No. 816,339. PATENTED MAR. 27, 1906.

J. E. KNIGHT.

LOG CHOCK.

APPLICATION FILED OCT. 30, 1905.

Fig. 1.

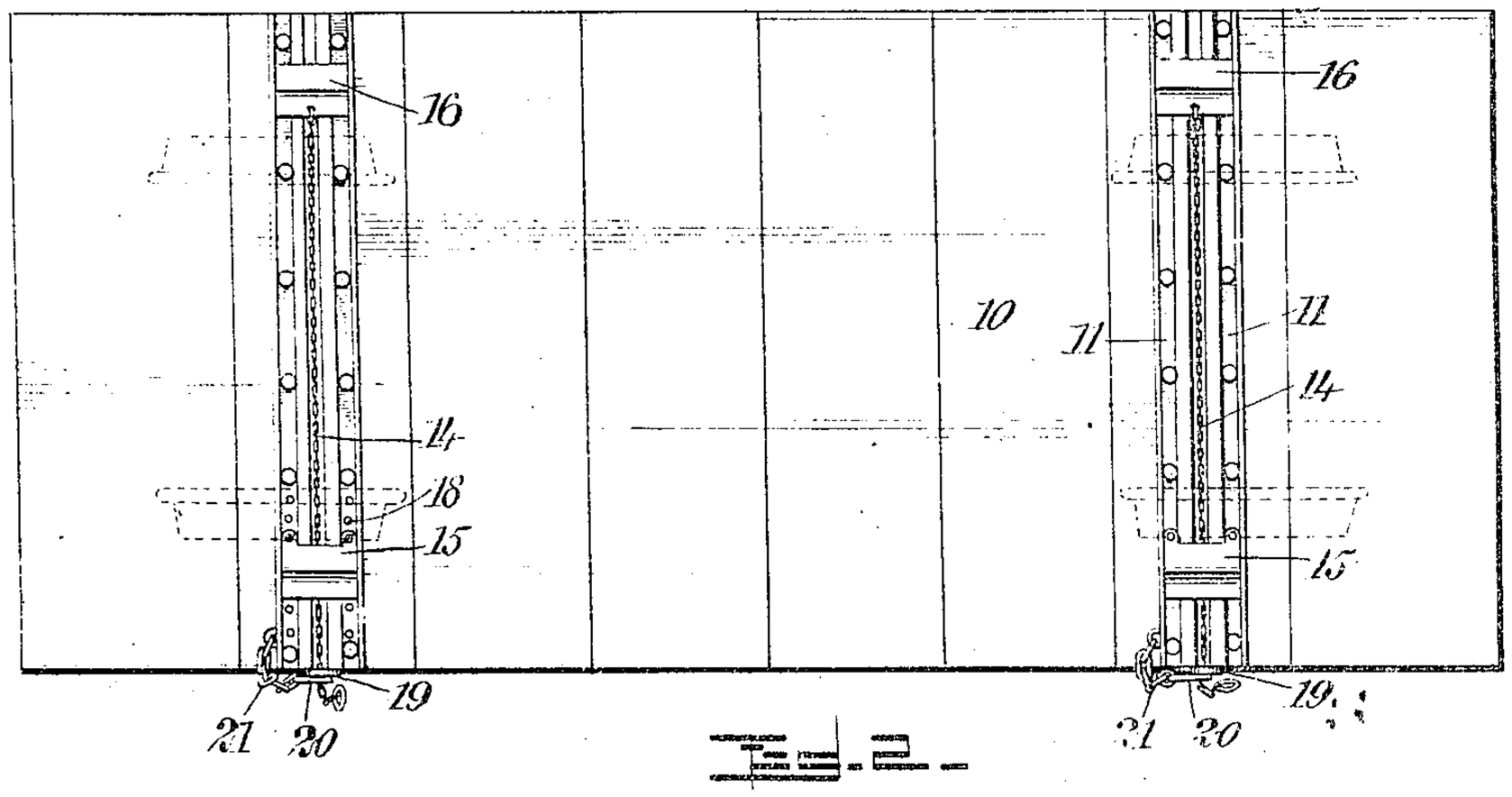


Fig. 2.

