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CAR STAKE AND BUNK.

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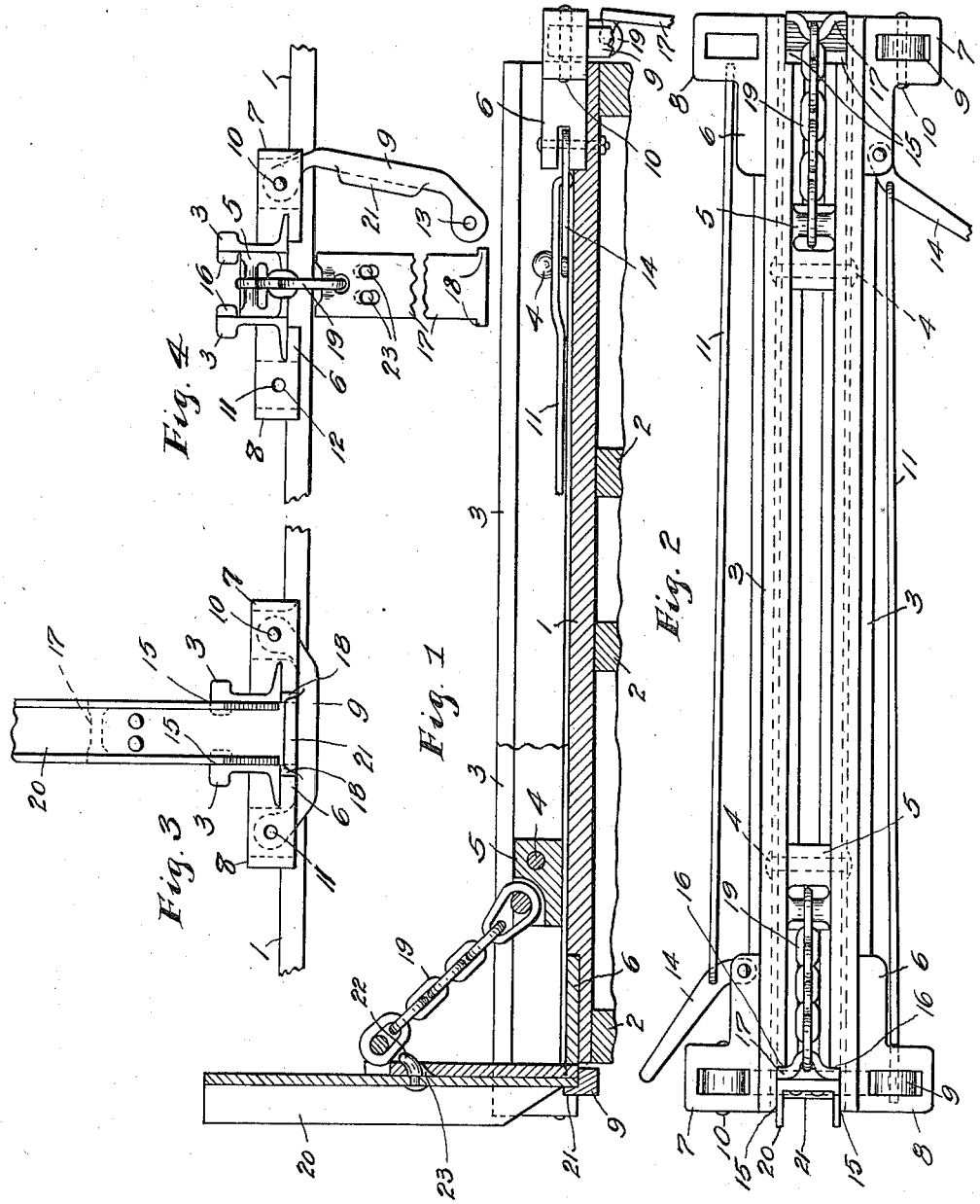

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CAR-STAKE AND BUNK.

1,068,401. Specification of Letters Patent. Patented July 22, 1913.

Application filed April 8, 1913. Serial No. 759,816.

To all whom it may concern:

Be it known that I, WILLARD HOUGHTON, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Car-Stakes and Bunks, of which the following is a specification.

This invention relates to improvements in car stakes and bunks, and has for its object the provision of means for holding the stakes securely in operative position in such manner that they may be readily released from the opposite side of the car and allowed to fall out of the way when unloading.

A further object of the invention is the provision of a bunk that is simple in construction and in which ordinary T-rails that are unsuited for further tractive service may be utilized at a considerable saving in material.

The invention consists in the novel construction, combination and adaptation of parts, as will be hereinafter described and claimed.

In the views, Figure 1 is a fragmentary cross-sectional view of a car-body with devices embodying my invention shown thereon in side elevation. Fig. 2 is a plan view of the same. Fig. 3 is an end view with a two-part stake in operative position. Fig. 4 is a view similar to Fig. 3 with one of the stake parts in lowered position and the other part omitted.

