(No Model.)

H. M. BRADLEY.

LOAD BINDER.

No. 453,897. Patented June 9, 1891.

Fig. 1.

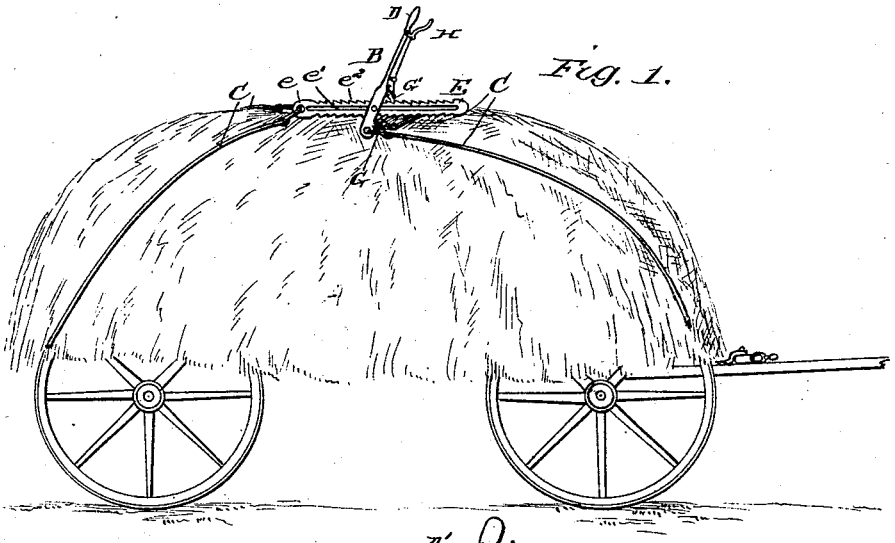


Fig. 2.

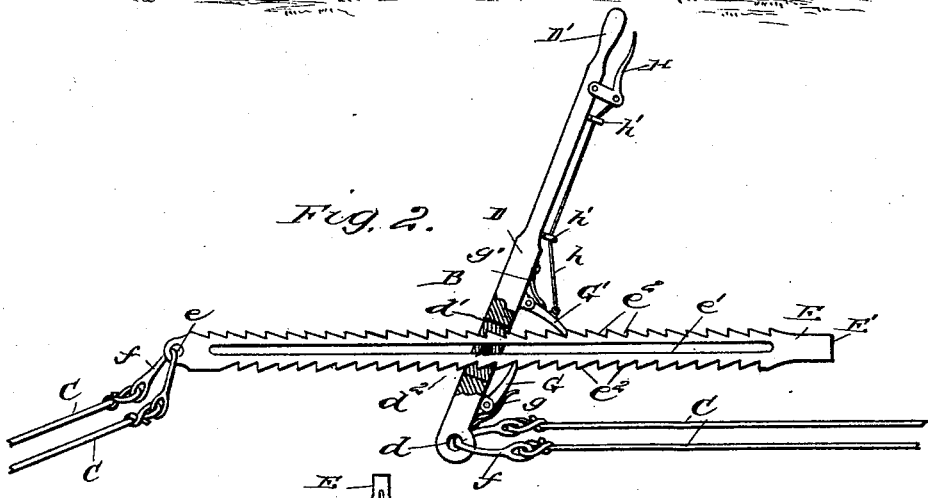
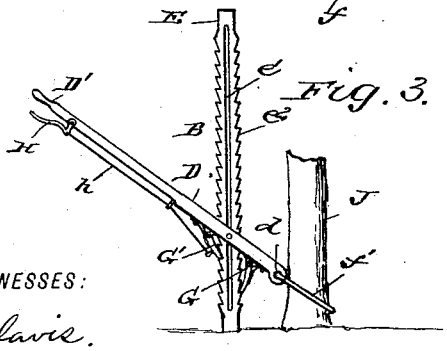


Fig. 3.



WITNESSES:

W. R. Davis.

C. Sedgwick

INVENTOR:

H. M. Bradley

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

HARRY M. BRADLEY, OF CAÑON CITY, COLORADO.

LOAD-BINDER.

SPECIFICATION forming part of Letters Patent No. 453,897, dated June 9, 1891.

Application filed August 14, 1890. Serial No. 361,992. (No model.)

To all whom it may concern:

Be it known that I, HARRY M. BRADLEY, of Cañon City, in the county of Fremont and State of Colorado, have invented a new and Improved Load-Binder, of which the following is a full, clear, and exact description.

My invention relates to improvements in a device for binding loads upon vehicles, although it may be used for other purposes; and the object of my invention is to provide a simple and efficient device by means of which a load may be securely and quickly bound, and to provide a device which may also be used for pulling posts, tightening wire, and as a lifting-jack.

