

No. 733,032.

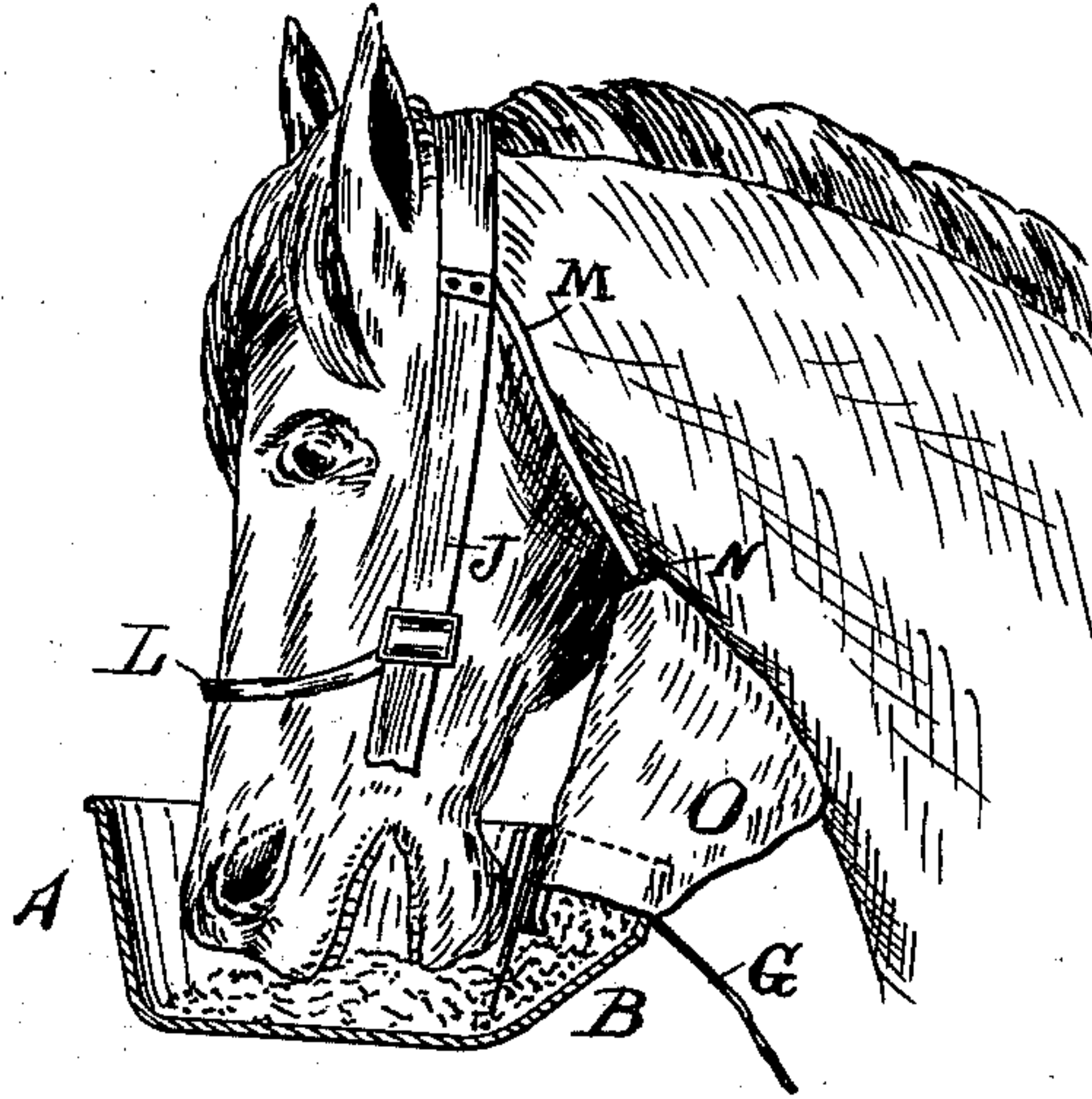
PATENTED JULY 7, 1903.

