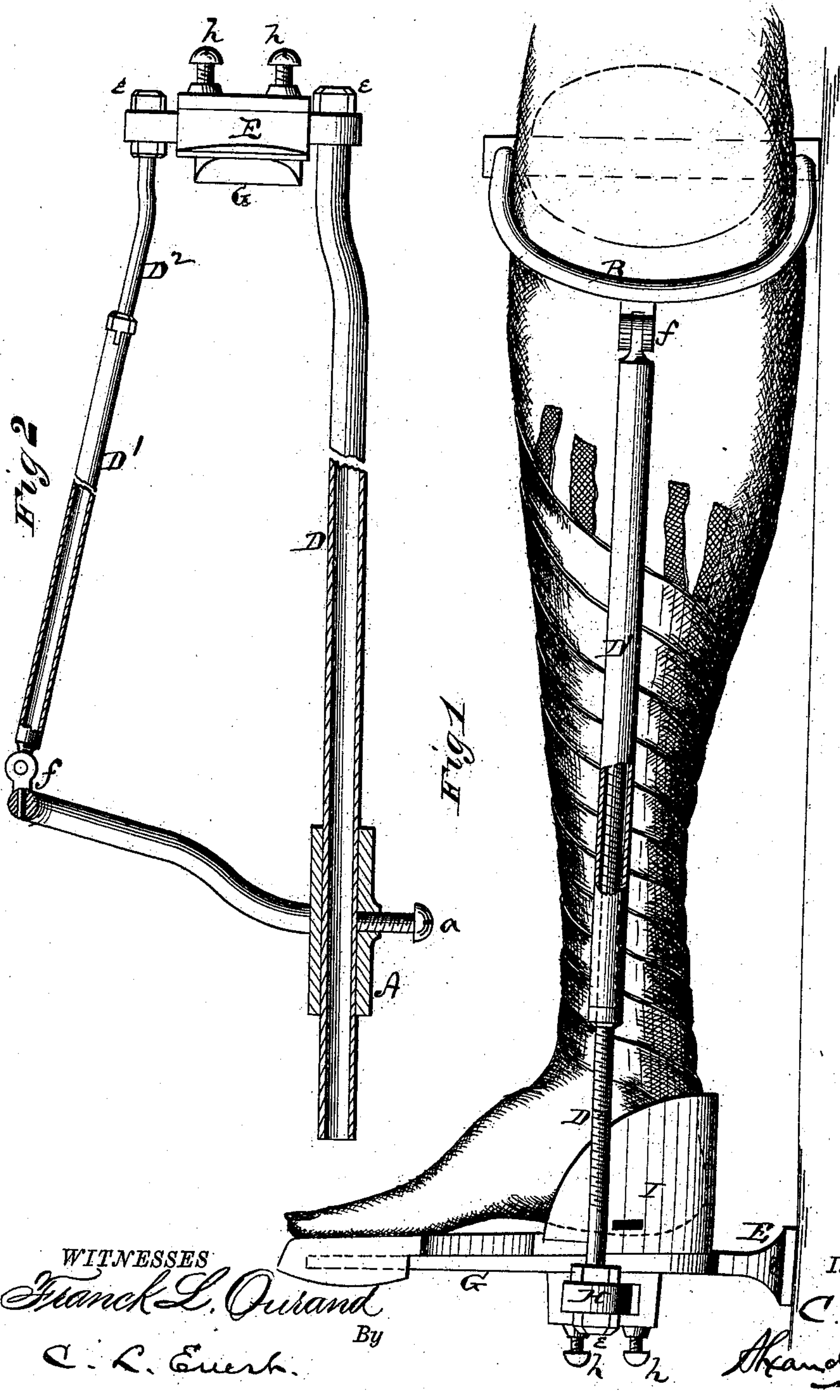


C. R. PARKE.  
FRACTURE APPARATUS.

No. 173,051.

Patented Feb. 1, 1876.



