

(No Model.)

A. A. WINKLEY.

ARTIFICIAL LIMB.

No. 371,239.

Patented Oct. 11, 1887.

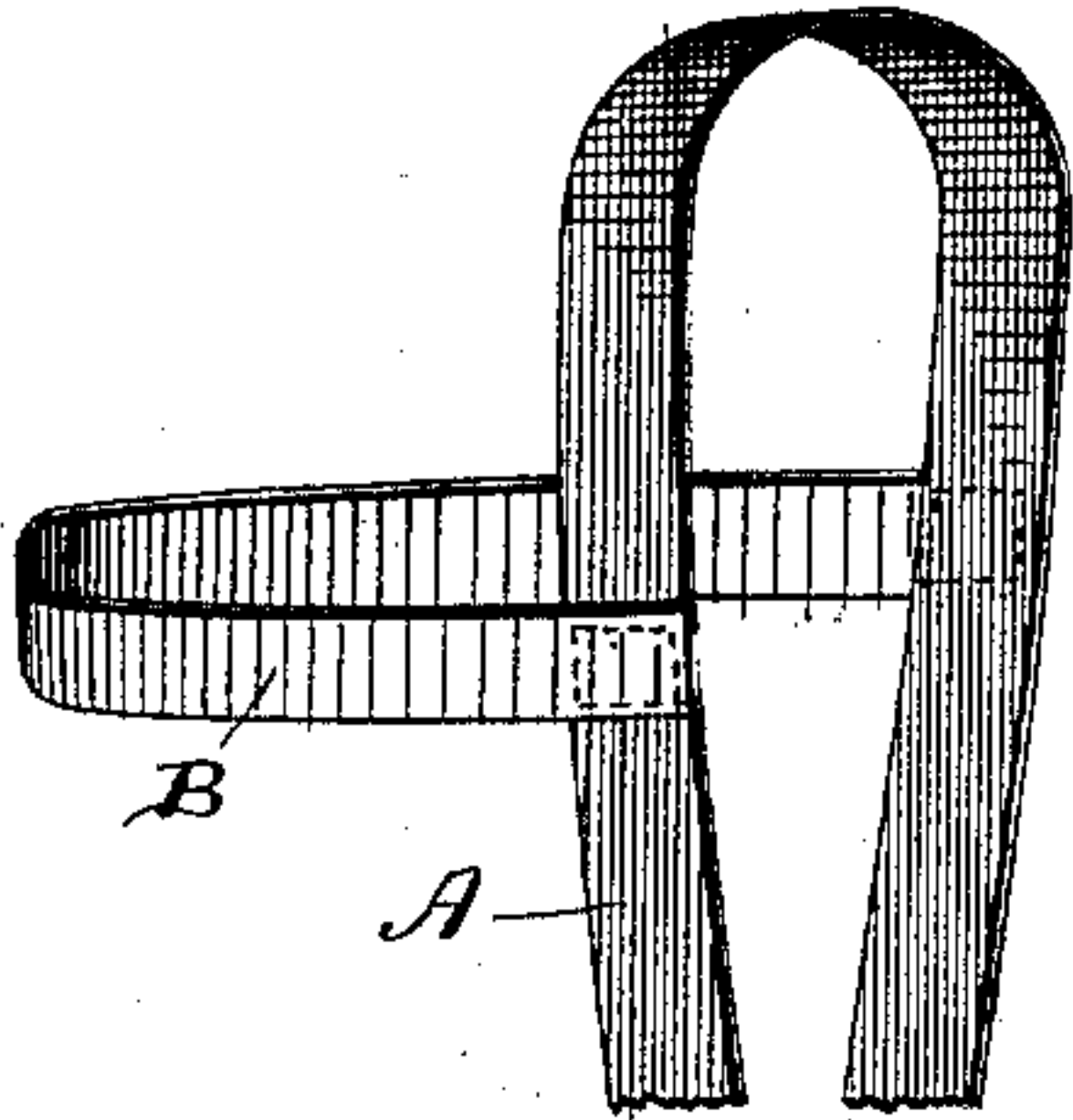


Fig. 1.

