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C. L. PASHLEY.  
CHICKEN BROODER.

APPLICATION FILED JAN. 28, 1905.

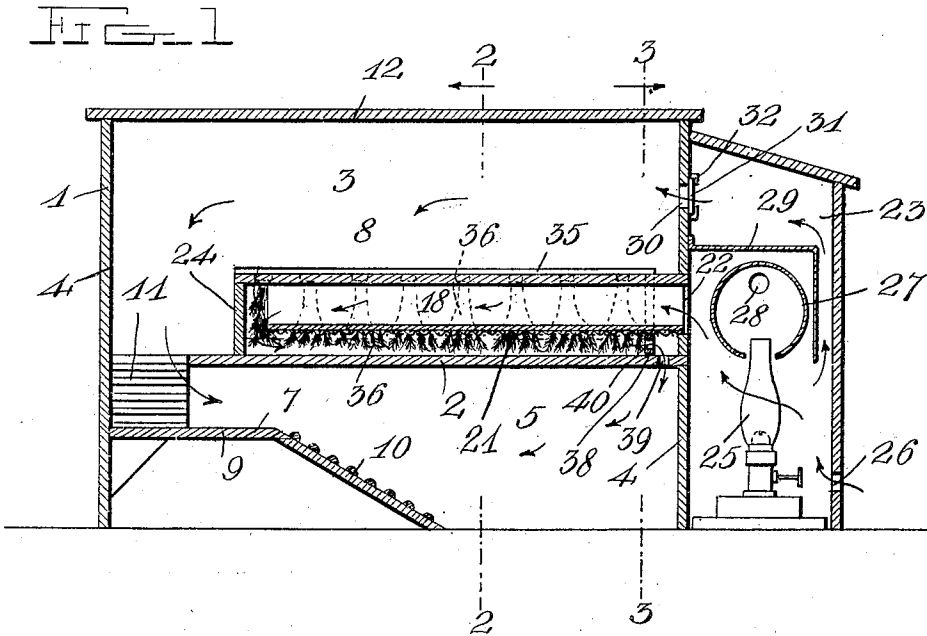
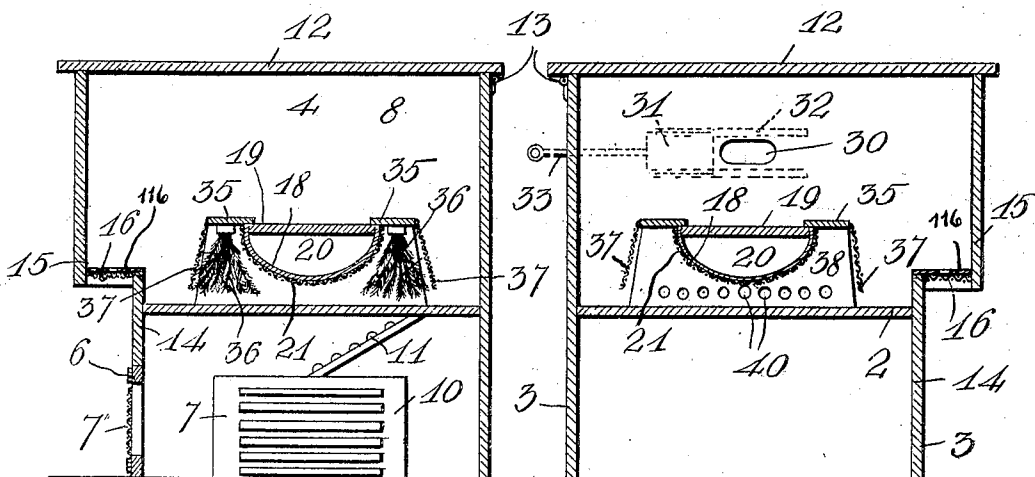


FIG. 2

FIG. 3



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## CHICKEN-BROODER.

No. 836,276.

Specification of Letters Patent.

Patented Nov. 20, 1906.

Application filed January 28, 1905. Serial No. 243,092.

*To all whom it may concern:*

Be it known that I, CHARLES LINCOLN PASHLEY, a citizen of the United States, residing at Stamford, in the county of Delaware and State of New York, have invented a new and useful Improvement in Chicken-Brooders, of which the following is a specification.

The object of my invention is to more nearly approximate the artificial method of raising chickens to the natural method by providing a soft, warm, yet firm body for the chicks to snuggle against and feathered coverings for their protection while breathing fresh cold air, together with means for automatically calling and feeding them at frequent intervals.

