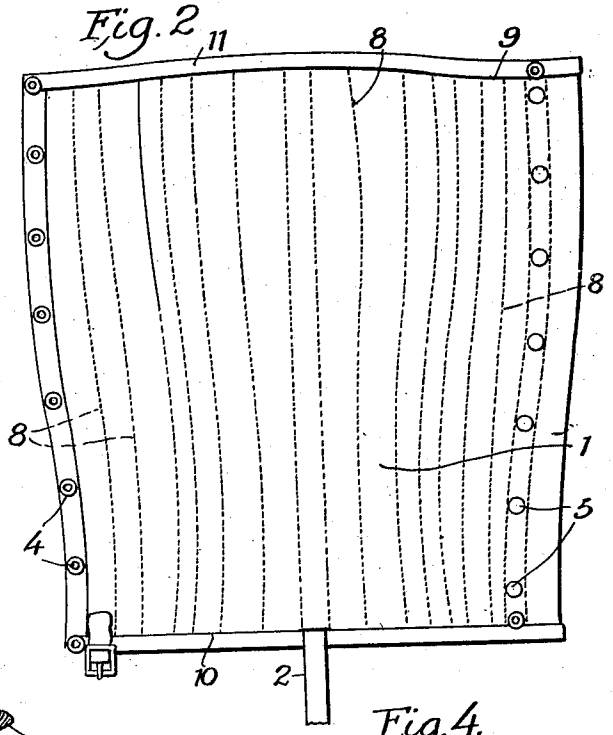


Fig. 4.

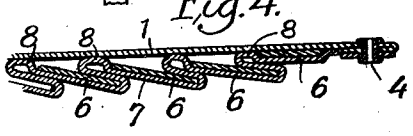


Fig. 3.

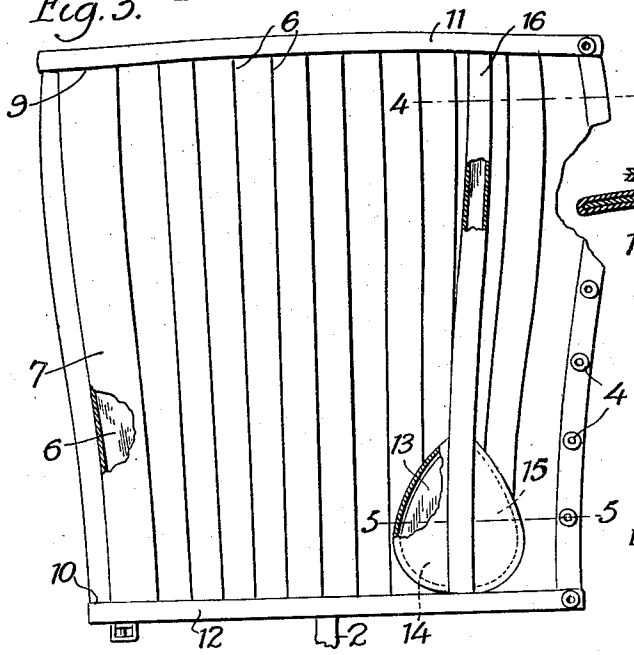
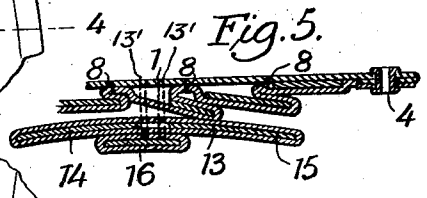


Fig. 5.



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UNITED STATES PATENT OFFICE

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PUNCTUREPROOF LEGGING

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My invention relates to non-puncturable leggings and has for its object to provide a legging so constructed that it cannot be punctured by the fangs of a snake or by thorns or by anything which would injure the wearer.

Leggings are usually constructed of canvas, or sometimes of leather or other non-metallic flexible material and are laced or otherwise secured about the leg of the wearer. For many purposes canvas leggings afford good protection but unless the material of the legging is very heavy, too heavy to be worn with comfort, they do not afford certain protection against the fangs of poisonous snakes or the sharp thorns of some plants common in tropical and semitropical countries.

