March 6, 1928. 1,661,587

N. VARKER ET AL

STEPLADDER

Original Filed July 9, 1924

Fig. 1.

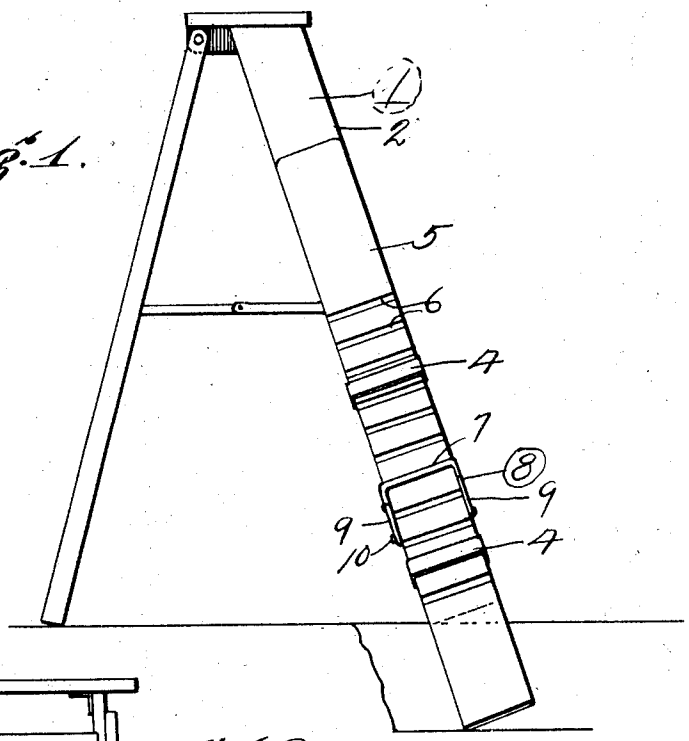


Fig. 2.

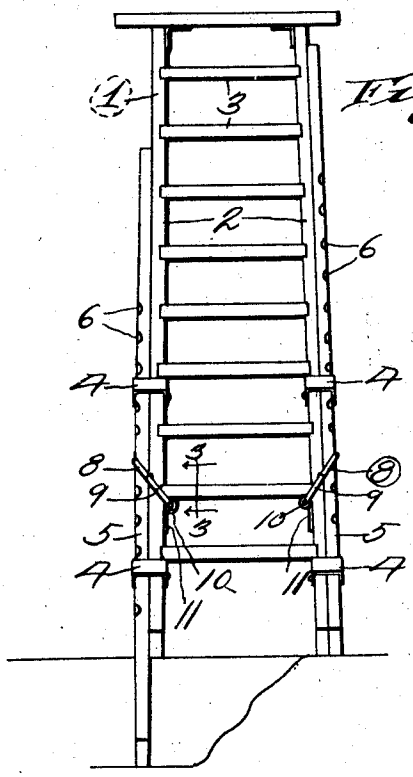
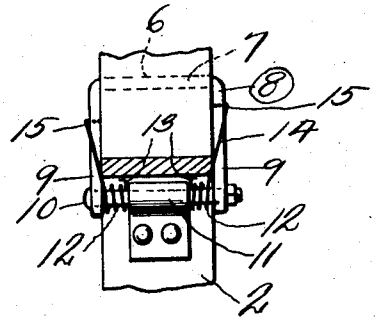


Fig. 3.



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UNITED STATES PATENT OFFICE.

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STEPLADDER.

Application filed July 9, 1924, Serial No. 725,047. Renewed January 17, 1928.

The invention relates to stepladders, and has for its object to provide the side bars thereof with extensible legs slidably mounted on the outer sides of the bars, and which legs are held in various adjusted positions by means of a pivoted bail carried by each side bar at its inner side and arching the rails and the extensible legs and cooperating with transversely disposed slots in the outer faces of the extensible legs. The bails incline upwardly and outwardly and are held in engagement with the extensible legs by means of coiled springs carried by bolts on which the arms of the bails are pivotally mounted, and which coiled springs are provided with arms which cooperate with the arms of the bails, said inclined positions of the bails allowing the legs to be extended by imparting a pull thereon and positively holding the legs against upward movement after they are extended to the desired position, and the transverse portions of the bails are disposed in grooves of the extensible legs.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawing, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the drawing:—

Figure 1 is a side elevation of the ladder showing the device applied thereto.

Figure 2 is a front elevation of the ladder.

Figure 3 is a detail sectional view taken on line 3—3 of Figure 2.

Referring to the drawing, the numeral 1 designates the main body of the ladder, which body is formed from side bars 2, and horizontally disposed treads 3. Slidably mounted in collars 4, and on the outer sides of the bars 2 are extension legs 5, which legs are provided with transversely disposed spaced slots 6, in any one of which slots the transverse portions 7 of the bails 8 are received, consequently after the legs 5 have been extended the bails 8 will hold said legs in extended positions. Bails 8 arch the bars 2 and the extension legs 5 and have their arms 9 pivotally mounted on transversely disposed bolts 10 carried by brackets 11 which are secured to the inner sides of the bars 2, and the bails incline upwardly and outwardly, thereby providing means whereby when the transverse portions 7 thereof are in any of the grooves 6, the greater the weight on the ladder as a whole, the greater the clamping action of the bails which by being inclined will force the extension legs 5 into frictional binding engagement with the outer sides of the bars 2, and also by being inclined, a downward pull on the extension legs will pivotally move the bails 8 to positions where the transverse portions 7 thereof will be out of engagement with the grooves 6. Surrounding the bolts 10 on opposite sides of the brackets 11 are coiled springs 12, one of the ends of which engage the inner sides of the rails 2 at 13, and the arms 14 of said springs extend upwardly and outwardly at opposite sides of one of the treads 3, and are hooked over the arms 9 at 15 and exert an inward pull on the bails 8, thereby normally maintaining the transverse portion 7 of the bails in engagement with the outer sides of the extension legs 5, and insure the engagement of the transverse portions 7 of the bails with the grooves 6 during the adjustment downwardly of the extension legs.

From the above it will be seen that extension legs are provided for a stepladder, whereby said stepladder may have one of its legs disposed on supports at different elevations, and the suspension legs will be positively held by means of the upwardly and outwardly inclined bails 8 at all times, and in a manner whereby the greater the weight on the ladder, the greater the holding power applied on the extension leg by the bails. It will also be seen that by inclining the bails upwardly and outwardly and providing spring means for normally forcing the transverse portions thereof inwardly, the extension legs may be extended downwardly to any position desired by simply imparting a pull thereon, and the springs will force the bails into interengagement with the notches and hold the legs in extended positions.

The invention having been set forth what is claimed as new and useful is:—

A ladder attachment, said attachment comprising a bracket, said bracket being adapted to be secured to the inner side of a rail of a ladder, an extension leg engaging the outer side of the rail and provided with a plurality of transverse grooves, a bolt extending through the bracket and extending

beyond the edges of the rail of the ladder, a U-shaped bail, said U-shaped bail having its arms pivotally connected to the outer ends of the bolt, said bail having its transverse portion disposed in one of the grooves of the extension rail, coiled springs surrounding the bolt between opposite sides of the bracket and the arms of the bail, one of the ends of said coiled springs being connected to the arms of the bail, the other ends of said coiled springs being anchored to the inner side of the rail of the ladder.

In testimony whereof we have signed our names to this specification.

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