Feb. 26, 1924. 1,484,916

J. R. VINCENT

AUTOMATIC FEEDER

Filed Feb. 9, 1922

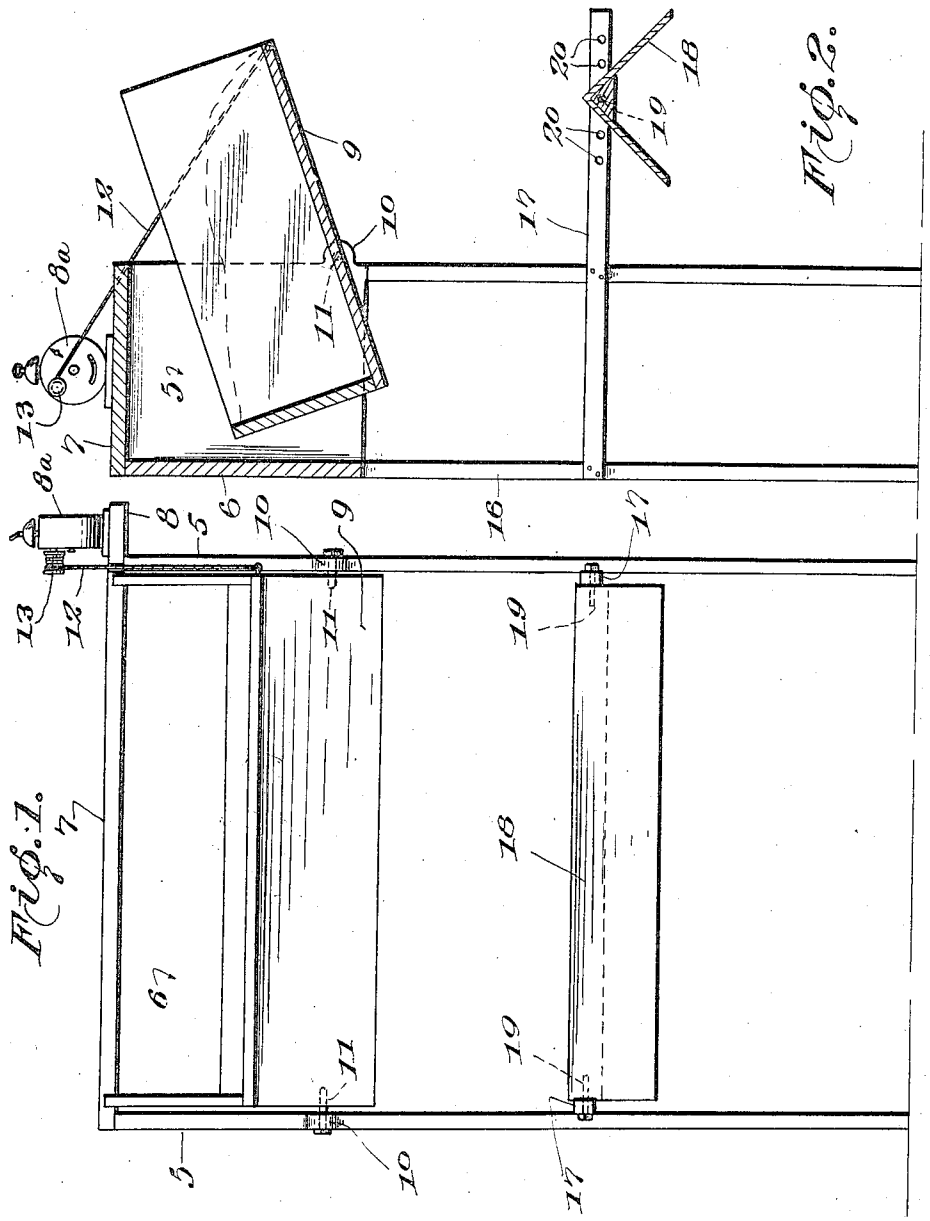


Fig. 1.

Fig. 2.

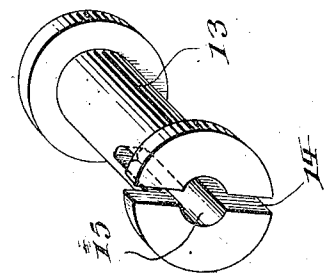


Fig. 3.

Inventor:
James R. Vincent.
By Nilson R. Thurston
Attorneys.

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UNITED STATES PATENT OFFICE.

JAMES R. VINCENT, OF WHEATON, ILLINOIS.

AUTOMATIC FEEDER.

Application filed February 9, 1922. Serial No. 535,331.

To all whom it may concern:

Be it known that I, JAMES R. VINCENT, a citizen of the United States, residing at Wheaton, in the county of Du Page and State of Illinois, have invented new and useful Improvements in Automatic Feeders, of which the following is a specification.

My invention relates to improvements in poultry feeders of the time-controlled variety, and its primary object is the provision of a feeder of the kind stated which is simple in construction, highly efficient in operation and which may be cheaply manufactured.

These and other objects are attained by means of a novel combination and arrangement of parts to be hereinafter described and claimed, and in order that the same may be better understood, reference is had to the accompanying drawing forming a part of this specification, and in which the preferred embodiment of the invention is disclosed.

In the drawing,

Figure 1 is a front elevation of the device with the feed receptacle in inoperative or holding position;

Fig. 2 is a central vertical section of Fig. 1, and

Fig. 3 is a perspective view of a pulley which is associated with the time controlling mechanism.

