May 21, 1946. Y. ST-MARS 2,400,659

SCAFFOLD LADDER

Filed Nov. 25, 1944

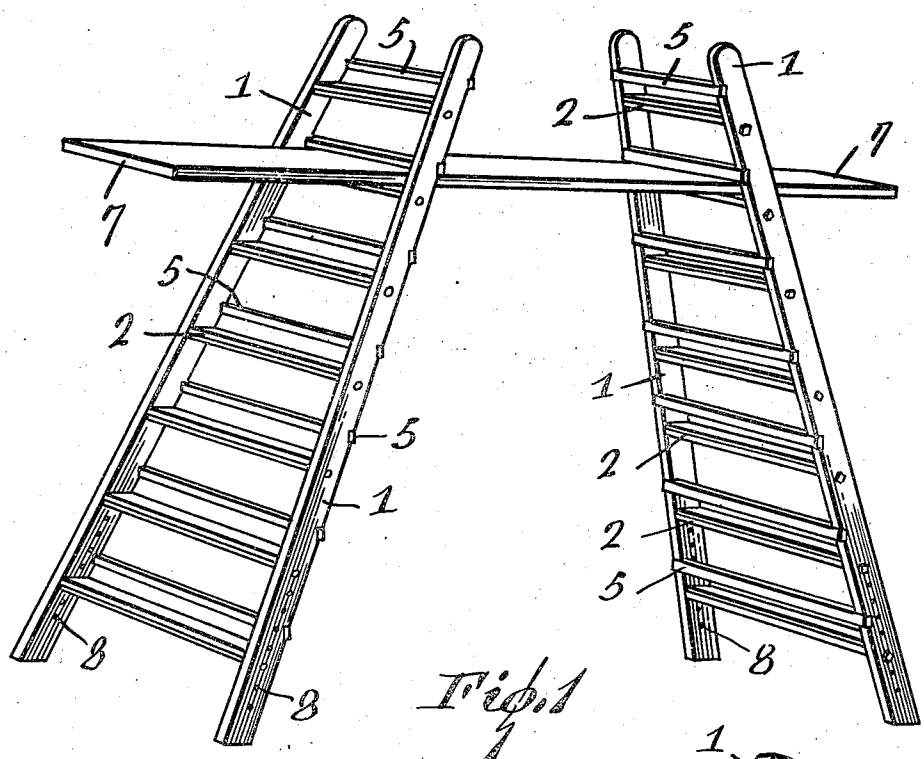


Fig. 1

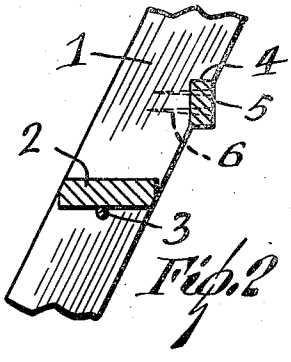


Fig. 2

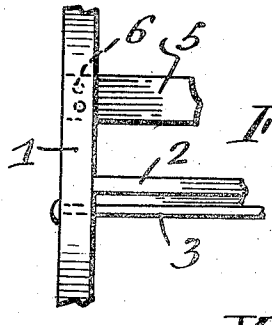


Fig. 3

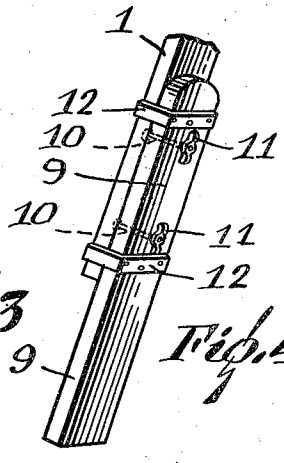


Fig. 4

Inventor:
Yvon St-Mars
By Albert Jaurnée
Attorney

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SCAFFOLD LADDER

Yvon St-Mars, Verdun, Quebec, Canada

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In Canada May 29, 1944

1 Claim. (Cl. 304—3)

The present invention pertains to a novel ladder designed particularly for use in erecting a scaffold. The principal object of the invention is to provide a ladder of such construction that a scaffold may be formed by passing a plank through a pair of identical ladders, without use of fastening means. The scaffold so constructed is so easily assembled and disassembled that it can readily be moved from place to place in a small room much more easily than the furniture could be moved. Other advantages of the scaffold are set forth in the detailed description.

