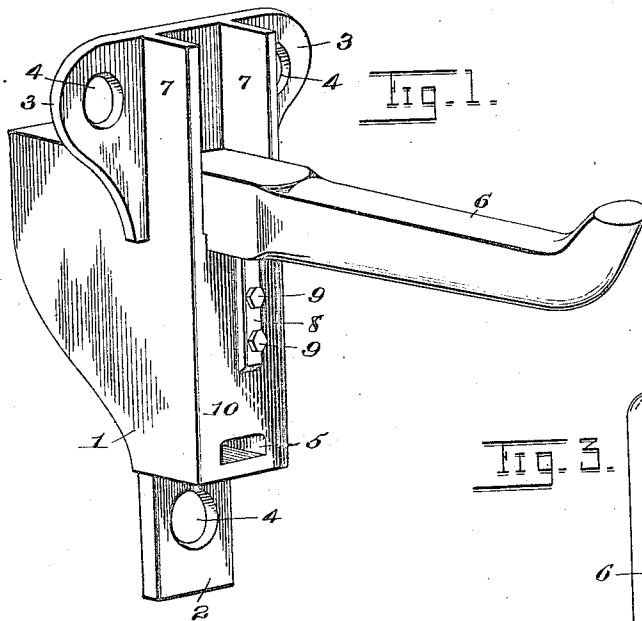
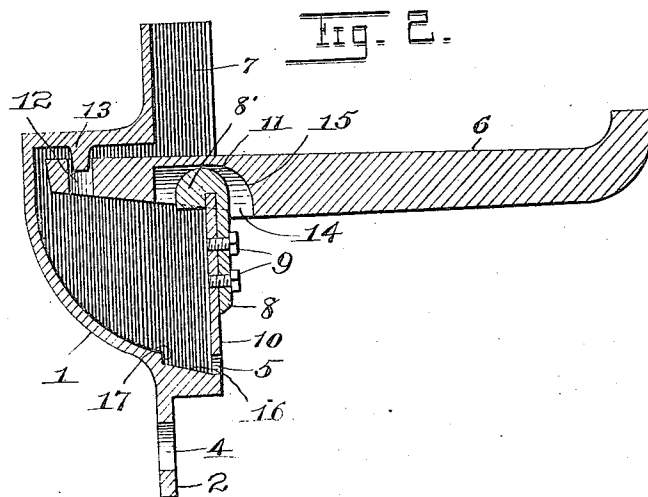
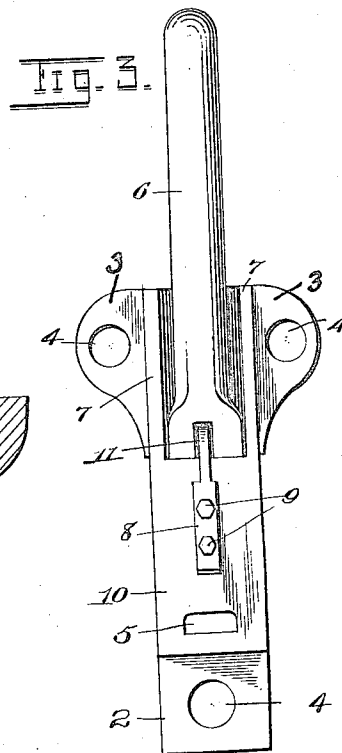


W. L. HORNING.
 DEVICE FOR USE IN CLIMBING POLES.
 APPLICATION FILED DEC. 18, 1919.

1,419,563.

Patented June 13, 1922.

2 SHEETS—SHEET 1.



Inventor
 William L. Horning

W. L. HORNING.
DEVICE FOR USE IN CLIMBING POLES.
APPLICATION FILED DEC. 18, 1919.

1,419,563.

Patented June 13, 1922.
2 SHEETS—SHEET 2.

Fig. 4.

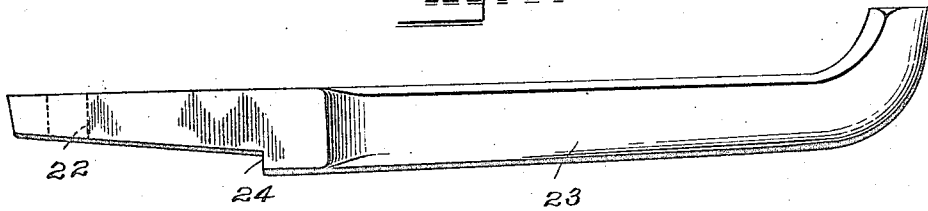


Fig. 5.

