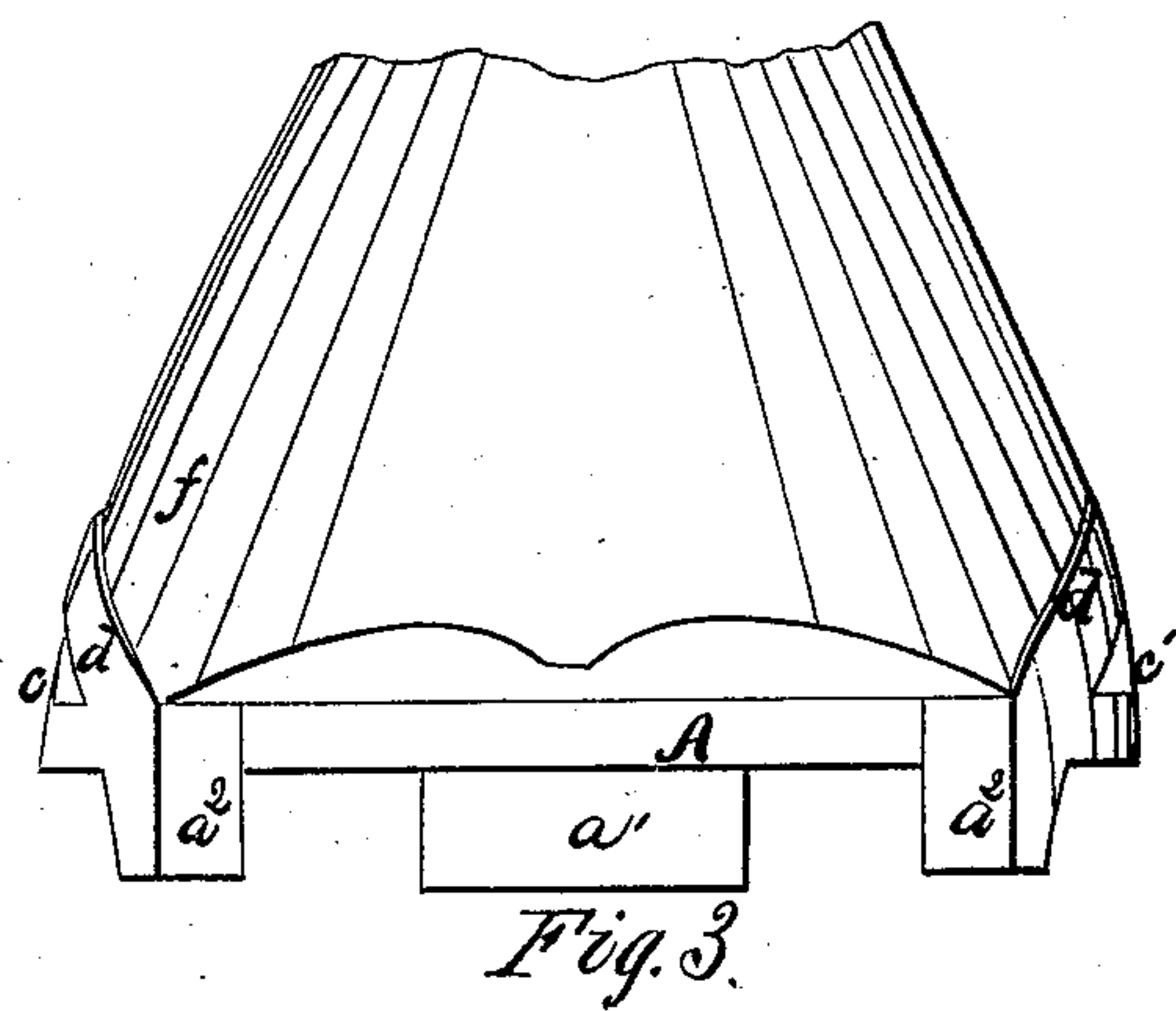
