

J. Bringhurst,
Artificial Leg.

N^o 55,459.

Patented June 12, 1866.

Fig. 2

Fig. 1

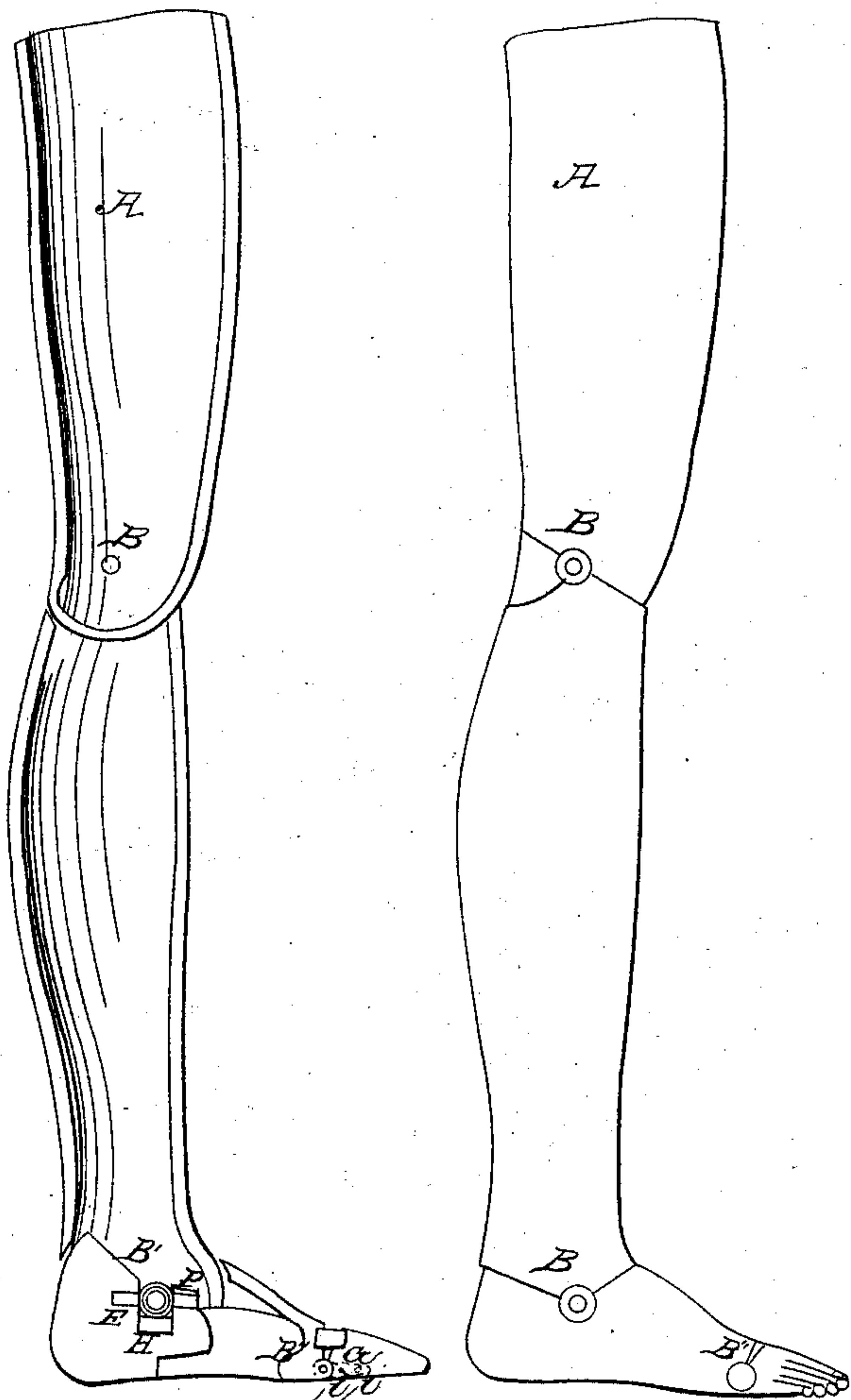
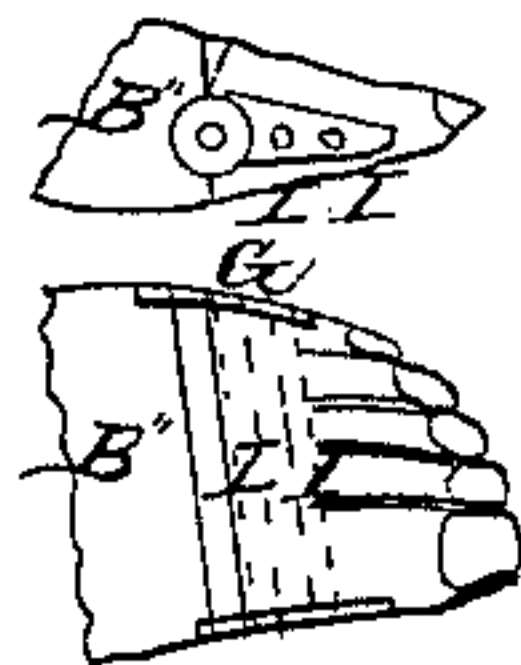
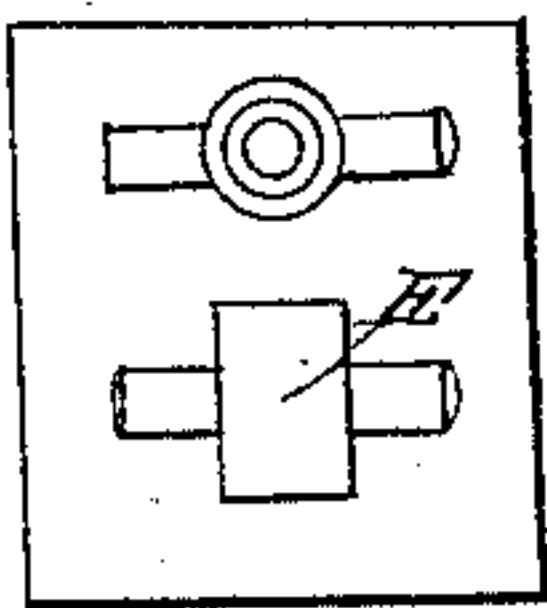
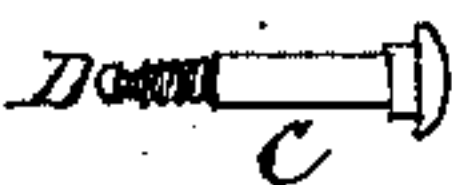


