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Horticulture and Forestry

Practical Experience in Strawberry Culture.

I have studied the nature of strawberries for at least twenty years and find that each variety needs to be studied very closely and then be treated to suit its nature if success is to be realized. For instance, if plants are deficient in foliage and strong in yield of berries, great care should be taken to increase the foliage and to preserve a balanced plant as between fruit and foliage. This kind should be cultivated much later in the fall, which will overcome the defect to a large degree.

If plants show signs of being weak at this time of the season their first runners should be cut off to give them time to become more firmly established for the work they are about to perform in producing new plants.

I have been working on seeding plants for sixteen years and find a great field here for experimentation. I don't allow any plant to go on the market until it has been worked on all kinds of soil and been thoroughly tested and proved to be of high quality and perfectly balanced in all respects. After I find a seedling plant that shows a certain number of good qualities I then breed them up by bud selection.

For growing a fine and large crop of berries labor and manure should not be used too sparingly. The good book tells us that it rains on the just and the unjust alike, yet we have our part to perform or nature cannot give us a large crop.

I am growing strawberries on newly cleared land at present and find it less difficult to keep down weeds than it is on old land. I burn the brush and cut-harrow the land first, then take a five tooth cultivator and pulverize the soil thoroughly, after which I harrow with a spike-tooth harrow, and then let it lie through the winter. In the spring I prepare the soil for setting the plants by this method. I find that berries do better than they will when one plows the top soil down and turns the wild yellow soil up.

I have a T-shaped steel which I insert in a shovel handle that I find is a great labor-saving tool to cut the runners after they have been layered and are thick enough set. This can easily be sharpened on an ordinary grind stone.

In cultivating the bed after it has been picked, I find that to mow the vines off, then burn them and narrow the rows to about twelve inches is the better way. I use an ordinary five-tooth cultivator, taking the wide blades off and putting on about one inch or one and one-fourth inch blades. Spread the cultivator so it will cut the soil about every six inches to the depth of about two inches, then when the plants start a new growth the work with the hoe will not be much to thin the plants to the proper number.

We have a label which is placed on all crates of fine berries that has proved to be a great advantage in securing a good trade for our berries. It is a guarantee for high color, fine flavor, and for honestly packed fruit.—A. D. STEVENS in *The Strawberry*.

Poisoning Cut-Worms.

Further experiments in poisoning cut-worms, which have been working on wheat and alfalfa, have shown the following mixture to be superior to spraying with Paris green, as formerly recommended:

Thoroughly mix while dry, one pound of Paris green and fifty pounds of wheat bran, make moist, but not sloppy, by adding water in which a quart of cheap molasses has been dissolved. Place this mixture in spoonful piles where the worms are working. It attracts the worms from the wheat and oats. It is also good grass-hopper poison.

In reading farm papers, I occasionally see the question, "what will stop hens from eating eggs?" and the answers are nearly always try dark nests, with sometimes plans and specifications for the same. If this fails, cutting off the head is suggested.

Here is a sure cure: About one pint of vinegar to a gallon of mash or damp chop mixed and fed, two or three feeds of this will cure the worst egg-eating Biddy on record.

—Missvain, Man. DAVID BASKERVILLE.

POULTRY

Constructing a Brooder

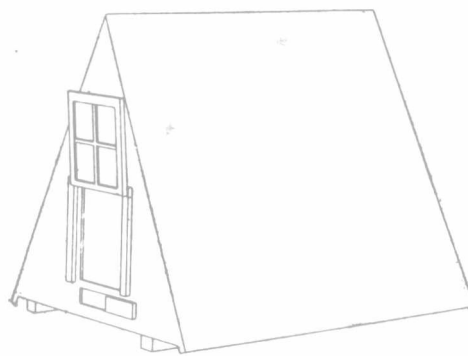
Would you publish a plan of a brooder to hold about fifty chicks that is easily home made? Perhaps some of your correspondents could furnish a description.

Man.

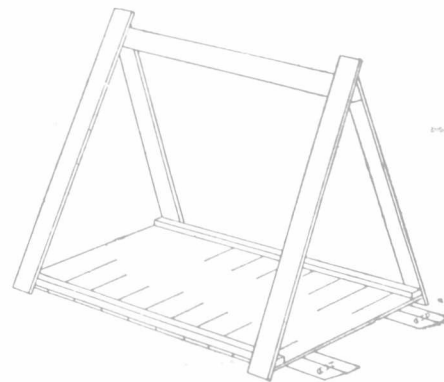
G. J. R.

The illustrations we show herewith were furnished us by F. C. Elford, late of the poultry division, Ottawa. The description is also Mr. Elford's.

