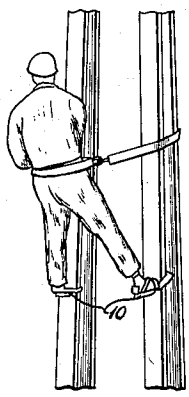
Oct. 17, 1961 D. L. RINGER 3,004,622

CLIMBER FOR CONCRETE POLES

Filed May 4, 1959

FIG. 1



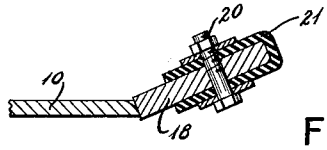


FIG. 4

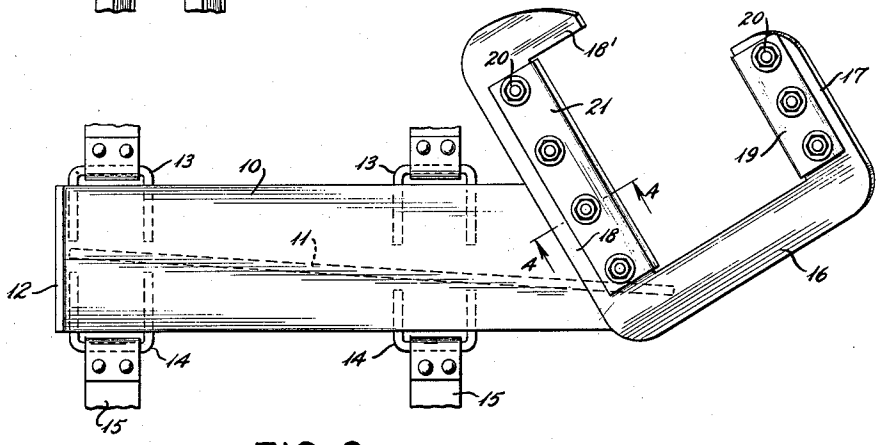
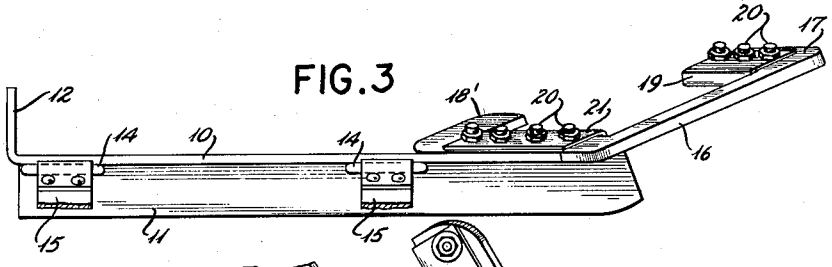


FIG. 2

FIG. 3



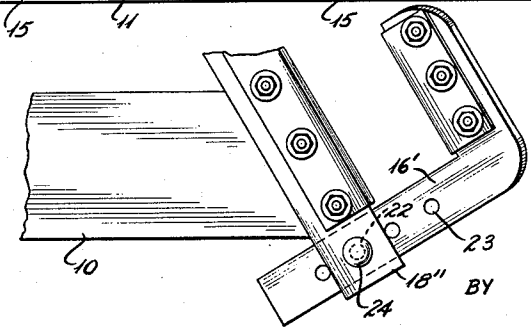


FIG. 5

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United States Patent Office 3,004,622
Patented Oct. 17, 1961

3,004,622
CLIMBER FOR CONCRETE POLES

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Filed May 4, 1959, Ser. No. 810,944
2 Claims. (Cl. 182—134)

This invention relates to power transmission and to equipment employed in the installation and maintenance of wires, cables and the like, supported on poles at an elevation above and out of contact with pedestrians for safety or to avoid contact therewith and injury therefrom.

The invention relates specifically to pole climbers or devices used in the ascending and descending of poles on which electrical equipment is mounted and by means of such pole climbing devices the use of ladders and the like is made unnecessary.

Pole climbers have been used for ascending and descending poles and trees, but these pole climbers usually have included a spike which when the device was applied to the foot would be located on the inside along the instep and could be used to pierce the body of a pole or the trunk of a tree to support the weight of the climber and in advancing one foot and then the other.

With the advent of poles of concrete, structural steel, and the like which cannot be pierced by spikes it becomes desirable to provide means for a different type of climbing device for climbing such concrete or metal poles and employing structure other than piercing means.

It is an object of the invention to provide simple and inexpensive pole climbing equipment of few parts capable of being readily produced and easily applied and used for the ascent and descent of poles of concrete, structural steel or the like.

Another object of the invention is to provide a pole climbing device in the form of a generally C-shaped clamp for application to the pole with the member having parallel arms disposed on opposite sides thereof and with a bracket for the attachment of the device to the foot so that when in use the weight of the user will cause binding to prevent slipping of the clamp lengthwise of the pole.

