

(No Model.)

2 Sheets—Sheet 1.

H. A. TODD & A. H. ANDERSON.
CHOCK BLOCK FOR LOGGING CARS.

No. 472,152.

Patented Apr. 5, 1892.

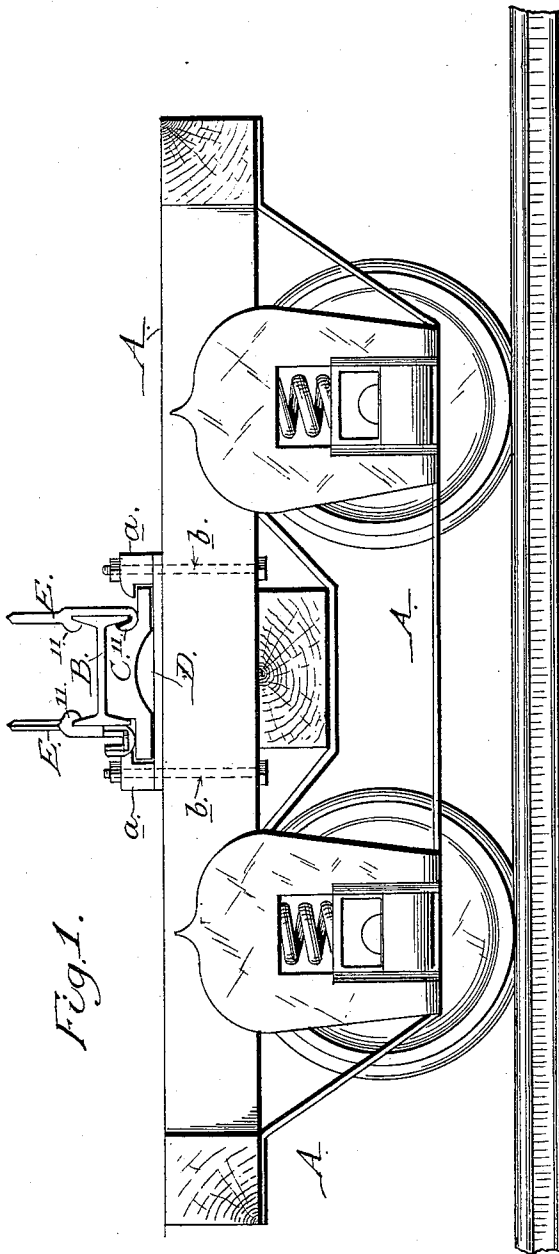


Fig. 1.

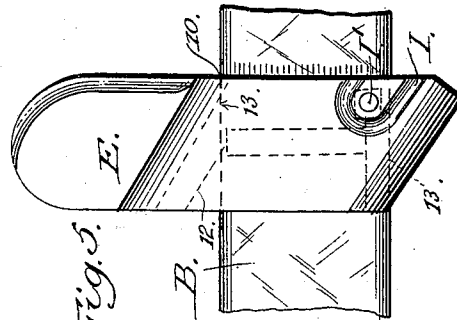


Fig. 2.

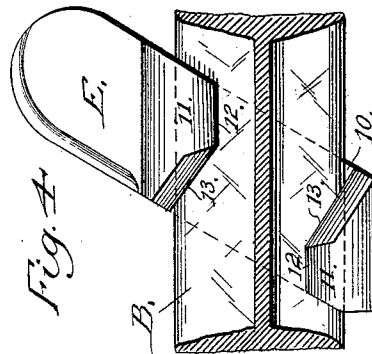


Fig. 3.

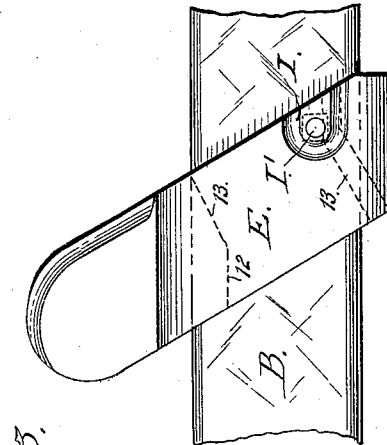


Fig. 4.

