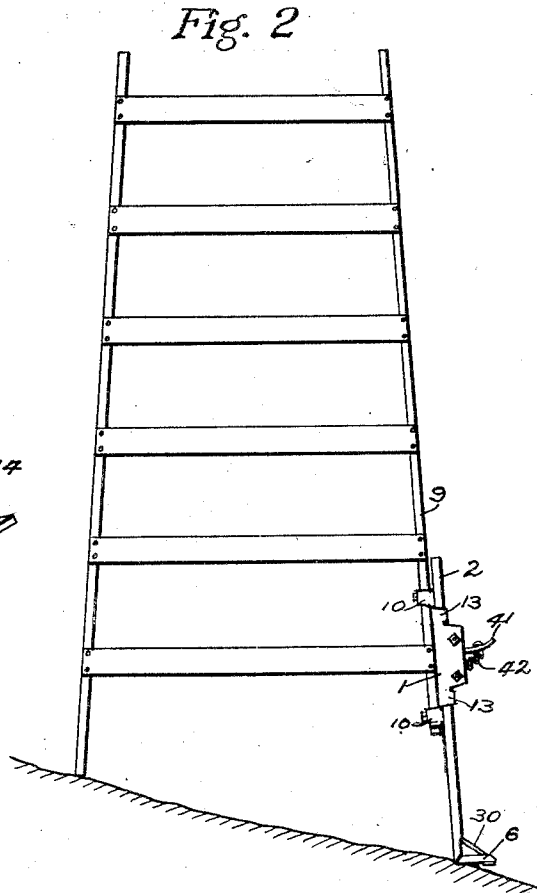
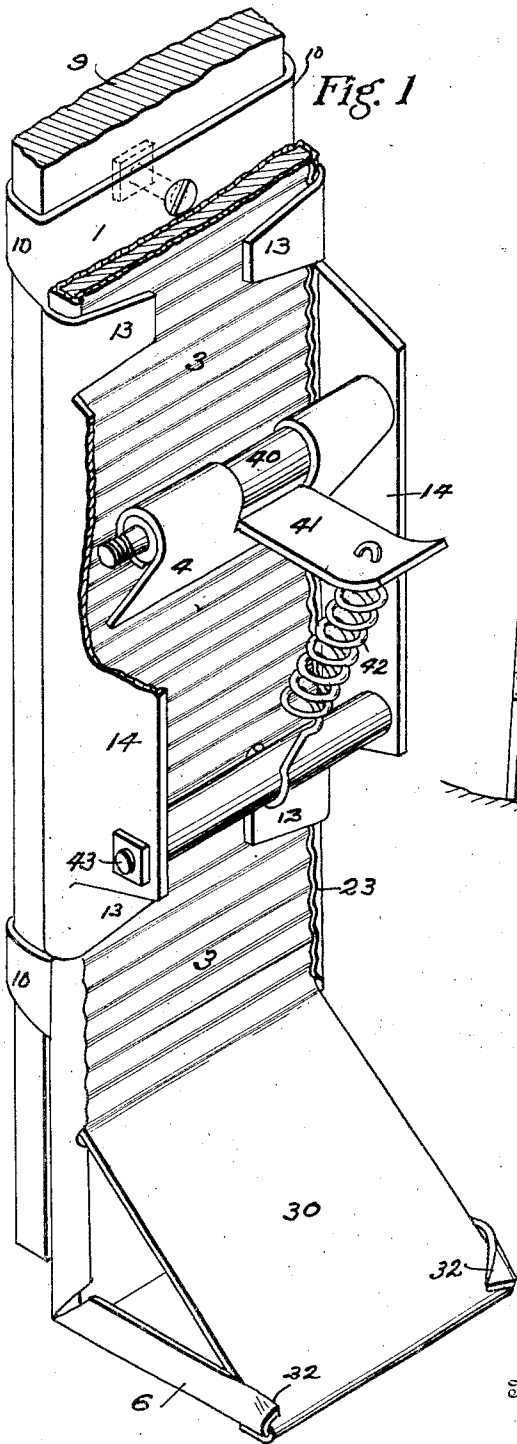


F. H. BARRON.
EXTENSION FOR LADDER LEGS.
APPLICATION FILED MAY 6, 1918.

1,329,740.

Patented Feb. 3, 1920.
2 SHEETS—SHEET 1.



