

(No Model.)

2 Sheets—Sheet 1.

W. MORRISON & W. H. PURSER.
HEEL.

No. 518,266

Patented Apr. 17, 1894.

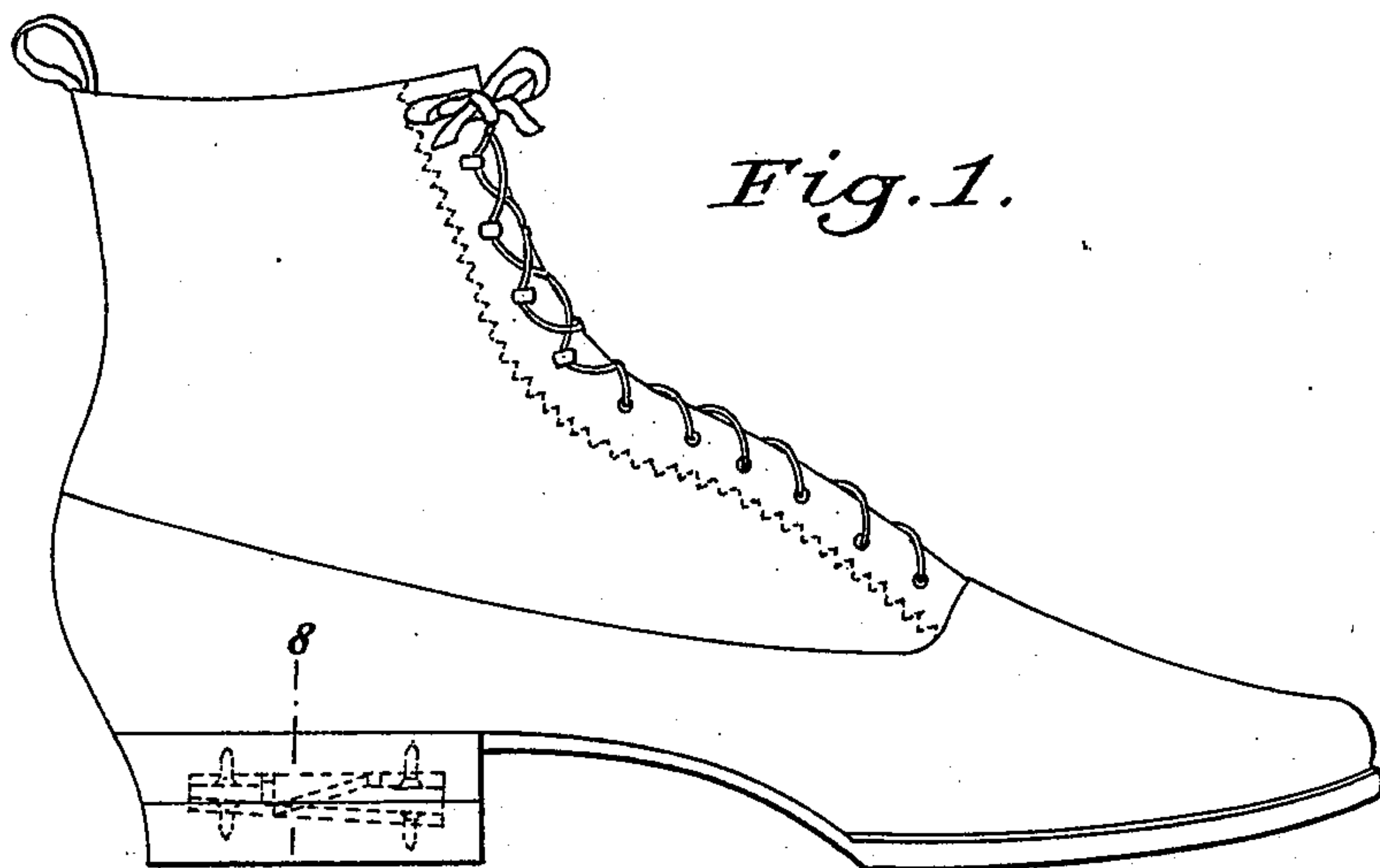


Fig. 1.

