(No Model.) 2 Sheets—Sheet 1.

J. M. HOLLADAY.

Feed Trough and Hay Rack.

No. 238,390. **Patented March 1, 1881.**

Fig. 1.

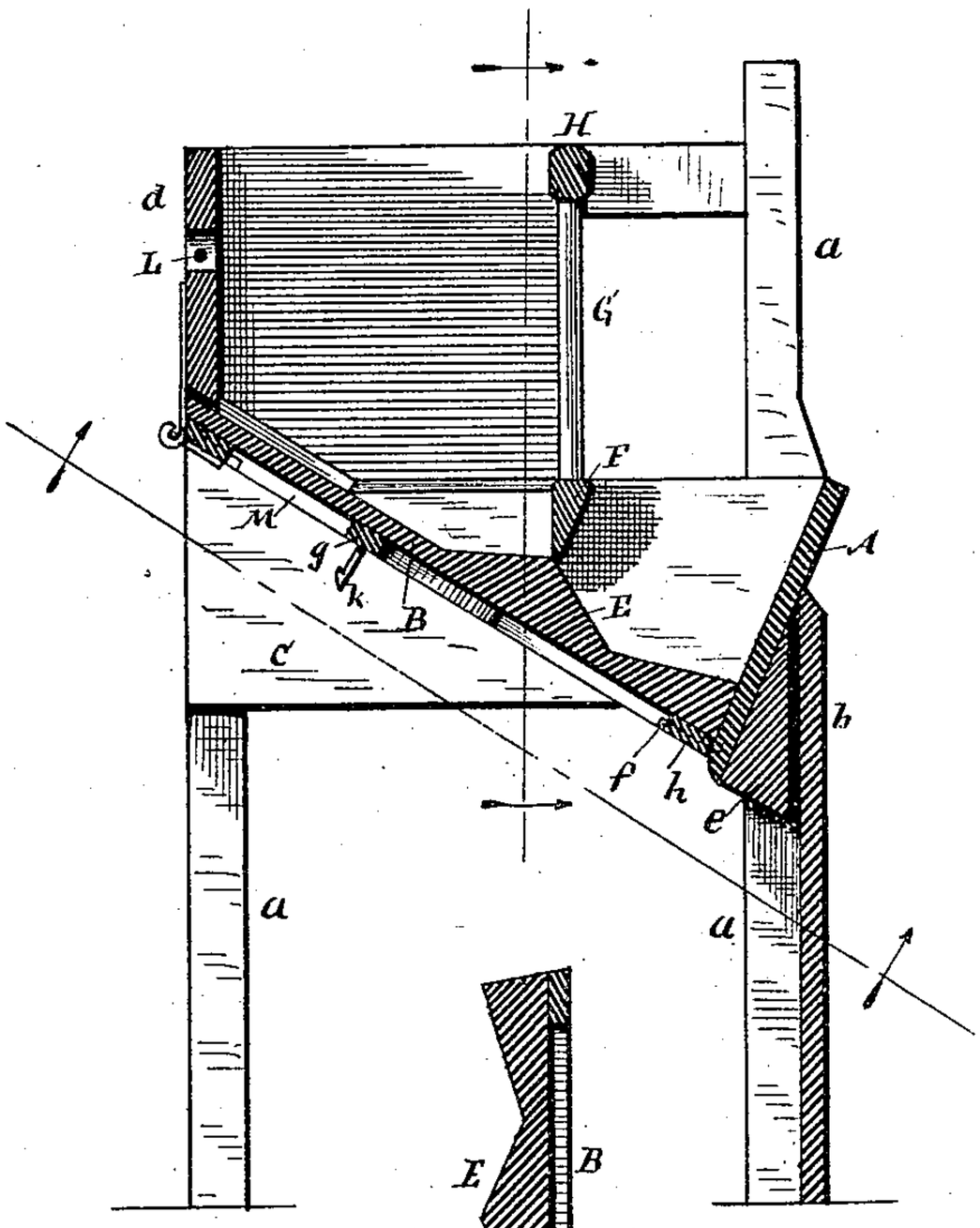


Fig. 2.