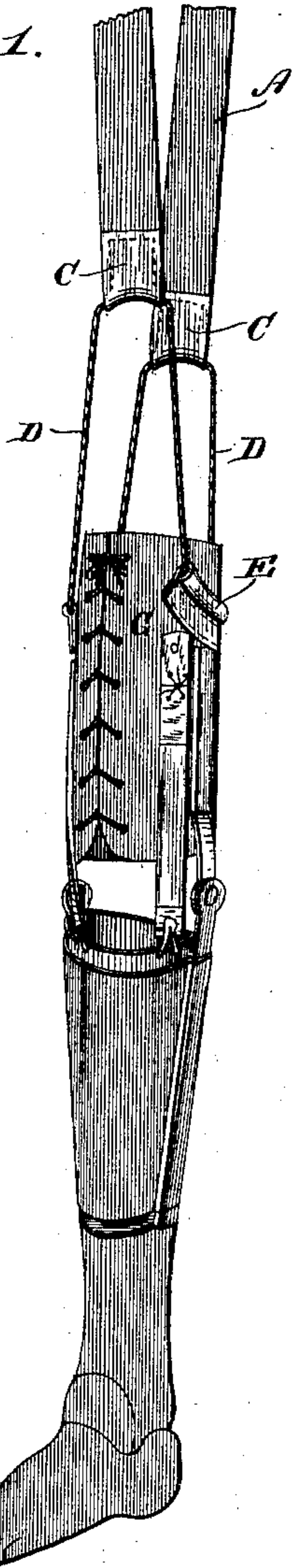


Fig. 2.

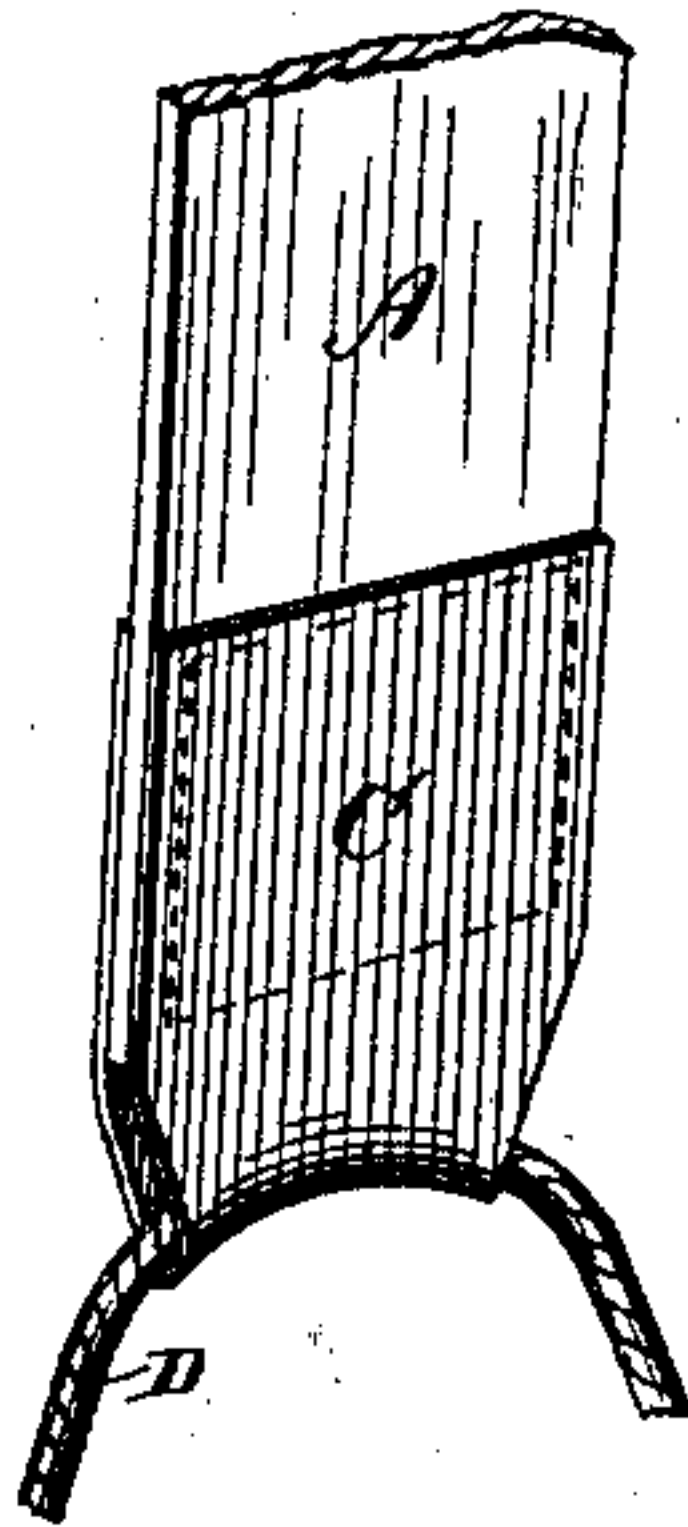


Fig. 3.

