July 21, 1925. 1,547,074

J. T. SMITH ET AL

CAR STAKE

Filed Oct. 17, 1923

Fig. 1.

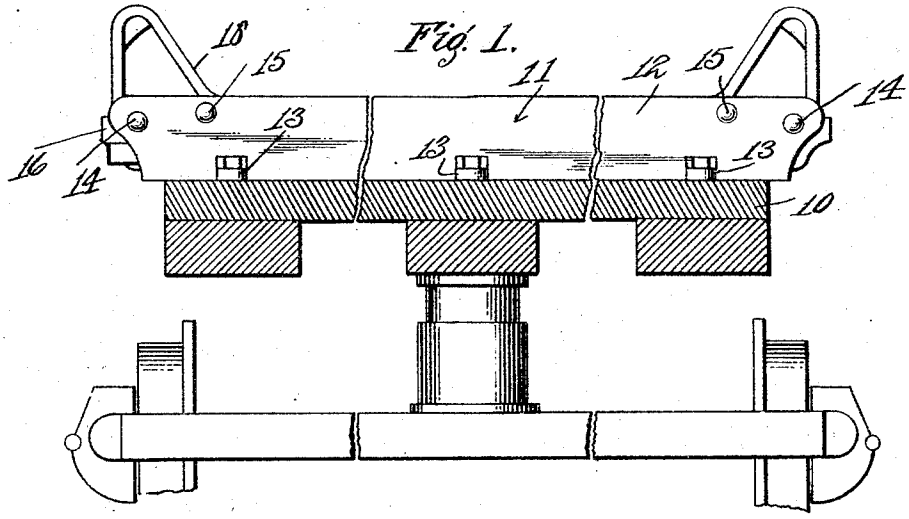


Fig. 2.

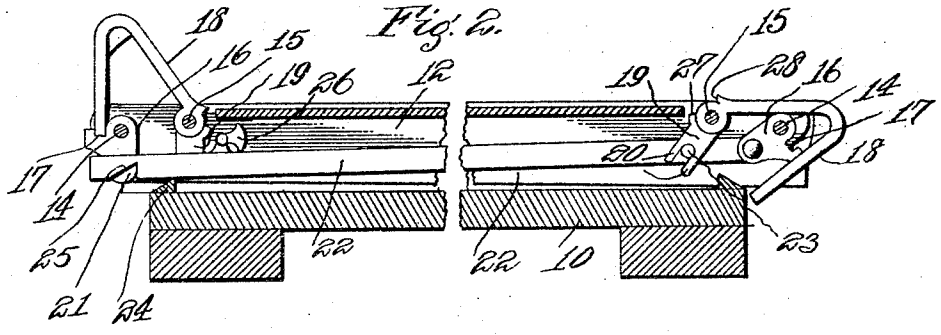


Fig. 3.

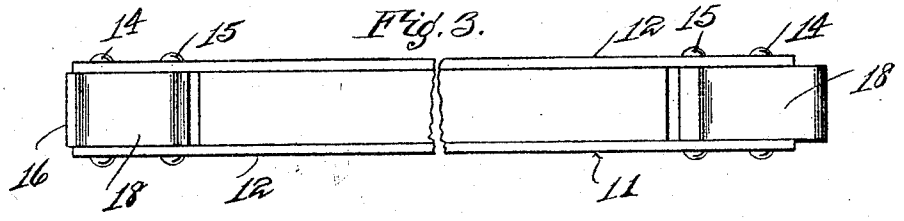
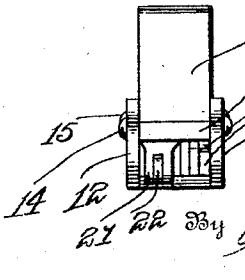


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN T. SMITH AND GUSTAV A. LINDENAU, OF TENINO, WASHINGTON.

CAR STAKE.

Application filed October 17, 1923. Serial No. 669,110.

To all whom it may concern:

Be it known that we, JOHN T. SMITH and GUSTAV A. LINDENAU, citizens of the United States, residing at Tenino, in the county of Thurston, State of Washington, have invented certain new and useful Improvements in Car Stakes; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in stakes and particularly to stakes used on logging cars.

One object of the invention is to provide an improved stake which can be easily and quickly released when it is desired to permit the load to roll from the car.

