

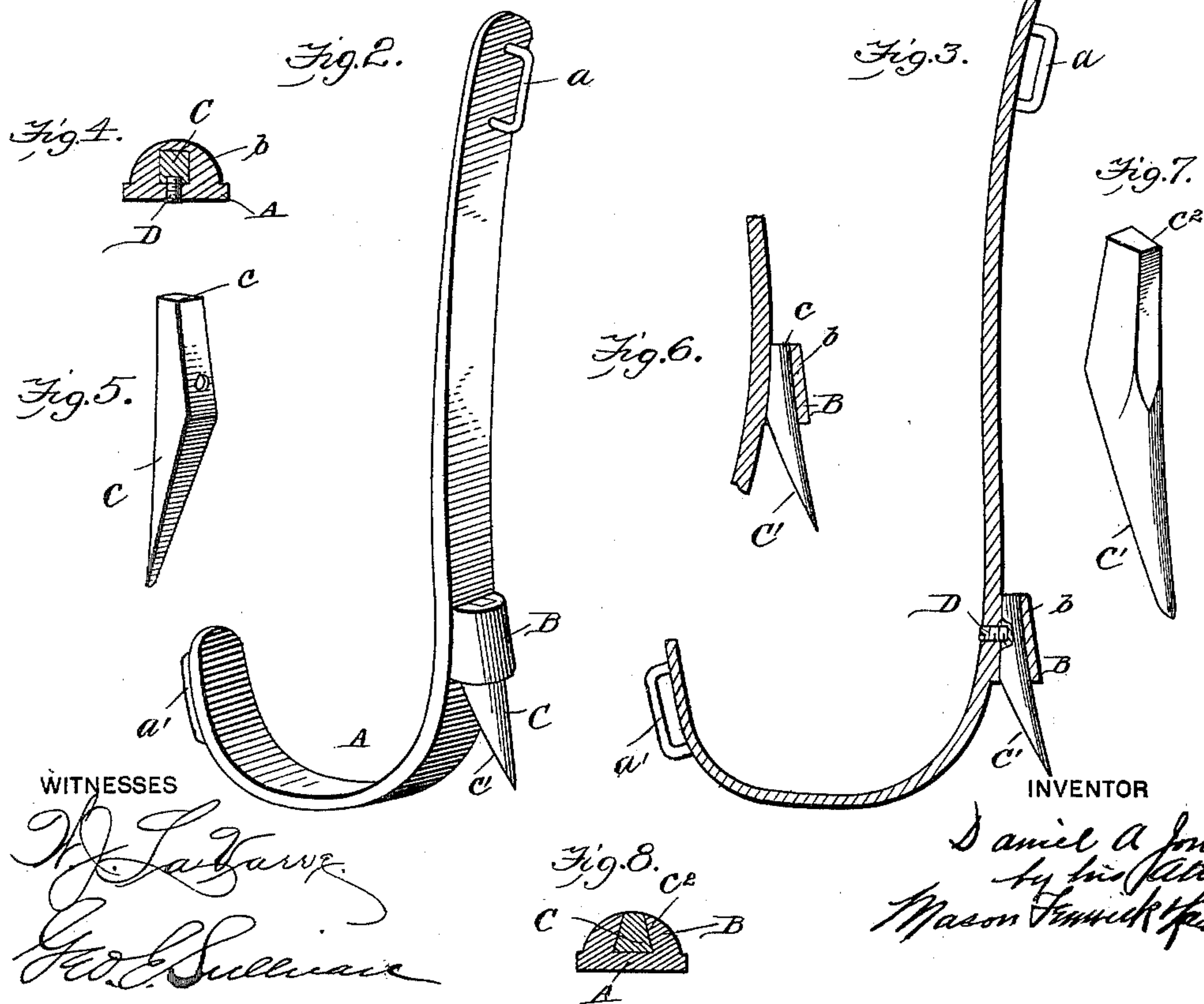
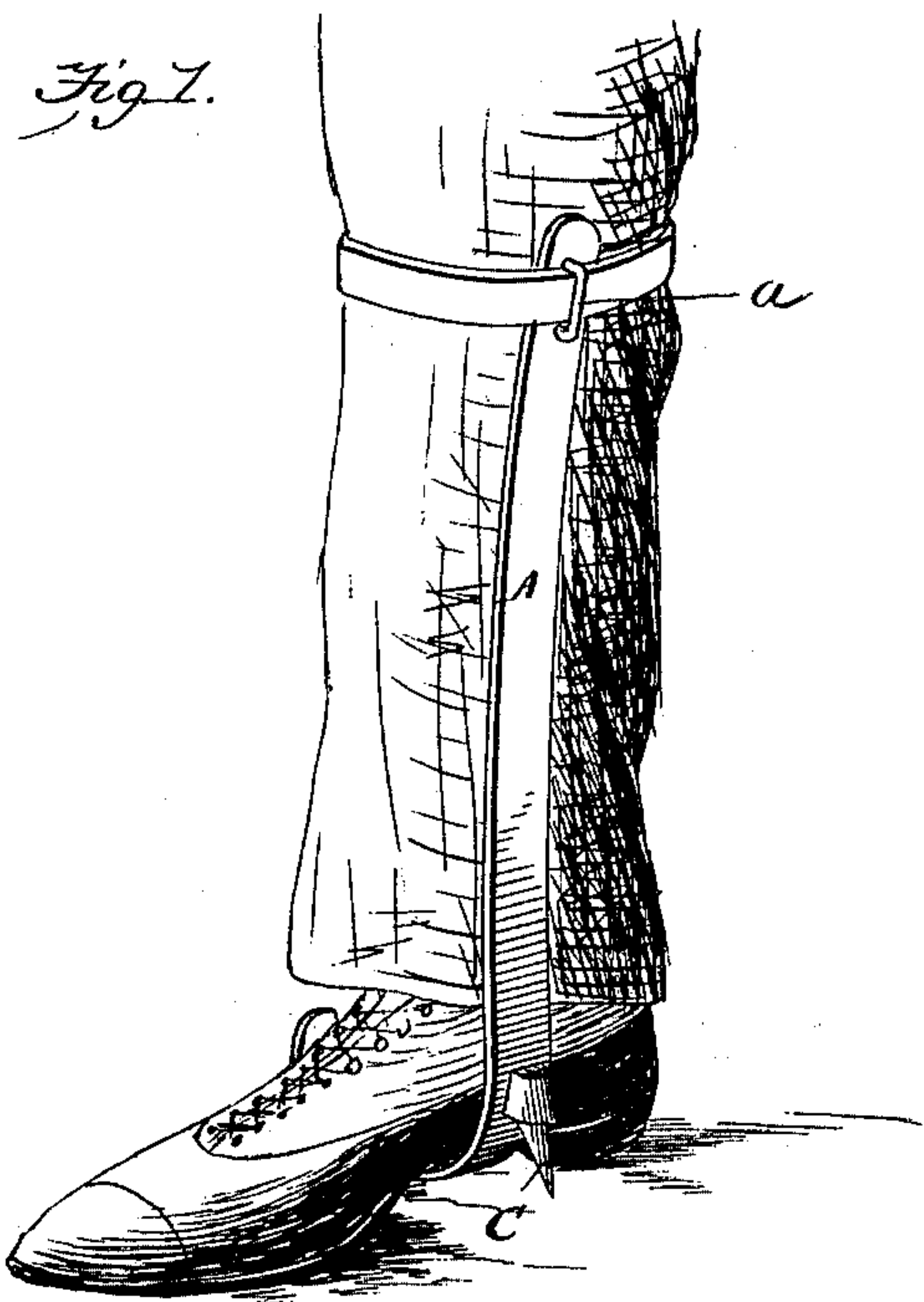
No. 626,542.

