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E. P. GOODEN

2,010,588

STEPLADDER ATTACHMENT

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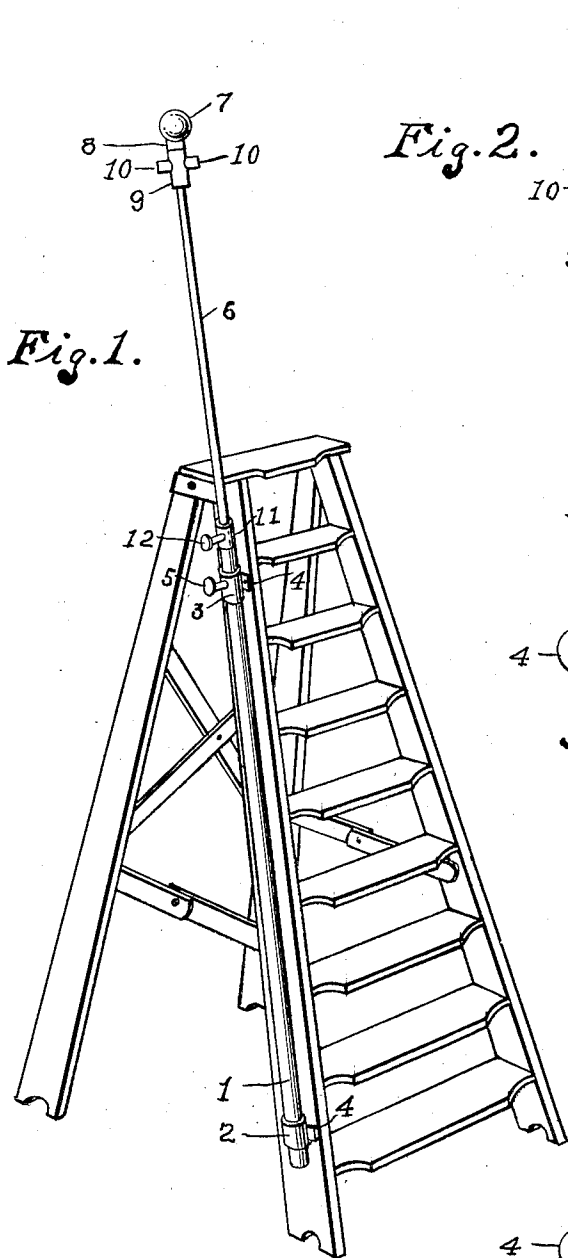


Fig. 2.

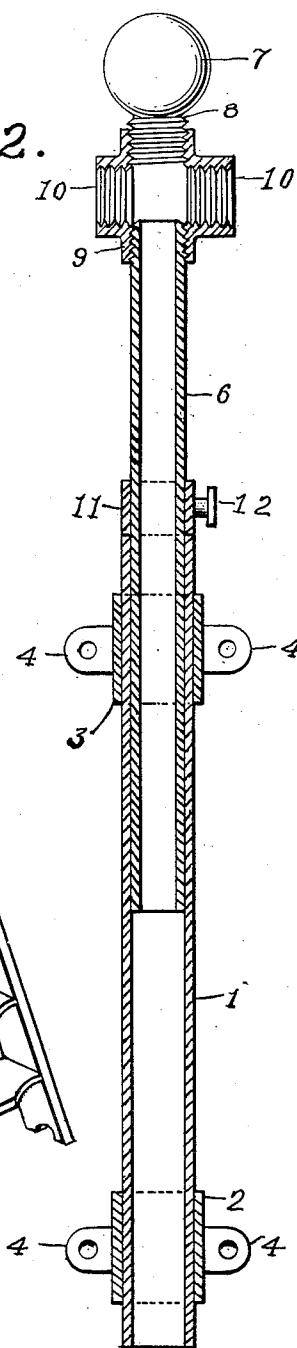
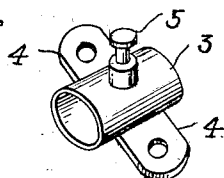


Fig. 3.



