Aug. 5, 1952 E. H. COLVIN 2,605,950

LADDER JACK

Filed Aug. 12, 1949

FIG. 1

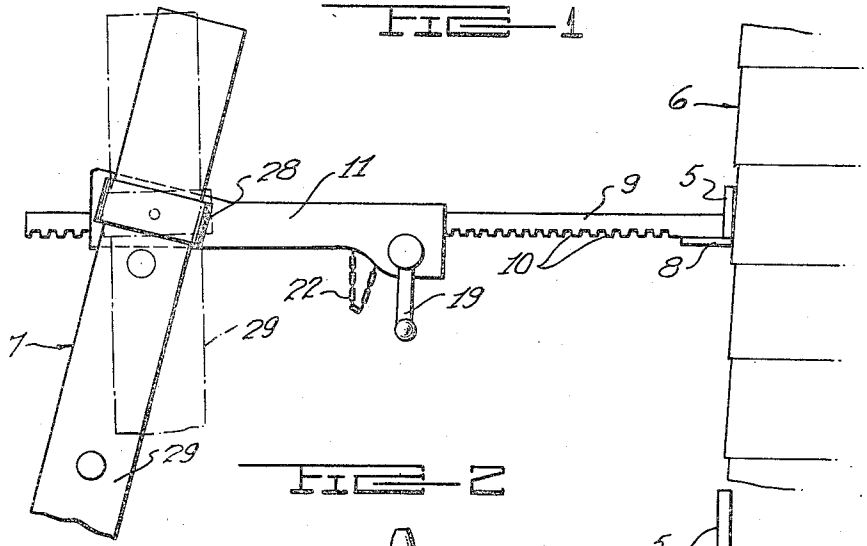


FIG. 2

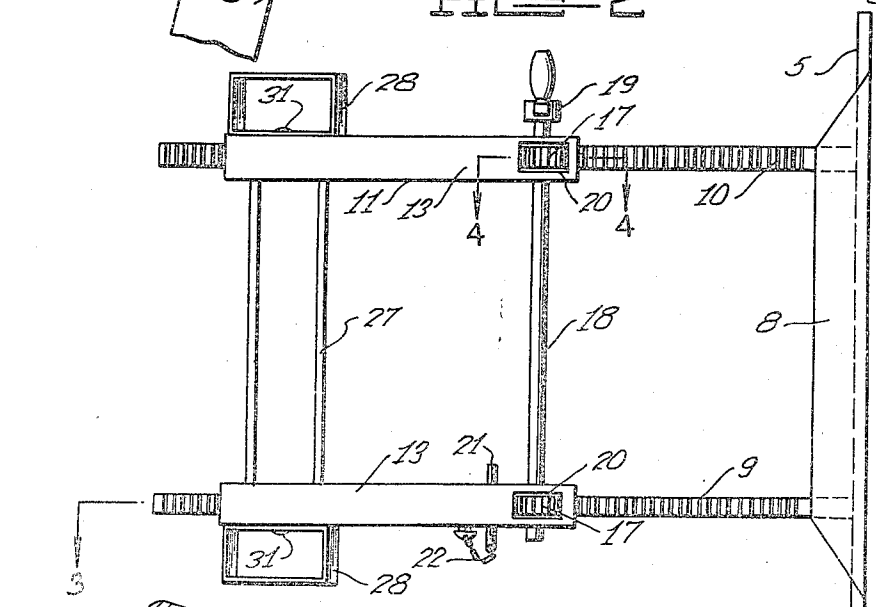


FIG. 3

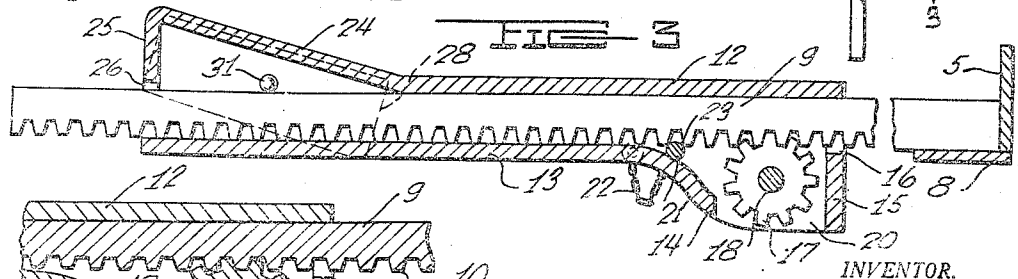
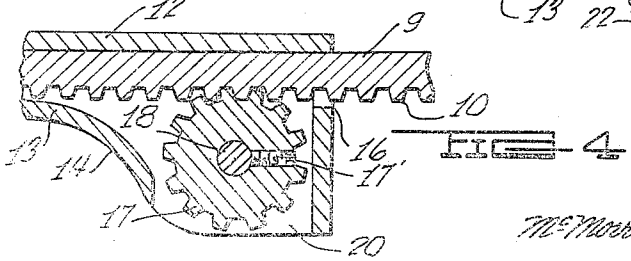


FIG. 4



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LADDER JACK

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2 Claims. (Cl. 228—60)

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This invention relates to improvements in ladder supports, and more particularly to an improved jack for spacing the upper end of a ladder away from a wall or the like to facilitate working around projecting cornices, eaves and the like, the primary object of the invention being to provide a safe and dependable device of this kind which is more serviceable and easily usable, and which can be made in a rugged and efficient form at relatively low cost.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein merely for present purposes of illustration, a specific embodiment of the invention is set forth in detail.

