

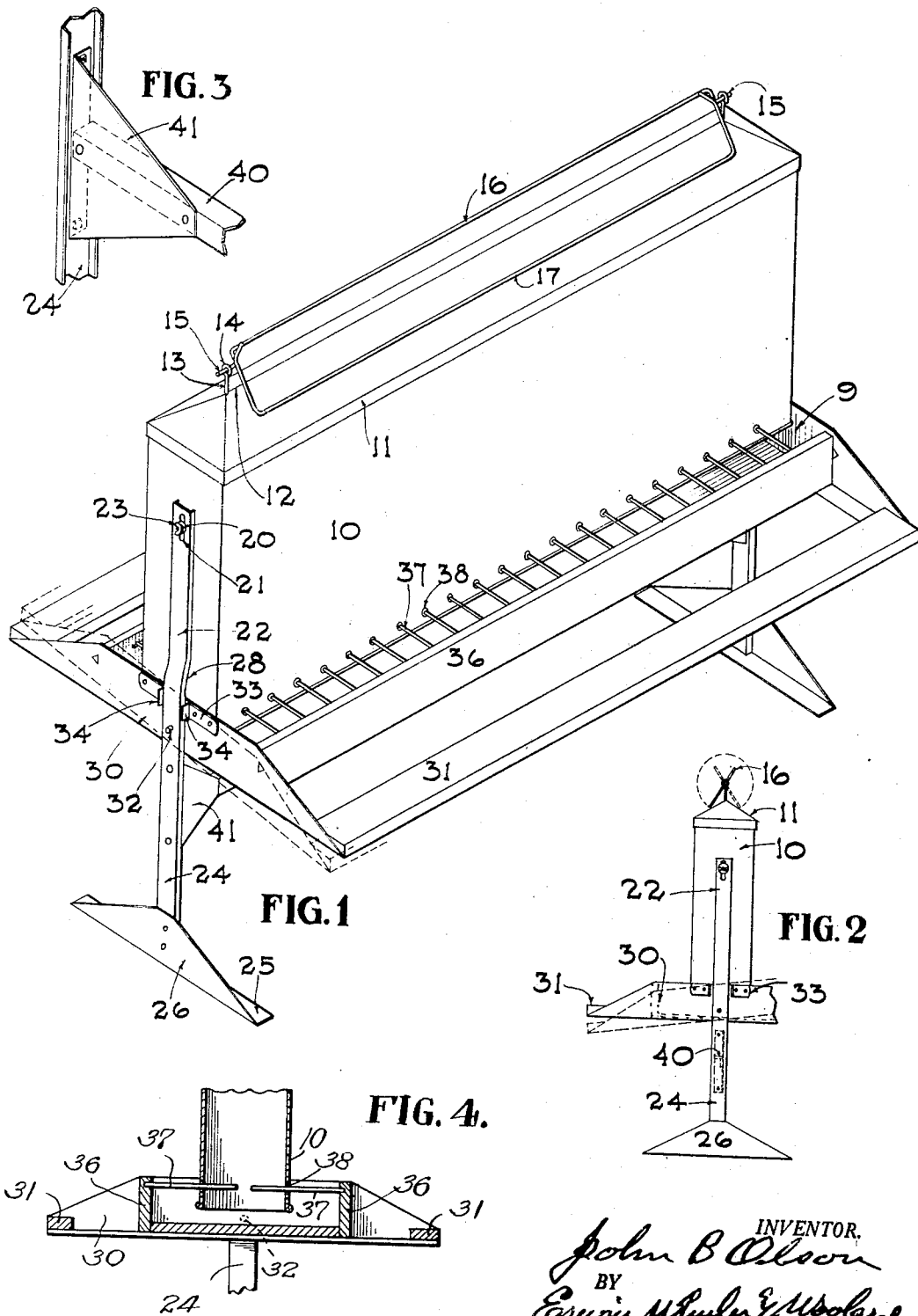
Nov. 7, 1933.

J. B. OLSON

1,933,926

CHICKEN FEEDER

Filed March 12, 1928



INVENTOR,
John B. Olson
BY
Erwin Wheeler & McLaughlin
ATTORNEYS.