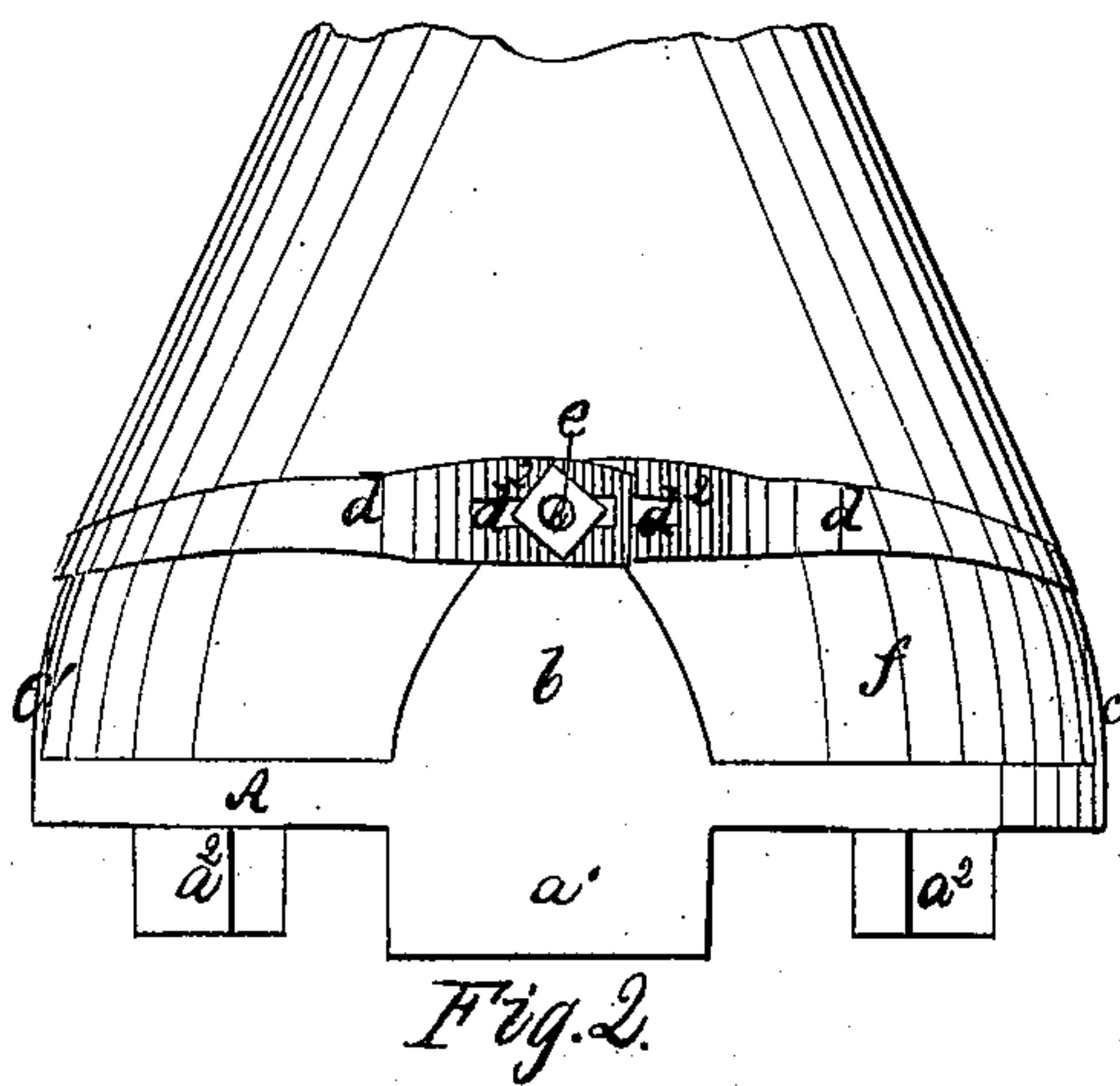
