

(No Model.)

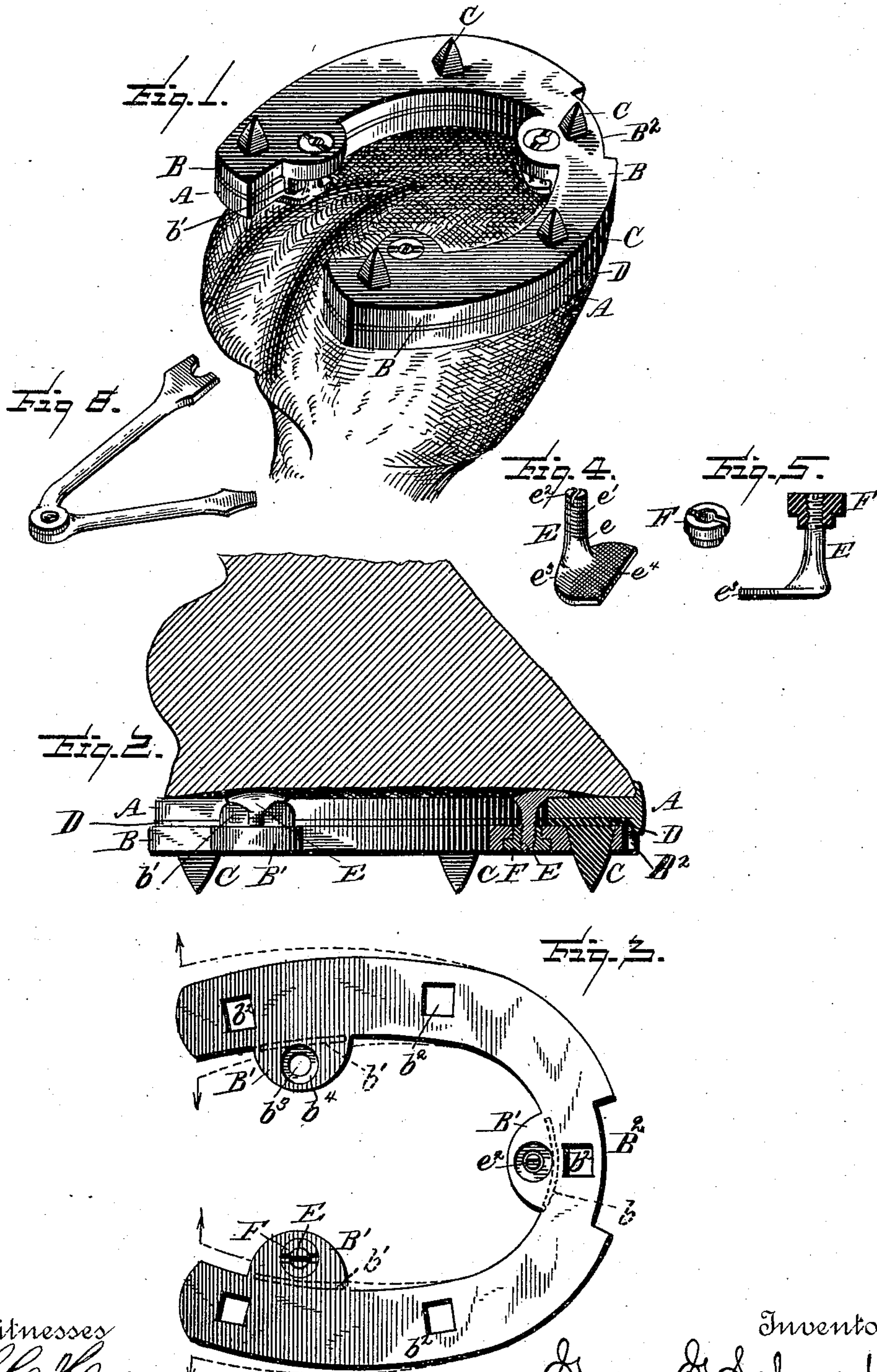
2 Sheets—Sheet 1.

G. G. SCHROEDER.

HORSESHOE.

No. 334,200.

Patented Jan. 12, 1886.



Witnesses
J. C. Hills
J. M. Jacobson

Inventor
George G. Schroeder
By his Attorneys
Abraham and Mayer

(No Model.)

