

(No Model.)

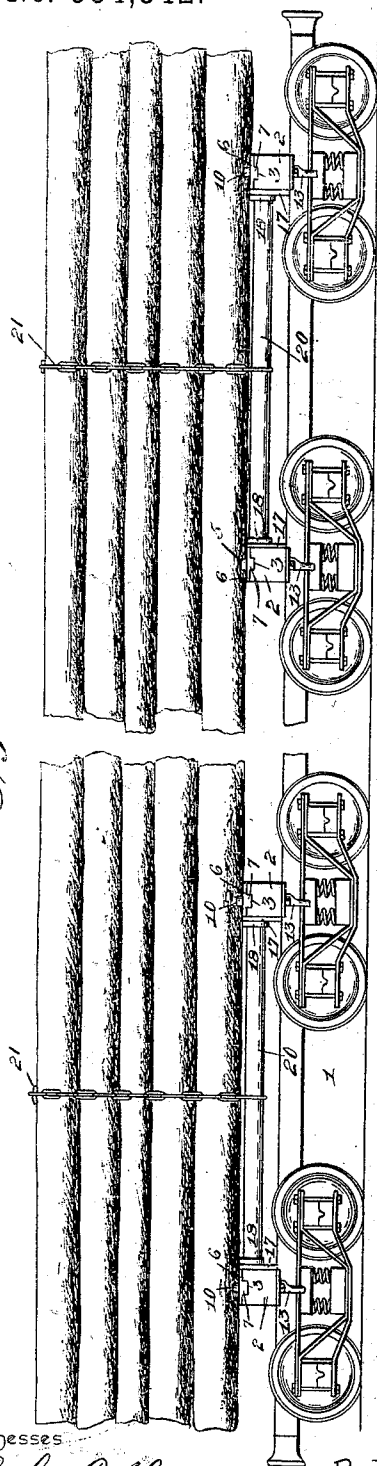
2 Sheets—Sheet 1.

B. W. JOHNSON.
LOG CAR ATTACHMENT.

No. 554,342.

Patented Feb. 11, 1896.

Fig. 1.



Witnesses

John C. Shaw.
R. M. Smith.

By his Attorneys.

Fig. 6.

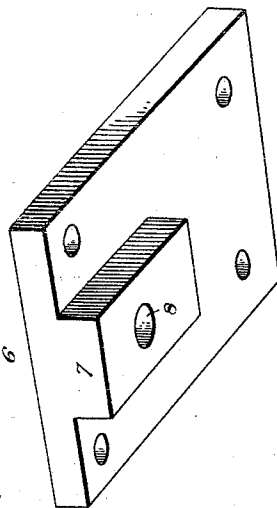


Fig. 7.

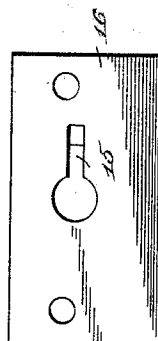
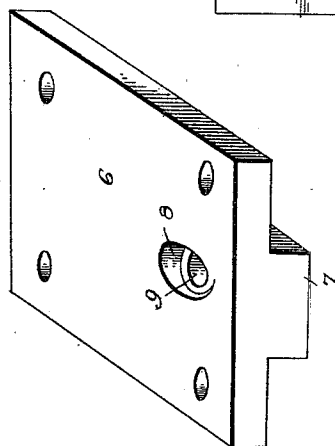


Fig. 5.



