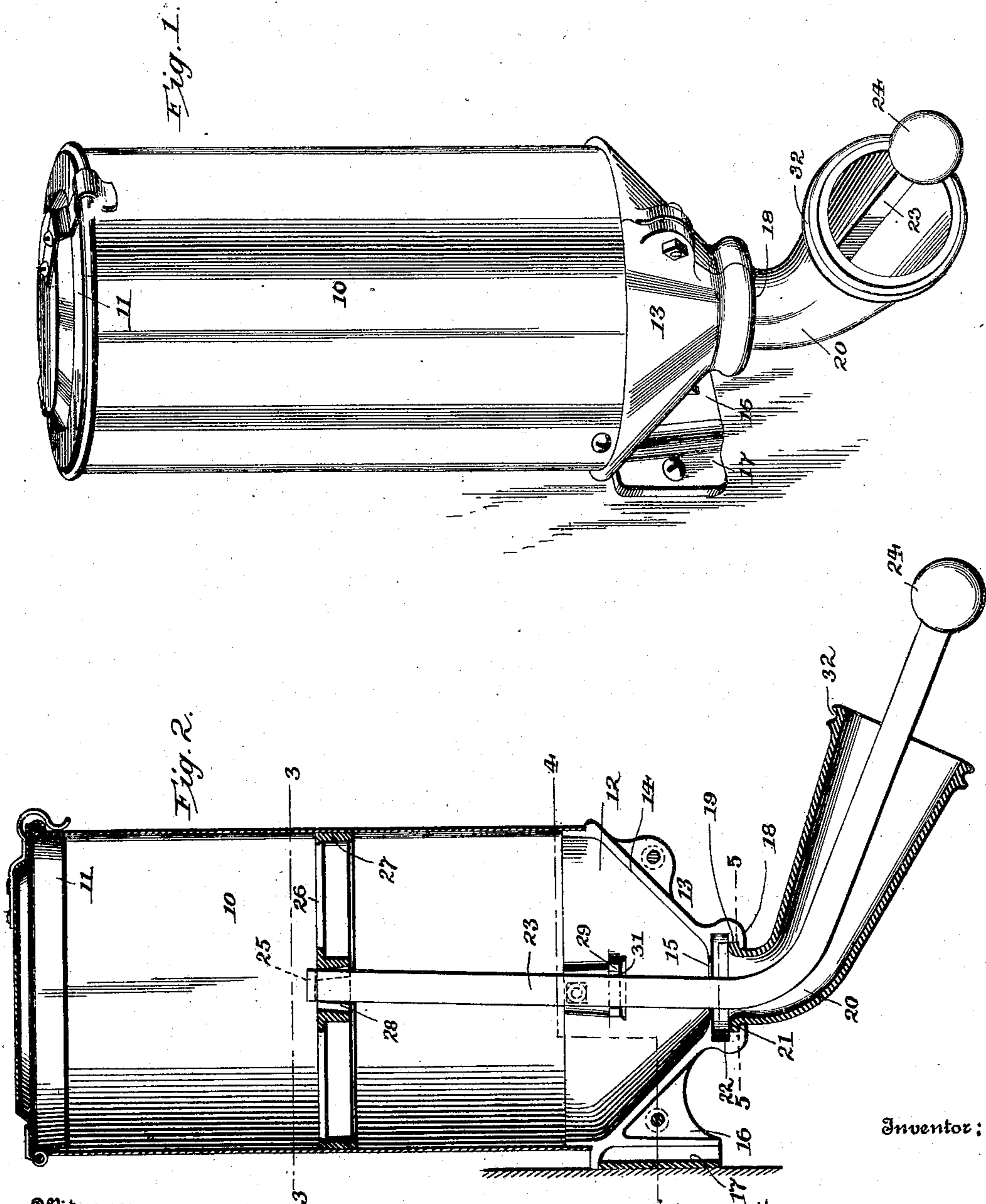


J. M. HANNIBAL.
FEED BOX.
APPLICATION FILED DEC. 10, 1908.

920,865.

Patented May 4, 1909.
2 SHEETS—SHEET 1.



