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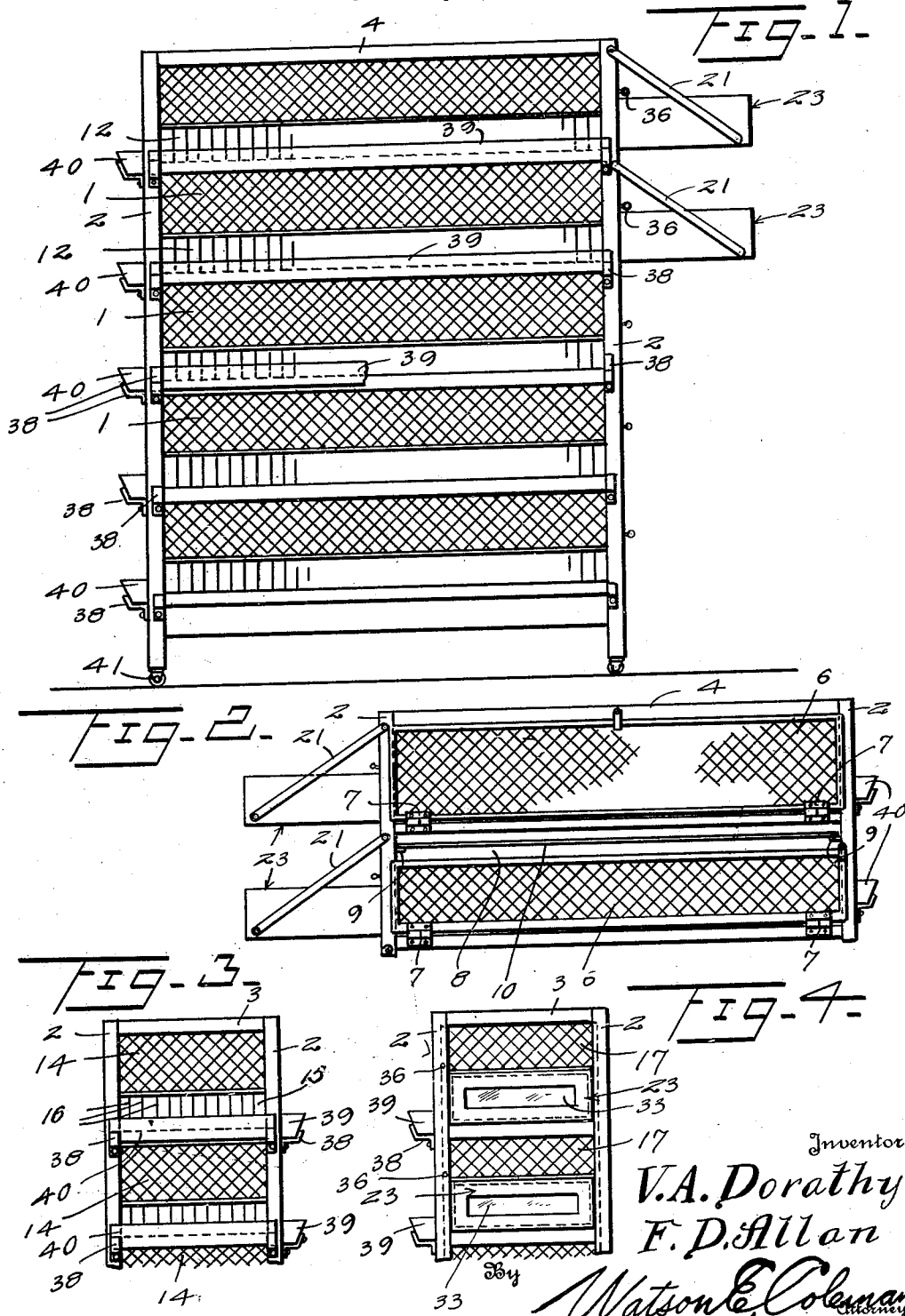
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1,839,173