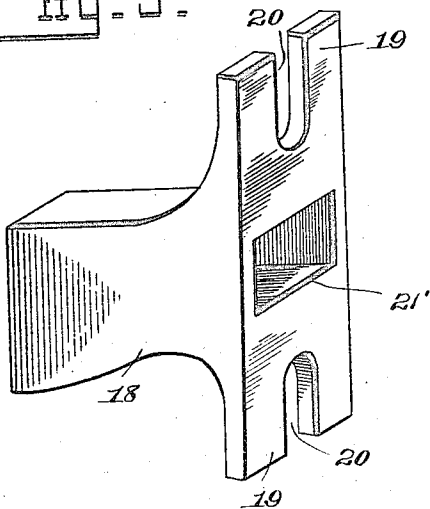
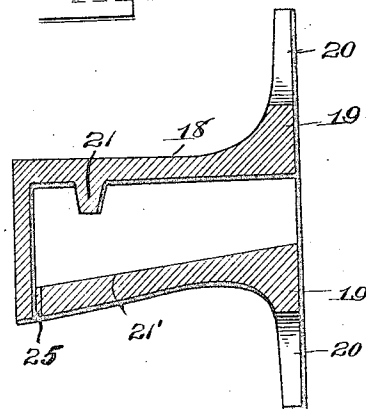


Fig. 6.



Inventor

William L. Horning

UNITED STATES PATENT OFFICE.

WILLIAM L. HORNING, OF DAVENPORT, IOWA.

DEVICE FOR USE IN CLIMBING POLES.

1,419,563.

Specification of Letters Patent. Patented June 13, 1922.

Application filed December 18, 1919. Serial No. 345,868.

(FILED UNDER THE ACT OF MARCH 3, 1883, 22 STAT. L., 625.)

To all whom it may concern:

Be it known that I, WILLIAM L. HORNING, a citizen of the United States, and a resident of Davenport, county of Scott, State of Iowa, have invented an Improvement in Devices for Use in Climbing Poles, of which the following is a specification.

The invention described herein may be used by the Government, or any of its officers or employees in prosecution of work for the Government, or by any other person in the United States, without payment to me of any royalty thereon.

In almost all large cities, there is a municipal ordinance prohibiting the use of the ordinary projecting telegraph-pole step, made in the form of a large spike, within eleven feet of the ground, on telegraph, telephone, and electric-light poles. It is, therefore, necessary, and has been the practice, for the linemen to carry with them ladders, or use climbing-irons, in order to reach the lowest permanent step on the pole.

It is the object of my invention, in one form of embodiment thereof, to provide a device in the nature of a bracket adapted to be secured to the telegraph pole, and a member, constituting a step, movably supported by the bracket and tiltable from the normal inoperative position thereof, in a plane parallel with the pole, to the operative position thereof, in a plane perpendicular to the pole.

It is a further object of the invention to provide a modified form of structure embodying a socket-member, adapted to be carried by the pole, and an insertible member, constituting a step, adapted to be carried by a lineman and removably positioned in said socket-member, when it is desired to use the same.

Another object is to provide a device of this character which will be simple, inexpensive, and efficient, and which will not mar the symmetry of the pole.

The invention, in its two forms, is clearly shown in the accompanying drawings, forming part of my specification.

Like reference characters denote cor-

responding parts throughout the several views.

Briefly described:

Figure 1 is a view in perspective of the preferred form of my device; the step being shown in a position perpendicular to an imaginary pole to which the device is secured;

Figure 2 is a central vertical sectional view thereof;

Figure 3 is a view in front elevation, the step being shown tilted to occupy a position at right angles to that in which it is shown in Fig. 1;

Figure 4 is a slightly modified form of step adapted for use with a slightly modified form of support;

Figure 5 is a perspective view of such modified form of support; and

Figure 6 is a central, vertical sectional view of said modified form of support.

Referring, now, in detail, to the drawings, and, first, to Figs. 1 to 3 thereof:

As clearly shown, the device is made up of two principal parts, a step 6 and a hollow support 1 carrying a pendent ear 2 and top, side ears 3, 3 apertured at 4 for the reception of fastening means (not shown). In use, the support is sunk in the pole until the ears 2, 3, 3 are flush with the pole, or bear thereagainst.

The front wall of the hollow support 1 is provided with a bottom orifice 5 for the escape of rain entering the hollow support, so that the rain may not be trapped therein and, in cold weather, freeze, thus forming a solid cake of ice, preventing operation of the tiltable step 6.

The support 1 also carries twin guide-flanges 7, 7 on its front wall, toward the top thereof, between which works the step 6.

Secured to the front wall of the support or shell 1, and disposed against the exterior face thereof, is a strap 8, screws 9, or the like, removably holding said strap in position. The strap terminates, at its top, in a beak or hook portion 8' arching over the front wall 10 of said shell and projecting into the latter, as shown in Fig. 2. The

upper edge of said beak or hook is curved, as shown at 11, and the beak acts as a fulcrum member for the step 6.