Inventor:

Witnesses
E. L. Rader

Fannie Wise

By

John M. Hannibal
Dodge and Sons

Attorneys.

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2 SHEETS—SHEET 2.

Fig. 3.

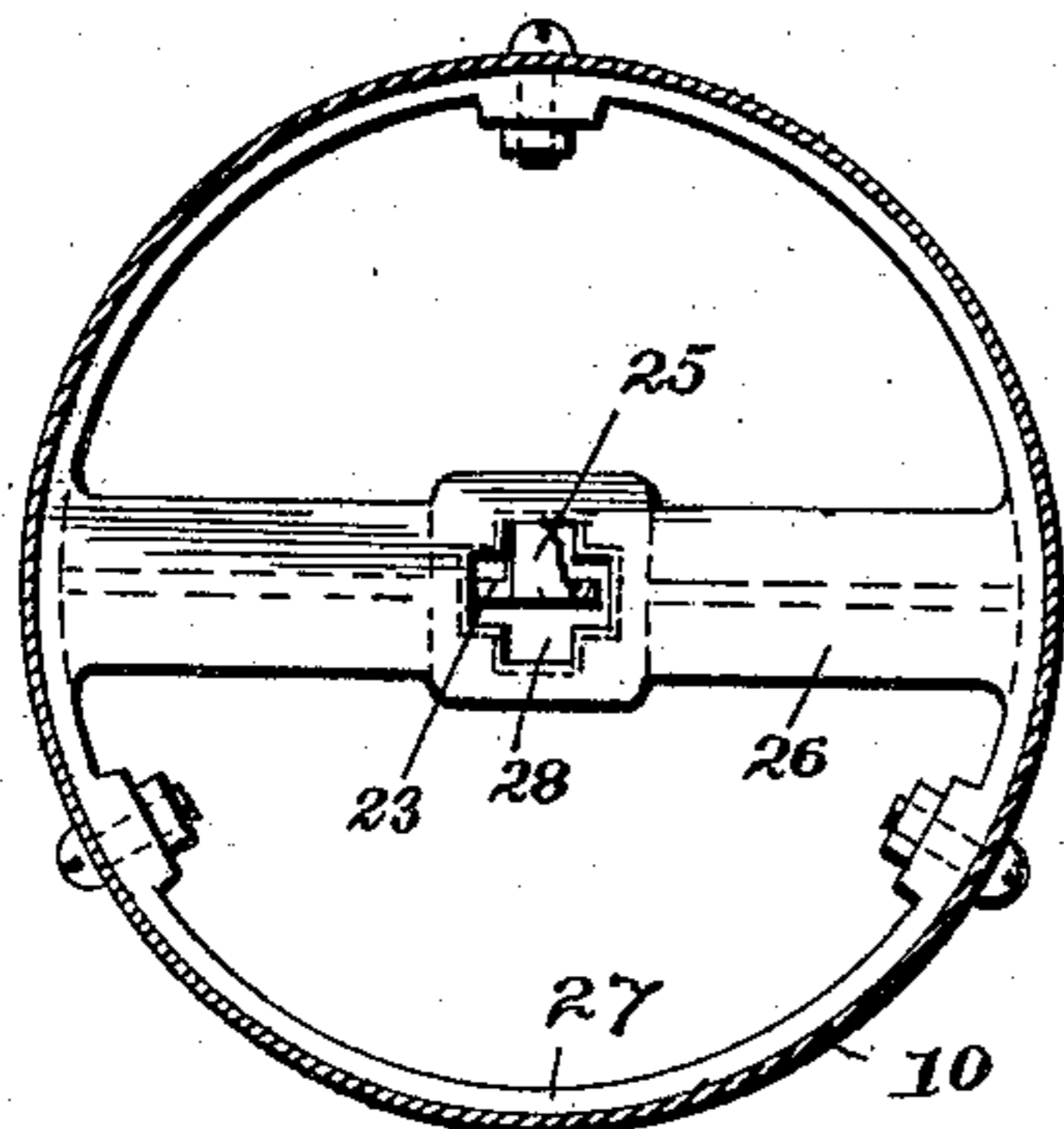


Fig. 4.