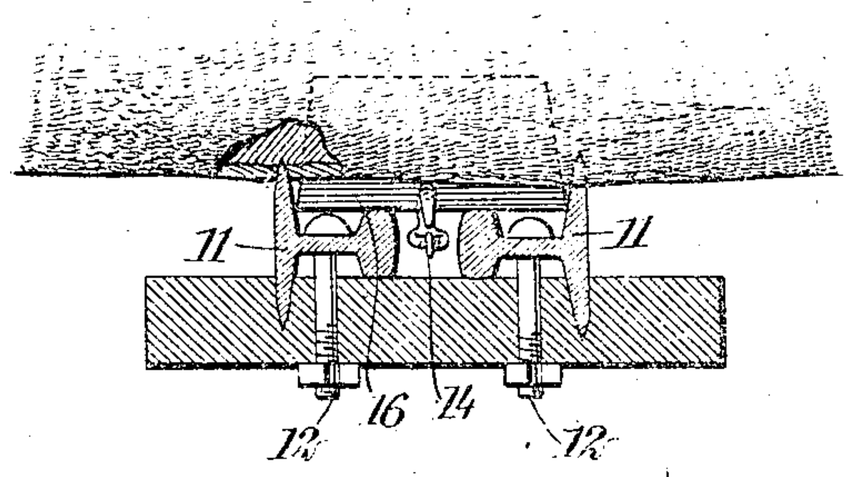
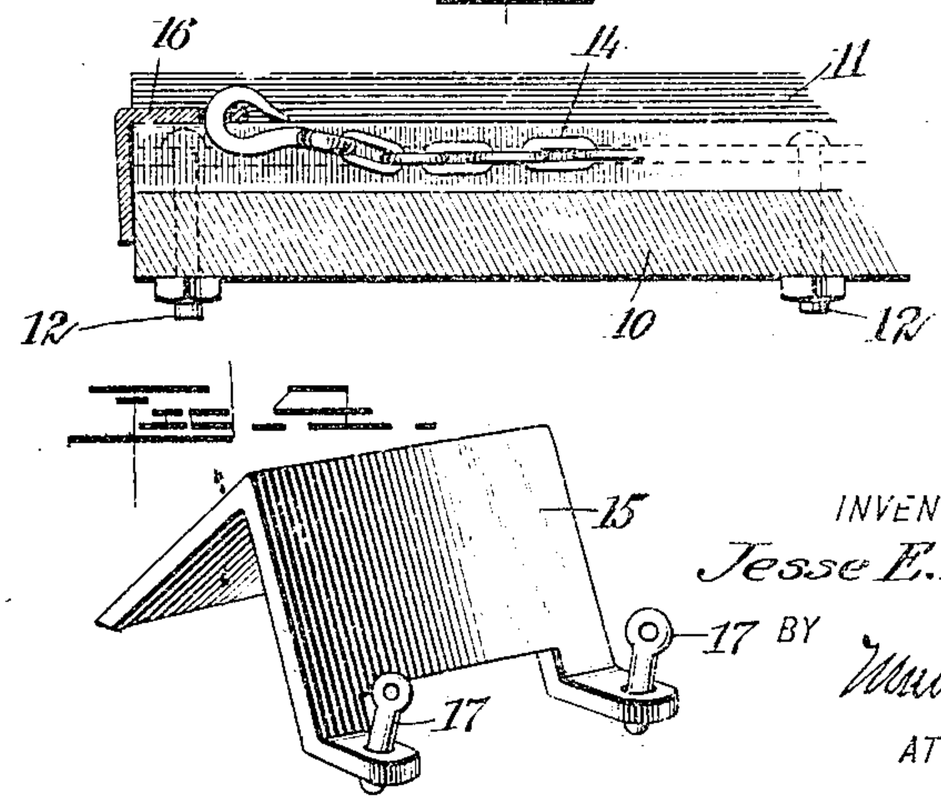


Fig. 3.



WITNESSES:

Geo. P. Kingsbury.

Isaac B. Owens.

