No. 693,892. Patented Feb. 25, 1902.

C. E. PAGE.

STEP LADDER AND SHELF COMBINED.

(Application filed May 12, 1899.)

(No Model.)

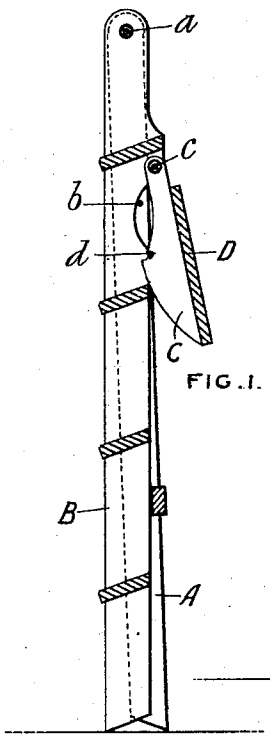


FIG. 1.

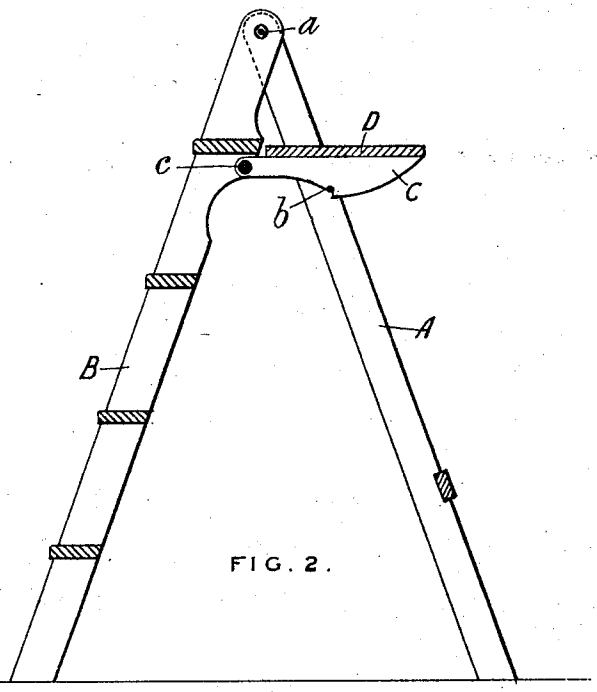


FIG. 2.

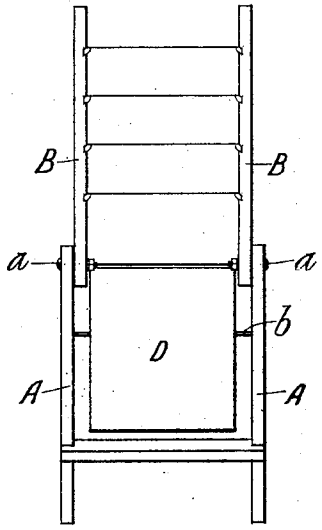


FIG. 4.

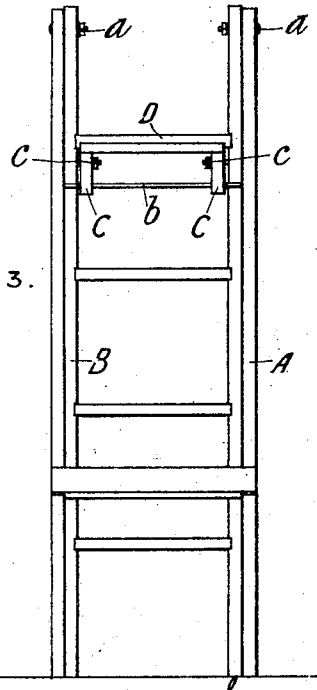


FIG. 3.

Witnesses
[illegible]
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UNITED STATES PATENT OFFICE.

CHARLES ERNEST PAGE, OF LINWOOD, NEW ZEALAND.

STEP-LADDER AND SHELF COMBINED.

SPECIFICATION forming part of Letters Patent No. 693,892, dated February 25, 1902.

Application filed May 12, 1899. Serial No. 716,570. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ERNEST PAGE, a subject of the Queen of Great Britain and Ireland, residing at Linwood, Christchurch, Canterbury, in the Colony of New Zealand, have invented a certain new and useful Step-Ladder and Shelf Combined, (for which I have made application for Letters Patent in New Zealand bearing date March 6, 1899, No. 11,429,) of which the following is a specification.

This invention relates to an improved step-ladder and shelf combined, such step-ladder being similar in appearance to the ordinary step-ladder, but without the usual knuckle-joints, the rear swing-legs being hung on suitable bolts. The arms or bearers of the shelf are pivotally hung to the sides of step-ladder and are so arranged that when the rear swing-legs (which are provided with a rod for the purpose) are extended or opened out the shelf is caused to rise automatically into a horizontal position, when the said arms or bearers act as stays to prevent the legs from spreading or closing. Thus the usual cords or stays are dispensed with. When the legs are closed, the shelf falls compactly against the steps.

Referring to the drawings which form a part of this specification, Figure 1 is a vertical section of the improved step-ladder and shelf combined when closed or folded. Fig. 2 is a sectional elevation of the step-ladder with the legs expanded or opened out and the shelf in a horizontal position ready for use. Figs. 3 and 4 are a back view and plan or top view, respectively, of the step-ladder and shelf as opened out ready for use.

The same letters of reference indicate corresponding parts in all the figures.

The rear swing-legs A are hung on suitable bolts *a* to the sides B of step-ladder and provided with a rod *b*, extending from leg to leg and constituting a bearing for the purpose hereinafter described. A separate stud-pin may be attached to each leg for the purpose, if desired, but the rod is preferable. An arm or bearer C is pivotally attached to each side of step-ladder at *c*, where a projection is formed to enable the width of top step to be increased. To these arms or bearers a shelf D is attached. The under sides of these arms or bearers are formed with a curved or cam surface, so that when the rear legs A are extended or opened out the rod *b* causes the bearers and shelf to rise into a horizontal position, as shown in Figs. 2, 3, and 4, when by means of the notch *d*, which acts as a hook, the shelf is retained in position and the legs of step-ladder prevented from spreading or closing. By lifting the shelf just sufficient to enable the notch *d* to clear the rod *b* the legs can be closed, when the shelf falls compactly against the steps, as shown in Fig. 1.

My improved step-ladder and shelf combined may be used for many purposes to great advantage, the shelf being adapted to support articles of varying descriptions according to the purpose for which the step-ladder is employed.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a step-ladder, the combination of the sides, the rear legs pivotally connected to the sides at their upper ends and provided with a bearing, a shelf pivotally connected to the sides and adapted to be suspended from the pivot-point and to lie flat against the sides when the legs and sides are folded together, the said shelf being formed with a cam-surface on its under face and having a notch, the bearing of the legs being arranged in such relation to the cam-surface as to engage the same and lift the shelf as the sides and legs are separated and to enter the notch when the shelf reaches a horizontal position to lock the parts against further relative movement, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

CHARLES ERNEST PAGE.

Witnesses:
A. H. HART,
GEORGE HART.