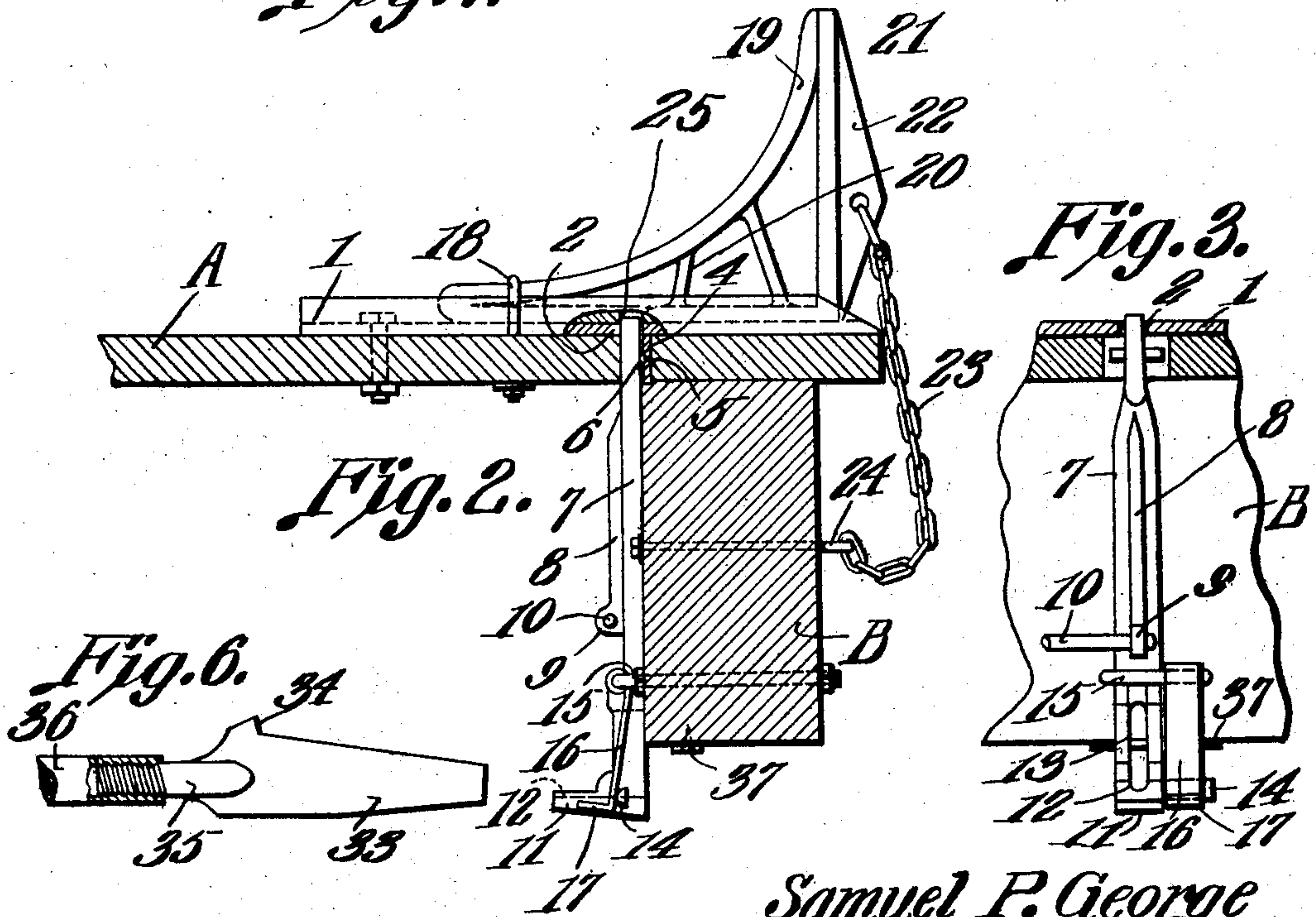