WITNESSES

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J. E. Law. Fowler

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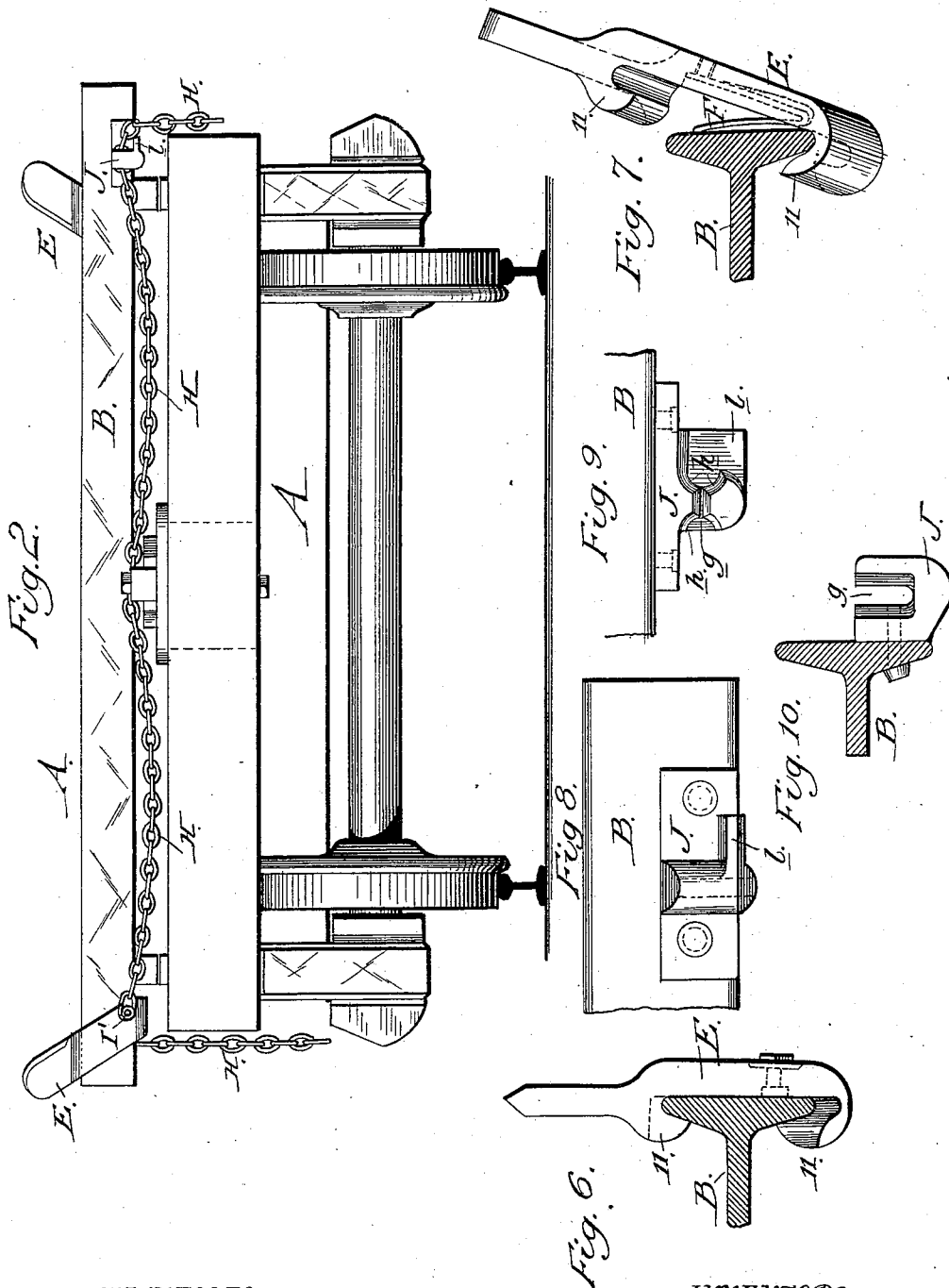
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WITNESSES
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INVENTORS:
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UNITED STATES PATENT OFFICE.

