Dec. 7, 1937. A. DE FRANCO 2,101,245

STEPLADDER ATTACHMENT

Filed July 5, 1935

Fig. 1.

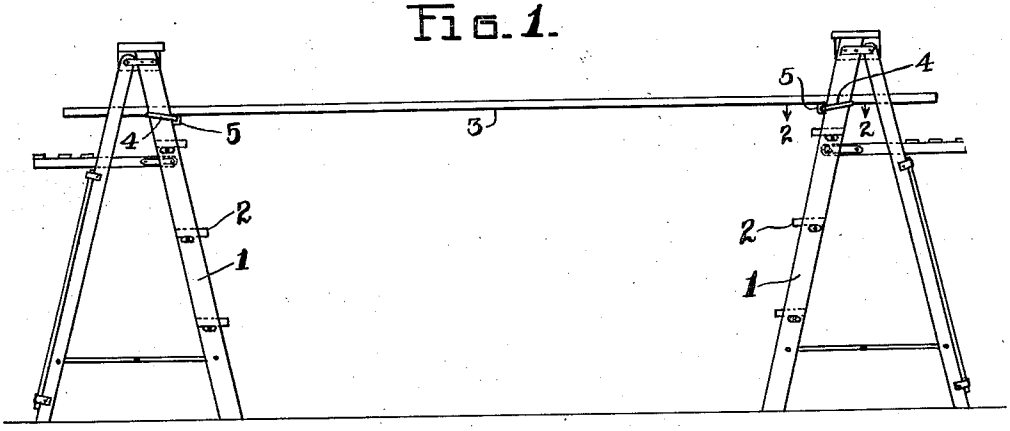


Fig. 3.

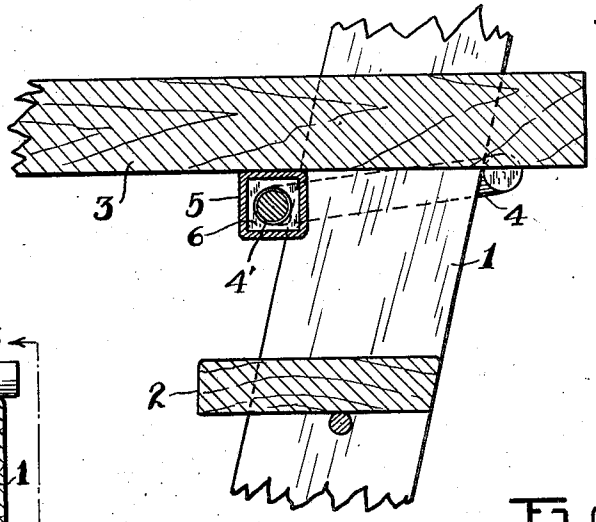


Fig. 2.

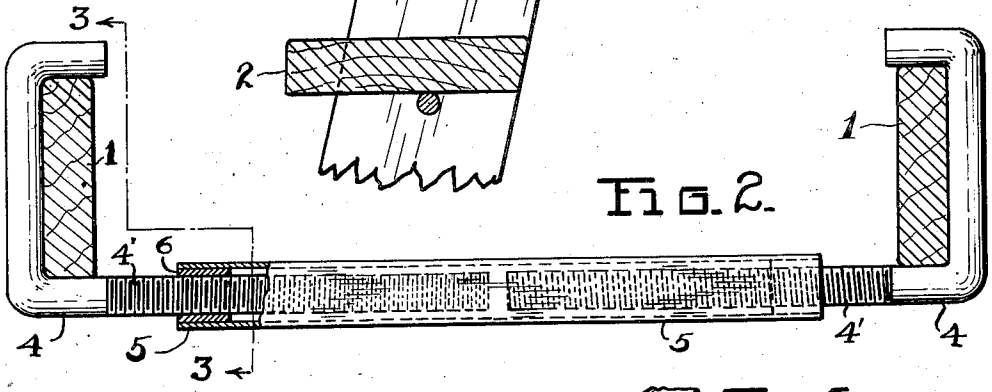


Fig. 4.

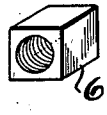
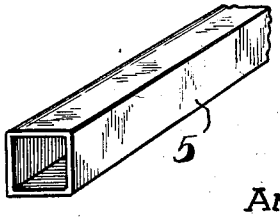


Fig. 5.



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STEPLADDER ATTACHMENT

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6 Claims. (Cl. 248—238)

This invention relates to a step ladder attachment which is adapted for use in supporting a scaffold.

In the work of paperhangers, painters, and the like, it has been common practice to support a board upon the corresponding steps of two step ladders so as to provide a scaffold. However, ofttimes the steps of the step ladder do not happen to be located at the exact level at which it is desired to place the board for the scaffold.

It is therefore the object of the present invention to devise an attachment which can be readily and quickly applied to or removed from a step ladder at any desired elevation, that is, at elevations between the regular steps of the ordinary step ladder, one such attachment being adapted to support the one end portion of the board for the scaffold while a duplicate attachment at the same elevation upon another step ladder will serve to support the other end portion of the board.

Another object is to devise such an attachment which can be extended and contracted so as to permit the same to be readily and effectively applied to the step ladder.

A further object is to provide such an attachment which when applied to the step ladder will be caused to effectively engage the side portions of the ladder when weight is applied to the scaffold so as to thereby insure the same against accidental dislodgement.

A still further object is to provide such a device which is particularly adapted for ready and secure application to the side portions of the step ladder which is also especially adapted to receive and support the board of the scaffold.

Other objects will appear from the following description and claims when considered together with the accompanying drawing.