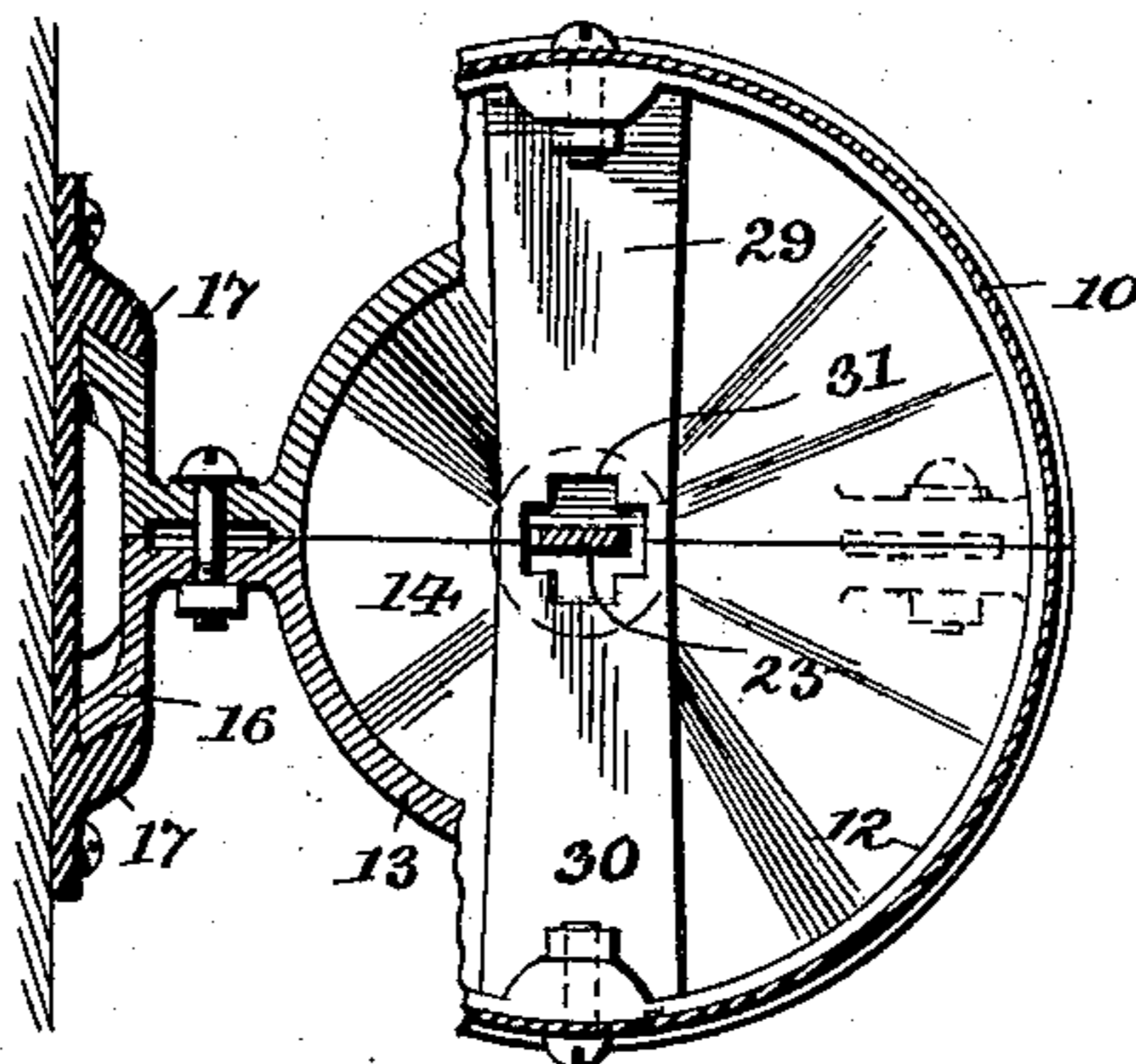


Fig. 5.

