

July 21, 1931.

E. W. RUTH

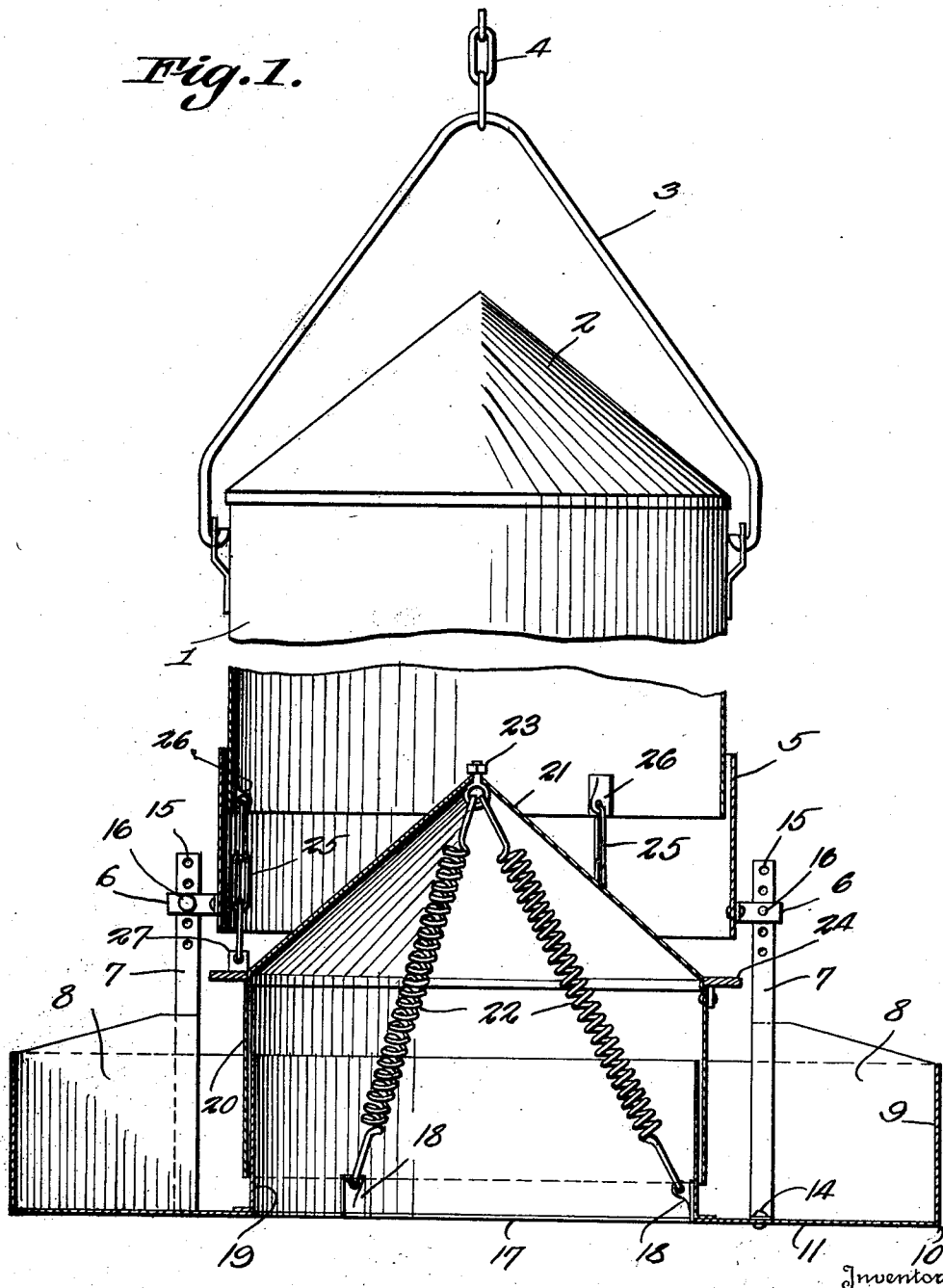
1,815,679

FEEDING DEVICE

Filed Dec. 11, 1930

2 Sheets-Sheet 1

Fig. 1.



Emil W. Ruth

By *Chas. H. Leo.*
Attorneys.

