

(No Model.)

E. T. COVELL.
FASTENING FOR HORSESHOES.

No. 459,394.

Patented Sept. 15, 1891.

Fig. 1.

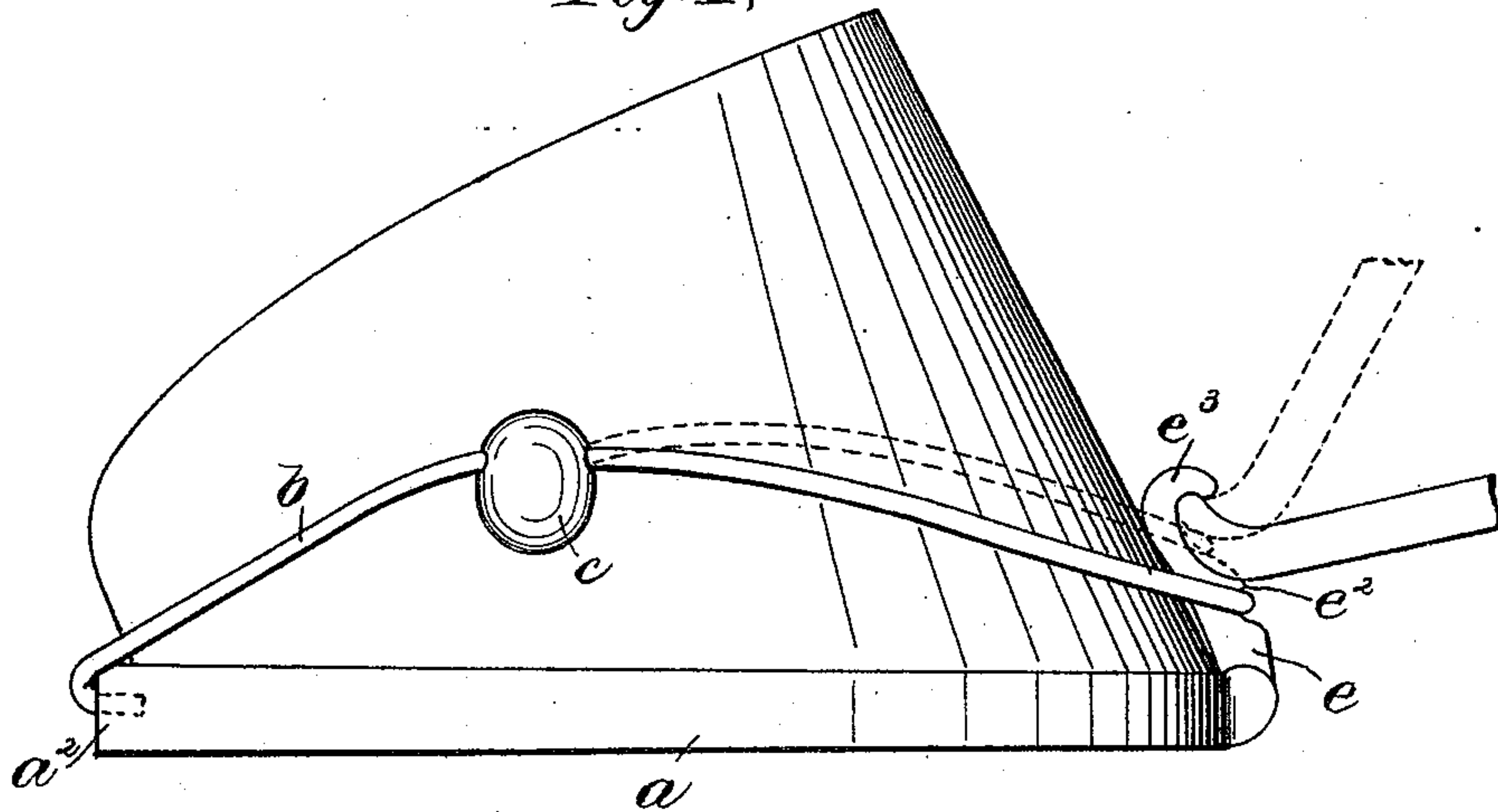


Fig. 3.

