

(No Model.)

J. E. LEE.  
SURGICAL SPLINT.

No. 390,176.

Patented Sept. 25, 1888.

Fig. 1.

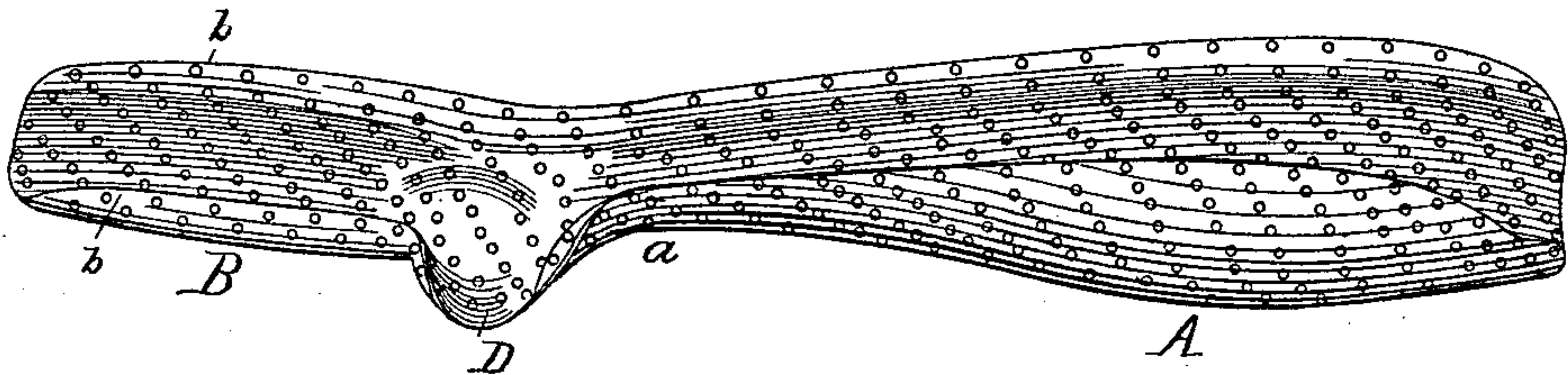


Fig. 2.

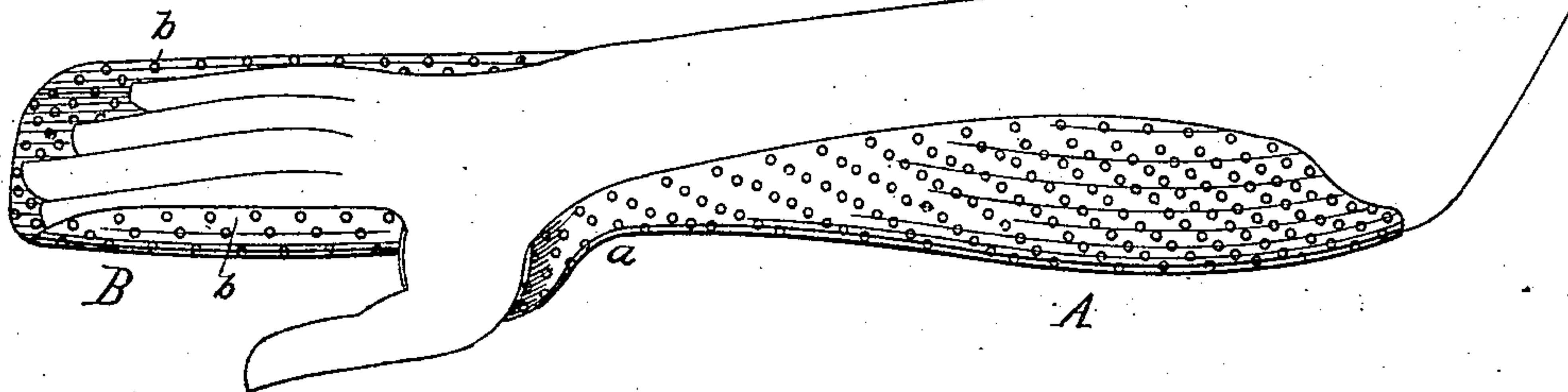


Fig. 3.