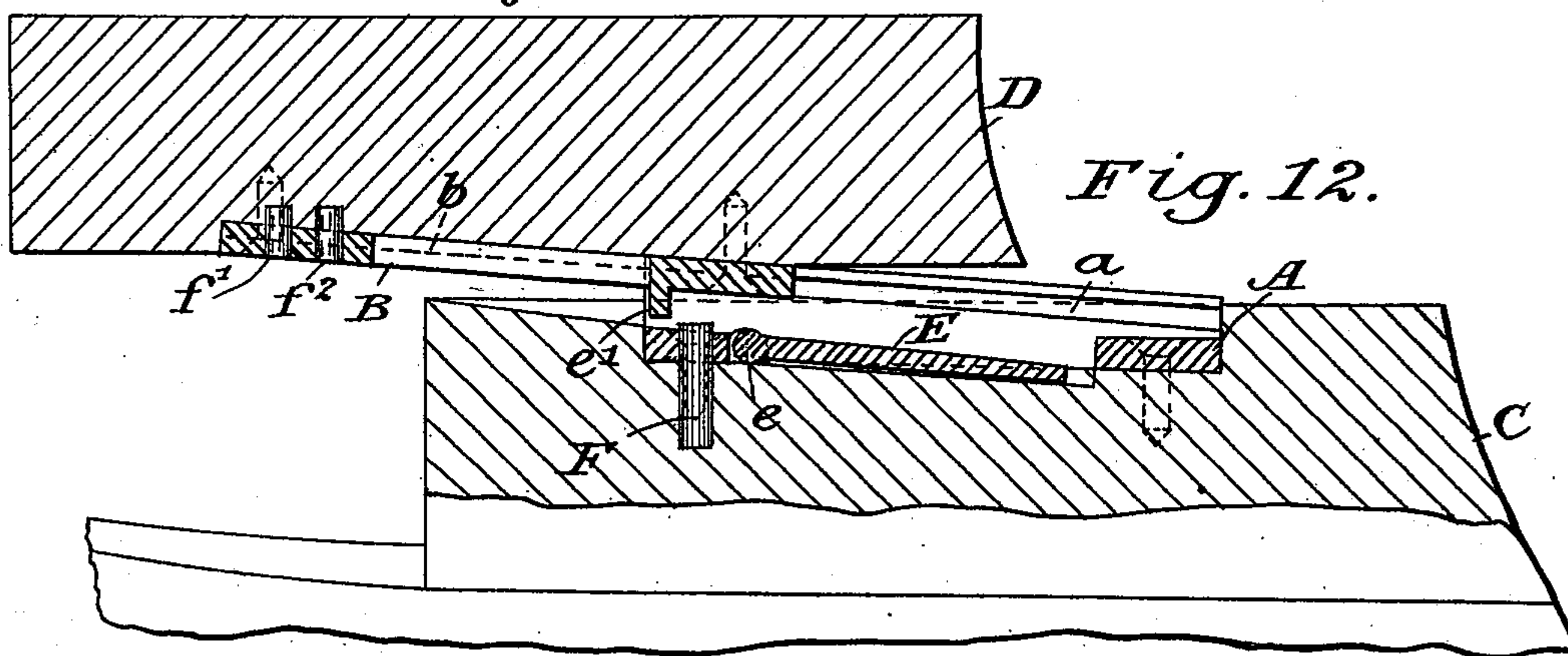
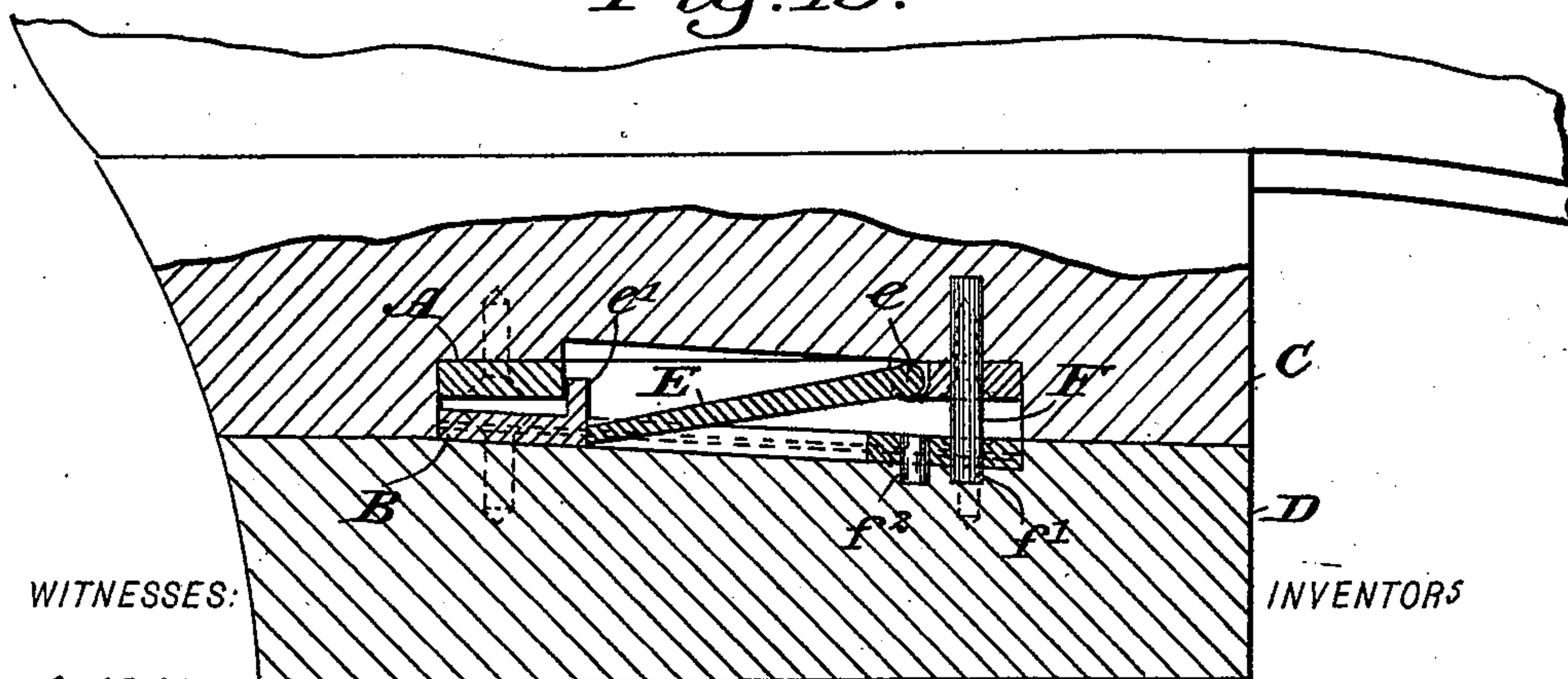