WITNESSES  
*Frank L. Ourand*  
By *C. L. Everh.*

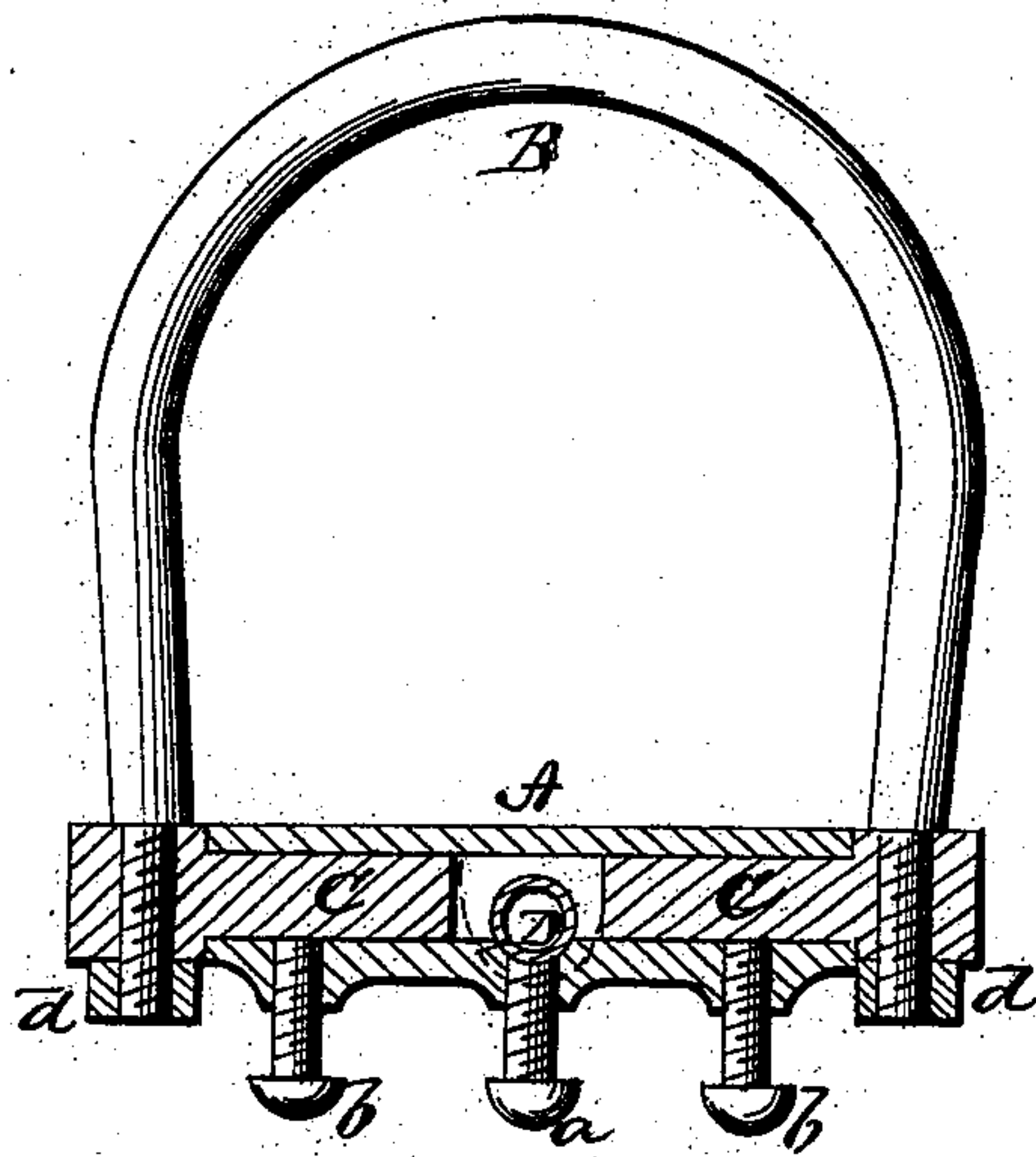
INVENTOR  
*C. R. Parke*  
*Alexander Mason*  
Attorneys.

