Aug. 25, 1931. J. J. TATUM 1,820,848

CAR LADDER

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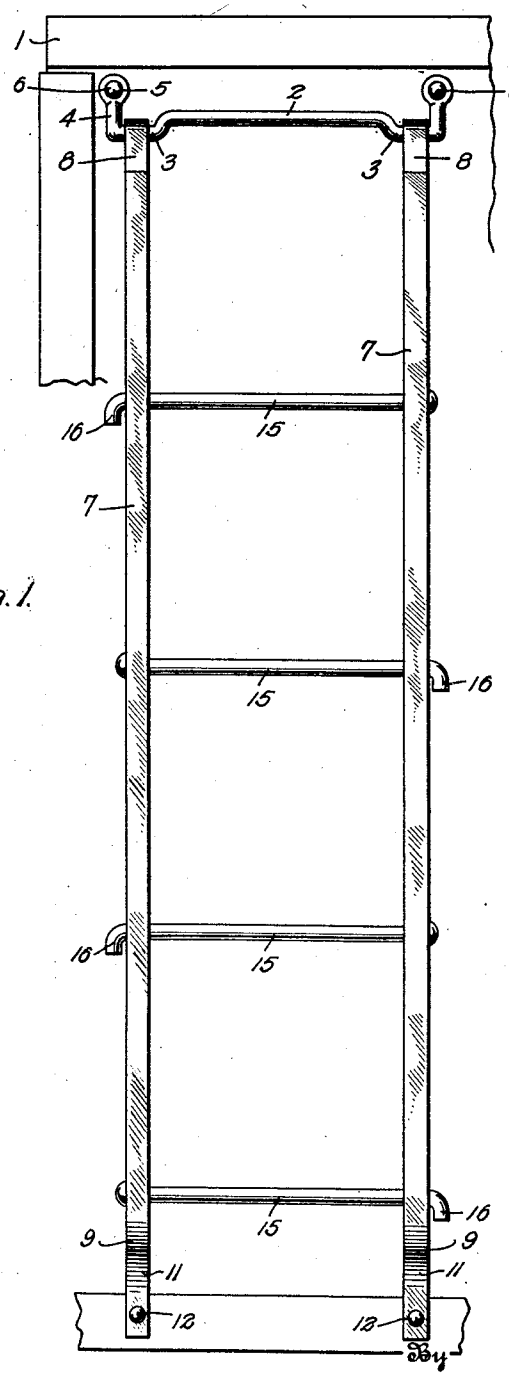

Fig. 1.

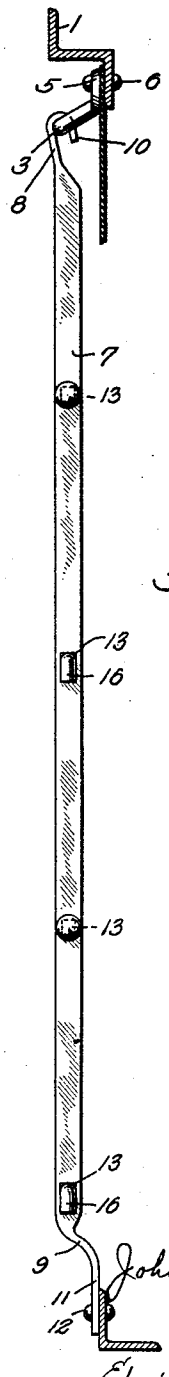

Fig. 2.

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Fig. 3.

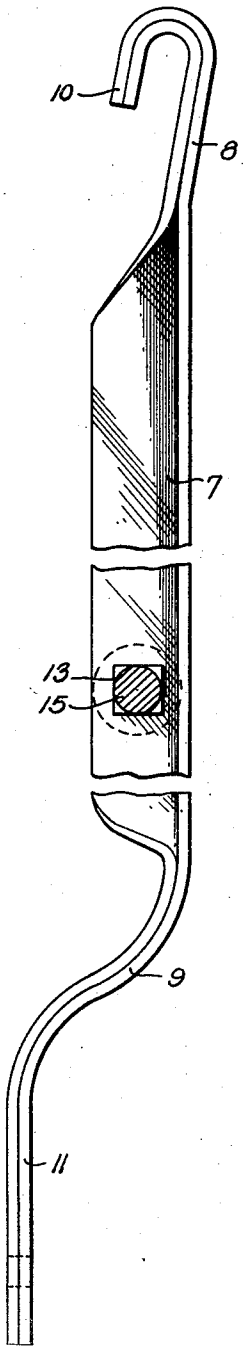
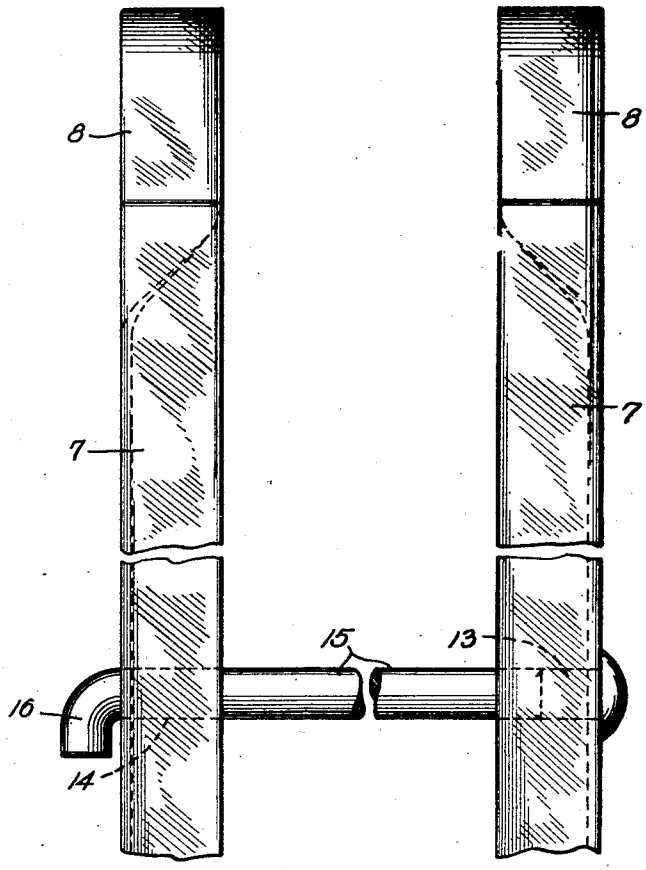


Fig. 4.



