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PATENTED JUNE 14, 1904.

J. E. HANGER.

FASTENING DEVICE FOR ARTIFICIAL LIMBS.

APPLICATION FILED SEPT. 1, 1903.

NO MODEL.

Fig. 1.

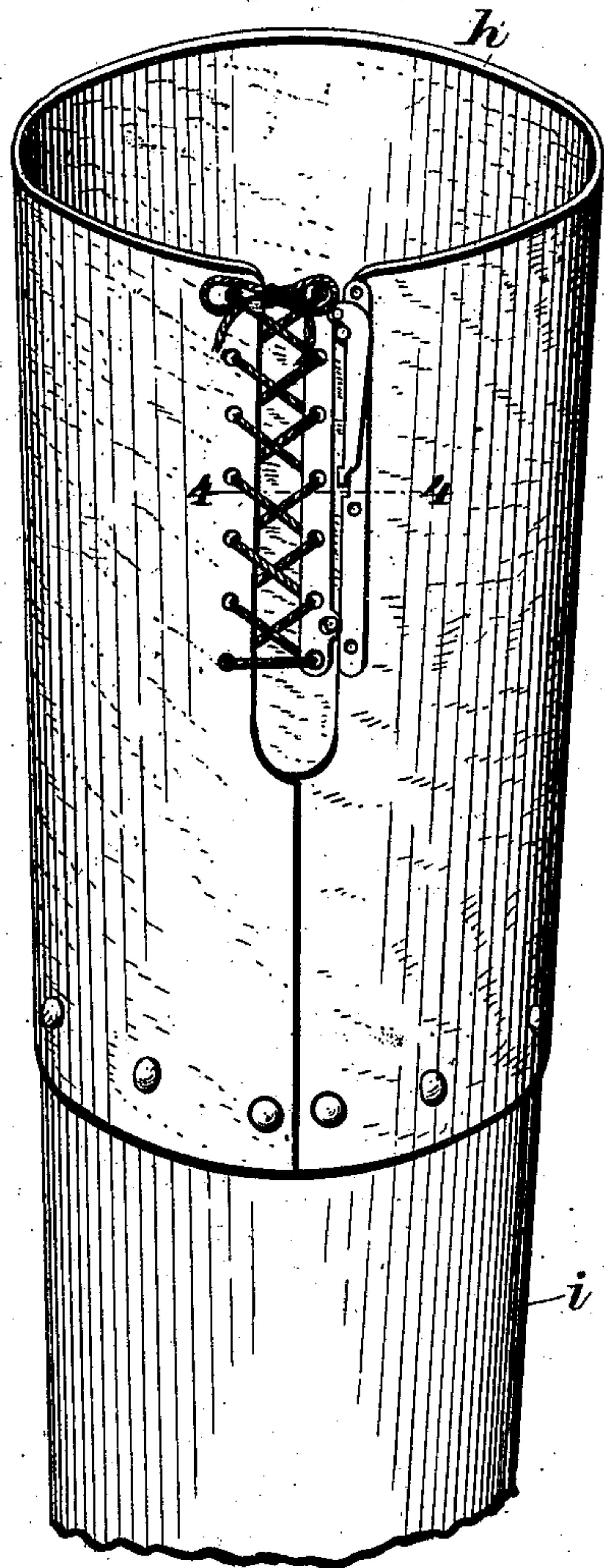


Fig. 2.