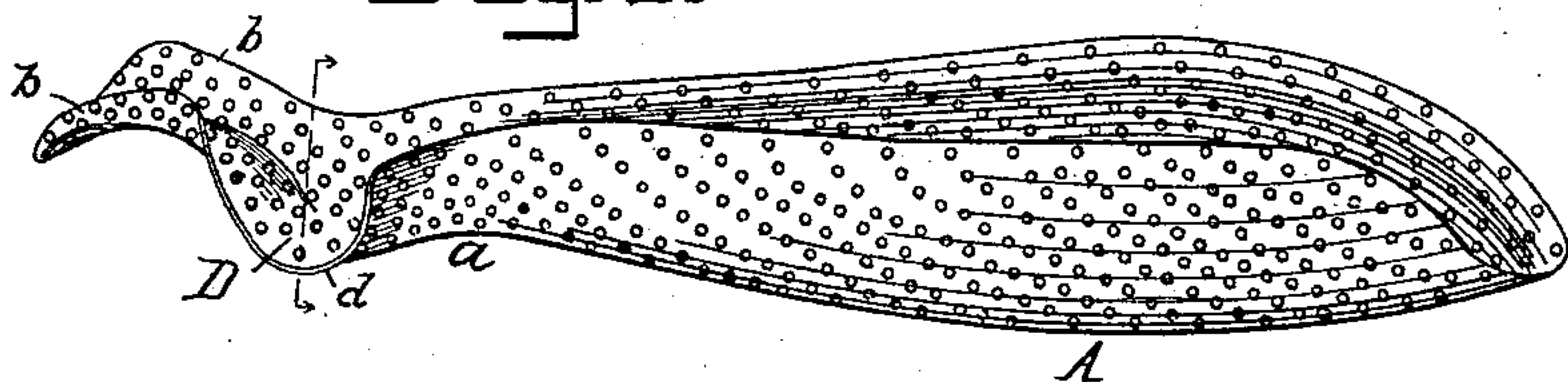


Fig. 4.

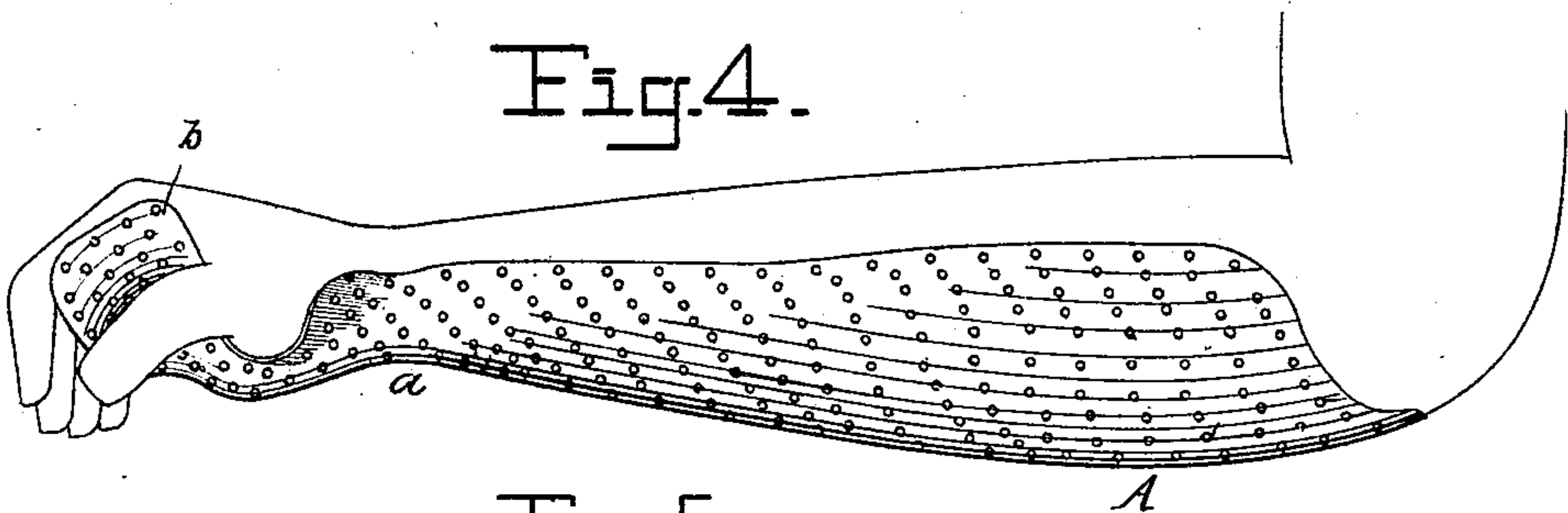
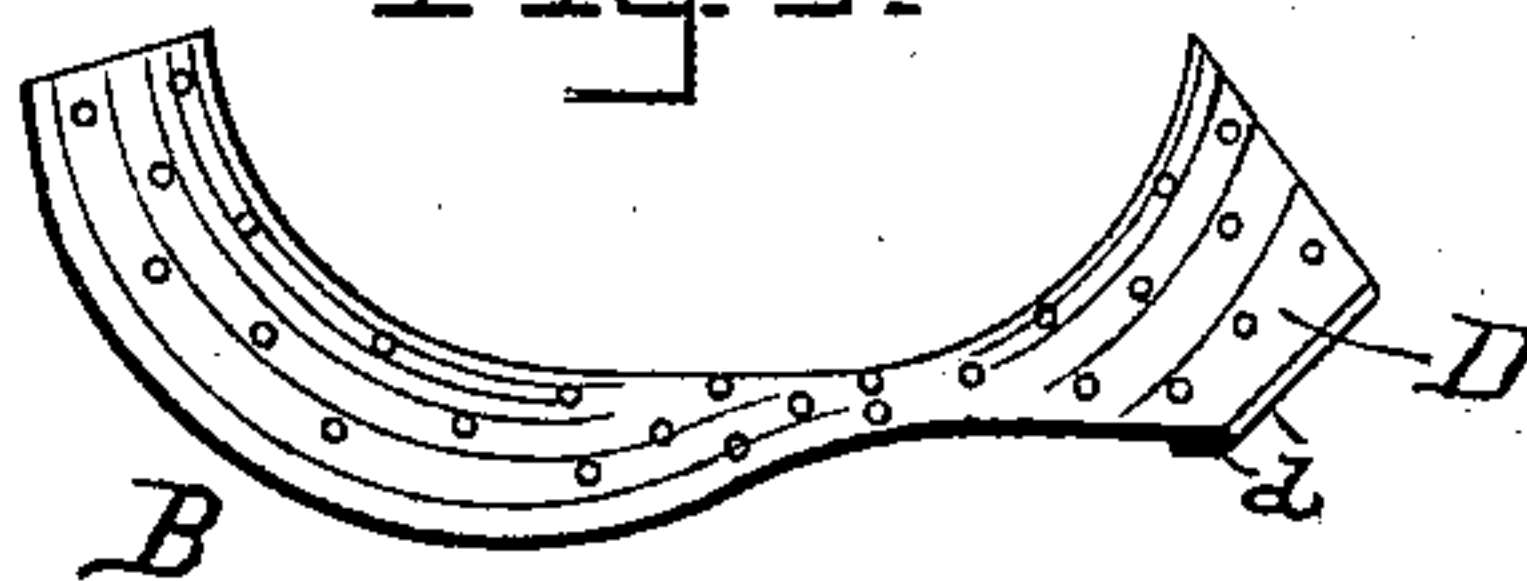