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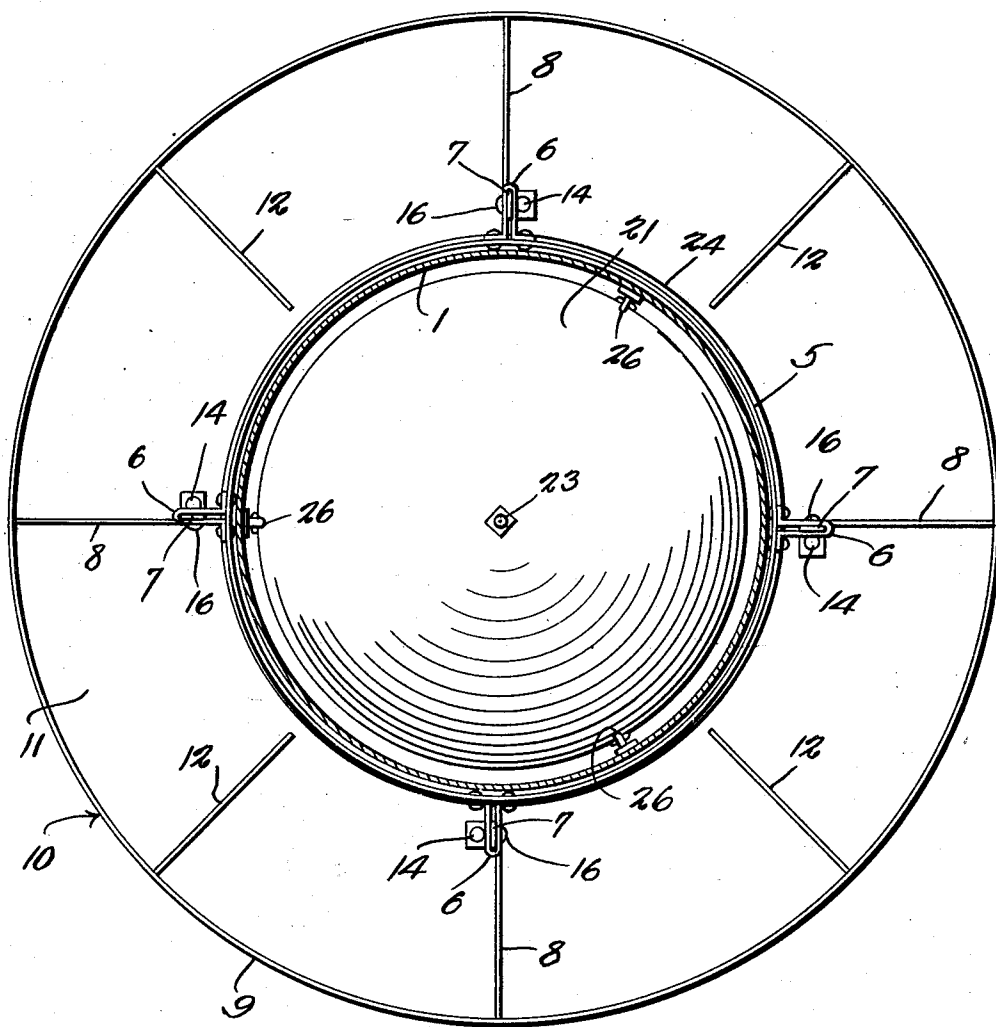


Fig. 2.

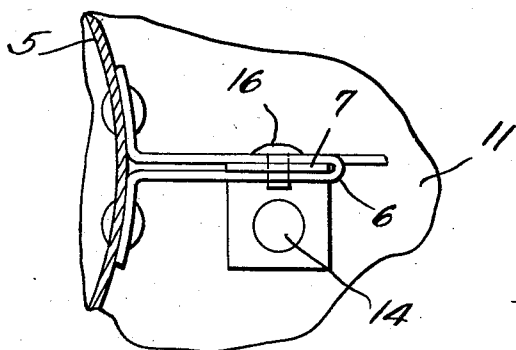


Fig. 3.

Inventor

Emil W. Ruth

By *Chas. W. Co.*
Attorneys.

UNITED STATES PATENT OFFICE

EMIL W. RUTH, OF FRUITVILLE, LANCASTER, PENNSYLVANIA

FEEDING DEVICE

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This invention aims to provide novel means of regulating the flow of feed in a chicken feeder.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:

Figure 1 shows, in vertical longitudinal section, a device constructed in accordance with the invention, parts being broken away, and parts appearing in elevation;

Figure 2 is a transverse section;

Figure 3 is a fragmental transverse section wherein one of the connections appears in top plan.

The device forming the subject matter of this application preferably is made of non-rusting metal trough. It embodies a vertical tubular receptacle 1 provided with a removable lid 2, the receptacle being carried by a pivoted bail 3 from an overhead support 4 of any desired kind.

An annular gate 5 surrounds the lower end of the receptacle 1, and is vertically slidable with respect to the receptacle. The gate 4 has any desired number of outstanding loop-shaped brackets 6.

Into the brackets 6, vertical standards 7 extend, the standards being located at the inner edges of partitions 8, carried by the rim 9 and the bottom 11 of a pan 10, the partitions being radially disposed. Between the partitions 8 are located other partitions 12, which need not be so high as the partitions 8.

