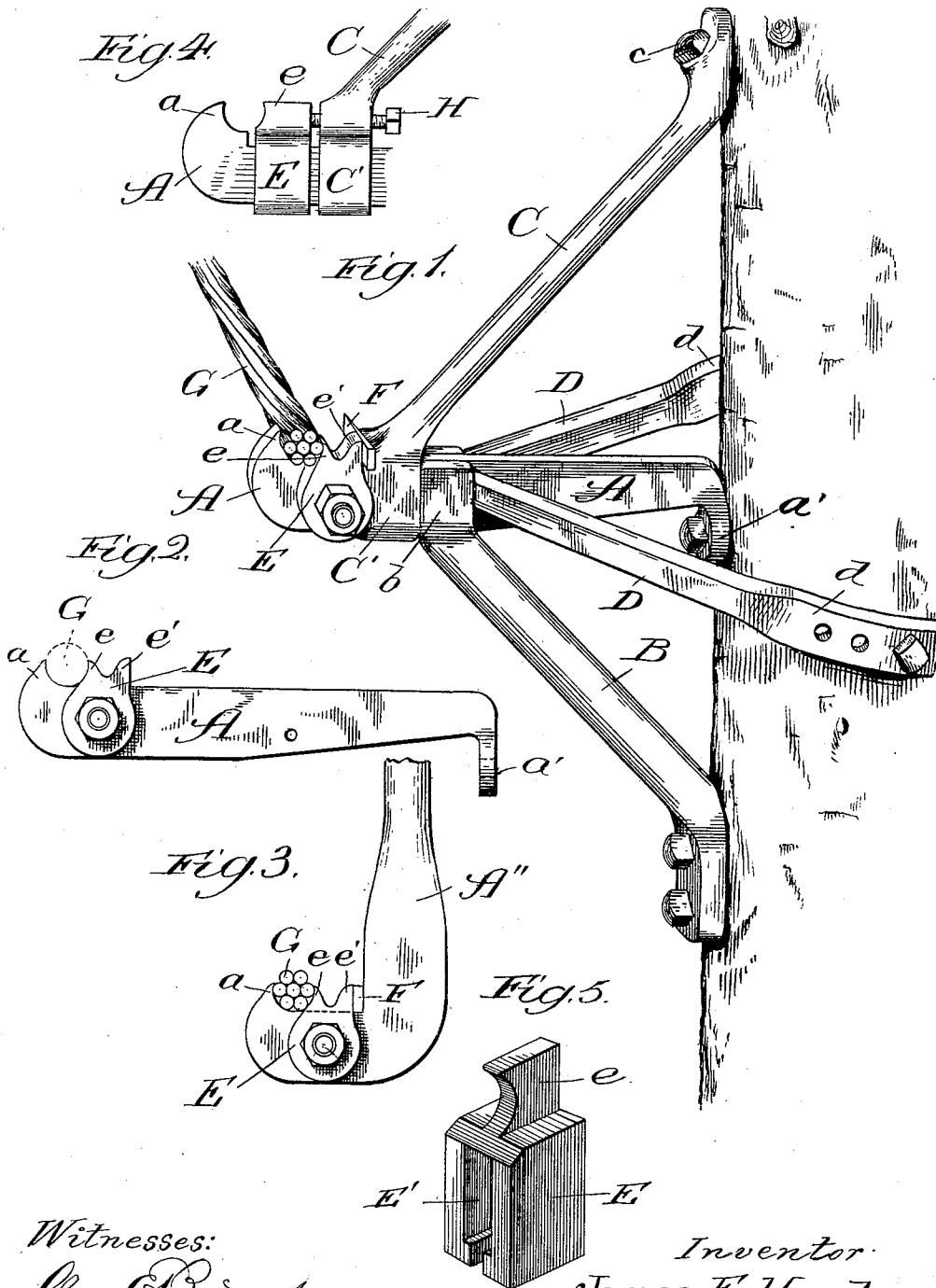


(No Model.)

J. E. HARDER.
HANGER FOR LUMBER CARRIERS.

No. 481,355.

Patented Aug. 23, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

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OF SAME PLACE.

