

## **MSU Extension Publication Archive**

Archive copy of publication, do not use for current recommendations. Up-to-date information about many topics can be obtained from your local Extension office.

Electric Pig Brooders  
Michigan State University Extension Service  
Richard L. Witz, Agricultural Engineering  
Reprinted August 1948  
8 pages

The PDF file was provided courtesy of the Michigan State University Library

**Scroll down to view the publication.**

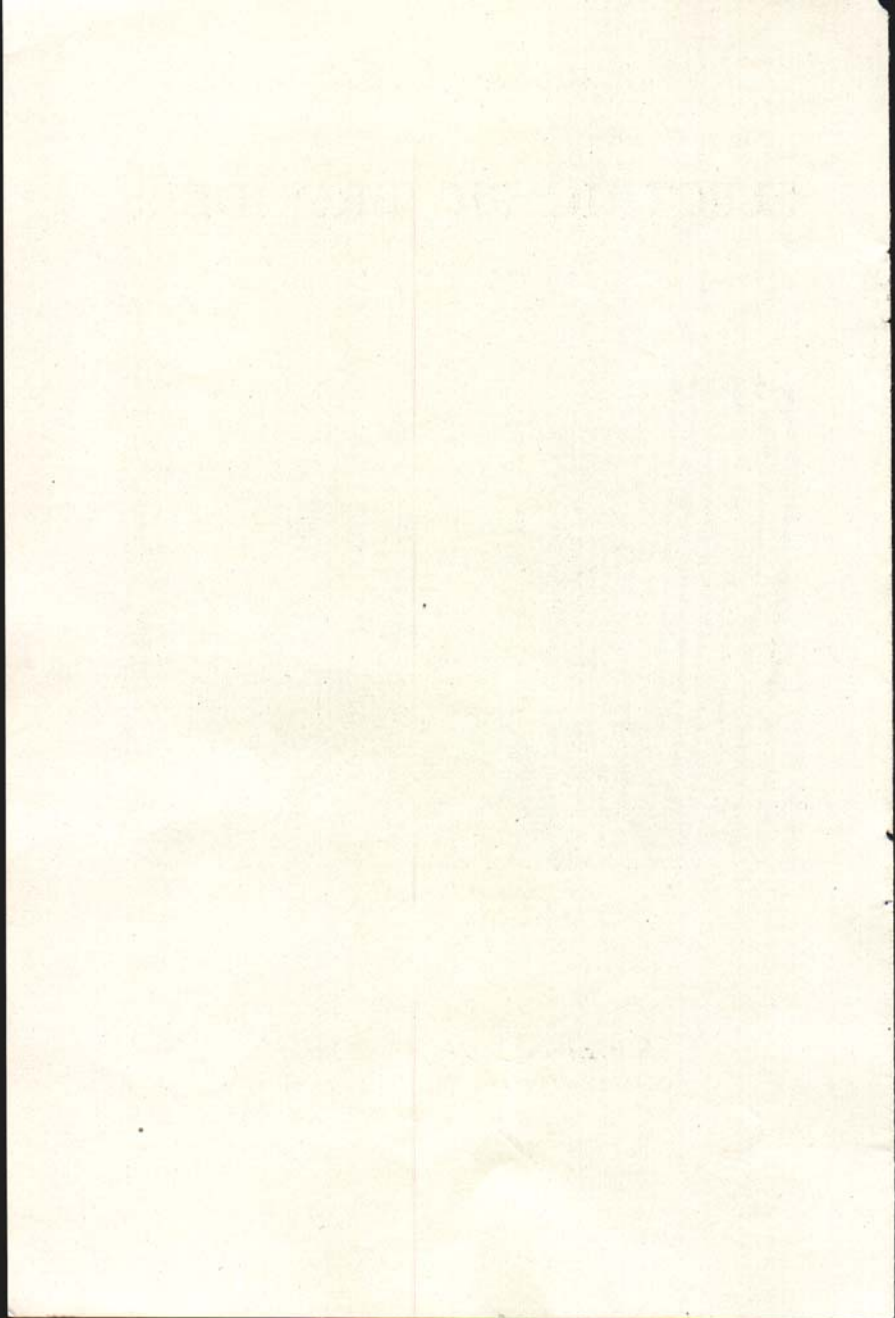
# ELECTRIC PIG BROODERS

By RICHARD L. WITZ



*Hover-type Brooder*

MICHIGAN STATE COLLEGE  
COOPERATIVE EXTENSION SERVICE  
EAST LANSING



# Electric Pig Brooders

By RICHARD L. WITZ\*

PORK PRODUCERS are raising one or more extra pigs per litter by supplying electric heat for the little pigs. This heat is most effective when applied in one corner of the farrowing pen which is fenced off from the sow. The heat prevents chilling, tends to keep the pigs in the brooder where they cannot be laid on or stepped on by the sow, and may even stimulate growth.