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STEPLADDER ATTACHMENT

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3 Claims. (Cl. 228-67)

The invention relates to improvements in step-ladder attachments and has for its object an attachment of this character that may be economically manufactured and readily applied to any conventional form of step-ladder and, when so applied, will add to the convenience, comfort and safety of an individual while standing upon its upper step, and thus decrease the danger of falling, as it will enable him to steady his movements by holding upon the upper end of the attachment, and will also afford convenient means of connecting therewith brackets to sustain hooks, trays and other appliances for supporting utensils and materials with which he is working.

A further object is to provide a tubular casing attachable to the side of an ordinary step-ladder, extending approximately the full length thereof and having telescoped therein a hollow shaft approximately the same length, which shaft, when in use may be drawn upwardly and locked at any desired elevation above the upper step of the ladder, and which may, at the upper end, afford means of supporting various forms of material and tool-holding devices.

With these and other objects in view the invention resides in combination and arrangement of parts as herein set forth, shown in the drawing, described and claimed.

In the drawing:

Figure 1 is a perspective view of a step-ladder with the invention applied thereto.

Figure 2 is a sectional view of the invention.

Figure 3 is a perspective view of a collar for securing the upper end of the tubular casing to the side of the step-ladder and locking the hollow shaft therein.

Referring to the drawing: Figure 1 designates a step-ladder of conventional form and in general use, showing the invention applied thereto. The invention comprises a tubular casing 1 which is secured to one side of the step-ladder by means of a collar 2, at its lower end, and a collar 3 at its upper end; each of the collars being provided with perforated wings 4 wherewith they may be secured to the side of the step-ladder. The upper collar is also provided with a thumb-screw 5 that is threaded through said sleeve and casing 1, so that it may be forced into contact with a hollow shaft 6 which is slidably telescoped within said casing and may be readily locked thereby. The said shaft 6 is adapted to easy sliding movement within said casing 1 and has preferably about the same length, so that it may be fully enclosed when not in use. The inner shaft 6, being hollow, affords convenient means at its upper end for the

reception of such appliances as may be found desirable including, for instance the ball 7, which is provided with a shank 8, adapted to be engaged within the hollow shaft, where it may be secured by means of a thumb-screw, or it may be threaded therein as shown in Figure 2, where the threaded shank 8 engages a threaded sleeve 9, which is provided with laterally extending sockets 10, adapted to engage arms for supporting various utensils, and especially adapted for such work as electric wiring and the like and being so arranged that an operator, requiring numerous receptacles, can by rotating their supporting shaft 6, draw any of them within easy reaching distance when required to stand upon an upper step while holding for support the ball 7 with one hand and reaching elevated work with the other. It is, however, important that, in order to secure such convenience and protection, means must be provided for independently regulating both the elevation and rotation of the hollow shaft 6; the latter being intended for the convenience of experienced operators and the former for inexpert and timid people who are dependent upon a grasping member which will retain its stability under variable agitating forces or pressure. To meet such contingencies, means for retaining a convenient altitude of the hollow shaft 6, and permit rotation thereof, are provided through employment of a slip-collar 11, slidably carried over said shaft 6 and secured where it abuts against the upper end of the tubular member 1, by means of a set-screw 12; while on the other hand, when the attachment is employed only as a holding support, rotation is prevented by means of the said set-screw 5.

The invention having been fully described what is claimed as new and useful is:

1. An attachment for a step-ladder comprising a tubular casing, a shaft slidably engaged within said tubular casing, means for attaching said tubular casing to the side of a step-ladder, a slip-collar disposed around said shaft to regulate its sliding movement, and socket-members radially and upwardly disposed upon the upper end of said shaft.

2. An attachment for a step-ladder comprising a tubular casing, a shaft slidably engaged within said tubular casing, means for attaching said tubular casing to the side of a step-ladder, a slip-collar disposed around said shaft to regulate its sliding movement, socket-members radially and upwardly disposed upon the upper end of said shaft, and a hand-supporting member attached to one of said sockets.

3. In combination, a safe-guarding attachment for a step-ladder comprising a tubular casing, a hand-grasping shaft slidably engaged within said tubular casing, means for attaching said tubular casing to the side of a step-ladder, a slip-collar disposed around said shaft, a clamping-bolt for securing same to control sliding movement of said shaft, a set-screw disposed through the upper end of said tubular casing to regulate rotative movement of said shaft, socket members radially and upwardly disposed upon the upper end of said shaft and a hand-supporting member attached to one of said socket-members. 5

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