F. C. BAILEY & B. HOEY.

DROP SPIKE AND CORNER BIND FOR LOGGING CARS AND THE LIKE.

APPLICATION FILED NOV. 15, 1909. RENEWED DEC. 6, 1910.

997,032. **Patented July 4, 1911.**

2 SHEETS—SHEET 1.

Fig. 1.

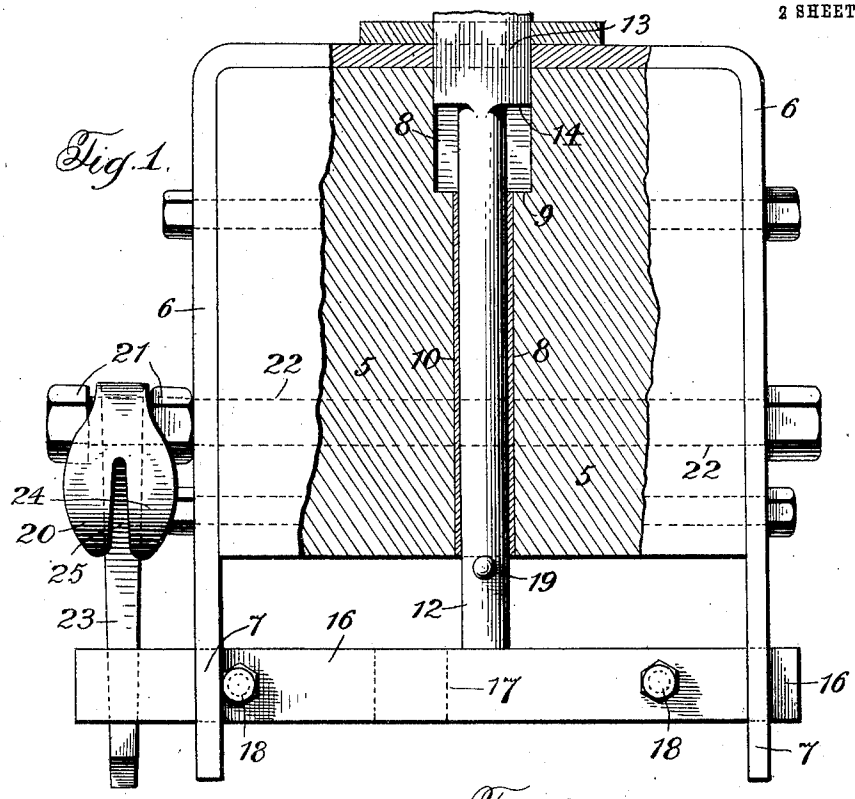
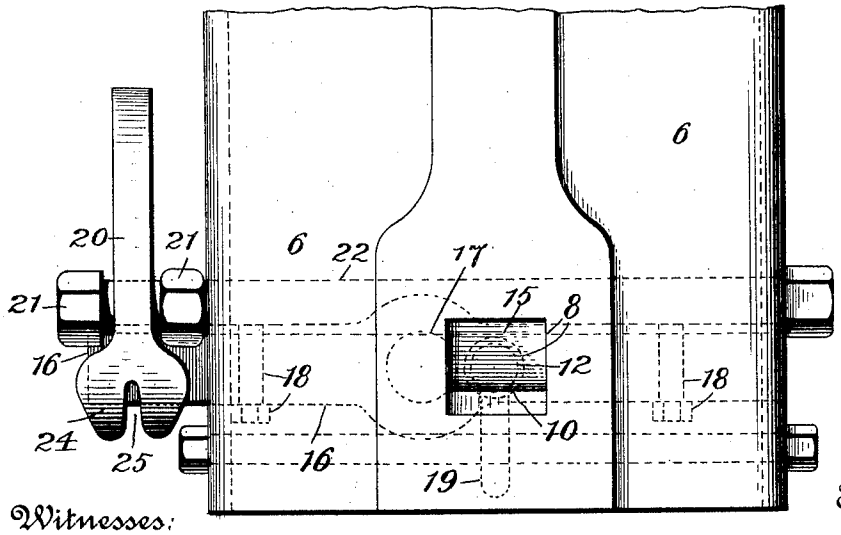


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 4.

