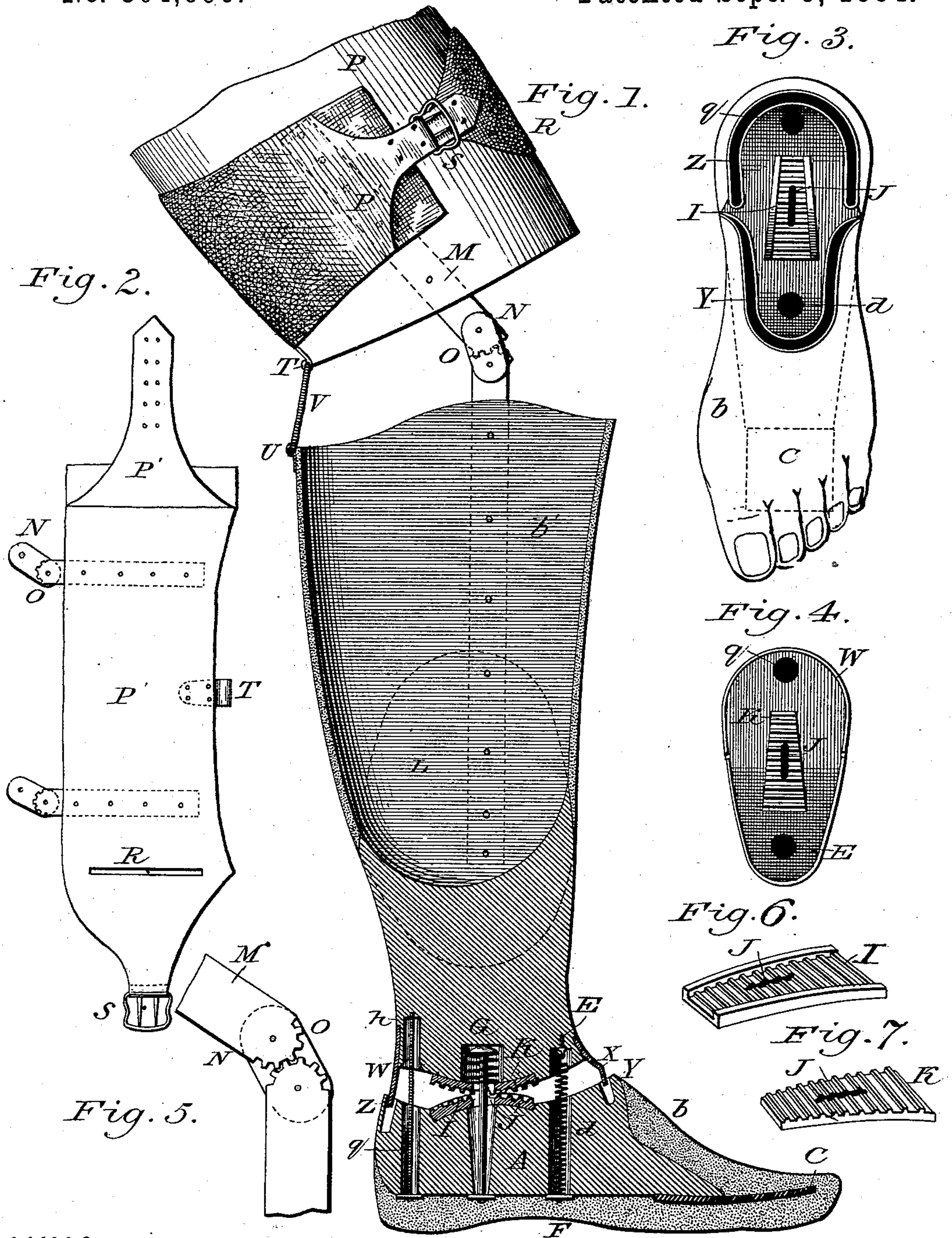


(No Model.)

O. B. BRONSON.
ARTIFICIAL LEG.

No. 304,696.

Patented Sept. 9, 1884.



Witnesses:
John Quinn
James Kelly

Inventor:
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UNITED STATES PATENT OFFICE.

OLIE B. BRONSON, OF JANESVILLE, WISCONSIN.

ARTIFICIAL LEG.

SPECIFICATION forming part of Letters Patent No. 304,696, dated September 9, 1884.

Application filed February 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, OLIE B. BRONSON, a citizen of the United States, residing at Janesville, Rock county, Wisconsin, have invented certain new and useful Improvements in Artificial Limbs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures marked thereon, which form a part of this specification.