HANGER FOR LUMBER-CARRIERS.

SPECIFICATION forming part of Letters Patent No. 481,355, dated August 23, 1892.

Application filed August 11, 1891. Serial No. 402,354. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. HARDER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Hangers for Lumber-Carriers, of which the following is a specification.

As is well known, various forms of lumber-carriers or devices for transporting lumber from one place to another have been heretofore in use. Among other forms of lumber-carriers it has been customary to use a track composed of wire rope or other suitable material, which track is supported in the desired position by means of hangers or brackets attached to trees or to suitably constructed framework. Upon this track travels a carriage of any suitable construction, by which the log is supported as it is being drawn from one point to another. It has heretofore been customary to make these hangers of various forms and dimensions in order to adapt them to different sizes of trees, a large hanger being made for a large tree and smaller hangers for smaller trees. Such a method of construction is very objectionable, however, since it renders it necessary to carry a large number of different sizes of hangers in stock. The previous forms of hangers have also been open to other objections, and it is the object of my invention to construct a hanger which shall be capable of being attached to trees of all sizes without any change in the size of the hanger, and at the same time to simplify and improve upon the prior construction of hangers in various particulars, hereinafter more particularly pointed out and claimed.

My invention consists in features and details of construction hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of one form of hanger embodying my improvements attached to a tree; Fig. 2, a side elevation of the center bar of the hanger; Fig. 3, a similar elevation showing a modified form; Fig. 4, a side elevation of a portion of the hanger, illustrating a modification in the means of closing the jaws, and Fig. 5 a perspective view of the sliding or rocking jaw shown in Fig. 4.

In constructing my improved hanger I first make out of any suitable material—as, for instance, cast or wrought iron—the center bar A, provided at one end with a fixed jaw *a*, of suitable dimensions to accommodate the track, as hereinafter described. At the other end of this bar is preferably formed a perforated ear, through which a bolt or screw may be passed to attach the bar to the tree, as shown in Fig. 1. As this bar is intended to support the cable on which the logs travel, it will of course be subject to strains in almost every direction, and it is therefore necessary to provide some simple and efficient means for bracing it to withstand such strains. To this end I first provide a brace B, adapted to be secured to the tree by means of bolts or screws, the tree being preferably notched or recessed so that the end of the brace may be inserted part way into the tree for greater strength or stiffness. The other end of this brace is forked, as shown, to embrace the bar A. In the drawings the forks extend up to the upper surface of this bar; but this is not essential, since they might extend but part way up the sides thereof. I then provide the brace C, attached at its upper end to the tree by means of a bolt *c*, preferably set at an angle to give greater strength. The lower end of this brace is enlarged, as shown at C', and provided with a slot of suitable size to inclose the bar A. By means of these braces B and C the bar is held rigid and prevented from any movement upward or downward, and inasmuch as those ends of the center-bar braces which are attached to the tree are in substantially the same line it is obvious that the size of the tree will have no effect whatsoever upon the attachment of these parts thereto.

It is also necessary, of course, to prevent any sidewise movement of the center bar, and to this end I provide the braces D D. One end *d* of these braces is preferably slightly bent or curved to conform to the rounding of a tree and provided with a number of holes, as shown, through which the bolt or bolts may pass which are intended to secure the braces to a tree. By having a number of holes through the brace it is obvious that the bolt may be passed through any of these holes desired, according to the size of the tree. At

the other end these braces D abut against the center bar and the forks of the brace B, which I preferably provide with small shoulders to support the braces D from beneath to prevent their falling. If, however, these forks do not extend upward as far as shown in the drawings, the braces D may rest upon the tops of such forks, abutting against the bar A and the enlarged portions C' of the brace C.