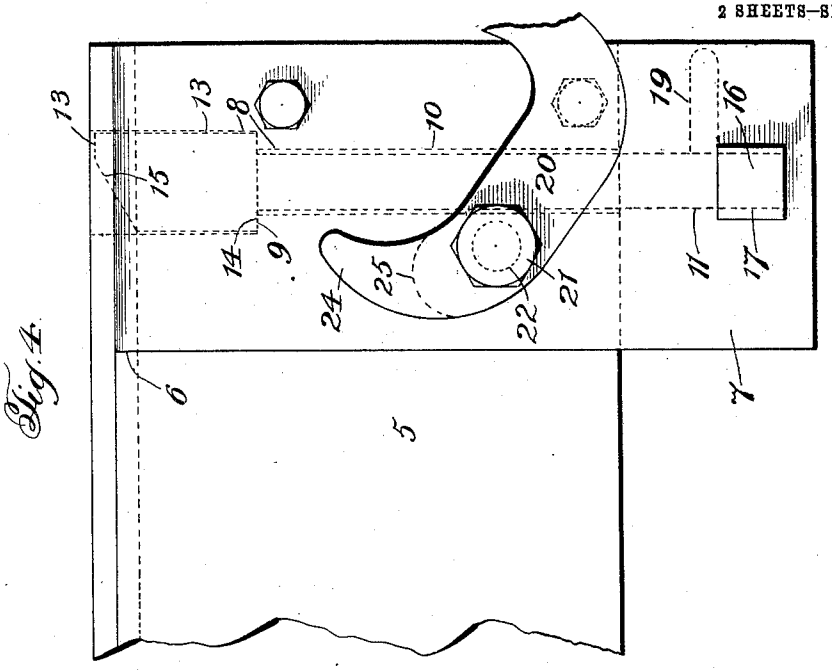
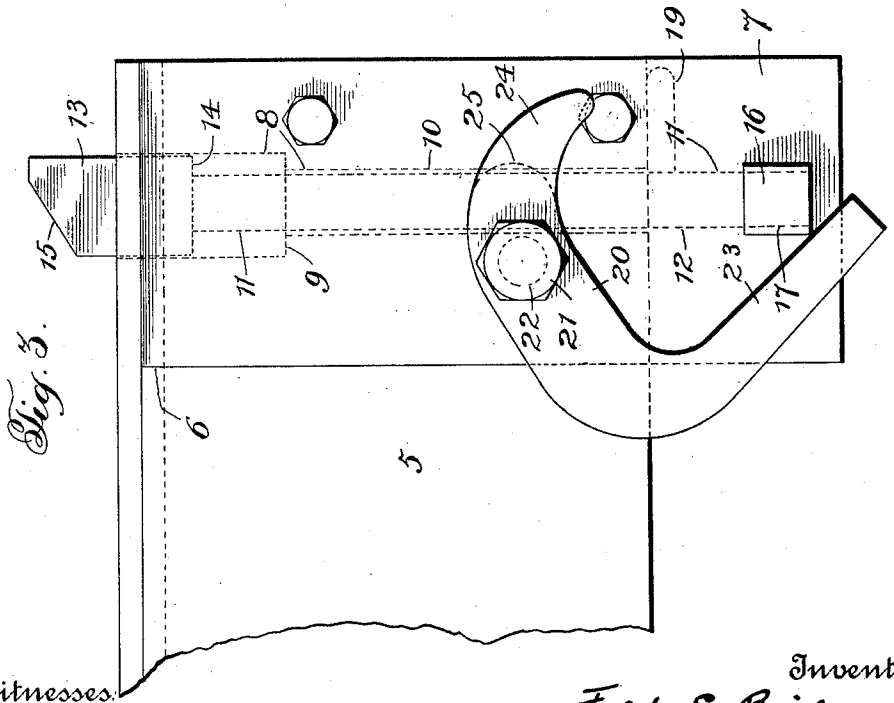


Fig. 5.



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DROP-SPIKE AND CORNER-BIND FOR LOGGING-CARS AND THE LIKE.

997,032. Specification of Letters Patent. Patented July 4, 1911.

Application filed November 15, 1909, Serial No. 528,064. Renewed December 6, 1910. Serial No. 595,942.

To all whom it may concern:

Be it known that we, FRED C. BAILEY and BERNARD HOEY, citizens of the United States, residing at Rib Lake, in the county of Taylor and State of Wisconsin, have invented certain new and useful Improvements in Drop-Spikes and Corner-Binds for Logging-Cars and the Like, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to the means employed for retaining loads on cars or other vehicles, and it particularly pertains to the standards or spikes and the chain or rope fastening used on logging cars, wagons, sleighs, and the like, to retain timber thereon and to permit it to be expeditiously unloaded.