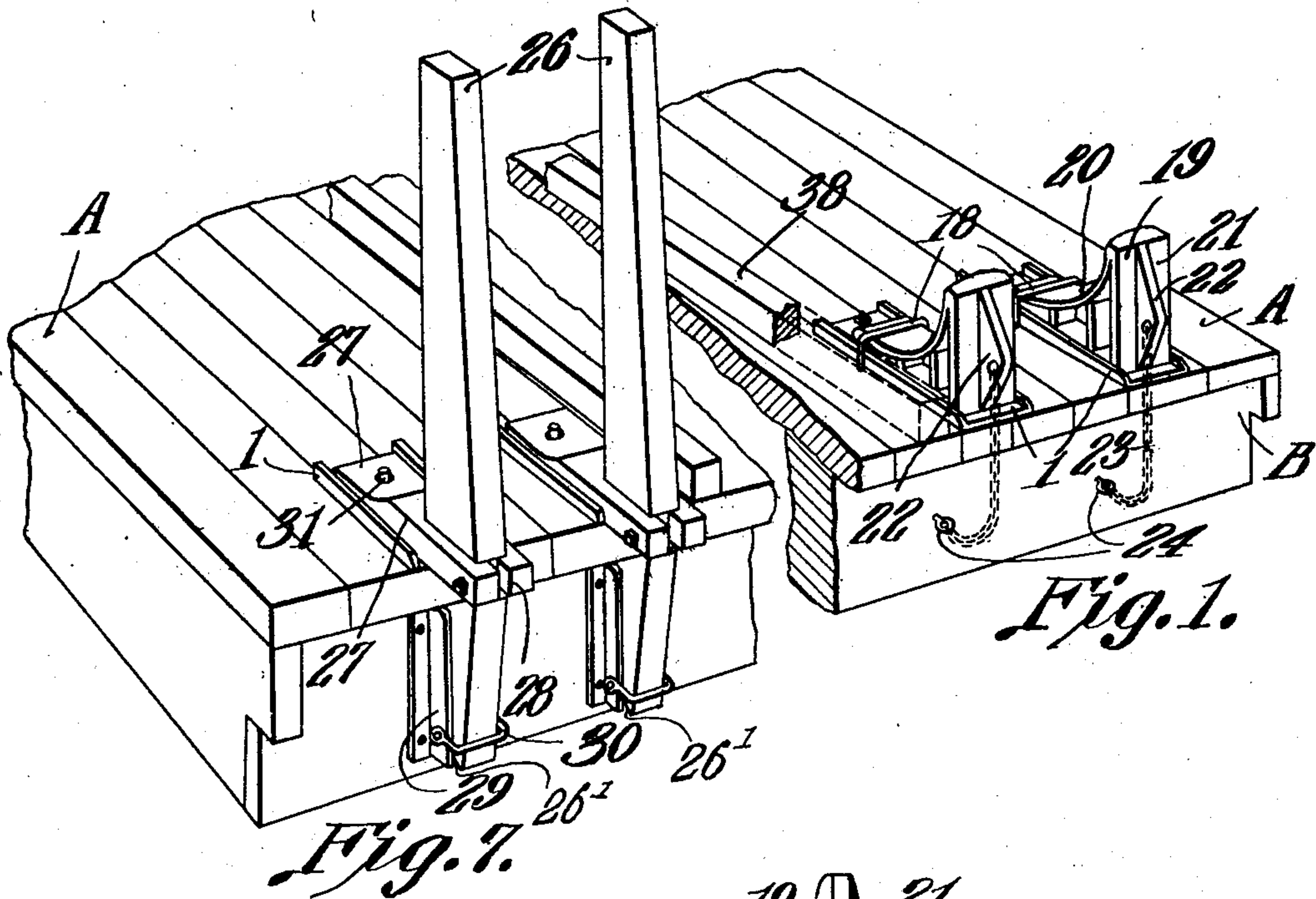


