

(No Model.)

G. R. MEITZLER & J. H. FOOTE.
SANITARY AND PROTECTING HOOF PAD.

No. 461,160.

Patented Oct. 13, 1891.

Fig. 1.

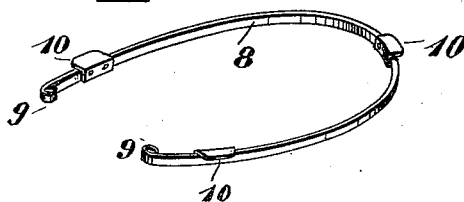


Fig. 2.

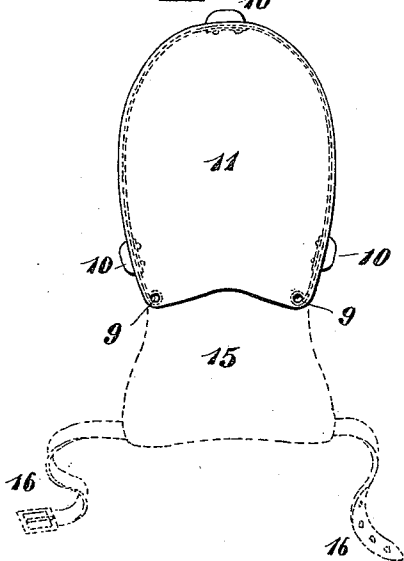


Fig. 3.

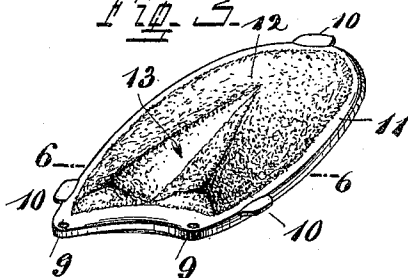


Fig. 4.

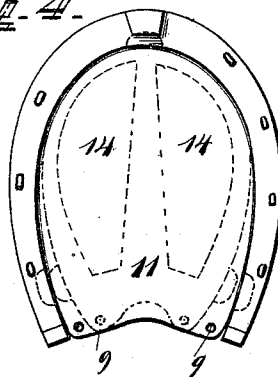
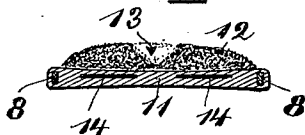


Fig. 5.



Fig. 6.



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GEORGE R. MEITZLER AND JAMES H. FOOTE, OF CINCINNATI, OHIO; SAID
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SANITARY AND PROTECTING HOOF-PAD.

SPECIFICATION forming part of Letters Patent No. 461,160, dated October 13, 1891.

Application filed July 3, 1890. Serial No. 357,602. (No model.)

To all whom it may concern:

Be it known that we, GEORGE R. MEITZLER and JAMES H. FOOTE, both citizens of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in a Sanitary and Protecting Hoof-Pad; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates, generally, to hoof-pads to be attached near the under side of the hoofs of the horse between the shoe for protective and sanitary purposes. Such pads to be practical must combine durability, security against penetration, easy and quick adjustment, and sufficient ventilation to prevent overheating and dampness. Many ineffectual efforts have been made to obtain these objects, but without any perceptible success. Some of the requirements have been satisfied, while others have been sadly neglected, and it is plain that, for instance, an otherwise practical pad is absolutely useless in case of a fractious horse if without means for quick adjustment. Again, a pad otherwise well constructed will be injurious if not provided with means for ventilation, which means, again, must be so constructed as to be operative all the time.

With reference to these remarks the special object of this invention is to combine in one pad all the necessary requirements as set forth above, providing it especially with practical means for quick adjustment and effective ventilation, which means have been hitherto unknown in such connection.

In general our pad consists of a solid rubber body stiffened and held expanded by an elastic frame within it, which frame also supports in their proper positions the means for the quick adjustment of the pad and for its retention to the hoof. The means for ventilation of the pad are located above it and immediately below the under side of the hoof, by which arrangement closing up and packing of the ingress-opening for fresh air which

enters horizontally is prevented. This specific construction is explained in the annexed description and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the elastic frame. Fig. 2 is an under side view of the pad complete. Fig. 3 is a perspective view of the pad, showing its upper side. Fig. 4 is an under side view of a horse's foot, showing pad in position. Fig. 5 shows a side view of a horse's foot with pad in position and having its body elongated at the rear end, so as to admit of its being turned up to form a heel-protector. Fig. 6 is a cross-section taken on line 6 6 of Fig. 3.

