April 13, 1943. R. S. STEPHENS 2,316,747

TRAVELING TOOL-CARRIERS

Filed March 14, 1942

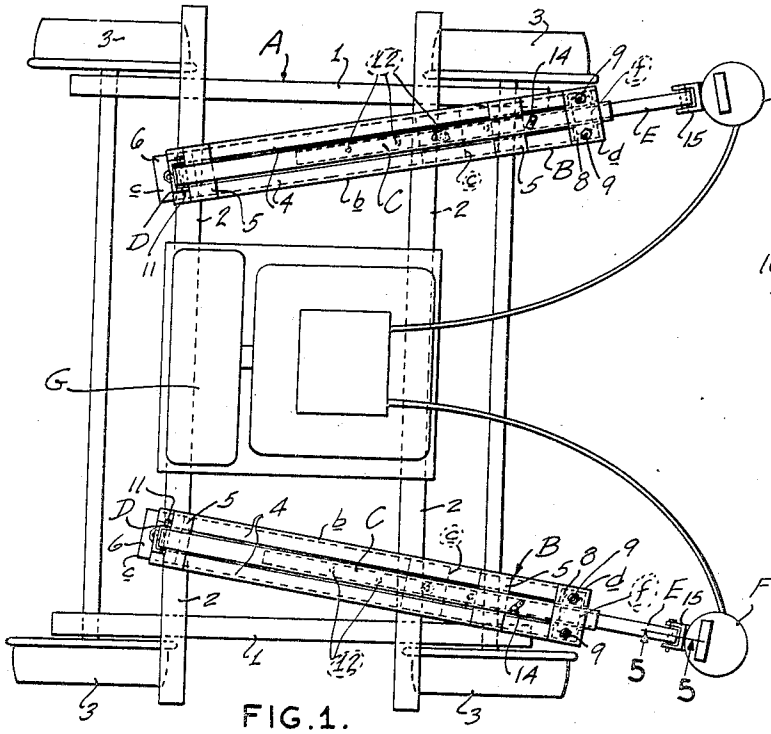


FIG. 1.

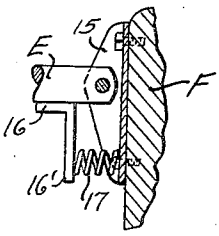


FIG. 5.

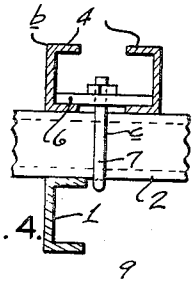


FIG. 4.

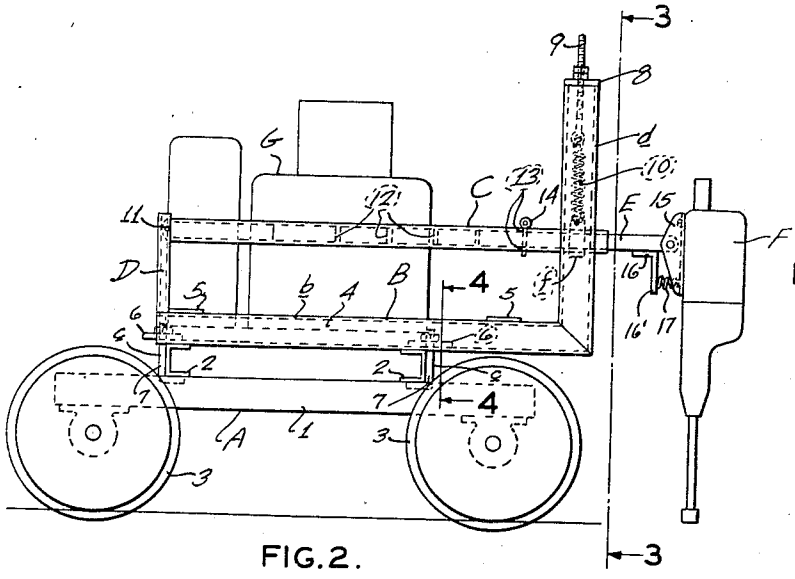


FIG. 2.

