

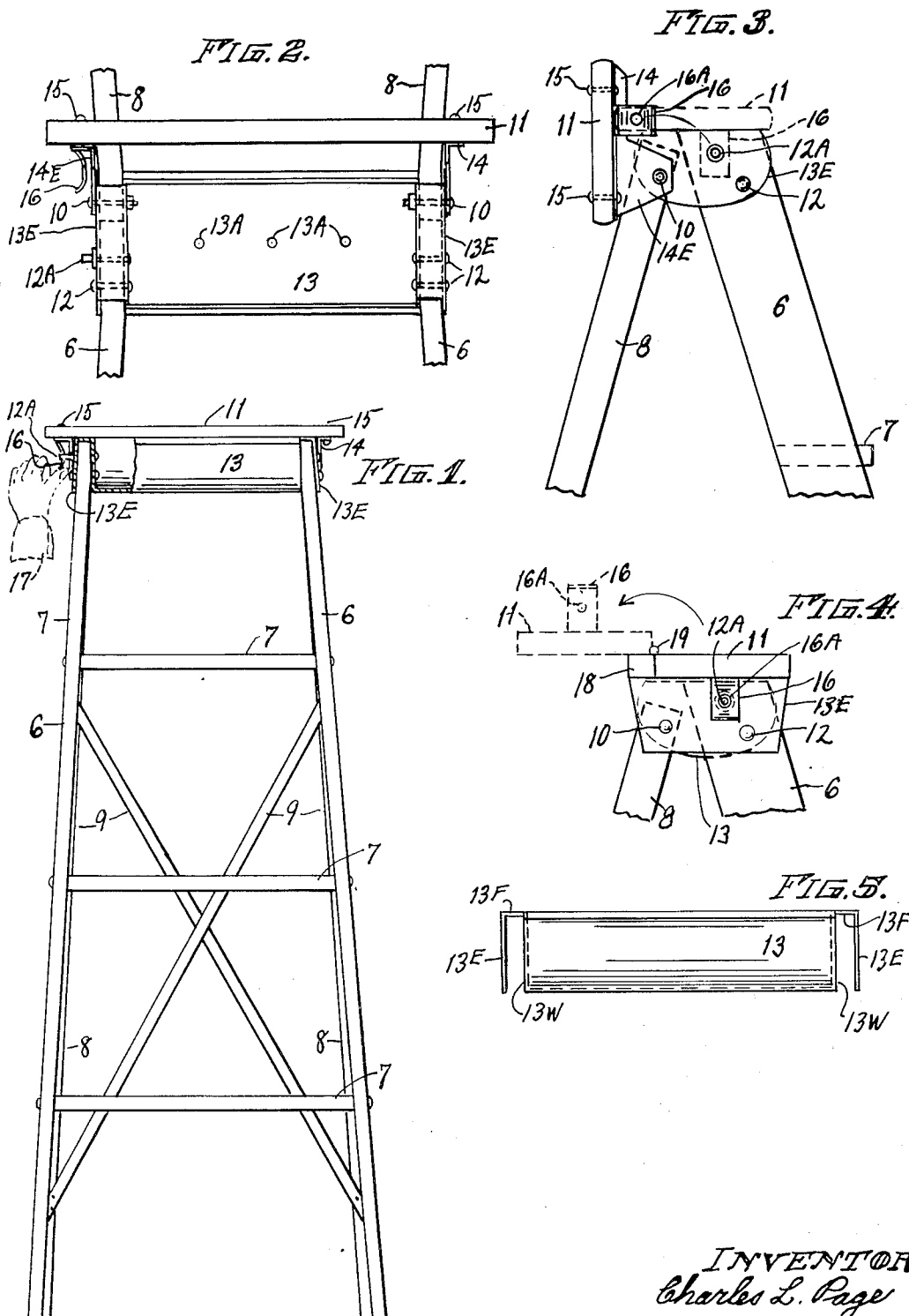
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STEPLADDER

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STEPLADDER

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4 Claims. (Cl. 228—61)

My invention relates to improvements in so-called stepladders of the kind commonly used for household purposes, or by painters and paperhangers, or others, for ordinary uses to which stepladders in general are applicable.

The main object is to provide a stepladder provided with certain receptacle means for tools, brushes, etc. built into the upper end part of the ladder in such a manner as to be available at all times as a receptacle the same being in an unobstructive location and not detracting from or interfering with the regular use of such ladder. The receptacle means add but slightly if any to the manufacturing cost of the ladder and the construction and use of the device is hereinafter fully set forth reference being had to the accompanying drawing, in which,—

Fig. 1 is a front view of a stepladder in which my new and useful construction is incorporated.

Fig. 2 is an enlarged top view of Fig. 1 showing the hinged cap or stepladder top turned back to disclose the tool tray of my device.

Fig. 3 is a left side view of Fig. 2.

Fig. 4 is a modification of Fig. 3.

Fig. 5 is a front elevation of the tray member of my improved ladder, in a preferred form.

Referring to the drawing by reference numerals, I have illustrated my invention as embodied in the usual type of household ladder of which 6 are the side runners or rails, 7 the steps and 8 are the usual side rails of the pivotally suspended usual prop 9, pivoted at 10 in proximity to the upper ends of rails 6. The top rung 11, hereinafter called the cap, in my improved ladder is pivotally mounted on pivots 10 and adapted to be swung back from its usual horizontal position, as from the dotted to the full line positions in Fig. 3, for a purpose presently to be described.