The device provided by the invention is so arranged that it is capable of simultaneously releasing the chain or rope or other load-retaining means which is passed over the timber and permitting the standard or spike to move out of the way of the timber rolling off the vehicle.

When read in connection with the description herein, the details of construction and arrangement of parts contemplated by the invention will be apparent from the accompanying drawings, forming part hereof, wherein an embodiment of the invention as applied to a logging-car is disclosed, for purposes of illustration.

While the embodiment of the invention shown in the drawings is preferred, as it has given satisfactory and reliable results in practice, it is to be understood that the several instrumentalities of which the invention consists can be variously organized, without departing in the least from the nature and spirit of the invention, and that the invention is not limited to the precise delineation herein.

Like reference-characters refer to corresponding parts in the several views of the drawings, of which—

Figure 1 is an end view, partly in section; Fig. 2 is a plan view; Fig. 3 is a side view, with the parts in holding position; and Fig. 4 is a side view, with the parts in released position.

The invention, as applied to a logging-car, is positioned on the ends of the end bunks or bolsters, a portion only of one of the bunks or bolsters being shown in the drawings and designated by 5.

A binding 6, preferably of comparatively heavy sheet metal, is secured to the top and sides of each bolster at each end. The binding extends below the lower surface of the bolster and forms depending ears 7.

An opening 8 is formed through the bolster from top to bottom, and is of greater width in its upper portion, whereby a seat 9 is formed therein. The lower portion of the opening, in the usual cases when the bolster is of wood, may be fitted with a metallic lining 10. A drop spike or standard 11 is arranged to slide vertically in opening 8. It is formed with a shank portion 12, which extends below the under surface of the bolster, and with an enlarged upper portion 13, which has a shoulder 14 arranged to engage with seat 9 to limit its receding motion and prevent it from dropping entirely through the opening. The upper portion of the spike or standard normally extends above the upper surface of the bolster to retain timber on the car or sleigh, and it is beveled, as shown at 15, to enable the timber to press it down into the opening when released.

For the purpose of retaining the spike or standard in raised or extended position, a slide 16 is supported on the ears 7 beneath and normally in engagement with the lower end of the spike or standard. The slide is provided with a vertical opening 17, and it is arranged to be moved to bring the opening to or out of position under the lower end of the spike or standard. Stops 18 are carried by the slide, which, on contact with the surfaces of the ears on one side or the other, stop the movement of the slide when its opening is under the spike or standard and when one end projects but little, if any, beyond the ear on the side from which movement is made, and which also stop movement of the slide when the opening is moved out of position under the spike or standard. It will be seen that, when the opening of the slide is brought under the spike or standard, the latter is free to drop or retract into the opening and have its upper portion withdrawn from projection from the upper surface of the bolster, whereby the load is free to be discharged. When the spike or standard is raised and the slide moved to bring its opening out from under it, the spike or standard is maintained in extended position in an obvious manner.

In order that the spike or standard may

be conveniently raised or extended, a pin, stop, or other projection 19 thereon, suitable for being grasped by a hand, extends outwardly from a point between the slide and under surface of the bolster. While the seat 9 and shoulder 14 are described as being arranged to prevent the spike or standard from retracting entirely through the opening of the bolster, the spike or standard and the opening in which it is disposed may be made of uniform dimension in cross section throughout. In this event, the projection 19 is disposed in such position as to engage the slide and stop the retractive movement of the spike or standard when the upper portion has receded below the upper surface of the bolster.

A hook member 20 is pivoted on the side of the bolster from which the slide moves in bringing its opening under the spike or standard. This member 20 is pivoted, preferably, between two nuts 21 on a bolt 22 which passes through the bolster, one of the nuts serving both to retain the bolt in the bolster and to hold the hook member slightly removed from the side thereof and the other nut retaining the hook member on the bolt. The hook member has on one side of its pivot an arm 23, which is arranged to engage the end of the slide which projects when the latter is in position to hold the spike or standard extended. It is so formed and proportioned that during such engagement a hook 24 thereof on the other side of its pivot is kept in position to reliably retain a chain or fastening attachment of a rope or other load-binding means therein, the pull of the binding or retaining means serving to force arm 23 against the end of the slide and the tension operating to maintain the slide in position to keep the spike or standard raised. The hook 24 is formed with a slot 25, into which a chain-link may be placed, the next lower link, as it will be disposed across the slot, serving to retain the connection.