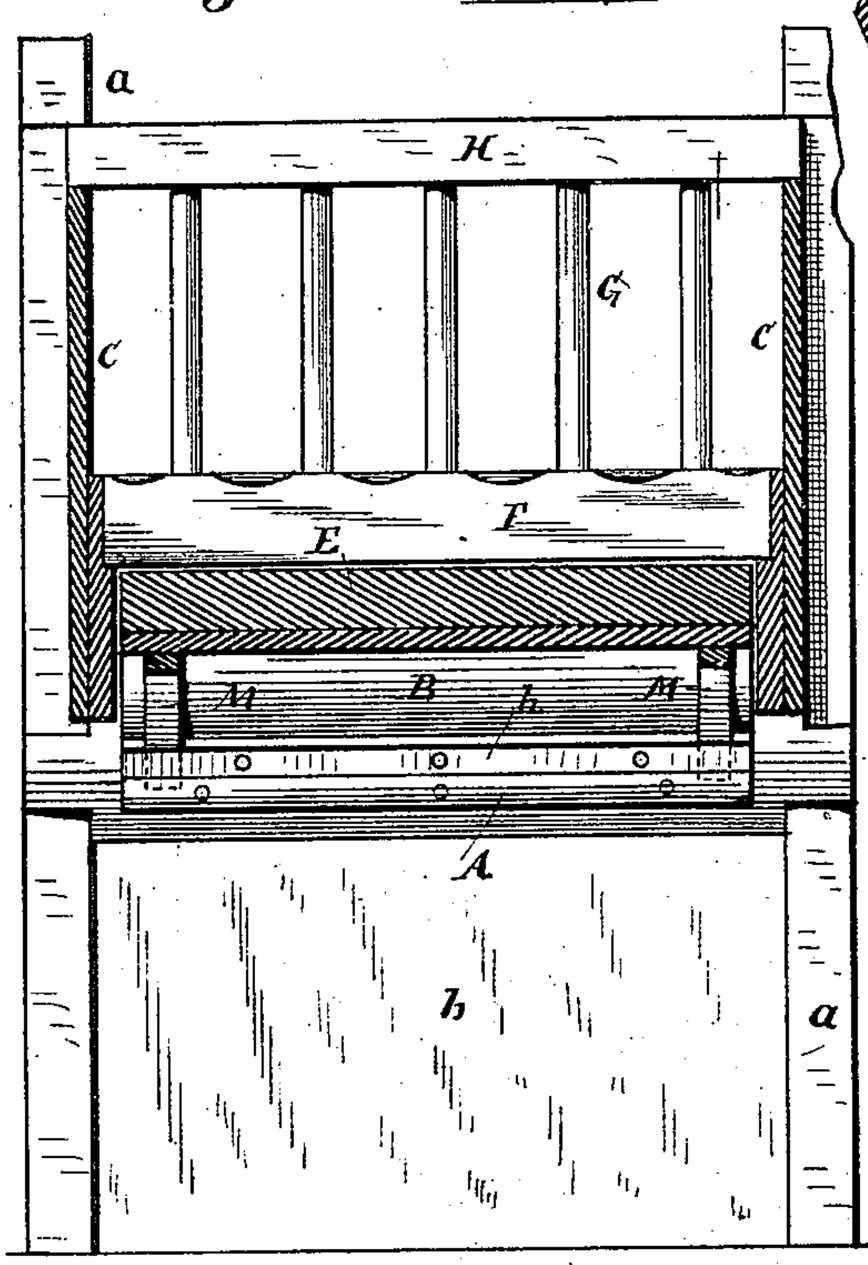
