2.3 Extension Circular 388 September 1942

BLACKING OUT THE POULTRY HOUSE

Prepared by

Departments of Agricultural Engineering
And Poultry Husbandry

Federal Cooperative Extension Service
Oregon State College
Corvallis

Cooperative Extension Work in Agriculture and Home Economics
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Oregon State College and United States Department of Agriculture, Cooperating
Printed and distributed in furtherance of the Acts of Congress of May 8 and June 30,1914

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This circular gives plans for blacking out the O. S. C. type poultry house with provisions for ventilation.

Oregon poultrymen may be called upon without warning to conform to an order from the War Department for a total blackout. Such an order could extend from a period of a few minutes to several nights. It would apply to everyone in the area but poultrymen would be confronted with a special additional problem of maintaining egg production with an interrupted lighting schedule.

To avoid loss in production due to such a sudden change, poultrymen must have materials in readiness or their houses prepared in advance so they can continue to light inside the house and still restrict all light to the inside of the house. This in itself is not particularly difficult but it is also necessary at the same time to provide ventilation for the birds. The plans suggested in this circular have been tried out at the Oregon State College plant and found effective in producing a total blackout and providing also reasonable ventilation for the limited periods of artificial lighting.

Black building paper and flat black paint with a few pieces of cardboard in case of blacking out of ventilator shafts is all that is required to do this job.

Figure 1 shows the arrangement that is recommended for blacking out an O. S. C. type laying house which has the wire netting frame guarding the poultry nests extending vertically from the front edge of the poultry nests. The following changes must be made in order to follow this plan:

1. Completely cover the sliding celo-glass frame with black building paper. This is the sliding frame that is used to cover the front opening of the house.

2. Install corner wing or baffle to prevent light leaks around ends of inner curtain. Extend the black building paper over the celo-glass opening for at least 12 inches and along the side wall beyond the nest.

3. Pull the frame up so that an opening of no more than 6 inches remains between the top of the frame and the top of the opening in the house.

4. A second curtain is necessary to make an effective blackout. This inner curtain is made of black building paper. The full width of the building paper is used. Get the ends of the curtain as close to the ends of the house or partition as possible. See figure 1.

5. Fasten building paper inner curtain to the ceiling, or, if there is no ceiling, to the rafters so that it will be 8 inches back from the opening in the front of the house and so that it will extend down at least 14 inches below the top of the blackout frame in the front of the house. It is recommended that a lath or some similar material be fastened to the bottom of this curtain to hold the building paper down in proper position.

6. Paint the area under the eaves and under the plate along the outside front of the house with a flat black paint. Avoid glossy paint.

7. Install a special cardboard or black building paper deflector near the electric lamp and between the electric lamp and the front of the house so that the light will shine on the floor and not on any part of the front wall of the poultry house. This is necessary in order to prevent light reflecting out through the ventilation opening provided by the two front light baffles.

8. If a vertical ventilation duct has been installed in the house a light baffle will be required as shown in figure 1 or 2. This can be made of pasteboard and should be located 4 inches below the bottom of the duct and should extend 4 inches horizontally beyond the sides of the duct.

9. All other windows must be blacked out by totally covering the window from the outside with black building paper held on with laths. Paper or cardboard should not be used to cover the windows from the inside if the windows are within reach of the chickens.

10. Reflectors should be used on the electric lamps lighting the room so that all light will be directed downward.

Figure 2 shows the arrangement that is recommended for blacking out an O. S. C. type laying house which has the wire netting frame guarding the poultry nests inclined from the front edge of the nests and hinged to the front plate. In addition to changes 1, 2, 3, 6, 7, 8, 9, and 10 as outlined for figure 1, the following changes must be made in order to follow this plan:

Fasten black building paper curtain to the top of nest guard frame leaving a 6 inch air gap along the bottom of the inclined frame. Be sure that the ends of the curtain are as close to the ends of the house or partitions as possible. In case more than one nest guard frame is used in a house or pen provision should be made for an overlap to prevent light leaks.

Figure 3 shows the arrangement that is recommended for installing corner wing or baffle to prevent light leaks around ends of inner curtain. This change must be made in order to follow the plan:

Extend the black building paper over the celo-glass opening for at least 12 inches and along the side wall beyond the nest. It may be necessary to extend the building paper more than 12 inches over the celo-glass opening in case actual tests show up light leaks. This is necessary whether an inclined type nest guard or vertical type nest guard is used.

Minor adjustments may be necessary where the laying house has not been built exactly according to the O. S. C. plan as shown in Extension Bulletin 480, "Poultry Housing."