COMBINED CHICKEN BROODER AND RUNWAY

Filed May 29, 1930

2 Sheets-Sheet 1



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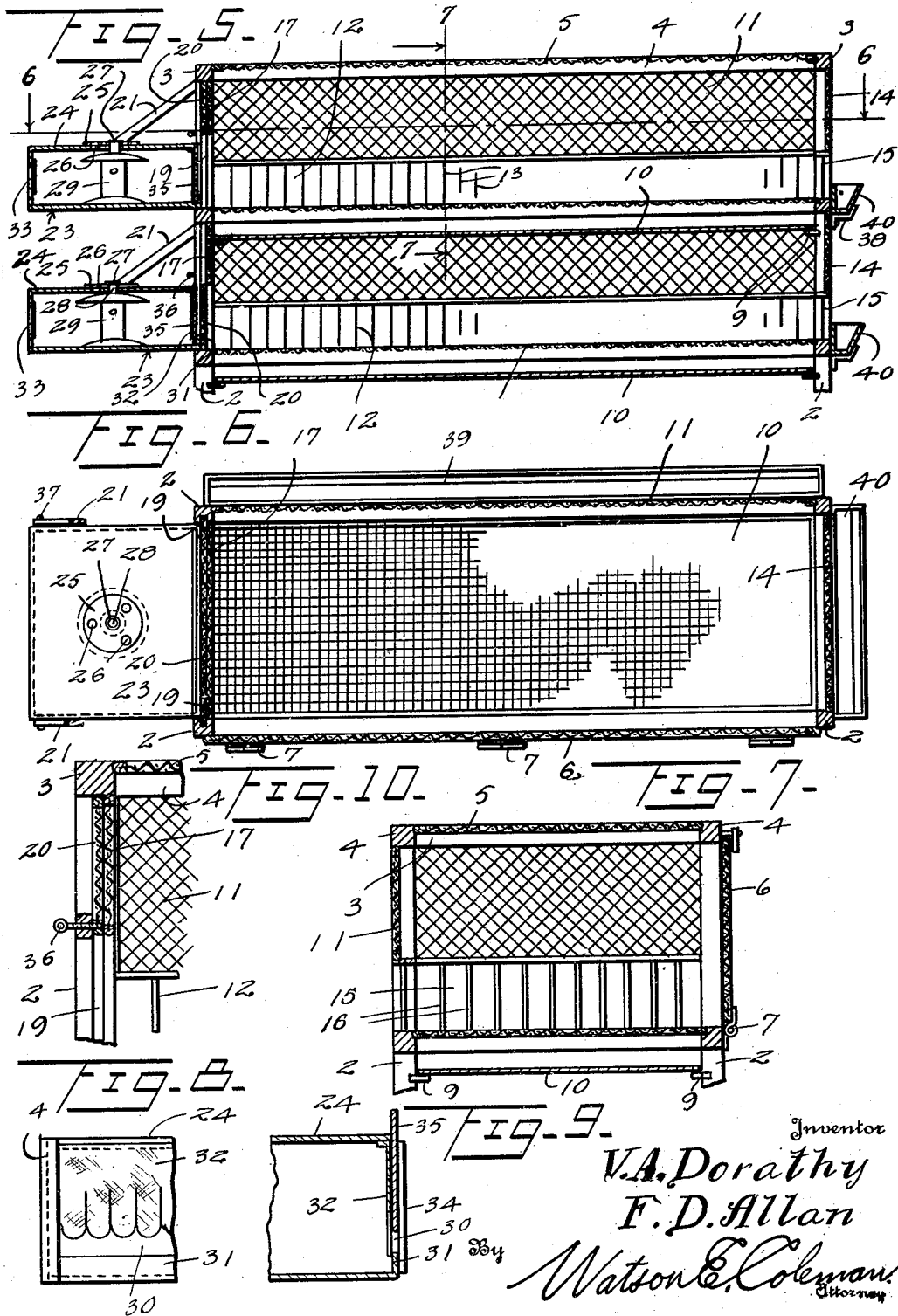
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UNITED STATES PATENT OFFICE

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COMBINED CHICKEN BROODER AND RUNWAY

Application filed May 29, 1930. Serial No. 457,418.

This invention relates to the class of animal husbandry and pertains particularly to improvements in chicken brooders and runs associated therewith.

5 The primary object of the present invention is to provide an improved combination brooder and run for young chickens of such a character that it may be readily shifted so that the young chicks may be kept in the
10 sunlight without difficulty and so designed that it may be kept clean and sanitary without having to remove the chicks during a cleaning operation.

15 Another object of the invention is to provide an improved brooder structure which may be attached to the run so that chickens may have free access to both structures, the brooder further being so designed that it may
20 be readily closed up when it is necessary that it be removed from association with the run, so that the chickens may be kept safely within while the brooder is being shifted.