J. A. GRAY.  
FEED BAG.

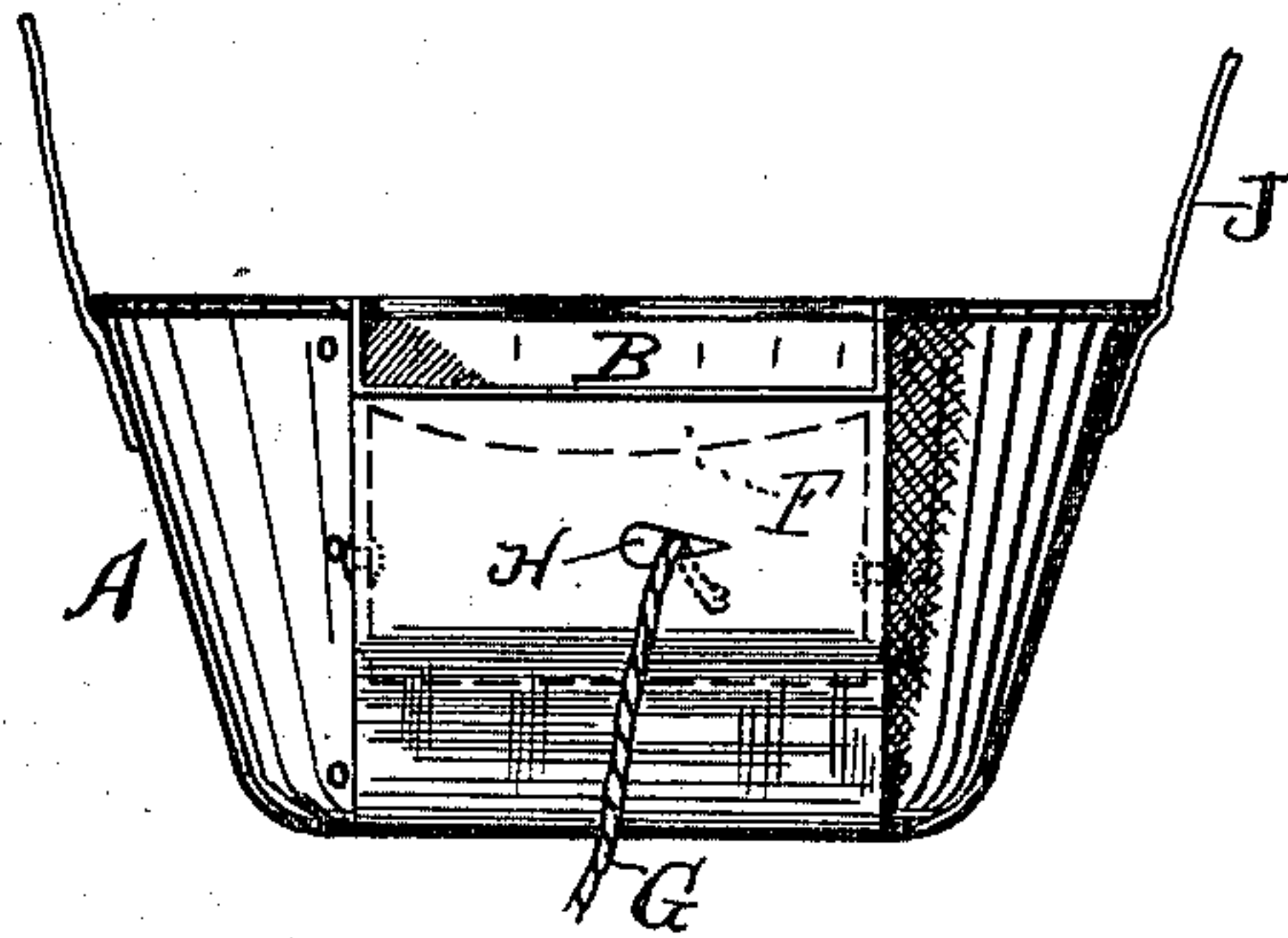
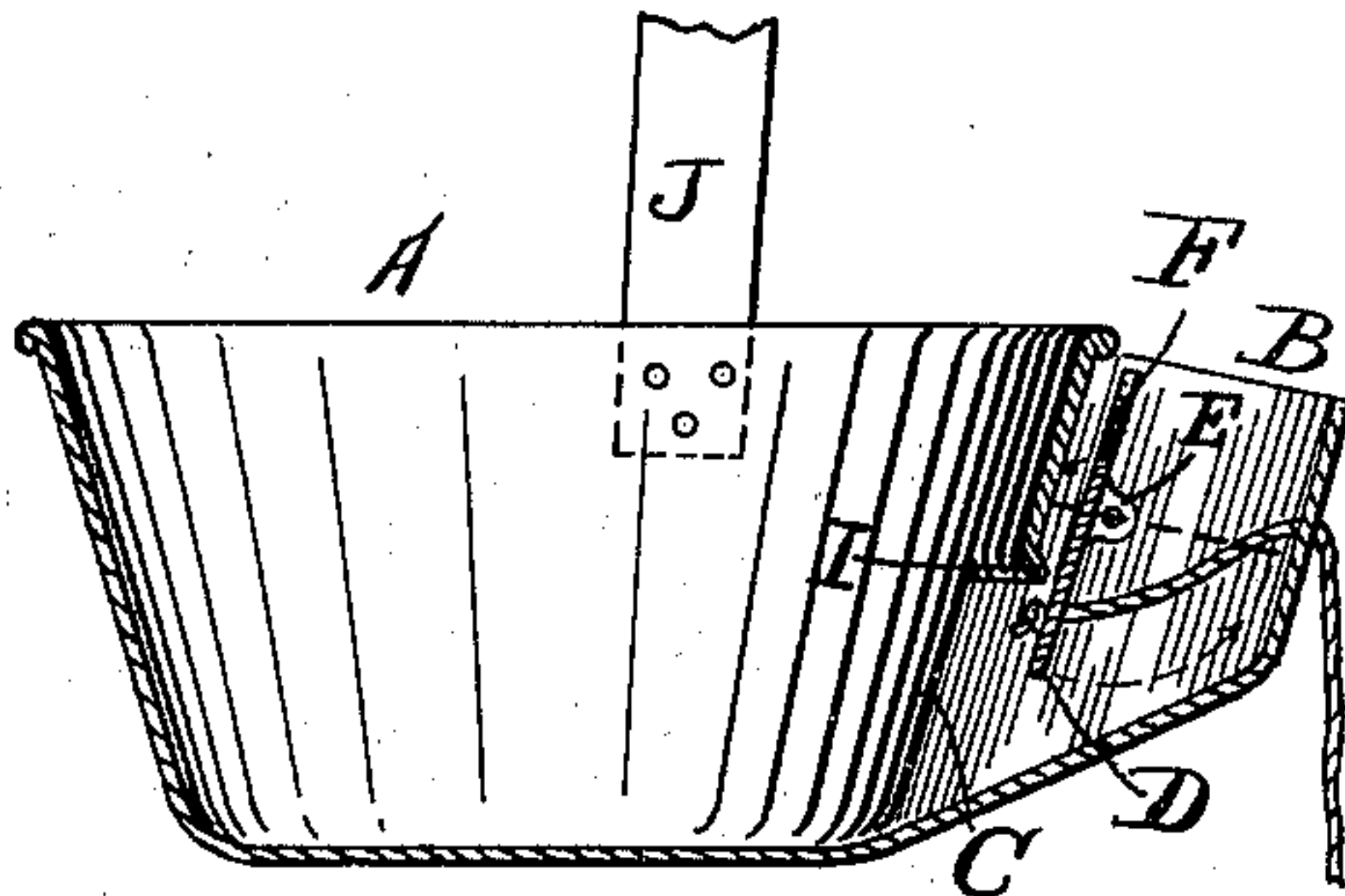
APPLICATION FILED OCT. 25, 1901.