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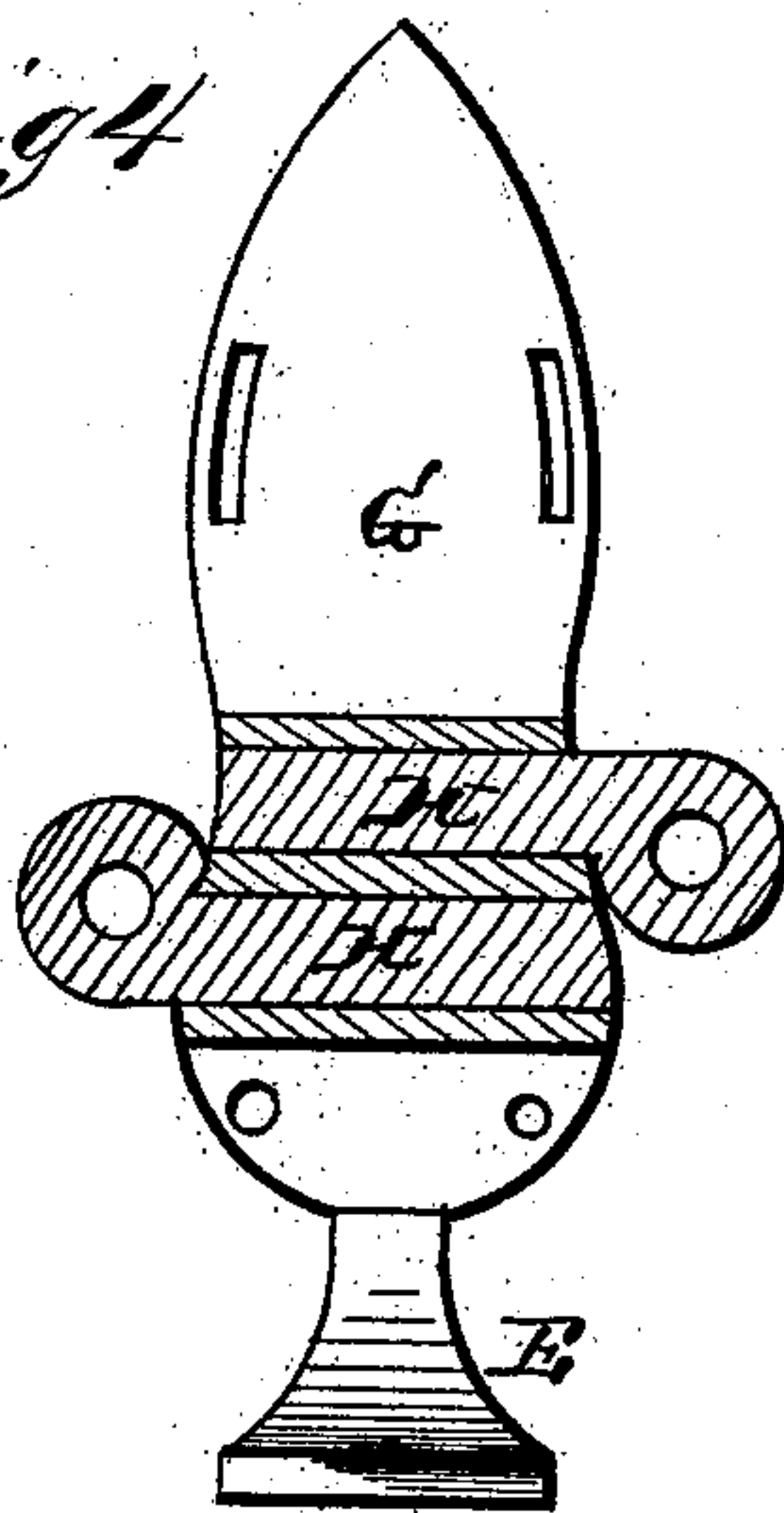
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*Fig 3*



*Fig 4*



WITNESSES

*Frank L. Quind.*

By

*C. L. Ewert*

INVENTOR

*C. R. Parke*

*Alexander H. Mason*

Attorney &



# UNITED STATES PATENT OFFICE.

CHARLES R. PARKE, OF BLOOMINGTON, ILLINOIS.

## IMPROVEMENT IN FRACTURE APPARATUS.

Specification forming part of Letters Patent No. 173,051, dated February 1, 1876; application filed November 5, 1875.

