

March 19, 1929.

G. M. TROLLINGER

1,706,266

BROODER

Filed Oct. 8, 1927

2 Sheets-Sheet 2

Fig. 3.

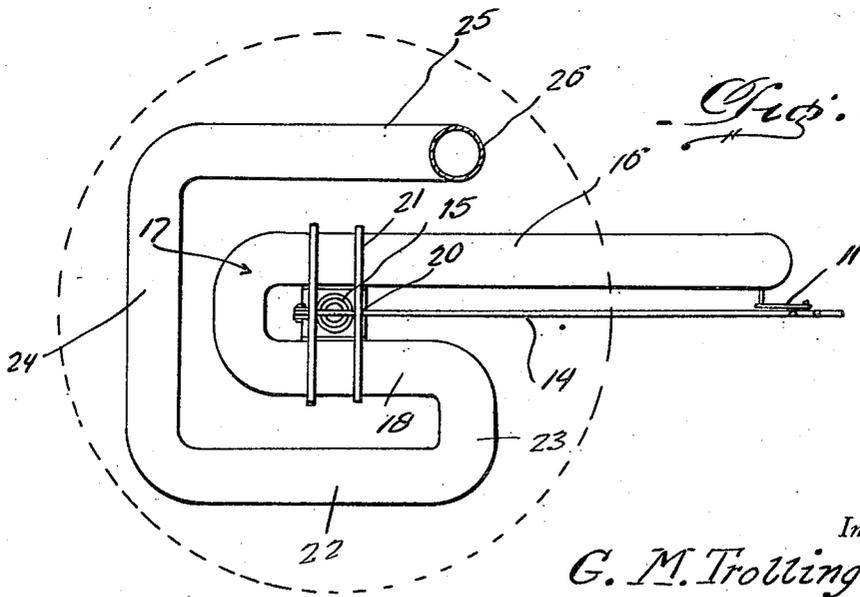
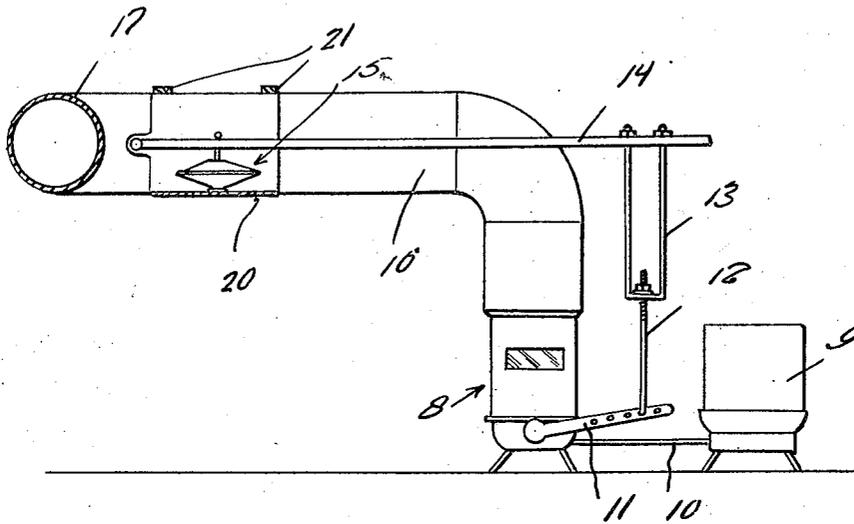


Fig. 4.

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BROODER.

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The present invention relates to an improved brooder or hover of the type employed for covering and sheltering small chicks, and supplying them with sufficient heat and warmth for protection, and to aid in rearing.

Briefly described, the invention comprises a conical canopy, supporting legs therefor for maintaining the canopy in spaced relation from the supporting surface, an external heater and fuel supply, a thermostatic regulator for the heater, and a novel heat conducting flue or pipe which is associated with the canopy to insure uniform heat distribution beneath the canopy.

The principal feature upon which the novelty of this application is based is the construction and location of the heat conducting pipe which, as before stated, is especially designed for uniform distribution, with a view toward keeping the small chicks separated and preventing them from piling on each other, and causing premature death.

The details forming this alleged novelty will become more readily apparent from the following description and drawings.

In the drawings:—

Figure 1 is a side elevation of the complete structure showing one embodiment.

Fig. 2 is a top plan view of the same.

Fig. 3 is an enlarged detail elevational view showing the heater and the thermostatic control.