Inventor

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

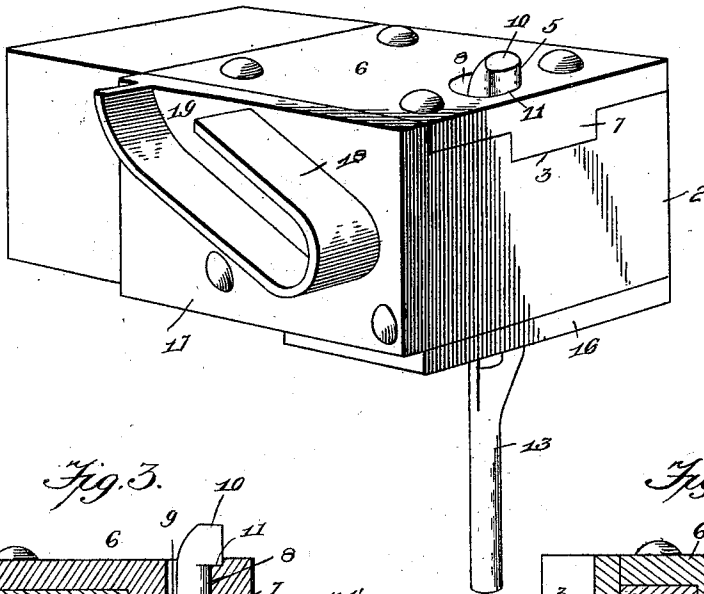


Fig. 3.

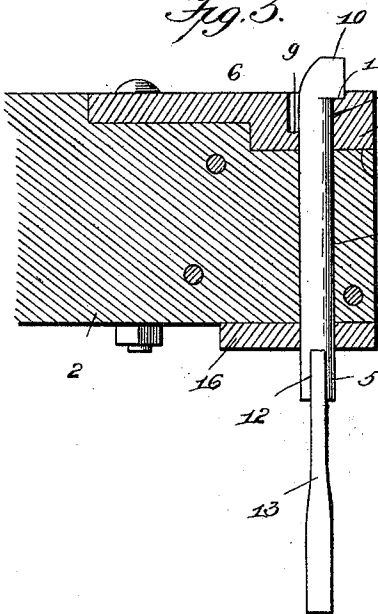


Fig. 8.

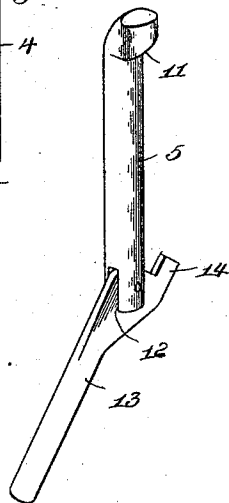
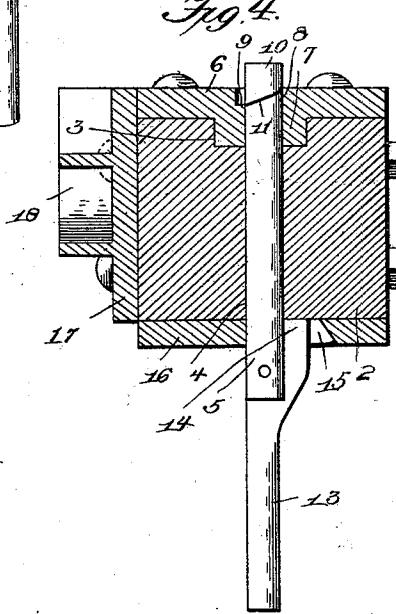


Fig. 4.



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UNITED STATES PATENT OFFICE.

BENJAMIN W. JOHNSON, OF BUNA, TEXAS.

LOG-CAR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 554,342, dated February 11, 1896.

Application filed June 20, 1895. Serial No. 553,462. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN W. JOHNSON, a citizen of the United States, residing at Buna, in the county of Jasper and State of Texas, have invented a new and useful Log-Car Attachment, of which the following is a specification.

This invention relates to an improvement in log-car attachments, and has for its object to provide, in connection with the bolsters or bunks thereof, adjustable pins or standards for engaging the lower tier of logs and preventing their escape.

A further object of the invention is to provide a sway-bar socket in the form of a metal plate or casting, adapted to be secured to the inner face of the bolster of each truck for the purpose of receiving and supporting the ends of the ordinary sway-bar.

Other objects and advantages of the invention will appear in the course of the subjoined description.

With the above ends in view the invention consists in the combination, with a log-car bolster or bunk having a vertical opening, of a revoluble and vertically-adjustable pin or standard mounted within said opening, and means for elevating and lowering said pin or standard and holding the same at the desired adjustment.