Fig. 3

Fig. 4

Fig. 5



Witnesses:

Levi G. Galt

George B. Ridinger

Inventor:

Jesse Bringhurst

UNITED STATES PATENT OFFICE.

JESSE BRINGHURST, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN ARTIFICIAL LEGS.

Specification forming part of Letters Patent No. **55,459**, dated June 12, 1866; antedated June 1, 1866.

To all whom it may concern:

Be it known that I, JESSE BRINGHURST, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Artificial Legs; 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 annexed drawings, making a part of this specification, in which—

Figure 1 is a side view. Fig. 2 is a transverse section, Fig. 3 showing bolts, and Fig. 4 showing the ankle-joint. Fig. 5 represents the toe-joint.

My present invention has for its object the production of an artificial leg constructed on such principles that it will give more strength and durability to the limb, and also ease and comfort to the wearer. The improvements consist in a more perfect construction of the ankle, knee, and toe joints.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In said drawings, A represents a wooden limb (it may, however, be metal) of the proper form, being flexible at the joints B B' B''.

My first and great object is to construct in such a manner as to secure a long and solid bearing for the steel or metallic bolts in wood. I then construct the bolts C of the proper length and diameter to suit the joints B B', carefully turned, the smallest diameter being at the end of the bolt, upon which a screw-thread is cut to fit one of the side straps upon the leg. A greater diameter is then allowed for the bearing in wood, and then the greatest diameter nearest the head of the bolt for the second screw-thread, which is to fit the remaining side strap. The bolt is also drilled and tapped at the small end with an opposite

thread to that on the outside, and a small screw, D, placed therein. It will be readily be seen that the side straps will be securely held at a positive distance from each other, and thereby prevent the friction occasioned by shrinkage and warping of the wood. The small screw D will prevent the bolts from working out while in use. At the ankle-joint B', I place a metallic swivel-box, E, securely held to the foot by two metallic bearings, F, bushed with wood. The metallic box E is bored, bushed with wood, and rebored to fit the bolt C. Between the box just described and the foot I place a piece of india-rubber, H, or its equivalent, and by so doing give the foot a flexibility so necessary while walking over uneven surfaces.

At the toe-joint, marked B'', I make a rule-joint tapering toward the outside of the foot. On both sides of the toe-piece I firmly fasten two metallic plates, G, by means of the wires I, passing through the toe-piece and riveted thereto. I likewise put an additional wire through the joint and rivet it firmly, thereby making a durable joint the whole width of the foot.

The leg may be finished by any of the many appliances adapted to represent the natural cords or tendons.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The bolt C, as described, and for the purpose set forth.
2. The swivel-box E, in combination with the bolt C and rubber packing H, as specified, and for the purpose set forth.

JESSE BRINGHURST.

Witnesses:

LEWIS GODBOU,
GEORGE B. PÜLLINGER.