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AUTOMATIC AND TRAP LAYING NEST

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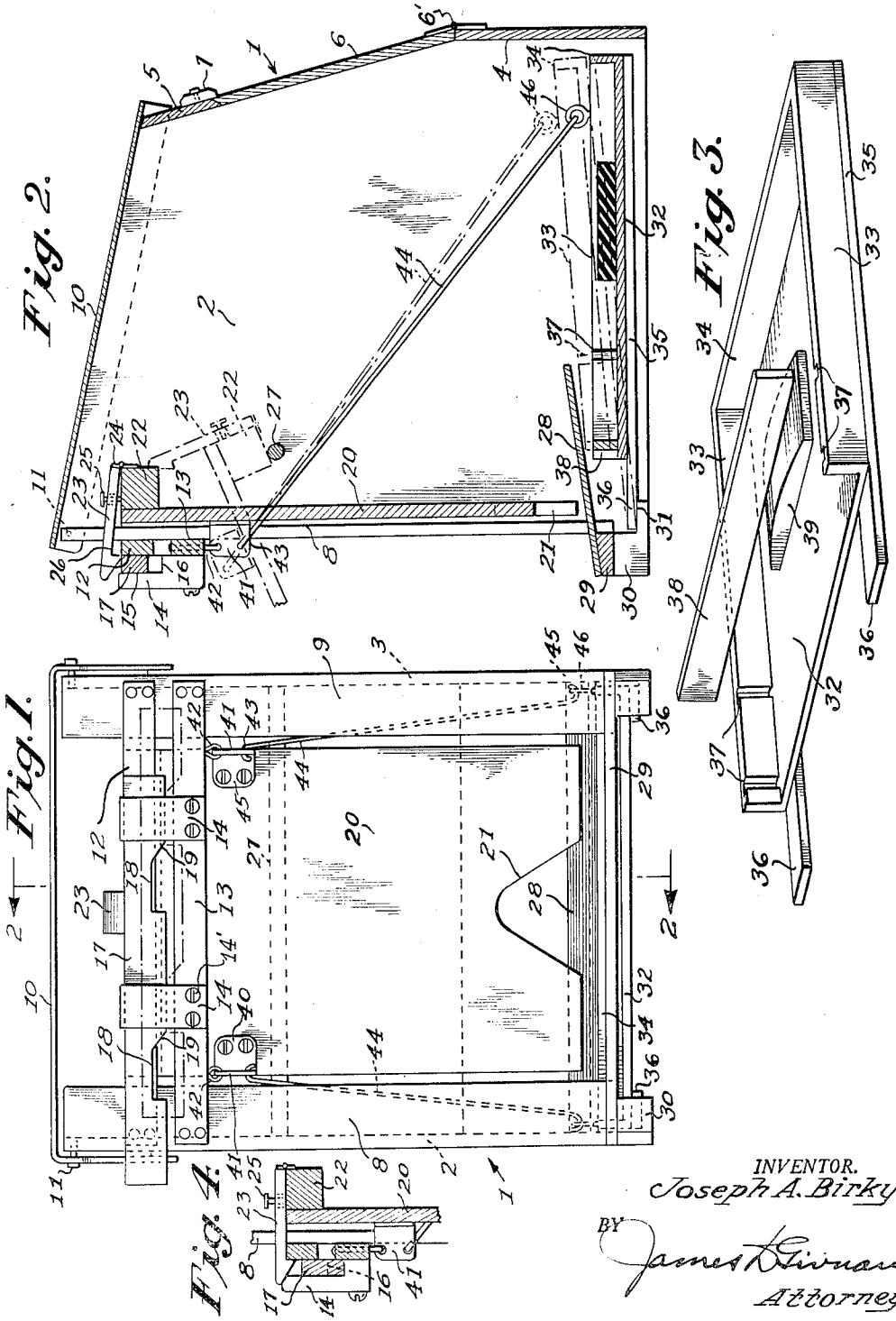

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

INVENTOR.
Joseph A. Birky
BY
James L. Givnan
Attorney

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AUTOMATIC AND TRAP LAYING NEST

Joseph A. Birky, Salem, Oreg.

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1 Claim. (Cl. 119—49)

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This invention relates to a laying nest structure for turkeys, chickens or other poultry.

It is well recognized by those familiar with poultry, and particularly hens, that the number of eggs which they lay is dependent to a considerable extent upon the location of a nest as well as circumstances about or surrounding the nest.

It has been found that hens will not lay many eggs if any thereof are broken or eaten or if other hens crowd about the laying nests, in which eggs are being laid.

