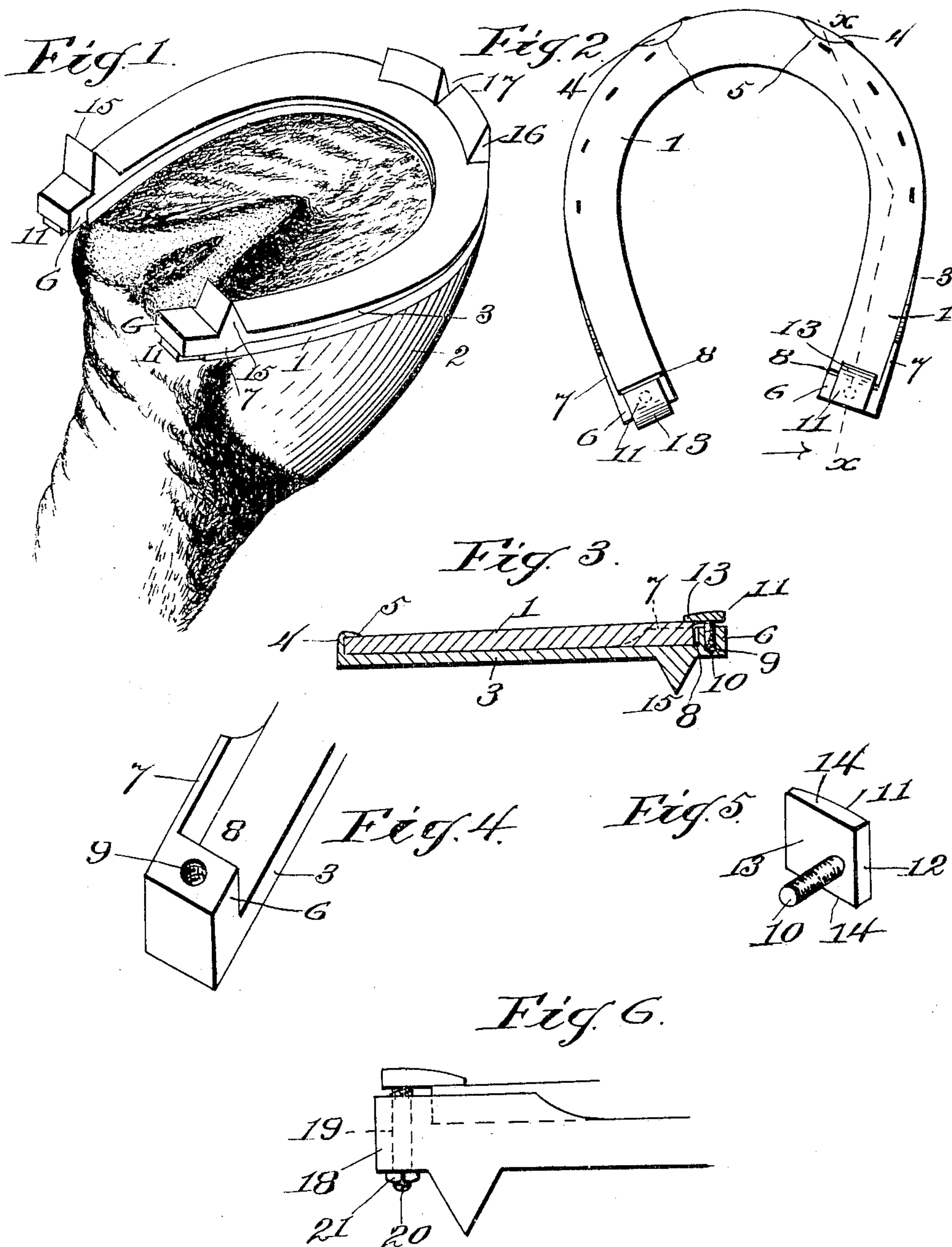


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A. SMITH.
OVERSHOE FOR HORSESHOES.
APPLICATION FILED NOV. 16, 1904.



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UNITED STATES PATENT OFFICE.

ALBERT SMITH, OF BOWIE, MARYLAND.

OVERSHOE FOR HORSESHOES.

No. 799,273.