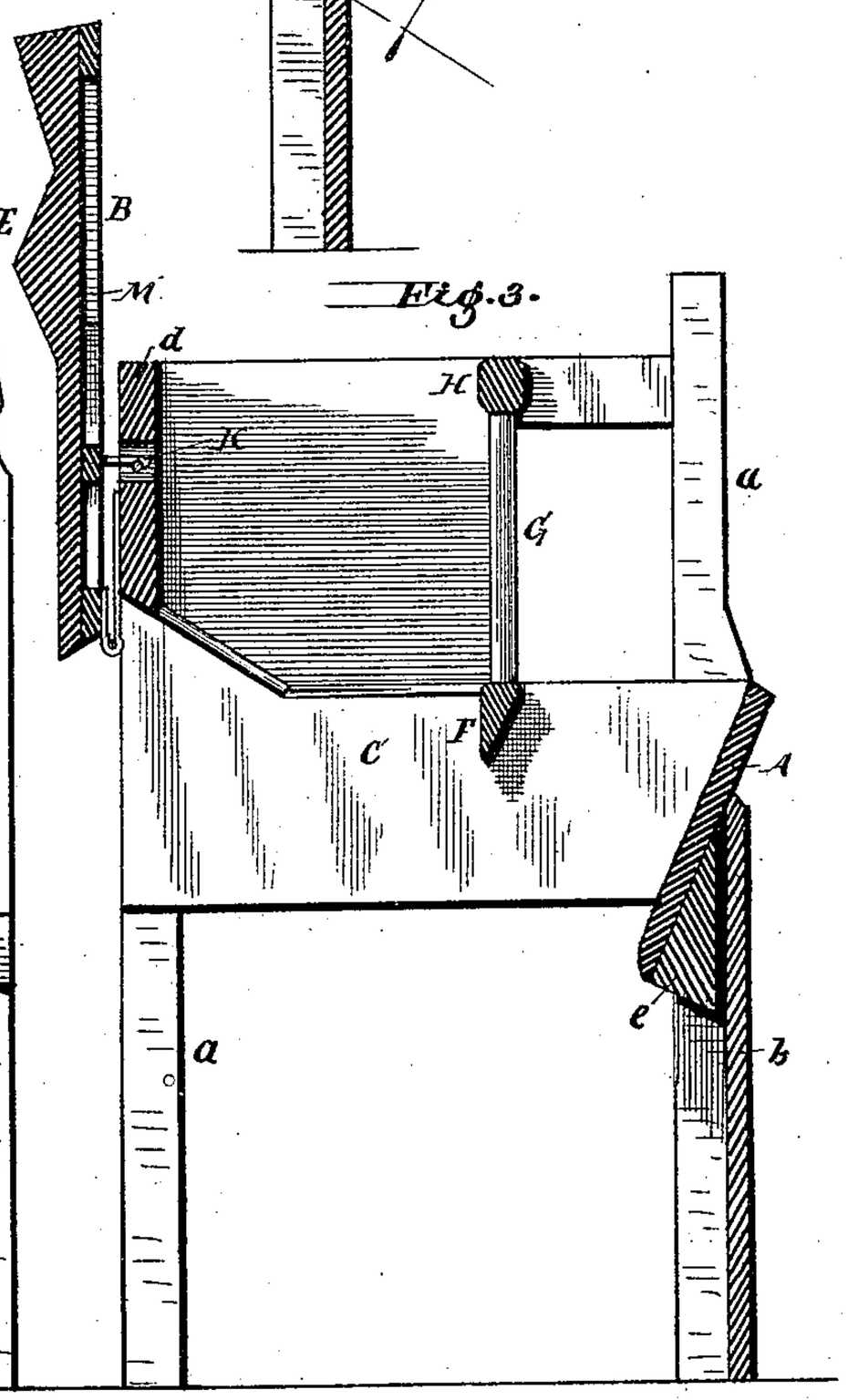