Between the upper ends of the runners 6 and suitably affixed thereto, preferably by rivets 12, I provide an upwardly opening sheet metal, shallow tray 13. The latter is elongated and of trough-like form, its upper open end being in fixed position so that the cap may normally rest thereon, as in Fig. 1, and completely cover the tray. 13A are small apertures in the bottom of the tray, provided merely to prevent accumulation of moisture in the tray.

The pivoted connection of the cap at 10 is completed by providing two angle iron members 14 riveted at 15 to the under side of the cap in parallel relation to each other and spaced apart to pass downwardly over the ends of the tray with extension ears 14E each having an

aperture located for proper pivotal contact with a pivot 10.

Both ends of the tray are formed with vertical, integral walls 13W, and from the upper part of each end extends an integral flange 13F from the outer edge of which extends downwardly an integral outer ear or flap 13E in parallel relation to the adjacent end wall 13W.

Between each end wall 13W and its adjacent ear 13E is fixed the upper end of a side runner of the ladder by means of the rivets 12 or equivalent thereof. Said rivets extend through registering holes in walls 13W, the runners 6 and the ears 13E. One of the rivets at one side of the ladder, however, is of special construction, as 12A, comprising an outwardly projecting stud adapted to be engaged by a yieldable spring metal catch 16. Said catch is of inverted L-shape its upper flange adapted to be rigidly retained between the upper flange of member 14 and the lower or under side of the cap 11, extending thence downwardly and outwardly in a curvature at its free end. An aperture 16A is provided in the catch and which part engages the stud 12A to thereon hold the cap solidly in resting position and on top of the tray as in Fig. 1. The curvature of the catch rides on the outer end of the stud when lowering the cap and the catch snaps inwardly to engage the stud when the cap member is being closed.

The locked position of the catch is clearly illustrated in Figs. 1 and 4 and in the former figure is shown by a hand (in dotted line) 17 how a finger is used to press the catch 16 outwardly at its free end to disengage it and allow the cap 11 to be swung back on its hinges to uncover the tray 13. The tray is of course used for convenient storage of tools, nails, paint brushes and other articles, all such articles being easily available and accessible with or without using the ladder. Primarily, however, this improved tool holding device is particularly intended for use when a ladder is required for household work such as painting, carpenter working, picture hanging, wall cleaning, etc. in all of which uses work tools are necessary while the worker is on a ladder and the tray means described are particularly useful.

In the modification, Fig. 1, the cap is of two piece construction comprising a main lid or relatively wide hinged board 11 and rearward thereof a narrower strip 18 fixed on the upper rear part of the tray, at its ends, cap 11 being suitably hinged to strip 18 as at 19. In this case the cap 11 may of course be swung back and upon

strip 18 to lie in horizontal plane thereon as shown in dotted lines, providing a ledge or shelf on which tools may be laid adjacent to the open tool tray.

- 5 The preferred construction and use of my improved stepladder have now been fully disclosed. Modifications of structure may be incorporated without departing from the main construction and scope of the invention as disclosed.

10 I claim:

1. In a stepladder of the class described and having a prop and hinge pins in the top part of the ladder to suspend the prop pivotally; an elongated upwardly opening tray fixed between the upper termini of the ladder rails, a top rung of the ladder comprising an elongated flat cap-piece normally resting on the said tray, and hinge means for said cap comprising the said hinge pins.

- 20 2. The structure specified in claim 1 and a yieldable spring catch for holding the cap in closed position, said catch comprising an inverted L-shaped spring member the short arm of which is fixed to the under side of the said cap and the free arm thereof formed in irregular curvature, and a fixed outwardly protruding stud in an end part of the tray and arranged in the path of closing movement of the cap to be engaged by said spring catch.

- 30 3. The structure specified in claim 1 and a yieldable spring catch for holding the cap in closed position, said catch comprising an inverted L-shaped spring member the short arm of which is fixed to the under side of the said cap and the free arm thereof formed in irregular curvature, a fixed outwardly protruding stud in an

end part of the tray and arranged in the path of closing movement of the cap to be engaged by said spring catch, said hinge means for the cap comprising an angle iron member fixed to the under side of and near each end of the cap and each having a downward extension or lug provided with an aperture to be engaged pivotally on the corresponding pivot means of the ladder prop.

4. In a stepladder of the class described and having a prop and hinge pins in the top part of the ladder to suspend the prop pivotally; an elongated upwardly opening tray fixed between the upper terminal of the ladder rails, a top rung of the ladder comprising an elongated flat cap-piece normally resting on the said tray, and hinge means for said cap comprising the said hinge pins of the said prop, said tray comprising a trough like member with integral end walls, horizontal flanges extending outwardly from the upper part of the latter and an integral rigid ear extending downwardly from the outer extremity of each said flange extension in about parallel relation to the adjacent end walls, each said end wall and its adjacent ear provided with horizontally registering pairs of apertures, the upper end of each of said rails of the ladder arranged to be held rigidly between an end wall and its adjacent ear, and the prop also arranged to be pivotally suspended therebetween and rearward of the ladder rails, said rails and the prop provided with apertures registering with the pairs of apertures of the tray and pin means to be fixed therein.

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