A further object of the invention is to provide a pole climbing device including a clamp with spaced side portions of a configuration similar to that of the respective sides of the pole to which the clamp is to be applied and which a hook forming extension of one of the side portions to prevent the device from accidentally slipping from the pole and with resilient gripping elements for application on such spaced side portions for direct engagement with the surfaces of the pole.

Other objects of the invention will be apparent from the following description taken in conjunction with the accompanying drawing, wherein:

FIG. 1 is a perspective illustrating the use of one application;

FIG. 2, a top plan view of a device for application to the right foot;

FIG. 3, a side elevation of such device;

FIG. 4, a section on line 4—4; and

FIG. 5, a perspective of a slightly modified type of the device.

Briefly stated, the invention is a device for attachment to the foot in order to ascend and descend a pole of concrete or metal and without the aid of a ladder. The device is a unitary structure composed of a generally rectangular bracket and a clamp at the end of the bracket, the bracket being provided with straps so that it may be attached beneath the foot and the clamp applied to the post, the clamp having generally parallel spaced long and short arms for disposition on opposite sides of the post with the long arm on the near side of the post and the short arm on the remote side of the post or vice versa and with the long arm provided with a hook on its free

end to prevent accidental dislodgement of the clamp from the post, the opening between the hook and the short arm being sufficient to allow the clamp to be applied. The bracket may have a bracing strip or rib beneath the same to provide strength.

With continued reference to the drawing, the pole climber of the present invention comprises a generally rectangular, relatively flat plate or bracket **10** for application beneath each of the feet of the user, such plate being of a length generally corresponding to the length of the foot.

The plate **10** may be of the desired thickness and strength and may be reinforced on its under side with a longitudinally-disposed rib **11** composed of a strip or plate at right angles to the first. The rear end of the plate **10** is provided with a stop or upturned end portion **12** for limiting the movement of the foot on the device. In order to attach the device to the foot, a pair of strap loops **13** and **14** may be disposed on opposite sides of the plate **10** for the attachment of straps **15** which may be fastened together over the foot.

At its front end each of the plates **10** is provided with a pole-engaging clamp of generally C-shaped configuration but disposed angularly to compensate for the slight outward turn of the foot and with the legs of the generally I-shaped bracket **16** disposed in short leg **17** and a longer leg **18** in substantially parallel relation. The longer leg **18** is provided with a hook **18'** at its free end so that when the bracket is applied about a post the short and long legs will be disposed on opposite sides of the post, and due to the weight on the near side the device will cant or be tilted at a slight angle and thus grip the pole.

In order to provide or improve the gripping of the pole, the short arm **17** may be provided with a resilient shoe **19** secured to each arm by bolts and nuts **20** and the long arm of the generally I-shaped bracket may be provided with a shoe **21** fastened thereto by similar bolts and nuts **20**.

The climbing device described is for the right foot, however a device for the left foot would be the same except that the angularity of the bracket would be in the opposite direction.

In order to accommodate itself to posts of different dimensions the clamp may be of two parts or segments with a center portion **16'** thereof slidable through a sleeve **18** carried by the long arm and with an opening **22** in such sleeve and a series of openings **23** in the connecting portion of the C-shaped clamp for adjustment and the receiving of an adjusting bolt and nut **24** in order to accommodate poles of different sizes.

While the clamp has its long leg next to the bracket by which it is attached to the foot the invention is intended to cover the reversal of parts which in some instances may be considered preferable.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is illustrated in the drawing and described in the specification, but only as indicated in the accompanying claims.

What is claimed is:

1. A device for climbing generally rectangular poles, comprising an elongated foot receiving member having lateral support means for a foot and fastening means for attaching a foot to said member, a generally C-shaped clamping member fixed to the end of said foot receiving member and extending laterally as an extension of said foot receiving member but inclined upwardly therefrom, said clamping member having a long leg connected to the foot receiving member and inclined toward the longitudinal axis of the foot receiving member, a short leg substantially parallel to and spaced from the long leg, and a

connecting portion between the legs, a hook on the free end of the long leg and substantially spaced from the free end of the short leg so that the clamping member may be engaged with a substantially rectangular pole when the clamping member is in substantially level position and said elongated foot receiving member may be depressed until it is in a substantially level position to cause said clamping member to clamp in fixed position on said pole.

2. The device of claim 1 wherein said connecting portion is adjustable in length to vary the distance between the legs.

References Cited in the file of this patent

UNITED STATES PATENTS

26,280	Neely	Nov. 29, 1859
1,017,686	Muns	Feb. 20, 1912
2,268,148	Hawkes	Dec. 30, 1941

FOREIGN PATENTS

74,755	Switzerland	Apr. 2, 1917
75,837	Switzerland	Dec. 17, 1917
104,124	Switzerland	Apr. 1, 1924