INVENTOR

Jesse E. Knight

BY

ATTORNEYS

UNITED STATES PATENT OFFICE.

JESSE EARNEST KNIGHT, OF BLUE CANYON, WASHINGTON.

LOG-CHOCK.

No. 816,339. Specification of Letters Patent. Patented March 27, 1906.

Application filed October 30, 1905. Serial No. 285,007.

To all whom it may concern:

Be it known that I, JESSE EARNEST KNIGHT, a citizen of the United States, and a resident of Blue Canyon, in the county of Whatcom and State of Washington, have invented a new and Improved Log-Chock, of which the following is a full, clear, and exact description.

The object of my invention is to provide a chock for holding logs on cars, trucks, and other means for transportation, which chock may be readily released to enable the logs to be rolled from the car without the necessity of a person going to the side of the car from which the logs are to be rolled.

It is also an object of my invention to improve the means for mounting the chock and to enable the chock to be thrown into unloading or inactive position so completely as not to interfere in any way with the free rolling of the logs.

The invention involves various features all of which will be fully brought out hereinafter and particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, which illustrate the preferred embodiment of my invention, and in which—

Figure 1 is a plan view of the flat-car having my invention applied. Fig. 2 is an enlarged cross-section showing the guide-rails for mounting the chocks and on which rails the logs rest. Fig. 3 is a detail section showing one of the chocks in unloading position, and Fig. 4 is a detail perspective of the stationary chock.

The invention is adapted to be used on flat-cars, trucks, and on various other means for transportation on which logs and timbers may be loaded. As here shown, it is illustrated applied to a flat-car 10. Near each end of the car is located a pair of railroad-rails 11. These rails extend parallel with each other transversely of the car and may be mounted directly on the floor of the car or on a "bunk" or pillow provided for that purpose. As shown best in Fig. 2, the rails 11 are laid sidewise on the support and are drawn down firmly in place by means of bolts 12. In so drawing down the rails the comparatively sharp edges of the base-flanges cut into the support, whether it be the floor of the flat-car or a bunk provided to carry the rails, thus making the rails absolutely rigid and secure. Said rails are arranged with the balls of the rails inward, and the balls are slightly spaced apart to provide a channel for a chain 14, the purpose of which chain will be fully set forth hereinafter. The base-flanges of the rails are outward and project above the balls. The balls of the rails form a trackway on which the chocks are movably carried, and the base-flanges of the rails, which project upward, (see Fig. 2,) serve the double function of sustaining the logs and of forming guard-flanges preventing the displacement of the chocks laterally of the rails. The relatively sharp edges of the base-flanges sink into the logs, so as to prevent the car from being pulled out from under the log. This is especially useful when the invention is employed in connection with trucks, since in this case it is usual to carry a group of logs on two trucks which are connected only by the logs themselves. Two chocks are employed for each pair of rails, one chock at each end thereof. These chocks are designated 15 and 16, respectively. The chocks 15 are adjustably carried on the balls of the rails between the base-flanges. Any desired means may be employed for adjustably holding said chock.

As shown in Figs. 1 and 4, the chocks are provided with pins 17, which enter openings 18, formed in the webs of the rails 11. The movable chocks 16 are free to slide on the walls of the rails between the base-flanges, and with the movable chock 16 the chains 14 are connected. Both of the chocks 15 and 16 are of the angular form best illustrated in Figs. 3 and 4, and the chocks 16 are arranged with an essentially right-angular form, so that when moved to the ends of the rails 11 the chocks may be thrown down into the folded position, (shown in Fig. 3,) in which one limb of the chock bears on top of the balls of the rails below the upper edges of the base-flange, and the other limb projects downward along the side edge of the car or other support on which the rails are carried. In this position the chock lies below the upper edges of the rails 11 and entirely out of the way of the logs rolling from the same. At the ends of the rails adjacent to the adjustable chocks 15 eyes 19 are provided, through which the chains 14 pass. Coacting with said eyes are claws 20, which are preferably

carried by chains 21 to prevent the loss of the claws. These claws are adapted removably to engage the chains 14 and the eyes 19, so as to prevent the chains from being moved through the eyes in such direction as will permit the dumping-chocks to reach the edge of the car and accidentally assume the inactive or unloading position above described.