S. P. GEORGE.
LOAD RETAINING ATTACHMENT FOR LOGGING CARS.
APPLICATION FILED OCT. 15, 1910.

998,084.

Patented July 18, 1911.

2 SHEETS—SHEET 1.



Witnesses

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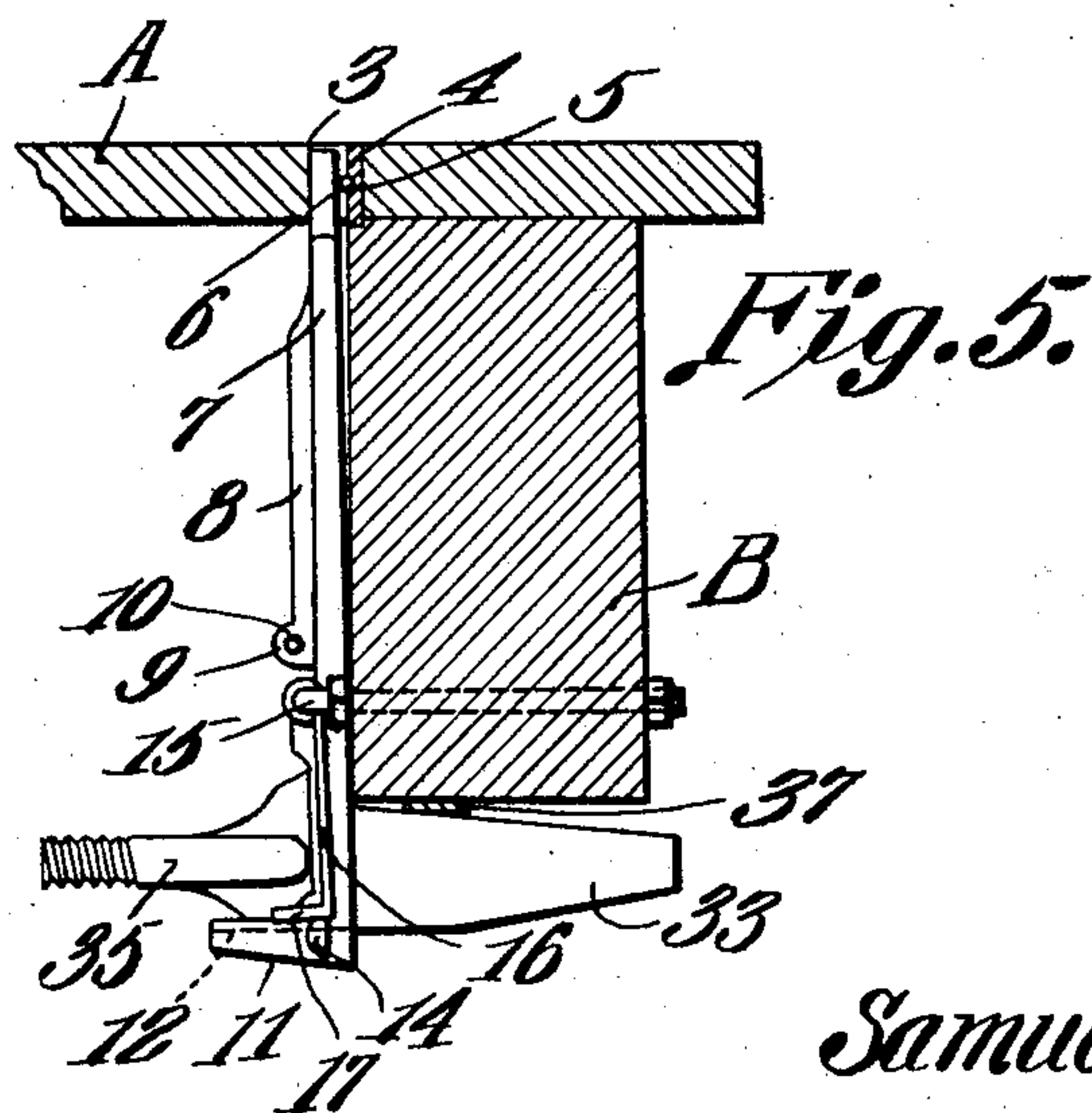
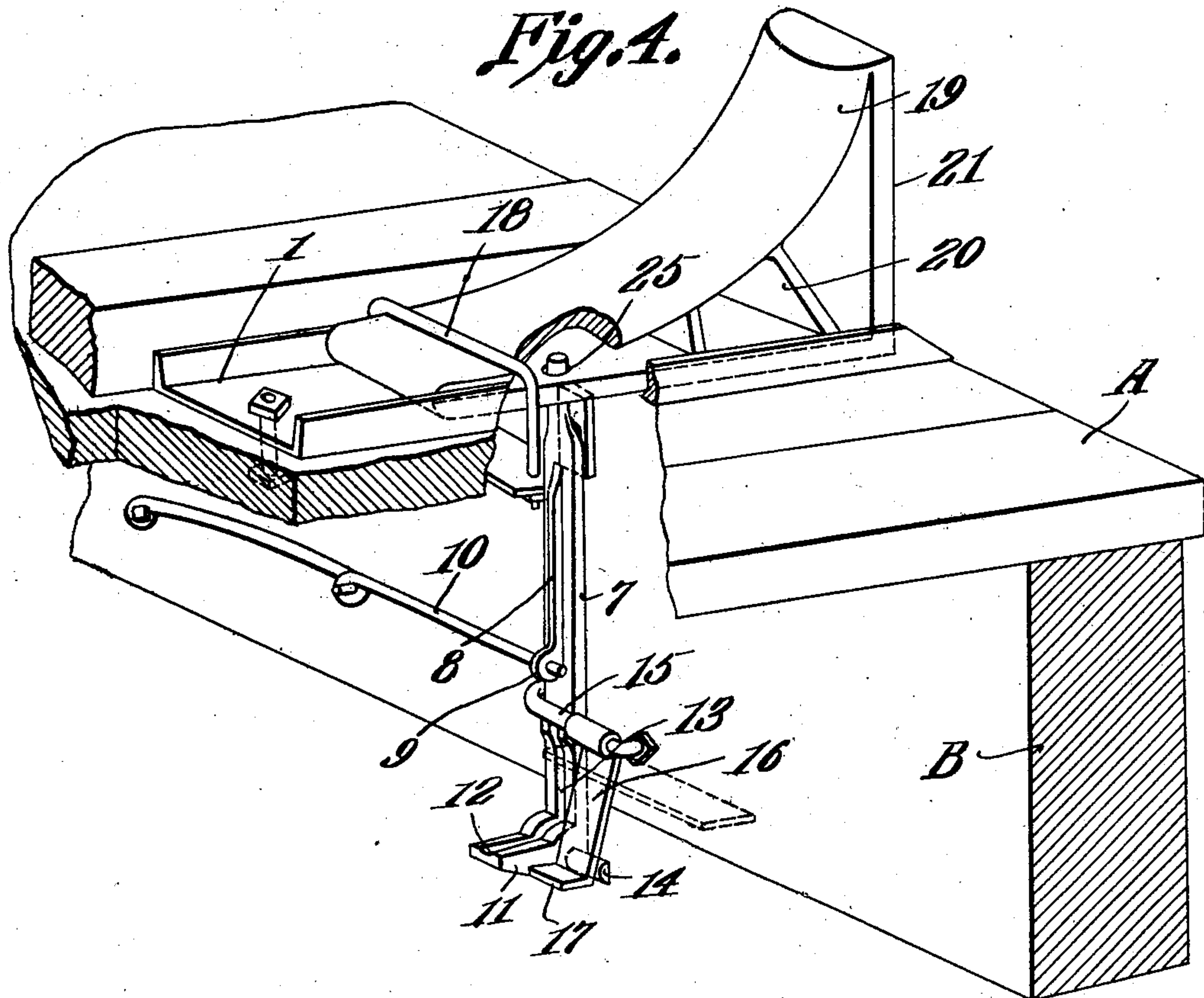
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Witnesses