Fig. 3.



Witnesses:
A. M. Young
W. B. F. Keyser,

James M. Holladay, Inventor.
By Paine, Wroton & Lockwood
Attorneys.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

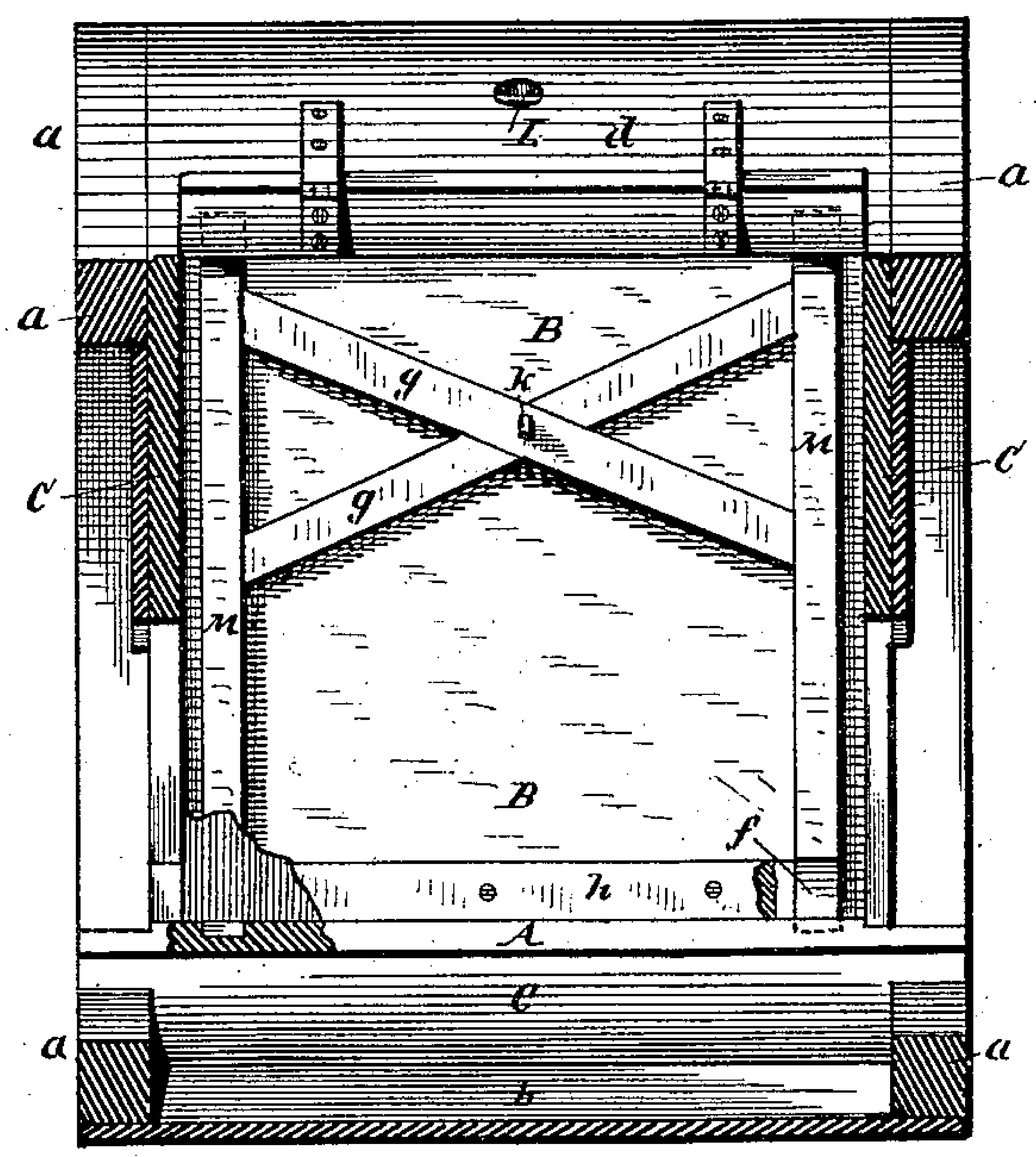
(No Model.) 2 Sheets—Sheet 2.

J. M. HOLLADAY.

Feed Trough and Hay Rack.

No. 238,390. Patented March 1, 1881.

Fig. 4.



Witnesses:
A. M. Foote
Wm. B. P. Keyser

James M. Holladay, Inventor.
By Paine, Grafton & Ladd.
Attorneys:

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES M. HOLLADAY, OF PROSPECT HILL, VIRGINIA.

FEED-TROUGH AND HAY-RACK.

SPECIFICATION forming part of Letters Patent No. 238,390, dated March 1, 1881.

Application filed January 4, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. HOLLADAY, a citizen of the United States, residing at Prospect Hill, (Farm,) in the county of Spottsylvania and State of Virginia, have invented certain new and useful Improvements in Combined Feed-Trough and Hay-Rack; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The object of the present invention is to furnish a combined feed-trough and hay-rack for horses and other live stock which can be conveniently and expeditiously emptied of its refuse contents, and effectually cleansed and ventilated, in order to keep it in a clean condition at all times, so as to promote the comfort and health of the stock and obviate the handling of the feed in removing the same from the trough and rack.

The invention consists in the construction and combination of parts, which will be hereinafter more fully described, and then set forth in the claims.

In the drawings, Figure 1 is a vertical sectional view of a feed-trough and hay-rack constructed according to the present invention. Fig. 2 is a transverse section of the same. Fig. 3 is a sectional view, showing the hinged bottom of the trough and rack in a raised position. Fig. 4 is a bottom view, partly in section, showing the gravitating bolt-frame for locking the hinged bottom.

