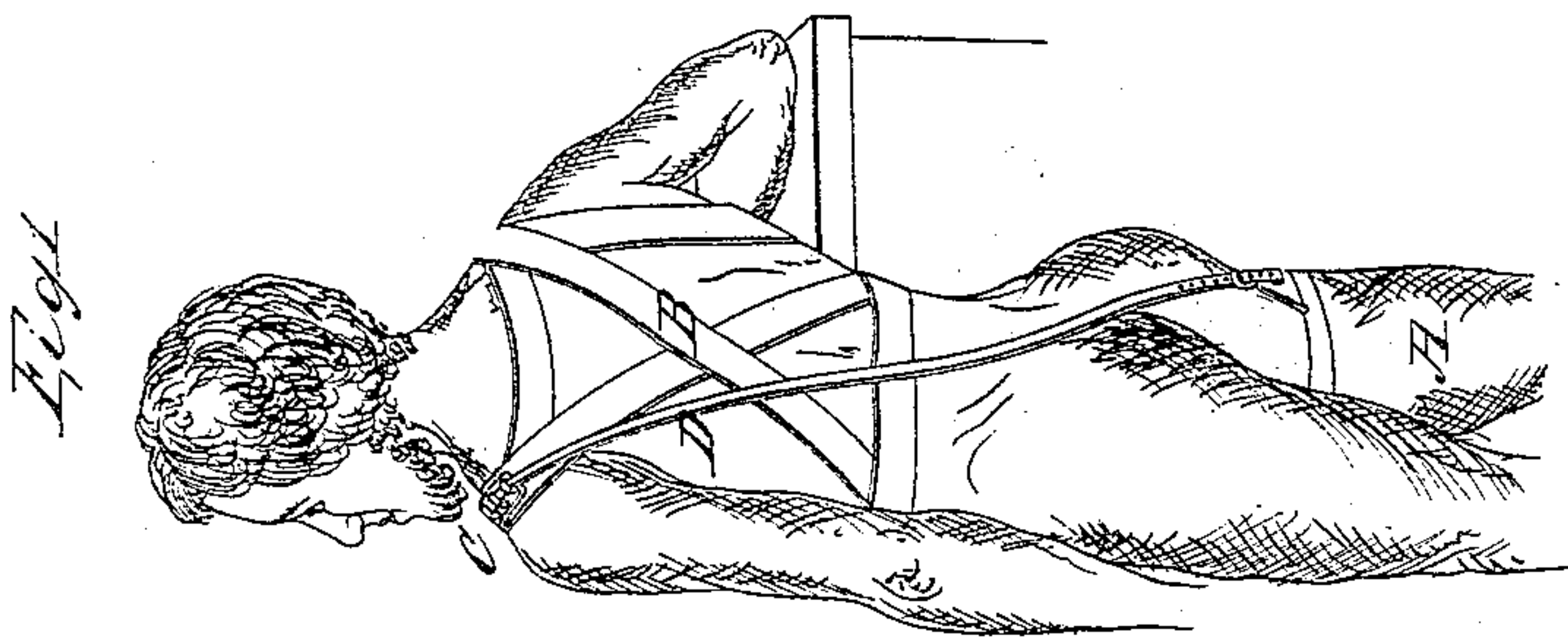
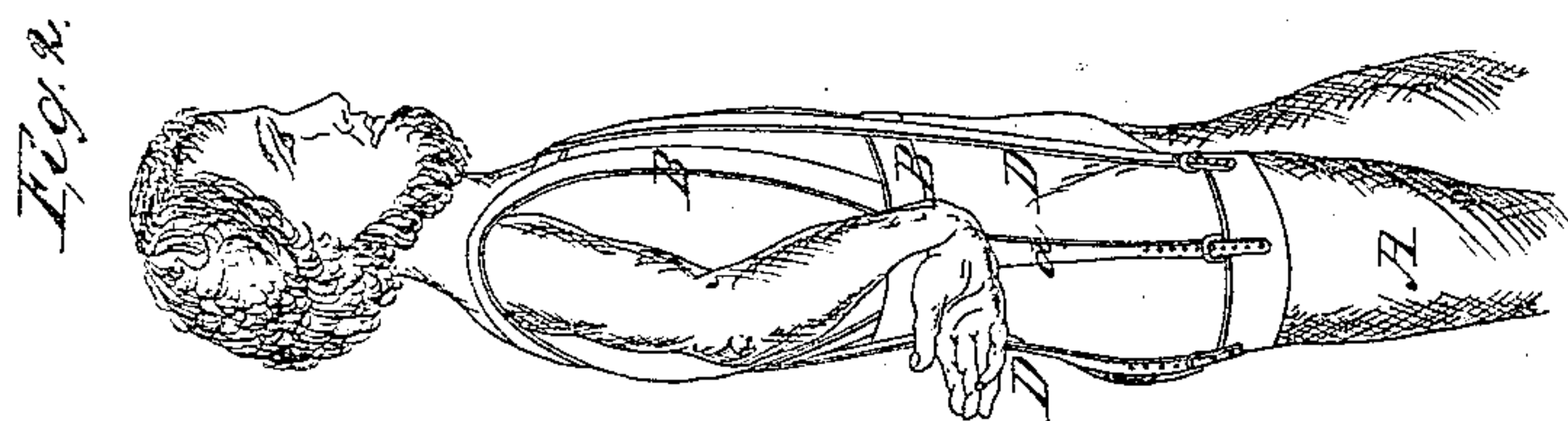