UNITED STATES PATENT OFFICE

1,933,926

CHICKEN FEEDER

John B. Olson, Fort Atkinson, Wis., assignor to
James Manufacturing Company, Fort Atkinson,
Wis., a corporation of Wisconsin

Application March 12, 1928. Serial No. 261,019

10 Claims. (Cl. 119—55)

My invention relates to improvements in chicken feeders.

The object of this invention is to simplify the structure of the feeder, increase its efficiency and durability and reduce manufacturing costs.

In the drawing:

Figure 1 is an isometric view of my improved feeder with dotted lines indicating the perches in a tilted position.

Figure 2 is an end elevation with the perch frame broken away on one side and with dotted lines indicating a tilted position, and also indicating the anti-roost whip in reversed position.

Figure 3 is an isometric view of the connector plate 41 and associated fragments of standard 24 and connecting bar 40.

Figure 4 is a fragmentary cross sectional view showing the relation of the magazine 10 to the feed pan and agitating fingers, said view being drawn to a vertical plane intersecting apertures 38 in opposing side walls of the magazine and exposing the agitating fingers which extend through such apertures.

Like parts are identified by the same reference characters throughout the two views.

A raised feed pan 9 is fed from an open bottomed magazine or hopper 10 preferably capped by a removable cover 11 having converging walls extending upwardly to a central ridge 12, and is provided near each end of the ridge with vertical posts 13 having eye loops 14 to form a loose journal for trunnions consisting of rod or wire 15. These trunnions 15 are connected to one side 16 of a rectangular frame also preferably composed of wire or rods. The trunnions 15 are located at one side of the central axis of the frame whereby the side bar or wire strand 17 composing the opposite side of the frame from the portion 16 will normally swing downwardly and rest upon the inclined surface of the roof-shaped cover. If any fowl should attempt to roost upon the wire or rod 16, its weight will cause that rod to swing downwardly, the entire frame oscillating upon the trunnions 15, whereby the portion 17 will swing upwardly and whip the fowl from its perch. This device therefore serves not only as a freely tilting anti-roost guard, but it also operates as a whip in that it will strike the fowl so as to discourage future attempts at roosting upon the top of the feeder.

The side and end walls of the magazine 10 are preferably vertical and the end walls are provided with bolts 20 which extend through suitable slots 21 in the supporting standard bars

22. Clamping nuts 23 on the bolts 20 are employed to secure the magazine to the standards. Near the lower margin of the end walls of the magazine these standards are offset upwardly as shown at 28. The vertical portions 24 extend downwardly and are secured to angle-iron or sheet metal foot pieces having horizontal portions 25 and up-set triangular bracing portions 26 to be bolted or riveted to the standard.

The lower portions 24 of the standards are sufficiently offset at 28 to loosely receive between them and the lower margins of the magazine 10, the end bars 30 of a perch supporting frame, these end bars being connected by perch bars 31. Each end bar is also provided with a stud or journal pin 32 which extends through a suitable bearing aperture in the standard, and between this stud and the offset 28, a bracket 33 is attached to the bar and provided with stop flanges or ears 34 sufficiently spaced apart to receive the standard between them and allow for the tilting movement indicated by dotted lines in Figures 1 and 2. This bracket may also serve as a bearing plate whereby the friction on the standard is reduced in proportion to the narrow dimensions of this bracket plate or bearing plate, as compared with the vertical dimensions of the frame bar 30.

Between the perch bars 31 and the magazine 10, the end frame bars 30 are also connected by the side walls 36 of the feed pan 9 which extends underneath the magazine. These side walls have wires or rods 37 secured thereto and extending loosely through suitable apertures 38 in the magazine. These wires or rods 37 serve the double purpose of agitating feed in the magazine when the perch frame is tilted and of preventing or limiting interference by fowls with adjacent fowls when feeding, the side walls of the feed pan being outwardly spaced from the magazine to permit access to the food in the pan. Whenever the perches are more heavily loaded on one side than on the other, they will be tilted as indicated by dotted lines in Figures 1 and 2, thereby causing the agitator rods 37 to loosen the feed in the magazine and also providing space for additional delivery on the downwardly tilted side.