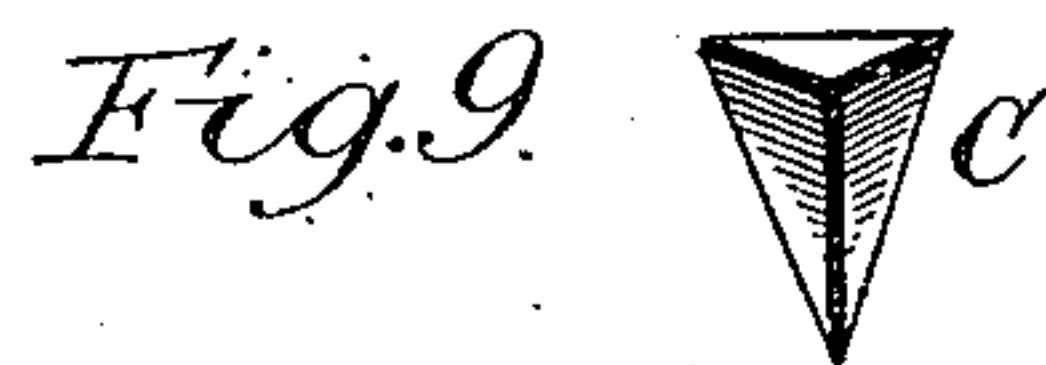
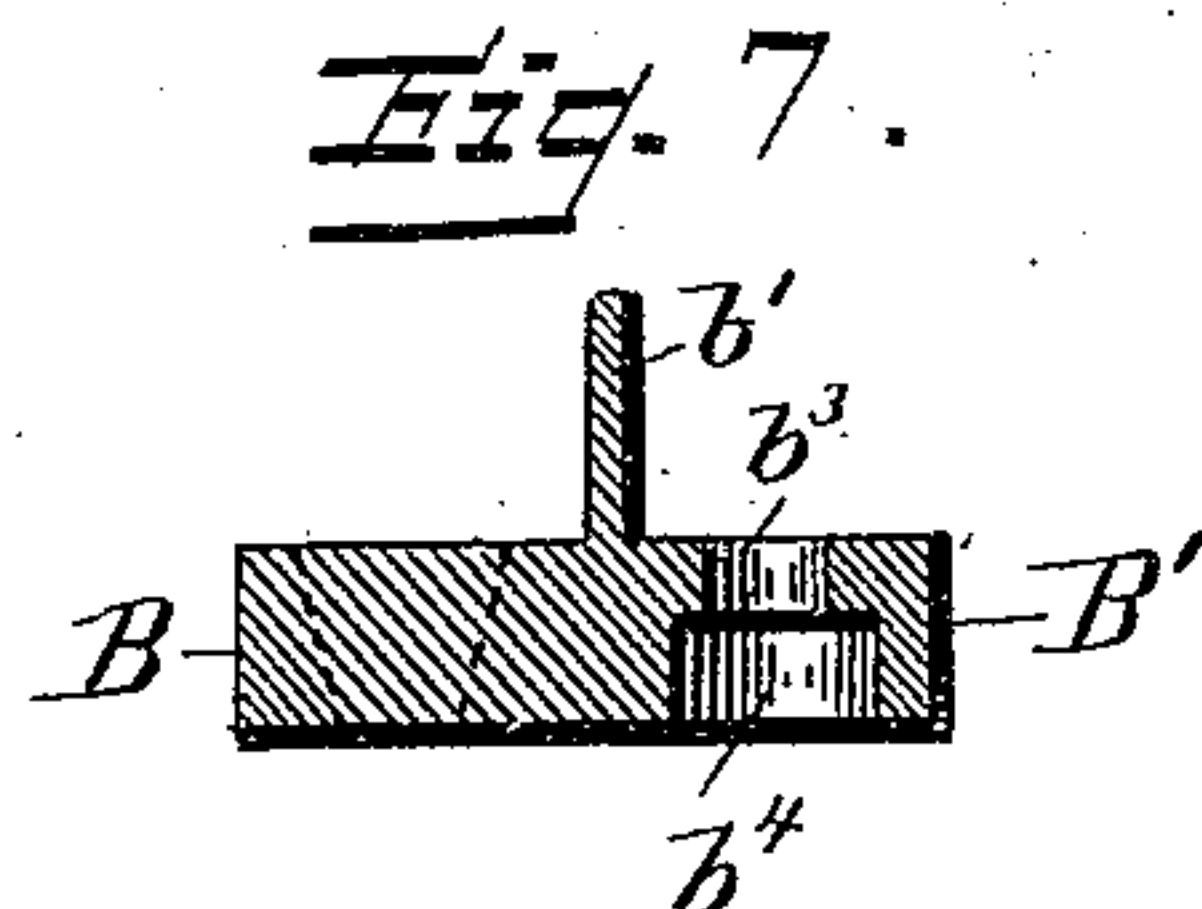
