

G. H. ST. JOHN.
HORSE BOOT.
APPLICATION FILED MAR. 21, 1911.

1,043,978.

Patented Nov. 12, 1912.

3 SHEETS—SHEET 1.

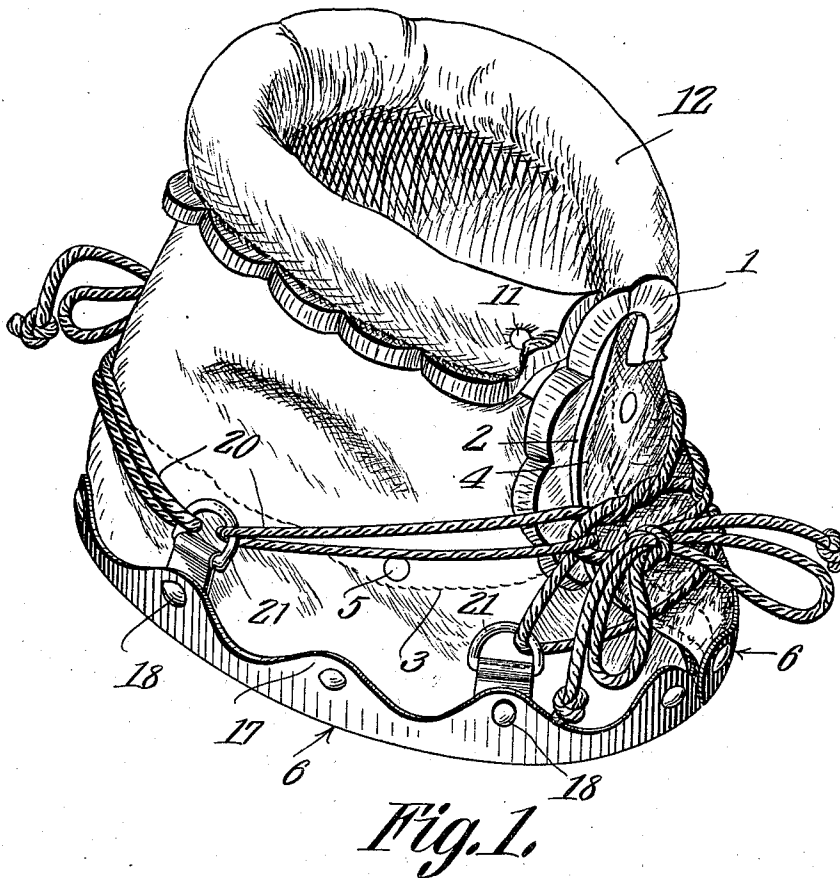


Fig. 1.