Fig. 12.

Fig. 13.



WITNESSES:

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E. Q. Scott

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ATTORNEYS

(No Model.)

2 Sheets—Sheet 2.

W. MORRISON & W. H. PURSER.
HEEL.

No. 518,266.

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Fig. 2.

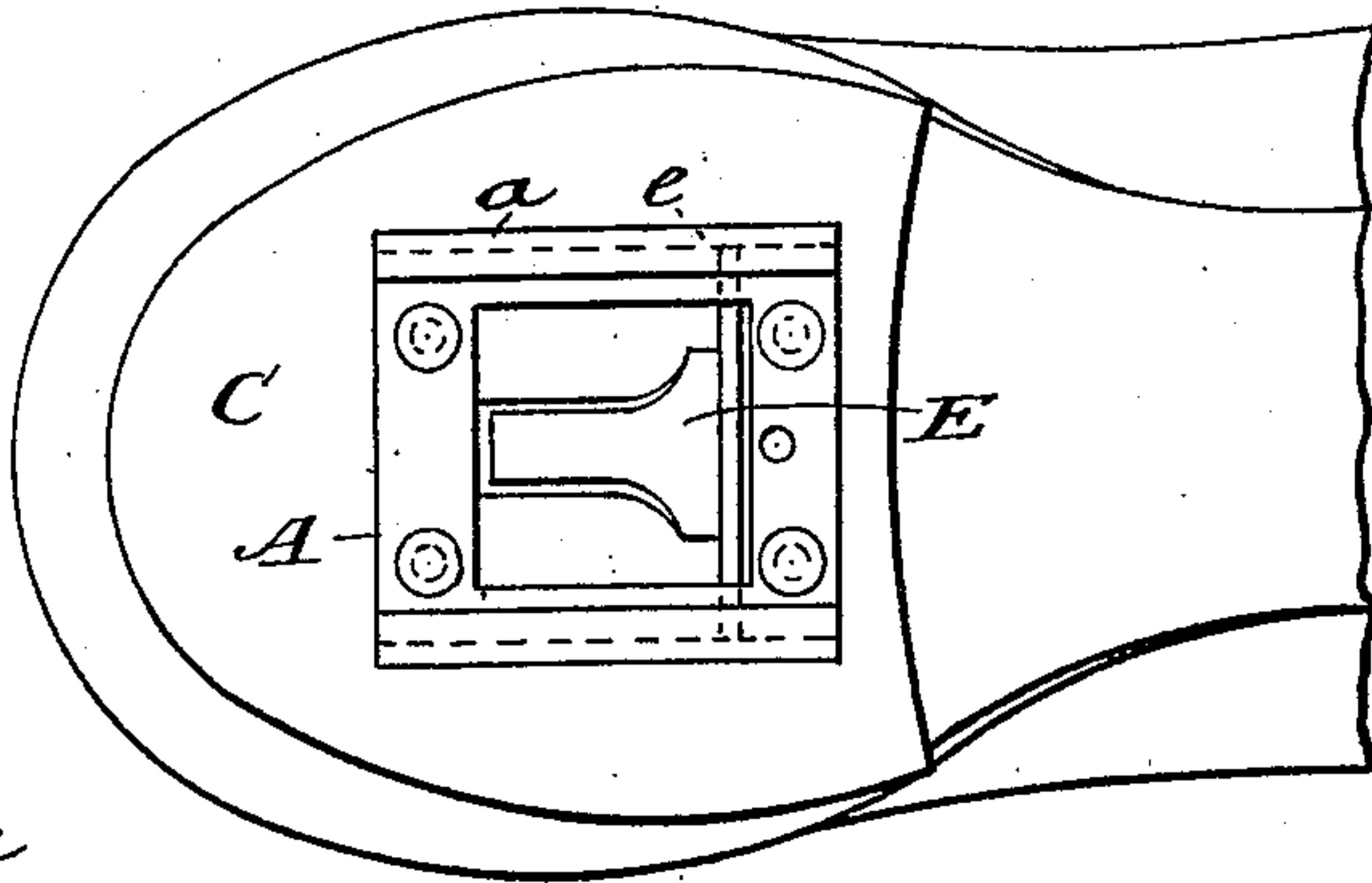


Fig. 3.

