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C. W. BAKER.

LOAD BINDER.

APPLICATION FILED NOV. 4, 1904.

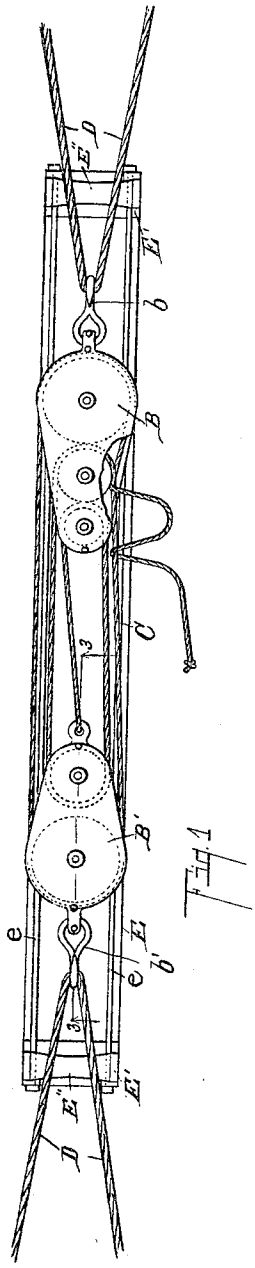


Fig. 1.

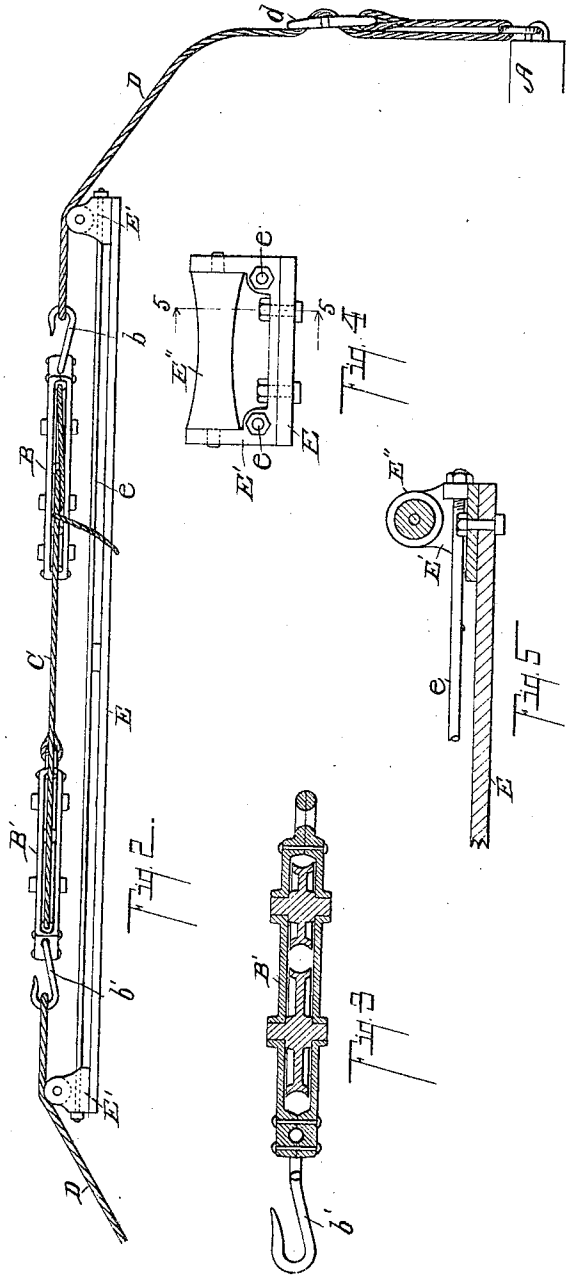


Fig. 2.

Fig. 4.

Fig. 5.

Fig. 3.

Witnesses:

Adelaide F. Adams

Ethel A. Teller

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Att'ys.

UNITED STATES PATENT OFFICE.

CHARLES W. BAKER, OF PAW PAW, MICHIGAN.

LOAD-BINDER.

No. 813,032. Specification of Letters Patent. Patented Feb. 20, 1906.

Application filed November 4, 1904. Serial No. 231,439.

To all whom it may concern:

Be it known that I, CHARLES W. BAKER, a citizen of the United States, residing at the village of Paw Paw, in the county of Van Buren, State of Michigan, have invented certain new and useful Improvements in Load-Binders, of which the following is a specification.

This invention relates to improvements in load-binders.

My improved load-binder is particularly adapted for use as a hay-binder, although it is desirable for use in binding other loads, particularly of small or light articles.

The main object of my invention is to provide an improved load-binder which is very simple and easy to adjust and to secure or release.

Further objects and objects relating to structural details will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined, and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a detail plan view of my improved load-binder. Fig. 2 is a side elevation view thereof. Fig. 3 is an enlarged sectional view through the pulley-block B′, taken on a line corresponding to line 3 3 of Fig. 1. Fig. 4 is an end elevation view of the binding-board E, showing the structural details thereof. Fig. 5 is a detail longitudinal sectional view taken on a line corresponding to line 5 5 of Fig. 4.

In the drawings the sectional views are taken looking in the direction of the little arrows at the ends of the section-lines, and similar letters of reference refer to similar parts throughout the several views.

