Dec. 24, 1929. C. L. PEIRCE, JR 1,740,873

POLE STEP

Filed May 15, 1928

Fig. 1.

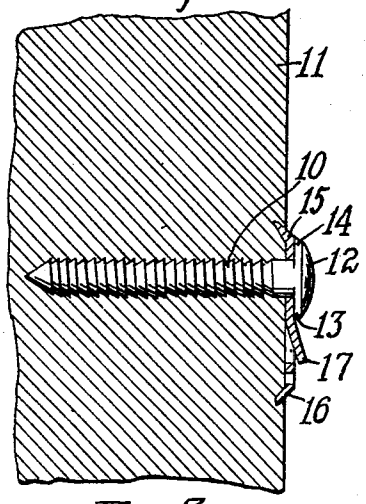


Fig. 2.

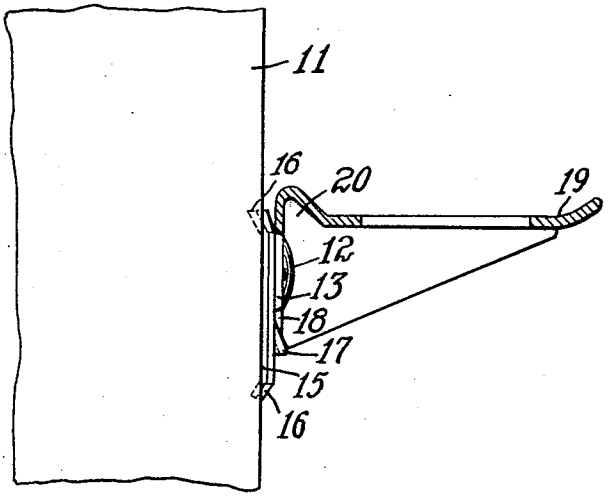


Fig. 3.

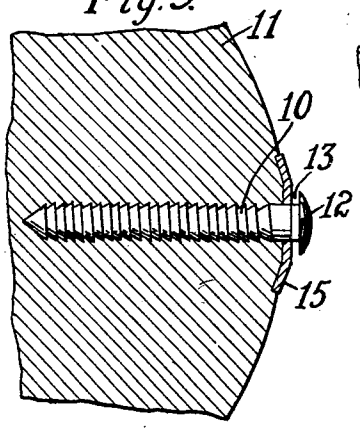


Fig. 4.

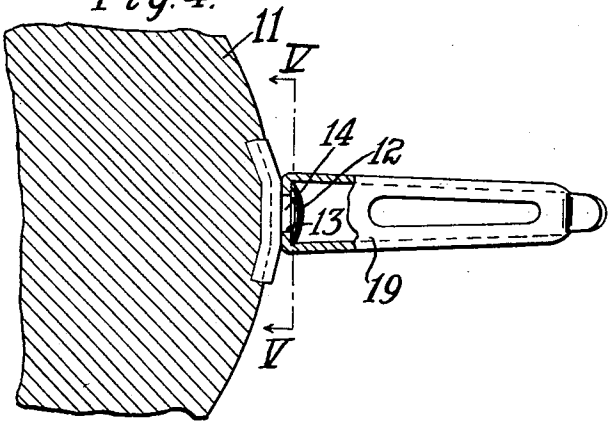
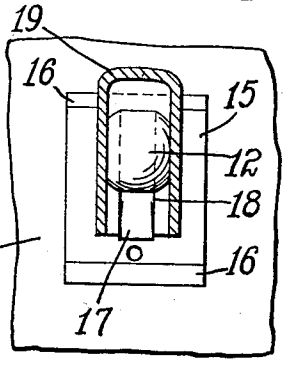


Fig. 5



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Patented Dec. 24, 1929 1,740,873

UNITED STATES PATENT OFFICE

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POLE STEP

Application filed May 15, 1928. Serial No. 277,981.

This invention relates to steps or climbing supports for use by linemen in climbing telephone poles or the like and more particularly to a detachable step which can be removed when not in use.