HERMAN A. TODD AND ALFRED H. ANDERSON, OF SHELTON, WASHINGTON.

CHOCK-BLOCK FOR LOGGING-CARS.

SPECIFICATION forming part of Letters Patent No. 472,152, dated April 5, 1892.

Application filed August 8, 1891. Serial No. 402,130. (No model.)

To all whom it may concern:

Be it known that we, HERMAN A. TODD and ALFRED H. ANDERSON, citizens of the United States, residing at Shelton, in the county of Mason and State of Washington, have invented certain new and useful Improvements in Chock-Blocks for Logging-Cars, as set forth in the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of a logging-truck, showing our improvements applied thereto. Fig. 2 is an end view of the same. Figs. 3, 4, and 5 are detail views of a portion of the I-beam, showing the chock-blocks in different positions. Fig. 6 is a side view of one of the chock-blocks, showing a portion of the I-beam in section. Fig. 7 is a similar view showing the chock-block thrown outward by the force of the spring behind it. Figs. 8, 9, and 10 are details of the clutch for holding the chain.

Our invention relates to means for holding logs on cars while in transit, with simple means of removal for unloading; and it consists of the constructions and combinations of devices which we shall hereinafter fully describe and claim.

To enable others skilled in the art to which our invention appertains to make and use the same, we will now describe its construction and indicate the manner in which the same is carried out.

The object of our invention is to provide an efficient and adjustable chock-block adapted to be placed at any position on the bunk or I-beam and to be quickly disengaged or removed without danger to the unloaders. On many logging cars or trucks where chock-blocks are used it is necessary for the attendants to go to the side of the car that the logs are to be discharged from in order to remove the chock-blocks, chains, or whatever appliances may be used. This practice is extremely dangerous and often fatal to the operators; and our construction is designed to meet these difficulties and insure the safety of those who unload the car or truck.

In the accompanying drawings we have illustrated a form of car or truck A adapted

for logging purposes, the said car or truck being provided with the usual bunk or I-beam B, which extends transversely across the car or truck, with its flanges vertically disposed, as shown in Fig. 1. This bunk or I-beam is suitably mounted upon the upper center plate C, which in turn is secured to the lower center plate D by the lugs and bolts *a* and *b*, respectively. These center plates form no part of the present invention, and they are fully described and claimed in another application filed by us of even date herewith.

Upon the bunk or I-beam the chock-blocks E are adapted to be placed, as shown in Fig. 2, to sustain the logs in position. Each chock-block is recessed at 10 upon its inner side to receive the vertical flange of the bunk or I-beam, and at the ends of this recess are formed the lips 11, adapted to fit over said flanges, as shown in Figs. 1, 6, and 7, to hold the chock-block to the bunk or beam. The wall at the top of the recess is preferably straight, though inclined to the major axis of the block, and the wall at the lower end of the recess has a part of its surface parallel with the top wall and the remaining portion formed at an incline to the straight portion, as shown. In the recessed side of the block is formed a groove, in which is secured one end of a bent spring-plate F, while the other end of said plate is free and normally extended, as shown in Fig. 7. This spring-plate is designed to automatically throw the chock-block away from the bunk or I-beam when the block is moved from one position to another, as shown in Figs. 6 and 7 and as we shall presently disclose.

In referring to Figs. 3, 4, and 5 it will be observed that the lips 11, which bound the ends of the recess in the chock-block in which the bunk or I-beam is seated, have each a straight edge 12 and an edge 13 inclined thereto, the straight and inclined edges of one lip being relatively reversed to the same edges of the other, and as the normal position of the chock-block is an inclined one, as shown in Figs. 3 and 4, it will be manifest that when the block is moved from the position in said figures to the vertical

position assumed in Fig. 5 the inclined portion or edge of the upper lip 11 will become parallel and flush with the contiguous edge of the flange of the bunk or I-beam. When in this position, the spring-plate F, which is confined between the bunk or I-beam and the recessed side of the chock-block, exerts its power to throw the chock-block sidewise from the beam, (see Fig. 7,) thereby enabling the logs to be discharged.