In the accomplishment of the stated object of the invention each of the ladders includes a pair of stiles with steps secured therebetween in any suitable manner. At a slight distance above each step is mounted a strong bar, preferably in opposed notches in the stiles. The spacing of each bar above the next lower step is such as to permit insertion of a plank between the bar and the step and to cause the plank to be tightened between the bar and the step when the ladder is swung outward to a relatively small angle. Thus, when the ladders are diverged downwardly to form a sufficient space, they are tightened against both surfaces of the inserted plank without the use of additional fastening means.

This construction is superior to a step-ladder inasmuch as the plank has sufficient area to support the painter's supplies for a considerable length of time, thus enabling him to work without interruption and without the need of an assistant to hand him his materials.

The invention also includes a novel extension for the lower end of each stile and designed particularly for a sloping ladder.

The invention is fully disclosed by way of example in the following description and in the accompanying drawing in which:

Figure 1 is a perspective view of a scaffold constructed according to the invention;

Figure 2 is a detail vertical section of one of the ladders;

Figure 3 is a corresponding front elevation, and

Figure 4 is a detail perspective view showing an extension leg attached to the lower end of one of the ladders.

Reference to these views will now be made by use of like characters that are employed throughout to designate corresponding parts throughout.

In Figure 1 are shown two ladders, and inasmuch as both are identical, it will be necessary to describe only one of them. Each ladder includes a pair of stiles 1 between which are fastened rungs or steps 2 in any desired manner. A metal rod 3 may be mounted against the lower surface of each step 2, with its ends fastened in the stiles, for reinforcing the steps.

Slightly above each step, each of the stiles is formed with a rectangular notch 4 in the inner edge. In each pair of opposed notches is set a bar 5, extending from stile to stile, and fastened to both stiles by any suitable means, such as nails 6. Each bar is preferably mounted with its width standing vertically in order to provide greater strength for the purpose that will presently be described. The spacing of each bar above the corresponding step is such as to receive a plank or board 7 with such looseness as to permit only a slight angular tilting of the ladder, as shown in Figure 1.

Figure 1, moreover, illustrates the manner of forming a scaffold by means of two such ladders and one plank without the use of special fastening means. The plank is passed between corresponding steps 2 and adjacent bars 5 of two similar ladders, and the latter are swung outwardly at the bottom, or divergently, to the extent permitted by the spacing between the respective steps and bars, as previously described. The plank 7 thus becomes tightened between the steps and bars, and this tightness is further increased when the plank supports the weight of the worker. The plank can obviously be adjusted to various heights as desired.

The lower end of each stile 1 is formed with a longitudinal series of openings 8. An extension 9 is attached to the lower end of each stile by a pair of bolts 10 passed through two openings 8 and through two coinciding openings in the extension and tightened by wing nuts 11. The extension carries a pair of L-shaped brackets 12 overlapping the stiles on the outer edges and thus serving as braces to prevent inward swinging of the extensions.

By means of a scaffold erected as described, a small room may be painted without requiring the removal of the furniture as necessitated by the use of a step ladder. This result is accomplished by mounting the scaffold in a manner that the ladders may straddle each piece of furniture in turn, that is, the piece of furniture stands between the ladders. Also, by means of this device, a room can be painted by one man only and he is not required to run up and down the ladder frequently, since he may place all

of his materials on the plank 7 and does not require an assistant to hand them to him, as would be necessary if he were using an ordinary step ladder. Further, the painter can easily reach into corners by placing one foot on an end of the plank 7 while retaining the major portion of his weight on the intermediate part of the plank.

The device can also be used for hanging clothes and stretching curtains, especially if two planks or bars are mounted at different levels.

Although a specific embodiment of the invention has been illustrated and described it will be understood that various alterations in the details of construction may be made without departing from the scope of the invention as indicated by the appended claim.

What I claim as my invention is:

A scaffold comprising a pair of ladders, each ladder comprising a pair of stiles, steps between said stiles, each stile being notched in one edge slightly above each step, a bar secured in each pair of opposed notches, each bar having a greater width than thickness and mounted with its width standing vertical in the erected ladder, and a plank inserted between corresponding steps and bars of said ladders, said ladders diverging downwardly to tighten said plank between said steps and bars.

YVON ST-MARS.