Another object is to provide a bunk having a pair of stakes, either of which is capable of being released, to permit the load to roll from the car, and which are as easily and quickly restored to normal load retaining position.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawing.

In the drawing:

Figure 1 is a transverse sectional view through a portion of a logging car showing the invention applied thereto, and in load retaining position.

Figure 2 is a similar view of a portion of a car, and one of the stakes, showing the stake in released position.

Figure 3 is a top plan view.

Figure 4 is a end view.

Referring particularly to the accompanying drawing, 10 represents a portion of a logging car having the bunks 11 thereon, said bunks each being in the form of a channel and comprising the vertical longitudinal side plates 12. Each of the plates has the longitudinal series of attaching feet 13. Disposed through each end of the bunk are the pivot members 14 and 15, on the former of which, and disposed between the side plates 12, is a member 16. This member 16 has a ledge or shoulder 17 on which is arranged to rest the free end of the vertical portion of the acute angular member 18, which member is supported on the other pivot member 15. Also carried by the pivot member 15 is a depending arm 19, the lower end of which is bifurcated at 20. From the lower side of the member 16 extends a bifurcated and transversely apertured lug 21, and pivotally supported in the bifurcation thereof is one end of the releasing rod 22, which rod extends longitudinally between the plates 12. Projecting from the side of the rod 22, at each end thereof, is a pin 23, which is received in the bifurcation of the corresponding arm or lug 19. Extending between the plates 12, at each end thereof, is a transverse bar 24, the same having a transverse sectional outline similar to a ratchet tooth for engagement in the notch 25 in the lower edge face of the free or other end of the rod 22. Pivotally supported between the plates 12, over this last-named end of the rod 22, is a cam 26, which bears on the upper edge face of the rod to hold the same in lowered position with the notch receiving the bar 24, whereby the movement of the rod longitudinally of the bunk, in one direction is prevented, movement in the other direction being prevented by the engagement of the bar 24 in the notch. It will be noted that the pivotal portion of the arm 19 is formed with a shoulder 27 which is arranged to engage with a projection 28 on the side of the pivotal portion of the member 18, whereby when the said member 18 is swung upwardly, the arm 19 will be rocked to cause its bifurcated end to slide the bar or rod 22 longitudinally, with the result that the supporting member 16 will be elevated into position to receive and support the stake member 18 in log retaining position.

It will be noted that the depending lug 21 is offset to one side of the member 16, to permit the adjacent end of the rod 22, of the stake at the other end of the bunk, to readily pass. This construction is duplicated at the other end of the bunk, with respect to the other member 16, and its lugs 21.

Each of the members 18 is formed with an opening 29 for the reception of a bar or other like tool, for the purpose of swinging the member 18 upwardly to restore the members 22 and 16 to normal position.

It will further be noted that the members 18 lie with their upper portions inclined upwardly and outwardly with respect to the upper sides of the bunk, so that effective stops are provided to prevent the lowermost of the logs sliding from the sides of the car.

To release one or the other of the stakes it is only necessary to swing the proper cam

upwardly out of its engagement with the rod 22, when the weight of the load will depress the stake, thus permitting the load of logs to roll from the car. It will, of course, be understood that, when the cam is swung upwardly, the operator must then lift the end of the rod 22 to disengage it from the bar 24. To restore the stake the operator places a bar in the opening of the member or stake 18, and swings the same upwardly until it actuates the arm 19, when said arm will move the rod 22 longitudinally. The movement of the rod 22 causes the member 16 to swing upwardly into position to support the free end of the member 18, and at the same time engages the notch with the bar 24. The operator then lowers the member 18 until it rests on the shoulder or ledge of the member 16.

What is claimed is:

A car stake device including a bunk, a stake member consisting of an acute angular member pivotally mounted in the end of the bunk and normally extending above the bunk, a member pivotally supported in the bunk in position to support the first member in load retaining position, a longitudinal bar in the bunk having a laterally extending pin, a bifurcated arm mounted on the pivot of the stake member and engaged with the said pin, the said bar having a notch in the lower face of one end thereof, a transverse bar in the bunk engaged with the notch, means on the stake member for moving engagement with the bifurcated arm, and a cam engaged releasably with the rod for maintaining engagement of the bar in the notch.

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

GUSTAV A. LINDENAU.
JOHN T. SMITH.

Witnesses:
F. C. CARR,
H. W. PENNY.