*To all whom it may concern:*

Be it known that I, CHARLES R. PARKE, of Bloomington, in the county of McLean and in the State of Illinois, have invented certain new and useful Improvements in Metallic Adjustable Fracture-Splints; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The object of my invention is to produce extension and counter-extension of a fractured femur in a direct line with the axis of the body, avoiding pressure of the femoral vessels and external lateral curvature, so common when the oblique counter-extending band is used, and also to continue the extension and counter-extension while the dressing is being removed to examine the seat of fracture. To this end the nature of my invention consists in the construction of a splint that can readily be adjusted to limbs of various sizes and lengths by means of an adjustable femoral collar and foot-plate, connected by rods so arranged as to regulate the length of it, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side view of my splint. Fig. 2 is a front view of the same, partly in section. Fig. 3 shows the femoral collar. Fig. 4 shows the foot-plate.

The femoral collar is composed of four pieces, namely, external plate A, the perineal bow B, and slides C C. The external plate A is constructed so as to admit the long extension-rod D to pass through it, and is secured in any desired position to the latter by a set-screw, *a*, thus regulating the length of the splint. It also admits the slides C C to move at right angles with the rod, which slides are also secured by set-screws *b b*, for the purpose of adapting the bow to the size of the thigh. The ends of the bow B are passed through the heads of the slides C, and are secured to them by nuts *d d*, thus making the collar complete. G is the foot-plate, which resembles the sole of

a shoe, with a projection, E, beyond the heel of from one to three inches, arranged so as to secure it by screws to a piece of wood, the object being to elevate the foot and prevent it rocking. The extension-rods D D<sup>1</sup> are attached to the heads of slides H H, which pass through the foot-piece G, and are secured to them by nuts *e e*. The short rod D<sup>1</sup> is constructed with an extension-screw, D<sup>2</sup>, and nut or nuts, by which its length is varied, and said rod D<sup>1</sup> is attached to the bow B by a hinge-joint, *f*, thus enabling the slides to move and be adjusted to the size of the ankle, the slides being held in any required position by set-screws *h h* in the foot-plate G. A slipper, I, is attached to the foot-plate to support the heel or foot, which, with suspension-strips, completes the splint.

The manner of applying my invention is as follows: The bed being properly prepared, the long extension-rod D is placed in position, with suspension-strips folded in their center over it. Upon these is placed the bandage of Scultetus, and over it a pasteboard or other splint. The slipper and foot-plate being secured to the foot, the limb is placed on the suspension-strips, with the seat of fracture over the splint. The perineal bow, with short rod D<sup>1</sup> attached, is next placed in position around the thigh, and the side plate A passed down upon the external rod D from above, and the bow secured by nuts. The lower end of the external extension-rod D is raised, and fastened to its slide in the foot-plate. The extension-screw D<sup>2</sup> is passed up into the short rod D<sup>1</sup>, and the lower end in the head of its slide in the foot-plate. The ends of the upper layer of suspension-strips are brought up on the inside of the internal extension-rod D<sup>1</sup>, and the ends of the lower strips on the outside, where they are pinned together, suspending the limb. The splint is now ready for extension, regulated by the screws. When the fracture is adjusted, a splint is placed over it, and a bandage of Scultetus applied. Tapes from extension-rods tied on top complete the dressing.

By turning the splint over, and reversing the shoe-plate, it is ready for the opposite limb.

An extension-tube, with crutch-head, can be run down over the external rod when required, and secured by set-screw.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a splint, of an adjustable femoral collar and a foot-plate, with two connecting-rods between them, one of which is hinged to the bow of the collar, and both adjustable vertically and laterally, substantially as set forth.

2. The combination of the plate A, bow B, slides C C, and set-screws *b b*, substantially as and for the purposes herein set forth.

3. The combination of the foot-plate G, slides H H, and connecting-rods D D<sup>1</sup> with the femoral collar, substantially as and for the purposes herein set forth.

4. The rod D<sup>1</sup>, with hinge-joint *f* at one end, and extension-screw D<sup>2</sup> at the other end, in combination with the foot-plate and femoral collar, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of October, 1875.

CHARLES R. PARKE.

Witnesses:

THOS. SLADE,  
WILLIAM L. PILLSBURY.