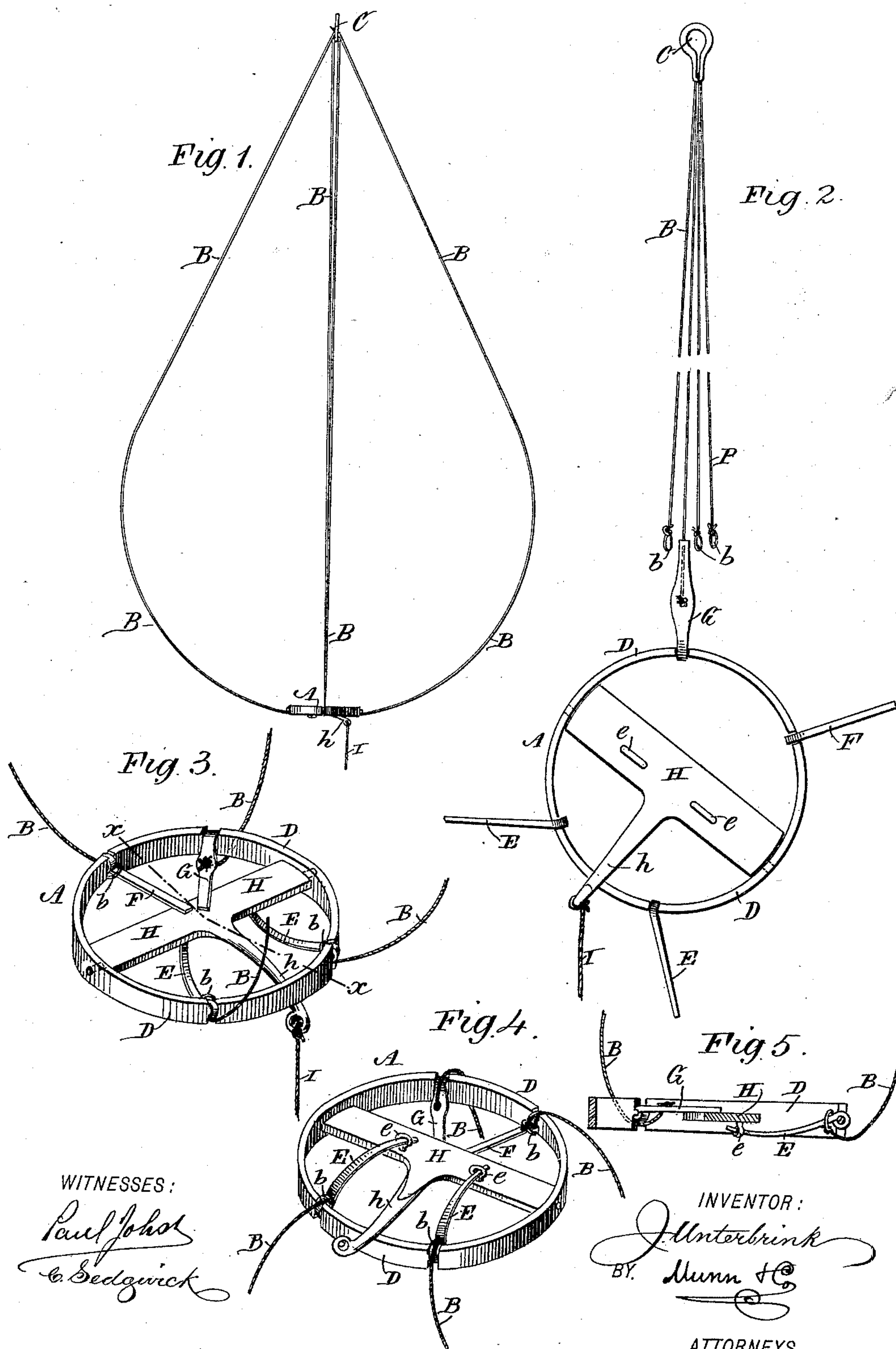


(No Model.)

J. UNTERBRINK.
HAY SLING.

No. 422,668.

Patented Mar. 4, 1890.



WITNESSES:

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JOSEPH UNTERBRINK, OF OTTAWA, OHIO.

HAY-SLING.

SPECIFICATION forming part of Letters Patent No. 422,668, dated March 4, 1890.

Application filed October 31, 1889. Serial No. 328,790. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH UNTERBRINK, of Ottawa, in the county of Putnam and State of Ohio, have invented a new and Improved Hay-Sling, of which the following is a full, clear, and exact description.

My invention relates to slings for lifting, carrying, and dumping loads of hay, straw, cornstalks, or other material, and has for its object to provide a simple, inexpensive, and efficient sling device of this character which will quickly and certainly drop the load without materially disarranging it, and may easily be disengaged should it be caught under the dumped load where the head-room is insufficient to allow the sling frame or head to swing or hang clear of the hay-mow or pile of dumped material.

The invention consists in certain novel features of construction and combinations of parts of the hay-sling, all as hereinafter described and claimed.

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 view of my improved hay-sling as it appears when holding its load. Fig. 2 is a view of the sling drawn to a larger scale and as it appears with the load dumped from it. Fig. 3 is a top perspective view of the sling-trip-frame latch device, with the cords partly broken away and as adjusted to sustain the load by the cords. Fig. 4 is a bottom perspective view of the trip-frame latch device, and Fig. 5 is a cross-section thereof taken on the line $x x$ in Fig. 3.

