(No Model.)

W. KONDAKOFF.

HORSESHOE.

No. 482,845. Patented Sept. 20, 1892.

Fig. 3.

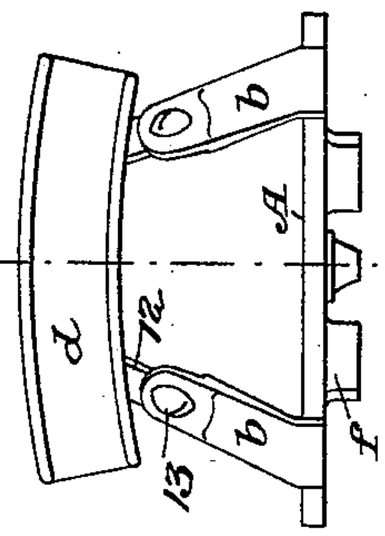


Fig. 4.

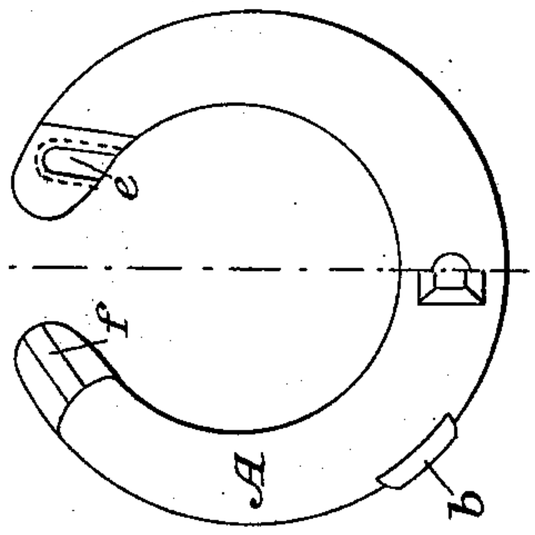


Fig. 2.

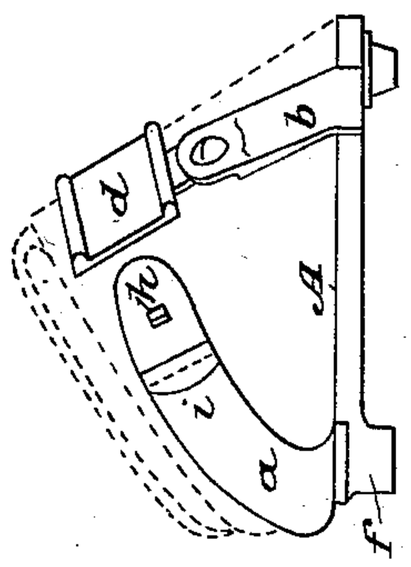


Fig. 5.

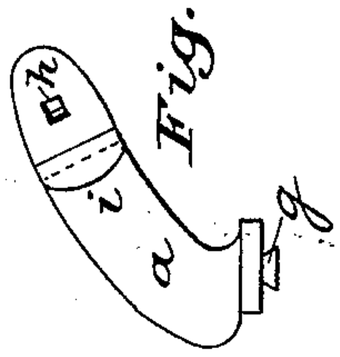


Fig. 6.

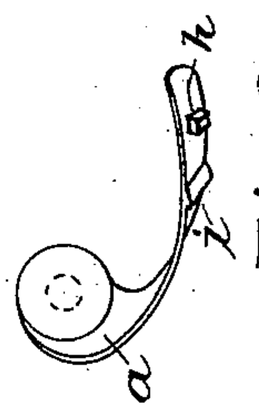


Fig. 1.

