No. 877,418. PATENTED JAN. 21, 1908.

H. FOLDVIK.

POLE CLIMBER.

APPLICATION FILED JAN. 15, 1907.

2 SHEETS—SHEET 1

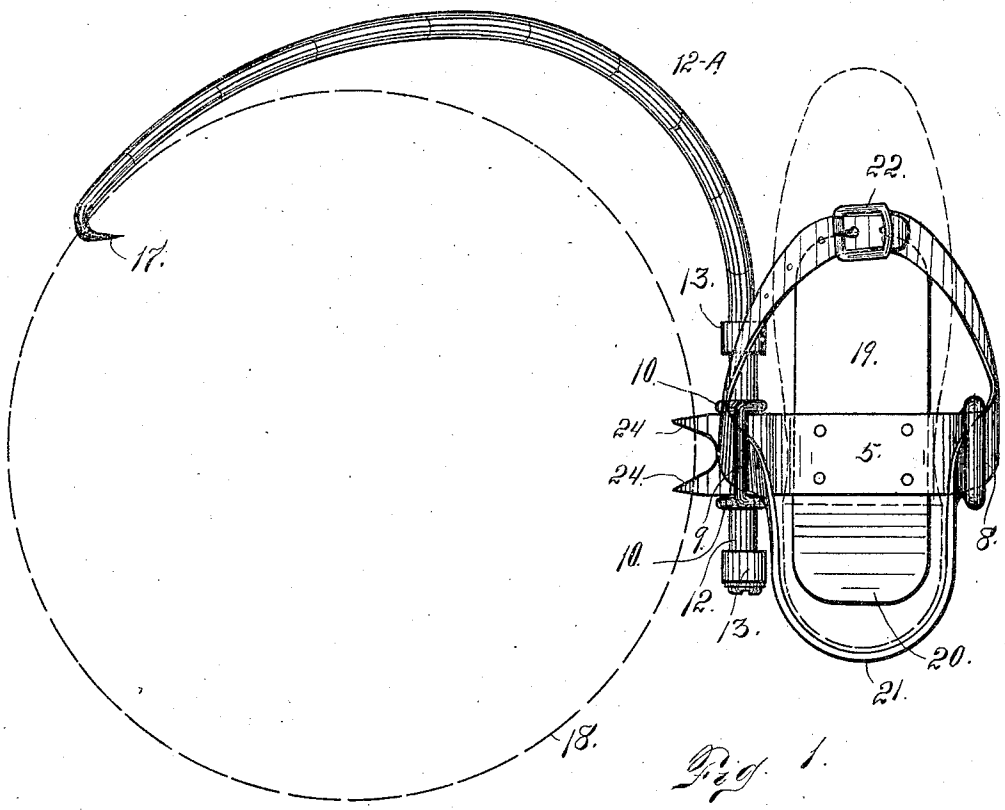


Fig. 1.

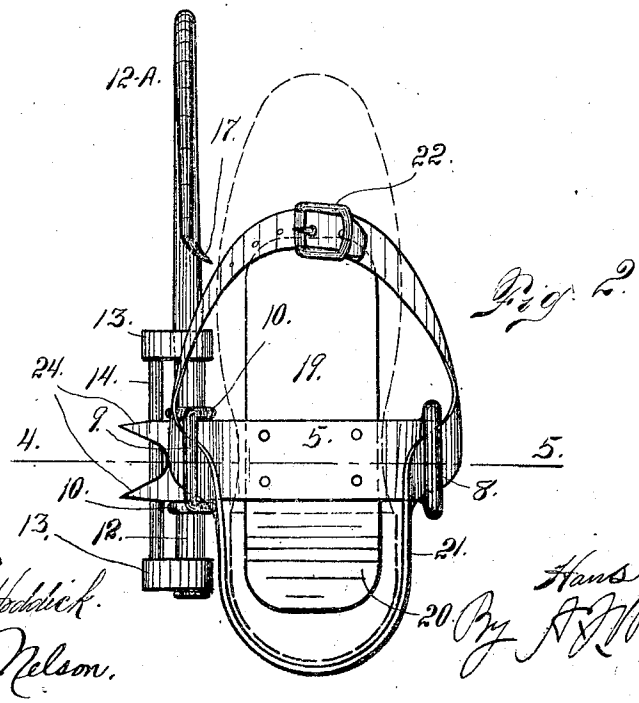


Fig. 2.

Witnesses
Otto E. Hoddick.
Dena Nelson.

Inventor
Hans Foldvik
By A. J. Bowen
Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

No. 877,418. PATENTED JAN. 21, 1908.

H. FOLDVIK.

POLE CLIMBER.

APPLICATION FILED JAN. 15, 1907.