Patented June 6, 1899.

D. A. JONES.  
POLE CLIMBER.

(Application filed Feb. 15, 1898.)

(No Model.)





# UNITED STATES PATENT OFFICE.

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## POLE-CLIMBER.

SPECIFICATION forming part of Letters Patent No. 626,542, dated June 6, 1899.

Application filed February 15, 1898. Serial No. 670,380. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL A. JONES, a citizen of the United States, residing at Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Pole-Climbers; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to pole-climbers designed for use particularly by linemen in putting up telegraph and telephone wires and making repairs; and the objects of my invention are, first, to construct the attaching-shank of the climber of cheap material, as malleable iron, and to provide the same with a removable steel gaff or spur, and, second, to so construct the shank and gaff or spur that the gaff or spur can be attached to the shank of the climber without weakening the shank or employing an auxiliary securing means and which will be very strong and without liability of accidentally becoming detached from the shank of the climber.

To these ends my invention consists of the shank of the climber provided with a laterally-extending socket or with laterally-extending lugs having a wedge-shaped passage formed in it or between them and in so constructing the gaff or spur that its penetrating end will project from the side of the climber and its upper inner face will bear squarely against the side of the shank.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a man's leg with my improved climber strapped to the same. Fig. 2 is a perspective view of the climber. Fig. 3 is a vertical section through the same. Fig. 4 is a transverse section on the line of the socket and spur or gaff. Fig. 5 is a perspective view of one form of spur or gaff, looking at the back of the same. Fig. 6 is a vertical section through the socket and a portion of the climber, no securing-screw being employed. Fig. 7 is a perspective view of a modified form of gaff or spur; and Fig. 8 is a transverse section through the climber on the line of the socket, the socket in this

instance being formed by two lugs and the spur or gaff being of the construction shown in Fig. 7.