Referring to the drawings, A represents one end of a wagon body or rack. The binding-ropes D are secured at the ends of the rack and are brought upward over the load, as indicated in Figs. 1 and 2. These binding-ropes are preferably provided with rope-buckles *d*, so that they may be adjusted to any length. The looped ends of the ropes D are passed over the rollers E″ at the ends of the binding-board E and are engaged by the hooks of the pulley-blocks B and B′. The binding-board E is provided with brackets E′ at each end, by which the rollers E″ are carried. Truss-rods *e* for the binding-board, provided with suitable adjusting-nuts at each end, are arranged through these brackets. The board E is thus strengthened, so that it may be very light and at the same time strong and durable.

The side plates of the pulley-blocks B and B′ are tapered, and the pulleys are of varying diameter. The large ends of the pulley-blocks are arranged outwardly. The pulley-block B is provided with three sheaves and the block B′ with two. The fall or tackle rope C is connected to an eye on the inner end of the block B′, is then rove over the inner sheave of the block B, thence back to the inner sheave of the block B′, thence over the middle sheave of the block B, thence over the outer sheave of the block B′ to the outer sheave of the block B. The fall-rope is thus arranged so that it is not likely to become entangled. The fall is secured in its adjusted position by looping its hauling end under one of its inner reaches and drawing up until it is engaged by one of the inner pulleys. This securely retains it in its adjusted position. To release the fall, it is only necessary to pull on the end thereof.

In use the tackle-blocks are so supported by the binding-boards that they are not drawn into or against the hay or other articles in adjusting. Thus supported, much less power is required in adjusting than is otherwise necessary. Also when the tackle-blocks B rest upon the load the straws or the like are drawn into the sheaves, thereby clogging the same. Another advantage is that articles resting upon the load are not injured by drawing the tackle-blocks over them. The fall is secured so that it may be readily released by a slight pull thereof, which is of very great advantage, as in case the load should become overturned it is often found difficult to reach the fastening. When secured in this manner, the end of the rope can be allowed to hang over the end of the load, where it can be readily reached. The binding-ropes D are usually left attached to the wagon, so that in binding the load it is only necessary to place the binding-board in position, lay the tackle thereon, and engage the binding-ropes with the hooks of the tackle-blocks. The tackle can then be adjusted to apply the desired tension to properly bind the load.

I have illustrated and described my improved load-binder in detail in the form preferred by me on account of its simplicity in structure and convenience in use. I am, however, aware that it may be considerably varied in structural details without departing from my invention.

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

1. In a load-binder, the combination of the binding-ropes adapted to be secured to the wagon body or rack; a binding-board; brackets at each end thereof; rollers carried by said brackets over which said binding-ropes are arranged; truss-rods for said binding-board arranged through said brackets; pulley-blocks having tapered side plates and sheaves of varying diameters; hooks for said blocks adapted to receive said binding-ropes; and a fall or tackle rope rove first over the inner and thence over the outer sheaves, whereby said fall may be secured in its adjusted position by looping the hauling end thereof under one of the inner reaches thereof and drawing against one of the inner sheaves, for the purpose specified.

2. In a load-binder, the combination of the binding-ropes adapted to be secured to the wagon body or rack; a binding-board; brackets at each end thereof; rollers carried by said brackets over which said binding-ropes are arranged; pulley-blocks having tapered side plates and sheaves of varying diameters; hooks for said blocks adapted to receive said binding-ropes; and a fall or tackle rope rove first over the inner and thence over the outer sheaves, whereby said fall may be secured in its adjusted position by looping the hauling end thereof under one of the inner reaches thereof and drawing against one of the inner sheaves, for the purpose specified.

3. In a load-binder, the combination of the binding-ropes adapted to be secured to the wagon body or rack; a binding-board; brackets at each end thereof; rollers carried by said brackets over which said binding-ropes are arranged; truss-rods for said binding-board arranged through said brackets; and a tackle arranged on said binding-board between said rollers, for the purpose specified.

4. In a load-binder, the combination of the binding-ropes adapted to be secured to the wagon body or rack; a binding-board; brackets at each end thereof; rollers carried by said brackets over which said binding-ropes are arranged; and a tackle arranged on said binding-board between said rollers, for the purpose specified.

5. In a load-binder, the combination of the binding-ropes adapted to be secured to the wagon body or rack; a binding-board; rollers carried by said binding-board over which said binding-ropes are arranged; pulley-blocks having tapered side plates and sheaves of varying diameters; hooks for said blocks adapted to receive said binding-ropes; and a fall or tackle rope rove first over the inner and thence over the outer sheaves, whereby said fall may be secured in its adjusted position by looping the hauling end thereof under one of the inner reaches thereof and drawing against one of the inner sheaves, for the purpose specified.

6. In a load-binder, the combination of the binding-ropes adapted to be secured to the wagon body or rack; a binding-board; rollers carried by said binding-board over which said binding-ropes are arranged; and a tackle arranged on said binding-board between said rollers, for the purpose specified.

In witness whereof I have hereunto set my hand and seal in presence of two witnesses.

CHARLES W. BAKER. [L. S.]

Witnesses:
ETHEL A. TELLER.
OTIS A. EARL.