

No. 854,282.

PATENTED MAY 21, 1907.

E. H. ERICKSON.
SUPPORTER FOR ARTIFICIAL LEGS.
APPLICATION FILED NOV. 26, 1906.

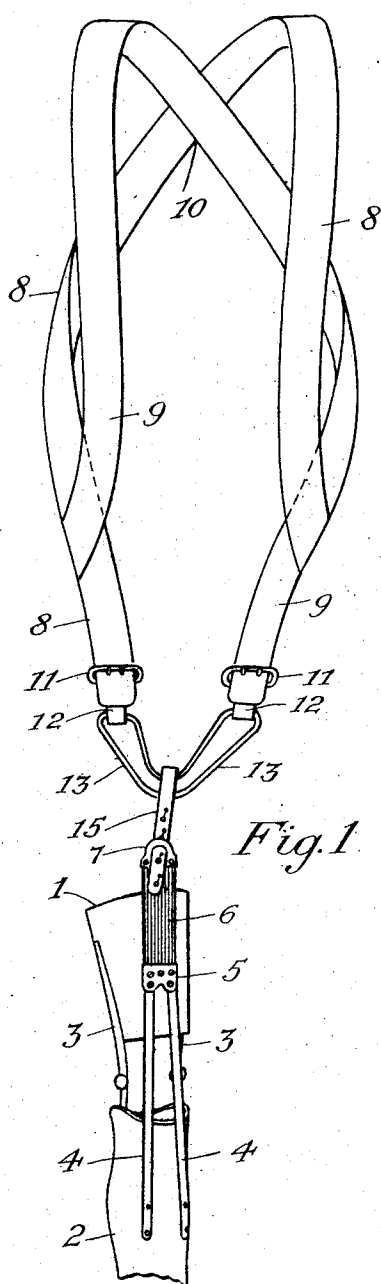


Fig. 1

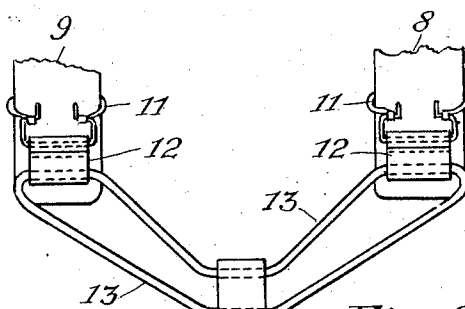


Fig. 2

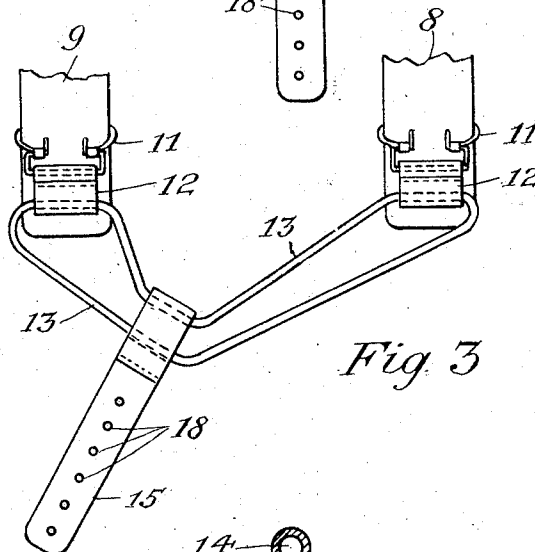


Fig. 3

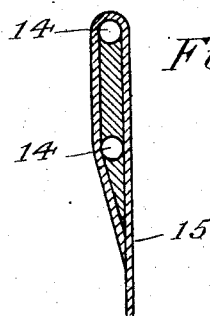


Fig. 4

Witnesses;
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UNITED STATES PATENT OFFICE.

ERICK H. ERICKSON, OF MINNEAPOLIS, MINNESOTA.

SUPPORTER FOR ARTIFICIAL LEGS.

No. 854,282.

Specification of Letters Patent.

Patented May 21, 1907.

Application filed November 26, 1906. Serial No. 345,086.

To all whom it may concern:

Be it known that I, ERICK H. ERICKSON, a citizen of the United States, residing at Minneapolis, county of Hennepin, and State of Minnesota, have invented certain new and useful Improvements in Supporters for Artificial Legs, of which the following is a specification.

My invention relates to supporters or suspenders for supporting artificial legs from the shoulders of their wearers; and its object is mainly to make the supporting devices of such construction that they will yield easily to the movements of the wearer, without chafing the shoulders or body, and especially in case of side movements of the leg or body. I have found from long experience in the use of the supporters commonly employed for the purpose that they do not properly yield to movements of the wearer and cause annoying and often painful chafing or binding upon the shoulders and other portions of the body, and it is the principal object of my improvements to overcome the objections to such devices.

