

UNITED STATES PATENT OFFICE.

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TRAP-NEST.

No. 842,371.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY N. ALMY, a citizen of the United States, residing at Honolulu, Island of Oahu, Territory of Hawaii, have invented certain new and useful Improvements in Trap-Nests; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same.

This invention relates to a trap-nest which is particularly adapted for use in connection with poultry-breeding and wherein is provided means for temporarily confining the hen after an egg is laid with reference to identifying the eggs of particular strains and also ascertaining the number of eggs laid by each hen, provision likewise being made for notifying an attendant when the hen wishes to be released. In this manner it will be noted that a detailed record may be kept with reference to the eggs procured from each hen, which information is very desirable in the breeding of high-class poultry. In addition to this information egg-bound and egg-eating hens may be discovered.

Briefly stated, the invention consists of a movable nest provided with suitable means whereby the door of the entrance to the nest box or compartment is automatically closed and locked when a hen goes on the nest and means for indicating, through the medium of an indicator or alarm, when the hen wishes to be released. The attendant when thus notified goes to the particular nest indicated and acquires the necessary information for his detailed account.

To this end the invention consists in the novel construction and combination of parts, as will be more fully hereinafter set forth and described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a vertical longitudinal section of the nest-box, the door or barrier being shown in its open position in full lines and in closed position in dotted lines. Fig. 2 is a front view of the nest-box, the door being shown in its open position; and Fig. 3 is a detail sectional view of the spring-catches, taken on the line 3-3 of Fig. 2.

Referring to the drawings, 1 indicates a nest box or compartment, preferably of substantially rectangular form, provided with a hinged cover 2, said cover and the two sides and rear end of the nest-box being constructed of suitable longitudinal and transverse

strips connected together and covered with a netting or burlap 3, as clearly illustrated in the drawings. Within the nest-box and tiltably mounted upon a rock-shaft 4, journaled in suitable bearings secured to the bottom longitudinal strips 5 of the sides of the nest-box, is a counterbalanced tilting platform 6, which, as will be noted, carries at the rear end thereof the nest for the hen. This platform is longitudinally and transversely co-extensive with the longitudinal and transverse dimensions of the nest-box, the axis of the rock-shaft 4 being located substantially in the horizontal plane of the lower edge of the doorway and midway between the ends of the nest-box, so that as the rear end of the tilting platform is depressed to the position indicated in dotted lines in Fig. 1 by the passage of the hen the front end of the platform, which carries the door or barrier to the nest-box, will be elevated sufficiently to prevent the other hens from gaining access to the nest-box when any one hen is occupying the same. Transverse slats 8 connect the bottom strips 5 and constitute stops, which limit the depression of the opposite ends of the platform when it has been tilted to the positions indicated in Fig. 1.

The door or barrier 9 is secured to the front end of the tilting platform 6 and forms a fixed part thereof, so that when the platform is tilted by the passage of the hen the door will take a position as illustrated in dotted lines, Fig. 1 of the drawings. When the platform and its door are in the position indicated by full lines in Fig. 1, the same is in proper position for a hen to enter, and spring-catches 10 are provided which are so adapted as to bear against the side edges of the door or barrier, and thus tend to frictionally hold the tilting platform in the position just described—that is to say, the position indicated in full lines, Fig. 1. These spring-catches, however, only bear against the side edges of the door with sufficient force to prevent the accidental tilting of the platform, the weight of the hen being sufficient to tilt the platform against the tension exerted by the spring-catches to a position indicated in dotted lines. As illustrated, the spring-catches in each instance, there being two, are mounted in the vertical side pieces 11 of the door-frame and slide within the transverse openings 12 formed therein, a spring 13 being coiled about the reduced end 14 of each catch and tending to force the catch in-

wardly against the edge of the door, the spring being interposed between the catch and a plate 15, screwed or otherwise secured to the vertical side piece of the door-frame.
 5 A suitable stop-pin 16 may be provided in the end of the reduced portion of the catch to limit the movement of said catch.

The hen on entering the nest-box proceeds to the rear of the same and tilts the platform
 10 by her own weight to the position shown in dotted lines in Fig. 1, which position, it will be noted, brings the lower end of the door or barrier a slight distance above the spring-catches, the same being immediately pro-
 15 jected inwardly toward each other to a position underneath the lower edge of the door, and thereby locking the door in closed position to entrap the hen.

As has been heretofore mentioned, suitable
 20 means, as an alarm or other indicator, are provided for notifying an attendant when the hen has laid an egg, and it will be observed in the present instance that there is employed an electric alarm. In the circuit
 25 a connection leads from a suitable battery by the wire 17 to the end of the reduced portion of the spring-catch, through the spring-catch to a copper contact-strip 18, located at and secured to the bottom edge of the
 30 door 9, thence by the other spring-catch on the opposite side, and out the reduced end of said catch through the wire 19 and the alarm to the battery.

