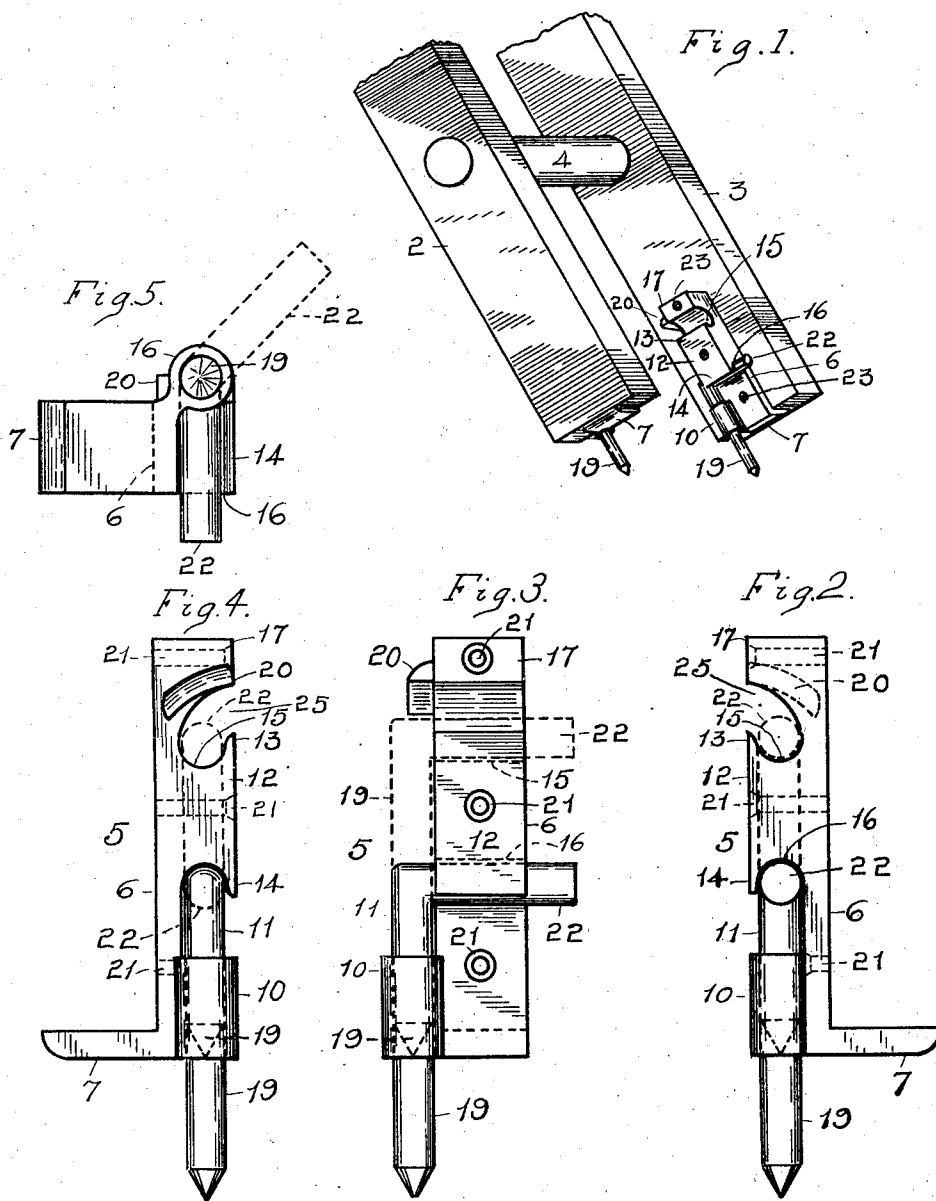


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LADDER FOOT.
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Patented May 7, 1912.



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LADDER-FOOT.

1,025,474.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWIN C. MAGOON, a citizen of the United States, and a resident of Galesburg, in the county of Knox and State of Illinois, have invented a new and useful Ladder-Foot, of which the following is a specification.

