

No. 693,730.

Patented Feb. 18, 1902.

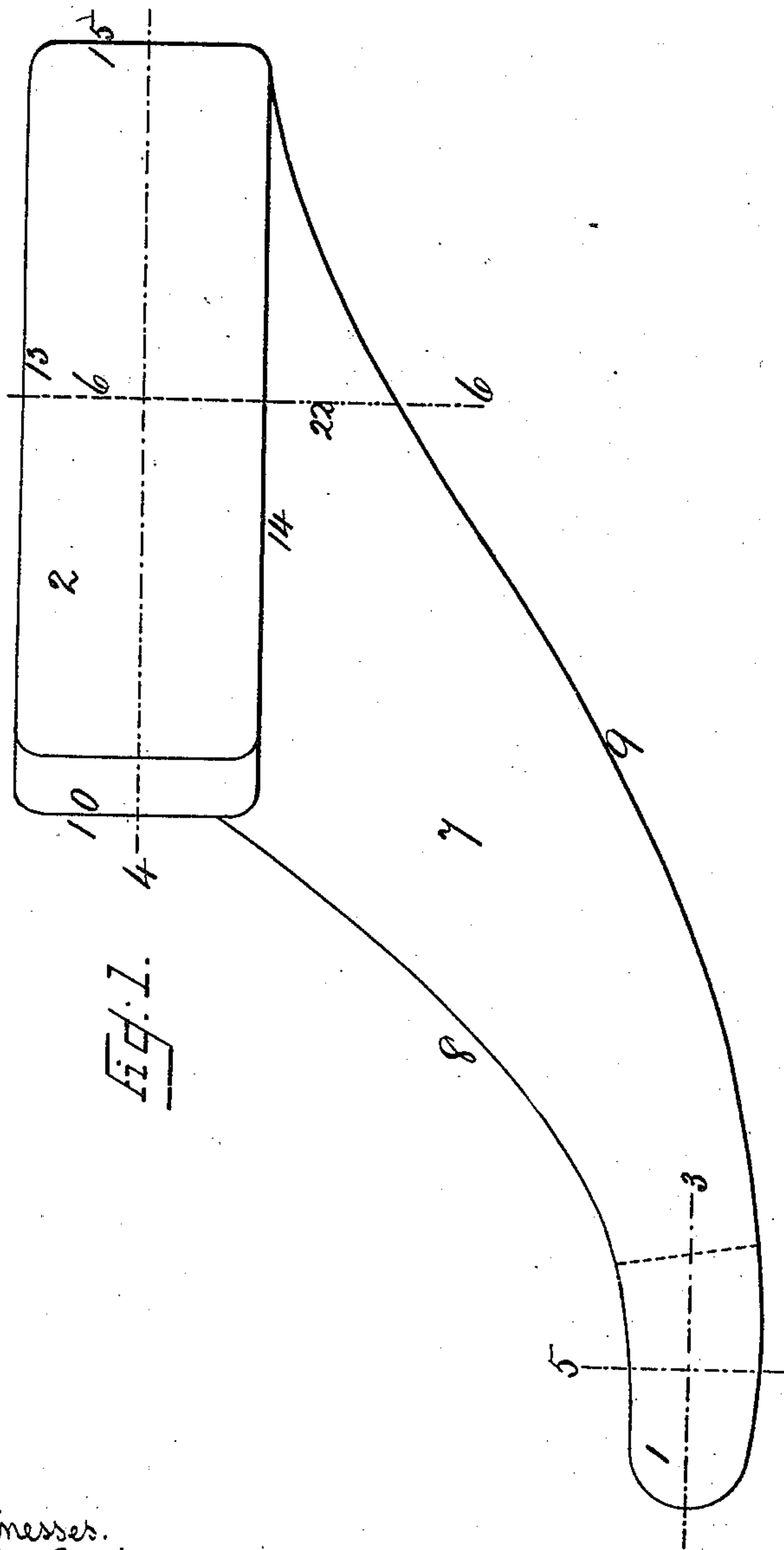
J. MITCHELL.

LEG GUARD.

