Oct. 18, 1960 H. W. BOENING 2,956,539

HEN NEST

Filed March 31, 1958

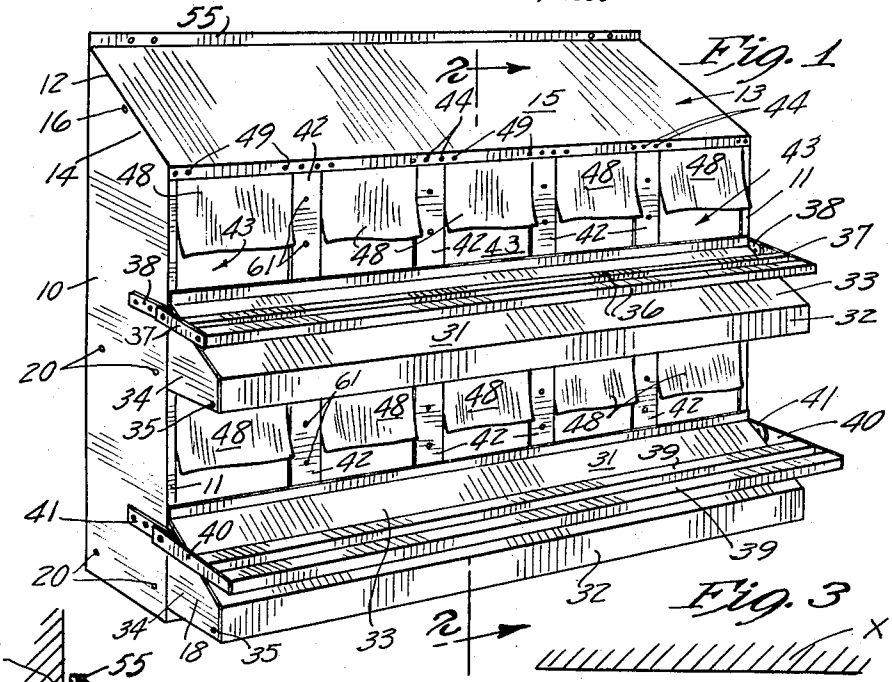


Fig. 1

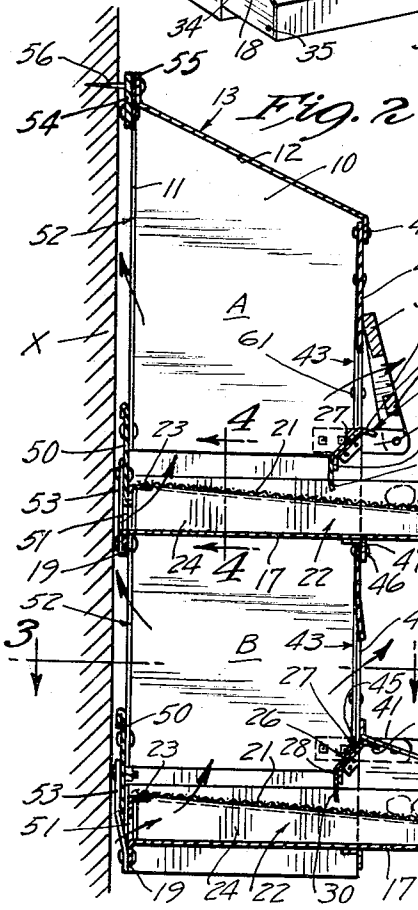


Fig. 2

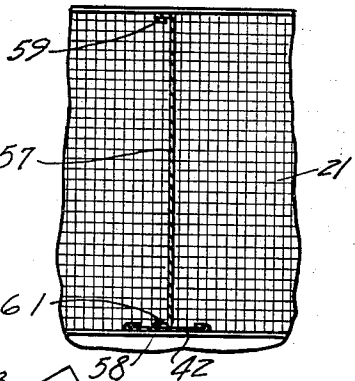


Fig. 3

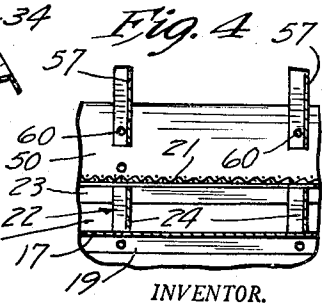


Fig. 4

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United States Patent Office 2,956,539
Patented Oct. 18, 1960

2,956,539

HEN NEST

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Filed Mar. 31, 1958, Ser. No. 725,090
2 Claims. (Cl. 119—48)

My invention relates to a hen nest construction of the type providing multiple nesting compartments and separate egg-collecting compartments into which the eggs roll after being laid in the nesting compartments.

An object of my invention is to provide a novel and improved hen nest construction of the type described, which is properly ventilated to prevent brooding in the nesting compartments.