My invention has relation to feet or supports for ladders of any kind or character whatever, but especially to the ordinary type thereof, commonly used by workmen on buildings, by fire departments, etc. These ladders are almost invariably placed, when in use, at an incline, and the lower ends frequently slip or slide, owing to the fact that the bottoms of the side pieces or standards rest upon pavements, sidewalks, and other hard, unyielding, smooth supports, or upon ice or slippery ground. The workman or fireman upon such unprotected ladder or ladder without safety attachments is constantly in danger, as a fall is always imminent. Not only this, but a falling ladder is apt to injury to persons under or near it. Also, the ladder in falling is liable to injure the building against which it rests, as by breaking windows or permitting a bucket of paint to fall and spill or splash over the building and walk. Indeed, pedestrians are not infrequently besmeared with paint in this manner.

A primary object of my invention is, therefore, to provide simple means attachable to any ladder whereby such slipping will be rendered practically impossible.

It is a further object to provide means of the nature described by the use of which one side of the ladder may, to all intents and purposes, rest with the lower end of one of the standards upon the ground, while the other standard is slightly elevated and at the same time held from slipping. To this extent the nature of the ladder partakes of a protean one.

To provide means for shielding or guarding the pin constitutes another object.

Unless some means were provided for preventing the slidable pin from slipping from its socket, loss would accrue. It is an object to provide such means.

That the mechanism constituting the above recited means be strong, durable, and readily shifted and secured is a prime factor; to provide such means for carrying out these ends constitutes another object.

Minor objects will be in part obvious and in part pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and selective arrangement and disposition for co-action of the elements, the scope of which will be pointed out in the appended claims.

Mechanism embodying the structural peculiarities, and showing the mutual relationship, selective placement, and combinations of the parts forming the subject matter of my improvements, is shown in the accompanying drawing, in which:

Figure 1 is a perspective, showing my improvements attached to the standards of a fragment of an ordinary ladder; Fig. 2, an elevation, seen from one side; Fig. 3, a front elevation; Fig. 4, an elevation of the opposite side from that shown at Fig. 2; and Fig. 5, an end view, seen from the bottom. Figs. 2 to 5 inclusive are enlarged with reference to Fig. 1, and all of said figures show various placements of the pin.

It may here be stated that I prefer to make the ladder feet "rights" and "lefts", and have so shown them at Fig. 1. With this exception they are duplicates, and a description of one will suffice for both. The right hand one being the one illustrated in the enlarged figures I shall refer more particularly thereto, especially when describing a movement. The same numeral refers to the same part in all the figures of the drawing.

Coming now to a description of the device and of the ladder on which they are mounted, 2, 3 indicate the standards and 4 the steps or "rounds" of an ordinary ladder, the details of construction of which have not to do with my invention.

Each foot 5 comprises a base 6 turned outwardly to form a rectangularly disposed step 7. A vertically disposed elongated eye 10 is offset from the rear edge of the base and guides the vertical portion or shaft of an L-shaped pointed pin 11 slidably and pivotally seated therein. The horizontal portion 22 of the pin provides a convenient handle and serves a further purpose, presently described. Intermediate its ends and rising from the face of the base 6 is a nautical-cleat-like projection 12 having oppositely disposed arms 13, 14, the former being undercut to form a recess 15 and the latter

similarly but oppositely undercut to form a recess 16.

Disposed above and spaced from the projection 12 is a ledge 17, the lower face of which is semicircularly cut away as a continuation of the line forming the recess 15, and the confronting edges of the arm 13 and the said ledge spaced sufficiently to provide a transverse slot or opening 25 through which the horizontal arm 22 of the pin may pass as presently described. Suitably secured (preferably by jump-welding) to an edge of the projection, and discretionally extending onto and fixed to the base is a stop or boss 20, the lower face of which approximately corresponds to that of the ledge 17, but which may be otherwise fashioned. Countersunk apertures 21 extend from front to rear, at suitable places, and receive wood-screws (or bolts) 23 which are threaded into the standards 2 and 3.