My improved hay-sling consists, generally speaking, of a trip-frame latch device A, to which a series of cords B are attached to sustain the load, these cords being preferably provided at their upper ends with knots, by which they may be suspended from the lower narrow slot portion of a plate C, which will be held by any suitable overhead support or carrier to allow the loaded sling to be raised by pulley and rope or other mechanism, and then moved over the place where the load will be dumped by simply pulling the string of a latch, as hereinafter more fully explained.

The trip-frame is preferably made with a

ring D, of metal, and about eight or ten inches in diameter. To this ring are pivotally connected or hinged a series (preferably four) of trip-arms E, E, F, and G, the free ends of which are adapted to rest on or be retained by a latch-bar H, which is pivoted at the ends to the frame and extends centrally across it, and is provided with an arm h , to which a string or pull-cord I is attached. The latch H is preferably pivoted eccentrically or to one side of its lateral center, and at one face is provided with a couple of eyes $e e$, into which the free ends of the two trip-arms E E at one side of the latch are adapted to enter. The other two trip-arms F G are adapted to rest at their free ends flat upon the opposite face of the latch.

The three sling-cords B B B, which are to be connected to the three trip-arms E E F, are each provided with a metal ring or eye b , which is slipped upon its respective trip-arm prior to setting the arms E E in the eyes $e e$ and the arm F upon the opposite face of the latch; but the other sling-cord B is fixed to the trip-arm G, and preferably by passing it through a hole in the arm. The sling-cords B are all passed downward and outward and then upward at the outer face of the latch-frame, so that when the latch is tripped the weight of the load will cause the cords to turn the trip-arms instantly downward to allow the rings b to slip from the arms and cause the entire trip-frame to be suspended from the one sling-cord connected to the trip-arm G.

The operation is as follows: After the rings b are slipped upon the arms E E F and the arms E E are placed into the trip-latch eyes $e e$, and the other two arms F G are laid upon the opposite face of the latch, the entire trip-frame device, adjusted as shown in Fig. 3 of the drawings, will be laid upon the bottom of a wagon or sled, and with the cords B stretched to one side the load of hay, straw, cornstalks, stubble, or other material will be piled upon the sling, and when the wagon is drawn to the mow the slotted eye-plate C, with which the sling-cords B are all engaged, will be connected to the hoisting apparatus, and when the load is lifted thereby and carried above the mow it is only necessary to pull the pend-

ent latch-string I, and thereby turn the latch on its end pivots, to withdraw the trip-arms E E from the latch-eyes *e e* and simultaneously lift the latch from under the other two trip-arms F G, and the weight of the load will instantly cause the rings *b* to slip off the arms E E F as the arms are all turned around on the ring-frame D, and the entire latch-frame device will then swing or turn bodily and will be suspended from the rope B, connected to the trip-arm G, as the load falls upon the mow or at any other desired dumping-place.

It will be noticed that when the load is dumped from the sling all the sling-cords except one are entirely free from the latch-frame, and the frame can easily be pulled from under the dumped load by the other cord connected to the trip-arm G, in case there is not room enough to let the entire frame swing clear of the top of the dumped load and without disarranging the load. The load is dumped quickly and in substantially the same condition as when loaded in the sling.

Under my invention I am not limited to the use of a ring D and latch H for the sling-frame device, as the trip-arms E E F G may be hung to a frame of rectangular or other form provided with any suitable latch adapted to retain the trip-arms and release them on the pulling of a latch-string. I specially mention the arrangement of the sling-cords relatively to the latch-frame to allow all the cords but those at one side to slip from their arms, while the remaining cord suspends the frame as the load dumps from it. When the frame has a ring D supporting the trip-arms, I prefer to arrange all the sling-cords but one to slip from the trip-arms to allow this one cord to suspend the frame when the load is dumped; but when the trip-arms are hung to a frame of other than round form more than one of the cords may be fixed to corresponding trip-arms at one side of the frame to suspend it while all the other cords slip from their respective trip-arms. This construction is readily distinguishable from a sling having a two-part load-sustaining bar, each section of which remains connected to two or more sling-cords when the sling is

opened by pulling a latch-string, as with this last-named construction more or less difficulty is experienced in disengaging the entire sling device from the dumped load when the head-room is insufficient, and the dumped load is more likely to be disarranged in releasing the sling.

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

1. In a sling device, the combination of a frame, trip-arms hung thereto, a latch device on the frame and adapted to retain the trip-arms, and sling-cords adapted to said arms to suspend the loaded sling therefrom, the sling-cord at one side of the frame being connected to its respective trip-arm and the other sling-cords having a loose connection with their respective trip-arms to slip therefrom and dump the load as the latch is tripped to release the arms, substantially as described, for the purposes set forth.

2. The combination, in a hay-sling, of a frame D, trip-arms E E F G, hung thereto, a latch H, pivoted to the frame and having eyes *e e*, into which the arms E E enter, said latch also adapted to retain the free ends of the arms F G, and a series of sling-cords, one connected to the trip-arm G and the others having rings or loops adapted to receive the other trip-arms and to slip therefrom when the latch is tripped to dump the load, substantially as herein set forth.

3. The combination, in a hay-sling, of a frame D, trip-arms E E F G, hung thereto, a latch H, pivoted to the frame and having eyes *e e*, into which the arms E E enter, said latch also adapted to retain the free ends of the arms F G and having an arm *h*, a string I, connected to the arm *h*, and a series of sling-cords, one connected to the arm G and the others having rings or loops adapted to receive the other trip-arms and to slip therefrom when the latch is tripped to dump the load, substantially as herein set forth.

JOSEPH UNTERBRINK.

Witnesses:

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