It will be noticed that a hen broods her chicks usually in a box or barrel, one end of which is open to the fresh air. After the chicks have become warmed by contact with her body they lie completely enveloped by the hen's feathers, but with their heads extended into the fresh cool air, which they breathe all night; but in the brooders now in use the hovers furnish radiant heat only, either from tanks or pipes in the roof or from cylindrical drums coming through the floor, contact with which is prevented by a guard of wire-gauze. Chicks have a strong instinct to "snuggle" against and under something warm. In default of something to snuggle against they will huddle against each other, and the later comers will crawl under the group. This results in large numbers being smothered and trampled to death. The only method of preventing this in the radiant-heat brooders is to keep the air so hot that huddling will be uncomfortable and the chicks will be forced to separate, and in order to maintain the high temperature little or no ventilation can be had. The chicks are forced to breathe hot air vitiated and poisoned by their exhalations and droppings, which enervates them and saps their vitality and finally results in sickness and death.

It is the purpose of my invention to construct a hover reproducing as nearly as possible the conditions under which chicks are brooded by a hen by providing a soft downy warm body against which they may satisfy their instinct to snuggle and warm themselves and feathered coverings on each side thereof under which they may lie completely enveloped, but with their heads extended out into the fresh cold air.

The above and other objects, which will appear as the nature of my invention is better understood, are accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal sectional view through my improved chicken-brooder; and Figs. 2 and 3 are vertical transverse sectional views through the same, taken on the planes indicated by the lines 2 2 and 3 3 in Fig. 1.

Referring to the drawings by numeral, 1 denotes the body or casing of my improved brooder, which is preferably of rectangular form and may be supported above the ground or floor upon legs or other suitable supports; but as shown its bottom 2 is held elevated by extending its sides 3 and ends 4 downwardly to inclose the space beneath said bottom. This space or chamber 5 preferably has three of its side walls closed and its fourth formed with an opening, closed by a suitable door 6 and by woven-wire fabric 7' or the like. At one end of the body 1 is provided a runway 7, by means of which the chicks are permitted to pass up and down between the lower chamber or compartment 5 and the upper brooding chamber or compartment 8. As shown, this runway consists of a horizontal platform 9, having a stepped longitudinal incline 10 at one end and a similar transverse incline 11 at its upper end, the incline 10 resting upon the ground and the incline 11 engaging one end of an opening formed in the bottom 2. The top 12 of the body or casing 1 is preferably hinged along one side, as shown at 13, so that it may be swung open to permit of ready access to the interior of the brooder. One of the side walls 3 is preferably formed of a lower section 14 and an upper section 15, which latter is offset to form a space between its bottom edge and the upper edge of the lower section 14, so that plenty of fresh air may enter the brooding-chamber 8 without danger of the entrance of snow, rain, or the like. This space is preferably closed by a woven wire fabric 16, and, if desired, a removable cover-plate 116, with one or more small openings therein, may be provided for restricting the entrance of the cold air during bad weather.

Mounted in the upper chamber or compartment 8 is a hover, which is made as nearly like the body of a hen as possible and against which the chicks snuggle as they would under a mother-hen. This hover is

removably mounted and consists of a plano-convex body 18, formed, preferably, by suitably bending a piece of sheet-tin or other metal and securing its side or longitudinal edges to a board 19, so that between the inner faces of the latter and the curved body 18 is formed a heat flue or passage 20, having a flat top of wood, which will cause the heated air passing through it, as presently explained, to more effectively heat the lower curved body 18. The outer face of this curved body 18, which resembles in shape the lower portion of the body of a hen, is covered with canton-flannel or the like 21, which has its downy surface out or lowermost. This hover is removably mounted by having one of its ends project into an opening 22, formed in the end wall 4 of the body 1 and affording communication with a lamp or heater housing 23 and by having the opposite end of its top board 19 bearing on and removable from the upper edge of a vertically-disposed transversely-extending cleat or wall 24.

An oil-lamp or other suitable heater 25 is mounted within the housing or casing 23, which latter is provided with a suitable door (not shown) and a fresh-air-inlet opening 26. The gases and products of combustion from the lamp pass through a drum 27 into an opening in the bottom of which the lamp-chimney projects, and they escape from said drum through an operating-vent 28. Arranged above the drum 27 is a right-angled-shaped deflector 29, which directs a portion of the fresh heated air through the passage 20 of the hover and permits the remaining portion to pass upwardly into the top of the housing 23, from which it may be discharged into the top of the brooder-chamber 8 through a suitable opening 30, formed in the end wall 4. The passage of fresh heated air through this opening may be controlled by a damper 31, here shown as in the form of a slide mounted in grooved guides 32 and having a handle 33 projecting upon the outside of the casing. The heated air passes from the end 22 of the hover through the same to its opposite end, which latter is spaced from the upright wall 24, as shown in Fig. 1, so that the air is deflected downwardly and returns again to the opposite end of the brooder through the space beneath and upon each side of the curved body 18 of the hover, the air being confined in this space by coverts, which extend longitudinally upon each side of the hover. These coverts are preferably removably mounted and consist of flat strips or boards 35, having secured upon their under faces depending chicken or turkey feathers 36, and upon their outer edges hanging curtains 37, of canton-flannel or other suitable fabric. If desired, the rows of feathers 36 may be formed by series of small feather-dusters which have their handles cut off and inserted in openings

in or otherwise secured to the wooden strips 35, so that the flared lower ends of their feathered portions crowd each other and form continuous rows of feathers, which are spaced slightly above the bottom 2. The curtains 37 serve to more effectively retain the heat between the feathers and beneath the curved body 18 of the hover, the lower edges of said curtains being spaced slightly above the bottom 2 of the brooder, so that the chicks after snuggling against the heated body 18 may settle themselves in the feathers 36, as they would in the feathers of a mother-hen, with their heads projecting beneath the curtains 37 into the cool fresh air in the chamber 8.