## TYPES OF BROODERS

Two types of electric brooders are used to supply supplementary heat to the pigs: (1) the hover-type and (2) the reflector-lamp-type.

The hover-type brooder has the following advantages:

(1) It conserves both the heat produced by the lamp and the heat given off by the little pigs, and thus requires about 60 percent less elec-

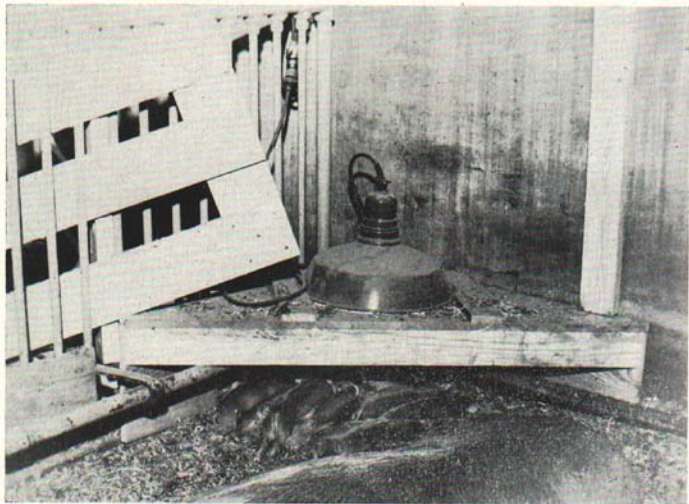


Fig. 1. Hover-type brooder with gate removed to show reflector and brooder construction.

\*Former Extension Specialist in Agricultural Engineering.

trical energy than the other type. (2) The ordinary electric lamps which are used are readily available and easily replaced in case of failure. (3) It helps to prevent drafts, particularly in rather open pens. (4) In case of lamp or electrical failure, it still gives the pigs some protection from the cold. (5) Besides using less electrical energy during operation, it is also possible that this type may not need to be operated for as long a period as the reflector-lamp-type. (6) Electric lamps are available in many sizes, which permits adjustment of the amount of heat to weather conditions.

The reflector-lamp-type brooder has the following advantages:

(1) It requires fewer materials and less construction because no hover or separate reflector is needed. (2) There is no hover to interfere with cleaning and arranging straw in heated corner. (3) There is no hover to be stored between farrowing periods.

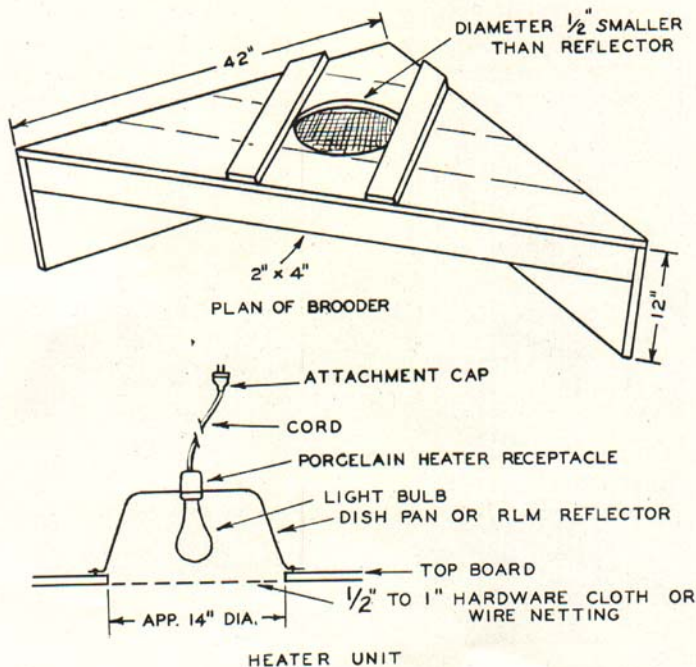


Fig. 2. Detailed plan showing the construction of the hover, and the heater unit using a dish pan for a reflector, and the location of the hardware cloth or wire netting.