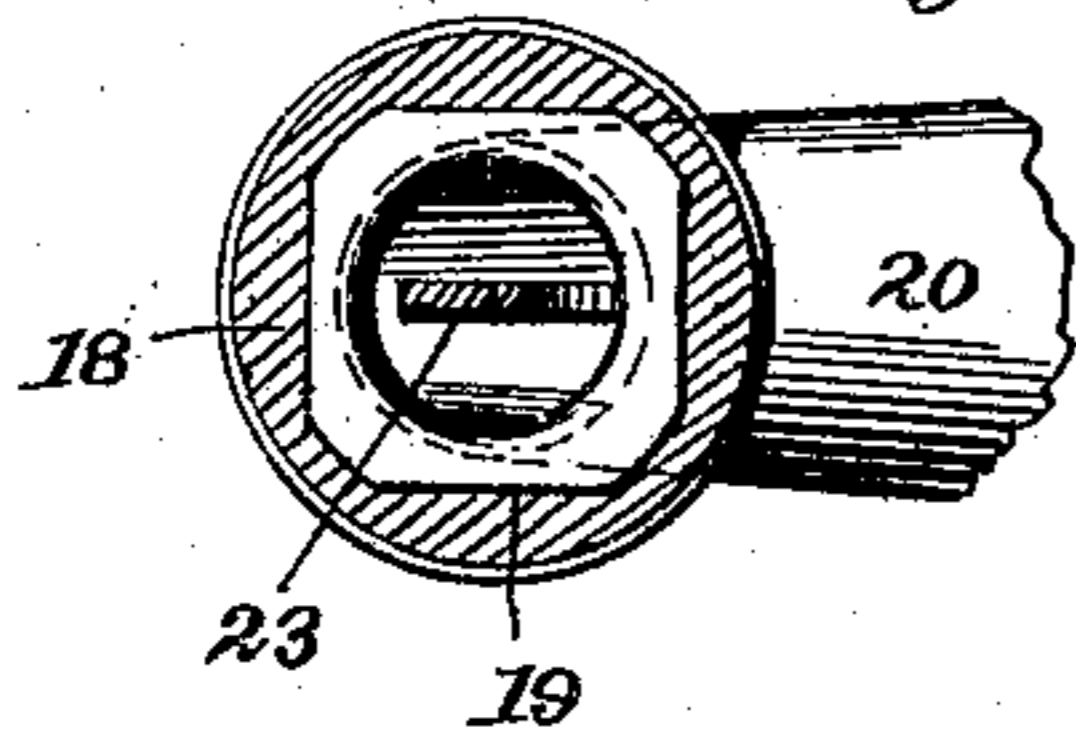
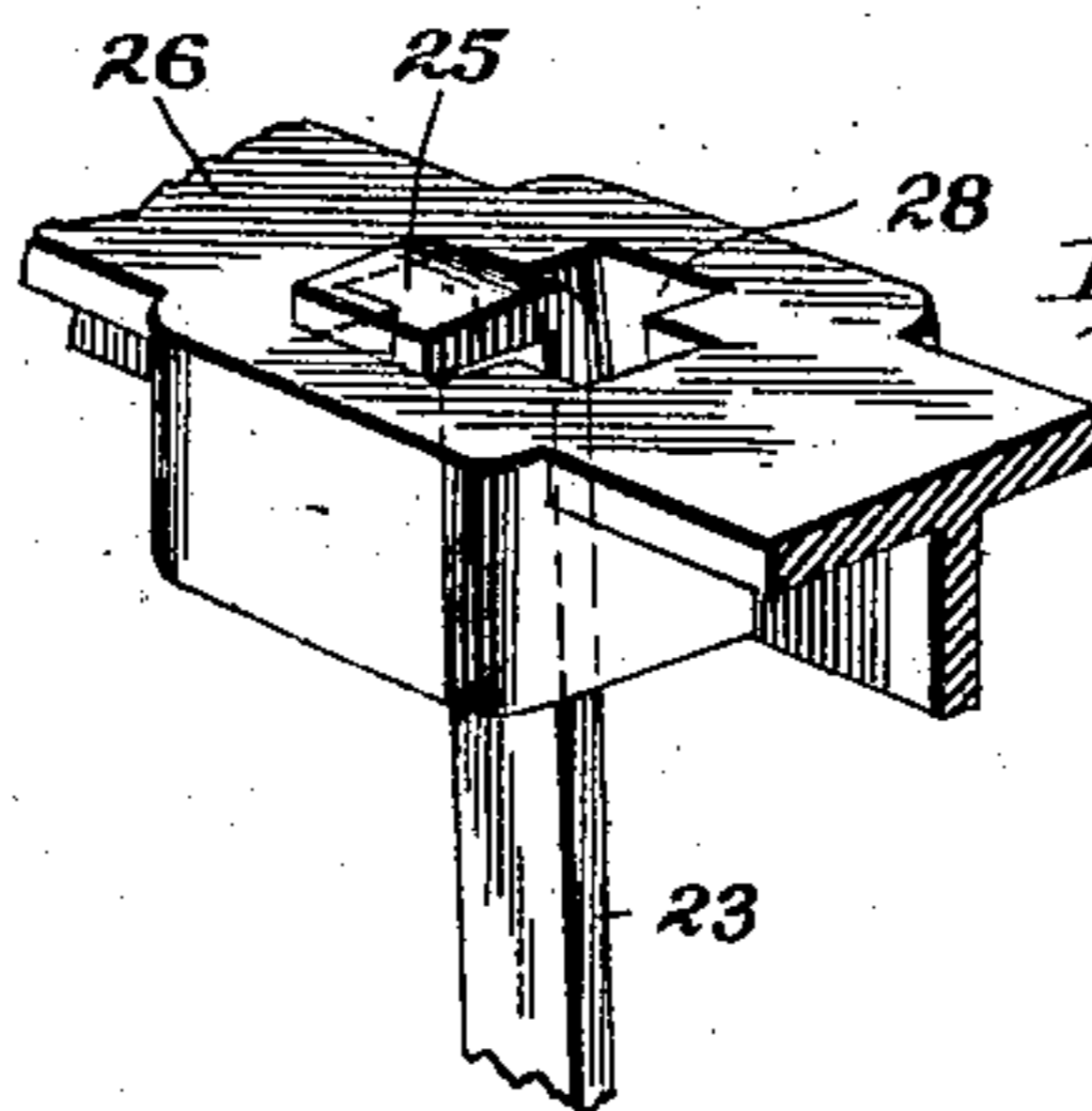


