

C. G. HILL.
Supplemental Horseshoe.

No. 229,608.

Patented July 6, 1880.

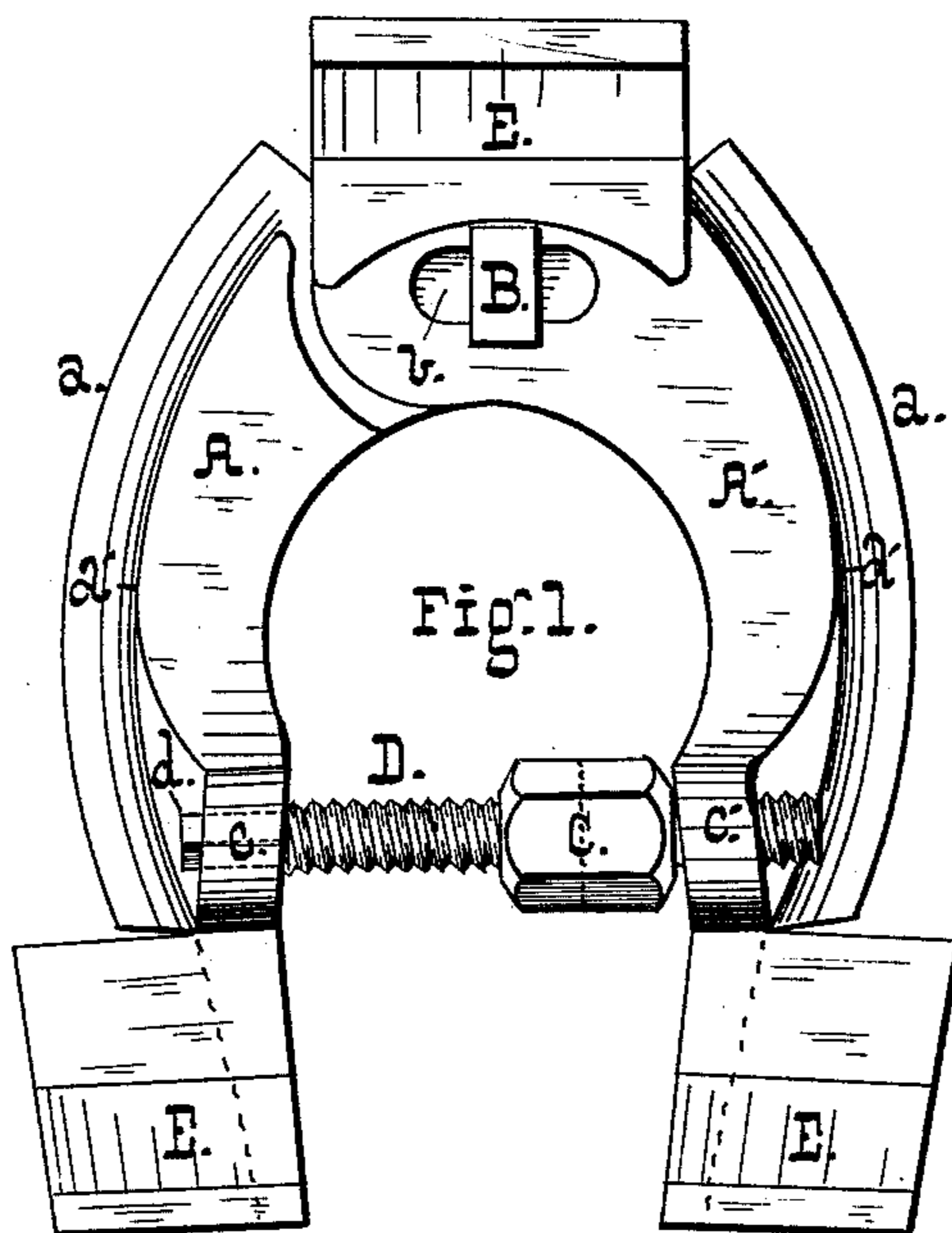
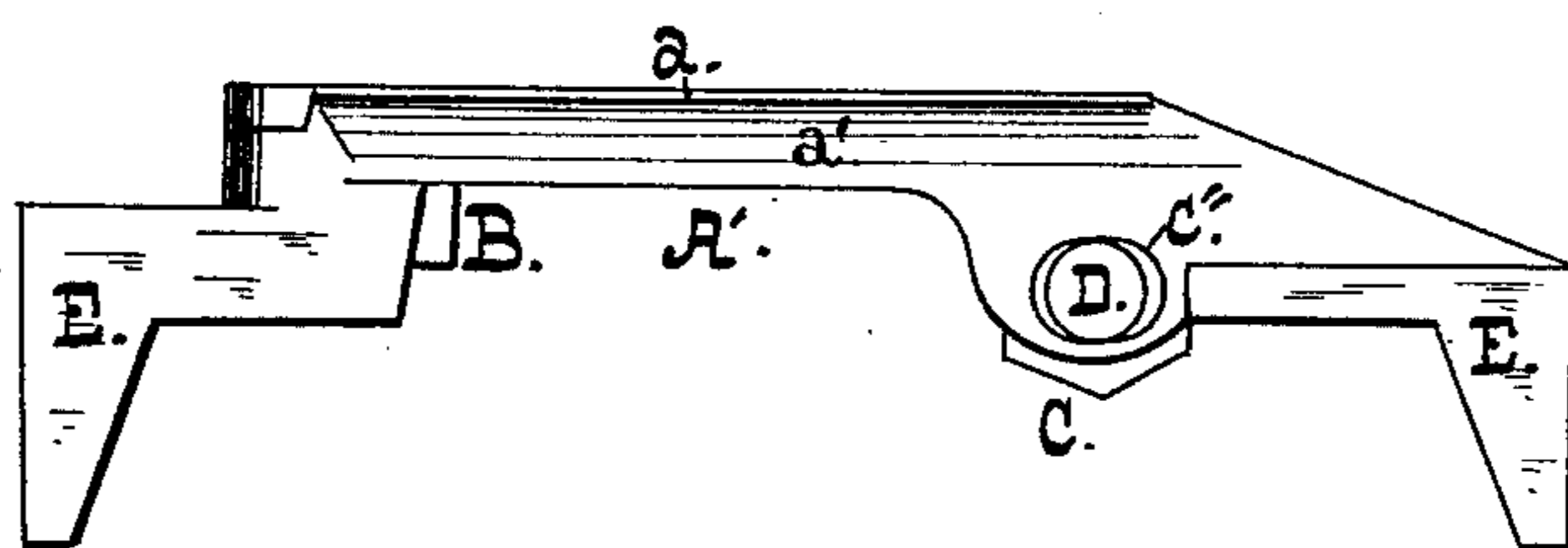