Fig. 3. The reflector-lamp-type of brooder. The boards across the corner of the pen should be approximately 5 feet long and nailed securely at each end.

### THE HOVER-TYPE BROODER

The brooder is constructed as shown in Fig. 2. The two sides may be either planks or boards 12 inches wide and 42 inches long, except that for small 6- by 6-foot farrowing pens, 36-inch sides should be used. The top may be made of 1-inch boards, or  $\frac{1}{4}$ - or  $\frac{3}{8}$ -inch plywood. A 2" x 4" is placed along the front edge to give the hover strength and to hold the heat under the brooder.

If a large deep reflector is not readily available, a dish pan with a bright inside surface may be used. The pan should be 6 or 7 inches deep, and approximately 14 inches in diameter. A hole, large enough for a porcelain heater receptacle is made in the bottom with a small chisel and hammer. Rubber cord should be used. Fasten the reflector with screws to permit replacement of the lamp. Nail a piece of  $\frac{1}{2}$ -inch hardware cloth or chicken wire below the hole in the hover to prevent straw or litter from coming in contact with the lamp bulb and causing a fire.

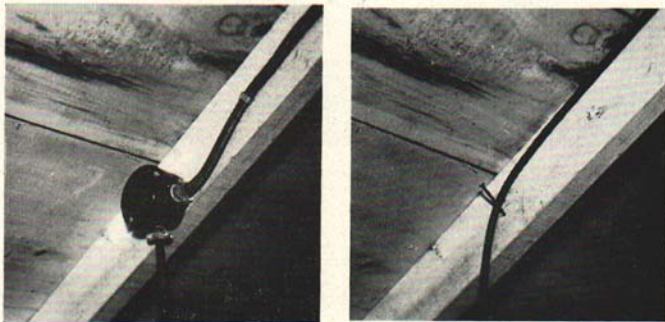
The size of the lamp should be changed to meet weather conditions. A 60-watt lamp should be used during mild winter weather, 100-watt during severe weather, and 150-watt during very severe weather.

To facilitate the use of the brooder, a convenience receptacle should be mounted on the wall of the individual house or near the farrowing

pen in the central house. The wires from the receptacle in the individual house should extend to the outside through an approved weatherhead.

### REFLECTOR-LAMP-TYPE BROODER

The use of the new reflector-type of lamp shown in Fig. 3 eliminates the construction of the hover. The 250-watt "heat-lamp" is most commonly used although during milder weather, the 150-watt "flood lamp" could be used. Both of these lamps are made with the R-40 aluminum-coated glass reflector.



*Right*

*Wrong*

*Fig. 4. Showing the proper way to support the lamp cord at the ceiling.*

The lamp is supported by the lamp cord from an outlet box on the ceiling as shown in Fig. 4. The outlet box should be located so the lamp will hang at least 12 inches from any wall, and the cord should be of such a length that the lamp will be 24 inches from the floor. This arrangement is necessary so that in case the sow disturbs the lamp or lamp cord, the wires will break and thus prevent the lighted lamp from coming in contact with the litter.

### OPERATION OF THE BROODER

The little pigs should be placed under the hover immediately after being farrowed. Once the pigs become accustomed to the brooder, little attention is needed, and there is little danger of the pigs being crushed by the sow. The brooder should be used during farrowing and for 7 to 10 days after farrowing, depending on weather conditions.

**PRECAUTIONS**

1. With either type of brooder, two planks, approximately 5 feet long, should be nailed securely across the corner of the pen to keep the sow away from the brooder and pigs.
2. Even a 60-watt lamp may start a fire if in direct contact with litter. Therefore, it is very important to use hardware cloth or chicken wire below the bulb in the hover-type and to keep the reflector-type lamp at least 24 inches from the floor and 12 inches from the walls in the other type of brooder.
3. Under no condition use high-wattage reflector-type lamps in the hover-type brooder.



Cooperative extension work in agriculture and home economics. Michigan State College and U. S. Department of Agriculture cooperating. C. V. Ballard, Director, Cooperative Extension Service, Michigan State College, East Lansing. Printed and distributed under acts of Congress, May 8 and June 30, 1914.

*Issued April 1945; Second Printing, August 1948*