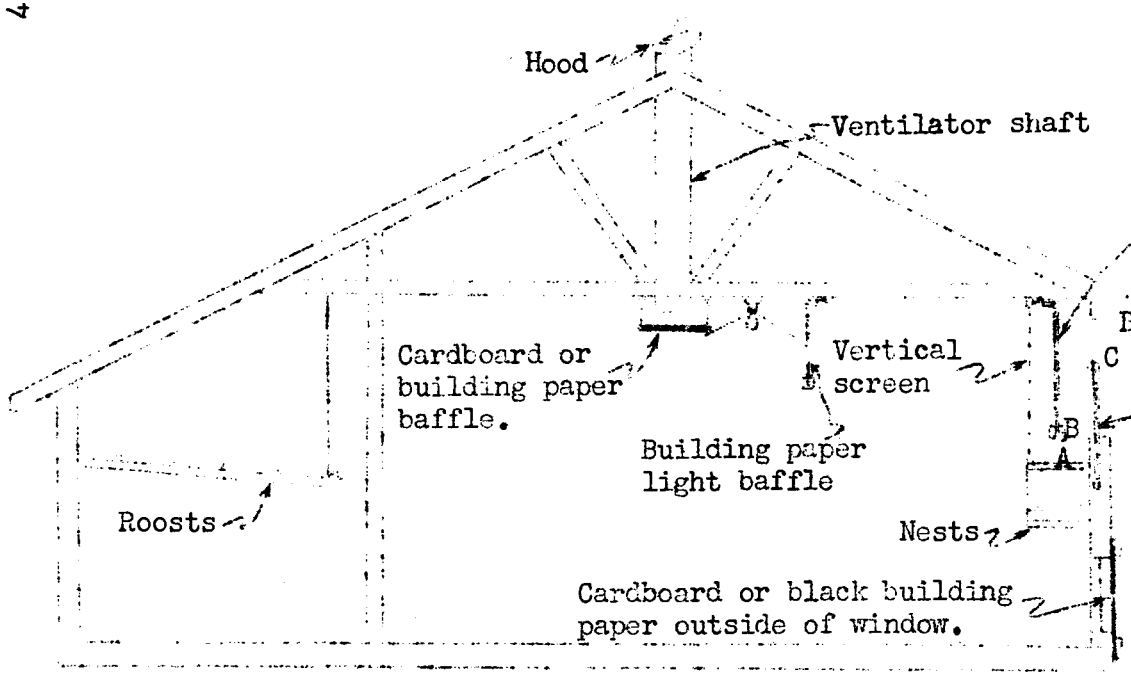

Figure 1 – Section of O. S. C. Type Laying House having vertical guard screen over the nests.

Inner curtain of black building paper with lath along bottom.

Black paint applied to under side of rafters, sheathing and plate.

Black building paper completely covering sliding celo-glass frame.

1. Distance between points A and B should be 6 inches.
2. Distance between points C and D should be no more than 6 inches.
3. Inner curtain should hang 8 inches inside of celo-glass screen.
4. Building paper light baffle near the reflector should cast a shadow over entire front wall.
5. Cardboard or building paper baffle may be hung 4 inches below bottom of ventilator shaft by wire or cord.
6. Cardboard or black building paper should be fastened to the outside window casing.

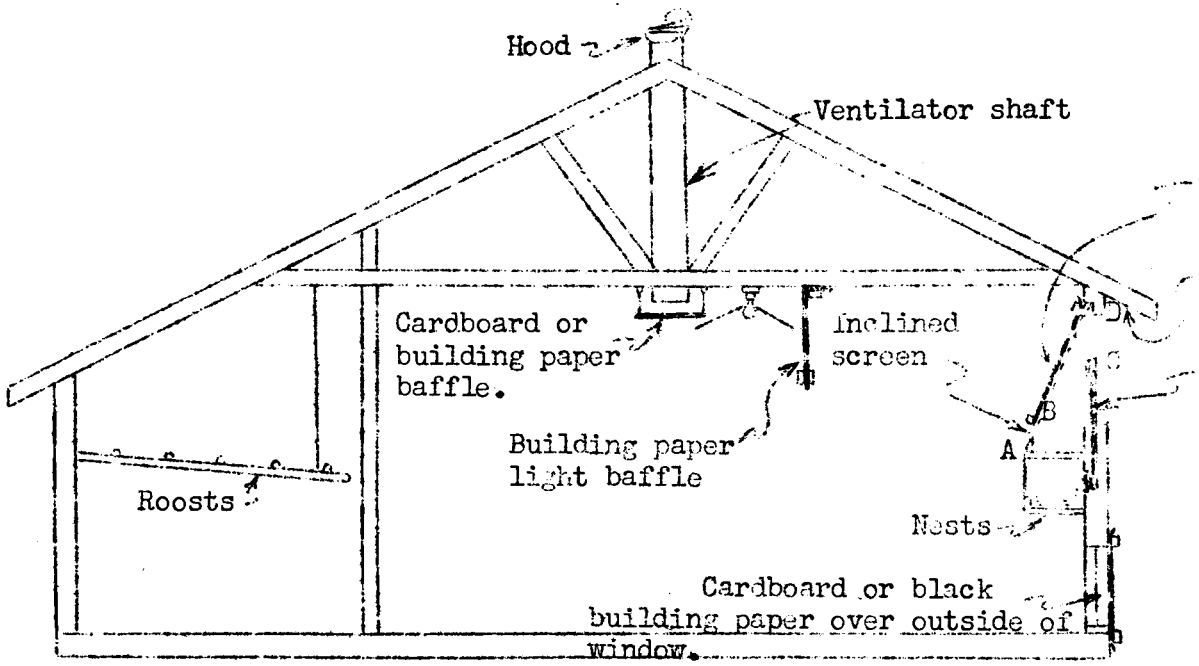

Figure 2 - Section of O. S. C. Type Laying House having inclined guard screen over the nests.