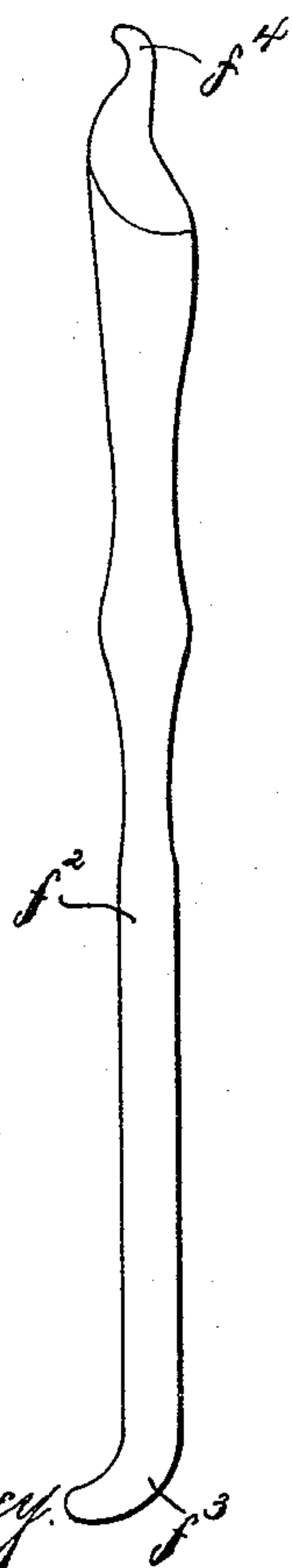


Fig. 4.

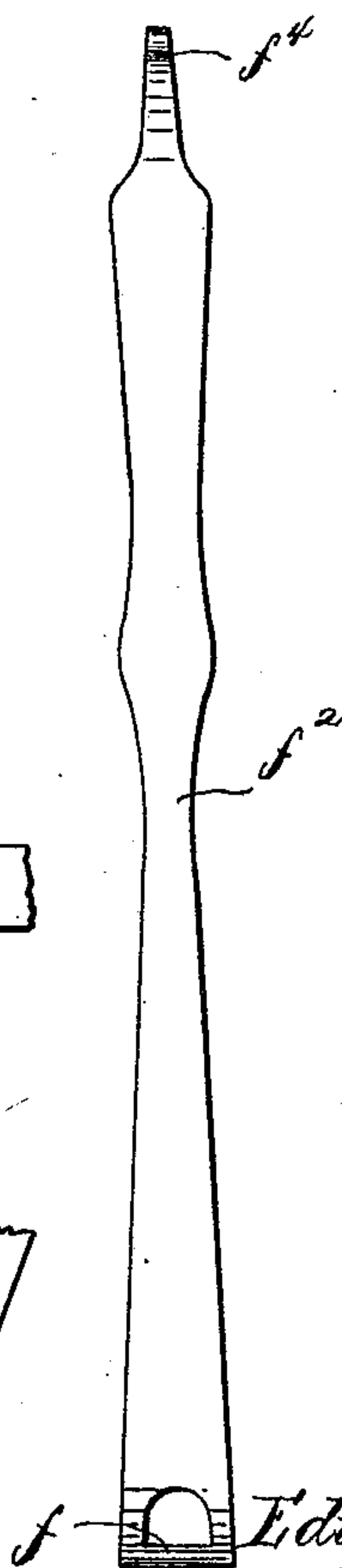


Fig. 2.

