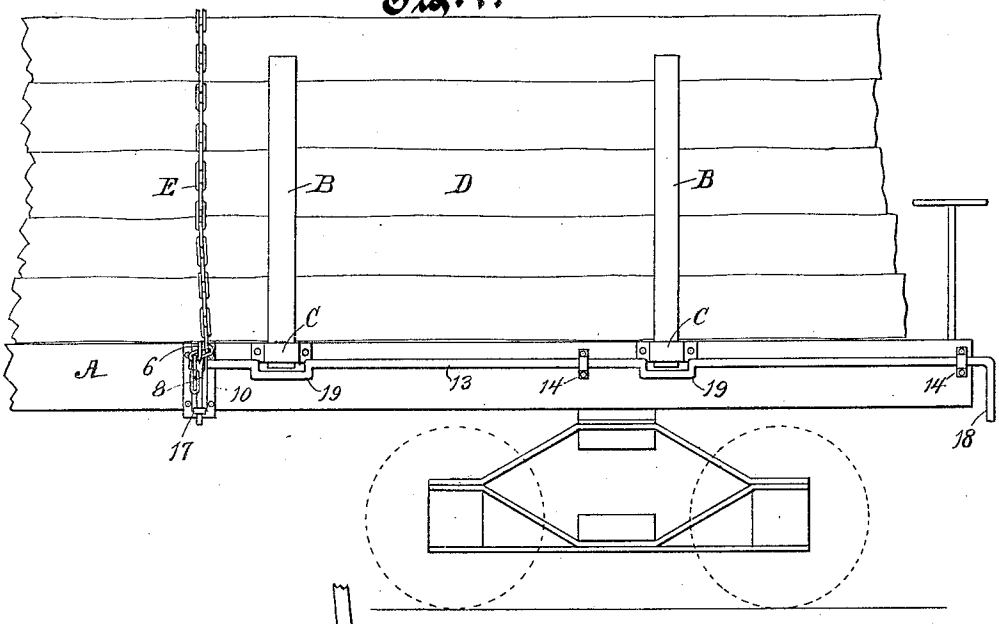
No. 804,863. PATENTED NOV. 21, 1905.

W. E. KEMPTON.

LOAD BINDER.

APPLICATION FILED NOV. 21, 1904.

Fig. 1.



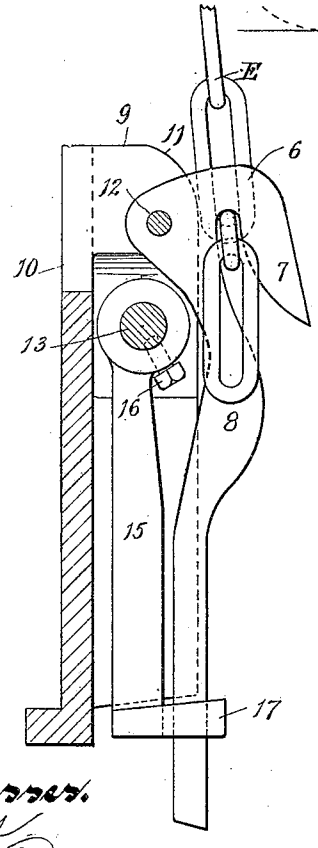


Fig. 2.

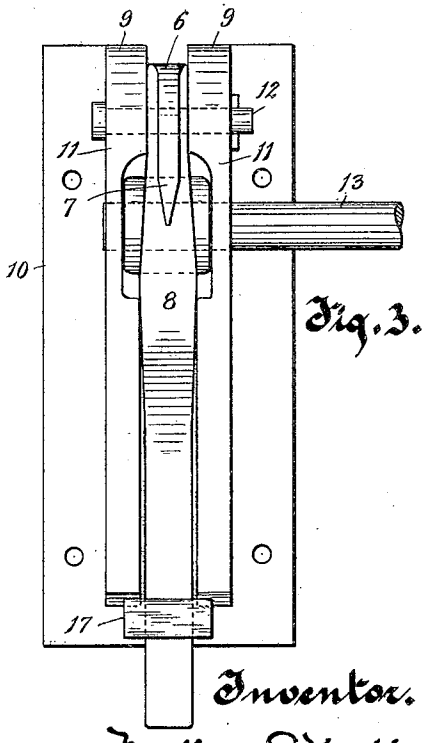


Fig. 3.

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UNITED STATES PATENT OFFICE.

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LOAD-BINDER.

No. 804,863. Specification of Letters Patent. Patented Nov. 21, 1905.

Application filed November 21, 1904. Serial No. 233,616.

To all whom it may concern:

Be it known that I, WALLACE E. KEMPTON, residing in Antigo, in the county of Langlade and State of Wisconsin, have invented new and useful Improvements in Load-Binders, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

In the transportation of logs, timber, lumber, and some other materials it is common to load the logs or material on open platform-cars, usually provided with removable stakes at the sides of the cars to retain the logs or material thereon, and also to bind the logs or material to the car against escape therefrom during transportation by chains or equivalent means passed over the logs or material and secured to the car, usually by being hooked into rings or staples on the edges of the car frame or bottom. It often happens by reason of some shifting of the load or by reason of the stakes being lost out of their sockets that the load when it is to be discharged is so shifted in position that it bears strongly against the chain and possibly at that side of the car at which the logs or material is to be unloaded, and in such case great difficulty and even danger to the workmen is experienced by reason of these conditions.

My invention is directed to improved means for attaching and securing the chain binder or equivalent device to the car and over the load.

The invention consists of the device, its parts and the combinations, as herein described and claimed, or the equivalents thereof.