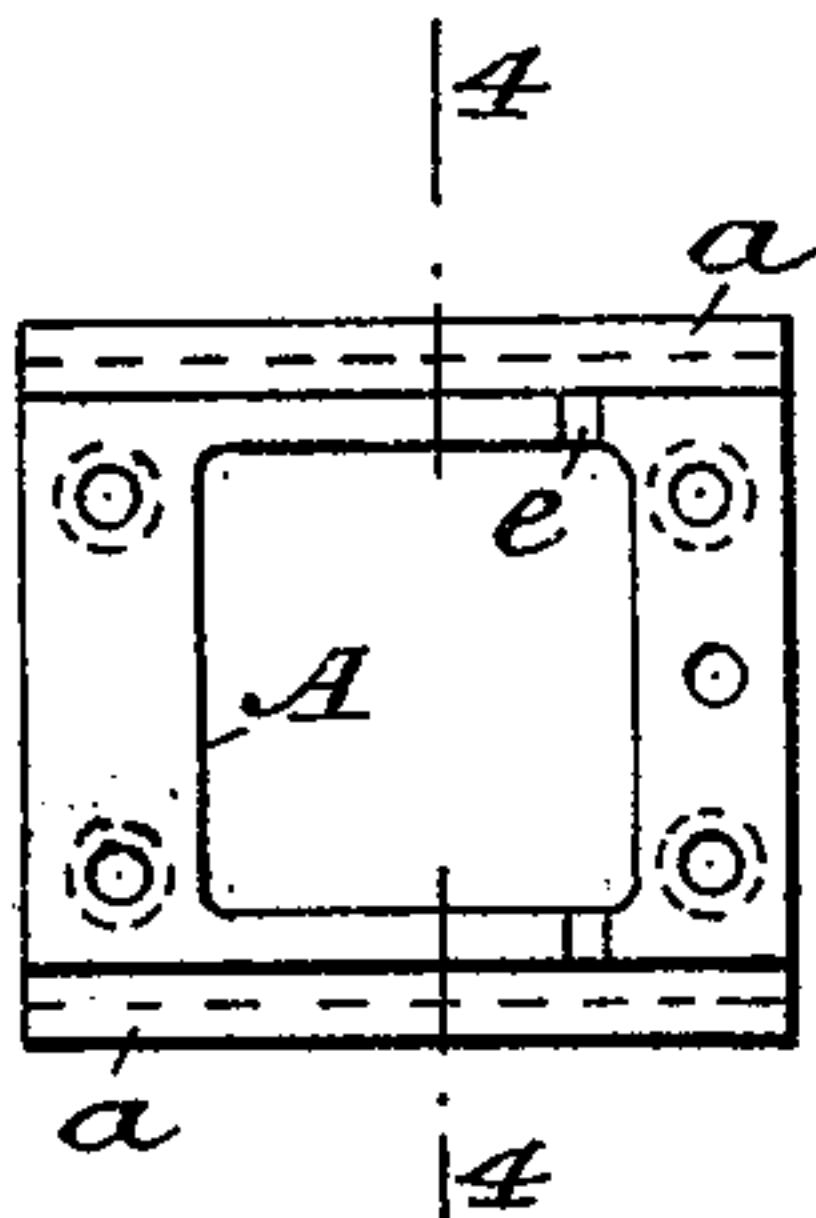


Fig. 4.