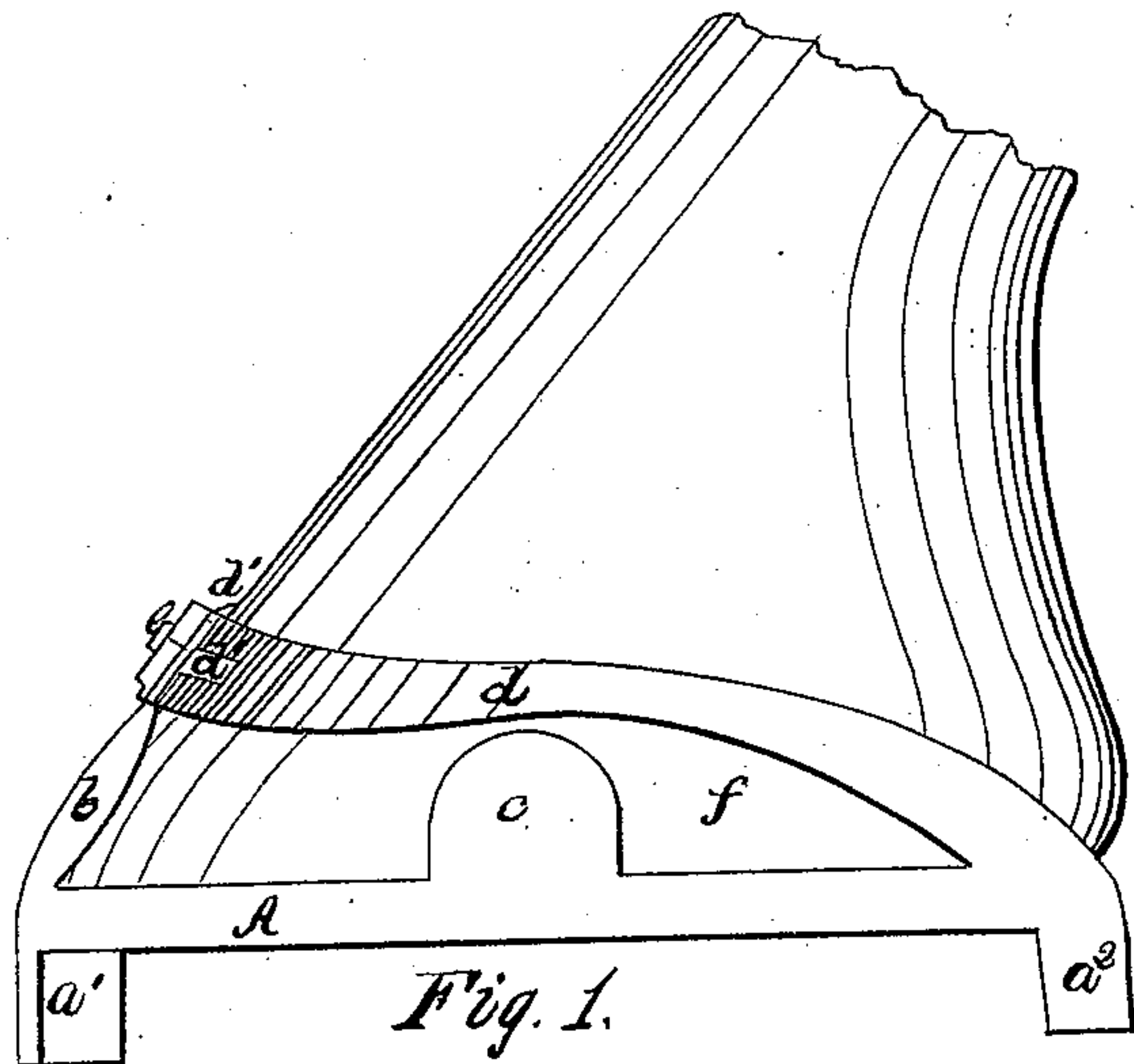