George H. St. John,

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R. M. Elliott

Inventor,

by

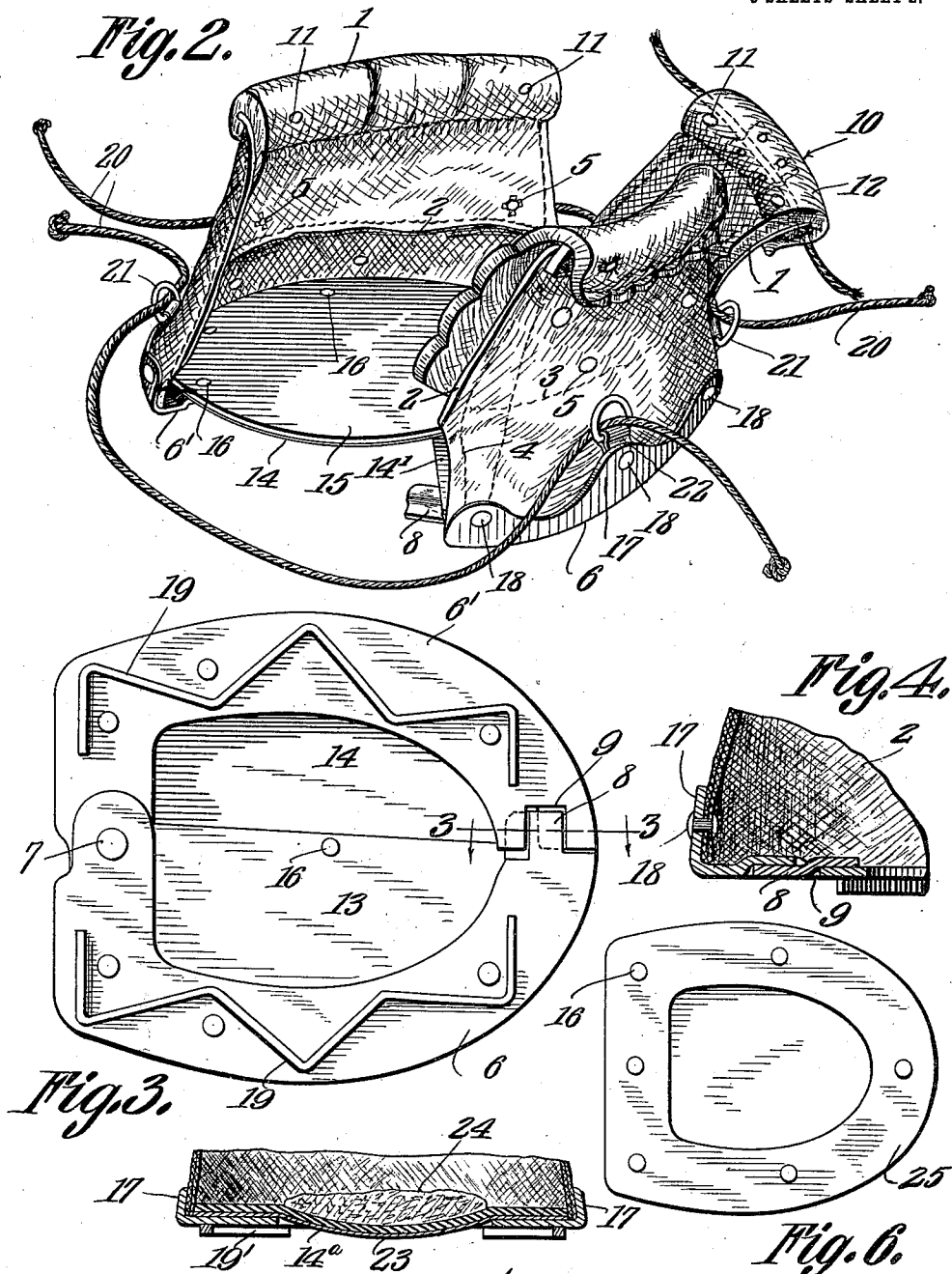
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3 SHEETS—SHEET 2.



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Fig. 5. George H. St. John, Inventor,
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3 SHEETS—SHEET 3.

