June 15, 1926. 1,588,566

E. WISMER

STEP FOR POLES

Filed Oct. 23, 1924

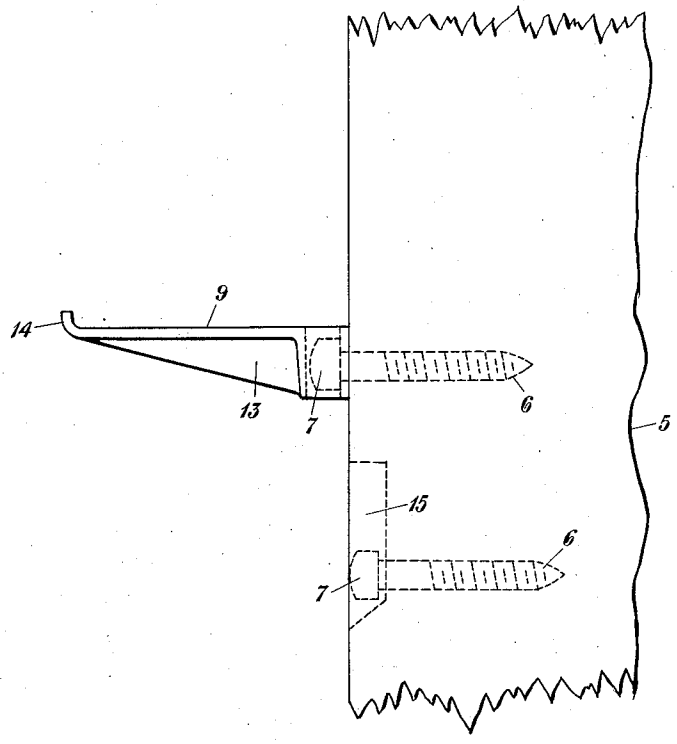


Fig. 1

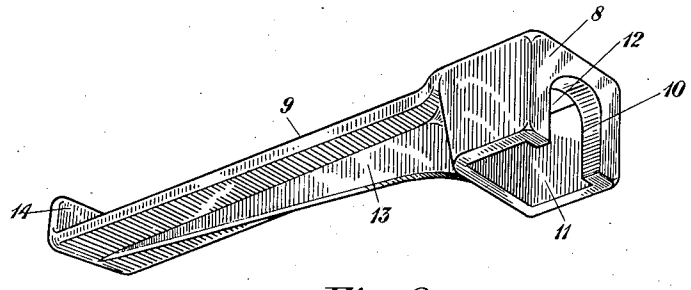


Fig. 2

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UNITED STATES PATENT OFFICE.

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STEP FOR POLES.

Application filed October 23, 1924. Serial No. 745,434.

This invention relates to steps for telephone or other poles, and more particularly to steps of the detachable type.

One of the objects of the invention is the provision of a holding-device which may be permanently secured to a pole to removably receive a step and to so attach the same as to prevent an unauthorized person from climbing the pole.

Another object consists in the provision of a pole step of such construction as to prevent the operator's foot from slipping while climbing the pole.

These and further objects of the invention will be apparent from the following description, when considered in connection with the accompanying drawing, in which one embodiment is illustrated.

In the drawing Figure 1 illustrates a pole having the improved step attached thereto, and Fig. 2 is a perspective view of the detached step.

Referring to the drawing, 5 represents a pole which has a holding member, in this instance shown in the form of a lag or fetter drive screw 6, attached thereto. The screw 6 is driven into the pole in a horizontal direction until the inner surface of its rectangular head 7 is within a short distance of the surface of the pole. This space is just sufficient to permit the insertion of the square end wall 8 of the step 9. The surface 8 has an inverted U-shaped opening 10 which extends into a substantially rectangular chamber 11. This chamber has three other walls composed of downwardly extending flanges, and an opening is provided at its under side and a coinciding opening 12 at its top.

The step 9 is shown as having a horizontally disposed flat or tread surface extending from the outer flange of the chamber 11. This tread is of such length as to provide a sufficient space for the foot of a climber, and a web portion 13 may be provided, as indicated, for the purpose of reinforcement.

At the outer extremity of the step is provided an upturned portion 14 which functions to prevent the foot from slipping off the tread surface of the step 9.

As an alternative form, the holding member 6 may be applied in a recess 15 provided in the pole 5, and such cutaway portion may be treated with any suitable substance to prevent deterioration by rotting. At the lower portion of the recess is provided a declined portion for the purpose of allowing drainage of moisture that may tend to accumulate within the recess. The depth of the recess 15 may be sufficient to permit the head 7 of the screw 6 to be retained therein so that there will be no projection of the screw beyond the surface of the pole.

In the attachment of the step 9, which is adapted to be applied in a similar manner to the lag screws 6 in either position, the lower opening in the chamber portion of the step is brought into such alinement with the vertical edges of the screw member as to permit it to be inserted thereover. The step then slides downwardly until the rounded top of its inverted U-shaped opening is seated on the rounded shank portion of the lag screw. In this position the chamber portion encloses the head portion of the screw, the vertical sides of which register sungly within like sides of the chamber.

The provision of the improved detachable and comparatively small steps permits a lineman to carry a number of them for attachment to the holding screws permanently provided on poles, while he is climbing, and to readily remove these steps while descending. After the steps have been removed no means will be afforded for the climbing of the poles by unauthorized persons.

It will be obvious from the foregoing description that by means of this invention the carrying of ladders or the use of climbing irons by linemen for the purpose of reaching the lowest permanent step of a pole, which is usually some considerable distance from the ground, will be eliminated.

What is claimed is:

In a pole step, a threaded member adapted to be permanently attached to a pole in a horizontal position, said member including an enlarged rectangular head portion and an intermediate cylindrical portion, a foot support having a continuous horizontal

tread surface abutting and extending outwardly from the pole, and a rectangular chamber portion at one end of said support, said chamber portion having vertical side walls and an end wall with an inverted U-shaped opening, the vertical side walls of said chamber portion being adapted to so engage the sides of the rectangular head portion and said end wall and its inverted U-shaped opening being adapted to so register with the rear of said head portion and said cylindrical portion, respectively, that rocking of said foot support is prevented.

In testimony whereof, I have signed my name to this specification this 16th day of October, 1924.

EINAR WISMER.