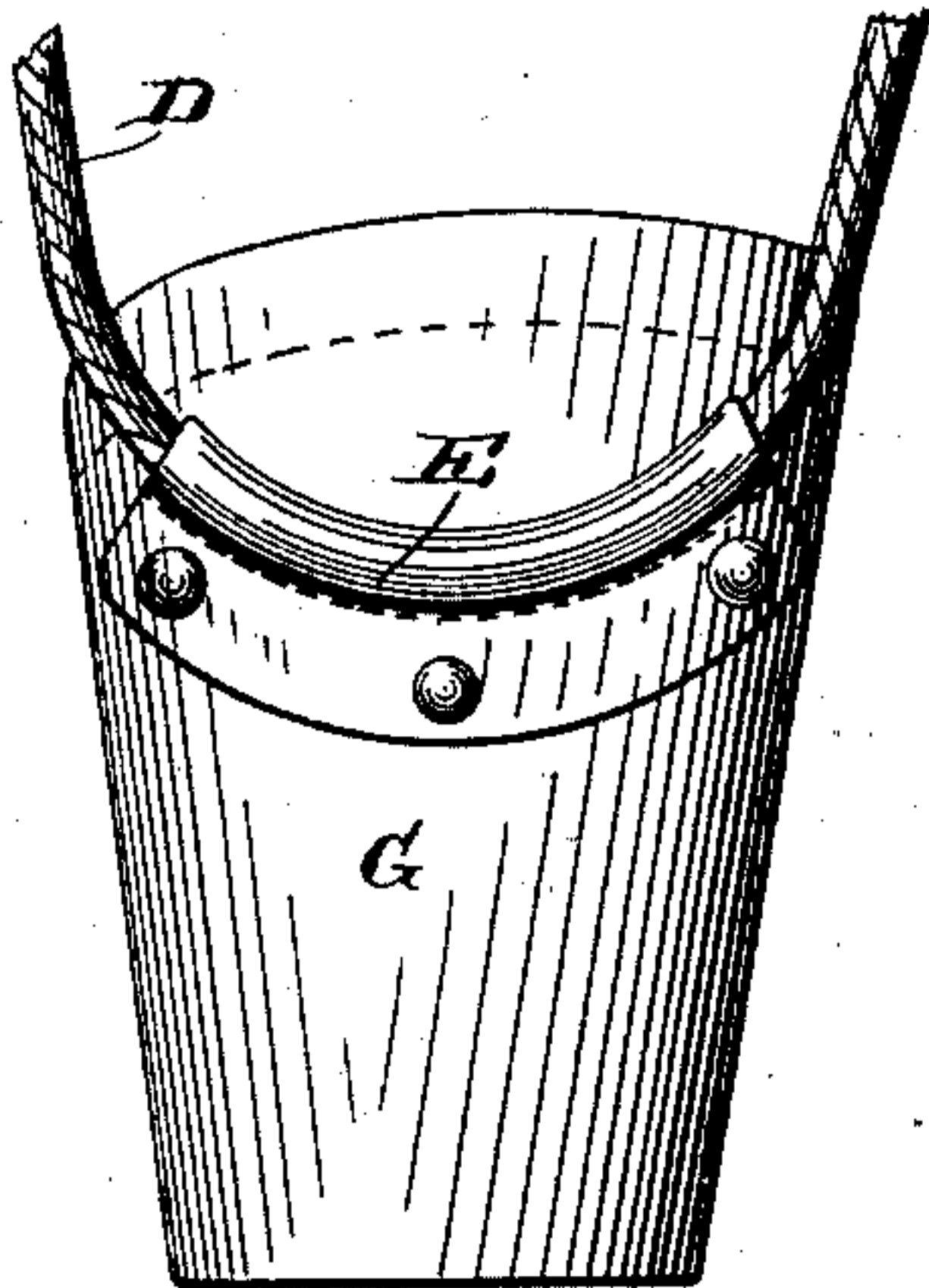
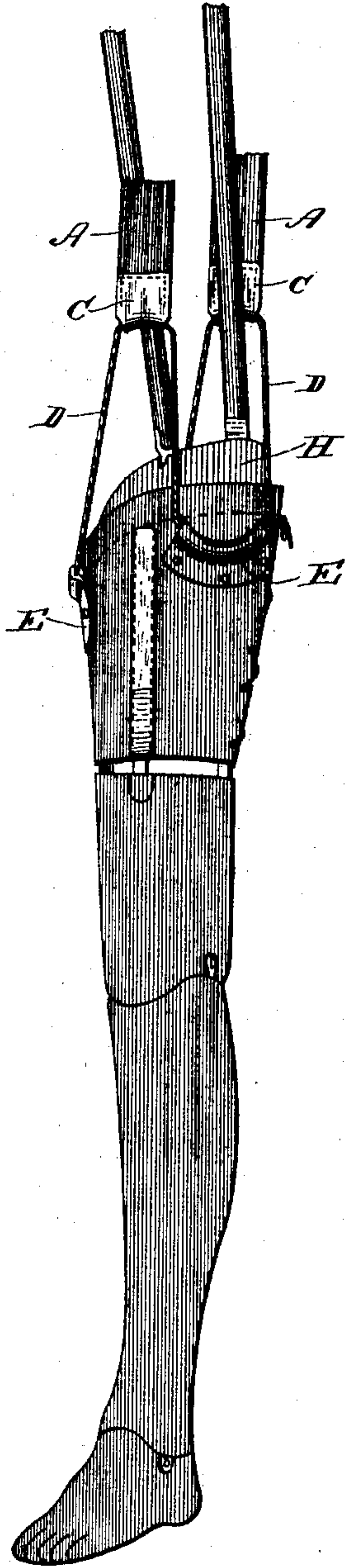