Another object of my invention is to provide a hen nest construction of the type described which has a multifunction supporting bar that gives rigidity to the construction, acts as a wall portion between the nesting compartments and egg-receiving or collecting compartment, provides a support for a pivoted closure member for the egg-receiving compartment, etc.; and yet said supporting bar is of simple construction which takes up a minimum of space.

A further object of my invention is to provide a hen nest construction of the type described, which has removable partitions so that a nesting compartment can be converted from a plurality of individual compartments to a single community nesting compartment.

Still other objects and advantages of my invention is to provide a novel and improved hen nest which is of rugged construction for long life, better ventilated, and simply and easily operated.

The above, and other objectives and advantages of my invention will become apparent in the course of the following specifications and claims, reference being had to the drawings wherein:

Fig. 1 is a view in perspective of my invention;

Fig. 2 is a view in vertical section taken along the line 2—2 of Fig. 1, the position of some parts being changed;

Fig. 3 is a slightly enlarged fragmentary view partly in plan and partly in horizontal section taken on the line 3—3 of Fig. 2; and

Fig. 4 is a fragmentary view partly in elevation and partly in vertical section taken on the line 4—4 of Fig. 2.

Referring now more particularly to the drawings, wherein like parts will be indicated by the same numeral, I provide a pair of laterally spaced parallel vertical side walls 10, each having inwardly projecting oppositely-disposed generally coextensive vertical flanges 11 integral therewith at its lateral limits and an inclined top edge 12 which slopes downwardly from the rearward flange 11 to the front flange 11. A top wall 13 has integral depending side flanges 14 and a longitudinally extended depending front flange 15 rigidly anchored to side walls 10 by nut-equipped bolts or the like 16. A pair of bottom wall members 17 each have a pair of upstanding vertical flanges 18 integral therewith at the opposite lateral limits thereof and a longitudinally extended coextensive depending rear flange 19. Bottom wall members 17 are disposed in vertically spaced horizontal positions, one adjacent the bottom of side walls 10 and the other intermediate the ends of side walls 10; and they have their flanges 18 rigidly anchored to side walls 10 by nut-

equipped bolts or the like. Bottom wall members 17 project through notches formed in flanges 11 to extend longitudinally forwardly beyond the front edges of side walls 10. Bottom wall members 17, side walls 10 and top walls 13 define a pair of vertically spaced nesting compartments A and B.

I provide a pair of perforated egg-receiving trays 21 which are screen members rigidly anchored by bolts or the like to a mounting frame, indicated in its entirety by the numeral 22, and comprising a pair of spaced parallel longitudinally-extended angle irons 23 and a plurality of transverse laterally spaced wedge plates 24. Each of the mounting frames 22 rests on a different one of the bottom wall members 17 to mount the egg-receiving trays 21, each in a different one of the nesting compartments A and B adjacent a different one of the bottom wall members 17 in overlying relationship. It should be noted that egg-receiving trays 21 are generally coextensive both longitudinally and laterally with bottom wall members 17. Egg-receiving trays 21 are inclined to a horizontal plane and slope downwardly in the direction of outward projection of bottom wall members 17 beyond side walls 10, which is in a forward direction. The front longitudinal edge of each of the trays 21 is bent arcuately upwardly to form an abutment or stop for the eggs rolling down the inclined trays 21. Mounting frames 22 merely rest on the bottom wall member 17 so that the trays 21 may be easily removed for cleaning the hen nests.

One important feature of my invention is a pair of vertically spaced rigid supporting bars 26 which extend between and are rigidly anchored to side walls 10 adjacent the front flanges 11. Each of the supporting bars 26 comprises a central portion 27 which projects laterally inwardly from a vertical plane substantially common with front edges or flanges 11 of side walls 10 inclined to the horizontal to slope downwardly in the direction of inward lateral projection. Each of the supporting bars 26 also comprises a vertically disposed coextensive rear flange portion 28 and an outwardly projecting downwardly inclined coextensive front flange portion 29. Each of the flange portions 28 has a longitudinally extended curtain strip 30, made of fabric or the like, anchored thereto by any suitable means. The distance between the lower longitudinal edge of the rear flange portions 28 and the adjacent tray 21 is sufficient to permit the passage of an egg therebetween. Supporting bars 26 are important because they perform a multiplicity of functions. First, each of the supporting bars 26 forms a wall portion between a nesting compartment A or B, and the adjoining egg-receiving or collecting compartment, which compartments are indicated by the letters C and D. Rear flange portions 28 act as a suitable anchor for the curtain strip 30. Strips 30 aid in cleaning the eggs during their passage between the nesting compartments A and B and the egg-receiving compartments C and D. A further important function of supporting bars 26 is that the transverse extensions thereof act to give rigidity to my novel and improved hen nest; and yet, inclined central portion 27 of each of the supporting bars 26 takes up a minimum of space in the nesting compartments, A or B. The outwardly projecting inclined front flange portions 29 act as supporting abutments for closure members 31 each associated with a different one of the egg-receiving compartments C and D.