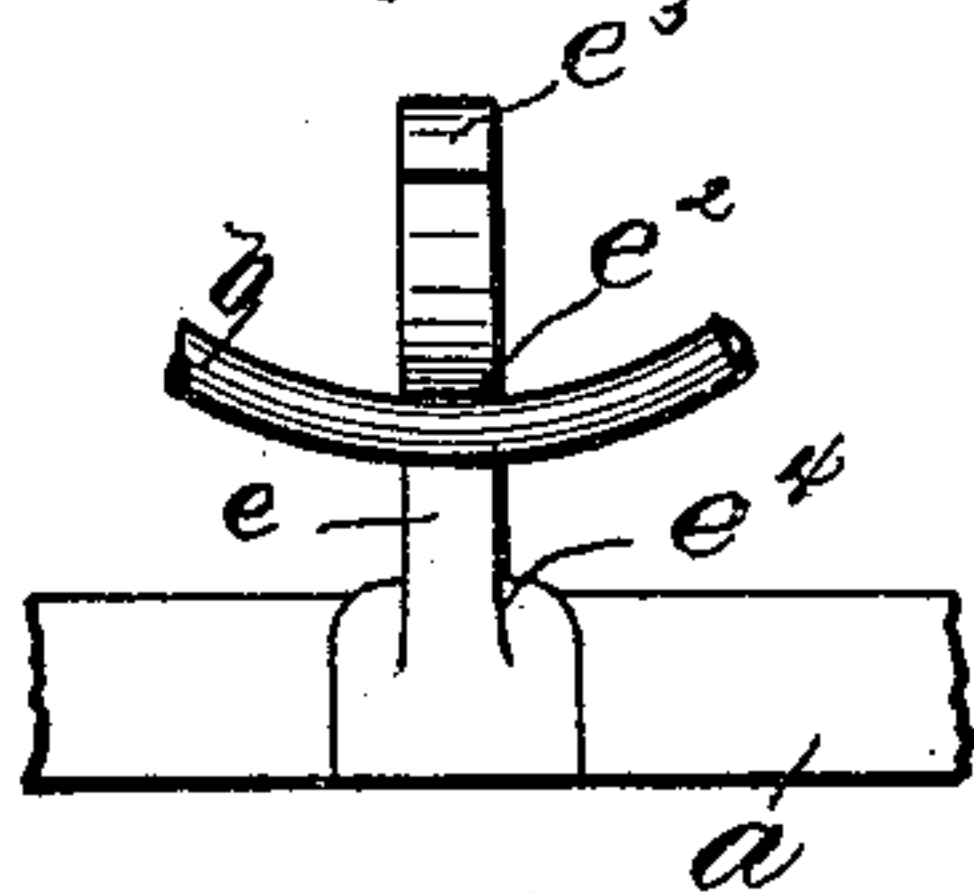
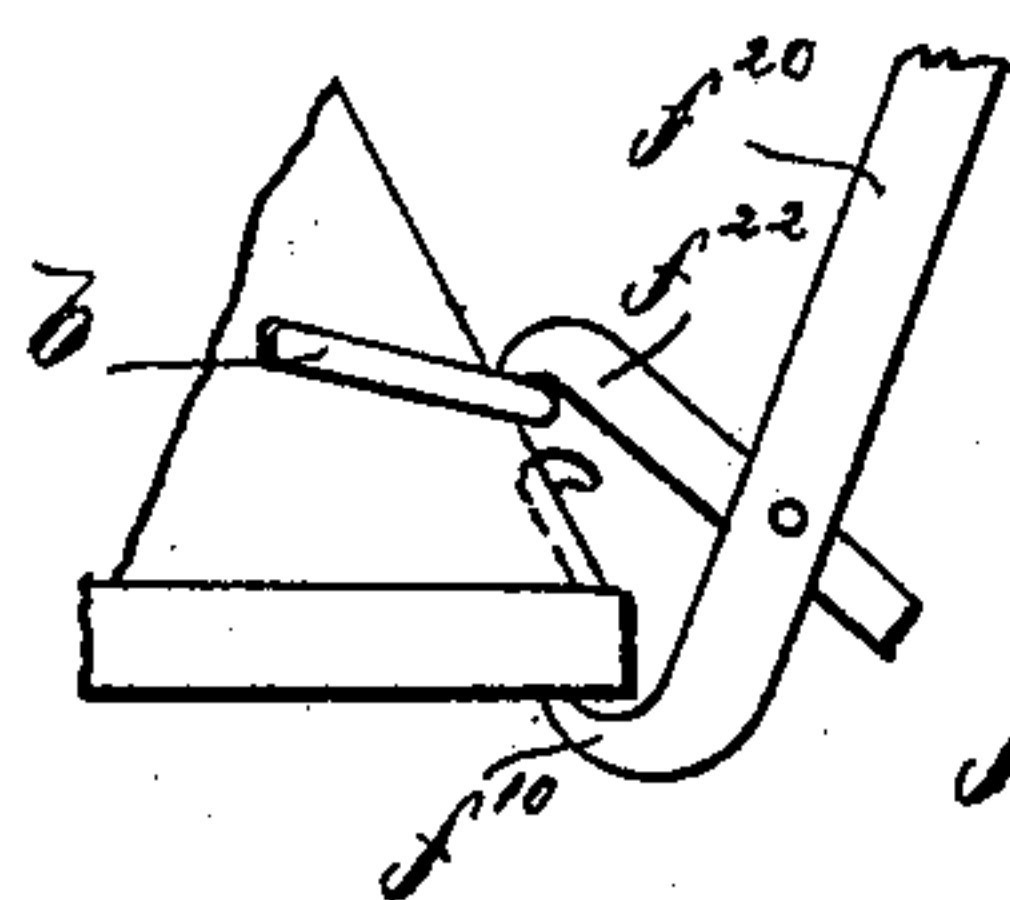