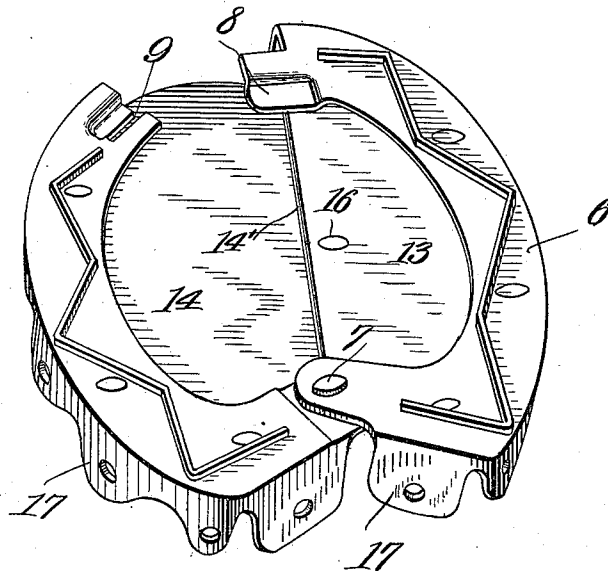
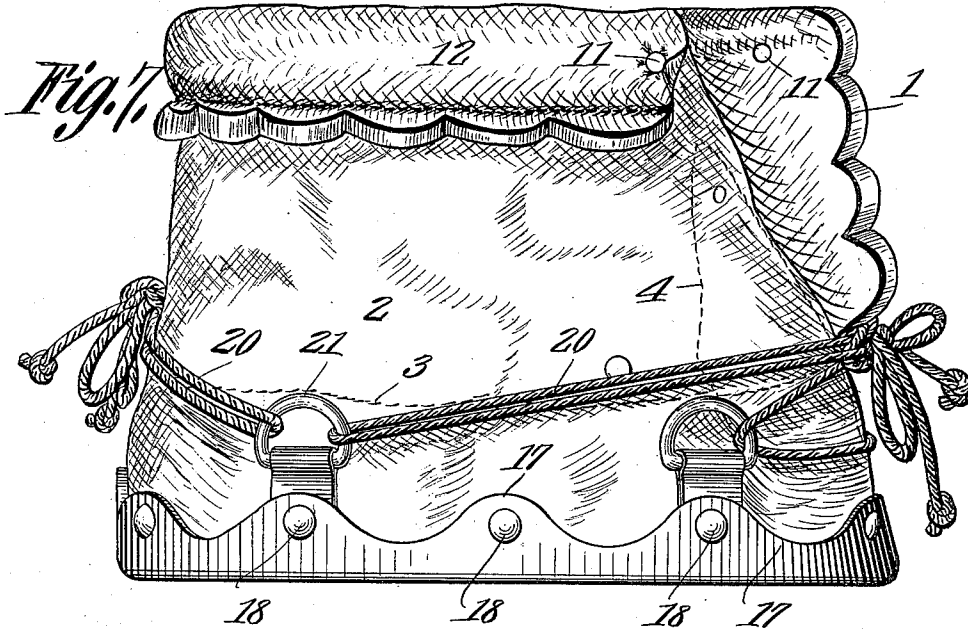


Fig. 8.

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UNITED STATES PATENT OFFICE.

GEORGE HENRY ST. JOHN, OF LEONARDSVILLE, NEW YORK.

HORSE-BOOT.

1,043,978.

Specification of Letters Patent.

Patented Nov. 12, 1912.

Application filed March 21, 1911. Serial No. 615,979.

To all whom it may concern:

Be it known that I, GEORGE H. ST. JOHN, a citizen of the United States, residing at Leonardsville, in the county of Herkimer and State of New York, have invented a new and useful Horse-Boot, of which the following is a specification.

This invention relates to horse boots, and constitutes an improvement on an article of this character for which I obtained Letters Patent of the United States #349,668, dated Sept. 21, 1886.

The object of the present invention is to provide a boot, the novel arrangement of the parts of which will operate, when in use, and in the most practical and efficient manner, to soften the foot and open the pores thereof, and thus bring it to a normal and healthy condition; that will permit expansion of the foot and the treatment of corns without requiring removal; that will facilitate the application of medicaments and poultices, and retain the moisture contained therein for the most extended period possible; that will practically preclude the entrance of extraneous matter that might be septic in character, and thus eliminate a constant source of danger attending the treatment of foot ailments especially where raw flesh is present; and that will promote the growth of the foot and prevent shoe corns.

A further object is to provide a shoe capable of securing all of the results above outlined, that may be employed to take the place of a cast shoe, and thus prevent danger of injury to a horse's foot, especially when traveling over rough and stony grounds, that shall be strong and durable, and constructed to retain its shape, but of a character to permit it readily to conform closely to the contour of the foot and thus be comfortable to wear, while preventing evaporation of moisture; that shall be adapted to be secured in position in such manner as to enable it positively to resist twisting or wrenching strains, and practically to preclude the possibility of accidental loosening or detachment; that will obviate the employment of leather straps as a means of fastening the shoe in place, thus eliminating an objectionable feature attending the use of such articles, and not only permitting the shoe to be more firmly, quickly and effectively secured in place, but

also materially reducing the cost of its production; which shall be thoroughly effective in preventing a horse from slipping upon icy ground or roads; and which may readily be adjusted to fit hoofs of different sizes, thus rendering it unnecessary to manufacture a large number of different sizes to meet trade demands.