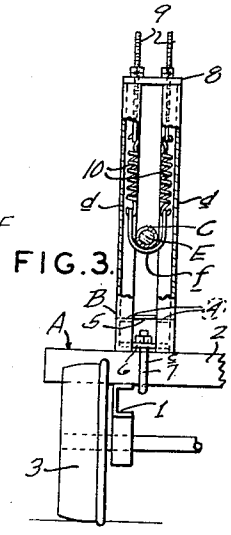


FIG. 3.

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Patented Apr. 13, 1943 2,316,747

UNITED STATES PATENT OFFICE

2,316,747

TRAVELING TOOL CARRIER

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Application March 14, 1942, Serial No. 434,770

2 Claims. (Cl. 104—2)

This invention relates generally to railway track equipment and, more particularly, to a certain new and useful improvement in traveling trucks or tool-carriers adapted especially, though not exclusively, for use in the maintenance, upkeep, and repair of railway tracks and the like.

My invention has for its primary object the provision of a traveling truck-supported selected tool that may be conveniently moved along a railway track for location adjacent to, and which may, with ease and facility, be manipulated for effecting and accomplishing, the work, such, for instance, as tightening or running down of nuts on rail anchors or rail clips, guard-rail bolts and the like, tie-boring for the setting of spikes, spike driving, screwing down of lag screws for holding down rails or tie-plate to ties, plank-boring for the setting or driving of boot spikes or other fastening members, for drilling around bridges for drift pins and guard rail bolts, and so on.

My invention has for another object the provision of a traveling tool-carrier of the type and for the purposes outlined which may be cheaply manufactured, which is strong and durable, and in which the selected tool proper may be readily shifted and adjusted to effective work-accomplishing angle and position.

And with the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts presently described and pointed out in the claims.

In the accompanying drawing—

Figure 1 is a plan view of a traveling tool-carrier constructed in accordance with and embodying my invention;

Figure 2 is a side elevational view of the tool-carrier;

Figure 3 is a vertical sectional elevational view of the tool-carrier taken approximately on the line 3—3, Figure 2;

Figure 4 is an enlarged detail sectional view of the tool-carrier taken approximately on the line 4—4, Figure 2; and

Figure 5 is a detail sectional view of the tool-carrier taken approximately on the line 5—5, Figure 1.

Referring now in more detail and by reference characters to the drawing, which illustrates a preferred embodiment of my invention, the tool-carrier includes a truck A, which, in turn, comprises a suitable body-frame made up or constructed of longitudinal members or beams 1, 1, rigidly secured in spaced parallel relation by also suitably spaced parallel cross-members preferably in the form of channels 2, the latter being in opposed relation with their flanges presented inwardly, as best seen in Figure 2, and the body-frame being suitably supported upon suitable wheels 3 for traveling movement on a railway-track or the like.

B, B designate the tool-carriers proper, of which there are preferably two in number, as shown, each tool-carrier proper B including a base *b*, in turn, comprising a pair of channel members 4, 4, of suitable length rigidly secured together in spaced parallel relation with their flanges oppositely presented inwardly by means of cross-strips or plates 5 flatwise welded or otherwise suitably fixed to and upon the upper flanges thereof, each base *b* being detachably and adjustably engaged with the truck cross-beams 2 as by means of clamps *c*.

Each clamp *c* preferably includes a plate 6 bridging or straddling the space between, and disposed flatwise upon the upper face of the lower flanges of, the base-beams 4, and a hook-shaped bolt-member or the like 7, which engages the plate 6 and projects engagingly under the lower flanges of the cross-members 2, as best seen in Figures 2 and 4.

Suitably welded or otherwise fixed to the base-beams 4 at their forward end, is a standard comprising a pair of correspondingly spaced upright channels *d*, *d*, rigidly joined at their upper end by a cross-plate 8.

Having their shanks presented upwardly through, and in adjustable threaded engagement with, the plate 8, is a pair of suitably elongated eye-bolts 9, depending from which and housed within the channels or standard *d* are suitable coil springs 10 yieldingly supporting a transversely disposed saddle *f*, and at or adjacent its forward end resting upon the saddle *f* and disposed for movement intermediate the channels *d*, is an arm preferably in the form of a tubular hanger-bar C having pivoted or hinged connection, as at 11, at its rear end to and upon the upper end of a post D upstanding from, and welded or otherwise suitably fixed at its lower end to, the base-beam 4.