(Application filed Jan. 26, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses.
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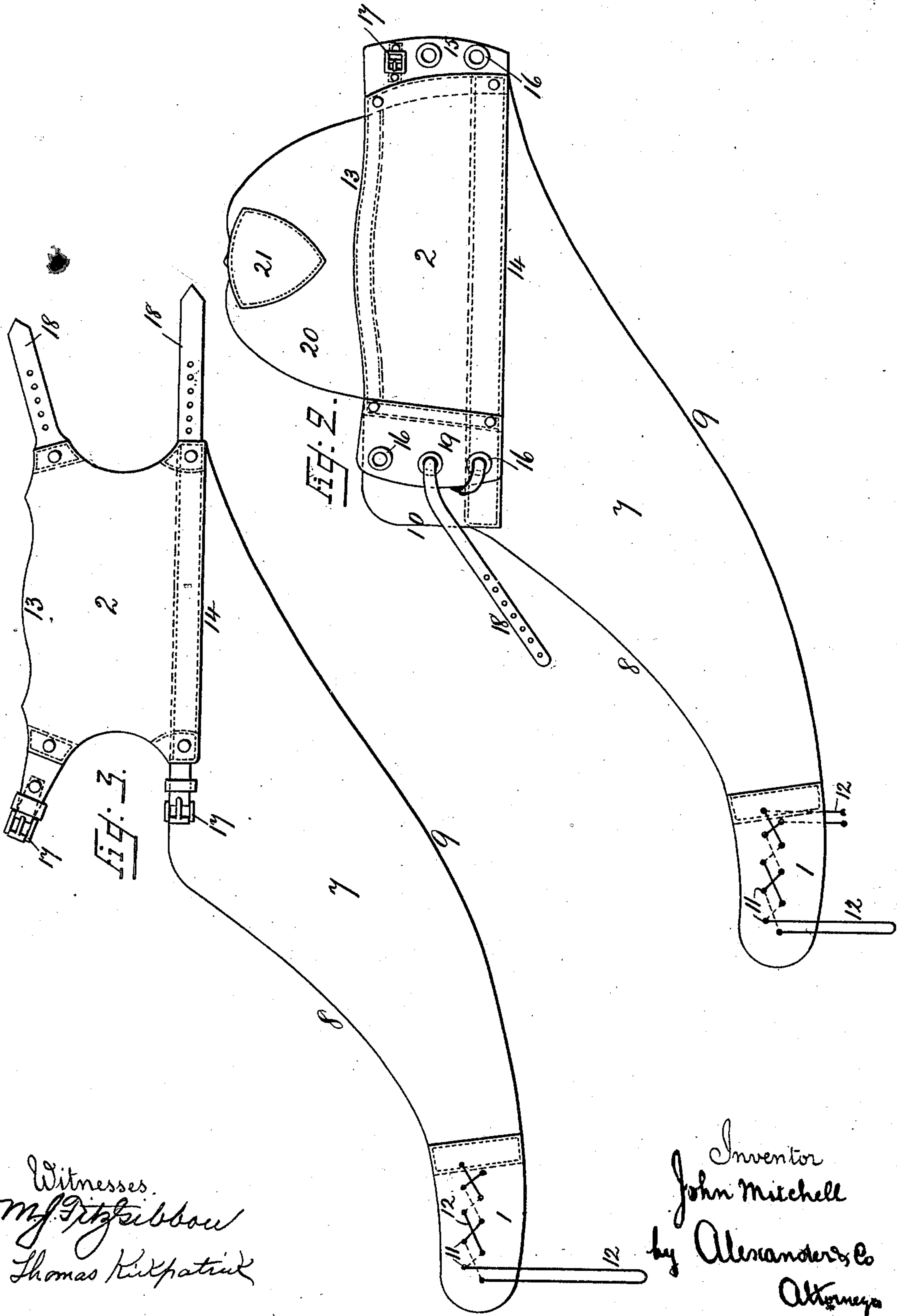
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UNITED STATES PATENT OFFICE.

JOHN MITCHELL, OF PONSONBY, NEW ZEALAND.

LEG-GUARD.

SPECIFICATION forming part of Letters Patent No. 693,730, dated February 18, 1902.

Application filed January 26, 1901. Serial No. 44,880. (No model.)

To all whom it may concern:

Be it known that I, JOHN MITCHELL, a subject of the Queen of Great Britain and Ireland, and a resident of Ponsonby, Auckland, New Zealand, have invented certain new and useful Improvements in Leg-Guards, (for which I have filed an application for patent in Great Britain, No. 18,174, dated October 12, 1900;) and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to an improved leg-guard especially adapted for the use of troopers and rough or cross-country riders, while also serviceable for general riding use, modifications of it being applicable for cyclists' and for walking use.