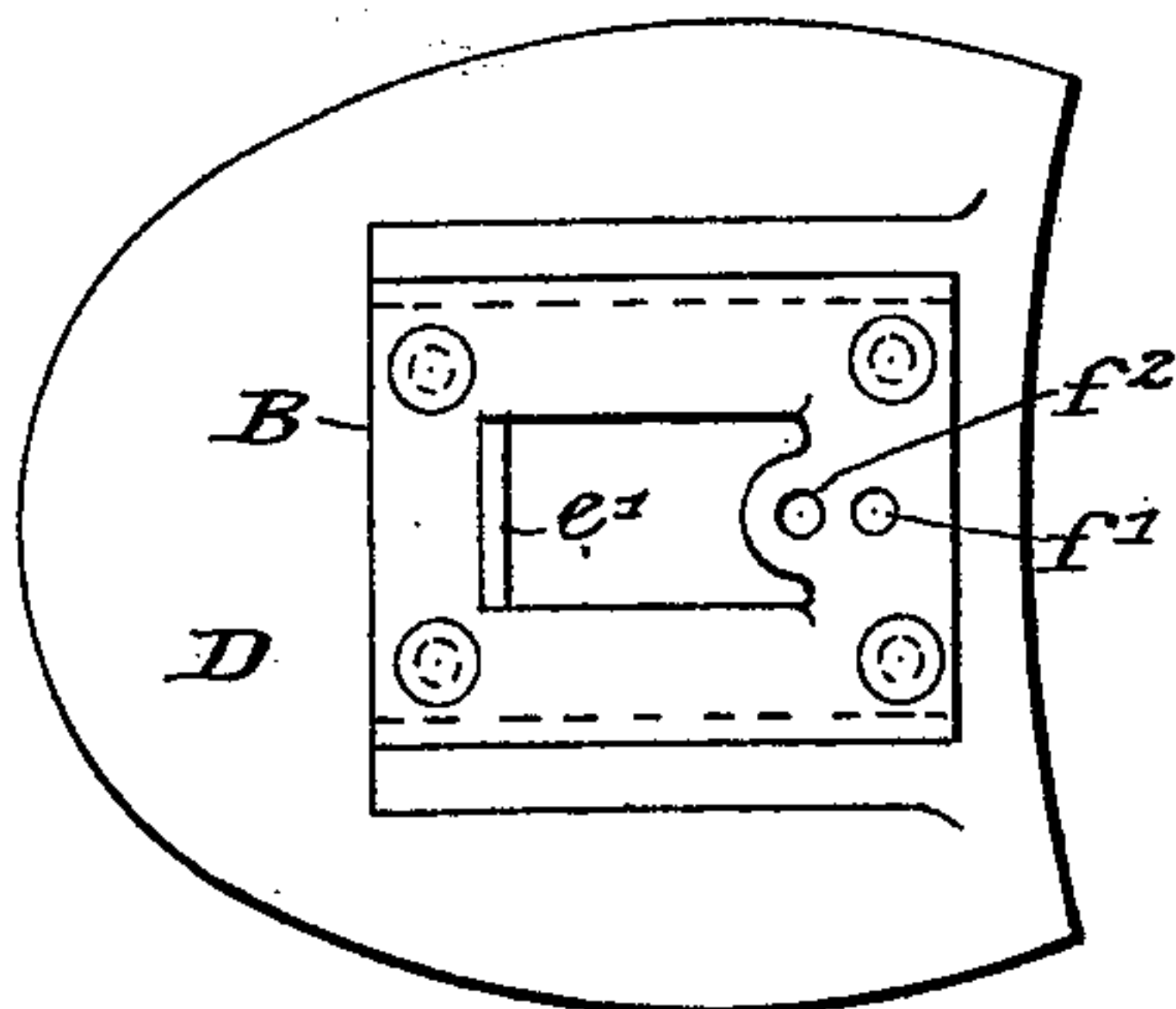
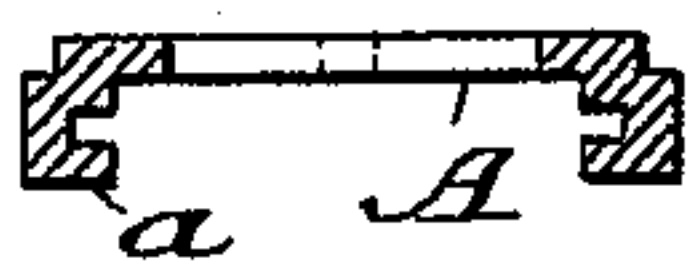


Fig. 5.

Fig. 6.