2 SHEETS—SHEET 2.

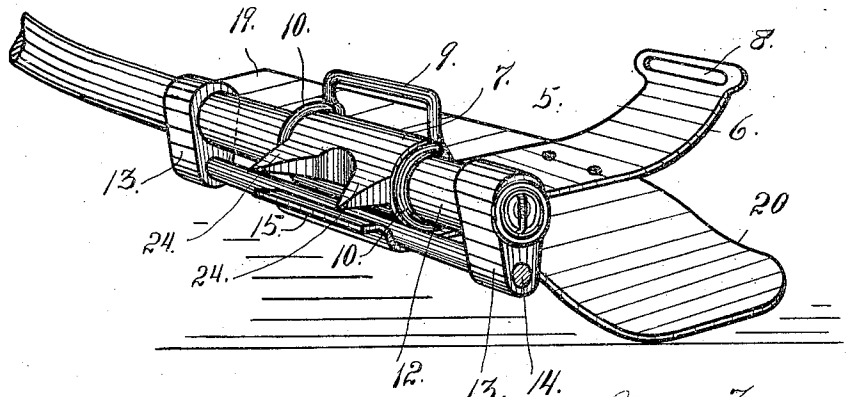


Fig. 3.

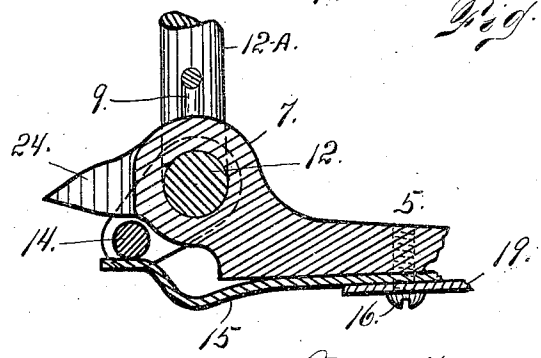


Fig. 4.

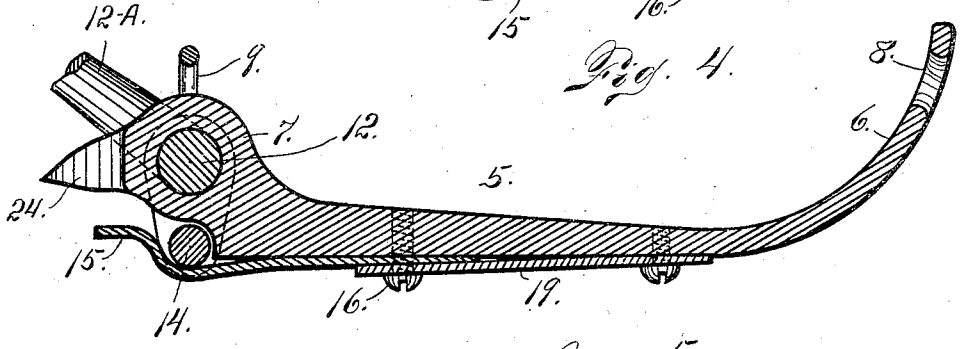


Fig. 5.

Witnesses
Otto E. Hoddevik.
Dena Nelson.

Inventor
Hans Foldvik.
By A. D. Bruce
Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HANS FOLDVIK, OF DENVER, COLORADO, ASSIGNOR OF ONE-FOURTH TO THOMAS RENDAHL, OF GEORGETOWN, COLORADO, AND ONE-FOURTH TO CHARLES HULTBERG, OF DENVER, COLORADO.

POLE-CLIMBER.

No. 877,418. Specification of Letters Patent. Patented Jan. 21, 1908.

Application filed January 15, 1907. Serial No. 352,424.

To all whom it may concern:

Be it known that I, HANS FOLDVIK, a citizen of the United States, residing at the city and county of Denver and State of Colorado, 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 and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in pole climbers being an apparatus adapted to be attached to the feet of the user, to facilitate the climbing of poles as telegraph, telephone and other similar posts or poles composed of wood or other soft material adapted to be indented by the climbing devices.

In my improved construction one of the climbing devices is attached to each foot of the user and consists of a body part provided with a securing strap for fastening the same to the foot.

An important feature of my improved device, consists of a clamping hook journaled in the body part and spring-retained. This clamping hook is provided at its extremity remote from the body part or foot piece, with a hook-shaped prong adapted to indent the post. By reason of the rotatable movement of the clamping hook in the body part, the climber is adapted for use with any size post. The smaller the post the nearer the clamping hook approaches the vertical plane. This hook engages the post or pole on one side, while the pair of prongs with which the body part is provided, engage the same on the opposite side.