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UNITED STATES PATENT OFFICE.

SAMUEL P. GEORGE, OF PUYALLUP, WASHINGTON.

LOAD-RETAINING ATTACHMENT FOR LOGGING-CARS.

998,084.

Specification of Letters Patent. Patented July 18, 1911.

Application filed October 15, 1910. Serial No. 587,268.

To all whom it may concern:

Be it known that I, SAMUEL P. GEORGE, a citizen of the United States, residing at Puyallup, in the county of Pierce and State of Washington, have invented a new and useful Load-Retaining Attachment for Logging-Cars and the Like, of which the following is a specification.

This invention relates to load retaining attachments for flat cars or the like and more particularly to chocks or stakes such as used for retaining logs, lumber and the like upon cars.

One of the objects of the invention is to provide a novel form of lock for holding the retaining device against movement relative to the car platform, means being provided whereby said locking means may be readily disengaged from the retaining device by a person standing at the side of the car opposite to that from which the load is to be dumped.

A further object is to provide locking means designed to automatically engage the retaining device when brought to a predetermined position, there also being means for automatically engaging said locking device to hold it retracted subsequent to the release of the retaining device.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of the claims without departing from the spirit of the invention.

In the accompanying drawings the preferred forms of the invention have been shown.

In said drawings: Figure 1 is a perspective view of one end portion of a car with chock blocks provided as load retaining devices. Fig. 2 is a view partly in section and partly in side elevation of a chock block and its fastening means, adjoining parts of the car being shown in section. Fig. 3 is an elevation of the locking means as viewed from the center of the car. Fig. 4 is a perspective view of the parts constituting the present invention, the locking means being shown in engagement with the chock block. Fig. 5 is a view of the locking means in elevation and showing the same retracted by

means of its operating key. Fig. 6 is a detail view of the key. Fig. 7 is a perspective view of one end portion of a car having stakes in lieu of chock blocks.

Referring to the figures by characters of reference A designates a floor or platform of a car, the same being carried by side sills B. Secured upon the floor at desired intervals along the sides thereof are channeled guide plates 1 each extending at right angles to the side of the car and being provided, at points between its ends, with an opening 2 registering with another opening 3 formed within the floor A. A plate 4 is secured within opening 3 and has a recess 5 in which is mounted an anti-friction roller 6. This roller constitutes a bearing for a bolt 7 which is slidably mounted on the inner face of sill B and which, for the greater portion of its length is in the form of a flat elongated bar provided with a longitudinally extending rib 8 serving to reinforce it. An eye 9 is provided at the lower end of this rib and is engaged by one end of spring 10 secured to the sill B as clearly indicated in Fig. 4. Bolt 7 extends below the sill B and is provided, at its lower end, with a foot 11, provided, in its upper face, with a longitudinal groove 12, communicating, at one end, with a slot 13 extending longitudinally within the lower portion of the bolt. A stud 14 extends laterally from the lower portion of the bolt and pivotally mounted above this stud and upon a supporting U-bolt or the like, is a catch 16 which normally extends across the stud, as shown in Fig. 4. The lower end of this catch is bent to form a head 17 for the purpose hereinafter set forth.

When the locking mechanism, to be presently described, is to be used in connection with a chock block, a U-bolt 18 is extended across each of the channeled guide strips 1 and is fastened to the car floor in any preferred manner. The chock block 19 is preferably formed in a single piece of metal cast hollow and with reinforcing webs 20 therein, the said block having its upper face concaved from end to end so that the inner end portion of the block is in the form of a tongue which can be readily inserted under the bolt 18 and retained thereby. When the block is thus positioned, the opposite end thereof, which has a perpendicular face as indicated at 21, is flush or substantially flush with the side of the car. This per-

pendicular face has a rim 22 to which a chain 23 is attached, said chain hanging loose and being connected, as by means of an eye bolt 24, to the sill B. An opening 25 is formed in the base of the chock block and is adapted, when the block is inserted under the bolt 18, to register with the opening 2 in the guide plate 1.

When a stake 26 is to be used in lieu of the chock block, a block 27 is slidably mounted within the guide plate and has a forked terminal portion 28 which embraces, and is clamped upon the stake. That portion of the stake which projects below the car floor, is seated in a channeled guide plate 29 bridged by a bail 30 into which the lower end of the stake is adapted loosely to be extended. The lower end of the stake is preferably beveled, as shown at 26' in Fig. 7, so as to permit the stake readily to become disengaged from the bail when said stake is swung outwardly when unlocked. Block 27 has an opening 31 into which the bolt 7 is adapted to project when the stake is locked against movement relative to the car. The key employed for shifting the bolt out of engagement with the load retaining member, preferably consists of a wedge shaped blade 33 having a stop shoulder 34 at the large end thereof, this blade being formed with a threaded stem 35 adapted to be engaged by a handle 36 which may be formed of a length of pipe, or any other suitable material.