Referring specifically to the drawing, wherein like reference characters designate like parts throughout the several views, numeral 5 denotes the end walls of a rectangular casing having a rear wall 6 and a top 7. At one end the top 7 extends out beyond the end wall 5 forming an extension 8, as shown in Fig. 1, the purpose of which is to constitute a support for an alarm clock or other time controlled mechanism 8^a the function of which will be presently described.

A feed receptacle 9 is rockably mounted in the open front portion of the casing by means of bolts 11 passing through the forwardly directed ears 10 of the end walls 5. It will be noted that the feed receptacle 9 is pivoted at a point in rear of its longitudinal axis thus making the weight greater in advance of the pivot, and causing the receptacle to normally occupy its depending or feed discharging position. It will be noted from an inspection of Fig. 2 that the feed receptacle 9 is so mounted that the inner side of the casing top will intercept the back wall of the receptacle upon its release to prevent its descending to its point of rest but allowing it to lower sufficiently to discharge its contents. The purpose of this construction is to facilitate return of the receptacle to holding position upon resetting alarm clock 8^a as will presently appear. In order to prevent discharging of the feed except at a predetermined time, I provide a cord 12 one end of which is attached to the forward end of the feed receptacle in any suitable manner while the other end is secured to a pulley 13 which is adapted to be carried by the alarm winding key of the alarm clock 8^a. As shown in Fig. 3 the pulley 13 is formed with a transverse slot 14 across one end with a medial enlargement 15 therein, to snugly accommodate the wings and pin respectively of the alarm winding key of the clock 8^a. From the foregoing it will be apparent that a few turns of the pulley 13 will wind the cord 12 thereon and elevate the feed receptacle 9 to its holding or inoperative position as shown in the drawing. This operation is made possible by limiting the descent of the feed receptacle 9 short of its point of rest at such a point that the forward edge thereof to which the cord 12 is attached will lie above the plane of a line connecting the axis of the pulley and the pivot bolts 11.

Supporting legs 16 are provided to raise the device above the ground, and bracket bars 17 are carried thereby and extend forwardly therefrom below the discharge end of the feed receptacle 9. These bracket bars 17 are adapted to carry therebetween, a V-shaped spreader 18 which is secured to the bracket arms by means of pins 19 inserted through holes 20 in said arms. A plurality of such holes may be had so that various adjustments of the spreader 18 may be made relative to the feed receptacle.

The operation is as follows:—

The alarm clock is rigidly seated to the extension 8, and the pulley 13 fitted onto the alarm winding key thereof as hereinbefore described. The cord 12 being fastened to the pulley 13, the same may be rotated to wind the alarm and also wind the cord around the pulley 13 to elevate the feed receptacle to holding position as shown in the drawing. The desired quantity of feed may now be placed in the receptacle and the alarm may be set the time at which it is desired that the feeding take place. When this time alarm is actuated causing the alarm

winding key to revolve, thus unwinding the cord 12 from the pulley 13 and permitting the feed receptacle to be lowered through gravity to its dumping or discharging position. The feed is discharged onto the spreader 18 which scatters the feed over a considerable area.

While I have described the preferred embodiment of my invention, it will be understood that I do not restrict myself thereto, and that various changes and modifications may be made in the same within the spirit and scope of the appended claims.

While the device is shown and described as a poultry feeder it is of course capable of use for other purposes, such as feeding stock and the like.

I claim:

1. An automatic feeder comprising a shelf, an eccentrically pivoted feed receptacle below said shelf, a time-controlled mechanism for actuating said feed receptacle, supporting legs carrying said shelf, forwardly directed brackets secured to said legs, a spreader member removably carried by said brackets and positioned beneath the discharge end of said feed receptacle, and said spreader member being adjustable with reference to the vertical plane of said discharge end.

2. An automatic feeder comprising a casing, an eccentrically pivoted feed receptacle within said casing and discharging therefrom, a time controlled rotatable element associated with said casing, a flexible connection wound on said rotatable element and secured to said feed receptacle, a support for said casing, and a spreader member adjustably carried by said support and positioned below the discharge end of said feed receptacle, for horizontal movement with respect to the vertical plane of said feed receptacle.

3. An automatic feeder comprising a casing, a support for said casing, a rockably hung feed receptacle located in said casing and discharging therefrom, a time-controlled mechanism for actuating said feed receptacle, and a spreader removably and adjustably positioned beneath the discharge end of said feed receptacle.

4. In an automatic feeder, a casing, a rockably hung feed receptacle within said casing and dischargeable therefrom, a time controlled mechanism for actuating said feed receptacle to discharging position, the top of said casing cooperating with said receptacle to limit its movement, and means for raising said feed receptacle upon resetting of said time controlled mechanism.

5. In an automatic feeder, a casing, an eccentrically pivoted feed receptacle within said casing and dischargeable therefrom, a time controlled mechanism carried by said casing, a flexible connection between said time controlled mechanism and said feed receptacle for normally holding said feed receptacle in elevated position away from its point of rest, the top of said casing being in a position to intercept a portion of said feed receptacle to check its descent short of its point of rest, the point of attachment of said connection being above the line of said receptacle pivot and its attaching point of said time controlled mechanism, and said feed receptacle being raised upon resetting of said time controlled mechanism.

In testimony whereof I affix my signature.

JAMES R. VINCENT.