Specification of Letters Patent

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To all whom it may concern:

Be it known that I, ALBERT SMITH, a citizen of the United States, residing at Bowie, in the county of Prince George and State of Maryland, have invented certain new and useful Improvements in Overshoes for Horseshoes, of which the following is a specification.

This invention relates to horseshoes, and particularly to overshoes for horseshoes.

10 The object of the invention is to provide means for securing an overshoe to the shoes of horses while they are worn for purposes of roughening.

15 A further object of the invention is to provide novel and peculiar means operated in the heel-wall of an overshoe without protruding therefrom for attaching said shoe to horseshoes without detaching the horseshoes from the hoof of a horse.

20 Various devices have heretofore been employed for detachably connecting shoe-rougheners to horseshoes. For example, one of these relating to this invention employ screw-tines projecting from the heel of the overshoe upon which calks having wedge-hooks are secured by 25 nuts, and another comprises a roughener having a pivoted or hinged heel section or extension provided with a set-bolt threaded through a lug on said heel-section at an angle or incline 30 relative to the shoes to engage the horseshoe-heel. It is obvious that the adoption, practical use, and success of rougheners or overshoes of this character depends largely upon their weight, bulk, and appearance when applied to the ordinary horseshoe, and particularly upon the simplicity and permanent character of the device employed for connecting the roughener to the shoe, that horseshoes are generally made unsightly and of too great 40 weight by the cumbersome rougheners ordinarily employed, and that the various devices for attaching and detaching rougheners or overshoes are an impediment to the foot action of a horse, especially to one who interferes or forges. In all overshoes known to me either the overshoe or its attaching device protrudes or projects in such manner as to cause a horse to interfere and to strike the rear shoes against the front shoes, so that serious injury to the horse is often produced, in addition to the objectional weight and appearance of such shoes and said devices.

45 It is therefore the purpose of this invention to overcome these and many other objections and disadvantages, to furnish a roughener or overshoe of such construction as will avoid

entirely the faults found in the ordinary roughener, and to provide a simplified device for connecting overshoes with horseshoes having such novel and peculiar construction and 60 arrangement that no part of the overshoe projects beyond the contour of the horse's foot and that no part of the said device protrudes to the possibility of interfering with the action of a horse.

65 With these and various other objects, advantages, and improved results in view the invention consists in a thin plate-like overshoe having peculiar toe-cleats and provided with a divided toe-calk and suitable heel-calks, a vertically-threaded heel-wall, and a novel screw-stud operated through said wall for attaching and detaching the overshoe. 70

In the accompanying drawings, forming part of this application, Figure 1 is an inverted perspective view of a horse's foot, showing the application of the invention. Fig. 2 is an inverted plan view of a horseshoe, showing two positions of the attachment. Fig. 3 is a section on the line *x-x*, Fig. 3. Fig. 4 is 75 a detail perspective view of the overshoe-heel. Fig. 5 is a perspective view of the screw-stud. Fig. 6 is a modification of attaching device. 80

The same numeral references denote the 85 same parts throughout the several views of the drawings.

The horseshoe 1, employed to exemplify the invention, is what is commonly known as a "smooth" shoe attached in the customary 90 manner to the hoof 2, so that its heels project beyond the hoof-tread, as usual.

The overshoe consists of a thin metallic plate 3, having toe-clips 4, projecting from its outer edge above the inner face of the 95 overshoe. These clips have a thin top edge 5 bent or turned inwardly over the edge of the horseshoe, so as to be positioned between the latter and the hoof for attaching the overshoe to the horseshoe at the front of the foot. 100 The inner face of the overshoe at the heel ends has an upturned lug 6, constituting a heel-wall, at right angles to the said inner face and forming the rear terminals of the overshoe. A flange 7 extends from the lug 105 or wall 6 flush with the outer edge of the overshoe, said flange simply being a short extension of the wall 6 and with the latter forms an L-shaped cavity 8 for the heels of the horseshoe. A screw socket or hole 9 is 110 made vertically from the top face of the wall 6 into the latter, but not necessarily entirely

through the wall, for a screw-stud. There are two of these studs, one for each heel-wall 6, and both being alike only one will be described in detail. It comprises a stem 10, provided, preferably, with a fine screw-thread and a rectangular head 11, having one edge 12 adjacent the stem, so as to position the opposite edge farthest from the stem and form a flange 13 to overlap the L-shaped cavity and to engage the top of the horseshoe-heels to hold the latter in the said cavities. With the stud in said position the edge 12 is flush with the rear face of the lug or wall 6, and the sides 14 are within the vertical plane of the inner and outer sides of the wall 6, so that when the two shoes are attached no part of the stud-head projects or protrudes beyond the sides and end of the lug or wall 6.