The parts being in position to retain a load on a car, as shown in Figs. 1, 2, and 3, of the drawings, an operator, in order to release the load, merely gives a blow with a cant-hook or other suitable implement to the projecting end of the slide in direction to force it inwardly, whereupon the hook member is released to swing and the spike or standard to retract simultaneously. Then the parts assume the positions shown in Fig. 4, of the drawings, in which the chain or fastening attachment is free to slip off the hook and the spike or standard retracted.

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

1. A load-retaining device, comprising a movable standard arranged to be engaged by a load, a member adapted to secure a load-retaining means, and means operable to permit movement of both the standard and member to release a load.

2. A load-retaining device, comprising a movable standard arranged to be engaged by a load, a member including a hook arranged for securing a load-retaining means, and means operable to permit movement of both the standard and hook to release a load.

3. A load-retaining device, comprising a movable standard arranged to be engaged by a load, a member adapted to secure a load-retaining means, and a slide arranged to normally maintain said standard and member in load-retaining position and operable to permit movement of both the standard and member to release a load.

4. A load-retaining device, comprising a movable standard arranged to be engaged by a load, a member including a hook adapted to secure a load-retaining means, and a slide arranged to normally maintain said standard and hook in load-retaining position and operable to permit movement of both the standard and hook to release a load.

5. A load-retaining device, comprising a pivoted member adapted to secure a load-retaining means, a movable standard, and a slide normally holding the member and standard in load-retaining position and operable to permit the member to swing and standard to move and release a load.

6. A load-retaining device, comprising a retractile standard, and a slide in engagement with the lower end of said standard normally maintaining the same in extended position and movable to permit retraction thereof.

7. A load-retaining device, comprising a retractile standard, and a slide in engagement with said standard normally maintaining the same in extended position and having an opening arranged to permit retraction of the standard on movement of the slide.

8. A load-retaining device, comprising a retractile standard, a slide in engagement with said standard normally maintaining the same in extended position and movable to permit retraction thereof, and means associated with said standard and slide whereby retractive movement of the standard is limited.

9. A load-retaining device, comprising a retractile standard, a slide in engagement with said standard normally maintaining the same in extended position and movable to permit retraction thereof, and a stop on said standard engageable with said slide whereby retractive movement of the standard is limited.

10. The combination, with a bolster, of ears depending therefrom, a slide, having

an opening, supported by said ears, and a depressible standard maintained in raised position by said slide when in one position and arranged to fall into the opening in another position.

11. The combination, with a bolster, of ears extending therefrom, a slide supported by said ears, a pivoted load-retaining member on the bolster normally maintained in retentive position by said slide and arranged to be released upon movement thereof.

12. The combination, with a bolster, of ears extending therefrom, a slide supported by said ears, a retractile standard, and a pivoted load-retaining member, said slide being arranged to normally maintain said standard in extended position and said pivoted member in retentive position and being movable to release them from those positions.

13. The combination, with a bolster, of ears extending therefrom, a slide having an opening supported by the ears, a depressible standard having its lower end engageable with said slide, and a pivoted load-retaining member engageable with said slide, said slide being arranged to normally maintain said standard in raised position and said pivoted member in retentive position and being movable to permit the lower end of said standard to drop into the opening and to release said pivoted member from retentive position.

14. The combination, with a bolster, of a slide movable thereon, a retractile standard normally maintained in extended position by engagement with said slide, and a pivoted member having an arm on one side of its pivot normally in engagement with said slide and an attaching portion on the other side thereof adapted for connection with a load-retaining means, said slide being movable to release said standard and pivoted member from their normal positions.

15. The combination, with a bolster, of a binding on the bolster extending below the lower surface thereof, a slide supported in the lower portion of the binding, and a hook member pivoted on the side of the bolster and having an arm engageable with said slide whereby said member is held in retentive position, said slide being movable to release said member from retentive position.

In testimony whereof we affix our signatures in presence of two witnesses.

FRED C. BAILEY.
BERNARD HOEY.

Witnesses:
ED JOHNSON,
OTTO BREHM.