The invention consists in the particular construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation showing the binder as applied to a load of hay. Fig. 2 is an enlarged broken detail view of the binder, the lever being partly in section to show the slot therein, and Fig. 3 is a side elevation of the device as applied to a post.

As shown in Fig. 1, A represents a load of hay, which is loaded upon an ordinary hay-wagon, and the load is provided with binding-cords C, which are attached to the front and rear corners of the wagon and extend to the upper portion of the load in the usual manner, and B is the binder, which is attached to the cords.

The binder B comprises a lever D, having at the top a suitable handle D′ and at the bottom a perforation d, to which a looped iron rod f may be attached, said rod connecting with the binding-cords C, and the lever has also a slot d' through the lower portion, and extending through the slot is the ratchet-bar E, one end of the ratchet-bar being squared, as shown at E′, so that it may rest firmly upon the ground when desired, and the opposite end having a perforation e, through which a looped iron rod f is passed to be connected with the binding-cords C. The ratchet-bar E has a slot e' extending throughout nearly its entire length, and on opposite sides of the bar are teeth e^2. The teeth e^2 alternate—that is, the ends of the teeth on one side of the ratchet-bar are opposite the central portions of the teeth on the opposite side of the bar.

The pawl G is pivoted on the lever D on one side of the ratchet-bar E, said pawl being adapted to engage the teeth on the ratchet-bar, and being pressed normally into engagement with the teeth by the spring g, which is fixed to the lever D at one end. A similar pawl G′ is pivoted to the lever D on the opposite side of the ratchet-bar, and is held normally in engagement with the teeth e^2 by the spring g', which is fixed to the lever, so as to press against the back of the pawl.

An iron rod h is fixed to the pawl G′, and extends through suitable keepers h' on the lever D to a point adjacent to the handle D′, and the end of the rod is fixed to the elbow-lever H, which is pivoted on the lever D adjacent to the handle D′. It will thus be seen that by pressing inwardly upon the lever H the rod h will be moved, thus raising the pawl G′ from engagement with the teeth of the ratchet-bar. The ratchet-bar E is held in the slot d' of the lever by the pin d^2, which extends transversely through the slot d' and through the slot e' of the ratchet-bar, so that the ratchet-bar may move freely upon the pin, but cannot become detached from the lever D.

When the device is applied to a load of hay or other similar load, the binding-cords which are attached to one end of the load are connected with the lower end of the lever D, and the binding-cords attached to the opposite end of the load are attached to the perforated end of the ratchet-bar E. The lever D may then be thrown backward and forward, and when thrown forward, as shown in the drawings, the lower end of the lever is thrown backward, thus tightening the front binding-cords, and the ratchet-bar, by reason of the pawls connected therewith, will be moved forward, thus tightening the rear binding-cord. The lever D may thus be worked backward and forward until the front and rear binding-cords are brought together, thus securely holding the load in position, and while I have shown the binder as applied to a load of hay it is obvious that it may be applied to any kind of load as well.

In Fig. 3 I have shown the manner in which the device is used for pulling posts. The ratchet-bar is stood upon the ground adjacent to the post J to be pulled, and the cord f' or chain is passed through the perforation in the end of the lever D and around the post. The operator then presses downward upon the handle D′ of the lever D, and as the pawls G and G′ cause the lever to be fulcrumed upon the ratchet-bar the perforated end of the lever is raised, thus raising the post, and when the downward stroke of the lever is completed it may be again raised and the operation repeated until the post is lifted from the soil.

I have not shown the application of the device to a wire for tightening the same, neither have I shown it as adapted for use as a lifting-jack; but it is obvious that the perforated end of the lever D and the perforated end of the ratchet-bar may be connected to wires to be tightened, instead of to binding-cords, with the same effect. It is also evident that when the device is in the position shown in Fig. 3 the perforated end of the lever may be placed beneath an object to be raised instead of attaching it to a post.

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

1. A load-binder comprising a longitudinally-slotted bar having teeth on opposite sides and provided with an aperture in one end for attachment of a rope thereto, a lever provided near one end with a slot through which the said bar passes, and at its end with an aperture for the attachment of a rope, the said bar being held in the slot of the lever by a pin passed through the slot of the lever and slot of the bar, spring-pressed pawls pivoted to the lever, and means for releasing one of the pawls, substantially as described.

2. A load-binder comprising a lever having a handle at one end and a perforation at the other and having a slot near the perforated end, a ratchet-bar extending through the slot of the lever, said ratchet-bar being longitudinally slotted and having teeth upon opposite sides, a pin extending through the slot in the lever and in the ratchet-bar, spring-pressed pawls pivoted on the lever on each side of the ratchet-bar, an elbow-lever pivoted adjacent to the handle of the main lever, and a rod connecting said lever with one of the pawls, substantially as described.

HARRY M. BRADLEY.

Witnesses:
E. E. EDMONDS,
SAMUEL A. BENTLEY.