

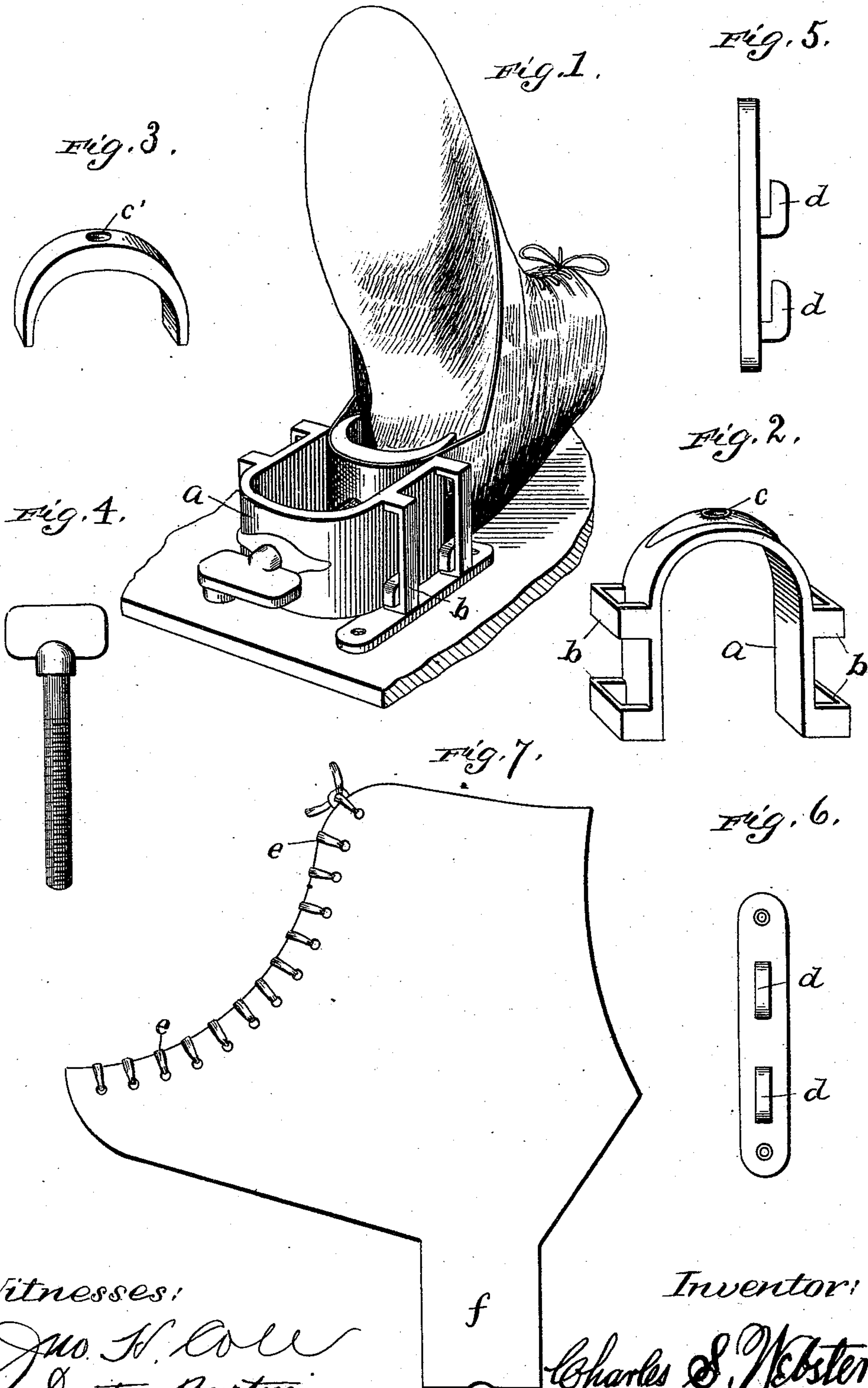
(No Model.)

2 Sheets—Sheet 1.

C. S. WEBSTER.
FRACTURE APPARATUS.

No. 485,672.

Patented Nov. 8, 1892.



Witnesses:

Geo. H. Cole
Denton Burton

Inventor:

Charles S. Webster

(No Model.)

2 Sheets—Sheet 2.

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Fig. 8.