25 A still further object of the invention is to provide an improved brooder structure having ventilating means and having means whereby the keeper of the chicks may view the interior of the brooder without disturbing the young chickens therein.

30 Other objects and advantages of the present invention will become apparent as the description of the same proceeds and the invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying
35 drawings forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawings but may be changed or modified so long
40 as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

45 In the drawings:

Figure 1 is a view in side elevation of the structure embodying the present invention.

50 Figure 2 is a view in elevation of the upper portion of the structure at the opposite side from that shown in Figure 1.

Figure 3 is an elevational view of the upper portion of one end of the structure.

Figure 4 is an elevational view of the upper portion of the other end of the structure.

Figure 5 is a view in longitudinal section 55 of two of the units of the structure.

Figure 6 is a view in horizontal section taken substantially on the line 6—6 of Figure 5.

Figure 7 is a sectional view taken on the 60 line 7—7 of Figure 5.

Figure 8 is a detailed view in elevation of a portion of the inner end of the brooder.

Figure 9 is a sectional view through the 65 inner end of the brooder.

Figure 10 is a view in section through the brooder end of a unit showing the gate therefor.

Referring more particularly to the drawings wherein like numerals of reference indicate corresponding parts throughout the several views, the present invention as illustrated comprises five units or runs, each of which is generally indicated by the numeral 1. As shown these units are integrally connected, they being formed by the construction of a large frame having the corner upright posts 2, the vertically spaced connecting transverse end bars 3 and the vertically spaced longitudinally extending side bars 4 which, of course, connect the end posts 2 and which are disposed in the same horizontal planes as the adjacent cross bars 3.

Connecting between each transverse pair of side bars 4 and the end bars in the same plane therewith is a wire cloth 5. The uppermost wire cloth body 5 constitutes the top for the top unit 1 while the next lower wire cloth body or partition constitutes the bottom for the top unit and also the top for the next lowest unit.

At one side of the structure a series of wire doors 6 is arranged each covering one side of a runway unit and each pivotally attached by a pair or more of hinges 7 to an adjacent longitudinal bar 4 in the manner shown. Each of these doors 6 with the passage of the uppermost one is of slightly less width than the space between the longitudinal bars 4 adjacent which it is mounted so that a 100

space is left as indicated at 8 between the bottom of each runway unit and the top of the door of the next lowest unit.

Beneath each of the units 1 the uprights 2 are provided upon their inner faces with suitable brackets 9 for the support of metal plates 10 which are slid in beneath each unit to receive the droppings therefrom.

The side of each unit opposite the door 6 is partially covered by a wire screen 11, the lower edge of which terminates in a point above the adjacent lower bar 4 leaving a longitudinally extending opening 12 which is closed by a plurality of vertical relatively adjustable bars 13 between which the chickens must extend their heads to reach out to obtain food or water from troughs, hereinafter described, suspended outside of the runway.

At one end of the structure each of the chicken runs or units 1 is partially covered by the wire cloth 14 the lower edge of which terminates a short distance above the adjacent lower cross bar 3 forming the space 15 which is guarded by the upright bars 16 of the same character as those indicated by the numerals 13. At the opposite end of the structure each of the units or runways has its upper portion partially covered by a wire structure 17, a space 18 being left beneath the lower edge thereof through which chickens may pass into a brooder mounted adjacent thereto. At this end of each of the units the uprights 2 are provided upon their opposed faces with guide grooves 19 for the reception of the edges of a gate 20 disposed therebetween, each of these gates being provided to close the opening 18 when the brooder is removed therefrom.

Each of the uprights 2 at the end of the structure through which the openings 18 are formed has pivotally attached to the outer face thereof adjacent the top of each unit, a brooder supporting arm 21, the outer end of which has a notch 22 formed in the under edge thereof to engage a suitable supporting pin projecting from a side of the brooder which is mounted at the end of the adjacent unit.

The brooder structure associated with each unit is indicated generally by the numeral 23. Each brooder comprises a rectangular sheet metal casing 24, the top of which has a rotatable ventilator 25 provided with apertures 26 which are designed to be brought into coincidence with apertures formed through the top of the brooder when it is desired to ventilate the interior thereof.

The central portion of this disk 25 and the underlying portion of the brooder top is apertured as indicated at 27 to permit the passage of the chimney 28 of a suitable brooder heater disposed within the brooder, such as is indicated by the numeral 29.