Fig. 6.



Inventor:

Witnesses

H. Raeder

Fannie Wise

By

John M. Hannibal,
Sledge and Sons,

Attorneys.

UNITED STATES PATENT OFFICE.

JOHN M. HANNIBAL, OF ST. LOUIS, MISSOURI.

FEED-BOX.

No. 920,865.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed December 10, 1908. Serial No. 466,804.

To all whom it may concern:

Be it known that I, JOHN M. HANNIBAL, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Feed-Boxes, of which the following is a specification.

My present invention pertains to improvements in feed-boxes to be used in conjunction with feed-troughs, the construction and advantages of which will be hereinafter set forth, reference being had to the accompanying drawings, wherein:

Figure 1 is a perspective view of the feed-box; Fig. 2 is a vertical sectional view thereof; Fig. 3 a horizontal view, taken on the line 3—3 of Fig. 2; Fig. 4 a similar view, taken on the line 4—4 of Fig. 2; Fig. 5 a horizontal sectional view, taken on the line 5—5 of Fig. 2; and Fig. 6 a perspective view of a portion of the upper supporting member for the agitator bar.

The main object of the present invention is to provide a simple and efficient feed-box to be used in connection with a feed-trough and the like, whereby the feed will pass gradually from the box to the trough, the passage of the material from the box to the trough being effected through the movement of an agitator mounted in the box and the hopper or spout leading therefrom.

A further object of the invention is to provide means whereby the hopper or spout may be readily adjusted with relation to the box proper, so that the mouth of the spout may be turned and held in any desired direction.

A still further object of the invention is to provide means whereby the mouth of the spout may be temporarily closed in case it be desired to transport the feed-box with the feed therein.

With these and other objects in view, a detail description of the invention will be given.