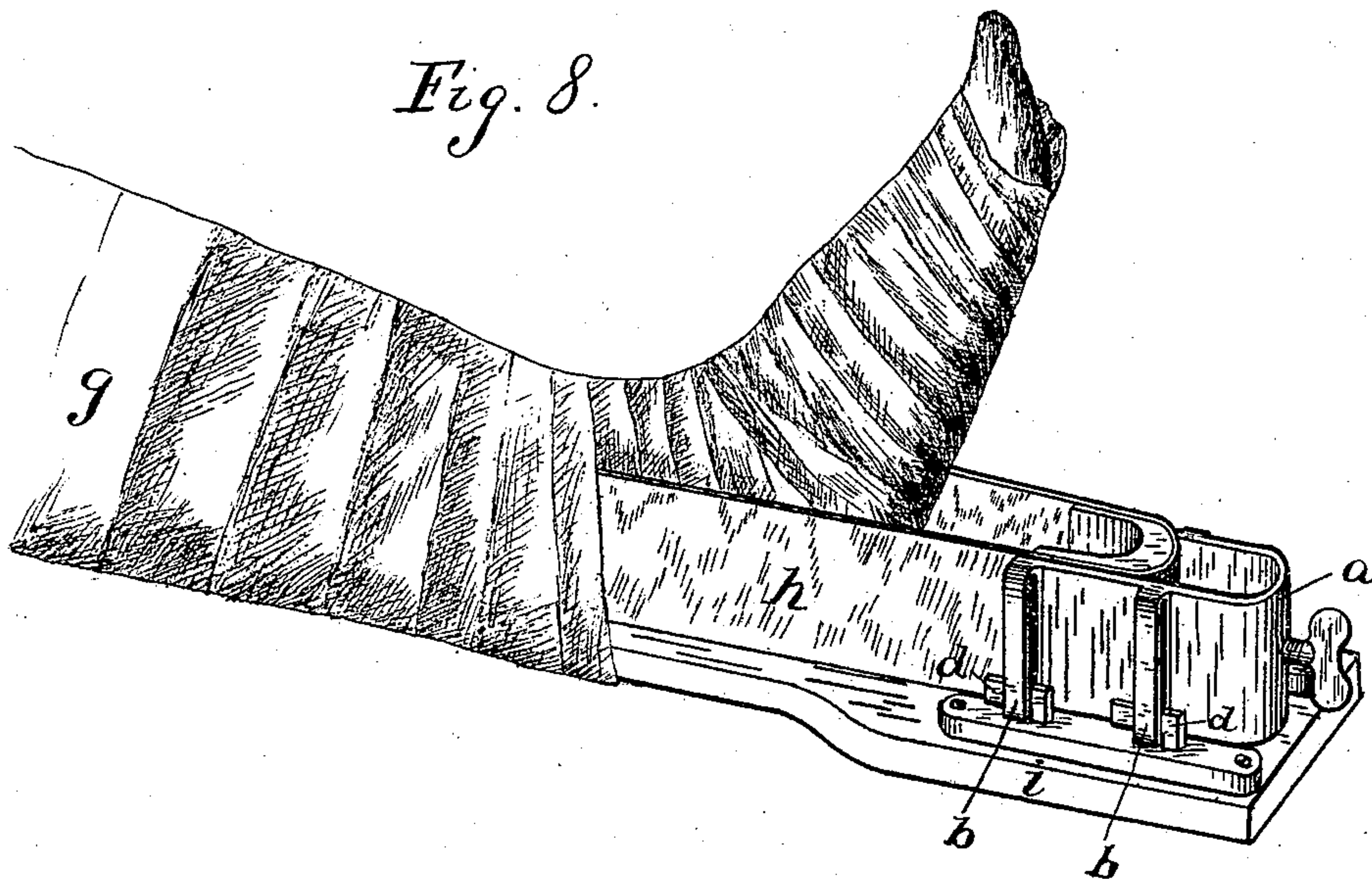
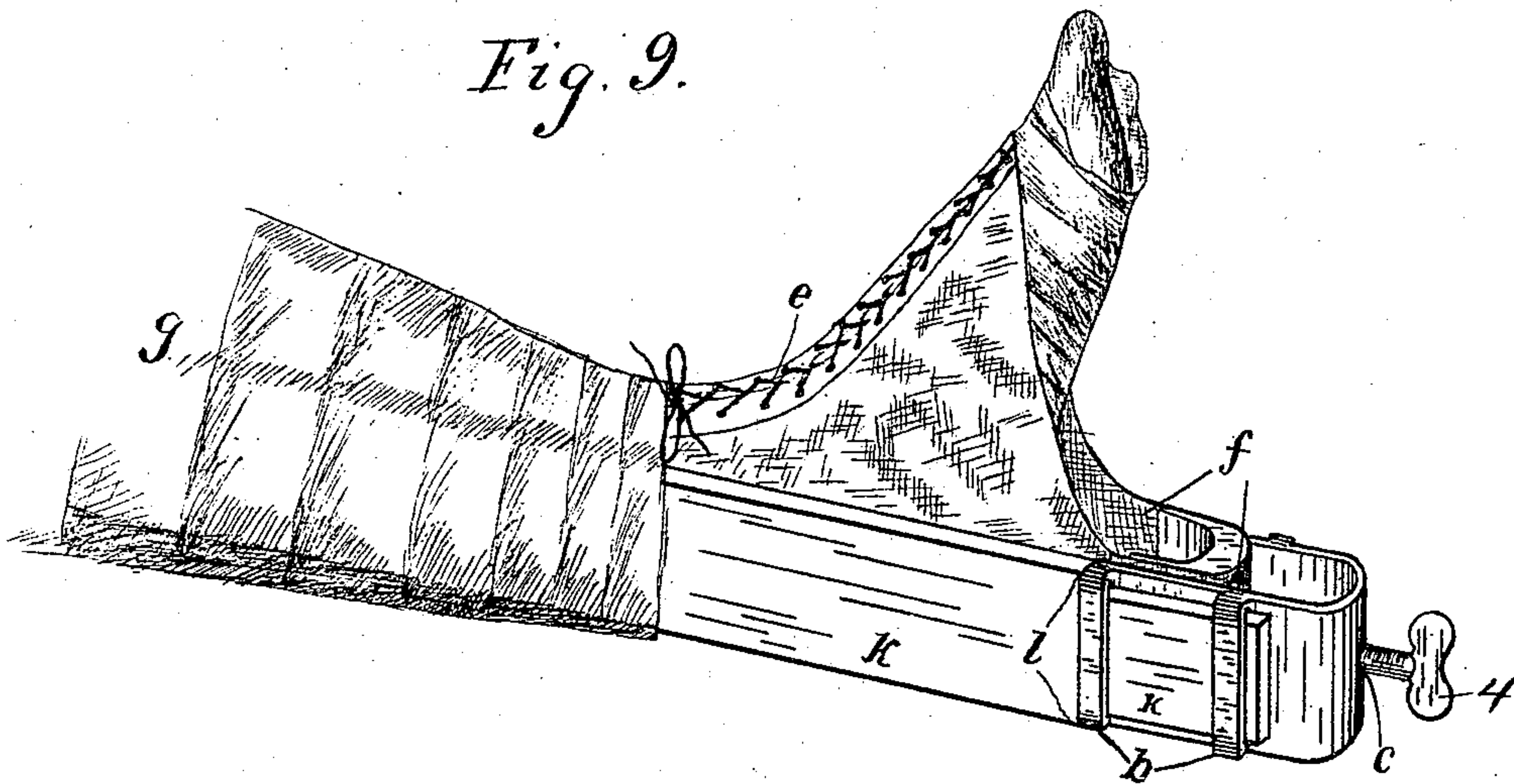