The frame of the combined feed-trough and rack forming the subject-matter of the present invention is generally constructed of four corner posts or stanchions, *a*, having attached thereto front boards, *b*, side boards, *c*, and a rear board, *d*.

An inclined board, A, extending across the frame, constitutes the front of the feed-trough, and has its lower end attached to an angular strip, *e*, so as to give it the proper inclination. The bottom of the feed-trough is formed by an inclined board or door, B, which also constitutes the bottom or floor of the hay-rack or long-feed chamber. This door or bottom board B is hinged at its rear or upper end to the rear board, *d*, of the frame, and is capable of being swung up beneath the hay-rack and feed-trough, where it is retained in a locked position by means of a gravitating bolt-frame, M. This bolt-frame is composed of two sliding bars having tenons or reduced ends *f*, and connected by intersecting cross strips or bars *g*. The tenons or ends of the sliding bars work through mortises in the cross bars or strips *h* of the bottom of the feed-trough and rack, and when the latter is swung or turned in an upward direction, so as to close the bottom of the trough and rack, the front or lower ends of the sliding bars of the bolt-frame are caused to enter slots or mortises near the lower edge of the front board of the feed-trough. In this manner the bottom of the trough and hay-rack is automatically locked, as the bolt-frame will gravitate toward the lower end of the bottom board and engage with the mortises in the front board of the trough.

The rear wall of the feed-trough is formed by a triangular cross-block or transverse strip, E, attached to the upper side of the bottom board or door, B. When the said bottom board is turned up and locked to the front board of the trough, the angle of the triangular block or strip is brought immediately below the transverse bar F. This bar, in connection with the vertical bars G, attached thereto, and the top bar, H, forms, in connection with the chamber in rear of the same, the hay-rack or receptacle for long feed. The bottom of said receptacle is inclined, with the exception of the front portion thereof adjacent the rack, which is made level, or nearly so, by the triangular block or strip E.

It will readily be understood that the feed-trough is designed for the reception of grain or mixed feed, while the hay-rack serves to receive long feed. It is a well-known fact that horses and stock in general frequently refuse to eat their feed by reason of the sourness or taint induced by the unclean condition of the feed-receptacle. This result is chiefly produced by reason of the absence of means for thoroughly cleaning and airing the trough. The present invention obviates these defects by providing a bottom or door for the trough

and hay-rack, which can be readily and conveniently raised, so as to discharge their contents. When the bottom is removed from the trough and rack, a thorough circulation of air can take place through the same.

In order to retain the bottom in a raised position, so as to be out of the way, I provide one of the bolt-bars thereof—generally one of the intersecting cross-bars—with a hook, K, which, when the door or bottom is raised, engages automatically with a cross rod or wire, L, arranged in an opening made in the rear board of the rack-frame. The catch holds the door in an elevated position until the hook is disengaged by raising the bolt-frame. When this is done the door or bottom drops by its own weight, and is pushed in and up until its bolts engage with the mortises in the front board of the feed-trough.

It will be perceived that the bolt-frame constitutes a handle for the hook K, for liberating the same.

I am aware that it is not broadly new to provide feed-troughs and hay-racks with hinged bottoms or trap-doors; but I am not aware that a single bottom or door has been arranged in the manner proposed by me for closing both the bottom of a feed-trough and hay-rack.

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

1. In a combined feed-trough and rack, the combination of the hinged bottom or door B, having a locking device, with the rear wall, *d*, of the rack-chamber, the rack G, and the front wall of the feed-trough, said bottom being hinged to the rear wall of the rack-chamber, and its fastening device engaging with the front wall of the feed-trough, as and for the purpose set forth.

2. In a combined feed-trough and rack, the combination of the hinged bottom or door B, having a gravitating or sliding bolt-frame, M, with the rear wall, *d*, of the rack-chamber, the rack G, and the front wall of the feed-trough A, as and for the purpose set forth.

3. The combination of the hook K with the gravitating bolt-frame and hinged bottom door, and the opening and rod or other engaging device on the back of the rack-chamber, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES M. HOLLADAY.

Witnesses:
JOHN B. JENKINS,
E. S. MANSFIELD.