Fig. 5.



Witnesses:

*E. J. Griswold.*  
*Geo. A. Crane*

Inventor:

*J. Ellwood Lee*  
*By his Attorneys*

*Howson and Howson*

# UNITED STATES PATENT OFFICE.

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J. ELLWOOD LEE COMPANY, OF SAME PLACE.

## SURGICAL SPLINT.

SPECIFICATION forming part of Letters Patent No. 390,176, dated September 25, 1888.

Application filed May 1, 1888. Serial No. 272,430. (No model.)

*To all whom it may concern:*

Be it known that I, J. ELLWOOD LEE, a citizen of the United States, residing at Conshohocken, Montgomery county, Pennsylvania, have invented an Improved Surgical Splint, of which the following is a specification.

My invention consists of an improved arm and hand splint so constructed as to give a firm support to the hand in the desired relative position to the arm and also to support the parts of the hand itself at the sides as well as immediately under the palm.

In the accompanying drawings, Figure 1 is a perspective view of one form of my improved splint to be used where the fingers of the hand are to be held straight. Fig. 2 is a view of the same splint applied to the hand and arm. Fig. 3 is a perspective view of a splint constructed for use where the tendons of the fingers are to be stretched. Fig. 4 is a view of the splint in use; and Fig. 5 is a sectional view of the splint, Fig. 3.

My invention relates more particularly to that class of splints which are made of thin sheet metal, as described in an application for patent filed by me May 8, 1886, Serial No. 201,588. In that application I have illustrated and described a splint for the lower arm and wrist, or, as it is termed, a "radius" splint. In that form of splint there is, however, no support for the palm of the hand, and in case the bones in the palm of the hand are broken in connection with a break of the wrist or lower arm an additional splint has to be used.

By my present invention I make the splint for the palm of the hand in one piece with the splint for the arm by continuing beyond the wrist part *a*, at the end of the trough shaped part A for the radius, an extension, B, which may be either straight (as shown in Figs. 1 and 2) where the fingers have to be held in a straight position for proper knitting of the fracture, or curved or rounded (as shown in Figs. 3 and 4) where the fingers have to be bent or partially clenched to stretch the tendons.

In order to give a firm support to the palm for proper knitting of the fracture, the extension B has side pieces, *b*, extending on each side of the palm, whether the extension be curved or straight, so that the bandage may be brought up around these sides without undue pressure upon the hand. At the same time, the splint being of thin sheet metal, these sides will yield sufficiently when the bandage is applied to permit a firm support being given to the hand by the bandage. In order to give free play for the thumb of the hand while providing these upward extensions or side pieces, I form in the edge of the side pieces, near the depressed portion of the splint into which the wrist can drop, a notch or recess, D. This weakens the splint a little; and in order to compensate for this, and at the same time lessen the sharpness of the edge presented to the ball of the thumb at the bottom of the notch, I flange over the sheet metal and form a bead, *d*, at the edge of the notch, as shown in Fig. 5.

I claim as my invention—

1. A surgical splint consisting of a trough-shaped portion, A, for the arm or radius, provided with an extension, B, for the hand, this extension having upwardly-extending side pieces for the sides of the palm.

2. A surgical splint consisting of a trough-shaped portion, A, for the arm or radius, provided with an extension, B, for the hand, this extension having upwardly-extending side pieces for the sides of the palm and a notch in one of the side pieces for the free play of the thumb.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

J. ELLWOOD LEE.

Witnesses:

HUBERT HOWSON,  
HARRY SMITH.