Fig. 9.



Witnesses.

H. I. Curry
or B. Gregg

Inventor.

Charles S. Webster

by

H. I. Curry

Attw.

UNITED STATES PATENT OFFICE.

CHARLES S. WEBSTER, OF MARYSVILLE, KANSAS.

FRACTURE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 485,672, dated November 8, 1892.

Application filed December 3, 1891. Serial No. 413,902. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. WEBSTER, a citizen of the United States, residing at Marysville, in the county of Marshall and State of Kansas, have invented a new and useful Appliance, of which the following is a specification.

My invention relates to improvements in fracture apparatus, and is designed to facilitate surgical operations in cases of fracture, dislocation, and synovitis; and it consists of appliances for extending and holding limbs in proper position during the process of healing.

In the drawings the same letters relate to the same parts in all the figures.

In Sheet I, Figure 2, is the bench or bed-plate, to which other parts of the device are related, and consists of a U-shaped frame *a*, with side bands or pieces *b*. In construction these side pieces are either continuous with or attached to the body. Fig. 3 is a stretcher curved to fit into the bed-plate and movable therein. Fig. 4 is a thumb-screw passing through the rounded end of the bed-plate and engaging the stretcher at the points *c c'* and acting as a traction-screw. Figs. 5 and 6 are side and plan views of a clasp or plate having hooks *d d'* to engage the side bands of the bed-plate and hold the latter in position, this clasp to be fastened to the splint or box which supports the limb. Fig. 7 is a shoe, of leather or other suitable material, shaped to fit the ankle and foot, about which it is buttoned or laced, and having a strap or extension *f* to pass around the stretcher. Fig. 1 is a perspective view of the apparatus, its parts combined and holding a foot in position, but not showing the splints or limb.

