(No Model.)

L. M. PHILO.

HORSE BOOT.

No. 424,573. Patented Apr. 1, 1890.

Fig. 1

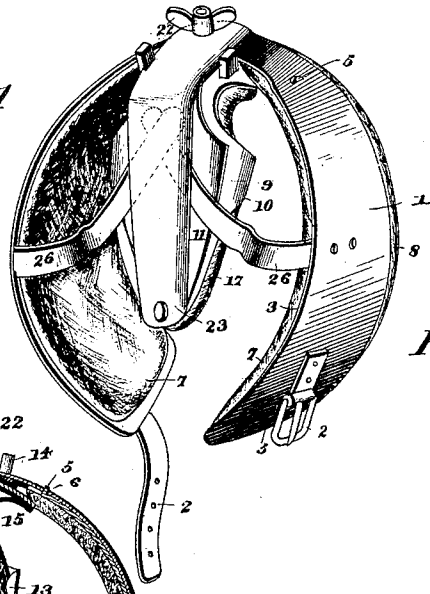


Fig. 6.

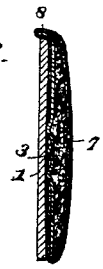


Fig. 2.

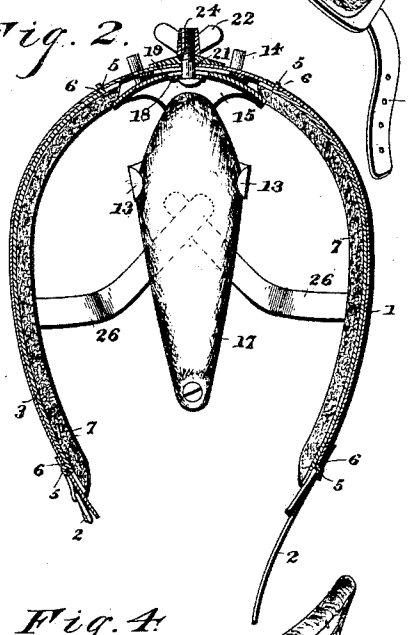


Fig. 3.

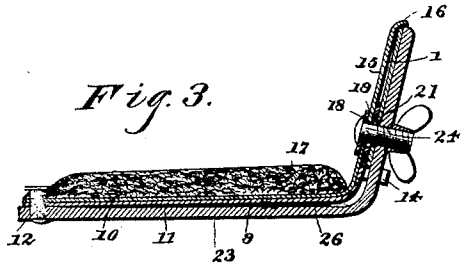


Fig. 4.

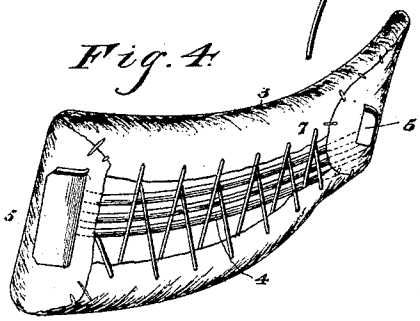
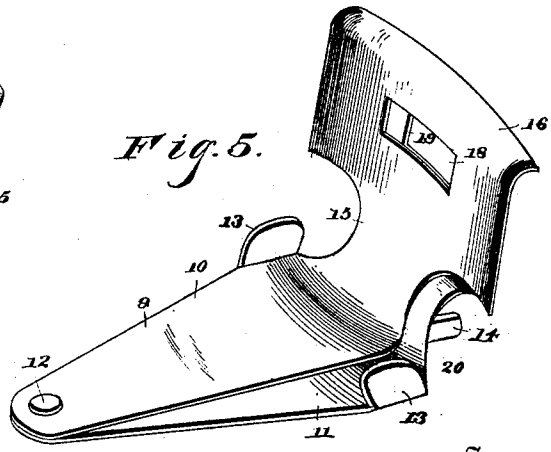


Fig. 5.



Witnesses

J. M. Withrow.

E. G. Siggers

Inventor

L. Morris Philo,

By his Attorneys

C. A. Snow & Co

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

LEWIS MORRIS PHILO, OF ALTON, NEW YORK.

HORSE-BOOT.