With the above and other objects in view, as will appear, as the nature of the invention is better understood, the invention consists in the novel construction and combination of parts of a horse boot, as will be hereinafter fully described and claimed.

In the accompanying drawings forming a part of this specification, and in which like characters of reference indicate corresponding parts:—Figure 1 is a view in perspective of one form of horse boot constructed in accordance with the present invention. Fig. 2 is a view similar to Fig. 1, with the boot open. Fig. 3 is a bottom plan view of the boot shown in Fig. 2. Fig. 4 is a longitudinal sectional view taken on the line 3—3 of Fig. 3. Fig. 5 is a transverse sectional view through the rear portion of a slightly modified form of sole. Fig. 6 is a plan view of a further modified form of sole. Fig. 7 is a view in side elevation of a modified form of boot. Fig. 8 is a perspective detail view of the sole shown in Fig. 3.

Referring to the drawings, and to Figs. 1, 2, 3, 4 and 7 thereof, there is shown a preferred form of boot, which is designed more particularly to facilitate the application of medicaments, or the examination of the frog or quarter of a hoof without removing the boot. The boot comprises a jacket constructed from an inner ply 1 of a soft and yielding material, preferably thick felt, and an outer ply 2 of heavy canvas, the latter being of a strength to present the requisite wear-resisting qualities to enable the boot to be worn as a shoe for an extended period, without breaking down. The felt and canvas are held assembled by rows of stitching 3 and 4, disposed as shown or otherwise, and by rivets 5, of which latter any desired number may be employed. As shown in Fig. 2, the felt lining terminates short of the sole, this being done for the purpose of reducing wear of the article, as the toe of the hoof will tend to cut away the felt more rapidly than it will the canvas, to adapt the boot to be applied to hoofs of different sizes, and

also to materially reduce the bulk of the article.

The lower edges of the canvas are secured to a sole embodying two plates 6 and 6' of heavy sheet metal, or malleable cast iron, which are pivotally connected at their rear by a bolt or rivet 7, one member 6 of the sole being provided with a tongue 8 arranged to interlock with a slot 9 in the other member 6', and thus hold the two members assembled as shown in Figs. 1 and 3 and present a structure having a contour corresponding to that of the sole of a horse's hoof. It is designed that the engagement between the tongue and the metal of the member on each side of the slot 9 shall be such that the weight of the horse will cause such frictional contact between the parts as will tend largely to prevent their separation, and thus measurably remove strain from the means that are employed for fastening the boot in position.

As stated, it is the object of the arrangement shown more clearly in Fig. 2 to permit access to the frog and under side of the hoof without removing the boot, and to secure this result, the rear of the upper is severed on opposite sides of its medial line to provide a tongue 10 designed to be turned back, as shown in Fig. 2, to secure the object sought. Of course it will be understood that the front of the jacket is also split, so that access to either end of a horse's hoof may readily be reached.

As pointed out, it is essential that the moisture, contained in a medicament or poultice with which a hoof is being treated, should be retained as long as possible in order to secure the best results, and to accomplish this, the upper edge of the jacket is turned or rolled outwardly and the two thicknesses are secured together by rivets 11, forming thereby a roll or coronet 12 that will fit closely around the crown of the hoof when in the position as shown in Fig. 1, and prevent the escape of moisture, and moreover, by reason of the thickness and the conforming of the jacket at this point to the top of the hoof, will serve effectively to operate as a moisture holder and dispenser.

In order to preclude entrance of extraneous matter to the interior of the boot, the members 6 and 6' have secured to them sheet metal plates 13 and 14 respectively, the plate 13 being approximately semi-circular in plan, and extended from the margin of the section inward a distance sufficiently to bridge about one-half the space between the opposed walls of the opening in the sole when closed, as shown in Fig. 3, and the plate 14 being of a size to fill the boot throughout its entire extent, so that a continuous surface will be presented to and below the sole of the hoof of the animal. To render these plates soft and also practically prevent entrance of dirt

or dust which would be dangerous where sores are being treated, the upper surfaces of the plates are covered with sheet rubber 14' and 15, respectively, which are held assembled with the plates by rivets 16, of which any desired number may be employed. In order to secure the most effective connection between the jacket and the sole members, the latter are provided with marginal upstanding flanges 17, through which and through the jacket pass rivets 18 that serve positively to hold the two parts assembled, the flanges being herein shown as having sinuous upper edges, but this is not essential as they may be straight, and still secure the object sought. In addition to forming a means for attachment with the jacket, the flanges operate as guards to protect the canvas in a large measure from being cut and destroyed when the boot is in use.

