

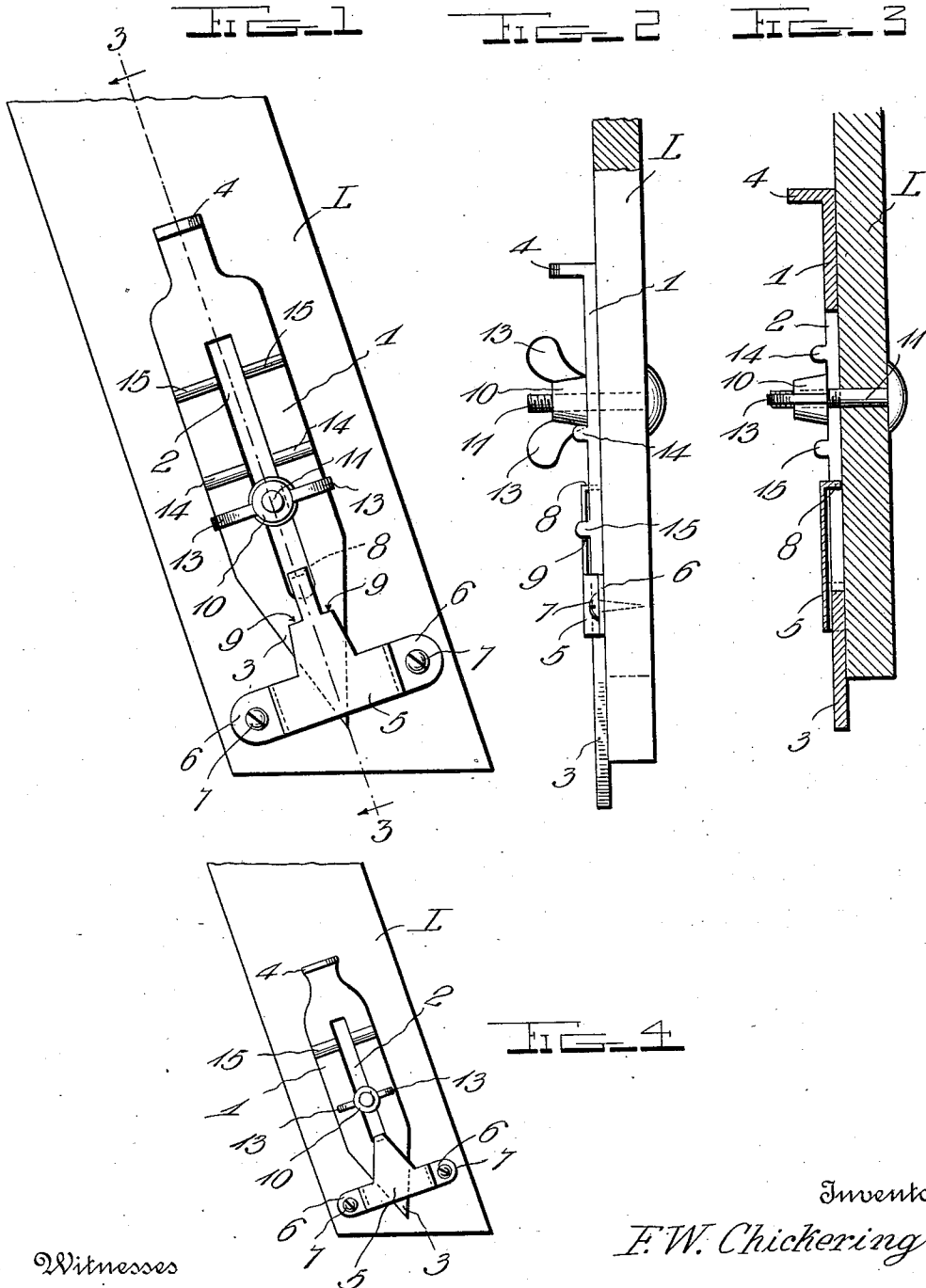
F. W. CHICKERING.

LADDER BRAD.

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1,015,940.

Patented Jan. 30, 1912.



Witnesses

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UNITED STATES PATENT OFFICE.

FRANK W. CHICKERING, OF HARDWICK, VERMONT.

LADDER-BRAD.

1,015,940.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK W. CHICKERING, a citizen of the United States, residing at Hardwick, in the county of Caledonia and State of Vermont, have invented certain new and useful Improvements in Ladder-Brads; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to ladders, and more especially to the feet thereof, and the object of the same is to produce an improved extension foot or spur capable of being projected below the left or side member of the ladder and held adjustably in position by improved means.