NO MODEL.

*Fig. 1.*



*Fig. 2.*



*Fig. 3.*

WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOSEPH A. GRAY, OF NORWALK, CONNECTICUT.

## FEED-BAG.

SPECIFICATION forming part of Letters Patent No. 733,032, dated July 7, 1903.

Application filed October 25, 1901. Serial No. 80,005. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH A. GRAY, a citizen of the United States, and a resident of the town of Norwalk, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Feed-Bags, of which the following is a specification.

My invention consists of a feed-trough having a flexible reservoir and a valve connection between the two of such a construction that the flow of feed to the trough will be absolutely controllable or may be shut off entirely and danger of waste avoided.

In the drawings forming part of this specification, Figure 1 is a sectional view showing the feed-bag in use. Fig. 2 is a sectional view showing the trough proper without the feed-bag. Fig. 3 is a rear elevation of the same.

A represents the feed-trough, which is in general form that of an ordinary receptacle with flaring sides. This trough is formed with two compartments, one, A, being that from which the grain is taken by the animal when feeding, the other, B, the one into which the grain flows from the feed-receptacle. Communication is established between these compartments by means of a passage C in the partition, as clearly indicated in Fig. 2.

Pivoted in the compartment B is a valve D, the pivot connection being represented at E. The upper or forward end of this valve is rounded out or cut away to conform to the shape of the partition-wall, as indicated at F in Fig. 2 and as clearly shown by the dotted lines in Fig. 3. It will be observed from this construction that the pivot-point of the valve is close to one side thereof. This valve is so proportioned that when moved into the position indicated by the dotted lines in Fig. 2 it fills the entire space within the compartment B. I provide on the partition above the passage C a ledge I, on which the forward end of the valve rests when it is in the closed position. Attached to the lower or rear end of the valve D is a cord G, passing through a slot H in the rear wall of the compartment B. This slot is made tapering in form, as clearly shown in Fig. 3, the larger end being of a size to allow the cord to pass freely, while the other end will, if the cord be pressed in

that direction, clamp and hold the cord from movement. By this it will be seen that the valve may be adjusted in any position.