Fig. 5.



Witnesses

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EDWARD T. COVELL, OF NEW BEDFORD, MASSACHUSETTS.

FASTENING FOR HORSESHOES.

SPECIFICATION forming part of Letters Patent No. 459,394, dated September 15, 1891.

Application filed January 27, 1891. Serial No. 379,229. (No model.)

To all whom it may concern:

Be it known that I, EDWARD T. COVELL, of New Bedford, county of Bristol, and State of Massachusetts, have invented an Improve-
5 ment in Fastenings for Horseshoes, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 My invention relates to a fastening for a horseshoe of that kind in which the shoe is held against the hoof by a fastening-band engaged with the shoe at the heel and toe ends
15 thereof above the points of connection with the shoe, such fastener being shown in Letters Patent No. 441,940, granted to me December 2, 1890.

As shown in that patent, the wire is connected with the toe end of the shoe and is
20 strained to the proper tightness by means of a straining-lever engaged with a fulcrum-piece forming a substantially integral part of the shoe at its toe end, said straining-lever
25 remaining interposed between the fulcrum-piece and the wire and constituting a part of the fastening that remains on the hoof.

The object of the present invention is to simplify the fastening and at the same time
30 render it more secure against detachment; and the invention consists, mainly, in providing the toe end of the shoe with a seat to receive the wire which is strained in the act of drawing it into the said seat and remains se-
35 curely held therein by its own strain until removed by a suitable tool. The wire is strained into its seat by a suitable tool devised for that purpose, after which the said tool is removed, so that the said shoe is held
40 by the wire without the intervention of the straining device, and is thus more secure against becoming detached.

Figure 1 is a side elevation of a hoof and shoe provided with a fastening device em-
45 bodying this invention; Fig. 2, a front elevation of a portion of the toe end of the shoe, showing a portion of the fastening-band and the means for holding and applying the same; Figs. 3 and 4, elevations at right angles to
50 one another of a suitable tool for applying

and removing the fastening; and Fig. 5 a detail showing a modification of the means for applying the fastening.

The shoe *a* may be of the usual kind and is constructed at its heel ends *a*² to receive 55 and hold the ends of the fastening-band *b*, substantially as shown and described in my former patent, the said band passing from one heel end of the shoe around the hoof and to the other heel end of the shoe, and being 60 engaged at the sides of the hoof with seat-pieces *c*, which make frictional connection with the sides of the hoof, as described in said former patent, the said seat-pieces being movable along the wire *b* and up and down 65 on the side of the hoof until brought to the proper position on the hoof to properly hold the wire and support the shoe. The portion of the wire *b* which passes around the front of the hoof in advance of the seat-pieces *c* is 70 inclined downward, so as to engage with the shoe at a point below the level of said seat-pieces *c*, and as shown in this instance it is engaged directly with the shoe or an integral projection *e* thereof, which extends up 75 from the shoe at the front of the hoof and is provided with a notch *e*², constituting the seat that receives and holds the wire. In order to hold the shoe securely the wire must remain tightly strained while in engagement with 80 the notch *e*² and with the heel ends of the shoe, and it is necessary to provide means for forcibly straining the wire into engagement with the notch *e*. The wire is of sufficient length to pass somewhat slackly around 85 the hoof at a point somewhat above the notch *e*², as shown in dotted lines, Fig. 3, thus enabling the shoe with the fastening device to be easily put in place on the hoof preparatory to straining the wire into engagement 90 with the notch *e*, so as to hold the shoe securely, and in order to enable the wire to be strained and brought into engagement with the notch *e*² the projection *e*, as shown in Fig. 1, is extended above the notch *e*² far enough 95 to be above the point at which the wire can be applied somewhat slackly, and is there provided with a fulcrum projection *e*³, which receives a cross-bar *f* (see Fig. 4) at the end of a hand-tool *f*², which may be engaged with 100