The construction of the chock-block, with its lips and its straight and inclined wall at the bottom of the recess, is such that when the block is in operative position (see Fig. 3) the outward pressure of the logs against the block will cause the binding of the top and bottom walls of the recess against the top and bottom edges of the bunk or I-beam flange. Therefore the greater the pressure the greater will be the frictional contact between the block and beam. We have also disclosed a means whereby the blocks may be operated from the side opposite to that on which the block is attached without endangering the life or limbs of the unloaders, and these means consist of a safety-chain H, one link of which is placed in a groove I in the outer face near the lower end of the chock-block and secured by a bolt I'. This groove I is sunk below the face of the block to take the strain off the bolt, and it is made to snugly receive the link, after which the chain is carried across the truck or car and adapted to be secured by a clutch J, preferably secured to the I-beam by bolts, rivets, or otherwise, as shown in Figs. 2, 8, 9, and 10. The clutch has its head slotted at g to receive one of the links of the chain, and the base of the head has semicircular grooves h for the reception of the link immediately in front and rear of the slot in the head, while the floor or base of the head is extended rearwardly at l to form a fulcrum for a lever or bar (not shown) to raise the engaged link out of the slot when there is any great strain upon it and it binds.

Wishing to discharge a load the operator at the right of Fig. 2 will release the chain at that point from its engaging clutch and hook again with the last link of the chain, so that when the chock-block falls away from the bunk or I-beam it will not become detached from the car. After this last link has been secured the operator will drive the lower end of the chock-block forward with a bar or tool until said bar assumes a vertical position, Fig. 5, when the spring-plate will throw the upper portion of the chock-block from its engagement with the bunk or I-beam and thereby release the logs, which discharge without danger to the attendant.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A chock-block having a recess adapted to receive the piece to which it is fitted, the

end walls of the recess having straight and inclined walls, whereby the block may be moved from an inclined to a vertical position, and vice versa, substantially as herein described.

2. A chock-block recessed to receive the piece to which it is fitted and having lips with oppositely-arranged straight and inclined edges, said recess having a straight upper wall and a lower wall having a straight portion and a portion inclined thereto, substantially as herein described.

3. The combination, with a bunk or beam, of a chock-block having lips provided with straight and inclined edges, said block adapted to be moved from an inclined to a vertical position, and vice versa, and a spring interposed between the adjoining faces of the bunk or beam and chock-block for automatically disconnecting the block from the beam, substantially as herein described.

4. The combination, with a bunk or beam, of a chock-block having a recess whose end walls are inclined to the major axis of the block, whereby the block is held by frictional contact with the beam, substantially as herein described.

5. The combination, with a bunk or beam, of a chock-block having a recess in one side provided with inclined top and bottom walls, and lips on said blocks fitting over the bunk or beam and each provided with edges inclined with relation to each other and the edges of one lip being oppositely located to those of the other, whereby the block may be moved from an inclined to a vertical position, substantially as herein described.

6. The combination, with a bunk or beam, of a chock-block adapted to be fitted to said bunk or beam and having retaining-lips with straight and inclined edges for holding the block to the beam in one position, and a spring interposed between the block and bunk or beam for automatically disconnecting the block and throwing it laterally from the beam when the position of the block is changed from an inclined to a vertical position, substantially as herein described.

7. The combination, with a chock-block, of a chain connected at one end with the block and having its opposite free end secured at a point to and remote from the block, and a clutch adapted to engage the links of the free end of the chain to secure the same, substantially as herein described.

8. The combination of a bunk or beam, a chock-block having a groove in its face, a chain having one of its links adapted to be fitted in said groove, and a clutch adapted to engage the links of the opposite end of the chain, substantially as herein described.

9. The combination of a bunk or beam, a chock-block adapted to be fitted thereto and to be rocked from one position to another, a chain having its link at one end adapted to

fit a groove in the face of the chock-block, and a clutch at the opposite end of the bunk or beam having a slotted head to receive the links of the free end of the chain, substantially as herein described.

the free end of the chain and having its floor 10 extended to form a fulcrum for the release of the links, substantially as herein described.

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Witnesses:

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5 10. The combination, with a bunk or beam, a chock-block, and a chain connected therewith, of a clutch secured to the bunk or beam, having a slotted head to receive the links of