Each of the closure members 31 comprises a front wall portion 32, an inclined top wall portion 33 and a pair of side flanges 34, and each defines an open-bottomed open-backed member cooperating with the forwardly projecting portion of a different one of the bottom wall members 17 to define one of the egg-collecting compartments, C or D. The side flanges 34 of each of

the closure members 31 is connected to the vertical flanges 18 of a different one of the bottom wall members 17 by aligned pivot bolts or the like 35 for pivotal swinging movements between the positions shown, with respect to the upper closure member 31, in Figs. 1 and 2. At the position of upper closure member 31 in Fig. 1, the top wall portion 33 engages front flange portion 29 and this defines the normal closed position of closure members 31. The open position of closure members 31 is shown with respect to the upper one in Fig. 2, wherein the collecting or egg-receiving compartment C is open for easy removal of the eggs collected therein.

I provide a pair of spaced perch bars 36 which are associated with the nesting compartment A and connected at their opposite ends to connecting arms 37, which are pivotally secured on aligned axes to a pair of forwardly projecting brackets 38. Brackets 38 are rigidly anchored to side walls 10. I also provide a perch associated with nesting compartment B, which comprises a pair of bars 39 anchored at their opposite ends to a pair of connecting arms 40 which are likewise pivotally secured on aligned axes to forwardly projecting mounting brackets 41, which are rigidly anchored to side walls 10. At the positions of perch bars 36 and 40, shown in Fig. 1, the inner perch bar 36 and the inner bar 39 engage closure members 31 to be maintained in a perch-forming position; and at these positions, they act to hold the hinged pivotally swingable closure members 31 in their closed positions. Perch bars 36 and 39 are pivotally swingable from their perch-forming positions, shown in Fig. 1, generally upwardly and rearwardly about their connection to brackets 38 and 41 to a barrier-forming position transversely across the generally open front of compartments A and B, with which they are associated. This is shown by the position of perch bars 36 in Fig. 2. At the barrier-forming positions of perch bars 36 and 39, the hens are prevented from gaining entrance to the nesting compartments A and B at such periods of time, as the night time, when it is desired to keep them from roosting therein. Furthermore, as shown with respect to perch bars 36 in Fig. 2, when closure member 31 is in its open position, perch bars 36 and 39 are in their barrier-forming position, which prevents the hens in the nesting compartments A and B from exiting therefrom during periods of egg collection; and thereby prevents the hens from walking over the eggs during such periods of egg collection.

I provide a plurality of laterally spaced front dividing plates 42, which separate the open front of compartments A and B into a plurality of individual entrances, indicated by the numeral 43. The plates 42 associated with compartment A are rigidly anchored at their upper ends by nut-equipped bolts 44 to front flange 15 of top wall 13 and their lower ends are inclined to adjoin the central portion 27 of the upper supporting bar 26 and are rigidly anchored thereto by bolts 45. The plates 42, associated with nesting compartment B, are rigidly anchored at their upper ends by nut-equipped bolts of the like 46 to a longitudinally extended angle iron 47, which in turn is rigidly anchored by welding, bolts or the like, to the underside of the upper bottom wall member 17. The lower ends of plates 42 associated with nesting compartment B are connected to the lower supporting bar 26 in the same manner as the plates 42 associated with nesting compartment A. I provide a curtain member 48 for each of the entrances 43; curtains 48 associated with the nesting compartment A are connected by bolts or rivets 49 to front flange 15, and those associated with nesting compartment B are similarly anchored to angle iron 47.

Another important feature of my invention is with respect to the enclosing of the back of nesting compartments A and B. I provide a pair of longitudinally extended rectangular back wall members or plates 50 which are disposed in common vertical planes and rigidly anchored to rearward flanges 11 of side walls 10 in

vertically spaced relationship. Each of the back wall members 50 has its lower longitudinal edge adjacent the rearward edge of a different one of the trays 21 and projects upwardly therefrom to partially close the back of its associated nesting compartment A or B. Thus, back wall members 50 provide rearwardly opening ventilating openings 51 between the bottom wall members 17 and tray 21 of each nesting compartment A and B, and relatively large rearwardly opening ventilating openings 52, one adjacent the top of each nesting compartment A and B. By this back wall structure, air flow is provided as generally indicated by the arrows in Fig. 2 to provide for proper ventilation of the nesting compartments A and B. It is particularly important that there is air flow between the bottom wall members 17 and trays 21; whereby my invention provides for better ventilation than any similar hen nest construction now known in the prior art. Proper ventilation is an important feature of my invention because it prevents brooding by the hens in the nesting compartments A and B. I provide connecting straps 53 connected by nut-equipped bolts or the like to back wall members 50 and at their opposite ends to the rear depending flanges 19 of bottom wall members 17.

