

(No Model.)

C. E. ERVIN.
ARTIFICIAL LEG.

No. 472,443.

Patented Apr. 5, 1892.

Fig. 1.

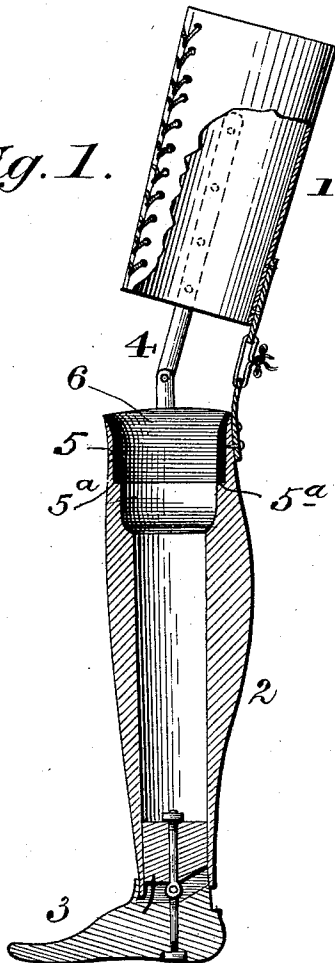
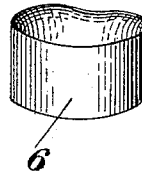


Fig. 2.



WITNESSES:
F. L. Curand
J. L. Hoovey

INVENTOR:
Charles E. Ervin
J. J. Duggan & Co
Attorneys

UNITED STATES PATENT OFFICE.

CHARLES E. ERVIN, OF PRINCETON, INDIANA.

ARTIFICIAL LEG.

SPECIFICATION forming part of Letters Patent No. 472,443, dated April 5, 1892.

Application filed May 25, 1891. Serial No. 393,993. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. ERVIN, a citizen of the United States, and a resident of Princeton, in the county of Gibson and State of Indiana, have invented certain new and useful Improvements in Artificial Legs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in artificial legs, the object being to provide an improved socket for the supporting-piece of the limb and means whereby it is held in place, said socket conforming to the contour of the stump and inserted in a shouldered recess in the supporting-piece.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a sectional view of an artificial leg constructed in accordance with my invention. Fig. 2 is a perspective view of the socket detached.

In the said drawings, the reference-numeral 1 designates the thigh portion, 2 the supporting portion below the knee, and 3 the foot of an ordinary artificial leg. The parts 1 and 2 are connected together by means of the jointed rods 4. In the upper end of the supporting-piece 2 is a recess or cavity 5, having a shoulder 5^a. In this recess is located a hard-rubber socket 6, consisting of a ring or band formed by taking an impression of the stump in plaster-of-paris, which when hardened forms a mold from which an exact reproduction or fac-simile of the stump can be cast or made of plaster or other material, which will correspond in every respect with the stump. Rubber is then placed around the lower portion of said cast and vulcanized, the result

being a socket of hard rubber the interior of which corresponds with the contour of the crippled stump. This socket is then inserted in the cavity or recess in the supporting-piece, its lower end resting against the shoulder 5^a and is removable from the recess for the purpose of renewal or repairs. In cases of amputation above the knee then the socket will be located in the thigh-piece, or that part which receives the weight of the person using the limb.

I am aware that a socket has been provided for the supporting-pieces of artificial legs consisting of a band or ring molded to conform to the shape of the stump and attached to the supporting-piece by glue or other adhesive material. This device, however, is not removable and replaceable, as when once removed it is totally destroyed, so far as its use as a socket is concerned, and to replace with a new socket the limb has to be returned to the manufacturer. By my invention, however, the socket can be easily removed when desired and readily replaced, and when a new socket is required it is not necessary to return the limb to the factory, as the socket can be inserted in the recess by the wearer without difficulty.

Having thus described my invention, what I claim is—

In an artificial limb, the combination, with the supporting-piece having a shouldered recess or cavity therein, of a removable and replaceable socket located in said recess, consisting of a molded hard-rubber ring or band the inner surface of which conforms to the shape or contour of the stump with which it is to be used, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CHARLES E. ERVIN.

Witnesses:

STEELE F. GILMORE,
JAMES A. SPROWL.