When a chock block is employed, the parts are normally in the positions indicated in Figs. 2 and 4, the upper end of each bolt being seated within the opening 25 in the block thereabove and the small end of the block being in position below the retaining bolt 18. Bolt 7 is held yieldingly supported by the spring 10 and the gravity catch 16 extends across the stud 14. To release the load retained by the chock blocks, the operator stands at the side of the car opposite to that from which the load is to be discharged and then reaches under the car with blade 33 and its handle 36 until said blade is placed in the guide groove 12 in foot 11. The blade is then pushed longitudinally and will be directed by the groove into slot 13 and under a wear plate 37 secured to the bottom of the sill B. The blade will therefore exert a wedging action and cause the bolt 7 to move downwardly and thus become disengaged from the base of the chock block. When the bolt is lowered to a predetermined position, the stud 14 moves below the gravity catch 16 and said catch swings over the stud and thus holds the bolt in its lowermost position. When the chock block is released in the manner described, the weight of the load will be sufficient to slide it outwardly upon the guide plate 1 and it will subsequently be discharged from the side of

the car where it will be suspended by its chain 23. Where stakes are employed in lieu of the chock blocks, they are released in the same manner, the bolts being retracted from the openings 31 in the blocks 27 and said stakes being therefore thrown outwardly by the load.

The bunks 38, shown in Fig. 1, are located between the load retaining members so as to support the logs, lumber or the like out of contact with the guide plate 1 and the parts directly contacting therewith.

What is claimed is:—

1. A slidably mounted load retaining member, a bolt normally engaging said member, a wedging device insertible into engagement with the bolt, and means for operating with said device for retracting the bolt from engagement with the retaining member.

2. The combination with a car structure, of a load retaining member slidably mounted thereon, a yieldingly supported bolt normally holding said member against movement, said bolt being located adjacent one side of the car, and means insertible from the opposite side of the car and into engagement with the bolt for shifting the bolt out of engagement with said member.

3. A car structure, a load retaining member slidably mounted thereon, a yieldingly supported device for engaging said member for holding it against movement, and means insertible into said device and cooperating with the car structure, for retracting the device from said member.

4. A car structure, a load retaining member slidably mounted thereon, a yieldingly supported bolt for engaging said member to hold it against movement, a wedging device insertible through the bolt and cooperating with the car structure to retract the bolt from engagement with the retaining member, and guiding means carried by the bolt.

5. A car structure, a load retaining member movably mounted thereon, a spring controlled locking device normally engaging said member to hold it against movement, means insertible into said locking device and cooperating with the car structure for shifting the device out of engagement with the retaining member, and means for automatically locking said device in shifted position.

6. A car structure, a load retaining member movably mounted thereon, a spring controlled bolt normally engaging said member, a key insertible into engagement with the bolt, means upon the bolt for guiding the key into engagement with the bolt, and means on the car structure for deflecting the key to retract the bolt from the retaining member.

7. A car structure, a guide thereon, a load retaining member slidably mounted on the guide, a spring supported bolt normally engaging said member, said bolt being ar-

5 ranged adjacent one side of the car structure, means insertible from the opposite side of the structure into engagement with the bolt, and means for deflecting said inserted means to retract the bolt from the retaining member.

10 8. A car structure, a channeled guide, a load retaining member slidably mounted in the guide, a spring supported bolt adjacent one side of the car structure and normally engaging said member, means insertible from the opposite side of the structure into engagement with the bolt, a deflecting device in the path of said means, and means for automatically locking the bolt out of normal position when retracted from the retaining member.

20 9. A car structure, a channeled guide thereon, a load retaining member slidably and removably mounted on the guide, means extending across the guide for engaging said member to hold it against movement in one direction relative to the guide, a spring supported bolt normally engaging said member, and means for shifting the bolt out of engagement with the member.

25 10. A car structure, a load retaining member movably mounted thereon, a spring sup-

ported bolt normally engaging said member to hold it against sliding movement, said bolt being slotted, a guide foot extending from the slotted portion of the bolt, and bolt shifting means insertible into the slot in the bolt from that side of the car farthest removed from the bolt.

35 11. A car structure, a guide thereon, a load retaining member slidably mounted upon and removable from the guide, a spring supported bolt carried by said structure and normally engaging the load retaining member, said bolt being slotted, a grooved guide foot extending from the bolt, a projection upon said bolt, means insertible into the slot and into engagement with the car structure for shifting the bolt from engagement with the retaining member, and a gravity catch for engaging the projection when the bolt is shifted.

45 In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

SAMUEL P. GEORGE.

Witnesses:

GORDON POWERS,
ALMA J. FIELD.