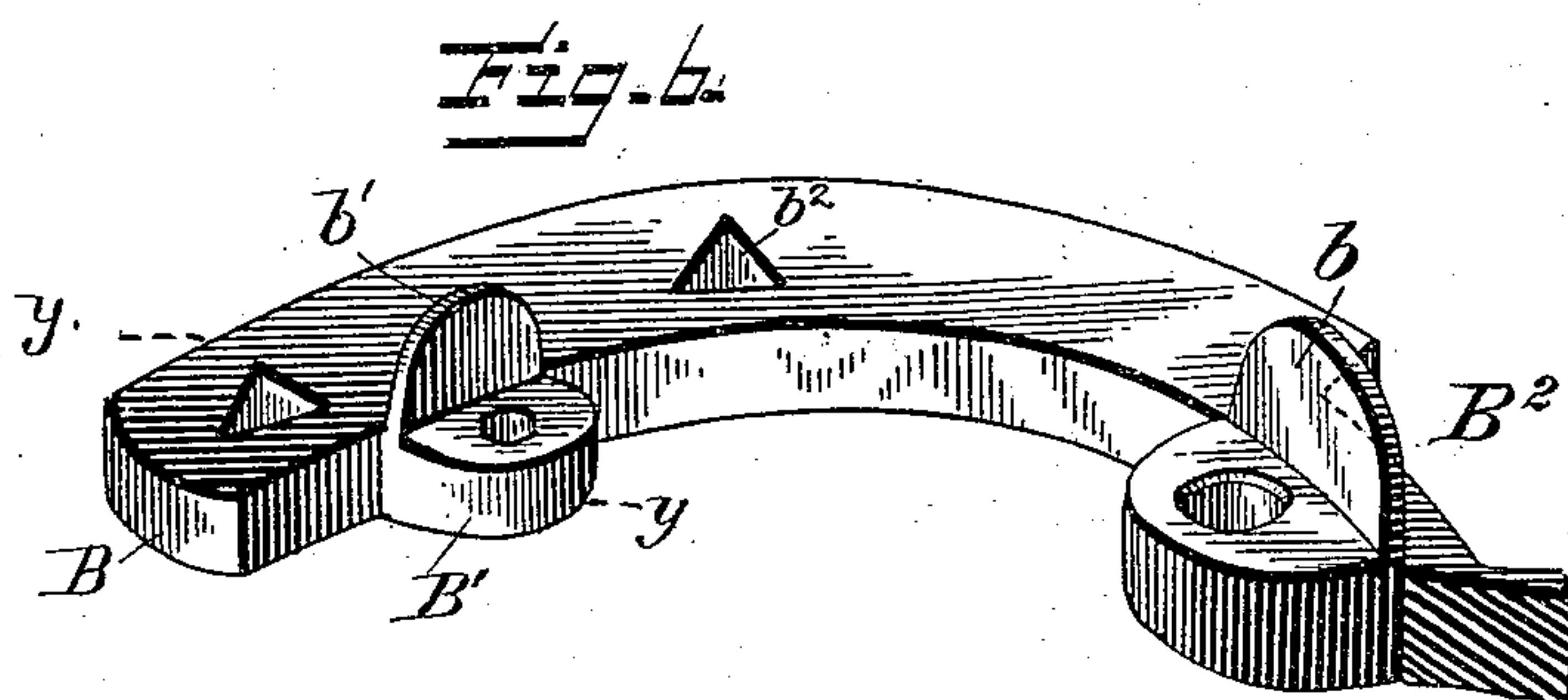
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WITNESSES:

L. C. Mills.
Saml B Jacobson

INVENTOR

George G. Schroeder
BY

Abraham Mayer
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE G. SCHROEDER, OF WASHINGTON, DISTRICT OF COLUMBIA, AS-
SIGNOR OF ONE-HALF TO JOHN B. DAUGHTON, OF SAME PLACE.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 334,200, dated January 12, 1886.

Application filed October 22, 1885. Serial No. 180,650. (No model.)

To all whom it may concern:

Be it known that I, GEORGE G. SCHROEDER, a citizen of the United States, residing at Washington, in the District of Columbia, have
5 invented a new and useful Improvement in Farriery, of which the following is a specification.

My invention relates to farriery, and is an improvement on the class of supplementary
10 detachable horseshoes supplied with removable calks adapted to be adjusted to any ordinary horseshoe.

My improvement has special reference to the method and means for connecting the supplementary shoe.
15

Another part of my invention relates to a device whereby my sub-shoe can be applied over a shoe that has a fixed toe-calk.

To the accomplishment of my purpose my invention comprises certain peculiar arrangement of the toe and heel flanges, and, further, the provision of novel and peculiar clamps that are turned in position within apertures provided for their reception, and are thereby
25 held, when adjusted, by means of screw-threaded nuts, and in combinations of the several devices, all as hereinafter fully set forth, illustrated in the drawings, and specifically pointed out in the claims.

Referring to the accompanying drawings, in which like letters of reference point out similar parts on each figure, Figure 1 is a perspective view of a shod hoof having attached thereto an ordinary shoe, and also a supplementary shoe embodying my invention. Fig.
35 2 is a sectional view thereof. Fig. 3 is an under plan view of the supplementary shoe illustrated in Fig. 1, showing quadrangular apertures for reception of detachable tapering calks, also showing ears apertured for reception of fastening-clamps, one of such clamps being shown in place screwed home by its fastening-nut, one shown in place without its fastening-nut, and one ear being shown without
45 any such clamp. Figs. 4 and 5 are detail views of the clamp and fastening-nut. Fig. 6 is a perspective view of a part of the shoe illustrated in Fig. 3, the opposite side being shown. Fig. 7 is a sectional view thereof.
50 Fig. 8 represents a tool for adjusting the clamps and their screw-nuts. Fig. 9 represents a modified form of removable calk.

In the drawings, A represents an ordinary horseshoe.

B is the supplementary shoe, provided with
55 toe and heel flanges.

b b' b'' are quadrangular apertures, having beveled sides inclining from the top face of the shoe B, adapted to receive quadrangular tapering calks C, although said calks can be
60 triangular in cross-section or have polygonal sides and be within the scope of my invention.

Fig. 9 illustrates a calk triangular in cross-section, as one form of modification, and it will
65 be readily understood that apertures b'' must be made to conform to whatever may be the shape of the calk employed.

D is a packing of rubber, leather, or any suitable material, preferably placed between
70 the two shoes, that will keep the calks from rattling should the shoe A be uneven at any portion of its lower face-plane.

B' are inwardly-projecting ears orificed at b^3 , for a purpose hereinafter set forth. Below
75 said orifices, and upon the under surface of the shoe B, each ear B' is countersunk, the peripheral circumference of such countersinks (see b^4) being greater than that of the orifices b^3 , for a purpose that will be explained herein-
80 after.

E represents clamps, having a shank, e , screw-threaded at e' , and having a countersink, e^2 , for the operating-blade of a screw-driver or appropriate tool. Said clamp has
85 an extending foot-plate having its surface serrated or roughened to make it take firmly onto and grip the surface upon which it is brought to bear. Fig. 4 shows in detail the preferred form of such clamp-plate e^3 , the inner edge of which should be in about a right
90 line, as shown at e^4 . This prevents it from liability to swing round when in the position shown at the toe end of the device, Fig. 2.

F is a shouldered nut, having a central
95 screw-threaded aperture, forming a female screw for the male screw-thread e' on the shank e of clamp E. It will be observed (see Figs. 2 and 5) that said nut has two diameters, the smaller area adapted to loosely fit within
100 an orifice, b^2 , the larger one within the countersink b^4 .

It will be seen by the drawings that the sub-shoe B has a cut-away part, B^2 , at the toe

thereof, the object of which is to admit the passage of the fixed toe-calk frequently employed on ordinary shoes.

In all forms of the shoe B this location of the toe and heel flanges is preferred, for the following among other reasons: Such flanges upon the inner arc are not as liable to be broken or worn away by striking an opposite shoe or by an animal kicking against any obstruction. Especially is this construction advantageous for fitting a shoe B onto variously-shaped and diverse-sized shoes A, as the heel-bars or radii *m m* of the arc of the shoe can be bent inwardly or spread outwardly (see arrows and dotted lines, Fig. 3) to accommodate the sub-shoe to the surface area of an underlying shoe, and the flanges *b'* will then take directly against the inner flat surface edge of the crown or central point of the shoe A, thus preventing lateral displacement, while a toe-flange, *b*, will impinge against the inner arc of the underlying shoe.