Inventor

Frederick H. Barron

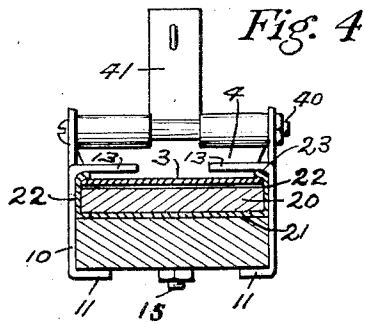
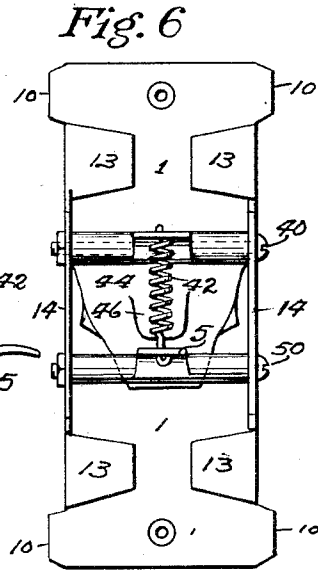
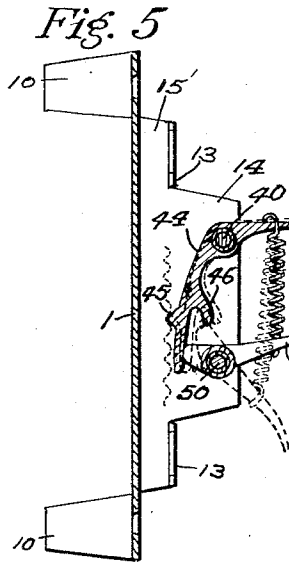
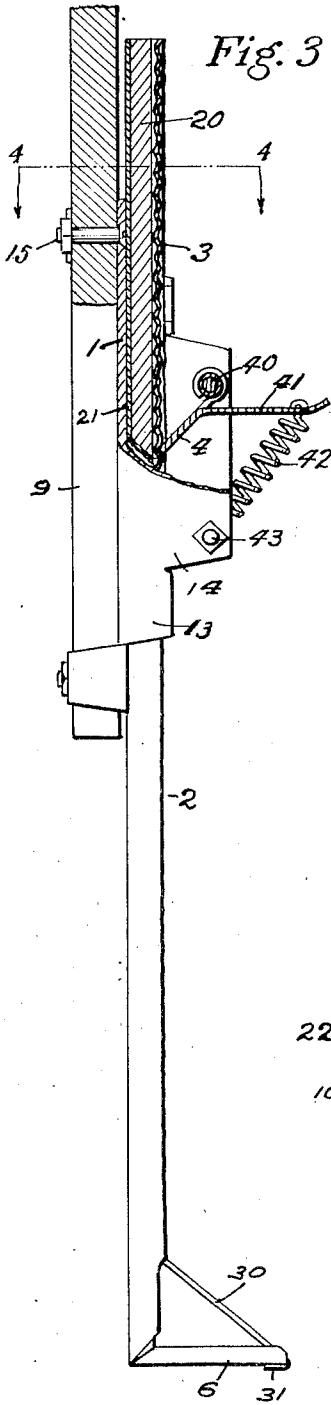
By *Henry L. Reynolds*
Attorney

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UNITED STATES PATENT OFFICE.

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EXTENSION FOR LADDER-LEGS.

1,329,740.

Specification of Letters Patent.

Patented Feb. 3, 1920.

Application filed May 6, 1918. Serial No. 232,809.

To all whom it may concern:

Be it known that I, FREDERICK H. BARRON, a citizen of the United States, and resident of Entiat, county of Chelan, and State of Washington, have invented certain new and useful Improvements in Extensions for Ladder-Legs, of which the following is a specification.

My invention relates to ladders and consists of an attachment by which a ladder leg may be lengthened as may be necessary to fit uneven ground.

The object of my invention is to provide an attachment for ladders by which any ordinary ladder may have one of its legs made longer or shorter, as desired, and thus cause it to be more convenient for use on uneven or sloping ground.

My invention comprises the novel parts and combinations of parts which will be hereinafter described and then particularly claimed.

In the drawings I have shown my invention in the form of construction which is now most preferred by me.

Figure 1 shows in perspective my attachment as applied to the end of a ladder leg, a portion of the upper end thereof being broken away.

Fig. 2 shows the lower end of a ladder having my attachment applied thereto.

Fig. 3 is an edge view of a ladder leg having my attachment applied thereto, a portion thereof being broken away, to show parts.

Fig. 4 is a transverse section on the line 4-4 of Fig. 3.

Fig. 5 is a longitudinal section through the part of my device which is fixedly secured to the ladder leg, and which forms the guide for the adjusting bar.

Fig. 6 is a face view of the parts shown in Fig. 5.

My invention comprises two principal parts, a base member, which is designed to be fixedly secured to the lower end of a ladder leg and which is so constructed as to form a guide within which the extension bar may slide, and which is provided with means for locking engagement with said extension bar. The other part is the extension bar which is mounted to slide in said base or guiding member and which may be projected to increase the effective length of the ladder bar upon which it is mounted.

In the drawings 1 represents a metal plate

which is so constructed as to be capable of attachment upon the leg of an ordinary ladder and also so as to provide a supporting guide for the extension bar 2. The plate 1, in the design illustrated, is supposed to be made of rolled sheet metal of a substantial thickness so as to give ample strength. This is made of a plate having a width exceeding materially the width of the ladder leg.

Its side edges are cut so as to provide ears 10 at each end which may be bent about the edges of the ladder leg 9, to overlap the opposite sides thereof, as is shown in Figs. 1, 3 and 4 particularly. The tips 11 of these ears 10 engage the opposite or back side of the ladder leg and assist in holding the plate in position. The plate being rolled of sheet metal is malleable and may be bent over with a hammer so as to fit ladder legs of different thicknesses. In addition, I provide two securing bolts 15 which pass through the ladder leg. The heads of these bolts should be countersunk or flush with the outer surface of the bar, to permit free sliding of the extension bar 2.