In order to render the boot non-slipping, so as to adapt it for use on icy roads, or smooth surfaces, each of the sole members is formed with down-struck corrugations 19 that extend from the heel to the toe portion of each of the members, and are continuous, and in effect constitute calks, but are without their inherent disadvantage, as there will be no danger of the corrugations sinking in the floor of a stall, which would be objectionable as if the boot were subjected to any wrenching strain, and the calks were sunk into the floor of the stall, there would be a tendency to loosen or detach the boot, but by having the corrugations smooth and continuous, these will slide over the stall floor and thus prevent any damage to the boot.

A further feature of the invention is the novel manner in which the shoe is held in place upon the hoof, this being accomplished by the employment of heavy cords 20 which are passed through eyes or rings 21 carried by keepers 22 that are held assembled with the flanges 17 by the rivets 18. These cords or attaching members slide freely through the eyes, and will thus permit of the jacket being firmly and quickly secured in position around the hoof, and in a manner that will preclude any accidental disconnection. The advantage of employing cords over the ordinary straps is twofold, the straps soon become hard and brittle and are liable to break, and are not always easy to obtain, while the cord would not become stiff from use, and when useless, can easily be supplied.

Should it be desired particularly to adapt the boot for treating the frog of a horse, the plate 14^a may be provided with a dished or concaved portion 23 to receive a pad 24 of any absorbent material to contain the medicament, the concavity being extended throughout any desired length of the plate 14^a to meet the requirements of the case.

While it will generally be preferred to employ the corrugations or calks 19' in con-

junction with the sole, and also to construct the latter in two sections or pivotally connected parts, yet, under some circumstances, the sole may be made in one piece as shown in Fig. 5, wherein plate 14^a designates the sole as a whole. When this form of sole is employed, the upper or jacket will have to be split at its front and rear in the same manner as that shown in Fig. 1 in order to permit the boot being positioned.

In the form of the invention shown in Fig. 1, the jacket is merely split at its front, this arrangement being found entirely practical and thoroughly satisfactory in most cases. It will be understood in the forms shown in both Figs. 1 and 6, that the edges of the split portions of the jacket will overlap, and thus operate to entirely inclose the hoof.

Under some conditions, it might be desired to sell the shoe without the upper, and enable a maker, under license, to employ any style of upper that he would prefer, and when such is the case, the form of sole shown in Fig. 1 will be employed.

It will be seen from the foregoing description, by the employment of the heavily felted upper shown, that the application of poultices and medicaments to a hoof, or to a frog, will be facilitated, and, moreover, by the employment of the cords 20, a fastening means in lieu of straps, a more extended range of adjustment can be obtained, thus permitting one boot to be made to fit several different sizes of hoofs.

I claim:

1. A horse boot comprising a sole having a rim and a jacket constructed of an outer ply of canvas secured to the rim, and an inner ply of heavy felt secured to the canvas and terminating short of the sole a distance sufficient to permit bearing of the edge of a hoof against the rim.

2. A horse boot comprising a sole having a rim and a jacket constructed of an outer ply of canvas secured to the rim, and an inner ply of heavy felt secured to the canvas and terminating enough short of the sole to permit bearing of the edge of a hoof against the rim, and extended beyond the canvas to provide a moisture retainer.

3. A horse-boot comprising a sole having a rim and a jacket secured thereto and constructed of an inner ply of heavy felt and an outer ply of canvas, the lower edge of the felt terminating at a point above the rim of the sole and fastened to the canvas.