In the drawings, the reference numeral 1 designates the platform and 2 the sill members of a flat car. Mounted on the car platform in proximity of each end of the latter are transversely arranged bunks which may each consist of a pair of railway traction rails 3 secured together in parallel relation by bolts 4 and spacing blocks 5 disposed intermediate the length of a bunk and by being seated in chairs 6 provided at the bunk ends and secured to the car platform. A chair 6 is formed with wing elements 7 and 8 which are recessed to receive the ends of a stake supporting bar 9. The latter is hingedly connected from one end to the chair wing 7 by a pivoted pin 10, and has its other end detachably secured within the wing 8 by means of a longitudinally movable latch-rod 11 extending into aperture 12 provided in wing 8 and engageable in an eye 13 provided in the free end of the bar when the bar is swung upwardly into the horizontal position shown in Fig. 4. A latch-rod is operated through the medium of a lever 14 fulcrumed to the bunk or, as shown, to the chair at the remote end of the bunk from the bar with which a latch-rod engages. The bulb portion at the inner side of each bunk-rail is cut away to afford a rectangular shaped recess 15 extending from the outer end of the rail to a shoulder 16.

17 represents a car-stake proper of a width to be inserted within the bunk recesses 15 and having at its lower end lateral projections 18 at each side which are adapted to engage against the bottoms of the bunk-rails when the stake is supported upon the bar 9. The stake, when thus borne upon the bar, is secured at its upper end against outward tilting by means of a chain 19 connected to the stake and to the adjacent spacing block 5. Each stake is provided with a detachable extension-piece 20 of greater length than the stake and is desirably in the form of a channel iron. The lower end of the extension is supported by the bar 9 which is provided with an upwardly projecting flange 21 which is juxtaposed with the outside of the extension-piece and serves to prevent any outward movement of the lower ends of the stake or the associated extension piece when the same are supported by the bar.

Protruding from the inner sides of an extension-piece 20 is one or more fingers 22 which are directed upwardly and are engaged in inclined holes 23 as shown in Fig. 1.

The stake is suspended from said chain when not in use, as illustrated in Fig. 4 and at the right hand side of Figs. 1 and 2. In such condition it is out of the way of interference with unloading the car and cannot readily be damaged or cause the same in the movement of the car. When the car is to be loaded, the stake 17 is first raised into the recesses 15 to bring the projections 18 against the undersides of the bunk-rails 3. An extension-piece 20 is then placed against the stake with the fingers 22 engaging in holes 23, whereupon the free end of the bar 9 is raised until the rod 11 may be introduced within the eye 13 thereof. The stake and extension-piece then rest upon the bar while the lower and upper ends of the stake and extension piece are supported against the outward pressure of the load by the flange 21 and chain 23. To unload the car, the stake and extension-piece are

dropped by withdrawing the rod 11 from the connected end of the bar 9 to let the latter fall and release the superposed stake and extension-piece. As this may be accomplished by manipulation of the lever 18 at the opposite side of the car no danger is experienced by the workmen. In thus falling, the extension-piece separates from the stake which is suspended by the chain.

What I claim as my invention, is—

1. The combination with a bunk formed to afford space for a stake therebetween, a bar pivotally connected from one end to a support provided at one side of the bunk, and a latch adapted to secure the bar in horizontal position, of a stake adapted to be supported by said bar and formed with lateral projections upon each side arranged to be engaged against the underside of the bunk when the stake is in operative position, and a flexible connection secured at its respective ends to said stake and the bunk.

2. The combination with a bunk consisting of a pair of rails secured together in parallel relation, and a chair secured to the rails at an end of the bunk, of a car-stake having at each side a lateral projection adapted to engage against the bunk, and a stake supporting-bar for said bunk pivoted from one end to said chair and adapted to be releasably secured at its other end to a latch-rod extending into the chair.

3. The combination of a bunk, a bar pivotally connected from one end to a support provided at one side of the bunk, a latch arranged to engage the bar at its other end, a stake adapted to be supported by said bar, means operated from the opposite side of the car for disengaging the latch from the bar, and connections between the bunk and the upper end of the stake to secure the same from outward movement when supported by said bar.

4. The combination with a bunk, and a car-stake formed to enter a recess provided in the bunk when the stake is in its raised position, a bar pivotally connected from one end to a support provided at one side of the bunk and means operable from the opposite side of the car and engageable with the opposite end of the bar to releasably secure the bar in position to support the stake.

5. The combination with a car stake and a bunk, of an extension-piece detachably connected to said stake, a bar for supporting said stake and the extension-piece, said bar being pivoted at one end to the bunk, a latch-rod operable from the opposite side of the car and adapted to releasably secure an end of said bar, and a chain secured at its ends to the stake and bunk.

6. The combination with the bunk, of a car-stake, an extension-piece therefor, means provided on said extension-piece for securing the same to the car-stake, releasable means connected with the end of the bunk whereby the car-stake and the extension-piece are both supported and likewise retained against outward movement, and a chain connecting the bunk with the stake whereby the upper ends of the stake and extension-piece are prevented from tilting outwardly until said releasable means are caused to be inoperative.

Signed at Seattle, Wash., this 1st day of April, 1913.

WILLARD HOUGHTON.

Witnesses:

E. PETERSON,

HORACE BARNES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."