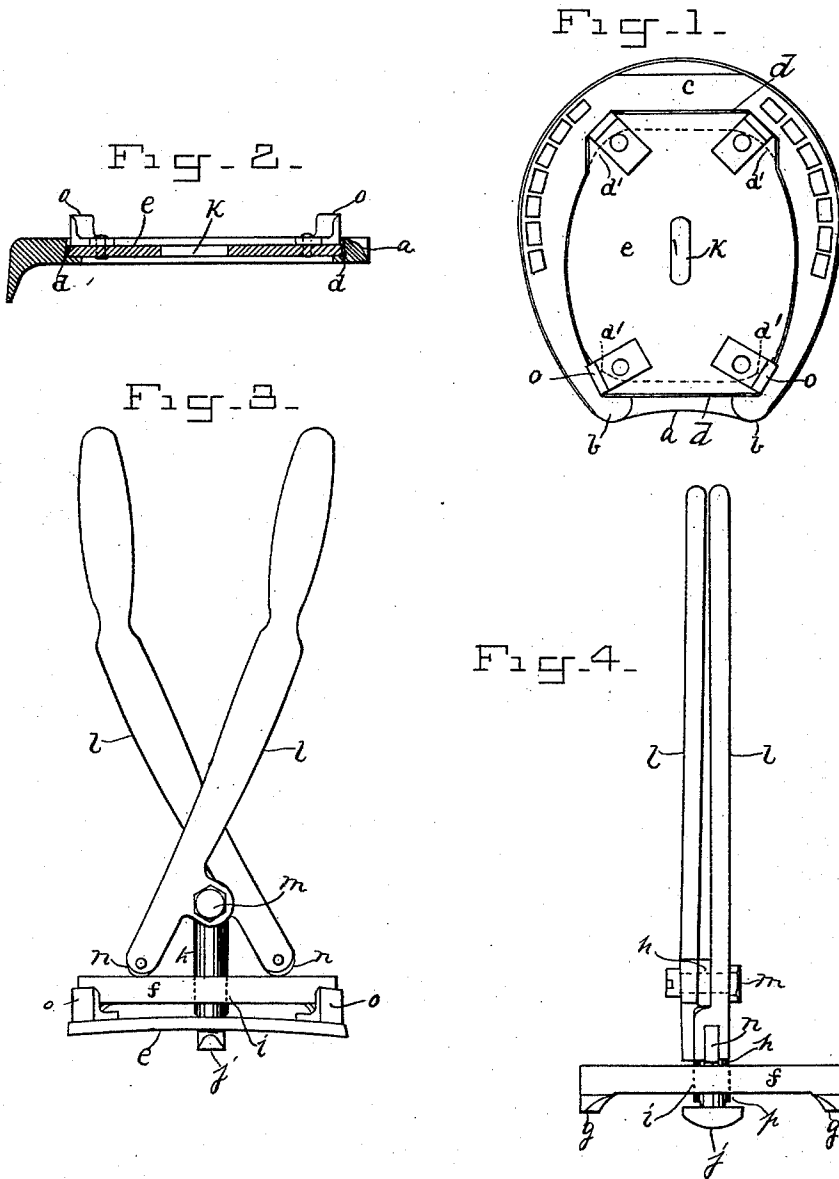


(No Model.)

G. T. CHAPMAN.
HORSESHOE.

No. 483,538.

Patented Oct. 4, 1892.



WITNESSES =

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UNITED STATES PATENT OFFICE.

GEORGE T. CHAPMAN, OF WHITE PLAINS, ASSIGNOR OF ONE-HALF TO
WILLIAM HARVEY MERRITT, OF NEW YORK, N. Y.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 483,538, dated October 4, 1892.

Application filed March 19, 1890. Serial No. 344,453. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. CHAPMAN, a citizen of the United States, and a resident of White Plains, in the county of Westchester and State of New York, have invented new and useful Improvements in Horseshoes, of which the following is a specification.

