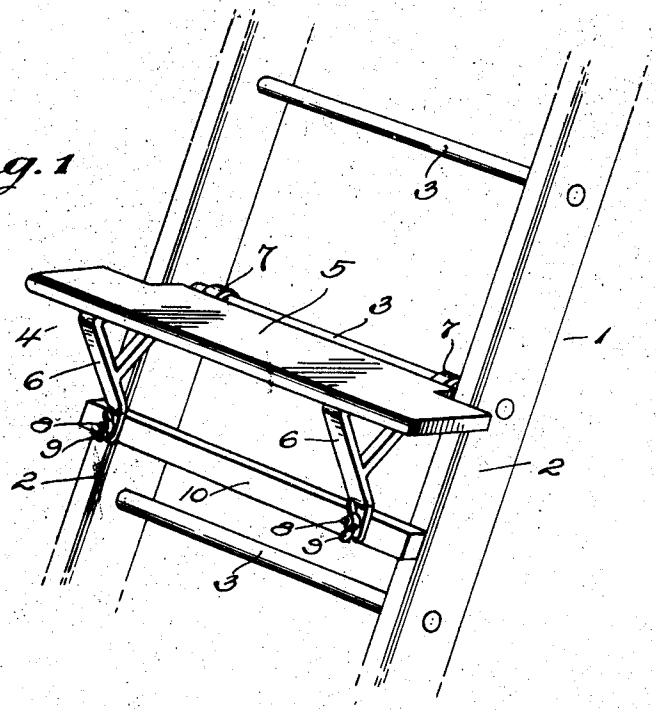
Aug. 25, 1931. C. F. MILLER 1,820,315

STEP ATTACHMENT FOR LADDERS

Filed April 30, 1929

Fig. 1



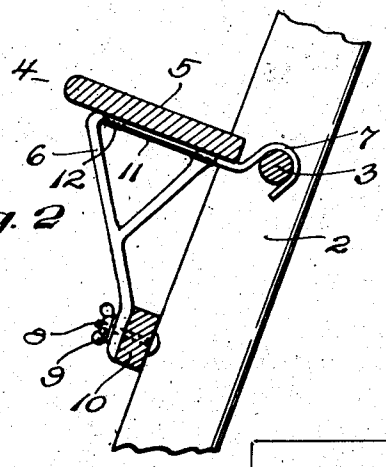
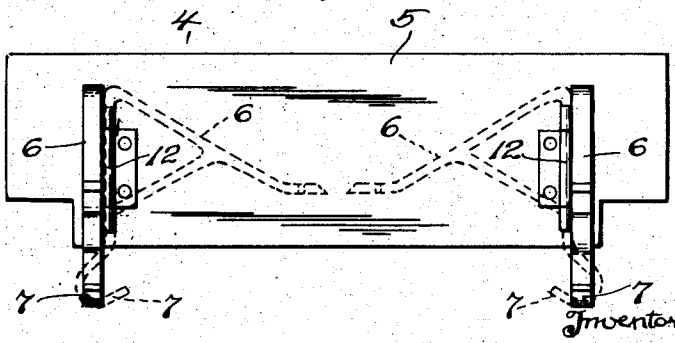


Fig. 2

Fig. 3



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Patented Aug. 25, 1931 1,820,315

UNITED STATES PATENT OFFICE

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STEP ATTACHMENT FOR LADDERS

Application filed April 30, 1929. Serial No. 359,244.

This invention relates to an improved step attachment for ladders, and has for its primary object the provision of a step capable of being detachably yet securely related to the rungs of a ladder for the purpose of providing an enlarged foot receiving area by means of which a workman, when using a ladder, will be provided with the comfort and security of the wide foot receiving area as contrasted with the small area formed by the rungs of the average ladder.

Another important object of the invention resides in the provision of a step attachment for ladders wherein the step proper or platform of the attachment is disposed in a plane in registration with the particular rung of a ladder with which it is connected, and wherein the step is provided with a depending transversely extending stop member, which engages with the side rails of the ladder so that when the step receives the weight of the user the applied forces will be such as to securely maintain the step in association with the ladder, preventing tilting or rocking of the step and presenting a base of a rigid substantial form upon which the user may move with freedom and security.

A further object of the invention is to provide a step attachment which is so constructed that it can be collapsed or taken apart very readily into compact form and stored in a small space such as a workman's grip, tool chest, or etc., when not in use.

For a further understanding of the invention reference is to be had to the following description and the accompanying drawings, in which:

Figure 1 is a perspective view of my improved ladder step,

Figure 2 is a vertical transverse sectional view taken therethrough, and

Figure 3 is a bottom plane view of the step showing more particularly the hinged bracket construction.

Referring more particularly to the drawing the numeral 1 designates a ladder consisting of the usual longitudinally extending transversely spaced side bars 2, united by transversely extending longitudinally spaced cross rungs 3. Adapted to be detachably connected with any one of the rungs of the ladder is a step attachment 4, which is of such form as to be quickly and securely connected with any one of said rungs and to provide an extended surface upon which the user of the ladder may operate with comfort.

In its preferred form the attachment consists of a step or platform 5 which may be of any desired proportion, and is connected with the rungs of the ladder by means of a pair of metallic brackets 6, which are transversely spaced and have their upper ends formed to include hooks 7 capable of being inserted over the rungs of the ladder, as shown in Figures 1 and 2. The lower ends of the brackets 6 are detachably secured by means of bolts and wing nuts 8 and 9 to a transversely extending stop member 10, which engages with the side bars of the ladder and limits the downward swinging movement of the step when applied. Formed with the brackets 6 are horizontally and forwardly extending portions 11, which are hingedly connected, as at 12, to the under surface of the step or platform 5. By hinging the bracket 6 to the step 5, the former may, after being disconnected from the bar 10, be swung or folded inwardly so as to lie flat or in a plane parallel with the step as shown by dotted lines in Figure 3 of the drawings. Thus, the step attachment can be conveniently folded into compact form when not in use.

In contrast to previous structures for this purpose it will be observed that the present invention has a step or platform 5 thereof disposed in the same horizontal plane as the rung 3 of the ladder with which the step attachment is connected. This construction in association with the deep or extended stop member 10 serves to provide a step attachment of exceptional stability, and wherein the possibility of said attachment becoming accidentally disconnected with the ladder is reduced to a very remote possibility. By reason of the relative arrangement of the parts of the attachment and their manner of association with the ladder the weight of the user tends to more securely hold the attachment in locked relation with the ladder than when the weight is removed, and furthermore, since

the upper surface of the step registers with the upper surface of the rung 3 an extended support is furnished the user which is free of rocking or tilting motion. It is in this respect particularly, together with the collapsibility of the device, that the present invention constitutes an improvement over previous devices for this purpose.

What is claimed is:

A step attachment for ladders comprising a platform, a pair of spaced brackets hingedly connected with the under side of said platform and provided with hook devices for securing the attachment to the rung of the ladder, said brackets being arranged to swing inwardly toward each other and longitudinally of the platform when in an inactive position, and a cross member detachably connected to the lower ends of said brackets below the plane of said platform, said cross member being adapted to engage the side bars of the ladder and serving to hold the brackets in their extended positions.

In testimony whereof I affix my signature.

CHARLES F. MILLER.