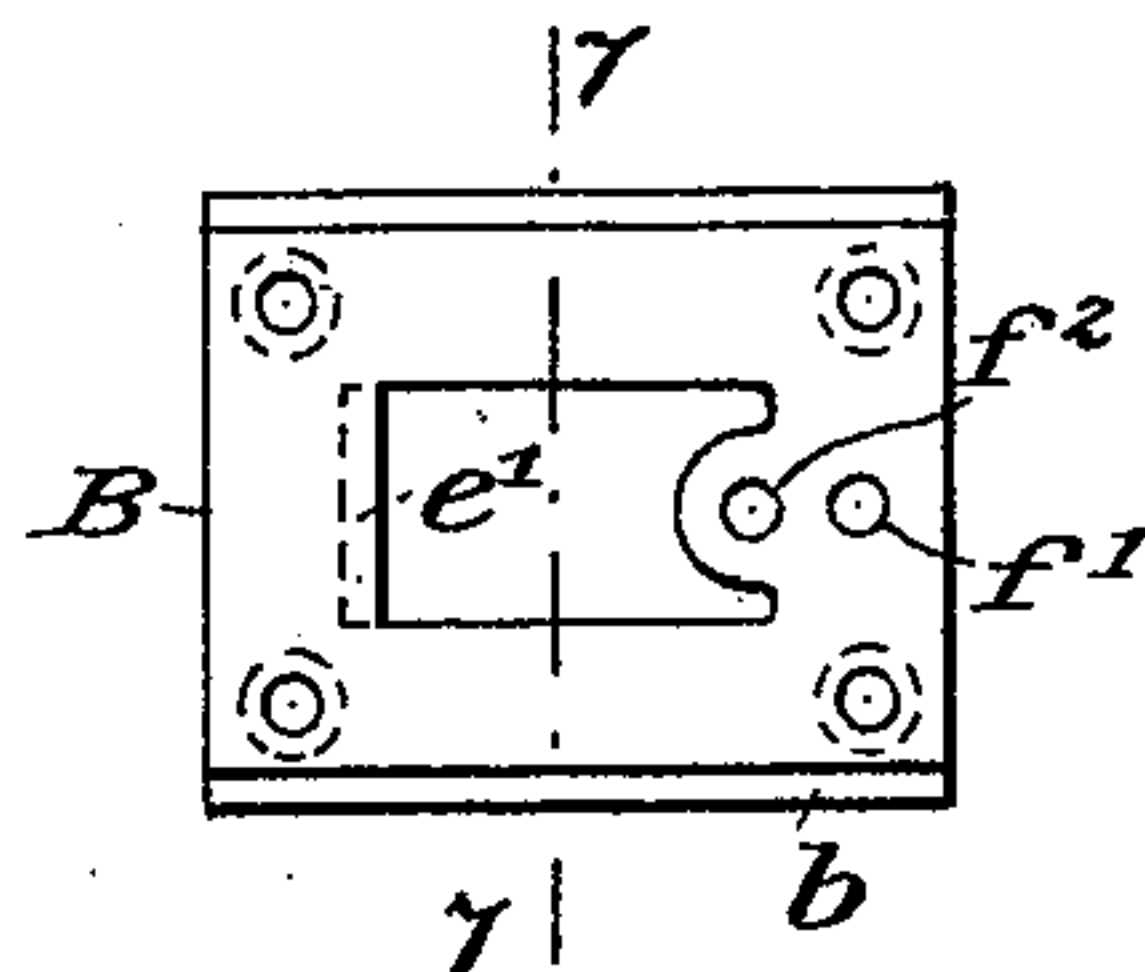


Fig. 7.

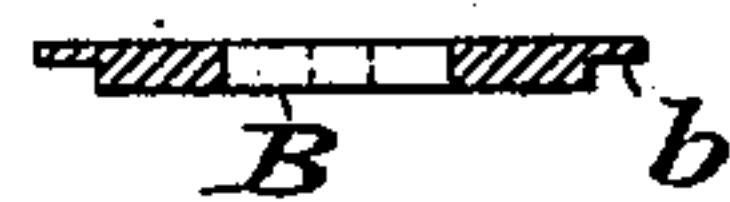


Fig. 9.

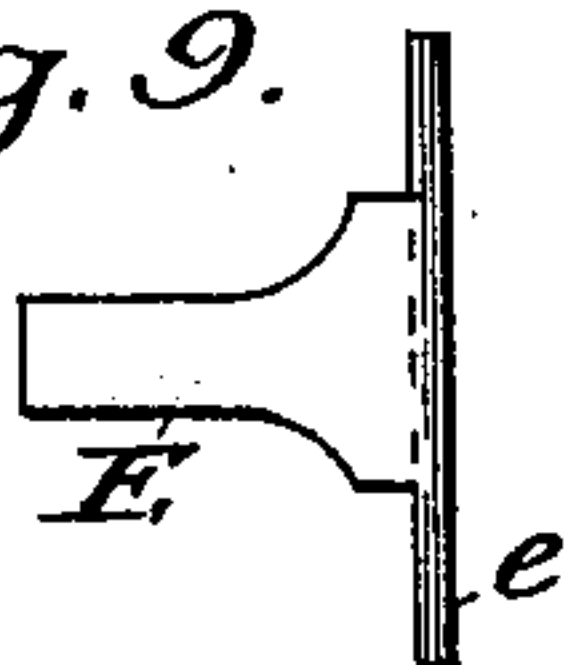


Fig. 10.

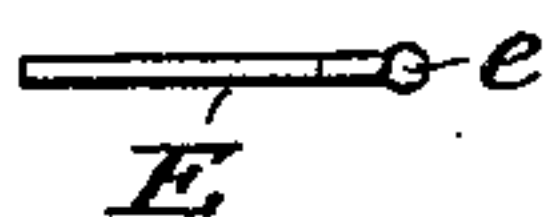


Fig. 8.