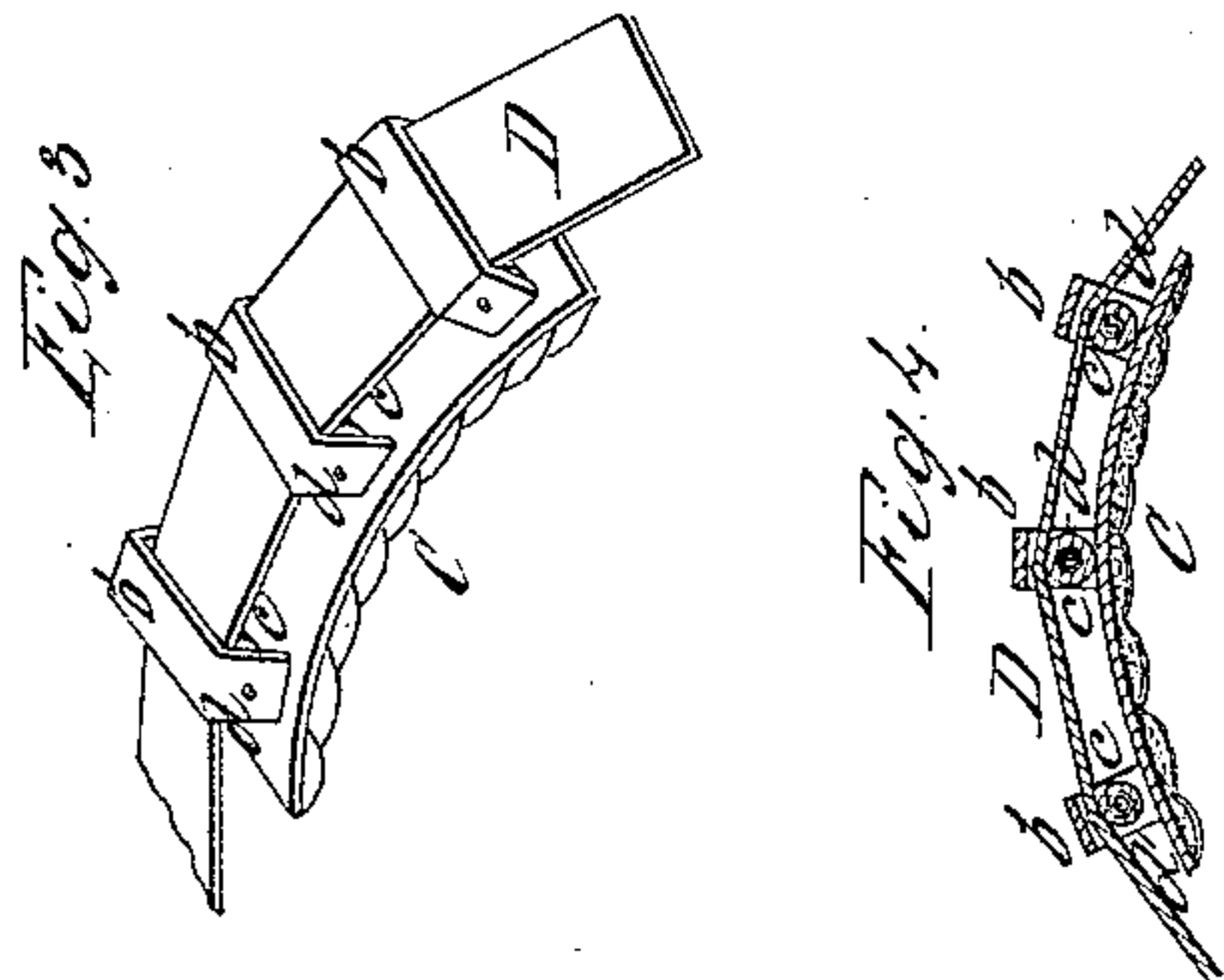