The standards are connected underneath the feeding pan by an angle-iron bar 40 and the bracing connector plates 41, thereby making a rigid, strong and durable structure, almost wholly constructed of sheet metal and wire, all of the parts being so arranged that they can be easily cleaned and kept in a sanitary condition.

It will be understood, of course, that the bottom of the magazine is open to allow its contents to feed into the pan. By loosening the nuts 23, the magazine may be raised or lowered to the extent permitted by the slots 21, to increase or diminish the feeding space between the open bottom of the magazine and the bottom of the feed pan 36. It will, of course, be understood that when the clamping nuts 23 are in clamping position, the inwardly offset upper portions of the standards will be in frictional contact with the end walls of the standards.

In order to utilize the weight of the fowls to tilt the frame and pan in opposite directions it is necessary to avoid any very pronounced shift in the center of gravity away from the axial line of the pivotal connections such as would otherwise overcome the light weight of the fowls on the perches and maintain the pan in a permanently tilted position. In feeders of the general type to which this invention pertains, when designed for feeding swine and other animals of such weight that the weight of the material delivered into the pan from the magazine becomes inconsequential, it is possible to employ counter-balances or equivalent springs to actuate the feed pan in one direction regardless of the quantity of material therein. But owing to the light weight of the fowls it is necessary to provide feed pans which are nearly balanced under all ordinary conditions, and to locate their pivotal axes as closely to the center of gravity as possible under varying loads of food material delivered from the magazine. This is accomplished by providing a narrow elongated magazine supported virtually in its vertical longitudinal central plane through the center of the pan and the perch frame, and by locating the pivots in an axial line extending as nearly as possible through the center of gravity of the pan when normally loaded with food material from the magazine. Also by providing stops in close proximity to the standard to limit the tilting movement of the pan and perch frame in such a manner as to avoid a sliding of the food material toward the downwardly inclined side of the pan. All of these features and also the provision for a vertical adjustment of the magazine with reference to the pan contribute very materially to the attainment of the objects sought, viz, a feed pan which will reliably tilt, under the weight of one or more fowls on their perch.

I claim:

1. In a chicken feeder, the combination of a set of standards, means for supporting the standards fixedly in an upright position, a perch frame having its ends pivoted to the standards upon an axis in close proximity to the center of gravity of the perch frame, stop projections on the perch frame spaced from the standards in positions to limit the tilting movements of the perch frame, a feed pan carried by the perch frame, and a magazine adjustably and independently mounted in fixed relation to the standards above the feed pan and having an opening in its bottom through which material may discharge into the feed pan, along its longitudinal central axis.

2. In a chicken feeder, the combination of a set of standards, a perch frame having its ends pivoted to the standards upon an axis in close proximity to the center of gravity of the perch frame, stop projections on the perch frame spaced from the standards in positions to limit the tilting movements of the perch frame, a feed pan carried by the perch frame, and a

narrow longitudinally elongated magazine adjustably mounted above the feed pan and having a longitudinal opening in its bottom through which material may discharge into the feed pan along its longitudinal central line, said feed pan being substantially balanced when loaded and said feed pan being provided with agitating fingers projecting loosely into the magazine through its side walls and near its bottom, whereby delivery into the feed pan may be regulated by said fingers and by the tilting movements of the feed pan and perch frame in any given adjustment of the magazine, said fingers being disposed to move axially and with a rocking motion into the feed with negligible resistance to the tilting movement of the perch frame.

3. In a chicken feeder, the combination with a feed pan of a set of standard bars provided with vertically extending slots, a perch frame having its central portion provided with a feed pan pivoted to the standard bars upon an axis near the center of gravity of the perch frame and below said slots, said perch frame and feed pan being adapted to tilt about said pivotal axis under the weight of fowls applied to the frame, means for limiting tilting movements of the perch frame about said pivotal axis, and a magazine provided with clamping bolts extending through said slots and adapted to adjustably support the magazine above the feed pan in a predetermined proximity thereto, said magazine being open at its bottom to allow material to discharge into the feed pan, such discharge being regulated by tilting movements of the feed pan, and said feed pan extending laterally from the magazine toward the sides of the perch frame, said perch frame being provided along each side with suitable perches upon which fowls may stand when feeding from the pan.