The object of my invention is to obtain a more natural and easy motion of the ankle-joint by using two cogged rockers—I, attached to the skeleton of the foot, and K, attached to the skeleton of the leg—meshing together with a bolt, G, with a spring under its head reaching from the inside of the skeleton of the leg to the bottom of the skeleton of the foot through an elongated hole, J, tapering from the point of articulation upward through the wooden skeleton of the leg L, and downward through the wooden skeleton A of the foot, and with the aid of the spiral spring *d* in front, and cord *h* behind connecting the foot with the leg and adjusting the foot, and the spring C at the toe-joint to give elasticity to the foot, all of which is shown in Figure 1 of the accompanying drawings.

Fig. 2 is a view of the thigh socket or brace extended, showing the socket proper, P; the laps P' P'; the slit R, where the lap passes through the buckle S, and process T, for attachment of the cord V.

Fig. 3 is an upper view of the foot, with the leg and felt on the upperside removed, showing the wooden skeleton A with the cogged rocker I attached, the elevated guard Y, in which the front of the leg X is inserted, the shoe Z, over which the back of the leg W slides up and down, and the position of the tapering hole J, the hole for the spring *d*, and the hole *q* for the heel-cord *h*, and the spring C of the toe-joint.

Fig. 4 is an end view of the wooden skeleton of the leg, showing the attachment of the cogged rocker K, the tapering hole J, hole *q* for the heel-cord *h*, projecting rim W, and

front of leg X, and hook E, for attaching the spring *d*.

Fig. 5 is a view of the knee-hinge detached, showing the cogged arm M, the plate O, and the pivot N.

Fig. 6 is a view of the lower cogged rocker, I, which is wider in front, and tapers back as a natural heel does. It has elevated flanged sides, on which the skeleton of the leg rocks, and between which the cogged rocker K works into its cogs.

Fig. 7 is a perspective view of the upper cogged rocker detached, substantially showing its form throughout.

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

1. In artificial limbs, the combination of a cogged rocker, K, with oblong hole J, tapering upward, attached to the wooden skeleton of the leg, meshing into the cogged rocker I, with oblong hole J, tapering downward, attached to the wooden skeleton of the foot with a bolt, G, with a spring under its head, reaching from the wooden skeleton of the leg through said oblong tapering hole J of both cogged rockers I and K, and fastened to the sole of the wooden skeleton of the foot, substantially as described, and for the uses and purposes herein set forth.

2. In artificial limbs, the combination of a cogged rocker, K, with oblong hole J, tapering upward, attached to the wooden skeleton of the leg, meshing into the cogged rocker I, with oblong hole J, tapering downward, attached to the wooden skeleton of the foot with a bolt, G, with a spring under its head, reaching from the wooden skeleton of the leg through the said oblong tapering hole J of both cogged rockers I and K, and fastened to the sole of the wooden skeleton of the foot, and the spiral spring *d*, reaching from the skeleton of the leg downward through the skeleton of the foot, and connecting the skeleton A of the foot with the skeleton L of the leg to raise the toe, substantially as described, and for the uses and purposes herein set forth.

3. In artificial limbs, the combination of a cogged rocker, K, with oblong hole J, tapering upward, attached to the wooden skeleton of the leg, meshing into the cogged rocker I,

with oblong hole J, tapering downward, attached to the wooden skeleton of the foot with a bolt, G, with a spring under its head, reaching from the wooden skeleton of the leg through
5 said oblong hole J of both cogged rockers I and K, and fastened to the sole of the wooden skeleton of the foot, and the spiral spring *d*, reaching from the skeleton of the leg downward through the skeleton of the foot, and
10 connecting the skeleton A of the foot with the skeleton L of the leg to raise the toe, and the heel-cord *h*, connecting the skeletons of the leg and foot, and restricting its downward motion, substantially as described, and for the
15 uses and purposes herein set forth.

4. In artificial limbs, the combination of

two cogged rockers, I and K, one attached to the end of the skeleton of the leg and the other attached to the top of the skeleton of the foot, held together by an adjustable bolt, G, 20 and meshing together and rocking on each other, with a spiral spring, *d*, attached to the end of the leg in front, and to the sole of the foot beneath, to raise the toe, and with a cord, *h*, attached to the heel and the end of the leg 25 at its back, to connect the leg and foot and make an ankle-joint, substantially as described.

OLIE B. BRONSON.

Witnesses:

GEO. MOORE,
E. H. JEPSON.