It will be understood from the foregoing
 35 that when the hen enters the nest she will close and lock the door, as above stated, and she will also lift the lower edge of said door a sufficient distance above the spring-catches so that the copper strip 18 does not contact
 40 therewith. In this position the circuit is broken; but at the time the hen wishes to be released after laying an egg she comes forward on the tilting platform and thrusts her head over the door or barrier in her en-
 45 deavor to get out, and by her weight tilts the platform sufficiently to allow the copper strip to make contact with both of the spring-catches, thereby closing the circuit and ringing the alarm. The alarm or other indicator
 50 may be placed at any distance from the nest and any number of nests may be operated on one circuit. After the alarm has sounded the attendant may observe in which nest
 55 a certain hen has laid her egg and can then proceed to the nest and release the hen through the top door 2, before doing which he makes a record of the number of said hen and places her number on the egg. After re-
 60 leasing the hen the nest may be reset by simply pushing the spring-catches back against the tension of the springs and tilting the platform to the position shown in full lines in Fig. 1, so that said catch may again bear against the side edges of the door or barrier.
 65 From the foregoing it will be observed that

I have produced a simple and inexpensive hen's nest which will effectually protect the hen against intrusion, to which it will be im- possible for the hen to gain access without effectually closing the door to the nest-box, 70 and which is so constructed as to make it impossible for the hen to release herself from the nest, and which also provides for the notifying of an attendant when the hen wishes to be released; but while the present embodi- 75 ment of my invention appears at this time to be preferable I do not desire to limit myself to the structural details defined, but reserve to myself the right to effect such changes, modifications, and variations as 80 may fall within its scope.

What I claim is—

1. In a trap-nest, in combination, a nest-compartment, a nest therein, a vertically-movable door for the nest-compartment, and 85 devices adapted to be projected beneath the lower edge of the door when the same has been raised to its closed position for locking the door in said closed position.

2. In a trap-nest, in combination, a nest- 90 compartment, a nest therein, a door for the nest-compartment movable to closed position by the passage of the hen therinto, means for locking the door in its closed position, an indicating means, and means con- 95 trolled by the movement of the door for operating the indicator.

3. In a trap-nest, in combination, a nest-compartment, a nest therein, a door for said nest-compartment, means for closing the 100 door, means for locking the door in closed position, an indicating means, and means located adjacent the door for operating the indicator, said operating means being con- 105 trolled by the hen.

4. In a trap-nest, in combination, a nest-compartment, a tilting platform therein, a nest carried at the rear end of the platform, a door for the nest-compartment carried by the platform at its forward end, said parts being 110 so positioned as to compel the tilting of the platform for closing the door in order to gain access to the nest, means controlled by the tilting platform for locking the door in its closed position to entrap the hen, an indicat- 115 ing means, and means also controlled by the platform for operating the indicator.

5. In a trap-nest, in combination, a nest-compartment, a nest therein, a door for the nest-compartment, means for closing the 120 door, and devices normally held inoperative by the door but adapted to be actuated for locking the door when the same has moved to its closed position.

6. In a trap-nest, in combination, a nest- 125 compartment, a nest therein, a vertically-movable door for the nest-compartment, means for lifting the door to close the same, and devices located on opposite ends of the door and normally held inoperative by their 130

engagement with the door but adapted to be projected beneath the lower edge of the door when the same has moved to closed position, whereby the door is locked to entrap the hen.

5 7. In a trap-nest, in combination, a nest-compartment, a movable nest therein, a door carried by the movable nest and adapted to be operated for closing the entrance to the nest-compartment, devices mounted on opposite sides of the door for locking the door in closed position, and a contact plate or strip secured to the door, said contact-strip being normally held out of contact with the locking devices, but adapted to be brought into engagement therewith for closing a circuit and ringing an alarm.

8. In a trap-nest, in combination, a nest-compartment, a nest therein, a door for the nest-compartment, means for closing the door, means for locking the door in closed position, contact devices located adjacent the door, and a contact plate or strip secured to the door, said contact plate or strip being normally held out of contact with said contact devices, but adapted to be brought into engagement therewith for closing a circuit and ringing an alarm.

9. In a trap-nest, in combination, a nest-compartment, a nest therein, a vertically-movable door for the nest-compartment, means for lifting the door to close the same,

devices located on opposite sides of the door and normally held inoperative when the door is in its open position, means for projecting the devices beneath the lower edge of the door for locking the door when the same has been lifted to closed position, and a contact plate or strip secured to the lower edge of the door, said plate or strip being held out of contact with the locking devices when the hen is on the nest, but adapted to be lowered into engagement therewith for closing a circuit and ringing an alarm.

10. In a trap-nest, in combination, a nest-compartment, a nest therein, a vertically-movable door for the nest-compartment, and devices bearing against the edges of said door for preventing accidental movement of the door from its open to its closed position.

11. In a trap-nest, in combination, a nest-compartment, a nest therein, a door for said nest-compartment, and means serving to prevent accidental movement of the door from its open to its closed position, said means also serving to lock the door in closed position.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY N. ALMY.

Witnesses:

MINNA HALL,
GEO. WARE HAY.