In short, it has been found that in order to obtain a maximum number of eggs, it is necessary that the laying hens be provided with individual laying structures for providing privacy during the laying periods as well as avoiding breakage of the eggs when laid or of same being disturbed or eaten by other hens.

It is accordingly a primary object of the invention to provide a laying structure embodying a housing and housing a single nest therein, and the housing being provided with a normally open admittance door and with provision whereby the door is automatically closed upon a hen entering the nest whereby the hen is wholly undisturbed by other hens while laying.

A further object of the invention is to provide a laying structure of the above noted general character, wherein the entrance door is provided with a light opening for attracting the hen toward the door after laying and which door automatically opens upon the hen leaving the nest.

A still further object of the invention is to provide a laying structure of the above noted general character leaving provision for automatic displacement of the laid eggs to a guarded position upon a hen leaving the nest.

A still further object of the invention is to provide a laying structure which is relatively simple in construction, thereby being capable of manufacture at relatively low cost and which is highly efficient in use.

Other objects and advantages of the invention will become apparent in the course of the following detailed description, taken in connection with the accompanying drawing, wherein:

Fig. 1 is a front elevational view of the improved nest structure in accordance with a preferred structural embodiment of the invention;

Fig. 2 is a vertical sectional view in the plane of line 2—2 on Fig. 1;

Fig. 3 is an isometric view of the nest per se;

Fig. 4 is a fragmental vertical sectional view

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corresponding to a portion of Fig. 2 but showing the door in latched position.

Referring now in detail to the drawing, 1 designates the structure as a whole and which embodies a housing having opposite side walls 2 and 3, and a vertical rear wall 4 whose upper edge is in substantial spaced relation to the lower edge of a rear wall portion 5 inclined toward the front of the housing and the said edges together with the opposed side walls providing a rear access opening which is normally closed by a door 6 which is inclined in parallel relation with wall 5 and which is hingedly connected at its lower edge to the upper edge of wall 4 by means of hinges 6' and a suitable latch 7 is provided adjacent the upper edge of the door for normally maintaining same closed.

A pair of parallel, vertically disposed and laterally spaced slats 8 and 9 are provided at the front of the housing and are suitably secured to the front edges of side walls 2 and 3, the outer edges of such slats being flush with the outer surfaces of the side walls.

A roof or cover 10 is provided and which at its forward end is pivotally connected at 11 to the slats 8 and 9. The cover 10 slopes downwardly toward the rear of the housing and may be free of the housing except for the said pivotal connections whereby it may be raised for access to the interior of the housing.

A pair of parallel, vertically spaced and horizontally disposed bars 12 and 13 have their opposite ends secured to the outer faces of slats 8 and 9 and they span the opening between the slats. A pair of brackets 14 are secured as by screws 14' to the bar 13 and such brackets have inner cut-out portions providing vertical side walls 15 and bottom walls 16 and a shift bar 17 loosely rests in said cut-outs with its opposed side walls confined by the walls 15 and adjacent face of bar 12.

The shift bar 17 is provided in its lower edge with recesses 18 in spaced relation corresponding to the spacing of the brackets 14 and corresponding ends of said recesses are bevelled as at 19 for reasons later to appear.

A door 20 is disposed between the slats 8 and 9 and is provided with a light opening 21 in the form of a relatively large notch in its lower edge.

A relatively heavy bar 22 is suitably secured to the rear face of the door adjacent its upper edge and such bar supports a gravity actuated latch 23 which may be pivoted to the bar 22 as at 24 and a headed screw or pin 25 may extend through an elongated aperture in the latch and

into the bar, the pin serving to hold the latch in adjacent position to the bar, which permitting same to freely move away therefrom. The latch includes a terminal head having an edge 26 engageable with the outer face of bar 12 when in latched position.

The door is pivotally supported by the bar 13 by means later referred to and the bar 22 acts as a weight operative to normally hold the door in open position as indicated by dot-and-dash lines in Fig. 2 and a rod 27 extends through the housing between the side walls 2 and 3 and acts as a stop to limit the inward movement of the door.

A platform 28 is rigidly supported by a bar 29 which is suitably secured to the lower ends of slats 8 and 9 externally thereof and the platform extends inwardly of the housing for a substantial distance and it preferably slopes upwardly at a small angle.

The bar 29 rests upon a pair of blocks 30 adjacent the front corners of the housing and such blocks provide seats 31 which are disposed immediately within the side walls 2 and 3.

The laying nest, as is more clearly shown in Fig. 3 includes a bottom wall 32, opposite side walls 33, a rear wall 34 and whose outer edges are preferably flush with the outer faces of the side walls 33 and slats 35 which extend beyond the open front end of the nest as extensions 36 the free ends of which loosely rest on the seats 31.