Fig. 2.



Witnesses,
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UNITED STATES PATENT OFFICE.

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SUPPLEMENTAL HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 229,608, dated July 6, 1880.

Application filed October 29, 1879.

To all whom it may concern:

Be it known that I, CHAS. G. HILL, of Arlington, Baltimore county, State of Maryland, have invented certain new and useful Improvements in Supplemental Horseshoes; and I hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

10 Figure 1 is a bottom plan of the shoe; Fig. 2, a side elevation of the same.

My invention relates to that class of horseshoes designed for use in connection with the ordinary shoes that are secured to the hoof; and it consists of an expansible two-part shoe adapted to occupy a position inside of the permanent shoe, and secured thereto in a peculiar manner; the design being, mainly, to avoid unnecessary weight and the double thickness of shoe all around, the calks alone in my shoe being under the ordinary shoe.

In the accompanying drawings, A A' are the two halves of the shoe, to one of which, A, is secured a strong rivet or bolt, B, whose head is oblong in shape and lies in the longitudinal axis of the shoe, as shown. The part A' is slotted at *b*, the two parts A A' being joined by turning them until the bolt-head enters the slot. In every other position the bolt securely holds them together, while admitting of a lateral motion to the extent of the length of the slot. Each half of the shoe has a flange, *a*, which, when the shoe is in place, comes under the edge of the permanent shoe, against the sides of which the shoulders *a'* abut. Lugs *c c'*, just forward of the heel-calks, are perforated for the expanding-screw D, on one end of which is a square or polygonal head, *d*, that fits in a correspondingly-shaped hole in the lug *c*, which prevents the screw from turning. The other end of the screw passes loosely through an oblong hole, *c''*, in the opposite lug, *c'*, the hole being made oblong to admit of the relative angular movement of the screw and shoe as the latter is expanded. A nut, or, preferably, two nuts, C, (one serving to jam the other,) are mounted on the screw D. E E are the calks, which project from the shoe so as to rest on the permanent shoe.

In applying the device, the nut or nuts C

are turned back until the shoe will enter within the permanent shoe on the horse's hoof. Being then applied, the nut C is turned up by means of a wrench or suitable implement, 55 expanding the supplemental shoe until its shoulders *a'* are jammed closely against the inner walls of the permanent shoe, the flanges *a* coming above the same and securing the supplemental shoe in place. The jam-nut is 60 next turned up against the other one, and the operation is complete.

It will be seen from the foregoing description of the construction of the device that the halves of the shoe are readily separable, that 65 only the calks come under the ordinary shoe, and that the screw is removable from both parts of the device. These features secure advantages respectively as follows: Either half may be renewed when worn out or its calk 70 breaks; the weight of the device is greatly reduced, while securing all desired strength; and the screw and nut may be readily replaced should the former bend or break or its threads or those of the nut wear out. 75

A certain feature may be referred to more at length. It will be observed that while the parts of the shoe are, strictly speaking, hinged or pivoted together, they are still capable of a lateral motion with reference to each other 80 to the extent of the slot *b*. By this means the spreading of the parts by means of the screw is not a mere spreading as about a pivot, but it effects a lateral movement of the parts which jams the shoulders *a'* against the inner walls of the shoe all around. The importance of this feature will readily be appreciated.

The shoe, as a whole, meets every requisite in an article of its class. 90

Being devoid of lacing or other means of attachment on the outside of the hoof, it is not liable to be cut loose by interfering or abrasion from stones or ice. Its means of attachment are under the hoof, out of the way, 95 and are of such nature that all rattling or looseness of the shoe is prevented.

I am aware that supplemental horseshoes consisting of two parts hinged together at the forward ends and having expanding-screws 100 are old, and such I do not claim.

What I claim is—

1. In combination with the part A, having oblong-headed bolt B, the part A', having slot *b*, whereby the halves are separably attached together, as and for the purpose set forth.
- 5 2. A supplemental horseshoe consisting of the parts A A', having jointly an oblong-headed bolt and a slot, *b*, in combination with the screw D, stepped in the part A, passing freely through a lug on part, A', and carrying a nut, C, as set forth.

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Witnesses:

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