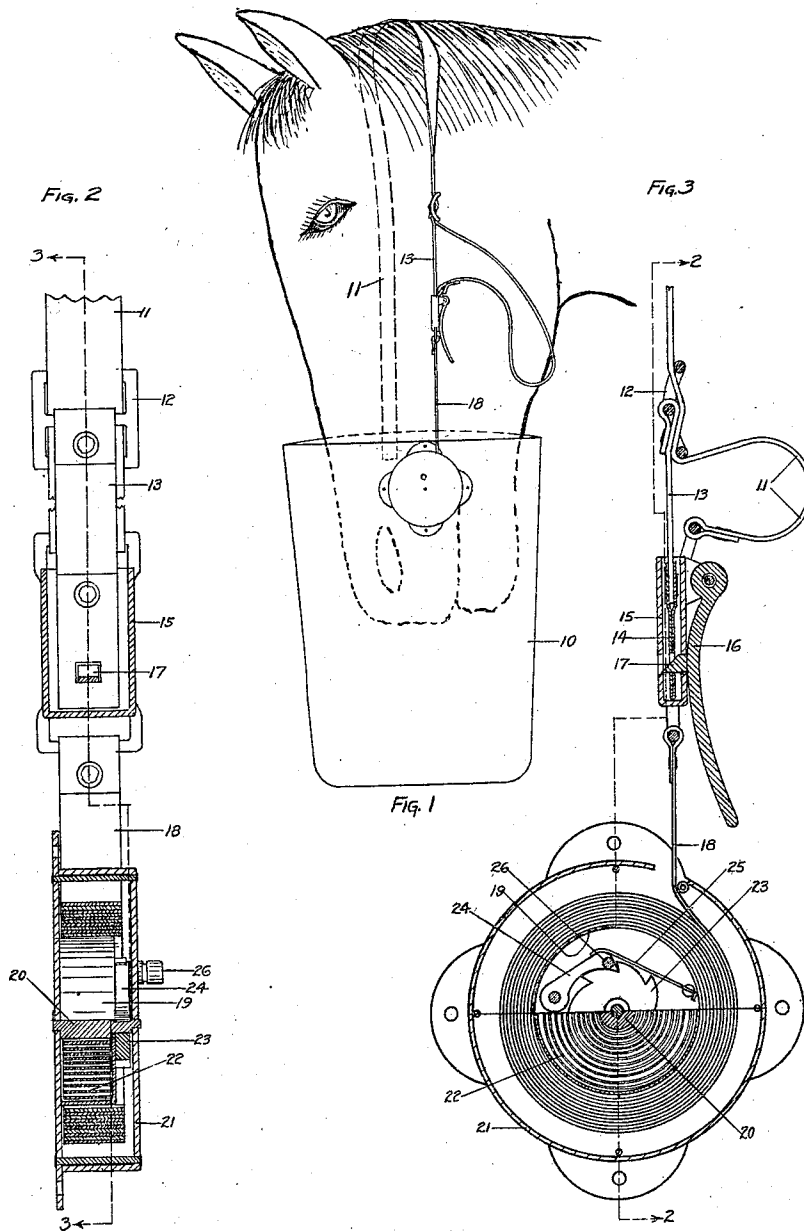


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FEED BAG.

APPLICATION FILED OCT. 27, 1915.

Patented May 23, 1916.

1,184,069.



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FEED-BAG.

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Specification of Letters Patent.

Patented May 23, 1916.

Application filed October 27, 1915. Serial No. 58,215.

To all whom it may concern:

Be it known that I, NORMAN S. BUCK, a citizen of the United States, residing at the town of Cicero, county of Cook, State of Illinois, have invented certain new and useful Improvements in Feed-Bags, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to improvements in feed bags of the type adapted to be secured upon the head of a horse or other animal, and it has for its principal object the provision of new and improved means for supporting a bag of this type upon an animal's head.

It is one of the objects of my invention to provide automatically-acting means adapted to raise the feed bag relative to the horse's head as the feed is lowered in the bag so as to hold the bag at all times in the desired position.

It is another object of my invention to provide automatically-acting means for releasing the bag from its raised position about the horse's nose when the bag assumes its uppermost position at the time when the feed has been all or very nearly all consumed.

It is another object of my invention to improve devices of this type in sundry details hereinafter pointed out.

