May 15, 1951 J. KURMER 2,553,322

PLATFORM ATTACHMENT FOR LADDERS

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Fig. 1

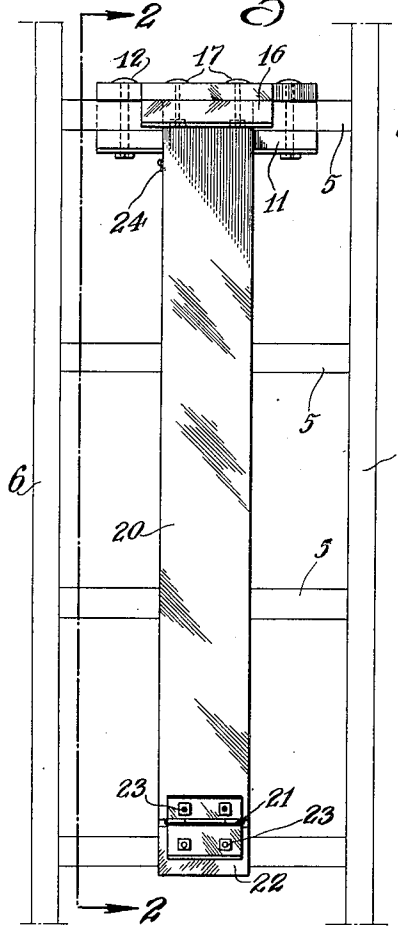


Fig. 2

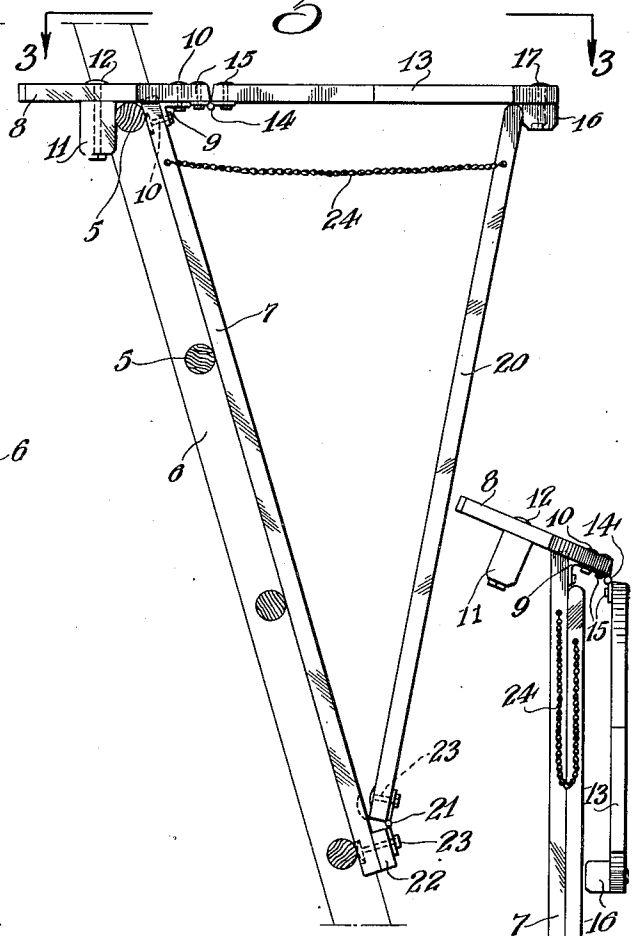


Fig. 3

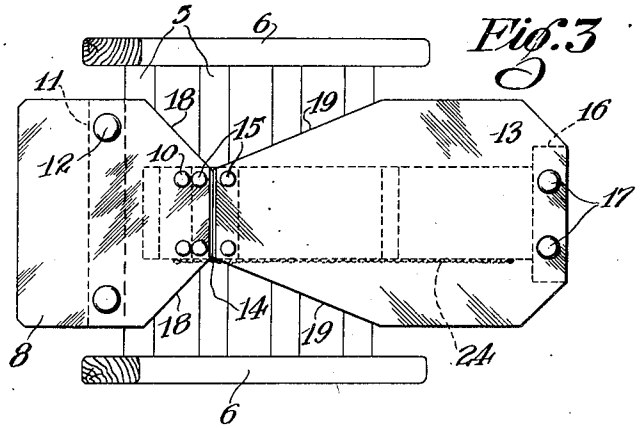


Fig. 4

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PLATFORM ATTACHMENT FOR LADDERS

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1 Claim. (Cl. 304—31.5)

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This invention relates to an attachment for ladders by means of which a worker using the ladder may provide himself with a platform or seat to eliminate the fatigue of standing upon a rung.

The principal objects of the invention are to provide a simple, safe and inexpensive attachment which will provide a suitable platform on which the workman may either stand or sit as suits his convenience; to provide a device of the character described which can be hung from a rung of the ladder without the necessity for using any supplemental supporting or securing means; to provide a platform which can be folded or collapsed to facilitate the worker's movements as he goes up or down the ladder; to provide a platform attachment which, when used as a seat, will provide comfortable accommodation for the workman's legs and enable him to rest his feet on the ladder rungs or to let them dangle freely if he chooses; and to provide an attachment which, in addition to supporting the worker, also provides a section for the support of tools, paint or the like as may be required for the work in hand.

How the foregoing objects together with such other objects as may appear hereinafter or are incident to my invention are attained is illustrated in preferred form in the accompanying drawings wherein:

Fig. 1 is a front elevation of my improved platform attachment shown in operative position on a ladder;

Fig. 2 is a section on the line 2—2 of Fig. 1;

Fig. 3 is a section on the line 3—3 of Fig. 2; and

Fig. 4 is a side elevation of my device in its folded or collapsed position but not mounted upon a ladder.