In order to secure the cable or other track to the bar A, I provide such bars with a sliding or rocking jaw E, which may be made in various forms. In the first three figures of the drawings this jaw is shown as pivoted to the side of the bar A. It is curved, as shown, at *e* in the opposite direction to the curve at *a*, the jaw being of course pivoted to the bar at such point as to bring these two curved portions at proper relative distances to engage with the wire. The jaw is also preferably provided with an upwardly-extending shoulder *e'*, and when constructed as shown in the first three figures the jaw is rocked toward the left and brought against the wire or other form of track by driving the wedge F between the shoulder *e'* and a shoulder on the lower end of the brace C. By this means the rocking jaw may be forced toward the left, thereby firmly grasping the track G between this jaw and the fixed jaw on the bar. It will be obvious, however, that other means may be substituted for the wedge—as, for instance, a set-screw might be provided, passing through the brace C and abutting against the rearward side of the shoulder *e'*. While I consider this method of attaching the jaw E to the center bar A a simple and efficient one, I do not desire to limit myself thereto, since such jaw may be attached in various other manners. For instance, if desired, this jaw may be made in the form shown in Fig. 5, wherein it is provided with an open slot E', partially embracing the bar A to prevent the jaw from falling therefrom. A set-screw H passes, as shown, through the brace C and abuts against the rearward side of this jaw. By screwing in this set-screw the jaw is slid or rocked forward or toward the left, Fig. 4, clamping the cable between the fixed and rocking jaws, as already described. The slot E' is of greater height than the bar A, so that as the pressure is applied by the set-screw the jaw will be free to rock or slide without binding on the bar.

It will be evident that in place of the set-screw of Fig. 4 I may use the wedge of the preceding figures, or any other suitable means for sliding or rocking the jaw E upon the bar.

In Fig. 3 I have shown a modified form of bar, wherein the shank A'' turns and runs up vertically in order to be connected by means of a hook or by screw-threading the shank with the branch of a tree or an artificial framework.

By means of the above method of construction I provide an exceedingly simple and efficient hanger, which, while it is braced at the top and bottom and at both sides in such

manner as to prevent motion in any direction, is yet capable of being attached to any-sized tree, since the bar A and the braces B and C are in a substantially straight line, so as to be independent of the size of the tree, and since, furthermore, the braces D are so constructed as to be adjustable for any-sized tree. In applying one of these braces its outer end is pressed firmly against the bar and braced, as already described, and the inner end is secured to the tree, the brace on the other side being similarly supplied, so that it will be evident that the diameter of the tree has no effect upon the attachment of this hanger thereto.

While I have shown and described more or less precise forms, I do not intend to limit myself thereto, but contemplate changes in form and proportions and the substitution of equivalent members, as may be desirable or necessary.

I claim—

1. A rail-support comprising a central bar provided with a fixed jaw, a movable jaw connected to such bar, and means whereby the movable jaw is advanced toward the fixed jaw to engage the track, substantially as described.

2. The combination of a center bar provided with a stationary jaw, a brace connected with such bar, a movable jaw attached to such bar, and a set-screw passing through the brace and engaging with the movable jaw, substantially as described.

3. In a hanger, the combination of a center bar for supporting the track and side braces, such braces being independent of the center bar, abutting at one end against the same and having at the other end means for fastening the same to a tree, whereby the braces may be adjusted to permit the hanger to be attached to trees of varying sizes, substantially as described.

4. The combination of a center bar provided with a fixed jaw, a movable jaw secured thereto, means for operating the movable jaw, braces for preventing the vertical movement of the center bar, such bar and braces lying in substantially the same plane, and adjustable side braces secured to the tree and engaging with the center bar or vertical braces, substantially as described.

5. A hanger comprising a center bar having a stationary and a movable jaw, means for operating such movable jaw, braces for preventing any movement of the bar in a vertical plane, and side braces abutting at one end against the center bar or vertical braces and secured at the other end to the tree, such side braces being separate from the center bar, with their outer ends free to move, as desired, and provided with means for fastening, whereby they may be adjusted to permit the hanger to be attached to trees of varying diameters, substantially as described.

6. The combination of a center bar to support the track, a brace placed beneath such

bar and provided with forks to receive and hold the same, a brace placed above the bar and provided with a slot to receive and hold the same, and side braces separate from the
5 bar abutting at one end against the bar or other braces, provided at their outer ends with means for fastening and free to move at their outer ends, whereby the center bar is held from moving in all directions, while the braces may be so adjusted as to allow the hanger to be attached to trees of varying sizes, substantially as described. 10

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Witnesses:

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