Telescopically fitting co-operably within the tubular bar or arm C, is an extension arm preferably in the form of a shaft or rod E provided transversely with a longitudinal series of suitably spaced openings, as at 12, adapted for respective registration with openings 13 in the bar or arm C for accommodating a pin 14 for securing the shaft E in adjusted or selected telescopic position with respect to the bar C and the truck A.

Hinged to the shaft E at its forwardly projecting end, is a suitable bracket 15, and detachably fastened upon the bracket 15, is a suitable track working tool F, such, for instance or for example, as a pneumatic screw driving machine, an automatic riveter, or the like. Suitably fixed to, and having a portion 16' depending from, the shaft E, is an angle-member 16, and interposed between the portion 16' of which and the bracket 15, is a coiled spring 17 for yieldingly retaining the tool F in vertically disposed relation to the truck A and standard *d*.

In use and operation, the truck A may be suitably pulled, pushed, or otherwise caused to selectively travel along the trackway, and either and both tool-carriers B may be bodily disposed at any desired angles with respect to the truck A and over or to one side or the other of the work and secured in such relation and position by means of the clamps *c*. At the same time, the shaft E may be telescopically adjusted with respect to the arm or tubular bar C to dispose the tool F at the desired location for effecting the contemplated track operation, the shaft E and the tool F being yieldingly supported in raised position out of engagement with the work by means of the springs 10. Under manual pressure or actuation, the tool F may be lowered or shifted against the tension of the springs 10 for engaging the work, the shaft E and its carried tool F automatically or resiliently returning to raised or elevated position out of work engagement on removal of depressing manual pressure.

It will be evident that the shaft E of either carrier B may be lengthwise shifted and adjusted and may be also, pin 14 being temporarily removed, annularly manipulated for engagement of the tool F with the particular work, that the bolts 9 may be readily adjusted with respect to the standard *d* for correspondingly locating the normal and working positions of the tool-arm C, and that the tool-carriers B may be suitably or selectively located on the truck A and each separately or selectively usable, the truck A supporting a suitable power-generator G or the like for effecting automatic actuation of the carried tool F.

The truck A and its supported tool carriers B fulfill in every respect the objects stated, and it is to be understood that changes and modifications in the form, construction, arrangement, and combination of the several parts of the structure may be made and substituted for those herein shown and described without departing from the nature and principle of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A tool carrier comprising a movable support, an elongated base extending fore and aft on said support and adjustable angularly and laterally upon the support, a post rigidly fixed and upstanding from the base adjacent to an end thereof, a standard comprising a pair of spaced uprights rigidly fixed to and upstanding from said base adjacent its oppoiste end, a plate fixed across and joining said uprights at their upper ends, bolts having connection with and depending from said plate in spaced relation intermediate said uprights, coil-springs connected at an end with and depending from said bolts, a saddle carried by said springs and disposed transversely intermediate said uprights, an arm pivotly connected at one end with the post at a point elevated above the base and having a portion thereof extending between said uprights and resting upon said saddle for yielding and swinging movement, and means at the yieldable swingable end of said arm for mounting a tool.

2. A tool carrier comprising a movable support having cross members carried forwardly and rearwardly thereon, a pair of rigidly connected parallel base beams resting upon and extending across the cross bars of the support and angularly adjustable upon and along the lengths of said cross bars, means for securing said base beams in adjusted positions upon the cross bars of the support, a post rigidly fixed to and upstanding from the base adjacent to one end thereof, a standard comprising a pair of spaced channels rigidly fixed in upstanding relation at the opposite end of said base means, a plate extending across and joining said channels at their upper ends, bolts adjustably depending from said plate spaced apart and housed intermediate said channels, coil-springs connected at one end with and depending from said bolts, a saddle connected with the depending ends of said springs and thus disposed transversely intermediate said channels, a tubular arm pivotly connected at one end with the upper part of the post and having its remaining end yieldably supported by said saddle for swinging movement intermediate said channels, an extension arm telescopically and thus endwise adjustably associated with said swinging arm, means to hold the extension arm in adjusted extended positions, and means at the outer end of said endwise adjustable arm for mounting and supporting a tool.

ROBERT S. STEPHENS.