It is the object of my invention to provide a legging which, while light in weight and flexible enough to be readily laced about the leg of the wearer, will be absolutely proof against being punctured by the fangs of a snake, thorns or anything to be met with anywhere in the woods or fields. A further object of the invention is to provide a legging having the advantages above stated which will be simple in construction and inexpensive.

With the objects above indicated and other objects hereinafter explained in view my invention consists in the construction and combination of elements hereinafter described and claimed.

Referring to the drawings:—

Figure 1 is a side view of a legging embodying my invention in position on the leg of the wearer.

Figure 2 is a view of the legging unrolled, taken from the outside.

Figure 3 is a similar view taken from the inside.

Figure 4 is a partial cross sectional view on line 4—4 of Figure 3 and

Figure 5 is a similar view on line 5—5 of Figure 3.

In the drawing 1 indicates a legging of canvas or other material of ordinary shape to fit the leg of the wearer having the usual instep strap 2 and having usual lacing means, here shown as a lacing string 3, eyelets 4 on one edge and hooks 5 on the other edge.

Secured on the inside of the legging are vertically extending strips 6 of steel or other metal, or if preferred, of other hard material impervious to punctures, so arranged that each strip slightly overlaps the one next to it. These strips are preferably slightly wider at their upper than at their lower ends and the strips which, when the legging is in position, extend along the front of the leg, are preferably slightly narrower than those which extend along the sides of the leg.

A width of from three-fourths of an inch to an inch at the lower ends and from one inch to one and a quarter inches at the top is found satisfactory in use but the strips may be of greater or less width and may differ in width at their ends more or less as may be found desirable to properly fit legs differing in size.

To secure the strips to the legging 1 I provide a lining of cloth 7 and secure it to the inside of the legging by rows of stitching 8 extending from top to bottom so as to form individual pockets for each of strips 6, the lining between adjacent rows of stitching being fuller than the distance between the same rows of stitching on the legging 1, the distance between adjacent rows of stitching on the legging 1 being less than the width of the strip 6 which is to be received in the pocket formed by the lining, so that when a strip 6 is inserted in its pocket one edge will extend over one of the rows of stitching as shown in Figures 4 and 5. The effect of so forming the pockets is to cause each strip 6 when in position to slightly overlap the edge of the next strip.

A line of stitching 9 across the upper ends of the pockets and a corresponding line of stitching 10 across them at their lower ends hold the strips 6 in their pockets. A binding strip 11 at the top and a binding strip 12 at the bottom covers the upper and lower ends of the legging and lining.

At the lower front of the legging which is formed to fit over the upper surface of the instep I provide a shield 13 of inverted heart shape comprising two halves 14 and 15 of

metal or other material incapable of being punctured enclosed in lining material in a pocket which is secured on its vertical middle line to the legging 1, as by stitching 13'. A strip 16 preferably of even width from bottom to top extends vertically over the vertical middle line of the shield 13.

The strips 6 on each side of strip 16 are so arranged that the rear edge of each strip overlies the forward edge of the next strip so that anything striking the legging from the front or side will be deflected to the rear, the strips at the rear having sufficient overlap to prevent anything entering between adjacent strips.

Having thus described my invention what I claim is:—

1. A legging for protecting the wearer from punctures comprising an outer covering of non-metallic flexible material, a strip of sheet metal extending vertically along the front of the leg and strips of metal extending vertically along the sides, the rear edges of the side strips overlapping the forward edges of the next strip in its rear.

2. A legging for protecting the wearer from punctures comprising an outer covering of non-metallic flexible material, a strip of sheet metal extending vertically along the front of the leg and strips of metal extending vertically along the sides, the rear edges of the side strip overlapping the forward edges of the next strip in its rear and a shield at the lower end of the strip extending along the front of the leg, adapted to fit over the upper surface of the instep.

3. A legging for preventing the wearer from punctures comprising an outer covering of non-metallic flexible material, a lining of non-metallic flexible material secured to the outer covering by vertical rows of stitching, the lining between adjacent rows of stitching being fuller than the material of the outer covering between the same rows of stitching so as to form pockets, and strips of sheet metal each of greater width than the distance between adjacent rows of stitching on the outer covering, inserted in the pockets so formed.

In testimony whereof, I hereunto affix my signature.

PAUL WESLEY ELLIS.