4. A horse-boot comprising a sole having a rim, and a jacket secured thereto and constructed of an inner ply of heavy felt that terminates short of and above the rim of the sole, and an outer ply of canvas attached to the rim and to which the lower edge of the felt is secured.

5. A horse-boot comprising a sectional

sole having a hoof-surrounding rim and co-acting sole-engaging plates, and a sectional jacket secured to the rim-sections and embodying a multi-ply structure divided entirely at its front and rear to facilitate positioning and to permit examination of a part of a hoof, and means attached to the rim-sections and exteriorly engaging the jacket for bringing the jacket sections together and for securing the boot upon a hoof.

6. A horse-boot comprising a sectional sole, a sectional jacket secured thereto and embodying a multi-ply structure, eyes carried by the rims of the sole sections, and two cords threaded through the eyes and encircling the jacket sections for drawing the sole sections together and securing the jacket around a hoof.

7. A horse boot comprising a sectional sole and a sectional jacket secured thereto, front and rear pairs of eyes carried by the sole sections, a flexible connection between the rear eyes and embracing the rear of the jacket, and a flexible tie member engaging the eyes and embracing the front of the jacket.

8. A horse-boot comprising a two-sectioned sole each section having a rim, a sectional jacket secured to the rims and being split at its front and rear to provide two encircling flaps and a rear tongue to facilitate positioning the jacket upon the hoof, eyes carried by the rim of the sole, and two cords threaded through the eyes and encircling the jacket for securing the jacket in position upon a hoof.

9. A horse-boot comprising a sole embodying two pivotally connected members each embodying a rim and a sole plate, a multi-part sectional jacket secured to the members, eyes carried by the rims, and two cords threaded through the eyes to encompass the jacket and hoof for securing the jacket in position around a hoof.

10. A horse-boot comprising two pivotally connected members provided each with a sinuous calk, and with a rim section, a sectional jacket secured to the rim sections, eyes carried by the rim sections, and two cords threaded through the eyes to encompass the jacket and hoof for securing the jacket in position around a hoof.

11. A horse-boot comprising a sectional metallic sole, each section having a rim, inwardly extending plates secured to the sole and provided with moisture impervious fabric facing, a sectional flexible jacket separated at its front and rear and secured to the rims, and means attached to the rim and encircling the jacket for securing the jacket and soles upon a hoof.

12. A horse-boot embodying a metallic sole comprising two pivotally connected members each provided with a rim section

and with a sole-forming plate having an
outstanding sinuous rib constituting a calk
that extends from the heel to the toe portion
of the members, interlocking means for
5 holding the free ends of the members in
frictional engagement, a sectional fabric
jacket secured at its lower edge to the rim
sections, and flexible fastening means con-
10 nected to the rim sections and encompassing
the sections of the jacket for securing the
jacket and sole in position.

13. A horse-boot embodying a metallic
sole comprising two pivotally connected
members each provided with an upstanding
15 rim section, an oppositely projecting sinu-
ous rib constituting a calk that extends from
the heel to the toe portion of each member,
plates secured to the sole members and ar-
ranged to overlap, the inner face of the
20 plates having a rubber facing applied there-
to, a sectional fabric jacket secured to the
rim sections of the sole, and a plurality of
flexible fastening members connected to the
rim sections and encompassing the sections

of the jacket for securing the jacket and sole 25
in position.

14. As a new article of manufacture, a
metallic sole for horse boots comprising two
pivotally connected members each formed
with a marginal perforated upstanding 30
flange, a plate secured to each of the mem-
bers and arranged to overlap thus to seal the
sole, a rubber facing applied to the inner
side of each plate, interlocking means for
holding the free ends of the members in 35
frictional engagement, a sectional hoof-en-
compassing flexible jacket connected to the
flanges of the sole members, and means con-
nected to the flanges and surrounding the
jacket to secure the jacket about a hoof and 40
to hold the sole sections interlocked.

In testimony that I claim the foregoing
as my own, I have hereto affixed my signa-
ture in the presence of two witnesses.

GEORGE HENRY ST. JOHN.

Witnesses:

FRANK B. OCHSENREITER,
L. WILLSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."