The lower ends of the standards 7 are secured at 14 to the bottom 11 of the pan 10. Near to their upper ends, the standards 7 are supplied with openings 15, spaced

apart, longitudinally of the standards. Removable securing elements 16 are mounted in the brackets 6, and may be engaged in any of the openings 15, for adjustment.

In the bottom 11 of the pan 10 there is a central hole 17, of considerable size, and anchors 18 are secured to the bottom 11 of the pan, about the hole 17. A tubular up-standing guide 19 is secured to the bottom 11, about the hole 17.

The numeral 20 marks the cylindrical body of a spreader, mounted to move vertically outside of the guide 19, the spreader including a conical or a pointed top 21, connected to the body 20, and extending upwardly through the gate 5, into the lower end of the receptacle 1.

The lower ends of upwardly converging pull springs 22 are connected to the anchors 18 on the bottom 11 of the pan 10, and the upper ends of the pull springs 22 are connected at 23 to the apex of the pointed top 21 of the spreader. The tubular guide 19, and the members 20 and 21 of the food spreader from a chamber in which the springs 22 are located, it being possible to get at the springs 22 readily, through the hole 17 in the bottom 11.

The spreader has an outstanding annular flange 24, located at the place where the body 20 and the conical top 21 of the spreader are joined together. Flexible elements 25, such as chains, are secured at their upper ends, as shown at 26, to the receptacle 1, near the lower end of the receptacle, the lower ends of the said flexible elements being connected at 27 to the flange 24, and, therefore, to the spreader 20—21.

In practical operation, a quantity of mush or other feed is placed in the receptacle 1. The spreader member 21 causes the feed to flow outwardly, through the opening between the lower end of the gate 5 and the flange 24. The feed runs off into the pan 10, and the pan 10 moves downwardly under the weight of the feed that is in it, the springs 25 being elongated. When a sufficient quantity of feed has accumulated in the pan 10, the gate 5 is carried downwardly into engagement with the flange 24, which forms part of the spreader,

and, then, no more feed will flow into the pan 10 at that time, the flange thus forming a closure for the lower end of the gate. As the chickens eat the feed out of the pan 10, the pan and the material in it become lighter, and the pan moves upwardly, responsive to the springs 22. The standards 7, moving upwardly with the pan 10, raise the gate 5, and more feed runs out of the receptacle 1, into the pan 10, between the lower end of the gate 5 and the flange 24. The general operation of the device is such that a practically constant quantity of feed is kept in the pan 10, and although the chickens have feed presented to them, whenever they are inclined to eat it, there is no large quantity of feed available, to be kicked about, mingled with the dirt, and wasted. The gate 5 can be raised up and down, with respect to the flange 24, and can be held in any position to which it may have been adjusted, by mounting the securing elements 16 in the various openings 15 of the standards 7.

The device forming the subject matter of this application affords a round feeder which dispenses dry mash automatically, it being possible for the chickens to eat, entirely around the pan 10. The device is so constructed that it cannot clog or bridge with the mash, the pan thus affording a proper flow of the mash. The device, it is to be noted, is operated by the weight of the mash, not by the weight of the chickens which are feeding. The article requires no stand, or jumping boards to operate it. It is suspended overhead, and may be disposed close to the floor, so that the poultry can feed in a natural way. Since the feed is located close to the floor, where the chickens are inclined to hunt for feed, the chickens will eat more, and lay more eggs, than they will do when they are fed by a device different from the one shown in the drawings and hereinbefore described.

The construction of the feeder is such that the chickens cannot injure themselves by pushing one another down from a high stand. The feed at all times is at approximately the same level, and there is no opportunity for the feed to be billed out and wasted. There is always a sufficient quantity of feed available, so long as there is any feed in the receptacle.

The device shown and described is available for grain feeding, as well as for mash feeding. The chickens cannot readily roost upon it, and the article can be kept sanitary and free from rust.

Having thus described the invention, what is claimed is:

1. In a device of the class described, a receptacle, means for suspending the receptacle from an overhead support, a spreader between the pan and the receptacle, a pull spring connecting the spreader with the pan, means for connecting the spreader to the receptacle, a

gate surrounding the lower end of the receptacle, means for connecting the gate to the pan.

2. In a device of the class described, a pan having a hole in its bottom, a guide mounted on the bottom of the pan, around the hole, a spreader slidable on the guide, a spring within the spreader and the guide and connected to the spreader and the pan, the guide and the spreader both forming a chamber which houses the spring, a receptacle located above the pan, a gate surrounding the lower end of the receptacle, means for connecting the gate with the pan, and means for connecting the spreader with the receptacle.

3. In a device of the class described, a receptacle, means for suspending the receptacle from an overhead support, a pan below the receptacle, a spreader above the pan, there being a space between the lower end of the receptacle and the spreader, a gate constituting a closure for said space, as the pan moves downwardly, means for connecting the gate to the pan, and means for supporting the pan yieldably from the spreader.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

EMIL W. RUTH.