The body 10 of the box will preferably be formed of sheet metal and cylindrical in form, said body being provided with a hinged cover or closure 11 at the upper end, and being secured at its lower end to an up-standing rim or collar 12 formed upon a two-part base or bottom 13. The two sections of said base are alike in shape and when assembled and secured together form an inclined bottom 14 which terminates in a centrally-disposed opening 15. Each of the

members which form the bottom or base is provided with an outwardly-extending member 16 which forms a lug by which the box may be secured in vertical position, the outer edges of the members 16 being inclined and beveled so as to coact and engage with the correspondingly formed walls of a supporting block or bracket 17, which latter may be secured adjacent to the trough into which the feed is to be discharged.

The lower portion of the bottom or base of the box is provided with an inwardly-projecting collar 18, in which is formed a seat or recess 19, for the reception of the upper end of a laterally-extending spout 20. As will be seen upon reference to Fig. 5, the walls of said recess 19 are squared and coact with the correspondingly formed faces upon a flange 21 at the upper end of the spout. An enlarged recess or chamber 22 is formed at a point above the seat or recess 19, so that by lifting the spout vertically the flange 21 may pass into said enlarged chamber 22 and the spout thereupon turned to the desired angle and again lowered into the seat or recess 19, where it will be held by reason of the flat walls and faces contacting with each other. With this construction no adjusting screws or the like for holding the spout in position are required.

In order to effect the proper descent of the material or feed from the box through the spout and into the trough an agitator is employed. In the form shown this comprises a flat bar 23, which extends a considerable distance up into the box, through the spout, to a point beyond the same where it is provided with a rounded knob or projection 24. The upper end of the bar which forms the agitator is bent at right angles, as at 25, Fig. 6, said end overlying a cross-bar 26, which bar is formed with or secured to a ring-shaped member 27, which latter is bolted or otherwise secured in place within the body 10. The cross-bar is provided with a cruciform opening 28 through which bar 23 passes, the size of the bar and of the opening being such that the bar may be turned by a slight pressure when it is desired to adjust the spout to a different position, the bar, however, normally maintaining its position under ordinary usage.

To center the bar in the opening 15 and in the upper end of the spout, a pair of arms extend inwardly from the opposite sides of the bottom of the box, said arms being

designated by 29 and 30, the abutting ends of the arms being so shaped as to form a cruciform opening 31 (see Fig. 4), similar to the opening 28.

5 In the construction shown the spout is slightly larger at its outer end than at the upper end; or in other words, is made flaring toward the discharge end, which facilitates the passage of the feed therethrough.
10 At the outer end of the hopper or spout is formed an exterior groove or channel 32, adapted to receive the upper portion of a bag or cloth which may be drawn over the rounded end 24 of the agitator and the mouth
15 of the hopper, where it may be secured by a string or similar device. Such closure will be employed when it is desired to transport the box, with the feed therein, from one point to another.

20 In use the feed will be placed within the box, preferably in a measured quantity and will remain therein (except for a small portion, which will pass down through the opening prior to the bridging or clogging of the
25 feed in the box) until the animal moves the agitator by striking its nose against the rounded portion 24. The movement of the agitator will then loosen the material and permit a small quantity of the same to flow
30 down through the spout, or until the material becomes again bridged or clogged. A further movement of the agitator will break the bridge thus formed, and the feed will be discharged in small quantities from the box.
35 Thus the animal is prevented from eating the feed too rapidly; or in other words, the consumption must be gradual.

In so far as the generic invention is concerned, it will be readily appreciated by
40 those skilled in the art that the device may be changed in form without departing from the spirit of the invention. For instance, the body of the box may be cast and have a form other than circular in cross-section.
45 Furthermore, the box, instead of being formed in two parts, may be made in any desired manner. So, too, the agitator may be supported in a manner different from that shown.

50 Having thus described my invention, what I claim is:

1. In a feed-box, the combination of a box proper provided with a discharge opening at the lower end thereof; a spout adjustably
55 secured to the lower end of the box in line with said opening and extending laterally therefrom, whereby the spout may be moved to cause the same to discharge to one or the other side of the box; and an agitator extending substantially throughout the length
60 of the box, through the spout, and to a point slightly beyond the outer end thereof.