In the use of the invention the logs are loaded on the car and extended from one pair of rails 11 to the other, the chocks 15 and 16 being placed in position so as to retain the logs in the desired arrangement. The stationary chocks 15 are held by the pins 17, and the movable chocks 16 are held by the chains 14, eyes 19, and claws 20. When it is desired to unload the logs from the car or other conveyance on which the logs are placed, the claws 20 should be disconnected from the chains 14 and the pressure of the logs allowed to slide the movable chock 16 out to the edge of the car or the adjacent ends of the rails 11, whereupon the chocks will fall down into the unloading position (shown in Fig. 3) and allow the unobstructed movement of the logs. It will be observed that this operation is performed by persons standing at the side of the car having the eyes 19 and claws 20, it being only necessary to disengage the claws from the chains 14 and to start the logs rolling toward the opposite side of the car. This avoids the extremely dangerous operation of a person going to the side of the car on which the logs are unloaded for the purpose of releasing the chock. In the lumbering industry numerous fatal accidents occur from this reason.

It is pointed out that while it is preferable to employ railroad irons or rails, as used in the drawings and hereinbefore described, guide-rails of other forms may be employed, in which connection it is only essential that means be provided for forming a central passage for the chain, a surface on which the chocks may be slidably supported, and guard-surfaces at the sides of the chocks to prevent them from moving laterally from the rails.

Various changes in the form, proportions, and minor details of my invention may be resorted to at will without departing from the spirit and scope thereof. Hence I consider myself entitled to all such variations as may lie within the terms of my claims.

Having thus described the preferred form of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a support, two chocks thereon of which one is movable, a chock-chain attached to the movable chock and extending along the support to the end thereof opposite the movable chock, an eye at said end of the support through which the chain is rove, and a claw or grappling-hook adapted to engage the eye and chain, for the purpose specified.

2. The combination of a support, two chocks thereon of which one is movable, and a chock-chain attached to the movable chock and extending along the support to the end thereof opposite the movable chock, said movable chock being angular in form and capable of folding down over the edge of the support.

3. The combination of a support, a movable chock arranged to slide thereon, said chock being angular in form and capable of folding down over one end of the support.

4. The combination of a support, parallel rails thereon forming a passage-way between them, a chock arranged to slide on the rails, and a chain attached to the chock and extending through the passage-way.

5. The combination of a support, parallel rails thereon forming a passage-way, a chock arranged to slide on the rails, a chain attached to the chock and extending through the passage-way, and an eye secured to the edge of the support opposite the chock through which eye the chain is rove.

6. The combination of a support, parallel rails thereon forming a passage-way, a chock arranged to slide on the rails, a chain attached to the chock and extending through the passage-way, an eye secured to the end of the support opposite the chock, through which eye the chain is rove, and a grapple adapted to engage the chain and eye for the purpose specified.

7. The combination of a support, means mounted thereon forming a passage-way with a slideway above it, a chain lying in the passage-way, and a chock attached to the chain and mounted in the slideway.

8. The combination of a support, means mounted thereon and forming a passage-way with a slideway above it, a chain lying in the passage-way, and a chock attached to the chain and mounted in the slideway, the said means also having guard-walls at the side of the slideway.

9. The combination of a support, two railroad-rails mounted thereon on their sides with the balls of the rails adjacent and spaced apart, a chain lying between the balls of the rails, and a chock attached to the chain and running on the balls of the rails between the base-flanges of the rails.

10. The combination of a support, two chocks of which one is movable and angular in form, whereby it may fold down over the edge of the support, and means for removably holding the chocks in position.

11. The combination with a support of means forming a slideway with guard-walls at its sides, an angular chock adapted to move on the slideway between the guard-

walls, and capable of folding down over the edge of the support, and means for removably holding the chock in position.

12. The combination of a support, and an angular chock mounted thereon and capable of folding down over one end of the support, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JESSE EARNEST KNIGHT.

Witnesses:

J. N. PHILLIPS,

J. C. CLAUSEN.