O is the feed-receptacle and is made of canvas or any other suitable flexible material. As shown, the upper or closed end of this receptacle is larger than the mouth or exit end. The open end of this receptacle is secured to the upper edge of the compartment B and the partition in any suitable manner, as by riveting, being placed in such a position that the flow of grain from the receptacle O will be into the compartment B in the first instance.

My device may be supported in use in any desired way. In the drawings I have shown the head-strap J, which is attached at each end to the sides of the trough A and passes over the head of the horse back of the ears. Running from one part of this head-strap J to the other and around the horse's nose is a nose-strap L, which prevents the horse from getting his nose over the edge of the feed-trough. The upper end of the feed bag or receptacle is provided with loops N, through which passes a throat-latch M. This is simply one form of support which may be used.

The operation of the device is as follows: The bag or receptacle O, being attached to the compartment B, is filled with grain by opening or placing the valve D in the position shown in Fig. 2 and holding the trough so that the bag or receptacle O is down, in which position the feed may be poured into the compartment A, and from there it passes into the bag O until the proper quantity has been placed therein. The cord G is then pulled until the valve is moved in the position shown in Fig. 2 by the dotted lines, in which position it will close entirely the passage through the compartment B. The cord is now moved over until it is jammed in the narrow end of the slot H, by which, as heretofore described, the valve will be held in the closed position. The nose-bag in this condition may be carried or transported with no danger of the grain spilling out. When in use for feeding the horse, it is placed on the horse's head in some such manner as shown in Fig. 1. The cord G is released, and as the entire weight of the column of grain is on the valve and as the valve is pivoted to one side of its surface the weight



of the grain is sufficient to move the valve, causing it to open, the amount of the opening being regulated by the cord, as will be readily observed. After a sufficient opening  
 5 is secured the cord is jammed in position, as before described, and the grain will flow past the valve, through the passage C, and into the compartment A at a rate proportional to the amount the valve is opened. If the grain  
 10 is feeding too fast, a pull on the cord will cause the valve to close more, and it can be held in that position by jamming the cord in the small end of the slot. If it is desired to open the valve wider, it is only necessary  
 15 to release the cord, whereupon the weight of the grain will cause the valve to open to the desired extent.

It will be seen that by this construction I avoid the disadvantages incident to many  
 20 feed-bags. The position of the valve cannot be changed either by shaking or by the motion of the horse's jaws or by the accidental knocking of the feed-bag against the post to which the horse is secured. The valve being  
 25 once placed in position cannot be accidentally dislodged. In carrying the bag there is no danger whatsoever of loss of grain, as the valve is absolutely held in its closed position in such a manner that no ordinary shock, jar,  
 30 or accident will cause the same to be opened, and, further, that the amount of grain fed into the trough can be absolutely regulated, so that all danger of waste, which occurs when too much grain is placed in the feed-trough,  
 35 is avoided. Thus the horse feeds readily and comfortably, has perfect freedom of air, and is not bothered by dust, which obstructs his breathing. The feed is kept clean, especially that which has not been consumed, and the  
 40 supply can be shut off at any time by simply closing the valve, leaving the remainder of the amount intact to be used at a future time,

and a further important advantage is that the grain is fed no faster than it can be consumed.

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

1. In a nose-bag the combination of a holder for the feed, a feed-trough attached thereto having two compartments, a passage between  
 50 the two, and an eccentrically-pivoted valve in one of said compartments completely closing the same when in substantially horizontal position, substantially as described.

2. In a nose-bag the combination of a holder  
 55 for the feed, a feed-trough having two compartments, a passage between the two, an eccentrically-pivoted valve in one of said compartments completely closing the same when in substantially horizontal position, and means  
 60 for holding the valve in any position, substantially as described.

3. In a nose-bag the combination of a feed-trough having two compartments, a passage between the two, an eccentrically-pivoted  
 65 valve in one of said compartments completely closing the same when in substantially horizontal position, and a feed-receptacle attached to said last-named compartment, substantially as described.

4. The combination of a feed-trough having two compartments, an eccentrically-pivoted valve in one of said compartments completely closing the same when in the horizontal  
 70 position, a cord attached to said valve, and means for clamping the cord in any desired position, substantially as described.

Signed at the town of Norwalk, in the county of Fairfield and State of Connecticut, this 17th day of October, A. D. 1901.

JOS. A. GRAY.

Witnesses:

MARY C. GRAY,  
 HORACE M. GRAY.