4. In a chicken feeder, the combination of a set of standard bars provided with bearing apertures and vertically extending slots above the apertures, a perch frame provided with trunnions engaged in said bearing apertures and supporting the frame in a selected position, said frame having side bars adapted to serve as perches for fowls, stop brackets on the ends of the perch frame adapted to engage said standards and limit the tilting movements of the perch frame upon said trunnions, a magazine having clamping devices extending through the slots in the standards to clamp the magazine thereto in different positions of vertical adjustment, a feed pan supported by the perch frame underneath the magazine and having a greater width than that of the magazine, and division guard fingers connected with the feed pan and extending into the magazine through apertures in its side walls to agitate the material in the magazine when the perch frame and pan are tilted, said magazine having an open bottom adapted to allow delivery of the material into the pan.

5. In a chicken feeder, the combination of a set of flanged sheet metal foot pieces, an associated pair of sheet metal standard bars having journal apertures and inwardly offset portions above the journal apertures, said inwardly offset portions being vertically slotted near their upper ends, a magazine having the upper central portions of its ends provided with clamping bolts adjustably engaged in said slots and adapted to clamp the ends of the magazine against the inwardly offset portions of the standards,

and a perch frame having trunnions engaged in said journal apertures of the standards and provided with a feed pan underneath the magazine and of greater width than the magazine, said magazine being open at its bottom to permit a discharge of material into the feed pan when the pan and perch frame are tilted about the axis of said trunnions, and said standards being rigidly connected with each other below the perch frame.

6. In a chicken feeder, the combination with a set of upright channel-shaped standards having their upper portions inwardly offset and parallel with each other, means for holding said standards fixedly in an upright position, a feed containing magazine having vertical end walls against which the marginal flanges of the inwardly offset portions of said standards may engage, and means for clamping said portions of the standards to the magazine, and a feed pan having end walls pivotally connected with the standards below their inwardly offset portions and having upper margins freely movable in the space between the standards and the lower portions of the end walls of the magazine.

7. In a chicken feeder, the combination with a set of upright channel-shaped standards having their upper portions inwardly offset and parallel with each other, means for holding said standards fixedly in an upright position, a feed containing magazine having vertical end walls against which the marginal flanges of the inwardly offset portions of said standards may engage, means for clamping said portions of the standards to the magazine, and a tilting feed pan and associated perches pivotally connected with the standards below said inwardly offset portions.

8. In a chicken feeder, the combination of a connected pair of slotted standards provided with foot pieces to support them fixedly from

the floor or ground in an upright position, a magazine vertically adjustable along said standards and normally secured thereto by clamping bolts extending through the slots in the standards, a perch frame independently pivoted to the standards below the magazine and a feed pan supported by the perch frame underneath the magazine in feed receiving relation thereto, the perch frame and pan being substantially balanced upon said pivotal connections.

9. In a chicken feeder, the combination of a connected pair of slotted standards provided with foot pieces to support them fixedly from the floor or ground in an upright position, a magazine vertically adjustable along said standards and normally secured thereto by clamping bolts extending through the slots in the standards, a perch frame independently pivoted to the standards below the magazine, and a feed pan supported by the perch frame underneath the magazine in feed receiving relation thereto, the perch frame and pan being substantially balanced upon said pivotal connections, and said perch frame having an end wall provided with stop blocks at opposite sides of the associated standard to limit the oscillatory movement of the frame upon its pivotal connections.

10. An anti-roosting device for chicken feeders and similar structures, comprising the combination with a pair of spaced supports, of a whip frame having end portions provided with pivot studs with which the supports have pivot bearing engagement, said end portions being connected with each other by a pair of side bars located at unequal distances from the pivotal axis, said bars and end members being of sufficiently light weight to tilt freely under the weight of a fowl alighting upon the side bar which is nearest to the axis.

JOHN B. OLSON.

5
10
15
20
25
30
35
40
45
50
55
60
65
70
75

80
85
90
95
100
105
110
115
120
125
130
135
140
145
150