2. In a feed-box, the combination of a box proper, the bottom of which is inclined to-
65 ward a central discharge opening; a collar

formed around said opening; a spout provided with a flange adapted to be embraced by said collar and to be held thereby in its adjusted relation with reference to the box; and an agitator mounted within the box, extending through the spout, and to a point slightly beyond the outer end thereof.

3. In a feed-box, the combination of a box proper; a cross-bar secured in the box, said bar having a vertically-disposed opening
75 formed therein; a pair of arms extending inwardly toward each other at the lower end of the box, the ends of the arms being notched; a spout adjustably secured in the lower end of the box in line with the opening formed
80 therein; and an agitator comprising a flat bar having a hooked end, said bar passing through the opening formed by the notches in the ends of the arms and through the opening in the cross-bar, the hooked end
85 overlying the cross-bar being supported thereby, and the lower portion of the agitator being curved to conform to the spout through which it passes.

4. In a feed-box, the combination of a box
90 proper; a laterally-extending spout adjustably mounted upon the lower portion thereof; and an agitator suspended within the box and extending downwardly and outwardly through the spout.

5. In a feed-box, the combination of a box proper provided with a discharge opening at its lower end; a spout adjustably secured to the lower end of the box in line with said opening and extending laterally therefrom;
100 and an agitator extending through the lower portion of the box, through the spout, and to a point slightly beyond the outer end thereof.

6. In a feed-box, the combination of a box proper the bottom of which is inclined to-
105 ward a central discharge opening; a collar formed around said opening; a spout provided with a flange adapted to fit within said collar; and an agitator mounted within the box, extending through the spout and to a
110 point slightly beyond the free end thereof.

7. In a feed-box, the combination of a box proper; a spout secured to the lower end thereof and extending laterally therefrom; an agitator suspended within the box, comprising a flat bar, the bar being bent or
115 curved to conform to the curvature of the spout through which it passes; and a rounded knob secured to the outer projecting end of said agitator.

8. In a feed-box, the combination of a box proper; a laterally-extending spout adjustably mounted upon the lower end thereof; and an agitator, comprising a flat bar, extending through the lower portion of the box
125 and downwardly and outwardly through the spout, the upper end of the bar being bent at right angles to the main body thereof; a supporting cross-bar provided with a cruciform opening therein through which the body of
130

the agitator passes; and means for engaging the agitator at a point between said cross-bar and the lower portion of the box, whereby said agitator will be positioned with reference to the opening in the lower end of the box, and the spout through which it passes.

9. In a feed-box, the combination of a box proper; a laterally-extending spout adjustably mounted upon the lower end thereof and in line with an opening formed in said end; an agitator extending through the lower portion of the box downwardly and outwardly through the spout, said agitator comprising a flat bar having a rounded member at its outer end, the inner or upper end of said agitator being bent at right angles to the main portion thereof; a cross-bar secured to the body of the box, said bar being provided with a cruciform opening through which a portion of the body of the agitator extends, the bent end of the agitator resting upon the upper face of said cross-bar; and means extending inwardly from the lower portion of the box and coacting with the agitator to position the same with reference to the opening formed in the lower end of the box and the spout.

10. In a feed-box, the combination of a box proper having an opening in the lower

end thereof and provided with a seat having straight walls located below said opening; and a spout provided with a flange the sides of which are flat and adapted, when the flange is in position within the seat, to contact with the similarly-formed walls of the recess.

11. In a feed-box, the combination of a body portion; a bottom formed of two parts adapted to be secured to each other and to the body, said parts, when assembled, producing a cruciform opening and being likewise formed with a seat below said opening, the vertically-disposed walls of which are flat, and said portions being likewise formed so as to produce an enlarged chamber above said seat; and a spout provided with an outwardly-extending flange at its upper end, the edges of said flange being flat and adapted when the flange is placed within the seat, to contact with the similar faces thereof.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN M. HANNIBAL.

Witnesses:

LOUIS NOLTE,
F. C. HOUSLEY.