SPECIFICATION forming part of Letters Patent No. 424,573, dated April 1, 1890.

Application filed October 30, 1889. Serial No. 328,712. (No model.)

To all whom it may concern:

Be it known that I, LEWIS MORRIS PHILO, a citizen of the United States, residing at Alton, in the county of Wayne and State of New York, have invented a new and useful Horse-Boot, of which the following is a specification.

This invention has relation to boots for horse-hoofs, and especially for treating the same for such diseases as contracted hoof, toe-crack, &c., and among the objects in view are to provide a boot adapted to be adjusted to all sizes of hoofs and to snugly fit the same, to press the medicine-absorbing material snugly to the affected parts to act as an expander of the hoof when so desired, and to facilitate a rewetting or remedicating of the absorbent pads without the necessity of removing the same from the hoof, and to so arrange the pad-plates as to direct the liquid toward the frog of the hoof, there to be maintained and pressed against the same, rendering the frog soft and pliable and capable of being spread by the hoof-spreader.

Numerous other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claims.

Referring to the drawings, Figure 1 is a bottom perspective of the boot detached. Fig. 2 is a horizontal section of the same. Fig. 3 is a longitudinal section of the frog-plates. Fig. 4 is a detail in perspective of one of the side pad-plates with the padding in place. Fig. 5 is a similar view of the frog-plate and hoof-spreader with the padding removed. Fig. 6 is a sectional view of the pad-plate and padding.

Like numerals indicate like parts in all the figures of the drawings.

1 represents the U-shaped frame or outer casing of the boot, which I preferably form of Russia iron and connect at its front ends by means of a strap and buckle 2, whereby said casing is adapted to fit hoofs of various sizes.

3 represents a semicircular side pad-plate, there being two employed, each of which is provided with longitudinally-disposed grooves or corrugations 4, inclined from the upper front corners of the plates to their rear lower corners. The front edge of each of the plates is provided with a struck-up tongue 5 and with a similar tongue at its rear edge, each of said tongues being adapted to be projected through corresponding slits 6, formed in the wall of the outer casing 1, whereby the tongues are maintained in removable positions therein. The plates are each provided with a covering 7, of absorbent textile fabric or other suitable material, adapted to receive and retain medicament or other liquid. The upper edges of the pad-plates extend above those of the outer casing and are bent over the same, as at 8, whereby the liquid medicant or water may be poured around the flared edge and will be guided into the boot and the pads thus be rewet without the necessity of removing the boot.

9 represents the frog-plate, and the same consists of two plates or sections 10 and 11, the sections being pivoted at their forward ends, as at 12, so as to slide one upon the other, and each provided at its outer side with a hoof-spreading lug 13 and at its rear side with an operating-lug 14, the hoof-spreading lugs extending at a right angle to and upwardly from the sections 10 and 11, which sections are concave, so as to maintain a close contact with each other and also to act as a receptacle for liquid, which is conducted thereto in a manner hereinafter apparent.

The section 10 at its rear end is bent up to form a heel pad-plate 15, flared at its upper edge, as at 16, and over the same is mounted a pad 17. The plate 15 is also provided with a transverse slot 18, and registering with the same is a similar slot 19, formed in a smaller plate 20 at the rear end and bent up from the section 11. A perforation 21 is formed in the rear end of the casing 1, and through the same and the slots or recesses 18 and 19 is inserted a thumb-screw 22.

23 represents an L-shaped spring-plate, which is perforated at its rear end, as at 24, to receive the screw 22, and extends under the frog-plate and is connected to the same by the rivet 12, and acts to support the plates and press them upwardly against the frog of the hoof.

26 represents segmental or quadrant-shaped braces, the outer ends of which are secured by rivets 27 to the opposite sides of the casing 1, and the inner ends of which overlap each other and pass between the frog-plate 9 and the L-shaped spring-plate 23.