Inner curtain of black building paper with lath along bottom.

Black paint applied to under side of rafters, sheathing and plate.

Black building paper completely covering sliding celo-glass frame.

1. Distance between points A and B should leave an air gap of 6".
2. Distance between points D and C should be no more than 6".
3. Building paper light baffle near the reflector should cast a shadow over entire front wall
4. Cardboard or building paper baffle may be hung 4" below bottom of ventilator shaft by wire or cord
5. Cardboard or black building paper should be fastened to the outside window casing.

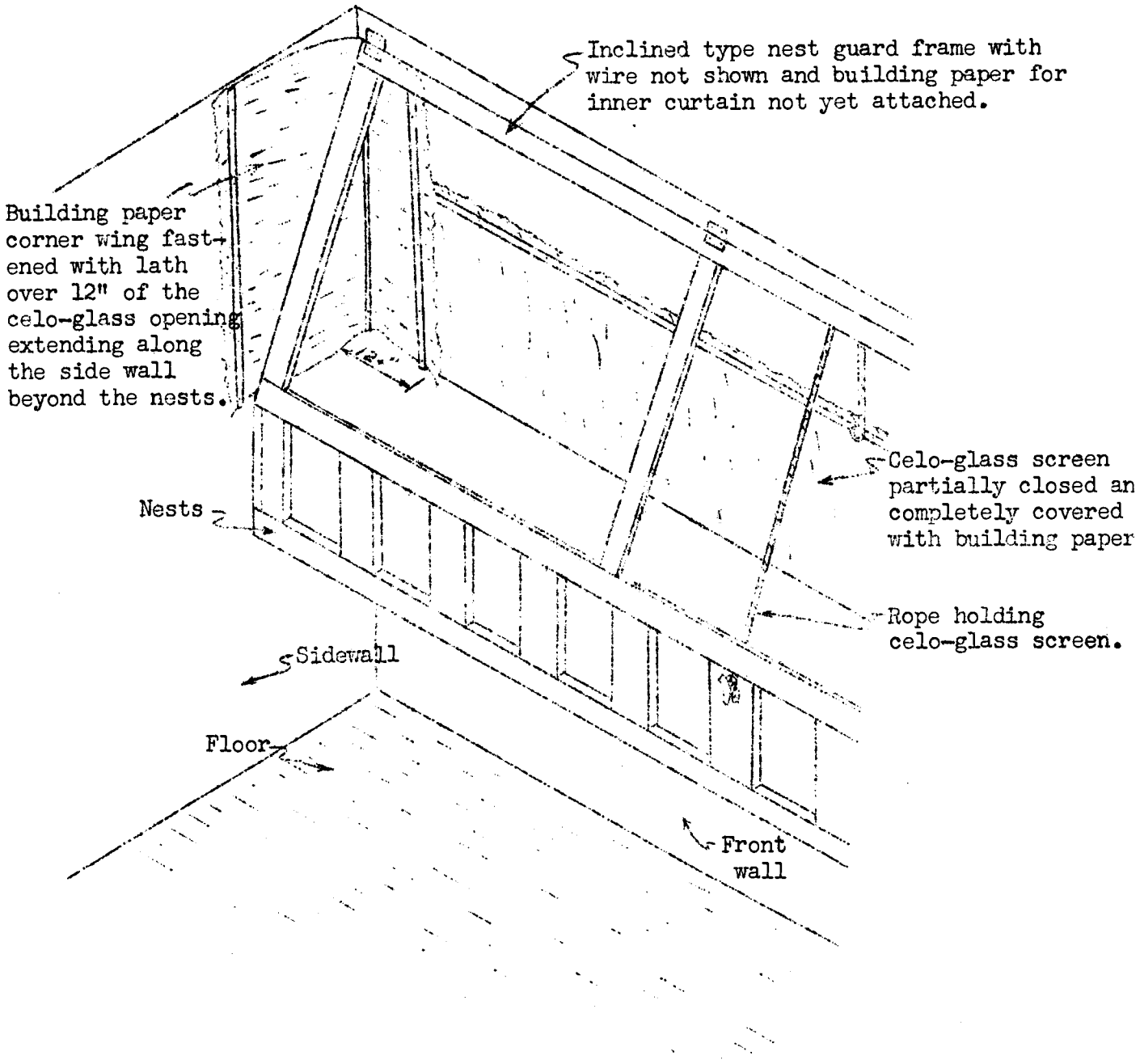

Figure 3 - Detail showing method of installing corner wing or baffle to prevent light leaks around ends of inner curtain.