The preferred means by which I have accomplished my several objects are illustrated in the drawings and are hereinafter specifically described. That which I believe to be new and desire to cover by this application is set forth in the claims.

In the drawings: Figure 1 is a side view of a feed bag equipped with my improvements, and in position on a horse's head; Fig. 2 is an enlarged detail showing the means for connecting the supporting strap to the bag, being substantially a central vertical section taken on line 2—2 of Fig. 3; and Fig. 3 is an enlarged detail, being substantially a section taken on line 3—3 of Fig. 2.

Referring to the several figures of the drawings in which corresponding parts are indicated by the same reference characters,—10 indicates a feed bag having a strap 11 attached thereto adapted to go over a horse's head for supporting the bag. The strap 11 is connected at one end to the bag 10 in any

suitable manner, but the connection at the other end comprises yielding means adapted to hold the bag up snugly on the horse's nose and to take up the slack in the strap 11 as the food is consumed and removed from the bottom of the bag. While the yielding supporting means is adapted to take up any slack in the strap 11, means is provided serving to prevent the giving out of slack when once taken up by the yielding means, wherefore the bag is held positively in proper position and is prevented from being shaken or drawn out of proper position. The means for releasing the bag from its raised position when the feed is consumed from the bag comprises a device for maintaining a loop in the strap 11, which device at the proper moment is automatically actuated for releasing the loop and permitting the strap to straighten out. Means is provided for adjusting the strap 11 to insure that the automatic releasing device shall operate at the proper time when the bag has reached its uppermost position by reason of the consumption of the feed.

The means for maintaining a loop in the supporting strap comprises a slip-buckle 12 through which the strap 11 passes and to which an auxiliary strap 13 is attached. The lower end of the strap 13 is provided with a tongue 14 adapted to be inserted into a socket member 15. A lever 16 is pivotally mounted on the socket member 15, provided with a tooth or lug 17 adapted to pass through a suitable opening in the wall of the socket member into engagement with a suitable opening in the tongue 14 for preventing the withdrawal of the tongue from the socket member, the socket member 15 being connected by the means hereinafter described with the bag 10. It will be appreciated that the bag is adapted to be supported through the medium of the strap 11 and the strap 13 so long as the lever 16 remains in its operative position, as shown in Fig. 3, but that upon the lever 16 being swung to the right in Fig. 3 the strap 13 is no longer effective for supporting the bag. In order that the bag 10 may not fall to the ground when the lever 16 is released, as hereinafter described, the extending end of the strap 11 is connected with the socket member 15, this connection being effected in any suitable manner. In this manner a loop

is provided in the strap 11, the size of the loop and the extent of the fall of the bag upon the release of the lever 16 depending upon the adjustment of the strap 11 in the buckle 12.

The yielding means for connecting the socket member 15 to the bag 10 comprises a strap 18 connected at its upper end to the said socket member, and having its lower end wound about a drum 19 which is revolvably mounted upon the shaft 20 fixed in position in a casing 21 secured firmly to the bag 10. A flat spring 22 surrounds the shaft 20 within the drum 19, tending always to turn the drum 19 in clockwise direction in Fig. 3 for winding the strap 18 about the drum. A ratchet wheel 23 is fixed upon the head of the drum 19, cooperating with which is a pawl 24 pivotally mounted on the adjacent head of the casing 21 adapted to prevent the rotation of the drum in counterclockwise direction in Fig. 3. A spring 25 presses the pawl 24 yieldingly into contact with the ratchet wheel 23 so as to permit the pawl to slip over the teeth of the ratchet wheel as the drum is rotated in clockwise direction in Fig. 3, but as normally to prevent rotation of the drum in a direction to unwind the strap 18 therefrom. A pin 26 is mounted in the pawl 24 extending through a suitable opening in the head of the casing 21, by which pin 26 the pawl 24 is adapted to be moved manually out of contact with the ratchet wheel 23 whenever desired for unwinding the strap 18 from the drum.

As will be seen from an inspection of Fig. 3, whenever the spring 22 has wound the entire length of strap 18 upon the drum 19, the lower end of the lever 16 will be brought into contact with the side of the casing 21. When this occurs, the lever 16 is swung to the right in that figure, releasing the tooth 17 from the tongue 14 and thus permitting the bag 10 to fall by reason of the straightening out of the loop portion of the strap 11.