In the drawings, Figure 1 represents a fragment of the platform or bottom of an open platform-car with a load of logs thereon and my improved device shown in connection therewith. Fig. 2 is a longitudinal section of my improved device vertically thereof as shown in Figs. 1 and 3, and Fig. 3 is a front view of my improved device.

In the drawings so much of a platform-car is shown as is necessary to illustrate the use of my invention thereon, and on the car is indicated a load of logs and therewith a chain going over the load of logs and secured at one end by my improved device. As my device is especially adapted for use with logs loaded on a car, I have illustrated it in connection with logs on a car; but it should be understood that the device is adapted to be used with any other material which is bound on the car in a similar manner.

In the drawings, A represents the frame and bottom of a platform-car.

B represents stakes at the sides of the car, supported detachably in sockets C, fixed on the sides of the bottom of the car in a usual manner.

D represents logs loaded on a car between the stakes in a usual manner.

My improved means for securing a binder, such as the chain E, to the car and over the load of logs consists of a trip-hook 6, having a comparatively short nose 7 and a comparatively long shank 8, which is pivoted at its angle or bend advisably to ears 9 9 on a plate 10, which plate is bolted to the frame or bottom of the car advisably in the manner shown in Fig. 1. The nose 7 of the hook is of such form and size as to adapt it to take around a link of the chain E, and the trip-hook 6 as pivoted on the ears 9 becomes in mechanical effect a bell-crank lever, adapted not only to take and hold the link of the chain, but on being swung to the position shown in Fig. 2 to thereby somewhat draw upon and tighten the chain, while when the hook is swung upwardly by swinging the shank 8 outwardly and upwardly the nose 7 is turned up at such an angle that the link of the chain can be readily released from the hook. Not only can the link of the chain be readily released from the hook by a workman, but I also advisably form the outer faces 11 of the ears 9 in eccentric form with reference to the pivot 12, and the ears being close alongside the nose 7 of the hook when the nose is swung upwardly the link of the chain will be pushed mostly off from the nose 7 or at least so far out of the inner end of the recess of the hook so that the chain will be released from the hook automatically. To provide for operating this bell-crank-lever hook without danger to the attendant or workman I provide a rock-shaft 13, which has its bearings rotatably in brackets or boxes 14 therefor fixed on the side of the bottom of the car, and at the inner end of this rock-shaft there is a crank-arm 15, secured to the rock-shaft advisably adjustably by means of a pin or set-screw 16, which arm is located alongside of and in the revoluble

plane of the shank 8 of the hook, and the shank 8 passes loosely through a loop 17 therefor on the outer end of the crank-arm. At its distant or outer end the rock-shaft is provided with a crank-handle 18.

The construction is such that the attendant at the end of the car can by taking hold of the crank-handle 18 turn the hook 6 upwardly, so that a link of the chain E can be readily placed on or removed from the nose 7 of the hook, and in securing the chain in place on the load when a link of the chain has been put in engagement with the hook 6, the next outer link serving as a key or toggle, the attendant turns down the shank 8 to the position shown in the drawings, in which position by the weight of the arms of the rock-shaft and the stem 8 the hook 6 is locked securely in position. When the load is to be released, the attendant can by taking hold of the crank 18 turn the nose 7 of the hook upwardly, so that the link of the chain will be automatically released therefrom.

Offsets 19 may be required on the rock-shaft opposite the sockets C for the clearance of the rock-shaft from the sockets. In use it is desirable to have two of my improved devices on each side of a car, one at each end—that is; four in all on a car. By this means provision is made to adapt the binder for use with logs or a load on a car of varying sizes not only throughout the entire length of the car, but at the two ends thereof.

What I claim as my invention is—

1. A load-binder-securing device, comprising a base-piece adapted to be secured to the load-carrier, a swinging lever having a shorter hook member and a longer arm member, means for locking the longer arm member in binding position, and means for automatically disengaging the load-binder from the hook when the longer arm member is swung away from its locking position.

2. In a load-binder-securing device, a base-piece adapted to be secured to the load-carrier, a swinging hook pivoted on the base-piece and adapted to engage and by the swinging of the hook to its seat to hold the load-binder in locked position, and a rock-shaft having a crank-arm connected to the hook and adapted by the oscillation of the shaft to swing the hook to and release it from the locking position.

3. In combination with a car, a bell-crank-lever hook having a short arm adapted to engage and hold a link of a chain and a long arm adapted by gravity to depend and hold the short arm releasably in turned-down position, means for securing the hook pivotally on the car at the side thereof, and means extending to the end of the car adapted for swinging the hook down and up.

4. In combination with a car, a bell-crank-lever hook having a short arm adapted to engage and when in turned-down position to hold a link of a chain and a long arm adapted when turned down to hold the short arm releasably in turned-down position, a plate having ears thereon between and to which the hook is pivoted and secured to the car, and a rock-shaft mounted on the car and provided with a crank-handle and with a crank-arm connected to the long arm of the hook and adapted by the oscillation of the rock-shaft to swing the hook.

5. In a binder device, a plate, a pair of ears projecting from the plate the ears being provided with a transverse pivot-hole and having their edges formed eccentric to said pivot-hole, and a pivot in said hole carrying a bell-crank-lever hook the short arm being the nose of the hook and having the recess of the hook and the inner edge of the nose of the hook so formed that on swinging the hook away from a link-engaging position the recess and the inner edge of the nose of the hook will be drawn within the field of the ears whereby a link on the hook will be pushed outwardly thereon.

In testimony whereof I affix my signature in presence of two witnesses

WALLACE E. KEMPTON.

Witnesses:

C. T. BENEDICT,

ALMA A. KLUG.