In carrying into practice my invention a shoe B is first supplied with calks C, placed within the receptacles provided therefor, a packing, D, is preferably placed upon the upper surface of the shoe, covering the flat heads of the calks C, and the shoe placed flat against and below the shoe A. The stems of the clamps E are then placed within orifices *b*³, and are then turned half-round until they are in the position plainly illustrated at the toe end of Fig. 2. A nut, F, is then dropped into each countersink *b*⁴ and over the stem of each clamp E. Said nuts are then turned until their screw-thread takes onto the screw-headed shank *e'*, and continuously turned until all slack is taken up and the two shoes are firmly clamped together, as will be readily understood by this description and by reference to Figs. 1 and 2 in connection therewith.

In Fig. 8 I illustrate a tool that may conveniently be used in carrying out my invention. Its adaptation for the purpose intended will be manifest.

From the foregoing description it will be seen that I provide a practical, inexpensive, sub-shoe, known as a "creeper," for animals, that can be quickly adjusted by any person, however inexperienced in farriery, and that will be appreciated by all who have occasion to use such an appliance.

By employment of my invention, the tedious and expensive process of roughening horses can be entirely dispensed with.

In many localities frosts and ice-clad roads come on suddenly, and often last for brief

periods, frequently renewed during a season. In such cases it is not desirable to have an animal continuously and permanently rough-shod, and thus affect his gait and draft properties; but I provide by my invention a sub-shoe that can be put on and off by an ordinary person having charge of a stable.

Besides the benefit of my sub-shoe for ice-covered roads, it is equally serviceable for other purposes—such as cavalry and ordnance traversing rough or mountainous surfaces—as it is obvious that the tractile powers of the draft-animal are materially assisted by the purchase secured by means of the calks C.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A supplementary horseshoe having inwardly-projecting ears *B'*, provided with apertures *b*³ and countersinks *b*⁴, surrounding said apertures, in combination with clamps E and shoulder-nuts F, as and for the purpose intended, substantially as described.
2. In a supplementary horseshoe, the clamping devices E, having a shank, *e*, screw-threaded at *e'*, and provided with countersink *e*² and having a laterally-extending plate, *e*³, with roughened surface, in combination with shouldered fastening-nut F, having a central screw-threaded aperture, as and for the purpose intended, substantially as described.
3. A supplementary horseshoe or creeper, B, having toe and heel flanges *b b'*, extending upward and located within the inner arc of the shoe, as and for the purpose intended, substantially as described.
4. A supplementary horseshoe having a cut-away portion, *B*², at the toe portion, as and for the purpose intended, substantially as described.
5. The combination of an ordinary horseshoe, A, with a detachable sub-shoe, B, having toe and heel flanges within its inner arc, to prevent lateral displacement, and supplied with inwardly-projecting ears *B'*, having apertures *b*³ and countersinks *b*⁴, supplied with clamps E of the character described, and shouldered fastening-nuts F, having central screw-threaded apertures, as set forth, as and for the purpose intended, substantially as described.

GEORGE G. SCHROEDER.

Witnesses:

SAML. H. JACOBSON,
ANSON S. TAYLOR.

Corrections in Letters Patent No. 334,200.

It is hereby certified that in Letters Patent No. 334,200, granted January 12, 1886, upon the application of George G. Schroeder, of Washington, District of Columbia, for an improvement in "Horseshoes," errors appear in the printed specification requiring correction, as follows: In line 56, page 1, the reference letters *b b' b¹* should be inserted before the period and after the word flanges; in line 57, same page, the reference letters "*b b' b¹*" should be stricken out; in line 101, same page, the reference letter "*b²*" should be stricken out and the reference letter *b³* inserted instead; in line 4, page 2, the word "this" should be stricken out and the word *the* inserted instead; in line 5, same page, the words *upon the inner arc* should be inserted after the word "flanges," and in line 7, same page, the words "upon the inner arc" should be stricken out; and that the Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office. •

Signed, countersigned, and sealed this 9th day of February, A. D. 1886.

[SEAL.]

Countersigned:

M. V. MONTGOMERY,
Commissioner of Patents.

H. L. MULDROW,
Acting Secretary of the Interior.