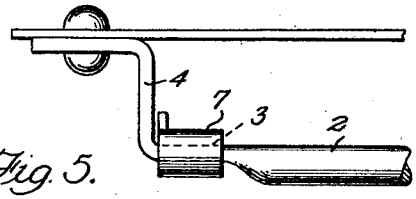


Fig. 5.

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Patented Aug. 25, 1931

1,820,848

UNITED STATES PATENT OFFICE

JOHN J. TATUM, OF BALTIMORE, MARYLAND

CAR LADDER

Application filed September 24, 1929. Serial No. 394,853.

The object of my invention is to provide a collapsible car ladder that can be assembled without riveting the rungs to the stiles.

A further object of my invention is to provide a collapsible ladder, the top rung of which functions as a holding bracket for securing it to the car, the lower ends of the stiles being deflected for securing to the car; and with these and other objects in view my invention consists of the parts and combination of parts hereinafter set forth.

In the drawings:

Figure 1 is a front elevation of a ladder embodying my invention attached to a car.

Figure 2 is a side elevation of the same.

Figure 3 is a side elevation of a ladder stile embodying my invention.

Figure 4 is an enlarged detail view of the top portion of my ladder.

Figure 5 is an enlarged detail top plan view of the top bracket with one of the stiles attached thereto.

The reference numeral 1 designates a part of a car structure. The top rung 2 of the ladder is deflected at its ends from its longitudinal axis to form stile bearings 3 and is then bent (or otherwise suitably formed) rearwardly as at 4, and then upwardly as at 5, said portions being provided with a rivet or bolt opening and forming attaching eyes or members 6.

The ladder stiles 7 are identical in construction, therefore a description of one will suffice. The stile 7 is preferably made from commercially formed angles, preferably L shape in cross section and these flanges are pressed, rolled, or otherwise superposed one on the other at the top and bottom end portions as indicated at 8 and 9, the top portion being turned to form hooks 10 designed to engage the bearings 3 on the top rung, the bottom portions being deflected rearwardly to form the securing brackets 11 which are secured to the car structure by the rivets or bolts 12. The deflections 9 and the arms 4 of the top rung hold the ladder on the car spaced from the car the required distance between the side of the car and the ladder rung as prescribed by the United States Federal safety appliance law.

Each stile is provided with square rung holes 13 and round rung holes 14 arranged in alternating arrangement, so that when the two stiles are arranged for assembly, a round hole 14 in one stile is directly opposite a square hole 13 in the other stile. The stiles are laced together with carriage bolts functioning as rungs 15, that is to say, headed bolts with one end rectangular, and the other end cylindrical, the rectangular end of the bolt fitting snugly in the rectangular rung hole 13 in one stile, while the cylindrical end of the bolts is seated in the cylindrical opening 14 of the opposite stile, the rectangular end of the rung 15 locking the rung against rotation when being used by the trainmen. To hold the rungs from becoming accidentally disengaged from the stiles I bend the end of the rung to form a lock or stop 16.

By removing the fastenings 11 at the lower ends of the stiles the ladder can be lifted from the combined top rung and holding bracket 2 and readily replaced in the same way should the ladder become damaged at any time.

My improved ladder is one that is easy to assemble, simple and cheap to manufacture, and because of its collapsible feature is less bulky to store and ship, and less difficult to assemble and place on the car than the conventional ladders in general use.

As shown in the enlarged detail view Figure 5 the combined bracket and top rung is flat at its outer ends over which the hooks on the ladder stiles fit, while that portion between the ladder stiles is round.

What I claim is:

1. In combination, in a car ladder, a combined top rung and spacing and holding bracket, stiles slidably mounted on said rung, and means to hold the stiles in spaced relation on said rung.

2. In a collapsible car ladder, in combination, a top rung having offset end portions, hanging brackets extending from said end portions, stiles, hooks at the upper ends of the stiles slidably mounted on said rung and designed to engage said offset ends when in operative position, said stiles each hav-

ing alternate round and rectangular rung holes, headed rungs having a rectangular end and a round end designed to engage said rung holes, an extension on the round end of the rung positioned at an angle to the longitudinal axis of the rung, and a securing extension at the lower end of each stile.

3. In a car ladder, a combined upper ladder suspending rung and attaching bracket comprising a rod or bar having end portions bent to form attaching members for attachment to the side of a car to hold the bar spaced therefrom, and having recessed stile suspending offsets between said attaching end portions, and a ladder having its stiles provided at their upper ends with supporting members engaging said recesses.

4. In a car ladder, a combined upper ladder suspending rung and attaching bracket comprising a rod or bar having end portions bent to form attaching members for attachment to the side of a car to hold the bar spaced therefrom, and having recessed stile suspending offsets between said attaching end portions, and a ladder having its stiles provided at their upper ends with hooks detachably engaging said recesses and suspending the ladder therefrom.

In testimony whereof I affix my signature.

JOHN J. TATUM.