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

ALBERT A. WINKLEY, OF FARIBAULT, MINNESOTA.

ARTIFICIAL LIMB.

SPECIFICATION forming part of Letters Patent No. 371,239, dated October 11, 1887.

Application filed April 23, 1887. Serial No. 235,901. (No model.)

To all whom it may concern:

Be it known that I, ALBERT A. WINKLEY, of Faribault, in the county of Rice and State of Minnesota, have invented certain new and
5 useful Improvements in Devices for Maintaining Artificial Limbs in Position; and I do hereby declare the following to be a full, clear, and exact description of the same, reference
10 being had to the accompanying drawings, forming part of this specification, and to the figures and letters of reference marked thereon.

The shoulder-straps usually employed for maintaining an artificial limb in position are a
15 source of much discomfort to the wearer, owing to the fact that they shift their position during the movements of the wearer, and create thereby an unpleasant friction and rubbing of his person.

It is the object of my invention to so con-
20 trive and connect the shoulder-straps as to enable them to properly support the limb and at the same time permit of the greatest freedom of motion of the limb or of the wearer's body without any displacement of said straps,
25 all as will be hereinafter described.

Referring to the accompanying drawings,
Figure 1 is a perspective view showing the application of my invention to an artificial
30 limb intended for use in the case of an amputation below the knee. Fig. 2 is a detail view showing the mode of connecting the adjustable cord to the elastic webbing; Fig. 3, a similar
view showing the mode of connecting the said cord to the upper socket of the artificial limb.
35 Fig. 4 is a view showing the application of the invention to an artificial limb intended for use in the case of an amputation above the knee.

Similar letters of reference in the several
40 figures indicate the same parts.

The artificial limb shown in Fig. 1 is one made in accordance with my patent, No. 316,589, dated April 28, 1885, and needs no particular description herein.

45 A represents a strap of elastic webbing that passes over the shoulder of the wearer, and B another strap of similar material that passes around the wearer's body and connects at opposite ends to the front and rear portions of
50 the strap A, as shown. The lower ends of the strap A are provided with slides or loops C, which may be of leather, metal, or other material, but are preferably formed of leather, and united by suitable rivets or stitches to the

webbing. Through these loops or slides C C 55 passes a cord, D, which also passes through elongated curved loops or guides E, formed upon or secured to the upper socket, G, of the artificial limb on opposite sides thereof, as
60 shown in Fig. 1. This cord D is free to slide through both the loops C and E, and in the movements of the limb or of the wearer's body it does so slide, thereby enabling the strap A to accommodate itself to such movements with-
65 out being itself shifted from its position on the wearer's shoulder, and consequently without causing the slightest irritation or discomfort to the wearer.

It is essential that the loops or guides E on the socket should be sufficiently long to pre- 70 sent an extended smooth bearing to the cord D, and prevent the same from being pinched, bound, or otherwise interfered with in its back and forth movements. By preference I construct these loops or guides E of leather 75 and secure them to the socket G by stitches or rivets; but they may be made of metal or other suitable material; or pulleys may be substituted in their stead in order to reduce friction to the minimum. 80

Where my invention is applied to an artificial limb such as shown in Fig. 4, intended for use where there has been an amputation above the knee, an extra strap is applied to the inner chafing-socket, H, and passed up 35 over the other shoulder of the wearer.

While my invention is especially applicable to artificial limbs such as are covered by my former patent hereinbefore referred to, I do not intend to be understood as limiting its appli- 90 cation thereto, since it may be used in connection with other styles of artificial limbs with the same advantageous results.

What I claim as new is—

1. The combination, with the depending 95 ends of the shoulder-strap and guides on the artificial limb, of the self-adjusting continuous connecting-cord, substantially as described.

2. The combination, with the depending 100 ends of the shoulder-straps carrying the loops or slides, of the elongated loops or guides on the artificial limb and the self-adjusting connecting-cord, substantially as described.

ALBERT A. WINKLEY.

Witnesses:

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D. H. CAREY.