My invention consists of an improved construction of shoes with a detachable guard-plate and calks, as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of my improved shoe with the detachable guard-plate and calks applied. Fig. 2 is a longitudinal section of the same. Fig. 3 is a side elevation of the tool used in applying and removing the guard-plate, with a plate connected and sprung as for being applied to a shoe. Fig. 4 is an elevation of said tool in a plane at right angles to that of Fig. 3.

I construct the shoe with a bar *a*, connecting the heels *b* and integral therewith, and in the lower inner corner of this bar and in the corresponding part of the toe *c* I make rabbets *d* transversely to the shoe as long as the requisite strength and bearing-surface will permit and parallel to each other, together with short extensions of the same at *d'*, dotted Fig. 1, along the sides of the shoe, and between these rabbets *d* I insert the guard-plate *e*, consisting of a stiff plate of steel or other elastic metal made slightly longer than the distance between the vertical walls of the rabbets and being sprung, so as to shorten it for so inserting it and so as to retain its place after being inserted by the thrust of the ends against said vertical walls through the power of its resilient force. The plate is in this instance provided with the attached calks *o*; but they may be used or not, as preferred. The vertical walls of the rabbets are slightly undercut, and the ends of the plate are slightly beveled, so that the edges are slightly longer in the angles of the rabbets than at the other side of the plate, and thus they "bite" in the angles for a more secure hold of the plate and so as to effectually prevent any slack, and thereby prevent the plate from shifting and becoming loose and rattling. The plate is thus secured without any detachable fastenings, which is important in horseshoes; but the more essen-

tial feature of the invention is the substantial seats afforded for the powerful thrusts of the plate by the arrangement of the rabbets in the toe and the heel-connecting bar, where they are prevented from being forced apart, as when located in the side bars of the shoe without the heel-connecting bar. For springing these plates to insert or remove them I provide a powerful clamp consisting of the base-plate *f*, having feet *g* to rest on the guard-plate at its extremities, the T-headed coupling-rod *h*, fitted loosely through the center hole *i* of said base-plate, with its head *j* insertible through the slot *k* in the middle of the guard-plate, and the levers *l*, pivoted at *m* in the upper end of the coupling-rod, with the lower ends adapted to thrust down on the base-plate and cause the head of the coupling to thrust upon the guard-plate intermediately to the thrust of the feet on the upper side by the closing of the levers toward each other in the manner of a pair of tongs, said levers being preferably provided with antifriction-rollers *n* to facilitate closing them.

To insert the T-head of the coupling-rod in the guard-plate, the levers *l* are opened to allow the rod to drop freely, and with the base-plate in position on the guard-plate said levers are turned to a vertical plane at right angles to that in which they are used after being inserted, as seen in Fig. 4, which places the T-head lengthwise with the slot, when it can be passed through the slot. Then the levers are turned back, which places the head crosswise with the slot, so as to engage the plate properly for thrusting it when the levers are closed.

I claim as my invention—

1. The combination, with the shoe having the cross-bar connecting the heels and being rabbeted in the lower inner corners of the toe and cross-bar, of the guard-plate of slightly-greater length than the distance between the opposing walls of the rabbets and secured therein by the resilient power of the plate sprung into its position in said rabbets, substantially as described.

2. The combination, with the shoe having the cross-bar connecting the heels and being rabbeted in the lower inner corners of the toe and cross-bar, of the guard-plate of slightly-greater length than the distance between the

opposing walls of the rabbets and secured therein by the resilient power of the plate sprung into its position in said rabbets, said plate having the central slot for connecting the
5 the detaching-tool, substantially as described.

3. The combination, with the shoe having the cross-bar connecting the heels and being rabbeted in the lower inner corners of the toe and cross-bar, of the guard-plate of slightly
10 greater length than the distance between the opposing walls of the rabbets and secured therein by the resilient power of the plate

sprung into its position in said rabbets, said plate having the calks attached at the corners and the central slot for connecting the de- 15 taching-tool, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 13th day of March, 1890.

GEO. T. CHAPMAN.

Witnesses:

W. J. MORGAN,
W. B. EARLE.