P. Daniels,
Artificial Leg Support.
No 37,738. Patented Feb. 24, 1863.



Witnesses
R. F. Osgood
Daniel Marsh

Inventor.
Phylander Daniels
by J. Fraser & Co. Attys

UNITED STATES PATENT OFFICE.

PHYLANDER DANIELS, OF LE ROY, NEW YORK.

IMPROVEMENT IN SUPPORTS FOR ARTIFICIAL LEGS.

Specification forming part of Letters Patent No. 37,738, dated February 24, 1863.

To all whom it may concern:

Be it known that I, PHYLANDER DANIELS, of Le Roy, in the county of Genesee and State of New York, have invented a new and Improved Arrangement for Supporting Artificial Legs; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a view, looking rearwardly, of my improved arrangement as applied to the person; Fig. 2, a similar view, looking side-wise; Fig. 3, an enlarged perspective view of the shoulder-saddle and a portion of the supporting shoulder-strap, detached; Fig. 4, a longitudinal vertical section of the same, showing more particularly the arrangement and relation of the strap and friction-rollers.

Like letters designate corresponding parts in all the figures.

My invention consists in the use of a shoulder-saddle—resting on the shoulder opposite the artificial leg—provided with friction-rollers, over which passes a strap, secured at its opposite ends to the front and rear of the upper socket of the leg, by which means the limb itself and the body of the wearer are allowed a free movement without the great restraint and friction unavoidable in ordinary arrangements where elastic straps are used.

My improvement is adapted particularly to the use of artificial legs where the amputation is above the knee. The leg A may be of any usual construction, and it is sustained at the side by a strap, *a*, extending upward, and secured to the ordinary harness or jacket, B, resting on the shoulders and around the body.

On the shoulder of the wearer, opposite the artificial leg, (the left one in the drawings,) and suitably secured to the harness, is situated a saddle, C, Figs. 3 and 4, of suitable size for the purpose designed, and of the proper curvature to fit the convexity of the shoulder, the bottom being cushioned or stuffed for ease and comfort. On the top of this saddle, at desirable distances apart, are a suitable number of transverse bearings, *b b*, substantially of the shape shown, within which are respectively situated small friction-rollers *c c c*, resting and turning on axes *d d*, as indicated most clearly in Fig. 4. Over

these friction-rollers, and within the bearings *b b*, (by which it is kept in place,) passes a shoulder-strap, D, usually made of leather, the opposite ends of which are secured, respectively, to the front and rear of the upper socket of the artificial limb by buckles, as indicated, or in any other convenient manner.

The arrangement above described possesses important advantages over the use of an elastic strap alone for sustaining the leg in place. In the latter case the strap is retained in a rigid or stationary position, and with every movement of the limb or body it must expand, thus occasioning a restraint that is unpleasant and tiresome; or, if the motion is considerable, as in stooping, a slipping of the strap is produced, which, from its pressure, is painful and burdensome to the shoulder; also, in such movements of the body or limb, when the reaction takes place, the elastic strap must seek its equilibrium, and from holding at its bearing on the shoulder it draws unequally on one side or the other, and thus tends to misplace the leg. By the use of the saddle resting on the shoulder, and the strap passing over it, as before mentioned, the easiest and freest motion is allowed, both to the limb itself and to the body of the wearer. At every movement the strap runs freely on the friction-rollers, so that the leg can perform its functions without restraint of any kind; and also the shoulder can move within the strap without inconvenience, always supporting the leg at the same time in the proper position. This is the same in all motions or positions of the body—in walking, stooping, or sitting down, or in moving the arms. Whenever the body is subject to motion, it takes place without restraint, and with the greatest ease, and it obviates the binding-pressure on the shoulder, that is unavoidable where elastic straps are used.

The saddle, by being made of concave form, fits the shoulder accurately, and its length is sufficient to throw the strap clear of any positive bearing or contact therewith, while at the same time, by its compactness, it exposes no projection or unsightliness. The central supporting-strap, *a*, being situated on the side of the body opposite the shoulder that wears the saddle serves as a counter-balance to the shoulder-strap D, thus dividing the support of

the leg with both shoulders, and insuring great ease and the best action of the whole.

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

The shoulder-saddle C, provided with friction-rollers *c c*, over which passes the strap D, secured at its ends to the artificial limb, for the purpose of suitably supporting the same and allowing the free and easy motions of the

body, arranged, combined, and operating substantially as herein set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

PHYLANDER DANIELS.

Witnesses:

J. FRASEQ,

J. L. REQUA.