My improvements are illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of the supporting devices and of portions of the artificial limb to which they are connected; Fig. 2 is a view from the rear of the lower portion of the supporter showing the parts in normal position; Fig. 3 is a similar view showing the position of the parts when the leg has been moved toward one side; and Fig. 4 is a sectional detail of the adjustable strap which connects the limb to the shoulder straps.

In the drawings 1 designates a thigh-socket for the right leg which is attached to the lower member 2 of an artificial leg by the metal side straps or braces 3. To the upper portion of the member 2 are attached two suitably spaced leather or other straps 4, and their upper ends are secured in a clamping device 5. An elastic strip, or strap 6 is also secured in the clamp 5, and the upper end of the strap 6 is provided with a buckle 7 attached thereto by clamping members.

The supporting straps preferably consist of two inelastic straps 8 and 9 of webbing or other suitable material. These straps are looped over the shoulders of the wearer and are crossed at the back and secured together, as at 10; and the end of each rear portion is attached to the front portion of the other

strap near its lower end, a little below the waist line of the wearer.

To each of the front straps is connected by a buckle 11 a swinging loop 12, which preferably is made of webbing or like material. The loops loosely carry an endless cord 13, preferably inelastic, which extends across from one strap to the other. The upper and lower portions of this cord pass through holes 14 in a strap 15, preferably leather, that adjustably and detachably connects the shoulder straps with the elastic strap 6. The cord 13 may be of twisted or woven strands or of leather, and preferably somewhat stiff in order that the strap 15 may slide more freely upon it. While it is preferable to employ an endless cord 13 and to have it free to move in the loops 12, it is obvious that the cord might be permanently or removably attached to the loops; and also that the strap 15 might have but one bearing on the cord instead of two. Therefore I do not wish to be limited to the use of an endless cord.

In fitting the supporting straps 8 and 9 to the body it is desirable that their lower portions converge somewhat toward the leg to be supported, about as shown in Fig. 1, in order that their tension upon the shoulders and body may not be unequal and to prevent their movement under lateral tension in use.

As the strap 15 is free to slide on the endless cord and as the elastic connection 6 yields under tension, it will be apparent that the artificial leg can be moved freely without changing the positions of the supporting straps beyond slight deflection of their lower ends. By this construction and arrangement of supporting devices the wearer of an artificial leg is enabled to move it freely in any direction without discomfort caused by movement or unequal pressure of the shoulder or body straps.

Having described my invention, what I claim and desire to secure by Letters Patent is—

1. A supporter for artificial legs, comprising inelastic shoulder straps, loops adjustably connected to their lower portions, an adjustable strap connected by an elastic connection to the leg-socket, and a cord slidably connecting the latter strap to said loops, substantially as set forth.

2. A supporter for artificial legs, comprising inelastic shoulder straps, loops adjustably connected to their lower portions, an endless

cord slidable in said loops, a strap slidable on the cord, and an adjustable connection between the latter strap and the leg, substantially as set forth.

5 3. A supporter for artificial legs, comprising inelastic shoulder straps, loops adjustably connected to their lower portions, an endless cord slidable in said loops, a strap slidable on the cord, and an elastic connection between
10 the latter strap and the leg, substantially as set forth.

4. A supporter for artificial legs, comprising inelastic shoulder straps, loops adjustably connected to their lower portions, an endless
15 cord slidable in said loops, a slidable strap having bearings on upper and lower portions of the cord, and means for making an adjustable yielding connection between the latter strap and the leg, substantially as set forth.

20 5. A supporter for artificial legs, comprising inelastic shoulder straps, loops adjustably connected to their lower portions, a cord extending across from one loop to the other and

slidable therein, a strap slidable on the cord, and means for making an adjustable yielding
25 connection between the latter strap and the leg, substantially as set forth.

6. In a supporter for artificial legs, the combination with an inelastic shoulder strap,
30 of an elastic section, a clamp for uniting the two strap sections, a second clamp on the lower end of the elastic section consisting of cooperating clamping plates, a tongue and slot provided by one of said plates, an adjustable loop retained by said tongue and
35 slot, and a cord therein for connecting the supporter to the artificial leg, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of
40 two subscribing witnesses this 22d day of November, 1906.

ERICK H. ERICKSON.

Witnesses:

P. H. GUNCKEL,
H. A. BOWMAN.