Having briefly outlined my improved construction I will proceed to describe the same in detail reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is a top plan view of my improved device shown in operative relation with a post or pole, the latter being indicated by dotted lines. In this view the position of the foot when the device is attached thereto is also indicated by dotted lines. Fig. 2 is a similar view showing the clamping hook in a different relative position than that shown in Fig. 1. The position in Fig. 2 is that into which the clamping hook is thrown when the device is not in use, that is to say when the user is passing from one pole to another. Fig. 3 is a view in perspective illustrating the body part of the device, the clamping hook being partly broken away, and the parts being shown on a larger scale. In this view the securing strap is omitted. Fig. 4 is a fragmentary cross section taken on the line 4—5 Fig. 2, the parts being shown on a larger scale. Fig. 5 is a section taken on the line 4—5 Fig. 2 showing the clamping hook in a different relative position from that shown in Fig. 4. The positions of the clamping hook in Figs. 4 and 5 correspond with those shown in Figs. 2 and 1, respectively.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate the body of the device which consists of a piece of metal curved upwardly at its opposite ends as shown at 6 and 7, the extremity 7 being provided with prongs 24. This metal bar 5, passes transversely underneath the shoe of the user just forward of the heel. The extremity 6 is provided with an opening 8, and the extremity 7 with a metal loop 9 whose extremities are formed into eyes 10 through which the journal 12 of the clamping hook 12A passes. This journal also passes through an opening formed in the extremity 7 of the bar 5, the axis of the opening extending at right angles with the length of the bar 5, or parallel with the length of the foot. The journal of the clamping hook is longitudinally movable within the bearing of the body part but is still sufficiently tight to cause it to normally maintain the desired position of adjustment. Made fast to the opposite extremities of the journal part of the clamping hook, are short crank arms 13 through whose outer extremities is passed a pin 14 forming a sort of cam member extending parallel with the journal, and engaging a leaf spring 15 which is secured to the body part by a screw 16. The tension of this spring is such that it acts by pressure upon the cam member, to maintain the clamping hook in either of two positions of adjustment, one being the position shown in Fig. 4 and the other in Fig. 5.

From the journal of the clamping hook, the latter curves inwardly assuming that the hook is in the position shown in Figs. 1 and 5.

If we assume that the hook is in the position shown in Figs. 2 and 4, the direction of the curve would be upwardly. In any event when the device is in use the clamping hook is provided at its extremity remote from the journal with a sharp point 17, passes around the pole 18 on the front side, its pointed extremity indenting the pole. The angle of the clamping hook when in use will depend upon the size or diameter of the pole. The greater the diameter of the pole, the nearer the hook will be to the horizontal position, while the smaller the pole the nearer the hook will be to the vertical position. The device is thus adapted for use as heretofore explained with poles of varying diameter.

To the body part 5 of the device is applied a plate 19 which extends at right angles to the body part. The rear extremity of this plate is downwardly inclined as shown at 20 whereby it is adapted to pass beneath the heel of the user's shoe; while its forward extremity passes forwardly beneath the sole of the shoe.

The device is secured in place on the shoe by a strap 21 which passes around the rear part of the shoe, through the opening 8, the loop 9 and over the instep of the shoe where the same is fastened by means of a buckle 22.

In using the device one of the climbers is secured to each foot of the user. When about to use the device, each clamping hook 12^{A} should be in the position or approximately in the position shown in Figs. 1, 3 and 5 of the drawing. As the user proceeds to climb the pole, he first causes the pointed extremity 17 of the clamping hook to engage the pole, and then moves his foot downwardly until the prongs 24 of the body of the device indent the pole on the opposite side from the hook. The less the diameter of the pole, the greater will be the vertical distance between the points where the hook 17 and the brads or prongs 24 engage the pole. It will therefore be observed that the hook 14 is in the nature of a clamping device, the pole being clamped so to speak between the body of the device and the sharpened extremity of the hook. As the user lifts his foot upwardly during the climbing operation, he withdraws the brads 24 from the post first and during the lifting operation of the foot, the hook 17 maintains its position until the body part of the device has reached such an elevation that the hook will be disengaged from the pawl as will be readily understood.

Having thus described my invention, what I claim is:

1. A pole climber comprising a body part adapted to be secured to the foot, the inner extremity of the body part having a prong, and a clamping hook journaled in the body part and coöperating with the prong of the latter, the journaled part of the hook having a cam member and a spring catch acting on said cam member, substantially as described.

2. A pole climber comprising a body part, a spring catch retained clamping hook journaled in the body part, the journaled part of the hook having a cam member with which the spring catch operates for the purpose set forth.

3. A pole climber comprising a body part, a clamping hook journaled in the body part, the journal part of the hook having a cam member, and a spring catch acting on said cam member, substantially as described.

4. A pole climber comprising a body part adapted to extend transversely underneath the foot, means for securing the device in place upon the foot, the inner extremity of the body part being provided with prongs, and a coöperating clamping hook journaled in the body part, the journaled part of the hook having a cam member and a spring catch acting on said cam member, substantially as described.

5. A pole climber comprising a body part adapted to be secured to the foot, a clamping hook journaled in the body part, the said journal being adjustable longitudinally in the body part, substantially as described.

6. A pole climber comprising a body part adapted to extend transversely underneath the foot, a longitudinally disposed plate secured to the body part, means for securing the latter to the foot of the user, and a clamping hook journaled in the body part, the axis of the journal extending parallel with the length of the foot, the hook beyond the journal curving inwardly, and its free extremity being sharpened for the purpose set forth.

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

HANS FOLDVIK.

Witnesses:

DENA NELSON,

A. J. O'BRIEN.