8 is an elastic metal frame, preferably of steel, bent to conform to the shape of the inside of a horseshoe, its ends terminating in eyes 9, and having three lugs (designated by 10) disposed upon it, as shown in Fig. 1. These lugs may be a part of the metal of the frame itself and cut to the shape and position shown, or they may be formed of separate pieces riveted or fastened in any suitable manner to the frame. With the exception of the eyes 9 and lugs 10 this frame is completely embedded in the body of rubber, forming the under side or main part of the pad. This is best done by inserting the frame into the mold and forming the rubber about it.

The manner for ventilating the pad, in order to prevent overheating and dampness, consists of a felt layer 12 interposed between the hoof and that surface of the pad contiguous to the former. It is cut out at 13 to provide room for the frog of the foot, and is preferably attached to the rubber while the latter is still in its plastic state, whereby a tenacious connection is obtained. Air enters this ventilating space in a horizontal direction and above the pad, where the ingress-opening is protected against obstructions and its packing with dirt is prevented. This felt layer being soft and yielding adjusts itself to the formation of the under side of the hoof and acts as an additional cushion, assisting materially in removing the harmful effects of any concussion against the horse's foot caused by striking against stones or objects projecting above the level of the road-bed.

It is our intention to use rubber of such a

quality as to offer great resistance against penetration by nails, pieces of glass, and other similar objects, which might possibly come in contact with it, but to guard in the most effective manner against possible accidents which might result from the penetration of the pad by any sharp or pointed substance, we insert or embed in the rubber forming the under side of the pad a metallic layer 14, which is absolutely impenetrable under conditions here in view and will absolutely protect that portion of the foot covered thereby.

By continuing the pad proper rearwardly and beyond the ends of frame 8, as shown in dotted lines at 15 of Fig. 2, a heel-protector is obtained, which is held in place by the pad proper in connection with straps 16. In Fig. 3 the heel-protector is shown in position.

To facilitate the adjustment of the pad and to permit it being done quickly, especially in case of an unruly horse, we provide a suitable tool constructed on the order of a tong, which has points to enter into eyes 9, wherewith the pad is compressed, as shown in Fig. 4. Being compressed so as to be capable of introduction inside of the space surrounded by the shoe, its front lug is pushed in between hoof and shoe, the pad being meanwhile held up and pressed closely against the bottom of the hoof to enable its rear lugs to also enter between hoof and shoe when the pad is released by the tool. Being free, the expansive force of frame 8 exerts itself and forces said rear lugs in between hoof and shoe, holding the pad there securely until released again by the tool.

On account of its stiffness, which would interfere with the proper compression of the pad while adjusting or removing it, the metallic layer 14 is put in in sections.

A pad so improved is very complete and conforms in every respect to all requirements

which may be expected of such an article. It guards the hoof completely against any injury which might be caused by penetration from below; it is provided with means and constructed to permit quick adjustment; it is ventilated and serves as a means to aid in retaining a heel-protector in position, which latter is connected to the pad.

We do not wish to be understood as claiming, broadly, a hoof-pad consisting of a spring-frame having an elastic material secured to it or an absorbent pad secured above an elastic material which is itself secured to a frame, or a pad having ventilating means, since we are aware that such constructions are not broadly new; but we are not aware that a pad of our specific construction, possessing the properties of simplicity, durability, impenetrability, perfect elasticity, quick adjustment, and perfect ventilation at all times, has ever before been constructed.

We claim as new—

The herein-described hoof-pad, comprising an imperforate rubber body, an elastic frame inserted therein and serving to stiffen and support the body of the former, said frame having lugs to retain the pad in position and eyelets to permit its quick adjustment in the manner described, a metallic layer embedded in said rubber body, a horizontal felt layer on said rubber body serving as a ventilator, as specified, and a heel-protector held partly in place by the pad and provided with means to hold it up against the heel of the horse's foot.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE R. MEITZLER.
JAMES H. FOOTE.

Witnesses:

CARL SPENGLER,
FRANCIS M. BIDDLE.