In employing the boot for the cure of contracted hoof the pads are kept in a continual

moist condition, and the liquid introduced over the edges of the side pads trickles down the inside of the same and is caught and conducted by the inclined grooves or corrugations 4 to the rear and into the concave frog-plate 9, which is always maintained damp by a continuous feed of the medicament or water from the side plates. The frog, having been thoroughly softened, is now in condition for spreading, to accomplish which the set-screw 22 is loosened and the sections 10 and 11 spread laterally by means of the operating-lugs 14 until the spreaders 13, which are in the cleft of the hoof, come into contact with the outer walls of the cleft, and, being slightly inclined inwardly and pressed upwardly by the spring 23, serve to exert a continual pressure against the sides of the hoof and ultimately spread the same to its normal size.

In treating the hoof for toe-crack the boot will be snugly bound upon the hoof, which, by the same process, is softened and the crack carefully drawn together by the strap and buckle until thoroughly healed.

Having thus described my invention I claim—

1. The combination, with the outer casing provided with opposite perforations, of the removable pad-plates terminating in tongues adapted to be inserted through the perforations, substantially as described.

2. The combination, with the hoof-embracing strap having a perforation at its rear end, of the L-shaped frog-plate provided with a slot, a set-bolt passing through the perforation of the strap and the slot of the plate, and an L-shaped spring-plate mounted on the bolt and bearing at its front end upwardly against the frog-plate, substantially as specified.

3. The combination, with the casing and the depending frog-plate, of the removable pad-plates located at each side of the frog-plates and provided with rearwardly-directed inclined liquid-conducting grooves, substantially as specified.

4. The combination, with the casing, of the central concaved frog-plate and of the opposite side pad-plates having rearwardly-directed inclined grooves, substantially as specified.

5. The combination, with the casing having a central perforation, of the frog-plate formed in sections pivoted at their front ends and terminating in transversely-slotted plates at their rear ends and a set-screw inserted through the perforation in the casing and through the slots of the plates, substantially as specified.

6. The combination, with the casing having a central perforation and an L-shaped spring-plate likewise perforated and extending down and toward the front of the casing, of a frog-plate formed in sections pivoted at their front ends and to the spring-plate, and each provided at its outer edge with an upwardly-projecting foot-spreading lug, and slots registering with the perforations in the casing and spring-plate, and a set-screw inserted through the perforations in the casing, spring-plate, and slots of the sections and adapted to retain the sections in a relatively-adjusted position, substantially as specified.

7. The combination, with the casing having a perforation, of the frog-plate formed in sections adapted to move one upon the other and terminating at their rear ends in transversely-slotted plates and at their sides in inclined hoof-spreading lugs, an L-shaped spring-plate extending from the casing and bearing upwardly against the bottom of the frog-plate, and a set-screw inserted through the casing, the spring-plate, and through the transverse slots of the frog-plates, substantially as specified.

8. The combination, with the casing and the depending frog-plate, of the removable pad-plates located at each side of the frog-plates and provided with rearwardly-directed inclined liquid-conducting grooves, and tongues on the pad-plates passing through perforations of the outer casing to hold the said plates in place, as set forth.

9. In a horse-boot, the outer casing, combined with the frog-plate formed in sections pivoted together, so as to move one upon the other, and each provided with hoof-spreading lugs, as set forth.

10. In a horse-boot, the outer casing, combined with the frog-plate formed of pivoted sections and a spring-plate, the latter serving to hold the frog-plate against the frog of a horse's hoof, and each section of the frog-plate being provided with hoof-spreading lugs, and devices, substantially as described, for moving and adjusting the sections of the frog-plate, as set forth.

11. In a horse-boot, the combination, with the frog-plate, of the segmental-shaped braces 26, secured at their outer ends to the casing of the boot and having their inner ends loosely fitted to the frog-plate, as set forth.

12. In a horse-boot, the expansible outer casing and frog-plate with the spring-plate, combined with the braces 26, secured at their outer ends to the casing and having their inner ends overlapping each other and passed between the frog-plate and the spring-plate, whereby the braces can slide out when the casing is being removed, as set forth.

13. In a horse-boot, the plain outer casing held together around the hoof by strap and buckle, combined with the removable curved side pad-plates along the opposite inner sides of the casing, for the purpose set forth.

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

L. MORRIS PHILO.

Witnesses:
S. S. SHORT,
HENRY SUTLIFF, 2d.