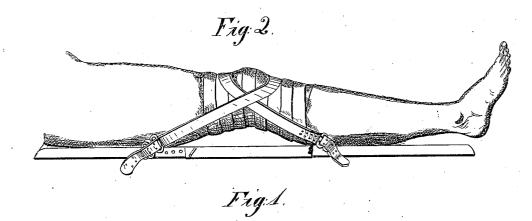
# H.D.Ballard,

Surgical Splint,

N=82,478,

Patented Sep. 29, 1868



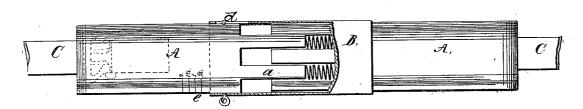
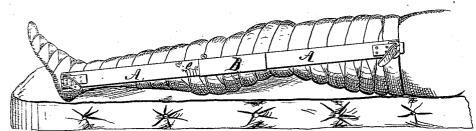


Fig 3.



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## Anited States Patent Office.

## H. D. BALLARD, OF FINDLAY, OHIO, ASSIGNOR TO HIMSELF AND ISAAC BONHAM, OF SAME PLACE.

Letters Patent No. 82,478, dated September 29, 1868.

#### IMPROVED SURGICAL SPLINT.

The Schedule referred to in these Zetters Patent and making part of the same.

#### TO ALL WHOM IT MAY CONCERN:

Be it known that I, H. D. BALLARD, of Findlay, in the county of Hancock, and State of Ohio, have invented a new and useful Improvement in Splints for Surgical Uses; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side elevation of my improved splint, with a part broken away,

Figure 2 represents the application of the same, in the case of fracture of patella, and

Figure 3 represents the same in the case of the fracture of the leg.

Similar letters of reference indicate like parts.

The object of this invention is to provide an improved splint for surgical purposes.

It consists of a splint made in two parts, which are so joined together as to be adjustable in a longitudinal direction, and provided with springs arranged to have a constant tendency to extend the parts. The ends of the splints are provided with buckles, to which adhesive straps are attached, said adhesive straps being attached to the limb above and below the fracture.

A and A' represent the two parts, which are preferably made of wood, and of concave form upon one side. The part A is provided with tenons, a, and the part A' with slots, into which the tenons fit and slide freely. The slots are provided with coiled springs b, which bear against the ends of the tenons, and have a constant tendency to extend the two parts. The extension-joint so formed is encased in a metallic case, to properly

confine them together, and the part A is provided with a pin, d, the ends of which project into slots in the sides of the case, to prevent the parts being separated too far.

C represents adhesive straps, two ends of which are fastened, by their own adhesion, to the limb; the other ends of the straps are attached to the splint by means of buckles, for the purpose of producing extension and counter-extension.

In the application of my improved splint as shown in fig. 2, when the parts are required to be drawn together, the adhesive straps are passed around the leg, as shown, and connected to the splint, so that the springs will have a tendency to draw the parts together.

The tension of the springs may be increased by drawing up the straps in the buckles to any desired degree. Fig. 3 shows the application of the same, where the parts require to be forced gently away from each other, as in the case of fracture of the leg; the adhesive straps C C being so secured to the leg as to cause the springs to draw the two parts in opposite directions.

The part a may be provided with a scale, as shown at e, to indicate the amount of pressure, in pounds, of the springs.

Having now described my invention, I claim as new, and desire to secure by Letters Patent-

The improved splint, composed of the parts A and A', provided with the spring-extension joint and with the adhesive straps, all substantially as and for the purpose described.

H. D. BALLARD.

Witnesses:

A. HURD,

G. W. GALLOWAY, Jr.