April 19, 1927. 1,624,945

C. A. GLOVER

EXTENSION FOOT FOR LADDERS

Filed Aug. 27, 1925

Fig. 2.

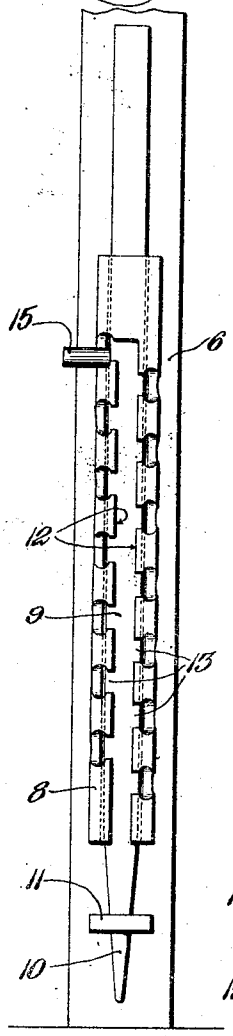


Fig. 1.

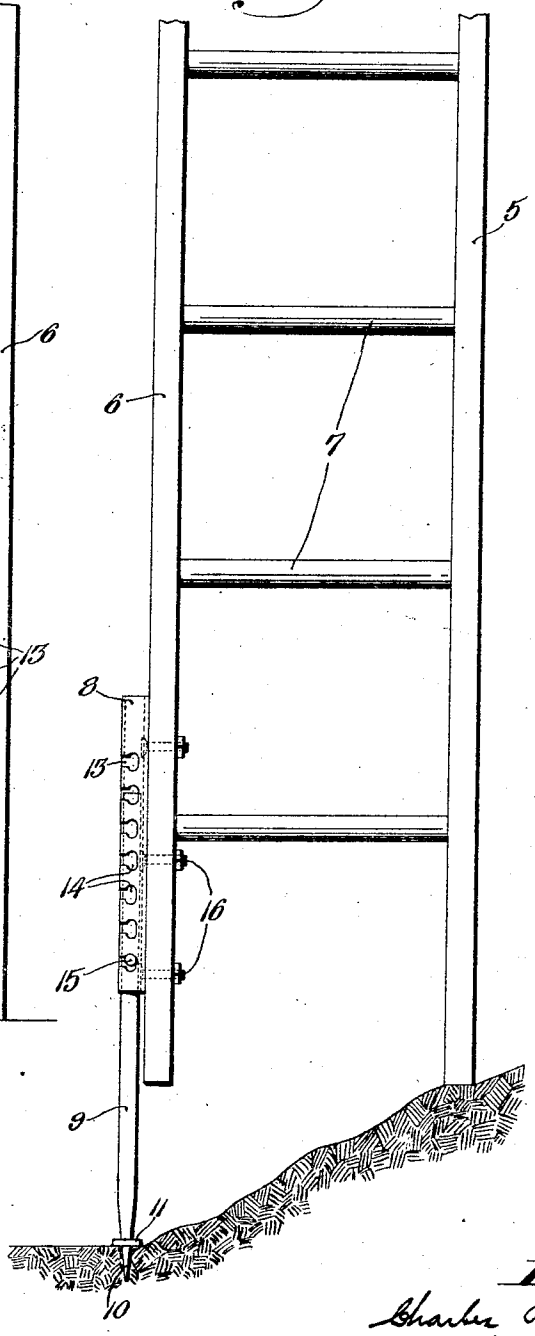
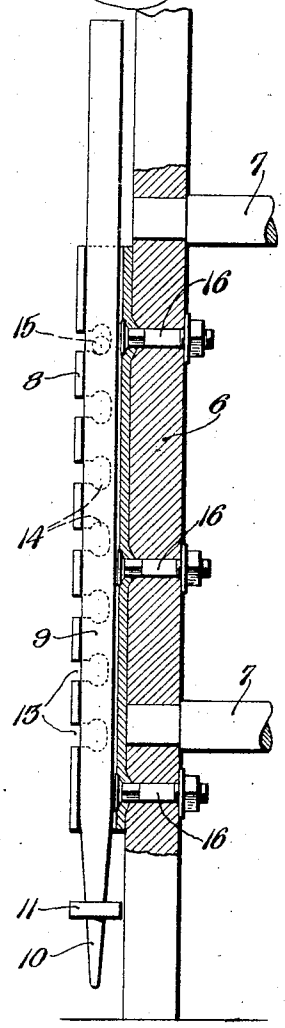


Fig. 3.



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Patented Apr. 19, 1927. 1,624,945

UNITED STATES PATENT OFFICE.