The invention also consists in the combination, with such bolster or bunk, of a plate or casting having formed integrally therewith a laterally-projecting flange disposed in such manner as to constitute a socket for the reception of one end of a sway-bar.

The invention also consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally embodied in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a log-car with the improvements shown applied thereto, and illustrating the manner of supporting and holding a series of logs thereon. Fig. 2 is a perspective view of one end of a bolster or bunk, showing the stay pin or standard elevated in operative position, and showing also the form of the sway-bar socket-plate. Fig. 3 is a vertical longitudinal section through one end of a bolster or bunk in line with the stay pin or

standard. Fig. 4 is a vertical transverse section in line with said pin or standard, taken at right angles to Fig. 3. Fig. 5 is a top perspective view of the top plate which receives the pin or standard. Fig. 6 is a bottom perspective view of said top plate. Fig. 7 is a bottom plan view of the bottom plate through which the pin or standard passes. Fig. 8 is a detail perspective view of the vertically-movable pin or standard and the operating-lever pivotally connected therewith.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

In the ordinary construction of log-cars a spike is driven into each end of each bolster or bunk, and the logs, as they are loaded upon the car or unloaded therefrom, have to be lifted over these spikes, an operation which is not only laborious by reason of the great weight of the logs, but dangerous to the men handling the logs. It is also customary in log-cars, as at present constructed, to mortise the ends of the bolsters or bunks horizontally for the reception of the ends of the sway-bars. The sway-bar consists of a pole to which the binding-chains which pass over and around the logs are secured. Two of these bars are employed upon each car and are attached thereto by passing the ends thereof through such mortises in the ends of the bolsters or bunks. In order to accomplish this, one end of the sway-bar is hewed off sufficiently to enable it to pass through the mortise in one bolster to an extent which will enable the other end to pass inside of the bolster at the opposite end of the car and into the mortise therein. This requires a great deal of time and labor, and the hewing of the ends of the sway-bars results in weakening the latter to such an extent that they are very easily broken. In addition to this the mortises in the ends of the bolsters or bunks are necessarily large, thus weakening said bolsters so that they soon split or break out and become useless. It is to overcome the difficulties just presented that the herein-described improvements have been provided and which I will now proceed to describe.

Referring to the accompanying drawings, 1 designates a log-car having the usual bolsters or bunks 2 extending transversely thereof.

In order to carry out the invention herein contemplated, the end of each bolster or bunk 2 is left solid or intact with the exception only of a very slight mortise or depression 3 in the upper face thereof and opening out at the end of the bolster, and a vertical opening 4, which is adapted to receive the pin or standard indicated at 5. Secured to the upper face and outer end of each bolster or bunk of the car is a top plate, 6, which is provided on its under side with an integrally-formed downwardly-projecting boss 7, which fits into the mortise or depression 3, above referred to. 8 designates a vertical opening through the top plate, 6, and its boss 7, said opening aligning with the opening 4 in the end of the bolster.

The object in providing the boss 7 is to afford sufficient vertical thickness to the metal top plate, 6, to provide for the formation of an inclined or spirally-disposed shoulder 9, arranged adjacent to the pin-opening and extending partially around the same, as shown.

The pin or standard 5 is provided at its upper end with an enlargement or head 10, projecting laterally therefrom upon one side, the lower face of which is beveled off to form an inclined shoulder 11, which rests upon and operates in connection with the inclined or spiral shoulder 9 within the pin-opening to elevate said pin or standard when the latter is revolved. The lower end of the pin or standard 5 is bifurcated or provided with a vertically-extending open central slot, 12, within which is pivoted an operating-lever 13, which normally hangs pendent beneath the bolster. This lever may be of any desired length for affording the required power for operating the pin or standard and is provided adjacent to its pivoted end with a catch or extension 14, adapted, when turned to the proper point, to enter and engage a slot 15, formed in a metallic bottom plate, 16, secured to the lower face and outer end of the bolster. The arrangement of the slot 15 is such that the catch or extension 14 of the operating-lever will engage therewith when the pin or standard is in its elevated position, disengagement between the catch 14 and slotted plate 16 being prevented by the weight of the lever 13, which normally hangs pendent beneath the bolster, as shown. When it is desired to lower the pin or standard, the operating-lever is rocked into an approximately horizontal position, which has the effect of withdrawing the catch 14 from the slot 15, after which the lever may be swung around, thus turning the pin or standard 5 and allowing the same to descend by the co-operation of the inclined shoulder 9 and beveled or inclined lower face of the head of said pin or standard in a manner that will be readily understood. If desired, the top and bottom plates, 6 and 16, may be secured to the bolster by the same or separate bolts or in any other convenient manner.