Fig. 1 illustrates my improved device applied to a step ladder and the manner of using the same for the purpose intended;

Fig. 2 is a plan view of my improved attachment with part broken away;

Fig. 3 is a view taken on line 3—3 of Fig. 2;

Fig. 4 is a perspective view of a threaded nut which is applied to each inner end of the intermediate square tubing; and

Fig. 5 is a perspective view of the intermediate square tubing.

It is to be understood that the present disclosure is merely for purposes of illustration and that various other modifications may be made without departing from the spirit of the present invention as herein set forth and claimed.

Referring to the drawing, there is illustrated the conventional form of step ladder in which the side inclined portions 1 have the regular steps 2. As above explained, it has been common practice to place a board 3 upon the steps 2 so as to form a temporary scaffold for various kinds of interior decoration.

The present attachment comprises duplicate end members 4 of substantially J-shape which are adapted to engage and to be clamped about the side portions 1 of the ladder. It will be observed that the members 4 are bent in angular form so as to snugly engage about the front and rear edges and the corners and outer face of the side portions 1 of the ladder. The one end of the member 4 in each case, terminates just within the side portion 1 while the longer end portion of the member 4 is threaded, as indicated by reference numeral 4'.

The threaded portions 4' of the members 4 cooperate with an intermediate member which comprises the hollow squared tubular member 5 in the two ends of which there are welded the threaded square nuts 6 so as to receive the threads 4' of the members 4. It should be explained that the threads 4' on one of the members 4 are right-hand while the threads on the other member 4 are left-hand so that the engagement of the threads on these two members 4 by the nuts 6 in the intermediate member 5 together constitute a turnbuckle connection by which the device is rendered adjustable.

When it is desired to apply my attachment to a step ladder, the intermediate member 5 is turned so as to extend the members 4 and thus permit application of the members 4 about the side portions 1 of the ladder at the elevation desired. Then upon turning the intermediate member 5 in the opposite direction after the manner of a turnbuckle connection, the members 4 may be drawn together so as to be securely clamped about the side members 1. As will be understood, duplicate attachments are applied in the same manner and at the same level upon the two step ladders. The intermediate member 5 extends parallel to the regular steps 2 of the step ladder and serves as a temporary auxiliary step.

The primary purpose of the square form of the tubular member 5 is to facilitate the supporting engagement of the board 3 thereupon. Furthermore, the square form of the member 5 facilitates application of the nuts 6 in the ends

thereof in a secure manner, and the engagement of the member 5 by the hand of the user for turning the same is also facilitated by the square form thereof.

As above explained, this attachment is open at the rear since the rear end portions of the members 4 extend inwardly only to a limited extent. Consequently the end portion of the board, in each case, is supported only by the squared intermediate member 5 and as a result the application of weight upon the board 3 will cause an effective binding engagement between the members 4 and the edges of the inclined side portions 1 of the ladders. This cooperation is made possible by the fact that the weight upon the board 3 and hence upon the intermediate portion 5 is in a vertical direction whereas the side portions 1 of the ladder are inclined. Thus, the weight upon the scaffold will cause the front and rear portions of the members 4 to have effective locking or binding engagement downwardly and upwardly with the front and rear edges, respectively, of the side portions 1 of the ladder in each case, in addition to the inward clamping engagement against the outer surfaces of the side members 1.

As above explained, the turnbuckle connection permits the necessary adjustment and hence permits adaptation of this attachment to different sizes of step ladders. And, due to the manner of engagement of the members 4 with the side members 1, the same device can be employed upon any and all sizes of ladders.

Thus, I have provided an attachment which is of comparatively simple construction and hence not costly to manufacture and which can be conveniently applied to a step ladder at any point desired with effective engagement therewith and without danger of accidental dislodgement. The convenience of such an attachment will be understood from the above explanation and the various advantages resulting therefrom will readily suggest themselves to those who are familiar with the art to which this invention relates.

What I claim is:

1. The combination of a substantially vertically disposed step ladder and detachable scaffold supporting means arranged entirely between the regular steps of the ladder, said means having a portion extending across the front of the ladder and in parallel vertically spaced relation to the steps and having front and rear end portions engaging the front and rear edges of the inclined sides of the ladder so as to be tilted against and thereby have binding engagement with said edges when the front portion thereof is subjected to weight upon the scaffold supported thereby, and adjustable clamping means for transverse engagement between said scaffold-supporting means and the inclined sides of the ladder.

2. An attachment for a step ladder, comprising substantially J-shaped end members with transversely arranged shank arms and an intermediate member having extensible co-axial engagement with the corresponding shank arms of the end members, said end members being adapted for clamping engagement about the outer face of the inclined sides of a step ladder, and said intermediate member being adapted to support a scaffold.

3. An attachment for a step ladder comprising substantially J-shaped end members and an intermediate member having turnbuckle engagement with the corresponding arms of the end members, said end members being adapted for clamping engagement about the inclined sides of a step ladder, and said intermediate member being adapted to support a scaffold.

4. An attachment for a step ladder, comprising substantially J-shaped end members and an intermediate member having a flat side and being provided with threaded engagement at the ends thereof for turnbuckle engagement with the corresponding arms of the end members, said end members being adapted for clamping engagement about the inclined sides of a step ladder, and said intermediate member being adapted to support a scaffold.

5. An attachment for a step ladder, comprising end members with transversely arranged shank arms and a single intermediate member having co-axially extensible engagement with the corresponding shank arms of the end members, said end members being adapted for clamping engagement with the inclined sides of a step ladder, and said intermediate member being adapted to support a scaffold.

6. An attachment for a step ladder, comprising end members with transversely arranged shank arms and a single intermediate member having co-axially rotatable extensible engagement with the corresponding shank arms of the end members, said end members being adapted for clamping engagement with the inclined sides of a step ladder, and said intermediate member being adapted to support a scaffold.

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