The provision of steps at the bottom of telephone or telegraph poles, that is, for the first six feet or so above the ground, has always been a troublesome question for the reason that they form projections which may injure pedestrians or their clothes and such steps also constitute a temptation to children to climb the poles. Detachable steps heretofore employed have failed of their purpose for the reason that they either require securing means on the poles which project outwardly so far as to fail to overcome the drawbacks of the permanently secured steps, or they necessitate the provision of mounting holes which are ordinarily bored in the poles after the poles are in place. The surfaces of these poles are ordinarily treated to prevent the entrance of moisture and therefore deterioration and the boring of these holes negatives to a large extent the beneficial effect of this treatment.

An object of this invention is to provide a simple detachable step for telephone and similar poles which will have none of the disadvantages above referred to and which will be simple and rugged in construction, cheap to manufacture and of easy installation.

This and other objects which will be apparent to those skilled in this particular art, are accomplished by means of this invention, one embodiment of which is illustrated in the accompanying drawings in which Figure 1 is a sectional view of a step supporting member showing the same mounted in a pole. Fig. 2 is a similar view showing a detachable step in position on the supporting member. Fig. 3 is a top plan view of the securing means illustrated in Fig. 1. Fig. 4 is a similar view showing a detachable step in position and Fig. 5 is a transverse sectional view on the line 5—5 of Fig. 4.

The illustrated embodiment of this invention includes a supporting member, such as a bolt 10, which is adapted to be permanently secured in the associated pole 11. The member may be a through bolt, or one such as illustrated, or any similar device capable of being rigidly secured to the pole in such a way as to avoid leaving open recesses in the pole. The projecting head 12 of the bolt is preferably elongated as illustrated, with its outer surface rounded. Parallel recesses or grooves 13 are formed in opposite sides of the head. The recesses 13 are separated by ribs 14 formed on the back of the bolt head. The rounded head 12 is so arched in a vertical direction that it is impossible to use the same as a foothold.

Preferably, and as illustrated, a bearing or wear plate 15 having beveled inwardly extending top and bottom edges 16 is clamped against the pole beneath the bolt head 12 and the beveled edges bite into the wood so that the plate is rigidly and permanently secured to the pole. The beveled top edge is so located with relation to the arched bolt head as to cooperate therewith in preventing anyone from using the same as a foothold. The bolt is secured to the pole with the recesses 13 extending in a vertical direction and the bearing plate may be provided with a struck up lug 17 as shown, extending outwardly below the bolt head for the purpose of engaging the edges of a vertical slot 18 formed in the end of a detachable step 19 which is adapted to be secured to the bolt head by slipping it in place thereon as illustrated. The upper surface of the step adjacent the bolt head is provided with a pocket 20 adapted to receive the upper edge of the bolt head and to snugly fit thereover.

It will be apparent that the bearing plate 15 provides a solid and firm foundation for taking the thrust imposed by the step and that such a plate when employed will prevent wear on the wooden pole and materially increase the life thereof. The plates also increase the stability of the steps when in place on the pole.

Normally, when the steps are not in use, the only part on the pole which projects outwardly therefrom is the bolt head 12. There is no projection such as can cause injury to passersby or provide a means for children climbing the pole. When the lineman desires

to ascend the pole, he positions the detachable steps on the bolt heads merely by slipping the edges of the slots 18 downwardly in the recesses 13. Nothing else is necessary in order to provide a rugged, steady and rigid pole step.

What I claim as new and desire to secure by Letters Patent is:

1. A support for removable steps adapted to be mounted on poles and the like, including a member permanently secured against movement in the pole and having a stem supporting head projecting beyond the pole, the outer face of said head being so arched in a vertical plane as to present a substantially unbroken exposed surface incapable of being used as a foothold, said head being spaced from the pole and disposed to receive a removable step.

2. The combination with a pole, of a wear plate having a beveled upper edge, a member associated with said wear plate and permanently secured against movement in the pole and provided with a step supporting head projecting beyond said plate and having an outer surface curved so as to cooperate with the beveled top edge of said plate to present an inclined surface incapable of being used as a foothold.

In testimony whereof, I have hereunto subscribed my name this 14th day of May, 1928.

CHARLES L. PEIRCE, JR.