In the drawings:

Figure 1 is a side elevation, showing the jack extended and showing a ladder supported thereby in different angular positions relative to a wall;

Figure 2 is a bottom plan view;

Figure 3 is an enlarged, contracted longitudinal sectional view taken on the line 3—3 of Figure 2;

Figure 4 is an enlarged framentary longitudinal section taken on the line 4—4 of Figure 2.

Referring in detail to the drawings, wherein like numerals designate like parts throughout the several views, the illustrated device comprises a base composed of a transversely-elongated plate 5 to rest flush against a wall 6 relative to which a ladder 7 is to be supported, a right angular plate 8 secured along the lower edge of the plate 6 and spaced from its ends. Secured to the upper side of the plate 8 and to the side face of the plate 5 near the ends of the plate 8 are two parallel squared bars 9, 9 having rack teeth 10 formed in their lower edges.

Slidably supported on the rack bars 9 are similar rectangular cross-section sleeves 11, which, as shown in Figure 3, have a major portion of the length thereof slidably engaged with the bars, the top wall 12 being engaged with the tops of the bars and the lower walls 13 being engaged with the rack teeth 10.

The forward end of the lower sleeve wall 13 has a declining portion 14 closed by an end wall 15 having an opening 16 passing the bar 9, the resultant acting as a housing for the pinion 17 meshed with the bar teeth 10 and fixed on the axle 18 which extends between and through both sleeves 11 and has an operating crank 19 on one end. An opening 20 under the pinion in the wall portion 13 exposes the pinion. A set screw 17' locks the pinion 17, as shown in Figure 4.

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A locking pin 21 on a chain 22 attached to one of the sleeves 11 is adapted to engage between any two adjacent rack teeth 10, through aligned holes 23 formed in the side walls of the sleeve to lock the bars 9 in adjusted position. As shown in Figure 3, the pin also engages the declining lower wall portion 14.

The rearward ends of the sleeves 11 have their upper walls 12 rearwardly inclined above the bars 9, as indicated at 24, with accompanying extensions of the side walls, the rearward ends of the sleeves being closed by walls 25 having openings 26 in the lower part thereof passing the rack bars 9.

A transverse brace 27 is fixed to extend between the rearward ends of the sleeves 11 and rigidly connects the sleeves together.

On the laterally-outward side of each sleeve near the rearward end thereof is a rectangular open stirrups 28 to conformably receive corresponding ones of the stiles 29 of the ladder 7. Riveted pins or bolts 31, positioned over center on a level above the horizontal center plane of the rack bars 9, secure the stirrups swingably along the outer sides of the sleeves and with sufficient snugness to make the stirrups work stiffly to avoid vagrant pivoting thereof. The pivoting of the stirrups 28 enables the device to support the ladder 7 securely against the wall 6 in an angular position or in a parallel position, as shown in dotted lines in Figure 1.

I claim:

1. In a ladder jack, a pair of laterally spaced rack bars, a wall engaging base extending between and fixed to one of the ends of the rack bars, a sleeve having a ladder stile engaging means mounted on each of said bars for sliding movement therealong, brace means extending between and fixed to the sleeves at one end of the sleeves, a shaft extending between and journaled in the sleeves at the other ends of the sleeves and having one end projecting beyond one of said sleeves, pinions on the shaft engaged with the rack bars, a crank on the projecting end of said shaft for operating the shaft, and a pin insertable through opposed openings formed in one of said sleeves and engageable between adjacent teeth of the rack bar in the last named one of said sleeves for locking the sleeves in any select position of their sliding movement.

2. In a ladder jack, a pair of laterally spaced rack bars, a wall engaging base extending between and fixed to one of the ends of the rack bars, a sleeve having a ladder stile engaging means mounted on each of said bars for sliding

movement therealong, brace means extending between and fixed to the sleeves at one end of the sleeves, a shaft extending between and journaled in the sleeves at the other ends of the sleeves and having one end projecting beyond one of said sleeves, pinions on the shaft engaged with the rack bars, a crank on the projecting end of said shaft for operating the shaft, and a pin insertable through opposed openings formed in one of said sleeves and engageable between adjacent teeth of the rack bar in the last named one of said sleeves for locking the sleeves in any select position of their sliding movement, said ladder stile engaging means consisting of a stirrup.

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