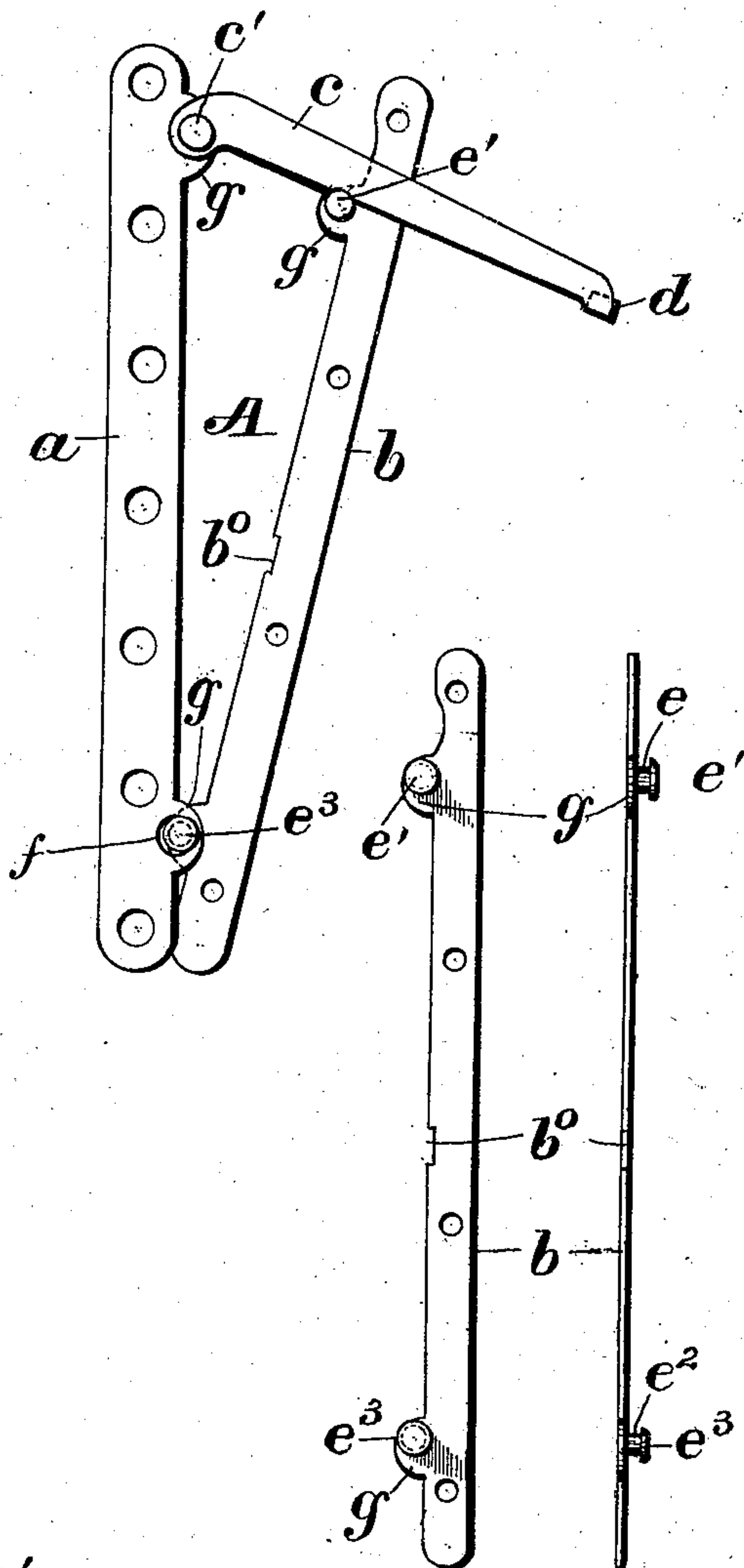


Fig. 3.

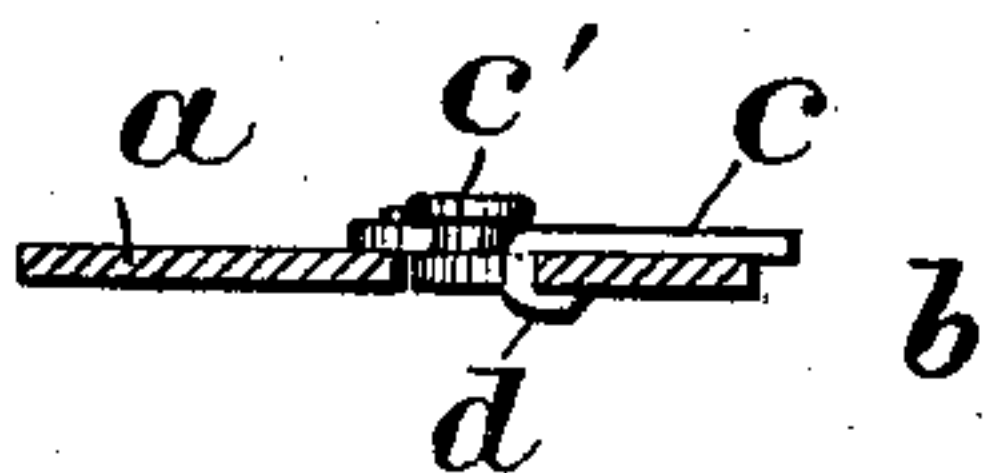


Fig. 4.