The strips 35 may be removably mounted in any suitable manner; but as shown their inner side edges are supported upon the top of the board 19, and their ends are detachably secured upon the top of the wall 24 and the top of a transverse partition or wall 38, which is mounted adjacent to one of the ends 4 of the brooder, and to a transverse slot or series of openings 39, formed in the bottom 2, as clearly shown in Fig. 1 of the drawings. The upper edge of the partition or wall 38 has a concave recess to receive the curved body 18 of the hover, and in its lower portion, as shown in Fig. 3 of the drawings, is formed a series of openings 40, which permit the air passing through the feathers and under the curved body of the hover to escape from the same and then pass through the openings 39 and into the lower chamber or compartment 5. By making the hover and coverts removable it will be seen that they may be readily cleaned and kept in a sanitary condition and that by dusting a suitable insect-powder or the like upon the feathers 36 such powder or medicine will be transmitted to the heads and other portions of the chicks to cure them of lice, mites, and the like.

From the foregoing description, taken in connection with the accompanying drawings, the construction, use, and advantages of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined by the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A chicken-hover having a radiating-duct for the passage of a fluid heating medium, means to supply heated fluid to such duct, coverts at the sides of such duct and depending therefrom, and curtains at the outer sides of such coverts.

2. A hover for chicken-brooders, comprising a plano-convex body having its convex

face lowermost and formed with a heat-passage and coverts mounted upon each side of said passage and depending therefrom, and depending flexible curtains upon the outer 5 sides of said coverts.

3. A chicken-brooder comprising a casing, a hover supported above the bottom of the casing, forming a heat conducting and radiating duct and having its lower side convex in 10 form, a fabric cover for the curved lower face of said hover, and a covert mounted adjacent to said hover, and a fabric curtain upon the outer side of said feathers, substantially as described.

15 4. A chicken-brooder comprising a casing, a plano-convex hover having its curved lower face spaced from the bottom of said casing and formed with a heat-passage, coverts upon each side of said hover, and means 20 for directing heated air through the passage of said hover and returning it beneath the latter and through said coverts.

5. A chicken-brooder comprising a casing, a plano-convex hover formed with an air- 25 passage and having its curved lower face spaced from the bottom of said casing, a fabric cover upon the curved lower face of said hover, coverts upon each side of said hover and comprising rows of feathers and fabric 30 curtains, and means for discharging heated air through the passage in said hover and through the space beneath the latter and between said feathers and said curtains, substantially as described.

35 6. A chicken-brooder comprising a casing, a hover removably mounted therein, and a covert removably mounted adjacent to said hover.

40 7. A chicken-brooder comprising a casing having an elevated bottom with an opening formed therein, vertical partitions or walls upon said bottom, one adjacent to said opening and formed with an opening, a hover 45 mounted upon said partitions and having a

longitudinally-extending air-passage opening at one end through one of the walls of 45 said casing and at its opposite end adjacent to one of said partitions, a housing at said wall of the casing, a heater in said housing, 50 coverts upon each side of said hover comprising rows of feathers, and curtains to confine the heated air beneath said hover, substantially as described.

8. A chicken-brooder comprising a casing having inclosing walls, one of which is provided with an opening, said casing being 55 further provided with an elevated bottom with an opening formed therein, vertical partitions or walls upon said bottom, one adjacent 60 to said opening and formed with an opening, a hover mounted upon said partitions and having a longitudinally-extending air-passage opening at one end through one of the walls of said casing and at its opposite end 65 adjacent to one of said partitions, a housing at said wall of the casing, a lamp in said housing, a heating-drum to receive the chimney of said lamp and having a gas-outlet, a deflector in said housing above said drum, a 70 damper for controlling an opening in said wall of the brooder, and coverts mounted upon each side of said hover and comprising rows of feathers, and longitudinally-extending curtains between said walls or partitions, 75 substantially as described.

9. A chicken-brooder having a casing, one of the side walls of which has a lateral overhang or offset, provided with an opening for the admission of air, and means to vary the 80 effective area of said opening.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

CHARLES LINCOLN PASHLEY.

Witnesses:

ALBERT S. JOHNSON,  
STEPHEN E. CHURCHILL.