I provide a rectangular longitudinally extended plate, indicated by the numeral 54, which is coextensive with and rigidly anchored, by nut-equipped bolts or the like, to an upstanding integral rear flange portion 55 of top wall 13. Flange portion 55 and plate 54 have aligned holes therethrough through which may extend connecting screws or nails 56 for mounting my hen nest in position on a supporting wall, indicated by the letter X.

A further important feature of my invention is the provision of a plurality of vertically disposed partition plates 57 which are releasably anchored in each of the nesting compartments A and B in laterally spaced relationship to provide a plurality of individual nests in each of the compartments A and B. More specifically, each of the partition plates 57 have forward and rearward mounting flanges 58 and 59, respectively, integral therewith; and the partitions 57 in compartment A have their rearward flanges 59 releasably anchored by nut-equipped bolts 60 to both plate 54 and the upper back wall member 50 and each has its forwarding mounting flange 58 releasably anchored by nut-equipped bolts 61 to one of the plates 42. Similarly, the partition plates 57 in compartment B have their mounting flanges 59 releasably anchored by nut-equipped bolts 60 to the lower back wall member 50 and the depending rear flange 19 of the upper bottom wall member 17, and their forward mounting flanges 58 each releasably anchored by nut-equipped bolts 61 to a different one of the plates 42 associated with compartments B. I provide one partition plate 57 for each of the plates 42 so that each entrance 43 extends into an individual nest. Partition plates 57 may be easily removed to provide for community nesting in each of the compartments A and B. The rigid supporting bars 26 add strength to the entire assembly by supporting the central portions of the top wall 13 by means of the upper front plates 42 as well as the upper partitions 57, the lower supporting bar 26 supporting the upper bottom wall member 17 by means of the angle iron 47 and the lower front plates 42, and the lower partition 57 also connected to the front plates 42. Further, inasmuch as the partitions 57 are supported in upwardly spaced relation to their respective trays 21, the trays 21 are enabled to extend continuously from one end of the structure to the other thereof, thus eliminating the necessity of a separate tray for each individual nest. Moreover, the above described arrangement enables air to move more freely in an upward direction through the trays and the several individual nests so that the same are properly ventilated.

The operation of my hen nest construction should be obvious to one skilled in the art from the foregoing description thereof; therefore, it is not necessary to go further into the specific operation and use thereof. My hen

nest construction has been built and tested and found to be a thoroughly satisfactory commercial device which is capable of performing all of the aforementioned objectives and advantages. It will be obvious to those skilled in the art that my invention may be modified by many substitutions and equivalents and that this disclosure is intended to be illustrative only; therefore, I intend to be limited solely by the scope of the appended claims.

What I claim is:

1. A hen nest construction comprising structure defining a pair of vertically spaced nesting compartments and comprising a pair of laterally spaced upstanding side walls, a top wall rigid with said side walls, and a pair of vertically spaced bottom wall members, said bottom wall members projecting longitudinally beyond the limits of said side walls which are defined as the front edges thereof; a pair of perforated egg-receiving trays each mounted in a different one of said nesting compartments adjacent a different one of said bottom wall members in overlying generally coextensive relationship, said trays being inclined to a horizontal plane to slope downwardly in the direction of longitudinal projection of said bottom wall members; structure comprising a hinged closure member pivotally attached at a point below said egg receiving trays adjacent the outer end of said projecting bottom wall members, enclosing the forwardly projecting portions of said bottom wall members and said trays to define a pair of vertically spaced egg-receiving compartments each in communication with a different one of said nesting compartments; a pair of vertically spaced rigid supporting bars extending between and rigidly anchored

to said side walls adjacent said front edges thereof, said bars projecting laterally inwardly and downwardly from a vertical plane substantially common with the front edges of said side walls, said bars being disposed in adjacent upwardly spaced relationship each with a different one of said trays with a distance between the lower longitudinal edge of each bar and its associated tray permitting the passage of an egg therebetween, and a pair of longitudinally extended back wall members disposed in common vertical planes and rigidly anchored to said side walls in vertically spaced relationship each having a lower longitudinally extended edge adjacent the rearward edge of a different one of said trays and projecting upwardly therefrom to partially enclose the backs of said nesting compartments, said back wall members providing rearwardly opening ventilating openings between the bottom wall and tray of each nesting compartment and adjacent the top of each nesting compartment.

2. The structure defined in claim 1 in further combination with a pair of pliable cloth-like members each connected to a different one of said bars and extending vertically downwardly therefrom to contact an egg passing between the bar and its associated tray and aiding in the cleaning of the egg.

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