O. S. CARROLL & E. S. AVEY.

CAR BUNK AND LOGGING STAKE.

APPLICATION FILED DEC. 1, 1909.

963,514.

Patented July 5, 1910.

2 SHEETS—SHEET 1.

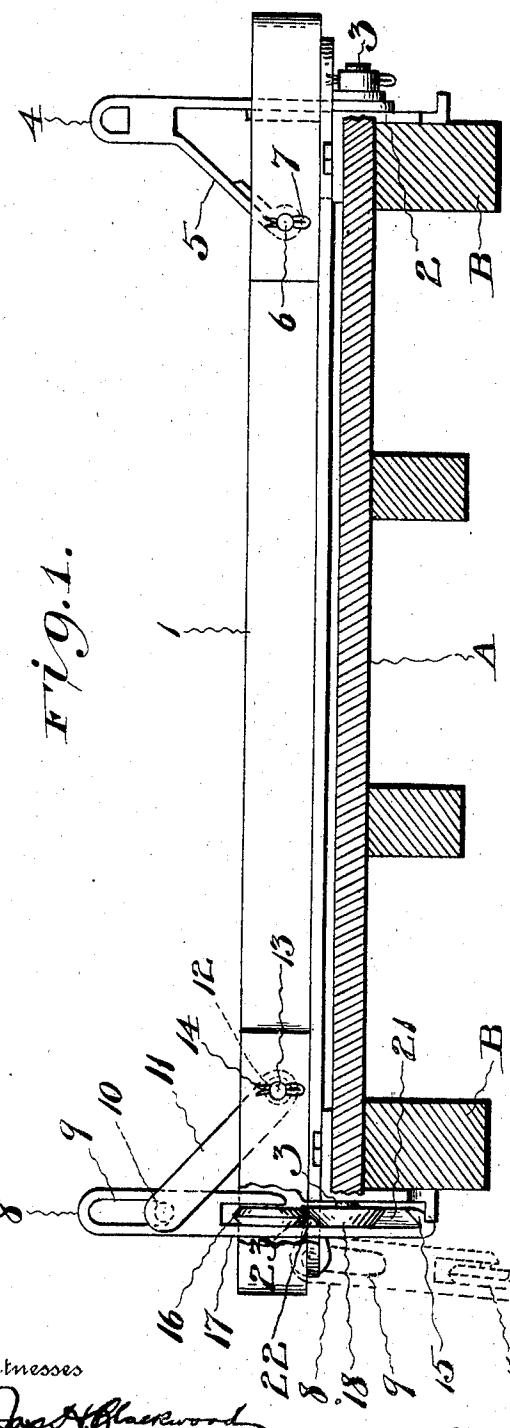

Fig. 1.

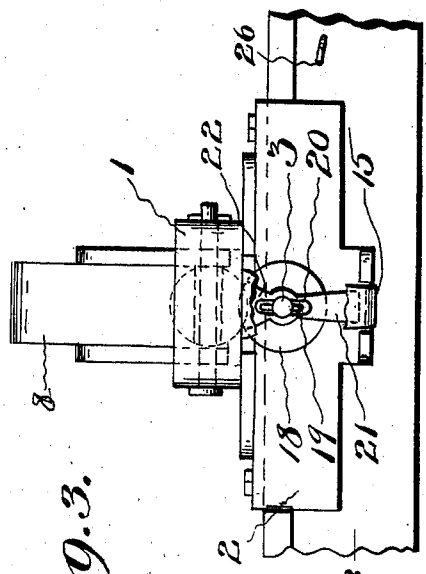

Fig. 3.