In the drawing it will be seen that I have illustrated a ladder of familiar construction having rungs 5 fitted between the usual rails or side pieces 6 which latter are broken away at the top and the bottom of Figures 1 and 2.

My platform attachment includes a relatively narrow rung member 7 which is adapted to span and rest against the central portion of a plurality of the rungs 5—in the present instance four rungs though, obviously, the length of the rung member can be adjusted to suit individual preferences or conditions so long as it spans a sufficient number of rungs to be firm and secure.

Attached to the upper end of the rung member 7 is a transverse platform section 8 which is rigidly secured in a fixed relationship to the

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rung member 7 by means of the acute angle member 9 and the bolts 10. The reason that the angle member 9 is made acute—namely less than a right angle—is to provide for the substantially horizontal position of section 8 when the ladder is leaning against a wall.

Projecting downwardly from the underside of the section 8 is a rung engaging piece 11 in the form of a strip running across the section 8 and secured in position by suitable bolts 12 or other securing means. It will be seen that the rung engaging piece engages the back of a rung when the device is placed in position on the ladder and that the rung is closely embraced by the piece 11 at the back, the upper end of the rung member 7 at the front and the underface of the section 8 at the top. The construction just described constitutes a hook-like means by which the ladder can be hung from a rung, the section 8 of the platform actually performing somewhat of a double function in that it is a part of the hook and at the same time a part of the platform.

A second platform section 13 is connected to the outer end of the fixed section 8 by means of a hinge member 14, the two parts of the hinge being secured to their respective sections by means of suitable bolts 15. By virtue of the hinge 14 the section 13 can be swung downwardly toward the rung member 7 as shown in Figure 4.

At its outer end and on the underside the section 13 is provided with a transversely extending stop member 16 secured by the bolts 17 for a purpose which will appear below.

The sections 8 and 13, for a portion of their length, have their sides tapered toward the hinge 14 as shown at 18 and 19 in Figure 3. This provides the platform with a region of reduced width so that when the workman is seated upon the section 13 facing the ladder he will have better accommodation for his legs which will hang down through this region of reduced width. This provides for the greatest measure of comfort and will permit the workman to rest his feet upon a rung 5 if he so desires or to dangle them in the air.

In order to hold the section 13 in its horizontal or operative position as shown in Figure 2, I provide a support member 20, also of relatively narrow width like the rung member, which support member is pivoted at its lower end to the lower portion of the rung member 7 by means of the hinge member 21, one side of the hinge being mounted against a suitable spacer

strip 22 in order to compensate for the thickness of the support member 20. The hinge 21 is secured in place by suitable bolts 23. When the upper end of the support member 20 is swung outwardly as shown in Figure 2, it is adapted to take against the inner side of the stop member 16 and in this position it will provide firm support for the weight of the worker on the section 13.

A check or snubbing chain 24 may also be provided which may act as an additional or safety stop means for the support member 20 and will prevent such member from unintentionally being pushed outwardly too far during times when the workman is adjusting the section 13.

My improved platform attachment is used in the following way. After the ladder has been placed in position the attachment in its collapsed condition as shown in Figure 4 is hung on a rung 5 in the region where a platform is desired. The device, of course, could be hanging on the ladder rung while the ladder is being placed in position but it may also be hung from the desired rung after the ladder has been positioned, depending upon the conditions or preferences of the workman and the weight of the ladder. If the ladder is a heavy one it would be better to carry the attachment up and hang it in its desired position after the ladder has been leaned against the wall.

The operator walks directly up the ladder until he reaches the attachment which is now in its collapsed position. He can then stand on the proper rung and place one foot on either side of the supporting member 20. Section 13, which lies to the outside of the member 20, can be swung upwardly to its horizontal position whereupon the supporting member 20 is swung outwardly until it is stopped by the stop member 16. If the section 13 is inadvertently held just a little too high the chain 24 will act both as a stop and a snubber so that when the section 13 is dropped into position the upper end of the support member 20 will take against the inner side of the member 16. Just the reverse procedure, of course, is required when the workman wishes to go down. The workman can either stand on the platform or seat himself on the section 13 as may be most convenient for the work in hand and the section 8 can be used for supporting tools, paint or other equipment which may be needed for the job to be done.

It will be seen that my device is simple and above all safe because the workman can always

assume a position which is well centered on the ladder even during operation of the device. He does not have to climb around one side and raise a leg over a fixed seat as has been necessary with devices of this kind previously known to the art all of which, in so far as I am aware, having been complicated to apply and difficult and dangerous for the workman to climb on to or climb down from.

I claim:

A collapsible platform attachment for ladders comprising a rung member adapted to span and rest against a plurality of rungs, a platform member having a section rigidly secured to the upper end of the rung member in position to project between the side pieces of the ladder, said section having a downwardly extending rung engaging piece adapted to engage the back of a rung, said platform member having a second section hinged to said first section whereby it can be swung toward the rung member, the adjacent ends of the two sections of the platform member being tapered toward the hinge to provide the platform with a region of reduced width, a support member for the free end of said second section of the platform member, said support member being hinged at its lower end to the rung member whereby its upper end can be swung toward the rung member, and stop means for limiting outward swinging movement of the upper end of said support member, said hinged platform section, when the parts are collapsible, being arranged to overlie said support member, and the rung member and the support member being relatively narrow in width as compared to the width of the ladder to provide side space on the rungs for the feet of the user.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
185,251	Mason	Dec. 12, 1876
301,110	Gartrell	July 1, 1884
1,593,366	Singer	July 20, 1926
2,459,437	Kreissler et al.	Jan. 18, 1949

FOREIGN PATENTS

Number	Country	Date
179,433	Germany	Dec. 4, 1906
528,167	France	Aug. 11, 1921