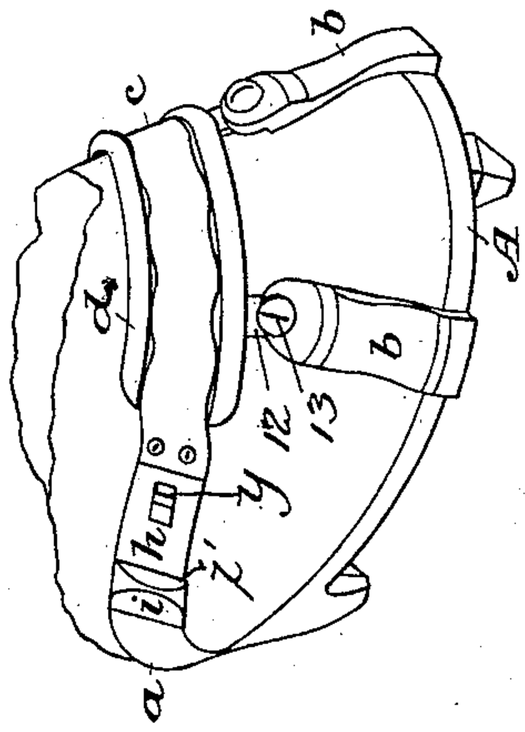


Fig. 7.

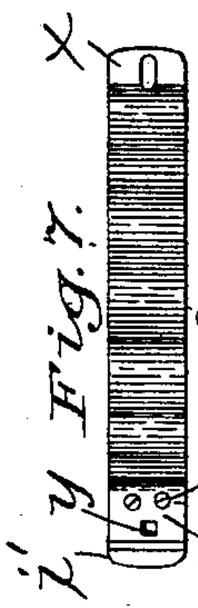
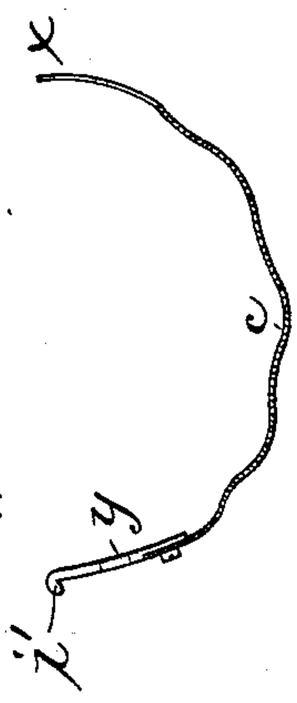


Fig. 8.



WITNESSES:

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INVENTOR

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UNITED STATES PATENT OFFICE.

WLADIMIR KONDAKOFF, OF GATCHINA, NEAR ST. PETERSBURG, RUSSIA.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 482,845, dated September 20, 1892.

Application filed April 12, 1892. Serial No. 428,808. (No model.)

To all whom it may concern:

Be it known that I, WLADIMIR KONDAKOFF, a subject of the Emperor of Russia, residing in Gatchina, near St. Petersburg, Russia, have invented certain new and useful Improvements in Horseshoes, of which the following is a specification.

This invention relates to an improved method of attachment of shoes to the hoofs without using nails by means of a peculiar device, the same allowing the shoes to be applied to and removed from the hoof easily.

Figure 1 is a perspective view of the device in place. Fig. 2 is a side view of the shoe with the front and rear stirrups. Fig. 3 is a front view of the same. Fig. 4 is a view showing on the right of the dotted lines the upper surface of the shoe and on the left of said line a plan view of the bottom. Fig. 5 is a side view of the rear stirrup. Fig. 6 is a plan view of the same. Fig. 7 is a front view of the connecting band, and Fig. 8 is a plan or edge view of the same.