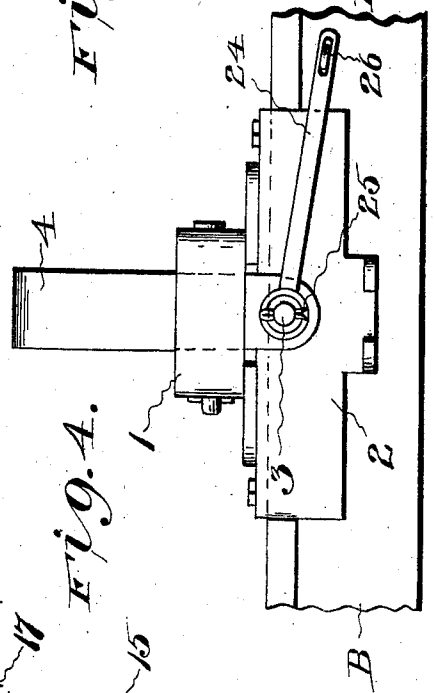

Fig. 4.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

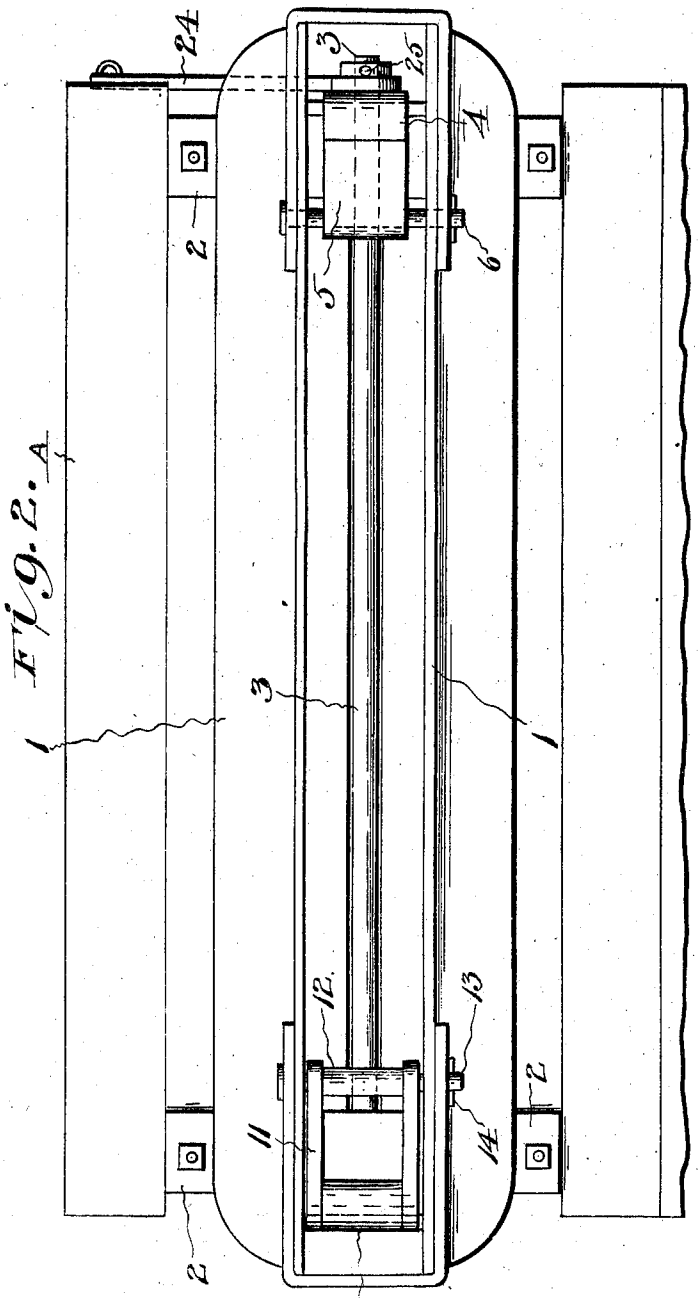


Fig. 6.

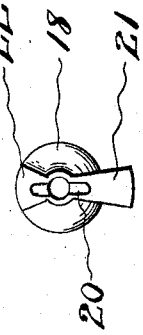
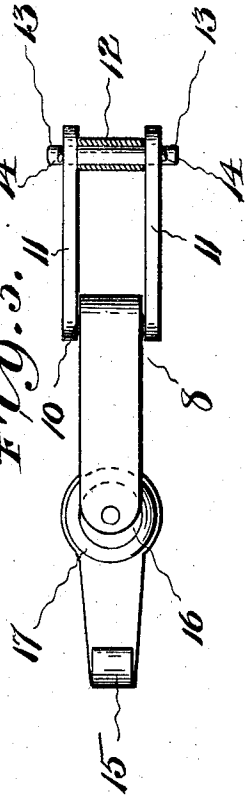


Fig. 5.



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UNITED STATES PATENT OFFICE.

OREN S. CARROLL AND EUGENE S. AVEY, OF ELMA, WASHINGTON.

CAR-BUNK AND LOGGING-STAKE.

963,514. Specification of Letters Patent. Patented July 5, 1910.

Application filed December 1, 1909. Serial No. 530,734.

To all whom it may concern:

Be it known that we, OREN S. CARROLL and EUGENE S. AVEY, citizens of the United States, and residents of Elma, in the county of Chehalis and State of Washington, have invented certain new and useful Improvements in Car-Bunks and Logging-Stakes, of which the following is a specification.

Our invention relates to cars used for transporting logs, and has for its object the provision of an improved construction of bunk for supporting the log having improved means for dumping the log consisting of a vertically movable stake secured to the bunk and held in an upwardly-extended position by means of a catch secured to a shaft journaled in the bunk-frame and extended transversely of the car and operated by means of an arm secured to the opposite side of the car from the movable stake, so that the stake can be lowered without endangering the operator.