17 designates a plate or casting, which is

formed in the process of manufacture with an integral laterally-projecting flange 18, disposed in such manner as to form an elongated or substantially elliptical and outwardly and downwardly inclining socket, which is left open at its upper inner end, as indicated at 19, adapting it to receive one end of a sway-bar 20. It is to be understood that one of these socket plates or castings is secured to the inner face and at the end of each bolster or bunk, and that the opposite ends of the sway-bars are shaped to fit snugly within said sockets. As the tendency of the sway-bars is always outward and upward, it will be apparent that the ends thereof will thus be effectually confined within the sockets provided for their reception. The sway-bars on either side of the car receive one or more binding-chains 21, which may be united thereto in any convenient manner, and which operate to hold the logs in place and prevent them from rolling off the bolsters or bunks in connection with the pins or standards 5.

By means of the construction above described it will be apparent that the pins or standards may be raised or lowered at will, thereby obviating the necessity of loading or unloading the logs over upwardly-projecting spikes in the usual manner. It will also be apparent that the usual mortises, which tend to weaken and destroy the bolsters or bunks, are dispensed with, and that the bolsters are reinforced and strengthened at the point where they are subjected to the greatest strain. It will also be seen that the sway-bars may be quickly and easily removed and replaced between the bolsters or bunks. If desired, the top plate, 6, and the socket-plate 17 may be formed integrally or cast in one piece. It will also be apparent that other changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a log-car, the combination with the bolster thereof having a vertical opening, of a vertically movable and rotatable pin or standard mounted therein and formed with a circumferential spiral shoulder adapted to engage a corresponding shoulder within the bolster-opening, substantially as and for the purpose specified.

2. In a log-car, the combination with the bolster thereof having a vertical opening therein, of a top plate secured to the upper face thereof and provided with an opening aligning with the vertical opening in the bolster, an inclined or spirally-disposed shoulder formed adjacent to the opening in said top plate, a vertically-movable pin or standard extending through the aligned openings in the bolster and top plate and provided with an inclined shoulder or head, and means for

rotating said pin or standard and locking the same, substantially as and for the purpose specified.

3. In a log-car, the bolster thereof formed with a vertical opening, in combination with a top plate secured to the upper face thereof and formed with an opening aligning with the vertical opening in the bolster, a revoluble pin or standard extending through the openings in the bolster and top plate, inclined or spiral shoulders formed upon said pin or standard and adjacent to the opening in the top plate, a bottom plate secured to the lower face of the bolster and provided with an opening for receiving the pin or standard and with a slot or socket, and an operating-lever having a pivotal connection with the lower end of the pin or standard and provided with a catch or extension for engaging the slot or socket in the bottom plate, substantially as described and for the purpose set forth.

4. In a log-car, the combination with the bolster thereof, of a metal plate or casting secured to the end thereof and provided with

an inclined and laterally-projecting socket having an entrance-opening for the reception of one end of a horizontally-disposed sway-bar, the latter being removably arranged therein, substantially as specified.

5. In a log-car, the combination with the bolster thereof, of a socket plate or casting for the reception of the end of a sway-bar, the same comprising a plate or casting having formed integrally therewith a laterally-projecting flange having an elongated or substantially elliptical contour and forming an outwardly and downwardly inclining pocket left open at its upper inner end for the introduction of the end of the sway-bar, substantially as set forth.

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

BENJAMIN W. JOHNSON.

Witnesses:

S. B. CONN,
T. A. STONE.