To this end the invention consists in the details of construction hereinafter more fully described and claimed, and as shown in the drawings wherein—

Figure 1 is an elevation of the lower end of a leg of a ladder with my improvement attached, showing the same in its preferred form and completely raised; Fig. 2 is an edge view of these parts with the device completely lowered; Fig. 3 is a central vertical section on the line 3—3 of Fig. 1, with the device partly raised so that the winged nut stands between the two ribs; Fig. 4 is an elevation similar to Fig. 1 showing a simplified form of my invention with the device raised.

In the drawings the letter L designates one leg of an ordinary step ladder, in the present instance, although of course the ladder could be of any suitable type or my device applied in other places than to ladders particularly, but as the latter are likely to slip I will describe my invention as applicable thereto by reason of the fact that that is its most common use.

Coming now more particularly to the details of the present invention, the numeral 1 designates broadly a bolt member having in its body a longitudinal slot 2, its lower end pointed as shown at 3 or otherwise formed so as to embed the earth or floor upon which the ladder rests, and its upper end outturned into a lip 4 forming the handle by which the bolt may be manipulated. The numeral 5 designates a keeper whose body is bowed upward between its ends so as to pass transversely across the body of the bolt, and said ends are depressed

as shown at 6 and attached by screws or otherwise at 7 to the leg L as will be clear. The body of this keeper is substantially T-shaped in plan view as seen in Figs. 1 and 4, the head of the T carrying said depressed ends 6 and the shank of the T extending upward over said slot 2 in the bolt 1, and its extremity 8 being bent inward and into contact with or embedded into the leg L so as to form a guide astride which the slot moves. In the preferred form of my invention, this shank has shoulders 9 coacting with the lowermost rib yet to be described, but in the simpler form of my invention (see Fig. 4) said shoulders may be omitted.

Both the bolt and the keeper members are preferably made from rather thick sheet metal, and may be stamped into shape at one operation of the die. Coacting with said bolt is a winged nut 10 mounted on a screw or bolt 11 which in the present instance projects outward through the leg L and astride which said slot 2 moves, and it will be seen from Fig. 3 that the wings 13 of said nut project rather low from the opposite sides of the nut proper 10. Formed upon the outer face of the bolt 1 is a pair of ribs 14 and 15 extending across the same at both sides of the slot 2; and I may here explain that in the simpler form of my device as illustrated in Fig. 4 one of said ribs is omitted. By preference these ribs are spaced sufficiently to permit the nut to pass between them when it is screwed down upon the screw 11, thereby holding the point or spur 3 projecting only a little below the lower end of the leg L as seen in Fig. 3, or the nut may be engaged with the outer face of the bolt above the uppermost rib as seen in Fig. 2, or beneath the lowermost rib 14 as seen in Fig. 1. In any position of the nut, however, when screwed home by its wings so that the nut proper rests at its inner end upon the face of the bolt at opposite sides of its slot 2, it will be seen that the lower edge of the wings pass between the inner ends of the two portions of the rib adjacent, and the latter thereby serves in the nature of a nut lock to prevent the undesirable and accidental unscrewing of the nut. To bring this about, the nut will be tightened up until its wings will barely pass over the inner corners of the two sections of the rib, and then the bolt will be slid along a little beneath the nut and the

latter given yet a little further turn to tighten all parts. To loosen the parts the above operation will be reversed.

In the preferred form of my improved device, the shoulders 9 on the shank are so disposed that when the lowermost rib 14 rests upon said shoulders the nut is in position to be screwed down above the uppermost rib 15, and at this time the point or spur 3 is projected the farthest degree possible. It is obvious that when the nut is screwed upon the bolt 1 between the two ribs 14 and 15, as seen in Fig. 3, the spur 3 is projected but little and it will embed a floor if the ladder be stood thereon.

It will not be necessary to amplify the uses and advantages of a device of this character, nor need the details of construction be further elaborated.

The sizes and proportions of parts are unessential, and amplifications or variations may be adopted without departing from the principle of my invention.

What is claimed as new is:

1. The combination with the leg of a ladder; of an extension foot therefor comprising a T-shaped keeper having the opposite ends of its head depressed and secured to said leg and the outer extremity of its shank bent inward into contact therewith, a bolt having a spur at its lower end, a body which

slides under said keeper and is longitudinally slotted for the reception of said extremity, and an outturned lip at its upper end; a rib extending transversely across the outer face of said bolt and on opposite sides of its slot, a screw projecting through the ladder leg and outward through the slot in said bolt, and a winged nut on said screw.

2. The combination with the leg of a ladder; of an extension foot therefor comprising a keeper having a T-shaped body whose ends are depressed and secured to the leg and whose shank has lateral shoulders and a tongue between them, the bolt having a spur at its lower end and a longitudinally slotted body moving under said keeper while its slot moves astride said tongue, spaced ribs extending across the face of said bolt on both sides of its slot, a screw projecting through the ladder leg and outward through the slot in said bolt, and a winged nut engaging the threads of said screw, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK W. CHICKERING.

Witnesses:

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