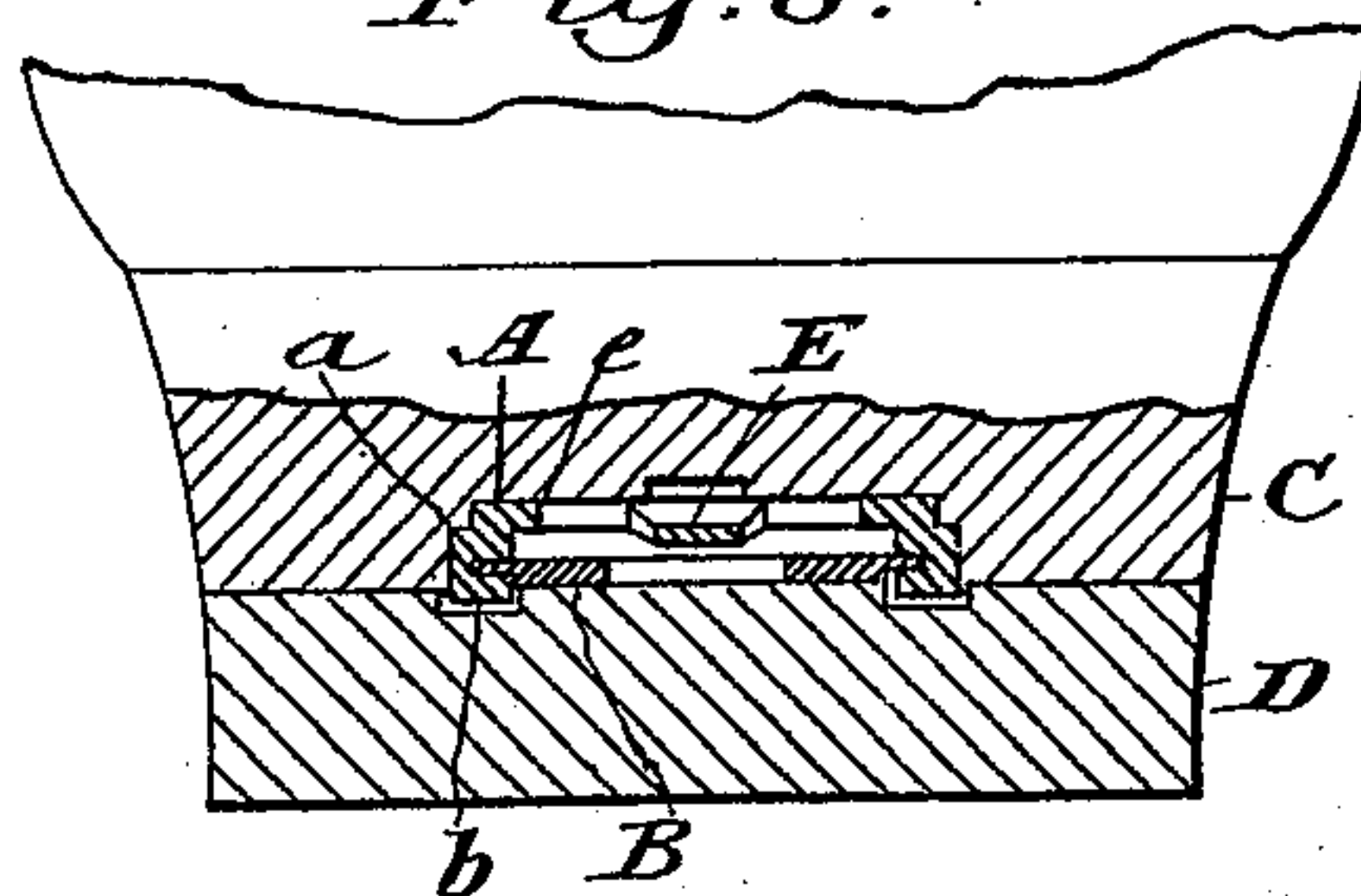


Fig. 11.



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UNITED STATES PATENT OFFICE.

WALTER MORRISON AND WILLIAM HITCH PURSER, OF MOONEE PONDS,
NEAR MELBOURNE, VICTORIA.

HEEL.

SPECIFICATION forming part of Letters Patent No. 518,266, dated April 17, 1894.

Application filed July 20, 1893. Serial No. 481,073. (No model.) Patented in Victoria December 28, 1892, No. 10,228; in New South Wales June 13, 1893, No. 4,454, and in New Zealand June 23, 1893, No. 6,253.

To all whom it may concern:

Be it known that we, WALTER MORRISON, boot-maker, residing at Pascoe Vale Road, and WILLIAM HITCH PURSER, builder, residing at No. 46 Bent Street, Moonee Ponds, near Melbourne, British Colony of Victoria, subjects of the Queen of Great Britain, have invented a certain new and useful Improvement in and Relating to Removable Heels for Boots or Shoes, of which the following is a specification, and for which I have obtained British patents in Victoria December 28, 1892, No. 10,228; in New South Wales June 13, 1893, No. 4,454, and in New Zealand June 23, 1893, No. 6,253.

This invention relates to those classes of heels for boots and shoes which are so constructed as to admit of their wearing surfaces or treads being removed when worn and either fitted upon the opposite boot or else replaced with new ones.

According to our invention, we secure a pair of slides, one to the fixed and one to the removable part of the heel, and we form said slides one with outwardly projecting flanges and the other with grooves or guides to receive said flanges. One of these slides we provide with a pivoted or other pawl, pin or catch so arranged that when the boot is turned over into its ordinary position it will engage with the opposite slide and will thus lock the two slides and therefore the two parts of the heel together, while the boot is in its normal position, but which will not offer any impediment to the removal of said heel when said boot is placed upside down. In order to still further insure the heel or removable part of said heel being secured firmly upon the boot, we use a vertically sliding pin or bolt working in bearings in one of said slides and arranged to drop into engagement with a hole or recess in the other side when the boot is in its ordinary or wearing position. We propose to form two holes or recesses in the lower slide to receive this vertically sliding bolt or pin in order to prevent the removable part of the heel from coming off accidentally in the event of its not having been pushed sufficiently home to allow said pin and pivoted pawl to drop into their engaging posi-

tions. Both slides are set so that the flanges of the one and the guides or grooves of the other are inclined upward from the front toward the back of the heel in order to draw the removable part tightly against the fixed part of the heel when said removable part is put on. This inclination may be given to said flanges and guides either by making the slides themselves inclined, that is, of greater thickness at one end than the other or by cutting out the leather of the heel and securing parallel slides upon the inclined face of the part of the heel thus cut out.