A in the drawings represents the shank of the climber, which consists of a metal band or strap of approximately L shape, having an upturned lower end, forming a seat for the foot of the wearer, the vertically-extending portion of the strap bearing upon the inside of the leg, as shown in Fig. 1. A loop or eye *a* is provided at the upper end of the shank of the climber and a loop or eye *a'* at the lower end of the same for the reception of securing-straps, by means of which the climber is attached to the leg of the wearer. On the outer surface of the shank of the climber, near its lower end, a lug is provided, which extends outside the vertical axis of the shank and is formed with a socket B. This socket is tapered or beveled outwardly, as shown in the drawings. In Figs. 2, 3, 4, and 6 the socket is inclosed on all sides by a wall *b*. In Fig. 8 the socket is shown beveled or tapered outwardly and is not inclosed on its outer face, the socket being formed by two lugs, as will be hereinafter described.

The essential feature of my invention consists in forming a socket on the outer face of the shank and securing a gaff or spur C within said socket or recess, so that all the weight or strain on the spur will be borne by the shank and will not be thrown upon screws or pins for securing the spur in place or on small projections or pins formed on the spur.

As clearly shown in Figs. 3 and 6 of the drawings, when the gaff or spur is inserted into the socket from the under side it will be held in such position without an auxiliary fastening by being jammed or forced into place. The greater the pressure which is brought against the point of the spur the more tightly will the same be forced into the socket by reason of the recess or socket tapering upwardly and forming a wedge. The upper portion *c* of the gaff or spur C, as shown in Figs. 5 and 6, is tapered upwardly to fit the socket or recess, which is similarly shaped, and the lower portion of the gaff or spur is tapered outwardly and downwardly from the shank, as at *c'*. By this construction the upper portion of the gaff or spur will be held in the recess or socket by a wedging action, and the lower



portion of the gaff or spur will be held at a proper distance and angle from the shank. While in most instances this construction would be sufficient to hold the gaff or spur in place as a precaution against any accidental dislodgment of the same, a screw D may be employed, which passes through the body portion of the shank and extends into the spur, as clearly shown in Figs. 3 and 4. It is obvious that the screw instead of passing through the attaching-shank might be passed through the wall of the socket upon the opposite side and extend into the spur. In Fig. 6 I have shown the gaff or spur secured in place without the use of the screw.

In Figs. 7 and 8 the gaff or spur is shown beveled or tapered outwardly, as at  $c^2$ , and in this construction it is not necessary to have the socket entirely inclose the spur, as shown in Fig. 2, but to only partially surround or grip the same, as shown in Fig. 8, for it would be impossible for the spur to move laterally. Tapering the spur outwardly gives a wedge or dovetail shaped formation to the spur in one direction and might be all that is necessary for holding the spur in place within the socket; but I prefer to also taper the spur upwardly, as shown in Fig. 7, as by this construction it can be more firmly seated in the socket and will also strengthen the spur at the point where the downward taper joins the upward taper, it being thicker at this point by reason of this construction. The gaff or spur also preferably has a slight taper upwardly on its two side faces, so that it preferably is tapered upwardly from the center of its body portion on all sides, by reason of which construction a wedging action is secured on all the faces of the upper portion of the gaff or spur within the socket.

It will be obvious from the foregoing description that in the event of the gaff or spur breaking or becoming dull it can be readily removed and a new one substituted therefor and that by the use of a shank constructed of a cheap material provided with a removable steel point the expense of the device is greatly lessened, and, besides, the shank is not so liable to break as if constructed of steel, it having been found in practice that a shank constructed of steel being thrown down on a hard street or pavement on a very cold day is liable to break.

Having now described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A pole-climber comprising in its construction a shank of suitable shape having means for attaching it to the leg and provided on its outer surface at or near its lower end with a lug having an upwardly-tapered socket or recess, which is entirely outside the vertical axis of the said shank, and a removable gaff or spur having an upward taper, and seated in said recess, the penetrating end of the gaff extending downwardly and outwardly from said socket, substantially as described.

2. A pole-climber comprising in its construction a shank of suitable shape having means for attaching it to the leg and provided on its outer surface at or near its lower end with a lug which is provided with an upwardly and outwardly tapered socket or recess, which is entirely outside the vertical axis of said shank, and a removable gaff or spur having an upward taper, and seated in said recess, the penetrating end of the gaff extending downwardly and outwardly from said shank, substantially as described.

3. A pole-climber comprising in its construction a shank of suitable shape having means for attaching it to the leg and provided on its outer surface at or near its lower end with a lug which is provided with a socket or recess, which is entirely outside the vertical axis of the said shank, a removable gaff or spur seated in said recess, the penetrating end of the gaff extending downwardly and outwardly from said shank, and a screw or pin passed laterally into the gaff or spur, substantially as described.

4. A pole-climber comprising in its construction a shank of suitable shape having means for attaching it to the leg and provided on its outer surface at or near its lower end with a lug which is provided with a socket or recess tapered upwardly on all sides in the form of a dovetail and a removable gaff or spur, the upper portion of which is tapered upwardly on all sides to form a dovetail by which it is held wedged in the socket, substantially as described.

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

DANIEL A. JONES.

Witnesses:

F. J. MCKENNEY,  
HENRY HENKEL.