Our invention will be described in detail hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a cross-section of a car-frame showing an improved bunk in position, the movable stake being shown in its upright position in full lines and in its lowered position in broken lines; Fig. 2, a top plan view; Fig. 3, an end view partly broken away to show the movable stake and clamping means; Fig. 4, a view of the opposite end of the bunk; Fig. 5, a detail view of the movable stake; and Fig. 6, a detail view of the clamping-disk to hold the stake in an upright position.

In the drawings, similar reference characters indicate corresponding parts throughout the several views.

A indicates the bed of a flat car such as is used in hauling logs.

Our improved bunk consists of an open frame 1, secured to the side sills B of the car-frame by means of angular supports 2.

3 indicates a shaft journaled in supports 2 and extended across the car-bed A, beneath the frame 1.

4 indicates a stake engaging one end of shaft 3 and having an angular extension 5 that engages a bolt 6 secured in the sides of frame 1 and held from withdrawal by means of split pin 7 or other suitable structure. The stake 4 may be removed by withdrawing bolt 6 and disengaging it from the shaft, but as the stake does not lower when the bunk is in use, we shall designate stake 4 as the "fixed" stake, while the other stake 8 we shall designate as the "movable" stake. Stake 8 is formed with a transverse slot 9 in its upper end in which is mounted a cross-bar 10 of an open link 11, the other end of the link being provided with a tubular cross-bar 12 to receive bolt 13, engaging the sides of frame 1 and held in position by means of split pin 14. The lower end of stake 8 is provided with a hook 15, and a disk 16 is journaled on the stake, having its periphery double beveled, as is shown at 17.

18 indicates a disk secured to the end of shaft 3 by means of a pin 19, seated in a slot 20 in the disk, 21 indicating a beveled lug extending from the disk to engage the hook 15 on stake 8, and 22 indicates a projection on the disk 18, opposite to lug 21, the projection being beveled to form a groove 23 that engages the beveled periphery of disk 16 when the stake 8 is in its upright position.

24 indicates an arm secured to the other end of the shaft 3 from disk 18 by means of split pin 25 to rotate the shaft 3, said arm 24 being engaged by a staple 26 when in the position to hold the disk so that the lug 21 engages hook 15 and the disk 16 is engaged by the projection 22, and the arm may be held from accidental displacement by any suitable means, such as a padlock (not shown) engaging said staple 26.

In operation it will be understood that the movable stake 8 is lowered by rotating the shaft 3 by the operator standing at the opposite side of the car from the stake so as to be out of danger should the log roll when the stake is released. Rotation of the shaft 3 releases the clamping disk from engagement with the stake and it drops into the end of bunk-frame 1. Owing to this substantially vertical movement of the stake the log cannot jam the stake should it begin to roll as soon as the stake is lowered, but on the contrary will assist the movement of the stake downwardly.

As the stakes 4 and 8, the clamping-disk 18 and arm 24 are secured in position by removable devices as described, it will be clear that the parts are capable of transfer from one side of the car to the other so that the logs may be loaded to be dumped from either side of the car.

Having thus described our invention, what we claim is—

1. In combination with a car-frame, a bunk supported on the frame, a shaft suitably journaled, a fixed stake removably secured to the bunk and shaft, a movable stake mounted on the bunk, and means secured to the shaft to hold the movable stake in an upright position, substantially as shown and described.

2. In combination with a car-frame, a bunk supported on the frame consisting of an open frame, a shaft suitably journaled, a fixed stake removably secured to the shaft and bunk, a movable stake having a slot in its upper end, a link secured to said frame and engaging said slot, and means secured to said shaft and engaging the movable stake to hold it in an upright position, substantially as shown and described.

3. In combination with a car-frame, a bunk supported on the frame and consisting of an open frame, a shaft suitably journaled, a fixed stake removably secured to the shaft and bunk, a movable stake having a slot in its upper end, a link secured to said open frame and engaging said slot, a hook on the lower end of said stake, and a lug on the shaft to engage the hook and hold the stake in an upright position, substantially as shown and described.

4. In combination with a car-frame, a bunk supported on the frame and consisting of an open frame, a shaft suitably journaled, a fixed stake removably secured to the bunk and shaft, a movable stake having a slot in its upper end, a link secured to said open frame and engaging said slot, a beveled disk journaled on said movable stake, a hook on the lower end of said stake, a disk secured to the shaft, a lug on the disk to engage said hook, and grooved projection on the disk to engage the beveled disk on the stake, an arm secured to the shaft at the opposite end from the disk aforesaid to rotate the shaft to release the lug and projection from engaging the hook and beveled disk, and means to engage the arm to hold the shaft in position to clamp the movable stake in an upright position, substantially as shown and described.

In witness whereof, we have hereunto set our hands in presence of two subscribing witnesses.

OREN S. CARROLL.
EUGENE S. AVEY.

Witnesses:
MABEL V. AVEY,
W. A. JOLLEY.