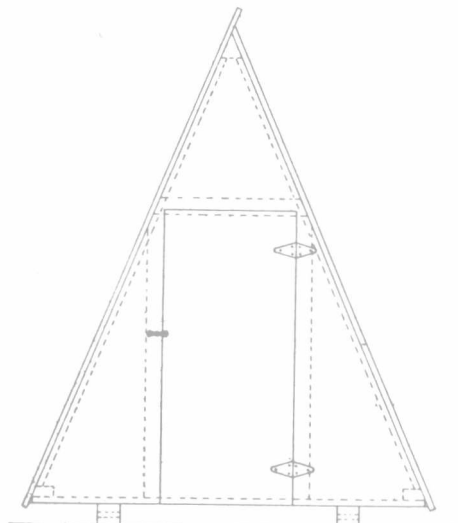
The brooder is warmed by means of a lamp; the fumes of the lamp are not permitted to enter the chick compartment. Warm fresh air continually flows into the brooder and ventilates it. The management of the brooder is simple. It should be placed in a movable house, or in a vacant room or pen. It is not intended for outdoor use. The brooder can be satisfactorily constructed at home; the heater and lamp can be made by any tinsmith; the cost of the complete brooder is small.



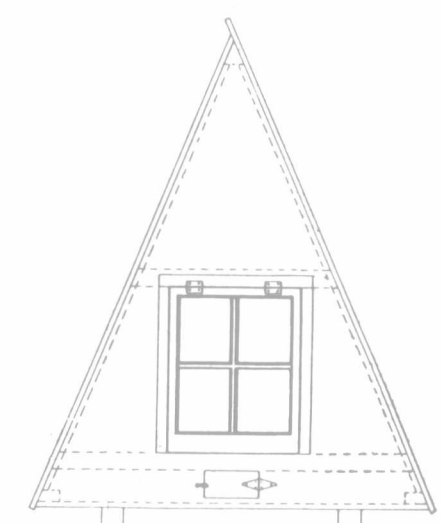
GENERAL VIEW



FRAME AND FLOOR.



REAR VIEW



FRONT VIEW.

Box.—The box that forms the brooder is 34 inches square and 8 inches deep, inside measurement. It is made of $\frac{3}{4}$ -inch lumber, planed on both sides. A 5x10 inch chick door should be sawed in one of the sides of the box; the chick door should be hinged at the top. The floor is $\frac{3}{4}$ -inch matched lumber. At center of the floor a round hole (diameter 6 $\frac{1}{2}$ inches) should be sawed. The heater is placed in this opening, and rests on a galvanized-iron rim (inside diameter 5 $\frac{1}{2}$ inches.) Four legs, $\frac{1}{2}$ x2 inch, should be attached to the box; they should project 6 $\frac{1}{2}$ inches below it. The roof is a light wooden frame, covered on both sides with heavy cotton. It should fit inside the box level with the top, and be supported on $\frac{1}{2}$ -inch cleats. The roof frame is 34 inches square and one inch deep, outside dimensions. A 2-inch hole is required in the cotton for the upper smoke pipe of the heater.

Run.—The run is 2x3 feet. It should be hinged to the front of the brooder on a level with the brooder floor. A three-section hinged frame, 6 inches high, should be placed around the outside of the run to confine the chicks for the first few days. The floor of the run can then be lowered to the ground, and will form a runway into the brooder.

Lamp.—Dimensions: diameter of the oil fount, 7 $\frac{1}{2}$ inches; depth, 2 inches; total height of the lamp (including chimney), 8 inches. There should be a small handle on the oil fount; and a screw cap

for filling with oil. A large-size burner can be used, or a special water-cooled burner. The burner screws into an ordinary lamp collar, soldered to the oil fount. The iron chimney is about 5 inches high; the diameter of the top chimney is 2 $\frac{1}{2}$ inches; the bottom diameter is 3 inches. A 1 $\frac{1}{2}$ -inch hole should be punched in the chimney, and covered inside with mica, in order to see the flame. The top of the chimney is placed over the lower smoke pipe.

Heater.—The heater is complete in itself, and can be successfully operated in a box of any size. No separate hover is required, and the chicks are continually supplied with warmed fresh air. In cleaning the brooder, if the heater and lamp are removed, and a pan is placed beneath the hole in the floor of brooder, the litter can be caught and removed in the pan.

The heater is made of galvanized iron, with the exception of the heat-reflector. This should be cut from bright tin. The dimensions of the different parts of the heater are as follows: Lower smoke pipe, diameter 3 inches, length 5 $\frac{1}{2}$ inches; fresh-air chamber, diameter 6 inches, length 5 inches. The fresh-air chamber is attached to the smoke pipe at the bottom. In the floor of the fresh-air chamber $\frac{1}{2}$ -inch holes should be punched for the ingress of fresh air.

The fresh-air chamber is open at the top. Heating chamber, diameter 20 inches, depth 2 inches. A heat-reflector (inverted cone) is placed in the heating chamber. The diameter of the cone is 18 inches, depth 1 $\frac{1}{4}$ inches. The upper edge of the cone is $\frac{1}{4}$ inch below the top of the heating chamber. The apex of the cone is $\frac{1}{2}$ inch above the bottom of the heating chamber. The cone is riveted to the heating chamber by three clips at the top. The upper and lower surfaces of the heating chamber should be rigid; they can be stayed to the cone, or held by two wire nails driven through the chamber and soldered.

Upper smoke pipe.—Diameter 1 inch, length,

