C. COLLINS.

ARTIFICIAL-LEG.

No. 193,396. Patented July 24, 1877.

Fig. 1

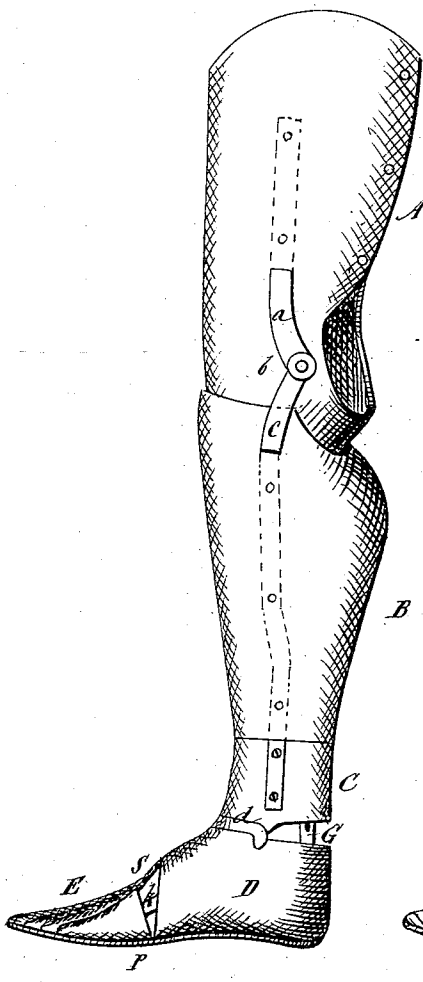


Fig. 2

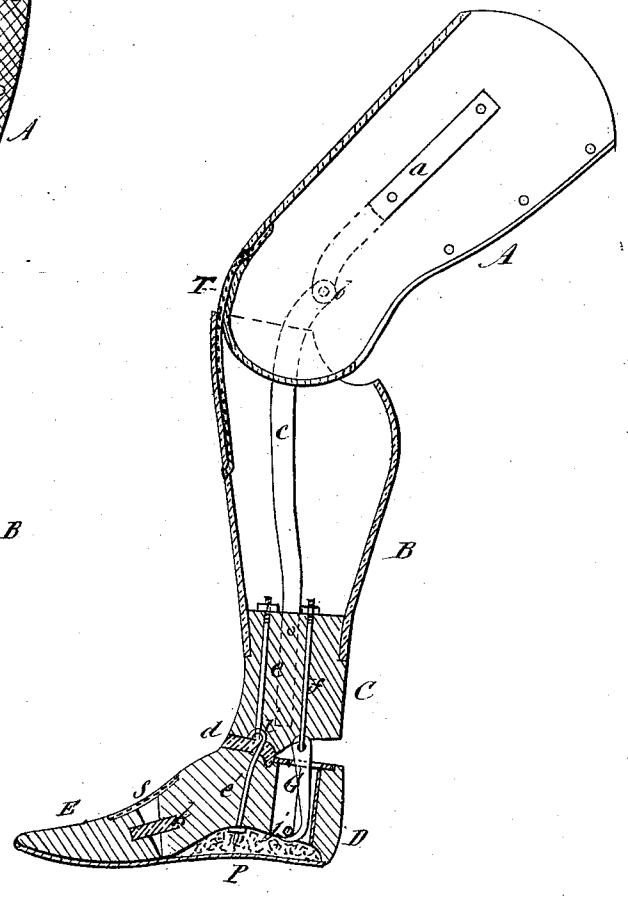
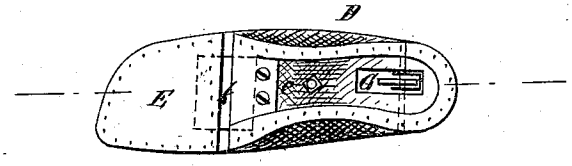


Fig. 3



WITNESSES:

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UNITED STATES PATENT OFFICE.

CORNELIOUS COLLINS, OF ALBIA, IOWA.

IMPROVEMENT IN ARTIFICIAL LEGS.

Specification forming part of Letters Patent No. **193,396**, dated July 24, 1877; application filed June 25, 1877.

To all whom it may concern:

Be it known that I, CORNELIOUS COLLINS, of Albia, in the county of Monroe and State of Iowa, have invented a new and Improved Artificial Leg, of which the following is a specification:

The present invention relates to improvements upon that class of artificial legs shown in a patent granted jointly to myself and to J. H. McCalla, September 28, 1875, No. 168,140; and the invention consists in a novel construction of the ankle-joint, whereby a perfectly free articulation is allowed without noise, as will be hereinafter more fully described, and then pointed out in the claim.

In the annexed drawing, Figure 1 is a side elevation of my improved limb. Fig. 2 is a sectional view of the limb. Fig. 3 is a bottom view of the foot.

Similar letters of reference indicate corresponding parts.

The letter A designates the thigh-socket; B, the lower-leg section; C, the ankle-block, and D E the two sections forming the foot.

The thigh-socket is formed of stout leather, which is carefully crimped upon a form made from a cast of the natural limb. This socket A has rigidly secured to it two metal straps, *a a*, which are pivoted at *b* to metal straps *c*, that are rigidly secured to the lower leg B and ankle-block C. The section B is made of leather crimped upon a former, and suitably secured to the block C.

The lower end of the block C is curved, as shown, leaving a reduced bearing, which will allow a free motion of the foot forward and backward, as well as laterally. The front concave surface of the block C rests upon a cushion, *d*, and is held down thereon by means of a joint, *i*, formed of two bolts, *e e'*. The joint thus formed will allow free play, and the cushion *d* will prevent shocks in walking.

In rear of the joint *i* is a hook, G, which is connected by an eye-joint with a bolt, *f*, fixed into the block C. The hook G enters a recess made through the foot-section D, and engages loosely with a pin, *j*, fixed into this section. This hook-joint also allows the foot to articulate forward and backward, as well as laterally.

The bottom of section D is arched out and the space filled with hair, or some other suitable material which will prevent noise in walking and afford elasticity. The cushion thus formed is covered with a piece, P, of leather, which forms the joint for the front section E. A flat india-rubber key, *k*, and a spring, *s*, complete the toe-joint. In practice I shall inclose the foot and ankle in an india-rubber skin.

Fig. 2 shows a spring, T, connecting the thigh and lower-leg sections. This knee-spring is a strong strip of india-rubber, fastened in such manner that it will act to straighten the leg when flexed.

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

The combination of the hook G and pin *j* with the ankle-block C, foot-section D, link-joint *i*, and rubber cushion *d*, substantially as herein set forth.

CORNELIOUS COLLINS.

Witnesses:

THOS. H. ELDER,

W. R. KELSEY.