The outer face of the overshoe is provided with heel-calks 15, positioned vertically under the cavity 8, which arrangement stiffens and braces the overshoe at the point where the stud-head clamps the shoes. This arrangement also positions the said calks directly under the heel-tread of a horse and not forward nor in the rear of such tread. The outer face of the overshoe is provided with a toe-calk 16, having a central cut-out or V-shaped separating-space 17 to permit the overshoe to be contracted and expanded as desired or as occasion may demand. These calks may be sharpened or set up by or without removing the overshoe.

Referring to the modification shown in Fig. 6, the heel-wall 18 of the overshoe has a screw-threaded aperture 19 extending vertically therethrough, and the stem screw-stud 20 projects sufficiently to receive a lock-nut 21. This arrangement may be found desirable in heavy draft-shoes to insure the fixture of the stud.

In attaching the overshoe the stud edge 12 is turned flush with the cavity-wall 6. The toe-clips are hooked over the front edge of the horseshoe, and the latter is made to engage the overshoe with the horseshoe-heels fitting the cavity, in which position the stud-head is turned to have its flange 13 bind the shoes firmly together. It will be seen that the depth of the cavity is less than the thickness of the usual horseshoe, so that the latter may project above the top face of the wall 6 and be engaged by the stud-flange 13.

It is obvious that the overshoes may be made in graduated sizes according to the sizes of horseshoes in common use, that the overshoes may be attached and detached without removing the horseshoes, and that the short heel-flange is sufficient to prevent displacement by lateral movement.

It is to be understood that the studs are not to be removed or separated from the overshoe, that the lug or wall 6 is only of sufficient size to accommodate the stud, and that the head of the stud does not protrude beyond the outer lines of the said lug. It will be further

observed that by reason of the special construction and arrangement there are less parts comprised in the device than is usual with such devices, that in attaching and detaching the overshoe the stud-heads have simply to be turned, and that an overshoe is furnished of simple and inexpensive character capable of quick adjustment.

I do not wish to be understood as confining my invention to any particular character of horseshoe, nor do I wish to be understood as limiting myself to the particular overshoe herein shown and described, except in so far as the construction of the heels are concerned, inasmuch as such heel structure may form a part of overshoes of various other characters.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with an overshoe for horseshoes, of the upturned lugs having a screw-threaded aperture and a flange forming an L-shaped cavity or socket for the horseshoe-heel, and the screw-studs working vertically in said aperture and having a head extending from said lugs and overlapping said cavity.

2. In an overshoe for horseshoes, the combination, with the vertically-screw-threaded lugs forming the overshoe-heels, and a flange projecting from the outer side of the lugs and with the latter forming an L-shaped cavity for the heel of the horseshoe, of the studs having a screw-stem working vertically in the lugs and provided with a flanged head to engage the horseshoe-heel.

3. The combination, with an overshoe having toe-clips provided with ends adapted to engage a horseshoe between the latter and the hoof of the horse, a toe-calk having a V-shaped cut-out to permit contraction and expansion of the overshoe, vertically-screw-threaded lugs having a side flange and forming an L-shaped cavity, and heel-calks under said cavity, of the screw-studs having a flanged head to hold the horseshoe-heel in said cavity.

4. In an overshoe for horseshoes, the combination, with the screw-threaded overshoe-heels, of the studs screwing vertically through the heels and having a head to impinge the horseshoe, and lock-nuts under said heels to fix the studs.

5. The combination, with an overshoe having suitable toe-clips, of the upturned lugs forming overshoe-heels, and a flange extending forward from the lugs to form an L-shaped cavity, of the screw-studs working vertically through the lugs and having a flanged head overlapping said cavity.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT SMITH.

Witnesses:

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