The horseshoe itself is of the usual shape as employed for nail-shoeing, and is provided with special means or arrangements for attaching the same to the holding device. This latter, made of metal, consists, as appears from the accompanying drawings, of two heel-stirrups *a a*, two front stirrups *b b*, a corrugated elastic band *c*, and a small metallic plate *d*, supporting the band. The heel stirrups or fasteners *a a* are strong rather narrow metal strips, either stamped or forged, and adapted to the contour of the heel, being arranged at the ends of the legs of the shoe. They lock into the legs of the horseshoe A above the calks *f f*, from the inside, being fixed by means of screws let in the calks. The mode of attachment may be, however, another—viz., as shown in the drawings, where at the ends of the shoe's leg above the calks *f f* are formed dovetailed recesses *e e*, open upwardly and on the inner side of the shoe, though closed toward its outside, in which recesses the heel-stirrups *a a* are seated from the inside of the shoe by means of special pins *g*, provided on the bottom of the stirrups *a*, these pins being, likewise, frusto-conical and corresponding exactly as to shape and size to the recesses *e*. Thus the heel-stirrups *a* have a hinge connection with the legs of the shoe, being allowed to move on the screws or on the pins *g* in planes parallel to the inside of the shoe. The upper parts of the heel-stirrups conform to the heel portion of the hoof and partly to the side walls of the hoof, being provided with little pins *h* for fastening the elastic band *c*, hereinafter referred to, and also with the ribs or lugs *i*, which serve, in connection with a similar rib on the band, as bearings by which the blacksmith may draw the band tightly into place by means of suitable tongs applied to the said lugs.

On both sides of the toe portion of the hoof the front stirrups *b b* extend upwardly from the shoe. These are two narrow metallic strips bent according to the angle of the toe portion and attached to the shoe in any suitable manner. They extend up to the middle height of the toe portion of the hoof and are connected together by means of the metallic plate *d*, which supports the elastic band. The metallic plate surrounds at some distance from the edge the whole toe portion of the hoof and extends along the sides nearly to the outer edge of the heel-stirrups. The upper and lower sides of this plate show strong ribs, which are placed horizontally on the hoof, being designed for supporting the elastic band *c*, and also for protecting the same from mud and shocks. The corrugated elastic band *c*, being a narrow strap manufactured of thin spring-steel, is seated with its stationary perforated end *x* on the pin *h* of the inner heel-stirrup *a* in such a manner that it cannot slide away when applying or removing the shoe, after which the band is placed on the plate *d* between the ribs, surrounds the whole toe portion of the hoof, and is strained by means of ordinary smith's tongs engaging the lug *i'* thereon and the lug *i* of the heel-stirrup. When the band has thus been tightly drawn around the hoof and the opening *y* at its loose end adjacent to the lug *i'* aligns with the lug *h* on the heel-stirrup, the said loose end of the band is moved toward the hoof, so that the lug *h* will pass through the opening *y*, and thus lock the band in place. The tension of the band is enough to hold all the parts firmly together, and the act of straining the band brings the shoe and the stirrups closely against the hoof. The lug *i'* and the opening *y* may be formed upon and in a separate tip-piece 10,

attached to the band by the screws 11, or this tip-piece may be formed integral with the band. The parts may be lined on their inner sides with leather or other suitable material. The front stirrup *b* may be connected with the plate *d* by lugs 12 on the plate and screws 13, passing through the stirrups and the lugs.

I claim—

1. In combination, the shoe having the dovetailed recesses *e* extending from the inner edge and closed on the outer edge and the attaching-stirrups having pins on their lower sides adapted to said recesses, the openings of which lead laterally from the interior space of the shoe, substantially as described.

2. In combination, the shoe, the two front stirrups, the heel-stirrups, the plate *d*, connected to the front stirrups, and the straining-band *c*, passing around the hoof and the plate *d* and secured at its ends to the heel-stirrups, the said plate *d* being curved and extending from one front stirrup *b* to the other, substantially as described.

3. In combination, the shoe, the heel-stirrups *a*, one of which has a lug *h* at or near its free end and a second lug *i* in the rear of the same, the straining-band *c*, having a lug *i'* at its free end and arranged to lie adjacent to the lug *i* on the heel-stirrup, said band having, also, a perforation *y* in the rear of its lug *i'*, adapted to lie over and permit the lug *h* to project through it when the lugs *i* and *i'* are brought adjacent to each other, and the means for holding the front of the shoe, substantially as described.

4. In combination, the shoe, the front and heel stirrups, the ribbed plate *d*, connected to the front stirrups, and the straining-band *c*, passing around the ribbed plate and secured to the heel-stirrups, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WLADIMIR KONDAKOFF.

Witnesses:

N. TSCHEKALOFF,

J. BLAU.