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EXTENSION FOOT FOR LADDERS.

Application filed August 27, 1925. Serial No. 52,821.

The present invention relates to ladders and the like and more particularly to an extension leg or foot for the same.

Ladders must often be used where a level support or base cannot be secured, as for example, around trees and on the outside of a building where the ground slopes away laterally to one side or the other, or on a stairway where there is not room for both feet of the ladder to rest upon the same stair tread. Under such conditions it is a common expedient to use pieces of wood or stone, or, in the case of a stairway, a box, beneath one of the feet of the ladder. Not only does this practice involve loss of time in finding suitable pieces of wood or stones, or a proper box and in placing them so that just the proper height of foundation or support is obtained, but there is always the danger that the built-up support will slip or become dislodged, causing the ladder to tip and the workman to fall.

The object of the present invention is to provide an extension foot for ladders and the like which may be easily attached to one of the side members and may be extended to the desired amount to compensate for inequalities in the level of the supports for the feet of the ladder, and which will be securely held in adjusted position without the possibility of slipping or yielding in use.

With these objects in view the present invention consists of the ladder and extension foot therefor shown in the accompanying drawings and hereinafter described and claimed.

In the drawings Fig. 1 is a front elevation of the lower part of a ladder provided with my extension foot extended and in use; Fig. 2 is a side elevation with the foot withdrawn and out of use; and Fig. 3 is an enlarged view, partly in section of the extension foot and a portion of the ladder.

The ladder, which comprises the usual side members or rails 5 and 6 and the rungs or rounds 7, has securely bolted to the side rail 6 near the foot thereof the socket or support 8, which is preferably cylindrical in cross-section and conveniently formed of a piece of iron pipe. Within this socket is mounted the extension member 9 of round iron rod or bar slightly smaller than the interior of the socket 8 so that it may slide and rotate therein. The lower end of the extension member 9 is pointed as at 10 to penetrate the ground and prevent slippage. In order that this pointed end may not sink too deeply into the ground, particularly where the latter is soft, a flange or shoulder 11 has been provided.

For the purpose of providing for the adjustment of the extension member 9 in the socket 8 to compensate for varying differences in level of the ground immediately beneath the feet of the ladder, the socket is provided with a longitudinal slot 12 extending from the bottom nearly to the top of the socket. From this longitudinal slot 12 extend in opposite directions the branch slots 13, those on one side being staggered with relation to those on the opposite side of the longitudinal slot and all terminating in the enlargements 14. A pin or handle 15 fixed in the extension member 9 is movable throughout the length of the longitudinal slot 12 and into any of the branch slots 13, to vary the position or extension of the member 9, the double series of branch slots and their staggered arrangement permitting a close adjustment of the parts to give the exact extra length to the side rail 6 to hold the ladder straight. In Fig. 1 showing the extension leg in use, the pin 15 is held in the upper part of the enlarged end 14 of the bottom branch slot by the weight of the ladder, so that the shoulder formed by the enlargement will prevent any accidental displacement of the pin.

In Fig. 2, which shows the extension member retracted, with its extremity raised slightly above the foot of the side rail 6, the pin 15 is resting on the bottom of the enlargement at the end of the topmost branch slot, the weight of the extension member holding the parts in this position.

In Fig. 3 the socket 8 and a portion of the side rail 6 of the ladder are shown in section, illustrating the manner of attachment of the socket to the side rail, namely, by means of the bolts 16 with their heads in the countersunk recesses in the interior of the socket, and washers and nuts on their outside ends.

In order to attach this extension foot to any ladder it is only necessary to bore three small holes through the side rail, insert the bolts and secure the washers and nuts in place. Conversely, the attachment may be easily removed by taking off the three nuts. Owing to the facility with which this attachment may be put on and taken off, an artisan, such as a house painter, need not

equip his entire set of ladders with these attachments, but may transfer an attachment from one ladder to another as the occasion requires.

Having thus described the invention, what is claimed is:

1. An extension foot for ladders and the like comprising a cylindrical socket having a longitudinal slot therein and branch transverse slots, each branch slot being enlarged to provide a shoulder in the upper and lower edges thereof, an extension member projecting from the lower end of the socket and movable longitudinally and rotationally in the socket, and an arm on the extension member for moving the same longitudinally and rotationally in the socket, said arm being adapted to be received in the longitudinal and transverse branch slots and to pass beyond the shoulders therein.

2. An extension foot for ladders according to claim 1, having transverse slots extending from opposite sides of the longitudinal slot, the transverse slots on opposite sides being staggered.

In testimony whereof I have signed my name to this specification.

CHARLES A. GLOVER.