All parts of the apparatus shown and described, except the shoe, are to be made of silver, brass, iron, or other suitable metal.

On Sheet II, Figs. 8 and 9 show the relation of the several parts of the apparatus and the manner of their operation. In Fig. 8 the extension device is shown in connection with a bottom splint, board, or box *i*, which supports both the limb *G* and the apparatus and for application to injuries of the thigh or hip. As shown, from a point of attachment to the limb below the injury adhesive strips *h* pass down the limb and around the stretcher; or, instead of strips, the shoe herein described,

or simply bandages may be employed, as the particular case makes most expedient, the object being so to attach the limb to the stretcher as to subject it to movement. The upper part of the splint or support is fastened to the limb or body of the patient above the injury, so as to hold against the pull of the stretcher. Traction is made by means of the thumb-screw, which engages the stretcher and of which the bed-plate is the fulcrum. This figure also shows how the clasps are fastened to the supporting-splint and how its hooks engage the side bars of the bed-plate to hold it firmly in position.

Fig. 9 shows the extension apparatus as used with side splints *K* in cases of injury below the knee. In this case the side splints to resist pressure have shoulders *l* at their lower ends bearing against the side bars of the bed-plate, into which they enter. The shoe or bandage is adjusted to the limb and passes around the stretcher and traction is made, as before described.

This extension apparatus is to be used for upper as well as for lower limbs and in any surgical operation where extension is required, and hence such various splints must be used as will be adapted to the location and character of the injury to be treated, and hence no particular kind of splint is specified, and in all cases whatever splint is used must be bandaged or fastened about the body or limb of the patient in such manner as surgical skill approves at the proper point above the injury, so as to hold the limb against the action of the screw-stretcher.

Having described my apparatus, its application to the patient and operation by the surgeon are quite apparent. The patient being placed in proper position on the bed, table, or chair, as the case requires, and the splints, bandages, and other requisites provided, the surgeon proceeds to apply these and to bring the extension apparatus into combination with them. The bed-plate is fastened to the support by means of its clasps or catches, the stretcher placed therein, and the thumb-screw inserted. The splints and bandages are applied to the limb, the shoe or bandage brought around the stretcher, and all being properly adjusted and fastened, as shown and described, the surgeon is enabled by sim-

ply turning the thumb-screw to extend the limb to the exact point desired, either for uniting fractured surfaces, reducing dislocations, or overcoming distortion of joints, and to maintain it there as long as may be required.

Having described my fracture apparatus and its use, what I claim as my invention, and desire to secure by Letters Patent, is—

10 1. The combination, with splints and bandages for fractured or injured limbs, of a U-shaped bed-plate having side bars to receive and hold in place one end of the splints.

15 2. The combination, with a supporting splint or platform, of a U-shaped bed-plate having side bars and plates or catches screwed to the splint and having hooks to engage side bars and hold the bed-plate firmly to the platform.

20 3. The combination, with a U-shaped bed-plate, of a curved stretcher fitting and moving therein, a thumb-screw passing through the bed-plate and engaging the stretcher, and a shoe fitted to the ankle and foot and having an extension or strap to pass around the
25 stretcher and hold it to the limb.

4. The combination, with side splints having shouldered ends, of a U-shaped bed-plate having side bars to receive said splints, a curved stretcher fitting into the bed-plate, a
30 thumb-screw passing through the bed-plate and engaging the stretcher, and adhesive straps passing down the limb and around the stretcher.

5. The combination, with splints and band- 35
ages for fractured limbs, of a U-shaped bed-plate having side bars, catches fastened to a supporting splint or platform having tongues engaging the side bars and holding the bed-plate in position, a curved stretcher fitting
40 into and movable in the bed-plate, a thumb-screw passing through the bed-plate and engaging the stretcher, and a shoe fitting the ankle and foot and having a strap or extension passing around the stretcher and hold- 45
ing it to the limb, all substantially as and for the purposes shown and described.

CHARLES S. WEBSTER.

Witnesses:

JOHN H. COLE,
DENTON BURTON.