Fig. 4 is a top plan view with the canopy removed showing a slightly different formation of heat conducting pipes.

In the drawings, the reference character 5 designates generally the sheet metal canopy, which as before stated is in the form of a cone, to cause the heat to flow downwardly and toward the other edges. Incidentally, this canopy is formed in the top with a hand hole which is provided with a cover plate 6.

Also, suitable supporting legs 7 are provided. Located at one side of the canopy is an appropriate oil burner or lamp designated generally by the reference character 8. Supported on one side of the burner is a fuel supply receptacle or container 9 connected through the medium of a conducting pipe 10. As better shown in Fig. 3, a lever 11 is fastened to the wick of the burner in a manner not shown.

Adjustably connected with the lever and rising therefrom is a link 12 connected with a yoke 13 which is in turn connected with a

thermostatic rod member 14. This rod member is connected in any appropriate manner with a heat controlled thermostat 15. It is to be mentioned here, that this thermostatic control device is the subject matter of my Patent No. 1,634,003, granted to me under date of June 28, 1927. Therefore this device is not herein claimed, but is used to render the structure complete and efficient.

Connected with the heater 8 is an especially designed pipe for conducting the gases, and heat. As shown in Figs. 1 and 2, this pipe includes a relatively long horizontal branch 16 leading from the heater and beneath the canopy. The branch is then bent as at 17 and terminates in a relatively short parallel branch 18.

The branch 18 in turn terminates in a vertical flue 19 which extends upwardly through an opening in the canopy. At this time attention is directed to a plate 20, see Fig. 3, supported from the branches 16 and 18 through the medium of straps 21. The purpose of this plate is to provide a support for the aforesaid thermostat 15.

In Fig. 4, the heat conducting pipe is of a different configuration, in that it includes an extension. In other words, the short branch 18 instead of terminating in the flue 19, terminates in a substantially C-shaped part. One arm 22 of the C is connected with the branch 18 by a bend 23, this being somewhat in the form of a return bend to dispose the arm 22 in parallelism with the branch 18. The intermediate portion of this extension as indicated at 24, is disposed in parallelism with the aforesaid bend 17, while the remaining arm or branch 25 is disposed in spaced parallelism to the first-named branch 16.

In fact, it terminates near the center of this branch 16 in a vertical flue 26, which extends upwardly through the canopy. Thus, the flue in this instance, extends through the canopy at a point somewhat opposite to that shown in Fig. 2 at 19. In either instance the heat conducting pipe is constructed with a view toward conveying the heat over a considerable area beneath the canopy, with a view toward evenly distributing it, and providing uniform heat for the small chicks.

The advantage gained from this arrangement is based upon the construction of the heat conveying pipe which is disposed in a horizontal plane beneath the canopy. The warm air from the lamp gradually cools as it passes around the pipe to the outlet flue.

This causes an equal temperature at all points underneath the canopy. As before indicated, the temperature can be regulated by the operator through the medium of the thermostatic regulator already described.

This brooder can be used in a tent or other building free from draft. It being in three pieces, it can be easily taken apart for cleaning, and it can be again set up for use for normal heat within a few minutes. The brooder is substantially fire-proof, smokeless and odorless, and is perfectly safe and efficient when operated according to the construction.

It is believed, however, that these advantages will be quite clear to persons reading the description in connection with the drawings. Therefore, a more lengthy description is thought unnecessary.

Minor changes coming within the field of invention claimed may be resorted to if desired.

Having thus described my invention, what I claim as new is:—

In a brooder of the class described, a substantially conical canopy, supporting legs therefor, a heater, a conducting pipe, connected with said heater and extending up-

wardly from the heater, and formed into an elongated horizontally disposed branch, said branch extending beneath the rim portion of the canopy, to a point adjacent the center of the canopy where it is bent and extended to provide a relatively short branch disposed in spaced parallelism to the first-named branch, said short branch being then bent at right angles to provide an extension, said extension being of general C-shaped form and including an arm disposed in parallelism with said short branch, an intermediate portion disposed in spaced parallelism with the first-named bend, and a final arm disposed in spaced parallelism to the first-named long branch, said last-named arm terminating in a vertical flue extending upwardly through an opening in the canopy, together with a plate, straps connected with said plate and embracing the long and short branches of said pipe, a thermostat supported on said plate, a thermostatic rod connected with said thermostat, and a wick operating device connected with said thermostatic rod and associated with said heater.

In testimony whereof I affix my signature.
GEORGE M. TROLLINGER.