Witnesses

Nancy C. Bowen.
Fred W. Engle.

Inventor:

Inventor
James E. Hanger
By Wilkinson & Fisher

Attorneys

UNITED STATES PATENT OFFICE.

JAMES E. HANGER, OF WASHINGTON, DISTRICT OF COLUMBIA.

FASTENING DEVICE FOR ARTIFICIAL LIMBS.

SPECIFICATION forming part of Letters Patent No. 762,822, dated June 14, 1904.

Application filed September 1, 1903. Serial No. 171,510. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. HANGER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Fastening Devices for Artificial Limbs; and I do hereby 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.

My invention relates to improvements in attachments for the thigh-socket of artificial legs; and it consist of a clasp or fastener for readily attaching and detaching the artificial leg after the same has once been properly laced and fitted to the affected limb of the body.

The method generally practiced of attaching the artificial limb to the thigh-joint consists in lacing the leather or other flexible socket member tightly to the stump of the body, and it is necessary to unlace this member and refit the same to the body whenever the artificial limb is taken off or put on. This is oftentimes inconvenient, and it is to obviate this necessity of unlacing and relacing this socket member that I have provided my improved clasp or fastener, the features of novelty of which will be noted in the specification and recited in the claims.

Referring to the accompanying drawings, illustrating my invention, and in which like letters refer to similar parts in the several views, Figure 1 represents a part of the upper joint of an artificial limb, showing my device attached to the flexible socket member. Fig. 2 is an elevation of the clasp or fastener, showing the same in its open position and detached from the socket member. Fig. 3 shows elevation and edge views of one of the members, and Fig. 4 is a section through the clasp on the line 4 4 of Fig. 1.

A represents the clasp or fastener, comprising the two flat separable members *a* and *b*. To one end of the member *a* is pivoted, as at *e'*, a suitable locking-lever *c*, provided with the hooked end *d*, adapted to engage the member *b* in the cut-away portion *b'*. This lever *c* when the two members are assembled is

adapted to engage a rounded stud *e*, provided with a head *e'*, located near one end of the member *b*. On the other end of the member *b* a similar stud *e''*, having the head *e'''*, is provided, which is adapted to be inserted in a perforation *f* in the member *a* opposite the end where the locking-lever *c* is pivoted, forming a separable pivotal connection between the two members at this end. The studs *e* and *e''* and the pivot-pin *e'* are shown as being secured to projecting lips *g*, while the perforation *f* is cut through a similar lip which retains the members slightly separated.

In operation one of the members is laced to one edge of a slit in the leather socket-piece, while the other member may be either laced or otherwise suitably secured, as desired. In the drawings I have illustrated the member *a* as being laced to the leather socket member *h* of the artificial limb *i*, while the member *b* is suitably riveted to said leather socket member. It will be readily apparent that after the socket member has once been properly laced to fit the limb of the body it will only be necessary to insert the stud *e''* in the perforation *f* and rotate the lever *c* over the stud *e'* to draw the two members together and lock the same by means of the hooked end *d* and to reverse the operation when it is desired to take off the artificial leg, thus avoiding the necessity of lacing and unlacing the flexible socket member.

Although I have shown the hooked end for fastening the locking-lever, it is obvious that the lever might be locked in any other suitable way, and, indeed, many other modifications might be made without departing from the spirit of my invention. It is also obvious that although I have described my invention as particularly applicable to artificial limbs I do not wish to restrict myself to this particular use, as the device might readily be used in other connections.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A fastening device comprising two members, provided with means for forming a separable pivotal connection between the same,

and means for drawing said members together and holding the same in a locked position.

2. A fastening device comprising two members, provided with means for forming a separable pivotal connection between the same at one end thereof, and a lever pivoted to one of said members and engaging the other of said members for drawing the upper free ends of the two members together and holding the same in a locked position.

3. In a fastening device, the combination with two separable members, of a headed stud located near each end of one of said members, a perforation being formed in the other of said members adapted to receive one of said headed studs and form a pivotal connection therewith, and a locking-lever on said second

member, adapted to engage said other headed stud for drawing the two members together and locking the same.

4. In a fastening device, the combination with two members, means for forming a separable pivotal connection between said members at one end thereof, a lever on one of said members adapted to engage the other of said members for drawing the two together, and a hooked lip on said lever for locking said members.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES E. HANGER.

Witnesses:

FRANK D. BLACKISTONE,
M. M. O'CONNOR.