The operation: In all the figures the foot 5 is shown by full lines in the fully extended position for operation, the pin 11 lowered and the shaft thereof resting in the recess 16 and supporting the projection 12, which, being integral with the base 6, supports the ladder. Presuming it desirable to move the ladder to another location; by freeing the arm 22 from said recess and turning it to the left, as shown at Fig. 5, and then raising it and passing it through the transverse opening 25 and letting it fall it will rest in the recess 15 and its point will be protected by the eye 10 as shown best by dotted lines at Figs. 2, 3 and 4. If the handle 22 were turned at a right angle to the dot line position shown at Fig. 3, or to the left to the dot-line position shown at Fig. 5, the shaft would, unless some means were provided for restraining it, fall from the eye or socket 10. This is prevented by the stop-boss 20 against which it will strike and which prevents it from too great upward movement. The ledge 17 prevents upward movement of the pin to too great an extent when the arm 22 is seated in the recess 13.

Let it be presumed that the ladder rests on a plane inclined transversely thereof. The pin of that foot which is elevated with reference to the surface of the ground may be lowered to the full-line position shown and the other pin released and positioned as shown by dot lines at Figs. 2, 3 and 4, with the lower end of that standard and perhaps an edge of the foot 7 resting on the ground or other support. It will be manifest that for this purpose an intermediate recess, having the same curvature as has the recess 16, may be formed in the projection 12. In fact, numerous unessential departures may be made from the precise construction shown. It will be clear, for instance, that the boss 20 may be formed integral with the ledge or the base, and that it may be secured thereto in

another manner than that described. The base, the projection 12, and the ledge 17 are preferably integral. The sharpened point of the pin will readily "take hold" of stone, brick or concrete, and the greater the weight placed upon it, the greater will be its tenacity.

I desire to be understood as claiming all such advantages as arise out of or are enforced by any similar devices, or which may accrue in any way therefrom.

I claim as my invention:—

1. In a ladder foot, in combination, a base member including a projection provided with oppositely disposed undercut recesses and an eye disposed at a right angle to said recesses, said base further including a ledge disposed above one of said recesses, a stop-boss fixed on said ledge, and an L-shaped pin, its shaft slidably and pivotally mounted in said eye and its horizontal arm adapted for engagement with either of said recesses, the extent of upward movement of said pin being limited, when the pin is not engaged with either of said recesses, by said boss.

2. In a ladder foot, in combination, a base element adapted for securement to a ladder standard and comprising, integrally, a projection provided with oppositely disposed transverse recesses, a ledge disposed above said projection to provide, together with the upper edge of said projection, a transversely disposed slot, and a vertically disposed eye, with an L-shaped pin pivotally and slidably mounted in said eye, its horizontal arm adapted to pass through said slot and to rest in the upper one of said recesses when in one position and to rest in the other of said recesses when in another position, and a stop-lug adapted to be contacted by the horizontal arm of said pin when the vertical arm thereof is turned in said eye, whereby said pin is restrained from disengagement from said eye.

3. In a ladder foot, in combination with a base element comprising a plate having a projection on its face provided with undercut recesses resulting from undercutting the upper and lower ends of said projection, said base provided also with an eye, and further provided with a ledge disposed above and spaced from the upper portion of said projection, a boss on said ledge, and an L-shaped pin, the shaft of which is pivotally and slidably mounted in said eye and the horizontal portion of which is adapted to rest in either of said recesses, and to contact said boss to restrain it from disengagement from said eye.

4. A ladder-foot including a base element having an extension from its face, said extension provided with an undercut groove and an overcut groove, and provided also with an elongated eye disposed at a right angle to said grooves, said base including also

a ledge near its top and above said overcut groove, a stop-boss fixed on said ledge, and an L-shaped pin slidably and pivotally mounted in said eye, its horizontal arm adapted to rest in said overcut groove to sustain it in inoperative position, and said eye to entirely shield its point when in said position, the same arm adapted to rest in the undercut groove when in operative position,

and said ledge adapted to limit the extent of upward movement of said pin. 10

In testimony whereof I hereunto set my hand this 31st day of October, 1910, at Galesburg, Knox County, Ill.

EDWIN C. MAGOON.

In presence of—

D. W. FLYNN,

H. M. RICHARDS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."