The step 6 is provided, toward one end, with a hole 12, which, when the step is positioned perpendicularly to the pole to which the bracket or shell 1 is secured, may be engaged by a projection 13 internally carried by the shell 1, thus holding the step against movement in the direction of its length.

The step 6 is also provided with an undercut recess 14, which receives the hook 8', one of the end walls of said recess being curved, as shown at 15, in conformity with the curvature of the upper wall 11 of the beak 8', for an obvious purpose.

The bottom wall of the internal chamber of the shell 1 is provided, adjacent the front wall 10, with a depressed portion 16, the rear wall thereof forming a shoulder 17. In use, when the step 6 is tilted into the position thereof shown in Fig. 3, the lower end thereof seats in said depressed portion 16 and bears against the shoulder 17, thus preventing accidental movement of the step toward the position thereof shown in Fig. 1. It is necessary, first, to pull upward upon the step 6, when it is in the position shown in Fig. 3, in order to release it from engagement with the shoulder 17. The length of the recess 14 in the step 6 is sufficient to permit this vertical raising of the step. It will be noted that, while the step 6 has a limited vertical movement when in the position shown in Fig. 3, the portion of the beak or hook 8' which is disposed interiorly of the shell 1 prevents withdrawal of the step by raising it vertically, since the lower end of that portion of the beak 8' inside the shell 1 will be engaged by one of the end walls of the recess 14, as the step is pulled vertically upward, thus limiting upward movement of the step.

It will thus be noted that the step is locked in both the horizontal and vertical positions thereof, against removal. It is also impossible to withdraw the step by pulling on it in any position thereof between the two positions shown in the drawing, since the step will be caught and held either by the projection 13 or by the hook 8' being contacted by a wall of the recess 14.

Referring, now, in detail, to Figs. 4, 5 and 6, showing a slightly modified structure:

The step-support or socket-member 18 herein shown is an elongated, hollow body carrying, at top and bottom, lateral tongues 19, 19 having elongated cut-away portions 20, 20, through which project securing means (not shown), such as bolts, on which nuts are threaded. The advantage in providing slots 20, 20 instead of ordinary round or square holes, is to permit use of the bracket 18 with bolts (for successive brack-

ets) which may be of varying distances apart.

The bottom wall 21' of the chamber in the bracket 18 is desirably inclined downward from the outer end to the inner end thereof, as shown.

Depending from the upper wall of said chamber is a projection 21, which engages a hole 22 toward one end of the step 23, to hold the same against accidental withdrawal, when the same has been inserted in the socket-member 18.

The step 23 is provided, on its bottom, with a transverse shoulder 24, which, when the step is inserted and properly positioned in the socket member 18, bears against the outer face thereof.

It will be noted that, in this modified construction, the step 23 is removable, and, in use, is carried by the lineman and inserted in the socket-member, when he desires to use it.

The inner end of the lower wall 21' is preferably tapped, as shown at 25, constituting a rain- or water-outlet.

It will be seen that both species of my invention are characterized by a shell which is sunk into a cavity in a telegraph-pole, thus obtaining a very firm support, and a step-member movable in the chamber of the shell to position it to support the foot of the lineman.

The device of my invention may be constructed of any suitable material, possessing the requisite strength and durability, preferably wrought iron.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A device for use in climbing poles, comprising, in combination, a supporting-member comprehending a shell insertible in a cavity in a telegraph-pole, or the like, and carrying a fulcrum-member having a curved top, and a step-member projecting into said shell and tiltable on said curved top.

2. A device for use in climbing poles, comprising, in combination, a supporting-member comprehending a shell insertible in a cavity in a telegraph-pole, or the like, and carrying a fulcrum-member having a curved top, and a step-member projecting into said shell and having a recess provided with a curved wall, said fulcrum-member projecting into said recess, and said step-member being tiltable on said fulcrum-member.

3. A device for use in climbing poles, comprising, in combination, a supporting-member comprehending a shell insertible in a cavity in a telegraph-pole, or the like, a fulcrum-member detachably carried by said shell, and a step-member projecting into said shell and tiltable on said fulcrum-member.

4. A device for use in climbing poles, comprising, in combination, a supporting-member-

ber comprehending a shell insertible in a cavity in a telegraph-pole, or the like, and having an internal projection and a fulcrum-member, and a step-member projecting into said shell and tilttable on said fulcrum-member and lockingly engageable by said projection. 10

5. A device for use in climbing poles, comprising, in combination, a supporting-mem-

ber comprehending a shell insertible in a cavity in a telegraph-pole, or the like, and having a depression in the bottom wall of the internal chamber thereof, and a step-member projecting into said shell and seatable in said depression to lock said step-member against accidental tilting movement. 15

WILLIAM L. HORNING.