(No Model.)

M. A. ROGERS.

FEED TROUGH.

No. 420,168. Patented Jan. 28, 1890.

Fig. 1.

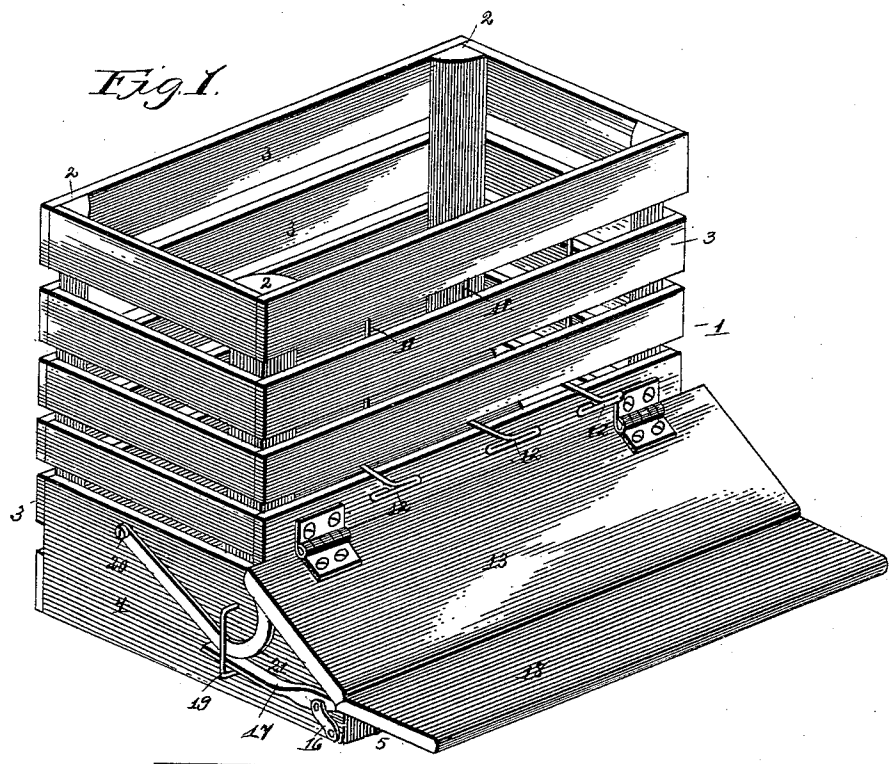


Fig. 2.

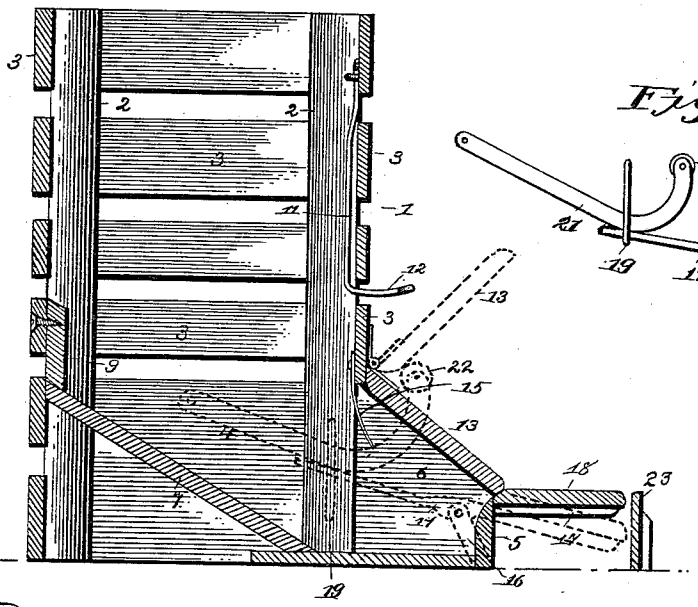


Fig. 3.

Witnesses:

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

MARCUS A. ROGERS, OF CANTON, ILLINOIS.

FEED-TROUGH.

SPECIFICATION forming part of Letters Patent No. 420,168, dated January 28, 1890.

Application filed September 17, 1889. Serial No. 324,196. (No model.)

To all whom it may concern:

Be it known that I, MARCUS A. ROGERS, a citizen of the United States, residing at Canton, in the county of Fulton and State of Illinois, have invented a new and useful Feed-Trough, of which the following is a specification.

This invention has relation to a stock-feeder, and is especially adapted for feeding hogs.