the fulcrum projection e^3 , as shown in dotted lines, Fig. 1, while the wire is in slack condition, as shown in dotted lines. The said lever f^2 is provided with a cam-shaped portion f^3 , extending from its end in such position as to bear upon the wire below it, as shown in dotted lines, Fig. 1, so that when said lever is moved from the dotted to the full line position it forces the wire down along the front surface of the projection e toward the notch e^2 , straining the said wire as it moves down, so that finally the wire will be brought under a strong strain into the notch e^2 , the strain on the wire being due to the fact that the notch e^2 is below and forward of where the unstrained wire lies, and is thus at a greater distance from the seat-pieces c at the sides of the hoof, so that the wire, remaining the same length, is more tightly strained when in the full than when in the dotted-line position, Fig. 1. The seat-pieces c are adjusted up or down on the side of the hoof until at proper position to give the required strain, it generally being sufficient to push them up as far as can easily be done by hand while the front portion of the wire is in dotted-line position under the fulcrum projection e^3 of the lever therein. The tool f^2 is shown as provided with a finger f^4 at the opposite end from that which engages with the fulcrum e^3 , which may be employed for prying the band out from the notch e^2 when desired, the said lever then fulcruming on a shoulder e^4 near the base of the projection e . If desired, the fulcrum projection e^3 for the tool may be dispensed with and the wire strained into the notch e^2 by a tool such as shown in Fig. 5, consisting of a lever f^{20} , having a toe f^{10} sharpened to engage with and fulcrum on the bottom of the shoe, and a claw f^{22} pivoted to said lever and arranged to engage with the wire b at each side of the projection e , so that by bearing down on the lever the claw draws the wire down into the notch e^2 .

The construction shown in Figs. 1 and 2, having the fulcrum projection above the notch, has the advantage that the band may be strained and the fastening of the shoe effected while the horse is standing, with the shoe that is being fastened on the ground, making the operation easier than when it has to be done with the hoof supported above the ground, as is the case when a tool, such as is illustrated in Fig. 5, is employed.

Instead of applying the fastenings, as described, by setting the seat-pieces c at the proper height on the sides of the hoof and then straining the wire into the notch, as before described, it may be applied by first placing the wire in the notch while somewhat slack, and then forcing the said pieces c upward along the sides of the hoof until the proper tension is produced on the wire.

I claim—

1. A fastening for a horseshoe, comprising a notched holding projection e at the fore end of the shoe, combined with a wire or band connected at its ends with the two heel ends of the shoe and extending around the hoof and engaged with the side of the hoof at a point above the level of the notch in the projection e , into which the portion of the wire extending downward around the front portion of the hoof is strained, substantially as and for the purpose described.

2. A fastening for a horseshoe, comprising a notched holding projection e at the fore end of the shoe, combined with a wire or band connected at its ends with the two heel ends of the shoe and extending around the hoof, and seat-pieces adjustably engaged with the said wire and with the sides of the hoof above the notch of said holding projection and the said wire at the front of said seats being strained into the notch of the projection at the toe end of the shoe, substantially as described.

3. The combination of a shoe provided with an upward projection at its fore end, having a notch and a fulcrum projection above said notch, with a fastening-band having its ends connected with the heel ends of the shoe and extending forward and upward therefrom and engaged with the sides of the hoof above the shoe and extending downward from said points of engagement with the hoof into the notch of the projection at the fore end of the shoe, said fulcrum projection being adapted to receive a straining-lever by which the band is strained into engagement with the notch below, substantially as described.

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

EDWARD T. COVELL.

Witnesses:

JOSEPH I. LA TERRA,
LEM T. WILLCOX.