The side walls 33 of the nest are provided with two pairs of vertical slots 37 for selectively receiving the ends of a bar 38 which normally closes the front end of the nest as illustrated in Fig. 2. To the floor 32 of the nest I secure a resilient pad 39 sloped toward both sides of the nest, as shown, so that an egg laid on the pad will roll to one side or the other of the nest and out of the way of an incoming hen. The pad is surrounded by the usual straw of the nest which cushions the egg as it drops from the pad.

The door 20 is provided with a pair of brackets 40 which includes flanges 41 extending outwardly from the door and in alinement with the opposite side edges thereof. The said flanges are apertured for receiving the eyes of eye bolts 42 which extend through the bar 13 and by which the aforesaid pivotal connection of the door is effected. The upper curved ends 43 of rods 44 extend through other apertures in the flanges 41 beneath the first mentioned apertures and the rods extend downwardly and inwardly of the housing and have at their lower ends curved portions 45 loosely engaged in eyes 46 projecting upwardly from the nest side walls 33 adjacent the rear ends thereof.

The purpose of the slide bar 17 is that in its position shown in Figs. 1 and 2 its upper edge is flush with the corresponding edge of bar 12 and accordingly the latch 23 is ineffective to latch the door 20 in closed position and which is the proper position of the bar for operation of the door by laying hens.

When however, it is desired to latch the door in closed position such as to retain a selected hen in the housing, the slide bar 17 is moved from the position of Fig. 2 to that shown in dot-and-dash lines in Fig. 1 and as shown in Fig. 4 wherein the slide bar is lowered and thereby allowing the edge 26 of the latch 23 to engage the outer face of bar 12, the latch falling by gravity into its latching position.

In moving the bar 17 from the position of Fig. 4 to that of Fig. 2 the bevelled edges 19 facilitates movement along the lower walls 16 of the brackets 14. In operation and with the structure in dot-and-dash line position of Fig. 2 which is in fact the normal position, in which the door is open, a hen enters the housing by walking in upon the platform 28 which overhangs the front end of the nest. The hen upon reaching the inner edge of the platform steps down into the nest and the parts are so calibrated that the weight of the hen will overcome the weight of bar 22 and through the rods 44 the door will be moved on its pivotal connections 42 to the closed position as indicated by full lines in Fig. 2 and at which time the bottom wall 32 of the nest as well as the slats 35 will be substantially horizontal, the slats pivoting at 36 on the seats 31, when the door closes, the latch 23 will ride loosely over the bars 12 and 17 with minimum friction whereby not to impair the effectiveness of the weight bar 22.

When the hen has laid her egg, the light opening 21 in the closed door will by instinct direct her toward same and as she steps upon the platform 28 thereby relieving the nest of her weight, the weight bar 22 will cause the door 20 to immediately move to open position for exit of the hen.

In this position of the nest as indicated by dot-and-dash lines in Fig. 2 it is inclined downwardly toward the door and as a result of which the egg will roll to or toward the partition bar 38 to a position beneath the platform 28 whereby it will be effectively concealed and protected from being tramped upon or otherwise marred or destroyed by other hens which may enter the housing.

Should it be desired to close off the egg protecting front end of the nest, the bar 38 may readily be positioned in the pair of slots 37 remote from the front end of the nest.

Having set forth my invention in accordance with a single specific structural embodiment thereof, changes may be made as fairly fall within the scope of the sub-joined claim.

What I claim and desire to secure by U. S. Letters Patent is:

A hen laying structure comprising a housing including opposite side walls, a rear wall, a top cover, and a pair of front vertical slats having their outer edges secured to the front edges of the side walls, a pair of vertically spaced horizontal bars disposed adjacent the upper ends of said slats exteriorly thereof and having their ends secured thereto, a door disposed between said slats rearwardly of said bars and having its upper edge substantially at a level of the upper edge of the uppermost of said bars, pivotal connections between the door and the lowermost of said bars externally of the door, a weight bar secured to the inner face of said door and having its upper edge flush with the upper edge of the door, the weight bar normally urging the door to an open position, a rectangular nest disposed in the housing and having its front end pivotally supported thereby, rod connections between the door below its pivotal connections and said nest adjacent the rear end thereof whereby the weight of a hen on the nest will overcome the weight bar and effect closing of the door, a gravity actuated latch supported by said weight bar and including a surface engageable with the outer wall of the uppermost of said horizontal bars in the closed position of the door, and a bar supported exteriorly of said first bars for

movement to a position wherein its upper edge is flush with the upper edge of the uppermost of said first bars for rendering the latch ineffective.

JOSEPH A. BIRKY.

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