Among the objects in view are to provide a stock-feeder comprising the usual crib with means for agitating the contents, as they are consumed, below the same, and thus effecting a constant feed thereof, and to provide the trough with a cover or lid to be opened when it is desired to feed the hogs and automatically close after such feeding.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a stock-feeder constructed in accordance with my invention. Fig. 2 is a transverse section of the same. Fig. 3 is a detail view showing the actuating mechanism between the cover and the treadle.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents a crib or bin adapted for the reception of the feed, and principally for such feed as corn; and the same consists of the opposite pairs of posts 2, connected by the usual end and side rails 3. The lower ends of the opposite pairs of posts are connected at their sides by side pieces 4, the forward ends of which are cut away at their upper corners and projected beyond the post at the front of the crib, and are connected by a front piece 5 to form a feed-trough 6, provided with a bottom extending from its front edge to about the center of the bin or crib. The remainder of the area of the bin is covered by an inclined bottom 7, formed in this instance of two sections or halves, the side corners of which are cut away to embrace the posts 2, said sections being held in place by a turn-button 9, secured to the rear wall of the crib. By this arrangement the inclined bottom serves as a feed-board for the device.

At suitable intervals along the front wall of the crib there are provided L-shaped agitators 11, the upper ends of which are secured to a convenient front rail and the lower L ends of which are projected through the space formed by two adjacent lower rails, and terminate in bent heads 12.

13 represents the hinged trough-covering lid, which when in a position upon the trough is inclined by reason of its outer cut-away corners.

15 represents a series of guards which project from the lower rail of the front of the crib and terminate in the trough, and act to prevent a rush of feed from the crib into the trough.

At opposite sides of the side pieces of the trough, and in brackets 16, are pivoted levers 17, the front ends of which project beyond the trough and are provided with a tilting table 18, arranged in front of the trough. The rear ends of the levers project beyond the front wall of the crib and are loosely embraced by keepers 19. To the rear of the ends of these levers and pivoted to the side walls, as at 20, are forwardly-projecting curved or cam levers 21, also embraced by the keepers, and against the cam-faces of the same terminate the rear ends of the levers before described. The forward ends of the cam-levers terminate under the laterally-projecting ends of the trough-cover, and are provided at those points with friction-wheels 22, which ride against the under surface of the cover. By this construction it is apparent that the stock in coming to the trough will tread upon the tilting table, and their weight will serve to raise the rear ends of the table-supporting levers, which, operating upon the curved or cam levers, will swing the cover of the trough upwardly, and said cover will remain in that position until the weight of the animals is removed therefrom, when it will automatically drop by gravity to a closed position. As the cover swings to a vertical position the same strikes the forwardly-projecting lower ends of the L-shaped agitators, and they, being yielding, are forced inwardly and serve to agitate the corn or other feed to such an extent as to prevent it from clogging, and thus the same will drop down against the guards and be fed in small quantities to the trough.

It is apparent from the foregoing descrip-

tion that the trough and its mechanism may be applied to a watering-reservoir and employed to dispense water as well as feed.

A fender 23, merely consisting of a board, is secured by stakes driven in the ground or other means just in front of the treadle, whereby rooting under the same is prevented. This is shown in Fig. 2.

Having described my invention, what I claim is—

1. The combination of the trough, the pivoted cover arranged over the same, keepers on the ends of the trough, the cam-arms pivoted to the trough and embraced by the keepers, and provided at their forward ends with friction-rollers bearing under the cover and adapted to actuate and ride upon the same, with the pivoted levers mounted in brackets beside the trough and having their rear ends embraced by the keepers and operating against the cam-levers, and the tilting table or treadle mounted on the front ends of the levers in advance of the trough, substantially as specified.

2. The combination, with the crib having the trough, of the pivoted cover, the tilting table, intermediate mechanism for operating the cover, and the L-shaped agitators mounted in the crib and projecting through the same and into the path of the swinging of the cover, substantially as specified.

3. The combination, with the crib having the trough, of the swinging cover, the curved pivoted cam-arm terminating under and actuating the same, the opposite levers for actuating the cam-arms, the tilting table or treadle mounted on the front ends of the levers, and a series of yielding depending L-shaped agitators connected to the front wall of the crib and terminating in heads outside of said wall and in the path of the swinging cover, substantially as specified.

4. The combination of the crib, the wire agitators 11, secured rigidly to the interior thereof and having the heads 12 projecting through the space between the slots of the crib, said agitators arranged in juxtaposition to the swinging cover of the trough of the crib, so that the swinging of the cover backward will actuate the agitators, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of three witnesses.

MARCUS A. ROGERS.

Witnesses:

ALBERT C. DOWNING,
GILBERT L. MILLER,
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