As a whole the device is designed to supersede the ordinary puttee, consisting of a long strip repeatedly wound helically around the leg, and also the ordinary front-opening stiff leg-guard secured in position by a helically-wound strap, and also the boomerang-shaped gaiter leg-guard adapted to be secured at one end to the boot, helically wound around the leg, and fastened at the top front, and to avoid the disadvantages incidental to such leg-guards, the first being of disadvantage, *inter alia*, in the necessity of most carefully winding it around the leg (which requires a knack not easily acquired and a considerable expenditure of time) to insure an evenness of tension and any comfort in its wear and in the liability of its parts to slip and to give a looseness of feel most uncomfortable to the wearer and an unevenness of appearance, the second being of disadvantage, *inter alia*, in the rigidity of its grasp of the leg and in its consequent interference with the free working of the muscles and in its open front and surrounding fastening-straps, and the third being of disadvantage, *inter alia*, in its helical winding around the leg, in the insufficiency of the overlapping of its edges, and in its front fastening, the invention also being designed to avoid all projecting fastenings and other parts at the sides and front of the leg, and consequently the liability incidental to such parts to catch in bushes or the like through which the wearer may be carried on horse-back or may have to force his way, and also to avoid any unnecessary stiffness in the de-

vice, while giving every desirable flexibility and a flexible stiffness, insuring a feeling of support and security and of continuity of fixture at the calf-surrounding part and an unrestrained ankle action.

The principle of the peculiar formation of the improved leg-guard is represented on the accompanying drawings diagrammatically in Figure 1, while Fig. 2 represents a distended elevation in the flat of the leg-guard, and Fig. 3 a modification, and is characterized by the leg-guard being so formed as to require a horizontal as distinguished from a helical wrapping of the leg-guard around the leg and as to enwrap successively higher portions of the leg as it is so wound around the same, the leg-guard being made with bottom and top leg encircling and fastening parts 1 2, having their longitudinal centers or axes situate in parallel horizontal planes 3 4, situate, respectively, at about or just above the ankle-level, at which a relatively flexible part of the leg-guard is connected to and takes hold of the boot at the front and a circular horizontal sweep around the lower part of the shin, and at a level intermediate of the calf and the knee where the thick part of the calf diminishes into the underbend of the knee, at which a stiffened part of the leg-guard takes a circular horizontal sweep around the upper part of the shin, and meeting and fashioned parts thereof are secured to each other behind the leg between the upper part of the calf and the underbend of the knee, and having their vertical centers 5 6 situate at what may be regarded as a practically constant distance equal to about two and a half circumvolutions of a normally-developed leg, the leg-enwrapping part 7 of the leg-guard, intermediate of said fastening parts 1 2 thereof, being so formed as to enwrap successively higher portions of the leg as the leg-guard is horizontally wound around it, its edges 8 9 gradually separating and uprising from continuity with the horizontal sides of the broad tongue-like boot-fastening part 1, so as to gradually widen this part of the leg-guard, the one edge 8 (which constitutes the covered edge when the leg-guard is wound about the leg) gradually merging into the upright (covered) meeting edge 10 of the part 2, and the other

edge 9 (which at such time constitutes the covering and the visible edge) gradually merging into the lower edge 14 of the part 2, whereby such intermediate part 7 is formed as a
 5 widely-overlapping development of the leg formation from the ankle to just above the swell of the calf.

The horizontally-disposed tongue 1 is made of a relatively flexible formation and is
 10 pierced along its longitudinal center with a series of holes or eyelets 11, through which is passed an adjustable looped lace whipcord or the like 12, serving to engage with a hook on the boot or with an eyelet in the
 15 boot and to be engaged by the boot-laces and to encircle the boot-top and to hold the tongue down to the boot and to obtain an initial hold and resistance at such part and affording an attachment the adjustment of which serves
 20 to determine the centrality and back position of the top fastening and to render the distance between the said centers 5 6 a relatively fixed quantity, so that one formation of the leg-guard will be equally serviceable
 25 for a considerable variety of leg formations. Other suitable adjustable means of connecting the leg-guard and the boot may, however, be used.