Adjacent the ears 10 by which the plate is secured upon the ladder leg, are other ears 13, which ears are oppositely bent so as to have their end sections parallel with the body of the plate 1, but spaced outward therefrom a sufficient distance to accommodate the extension bar 2 and to permit the free sliding action of said bar under these ears. Between the ears 13, at opposite ends of the plate, are side flanges 14, which project outwardly and which form a base upon which the locking device is mounted. The base portions 15' of the ears 13, together with the flanges 14 just mentioned, form edge supports and guides for the extension bar 2.

The extension bar 2, as herein shown, is of a composite construction. This employs a filler 20, the same being intended as a bar of wood. This is provided with a metal envelop or covering which consists of two parts. The chief of these parts consists of a plate 21 which has its edges bent up so as to engage the edges of the filler bar 20. These side flanges 22 are of a width to extend somewhat beyond the surface of the filler bar 20 and to overlap the edges of the other member 3 of the extension bar. This member 3 is a plate which is so constructed as to provide means for holding engagement therewith of a locking dog.

The means preferred and illustrated, consist in providing this plate with transverse corrugations, as is clearly shown in Figs. 1 and 3. The flanges 22 of the companion plate 21, are preferably flanged over upon the edges of the plate 3, as is clearly shown at 23 in Fig. 4, and as is also shown in Figs. 1 and 3. In this manner the extension bar is given a construction which is both cheap to make and strong.

Between the side flanges 14 of the base member is pivoted a locking dog 4 upon a pivot bar 40. This dog has an arm 41 extending outwardly by which it is controlled. A spring 42 may connect this outer bar with a bolt 43 which extends between the two side flanges 14 and thus serves to hold the dog in locking engagement. The inner end of this dog engaging the corrugations in the plate 3 of the extension bar, will prevent upward movement thereof. Downward movement may be secured by pushing or pulling out the extension bar. When it is desired to move this extension bar upward, the locking dog 4 must be held outward sufficiently to permit such movement.

As shown in Figs. 5 and 6, a slightly different type of locking bar is employed. In this case the locking dog 44 is of a somewhat different type of construction. It is pivoted upon a bar 40 in a similar manner but is provided with a rib or tooth 45 for engagement with the corrugated face of the plate 3. A locking bar to hold this dog in locked position is provided. This bar 5 is pivoted upon a bolt 50 which is essentially the same as the bolt or rod 43, shown in Fig. 3.

The spring 42, instead of being secured to the rod or bolt 43, is secured to the locking bar 5, and normally holds the same in the position shown in full lines in Figs. 5 and 6. When in this position, the extension bar is securely held by the dog 44. The dog 44 has a finger 46 so placed that when the bar 5 has its outer end thrown downward, the inner end will engage the inner surface of the finger 46 and thus raise the locking dog so as to free the extension bar and permit free movement thereof in either direction.

To the lower end of the extension rod and preferably forming a part of the plate 21 which forms the major part of the reinforcement thereof, is a foot 6. This extends laterally and is intended to give a material area to the end of the extension bar so that when in use it will not sink into

soft ground. The foot is braced by a diagonal extension 30 of the plate 3 which has its extreme end 31 flanged over the end of the foot 6 and bent up against the under side thereof. To more securely hold this in place, the corners 32 of the said flanges of the foot are bent over the same, as is clearly shown in Fig. 1, and suggested in Fig. 3.

The above device is of such design that it may be cheaply made and yet be strong. It may be conveniently applied by any person to an ordinary ladder and requires no special tools for this work. The extension leg may be applied to the ladder leg though the thickness of the latter vary.

What I claim as my invention is:

1. A ladder extension leg comprising a wood filler bar, a metal plate inclosing said filler bar on three sides, and a corrugated plate covering the fourth side of said filler bar, the metal plate being flanged over said corrugated plate to hold it in position, said metal plate at its lower end being bent laterally to form a foot, and said corrugated plate being bent at a point above the bend in the metal plate, and with its lower end joined to the foot to provide a brace therefor.

2. A ladder extension leg comprising a wood filler bar, a metal plate inclosing said filler bar on three sides, and a corrugated plate covering the fourth side of said filler bar, the metal plate being flanged over said corrugated plate to hold it in position, said metal plate being bent laterally to form a foot at its lower end, and said corrugated plate being bent at a point above the bend in the metal plate, the lower end of said corrugated plate being flanged over the outer edge of the foot, and the outer corners of the foot being flanged over the edge of the corrugated plate to form a brace for said foot.

3. A ladder leg extension device comprising a wood filler bar, incasing metal plates therefor of which one broad face is corrugated, a base plate adapted to be secured upon the ladder leg, pivot carrying flanges forming part of said base plate, and a locking dog pivoted in said pivot carrying flanges and engaging the corrugations in said plate to lock the extension leg in position.

Signed at Wenatchee, Washington, this 27th day of April, A. D., 1918.

FREDERICK H. BARRON.