H. Schreiner,
Horseshoe,
No 55,019, Patented May 22, 1866.



Witnesses.

*Benjamin
 Jas. Kinno moro fr.*

Inventor

Henry Schreiner.

UNITED STATES PATENT OFFICE.

HENRY SCHREINER, OF PHILADELPHIA, ASSIGNOR TO HIMSELF AND WM. H. BOWYER, OF TAMAQUA, PENNSYLVANIA.

IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. 55,019, dated May 22, 1866.

To all whom it may concern:

Be it known that I, HENRY SCHREINER, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Nailless Horseshoes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation, showing my said nailless horseshoe applied to the animal's foot, and Figs. 2 and 3 front and rear elevations respectively of the same as applied, like letters of reference indicating the same parts when in the different figures.

The object of my improvement is to produce a nailless horse or mule shoe that can be securely and durably applied to the animal's foot so as to be as easy to the animal as a slipper is to a man, and at the same time strengthen such hoofs as may be weak or split, or preserve those which are sound and perfect.

The nature of my invention consists in making the shoe to have a clip in front, and also one at each side, constructed so as to project upward from the outer edge of the sole and fit closely against the outside of the hoof, with a metallic belt attached rigidly to each heel-calk or rear end of the shoe and extending diagonally upward so as to fit closely around the sides of the hoof just above the side clips and lap the slotted end of one over that of the other and upon the clip in front, where they are secured together by means of a small nutted screw-bolt, substantially as hereinafter described.

In the drawings, A is the sole of the shoe; a' , the toe, and $a^2 a^2$ the heel-calks of the same; b , the front clip; $c c'$, the two side clips; $d d'$, the two belts; e , the nutted screw-bolt, and f the hoof to which the shoe is applied.

The clip b extends upward about one and a quarter inch above the sole A of the shoe, is rounded at its edge, as shown in the drawings, and its width where it joins the sole is about an inch wide, or of the width of the front calk, a' , and is flush with the outside of the latter. Its upper end has fixed in it, so to project forward, a screw-bolt, e , provided with a nut.

The two side clips, $c c'$, are each about one inch wide and three-quarters of an inch high,

rounded, and projecting upward from the sides of the sole A at points about midway between the front and heel calks, and are flush with the outside of the sole. All the clips, $b c c'$, are slightly let into the hoof f by filing or rasping the latter away for the purpose.

The belts $d d'$ are flat metallic bands, each about half an inch wide, more or less, having one end welded fast to the heel end and calk, while the other end reaches around just above the side clip, c or c' , and over the upper end of the front clip, b . Each has also a slot, d^2 , in its free end, through which the screw-bolt e passes. The said slotted ends of the belts $d d'$ are roughened or serrated on both sides, so as to more effectually prevent their slipping the one upon the other after they are clamped together upon the clip b by means of the bolt and nut e . Each of the said belts $d d'$ are made flush with the side of the heel-calk a^2 , and are each let in slightly into the side of the hoof at this part, and the outer corners of their edges rounded off smoothly.

In applying this nailless shoe all that is necessary is to fit the bottom of the hoof accurately to the sole A of the shoe, then bend the clips $b c c'$ to suit the inclination of the outside of the hoof, letting in the same into the hoof slightly, and then in like manner to let in the heel ends of the belts $d d'$ slightly into hoof by rasping or filing a shallow groove in the latter, and lapping their slotted ends tightly together over the clip b in front, with the screw-bolt e projecting through both of the slots, and finally screwing down the nut so as to permanently bind them together, and thus secure the shoe firmly and durably to the foot, as shown in Fig. 1.

I am aware that a horseshoe-sole provided with an upper having a pair of metallic straps jointed to the back part of the upper, passed around and bolted together in front, so as to embrace the upper portion of the hoof of the animal, has been patented; but the shell of the hoof being thin and elastic at the upper part, injury and lameness must result, not only from the pressure of the straps upon this tender part of the hoof, but also from the tendency of the straps to contract the frog; whereas in my improved shoe, constructed as described, neither of these results can ensue, because the belts $d d'$ start at the heel-calks $a^2 a^2$, and do not reach higher than an inch and a half above the

sole, and consequently their pressure is confined to the hard, thick, and insensible base of the hoof; and their tension also favors a widening of the frog. In fact, the shoe will be perfectly easy to the foot, will preserve and strengthen the sound and perfect and support the weak or split hoofs of either horses or mules.

Having thus fully described my improved nailless horseshoe, what I claim as new, and desire to secure by Letters Patent, is—

A nailless shoe for horses and mules, consisting of the sole *A*, clips *b c c'*, belts *d d'*, and nutted screw-bolts *e*, the same being constructed, combined together, and applied, as and for the purposes described.

HENRY SCHREINER.

Witnesses:

BENJ. MORISON,
JAS. HINSMORE, Jr.