One side wall of each brooder casing 24 is

open as indicated at 30 and has a guard flange 31 disposed across the lower part thereof. The upper part of the opening 30 is covered by a cloth curtain 32 beneath which the chicks must force their way to enter or leave the brooder.

The outer wall of the brooder casing 24 opposite the opening 30 is provided with a window 33 by means of which an attendant of the brooder may view the interior without disturbing the chicks.

At each side of the opening 30 a guide 34 is formed to receive one side edge of a door plate or panel 35 when the door opening of the brooder is to be closed. Under normal conditions when the brooder is in place at the end of a runway unit 1 this door panel is removed and the gate 20 is raised so that free access may be had to the run from the brooder and vice versa. Any suitable means may be employed for maintaining the gates 20 in raised position, such for example as by the use of a pin 36 extended into a suitable aperture in one of the uprights adjacent the gate so as to pass through the adjacent groove 19 beneath the lower edge of the gate when the same is raised.

Each side wall of each brooder is provided with a headed stud 37 adjacent the bottom and the outer wall through which the window 33 is formed, for engagement by an adjacent supporting arm 21. These arms 21 are attached adjacent the upper portion of their respective units to extend outwardly and downwardly along the sides of the brooders in the manner shown to support the outer portions thereof, the inner portions of the brooders being disposed between the adjacent uprights 2 and resting upon adjacent cross members 3. The side bars extending along the lower portions of the openings 2 and the cross bars extending along the lower portions of the openings 15 are provided with hook devices 38 which support the troughs 39 and 40, the troughs 39 extending along the sides of the runway units 1 while the troughs 40 extend across the ends thereof, the former being designed for containing feed while the latter contain water.

The runway units 1 are preferably made of a width to facilitate the passage of the entire structure through a door of ordinary width and in order to assist in the moving of the structure each of the uprights 2 has a ball bearing caster 41 upon the lower end thereof.

From the foregoing description it will be readily seen that with the structure of the character herein described a large number of young chicks may be conveniently and properly taken care of as a warmed structure is maintained convenient to each run so that if the air in the runway is too cool for the chicks they may huddle together in the brooder for warmth and return to the run-

ways when the outside atmosphere attains a comfortable temperature. In addition to this the brooders may be readily detached from the runways and both the runways and the brooders closed so that the chicks in either will be prevented from escaping. By providing the guard bars 13 and 16 so that they may be adjusted relative to one another the chickens may be permitted to feed from the adjacent troughs without getting into the same as the openings between the bars may be regulated according to the size of the chickens in the runways.

It will also be readily seen that each runway may be kept in a clean and sanitary condition with a minimum of effort as the droppings will be caught upon the plates 10 one of each of which is disposed beneath the wire fabric floor of each runway. With this construction the dropping boards or plates may be removed for cleaning without disturbing the chicks in the runways.

While we have particularly shown and described a structure having five units we, of course, do not wish to be limited in any respect to the number of units which may be employed for it will be readily seen that many changes and rearrangements may be made in the construction without departing from the spirit of the invention.

Having thus described our invention, what we claim is:

1. A chicken brooder and runway structure of the character described, comprising a cage-like structure having upper and lower side rails, upper and lower end rails connecting said side rails and vertical corner posts connecting the upper and lower side and end rails, a screen fabric covering the sides, ends, top and bottom of the structure, said screen fabric at one end of the structure being divided transversely into an upper and a lower section, means for vertically shifting the lower one of said screen sections, said end rail adjacent the shiftable screen section having the screen connected therewith at its inner edge, a brooder structure having an entrance opening and having the lower edge adjacent thereto disposed upon the lower rail adjacent the shiftable screen section, and supporting arms connected with the corner posts adjacent the brooder and having connection with the brooder structure whereby to support the same upon the last mentioned end rail.

2. In a structure of the character described, a runway comprising a cage-like structure having upper and lower side and end rails and vertical corner posts connecting said rails, the corner posts at one end of the structure having vertical recesses formed in the opposed faces thereof, a pair of screen frames located in the end of the structure adjacent the recessed posts, one of said frames being secured in the upper part of the end

of the structure and the other being slidably engaged at its ends in said recesses for vertical movement, means for securing the said other one of said frames in raised position beside the fixed frame, screening elements covering the other end and the top, bottom and sides of the structure, and a brooder having an entrance opening, supported upon the bottom end rail adjacent the shiftable screen with the said entrance opening directed toward the shiftable screen for communication with the runway when the shiftable screen is lifted.

In testimony whereof we hereunto affix our signatures.

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