In order that the releasing of the lever 16 shall take place at the proper moment, it is necessary that the length of the strap 11 be adjusted to the horse or other animal with which the bag is to be used. All that it is necessary to do is to place the bag when empty in position upon the horse's head,—with the loop in the strap 11 but with the strap 18 all wound tightly about the drum 19,—and to slip the strap 11 through the buckle 12 so as to bring the bag up snugly about the horse's nose. The bag is then taken off and provided with the desired feed, after which the bag is again placed in position upon the horse's head, this time without any re-adjustment of the strap 11 through the buckle 12. To accomplish this, it is necessary that the pawl 24 be temporarily released from the ratchet wheel 23,

so as to permit the unwinding of the strap 18 from the drum, this being readily accomplished through the medium of the pin 26. The spring 22 then serves to hold the bag snugly in position and to take up the slack of the strap 11 as the bag rises by reason of the consumption of the feed from the bottom of the bag. As the strap 18 is taken up, the pawl engages one after another of the teeth of the ratchet wheel 23, thus holding the bag positively against lowering relative to the horse's head. When the feed has been all consumed and the empty bag is consequently again brought up snugly about the horse's nose, the lever 16 engages the casing 21 and releases the loop in the strap 11, permitting the bag to fall.

What I claim as my invention and desire to secure by Letters Patent, is—

1. The combination of a feed bag, means for supporting said bag upon an animal's head, comprising yielding means tending to draw said bag up snugly about the animal's nose, and means serving when the bag is held up yieldingly by said yielding means to prevent the bag from moving downward relative to the animal's nose against the action of said yielding means.
2. The combination of a feed bag, and means for supporting said bag from an animal's head, comprising a strap connected with said bag, a drum about which said strap is adapted to be wound, yielding means tending to turn said drum in a direction to wind said strap upon the drum, and means normally serving to prevent the rotation of the drum in a direction to unwind said strap therefrom.
3. The combination of a feed bag, means for supporting said bag from an animal's head, comprising yielding means serving to draw said bag yieldingly upward as the feed is consumed therefrom, and means adapted when said bag reaches its uppermost position upon the animal's nose to release the bag for permitting it to drop.
4. The combination of a feed bag, and means for supporting said bag from an animal's head, comprising a strap connected with said bag, yielding means tending to draw said bag upward about the animal's nose as the feed is consumed therefrom, means for maintaining a loop in said strap, and automatically-acting means for releasing said loop when said bag reaches its uppermost position upon the animal's nose.
5. The combination of a feed bag, and means for supporting said bag from an animal's head, comprising a strap connected with said bag, yielding means tending to draw said bag upward about the animal's nose as the feed is consumed therefrom, means comprising a latch device connecting separate portions of the strap for maintaining a loop therein, and automatically-acting

means for releasing said latch device when said bag reaches its uppermost position upon the animal's nose.

6. The combination of a feed bag, and
5 means for supporting said bag from an animal's head, comprising a strap connected with said bag, yielding means tending to draw said bag upward about the animal's nose as the feed is consumed therefrom, a
10 socket member connected with said strap, a buckle slidably mounted on said strap, connections between said socket member and said buckle comprising a tongue adapted to have a latching connection with said socket
15 member for maintaining a loop in the strap, and automatically-acting means for releasing said latch connection when said bag has reached its uppermost position upon the animal's nose.

20 7. The combination of a feed bag, and means for supporting said bag from an animal's head, comprising a strap connected with said bag, yielding means tending to draw said bag upward about the animal's
25 nose as the feed is consumed therefrom, a socket member connected with said strap, a tongue adapted to enter said socket member connected with said strap at another

point therealong, a latch lever pivotally mounted on said socket member adapted to
30 hold said tongue against withdrawal from said socket member whereby a loop is maintained in said strap, and means actuated by the upward movement of the bag upon the animal's nose for releasing said latch lever
35 from said tongue for releasing said loop.

8. The combination of a feed bag, and means for supporting said bag from an animal's head, comprising a strap connected with said bag, yielding means tending to
40 draw said bag upward about the animal's nose as the feed is consumed therefrom, a socket member connected with said strap, a tongue adapted to enter said socket member connected with said strap at another
45 point therealong, a latch lever pivotally mounted on said socket member adapted to hold said tongue against withdrawal from said socket member whereby a loop is maintained in said strap, and cam means
50 adapted to be contacted by said latch lever as said bag reaches its uppermost position for throwing the lever out of engagement with said tongue for releasing said loop.

NORMAN S. BUCK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."