The horizontally-disposed upper shin-encircling part 2 is made of a stiffer formation than that of the part 7 (which in turn is made of a stiffer formation than that of the part 1) and at its under part is fashioned to that part of the leg it encircles, (*vide* Fig. 2,) so as to be of a less circumference at its upper edge 13 than at its lower edge 14, and its meeting edges 10 15, which overlap at the back of the leg, are provided with opposite series of eyes 16, a buckle 17, and a strap 18,
 40 which latter can be threaded through the eyes, some of which are preferably formed in a flap 19, so as to draw the overlapping parts 10 15 together to any required extent, or the fastening of these parts may be effected
 45 by any other convenient fastening means located at the back of the leg—such, for example, as buckles 17 and straps 18, as represented in Fig. 3.

Above the part 2 the leg-guard is or may
 50 be made with an upward continuation 20, (*vide* Fig. 2,) serving to protect the knee, and which may be stiff or may be flexible and turnable inward of the part 2 and may be fitted with a kneeling-pad 21 for such use as kneeling on when firing.

The improved leg-guards may be made of pig or horse hide or of any other suitable leather or tough textile or other material.

If cut from hide, the whole leg-guard may
 60 be cut in one piece and stiffened where desired; but for economy and right disposal of stiff and flexible parts, respectively, it is preferably cut in three pieces—namely, the part 2 and the parts respectively above and below
 65 the same—or in five pieces, in which event the part below the part 2 would be cut in

three pieces—namely, the tongue 1, the opposite end of the part 7, (indicated by the dotted lines 22, Fig. 1,) and the intermediate portion of such part, the cut parts being sewed
 70 and riveted together.

In the application of the improved leg-guard the tongue-piece 1 is fastened to and held down to the boot by the lace 12, and then by a horizontal circular sweep of the
 75 leg-guard parts 7 2 inwardly of and around the leg the tongue is wholly covered by the part 7 and the leg is encircled by widely-lapping portions of such part, the lower edge 9 of which overlaps its upper edge 8 and presents a single visible helically-disposed edge crossing the leg front, and the part 2 is caused to wholly circumscribe the upper shin part of the leg, with an overlapping of its meeting parts 10 15 behind the leg, whereupon the
 80 whole device is secured by the back fastening devices, which pull the parts together securely and comfortably around the calf parts against the resistance of the connection to the boot, while presenting no projecting parts
 90 at the front or side and affording a complete and effective water-shed.

In modifications of the leg-guard it may be made with the part 2 adapted only to cover the front part of the upper shin and with
 95 buckle and strap fastenings 17 18, as represented in Fig. 3, or with other suitable fastenings, as hereinbefore referred to.

What I claim as my invention, and desire to secure by Letters Patent, is— 100

1. A leg-guard comprising a lower horizontal tongue or member, adapted at its free end to be secured to a boot or shoe and encircle the wearer's ankle, an upper horizontal band or member having means to secure its ends
 105 together in rear of the wearer's leg under the knee, and an intermediate strip or member extending from the lower portion of said upper member and gradually tapering therefrom to the inner end of the said lower member or tongue; substantially as described. 110

2. A leg-guard comprising a lower horizontal tongue or member adapted at its free end to be secured to a boot or shoe and encircle the wearer's ankle, an upper horizontal band
 115 or member having means to secure its ends together in rear of the wearer's leg under the knee, and provided with a knee-protector extending from its upper portion, and the intermediate strip or member extending from
 120 the lower portion of said upper band and gradually tapering as at 8, 9, to the inner end of said lower tongue or member; substantially as described.

3. A leg-guard comprising a lower horizontal tongue-like ankle-encircling member 1, provided with eyelets and a lacing-cord to connect it with the eyelets of a boot or shoe, an upper horizontal band or member 2, provided with means at its ends for securing
 125 them together in rear of the wearer's leg under the knee, and provided with an upper 130

continuation 20, having a kneeling-pad 21, and the intermediate strip or member 7 connecting the members 1, 2, and gradually tapering from the upper band down to the tongue, as shown at 8, 9; substantially as described.

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In testimony whereof I have signed this

specification in the presence of two subscribing witnesses.

JOHN MITCHELL.

Witnesses:

CHARLES AUBREY DAY,
ALFRED CHARLES DAY.