Referring to the accompanying drawings,—Figure 1 is a side elevation of a boot with the heel constructed according to our invention. Figure 2 is a plan of the under side of the fixed part of said heel. Figure 3 is a plan of the slide fitted upon said fixed part of the heel. Figure 4 is a transverse section on line 4—4, Figure 3. Figure 5 is a plan of the removable part of the heel, together with said slide. Figure 6 is a plan of said slide, and Figure 7 is a vertical transverse section on line 7—7, Figure 6. Figure 8 is a vertical transverse section on line 8—8, Figure 1. Figures 9 and 10 are respectively a plan and side elevation of the pawl, while Figure 11 is a side elevation of the pin or bolt above referred to. Figure 12 is a vertical central section of the heel of a boot or shoe constructed according to our invention and showing same partly removed, while Figure 13 is a similar view of said heel when in its working or fastened position.

The same letters of reference indicate the same parts in all the figures.

A—B represent a pair of slides which are attached one to the fixed part C and the other to the removable part D of the heel of a boot or shoe, while *a* represents the guides or grooves which are formed or provided upon the slide A to receive the outwardly projecting flanges *b* on the other slide B. These slides may be fixed to the heel by screws or otherwise, as found most convenient.

E represents the pawl or catch which is pivoted, as illustrated at *e*, to the upper slide A and is arranged to bear against a stop piece *e'* on the opposite slide B when the removable part of the heel is in its normal position, as illustrated in Figure 13.

In order to effectually fasten the removable part of the heel in position, we use a sliding pin or catch F as well as the pivoted pawl E, and we arrange said sliding pin or bolt so that
 5 it works freely in bearings or through an opening in the upper slide A and drops into engagement with the hole or recess f' in the bottom slide, as shown, when the boot is turned over into its ordinary position. As this ver-
 10 tically sliding pin or bolt is not liable to be jerked up out of engagement with the bottom slide by the same movement that would affect the pivoted pawl, the likelihood of the heel coming off accidentally while in use is reduced
 15 to a minimum. This pin or bolt may be round, square or other shape in cross section, and may be arranged either vertically or horizontally.

We prefer to provide a second hole f^2 in
 20 addition to f' to receive the pin or bolt F in the event of the removable part of the heel not having been securely fastened in the first instance and gradually working off. This second hole will prevent said removable part
 25 from coming off entirely and being lost, thus giving the wearer an opportunity of fitting it into its correct position, that is, so that the pin or bolt F will engage with the hole f' and the pivoted pawl engage with its stop piece
 30 on the lower slide. If preferred more than one additional hole f^2 can be provided.

The arrangement of our invention which we have illustrated is adapted for enabling the removable part of the heel to be slid on
 35 to the fixed part from the front, although it is evident that if preferred it can be made to slide on from the back or from either side, and if so required, the whole of the heel may be made removable and be secured in the
 40 manner above described instead of only part of it. Moreover the pivoted pawl or catch E can be used to prevent the removal of heels attached by screws, slides, sockets or clips or other equivalent contrivances.

In either of the cases above described, it is 45 merely necessary in order to remove the heel to turn the boot upside down into the position indicated in Fig. 12, so as to cause the pawl E and sliding bolt F to fall down out of engagement with the slide B, when the upper 50 part of the heel can be slid out of engagement with the fixed part and can be placed in position upon the opposite heel or be replaced with a new tread. The required inclination may be given to the flanges b and 55 grooves or guides a either by making the guides higher or thicker at one end, as shown in the case of the slide A, or by making them parallel and securing them in position upon the bottom of an inclined recess cut in the 60 leather, as shown in the case of the slide B.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is— 65

1. In combination with a boot or shoe, having a recess in the heel part thereof, a gravity pawl pivoted within said recess at one end, a removable heel having slides fitted to said heel part and a stop or shoulder on the heel adapted to be engaged by the free end of the gravity pawl, substantially as described. 70

2. In combination with a boot or shoe, a removable heel therefor, the opposing faces of said parts being recessed, a pivoted pawl 75 located in the recess of the boot or shoe and engaging the recess in the heel and a sliding pin or bolt carried by the boot or shoe and also engaging the recess of the heel, substantially as described. 80

In witness whereof we have hereunto set our hands in presence of two witnesses.

WALTER MORRISON.
 WILLIAM HITCH PURSER.

Witnesses:

EDWARD WATERS,
 EDWARD NEEDHAM WATERS.