

## A Sack-Cement Poultry House

A LARGE majority of the hens in Alabama are in small farm flocks. Generally they are not housed in comfortable quarters and many are completely without shelter chiefly because of the high cost of suitable poultry houses. Poultry buildings made of wood, brick, or tile have been used largely in the past, but the initial cost is so great that it has been almost prohibitive to the small farm owner or share-cropper.

In a study to reduce poultry-house costs to a minimum, the staff of the Poultry Department of the Alabama Agricultural Experiment Station has developed a poultry house which requires a cash outlay of only three to five dollars. This house is made by covering a pole frame with burlap sacks and painting the sacks with a cement mixture. It is now being tested on the Experiment Station farm and the study to date indicates that it has great possibilities. This house has been in use only about one year, which is not sufficient time to prove thoroughly its worth; it is not known how long the house will withstand weather conditions nor how often the sacks and cement will have to be replaced. For these reasons no information regarding the house would be published at this time if it were not for the fact that those who have seen it have been so insistent in their demands for plans and specifications that some statement regarding it was deemed necessary.

*The information contained in this leaflet is therefore given to the public for the benefit of those who wish to try a house of this kind, with the understanding that this type of construction is still in the experimental stage and that it will be sometime before it has completely proven its value.*

### DETAILS REGARDING CONSTRUCTION OF HOUSE

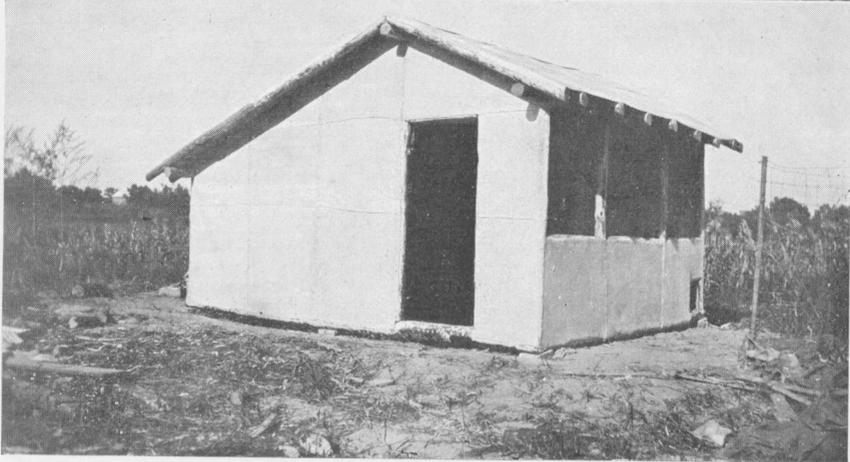
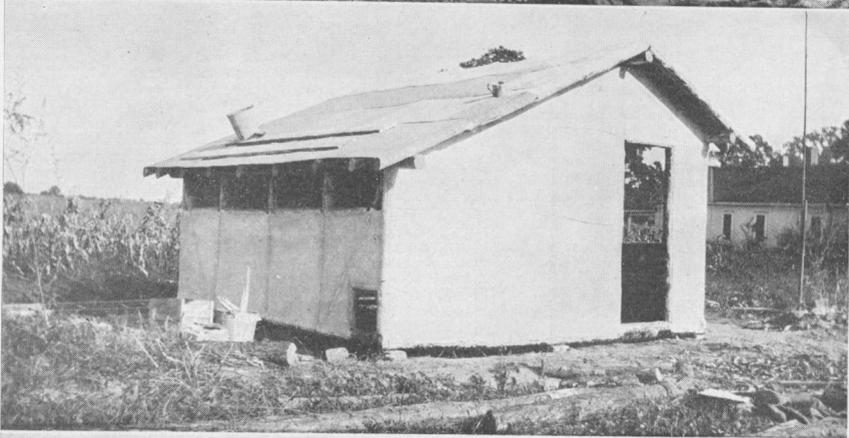
(1) The framing of this house is made of poles 3 to 6 inches in diameter, as shown in the photographs and drawings.

(2) The sides and roof are constructed by stretching strong burlap sacks over the framing and painting them with a cement mixture. The sacks should be free from dirt or feed; fertilizer sacks should be thoroughly washed before using.

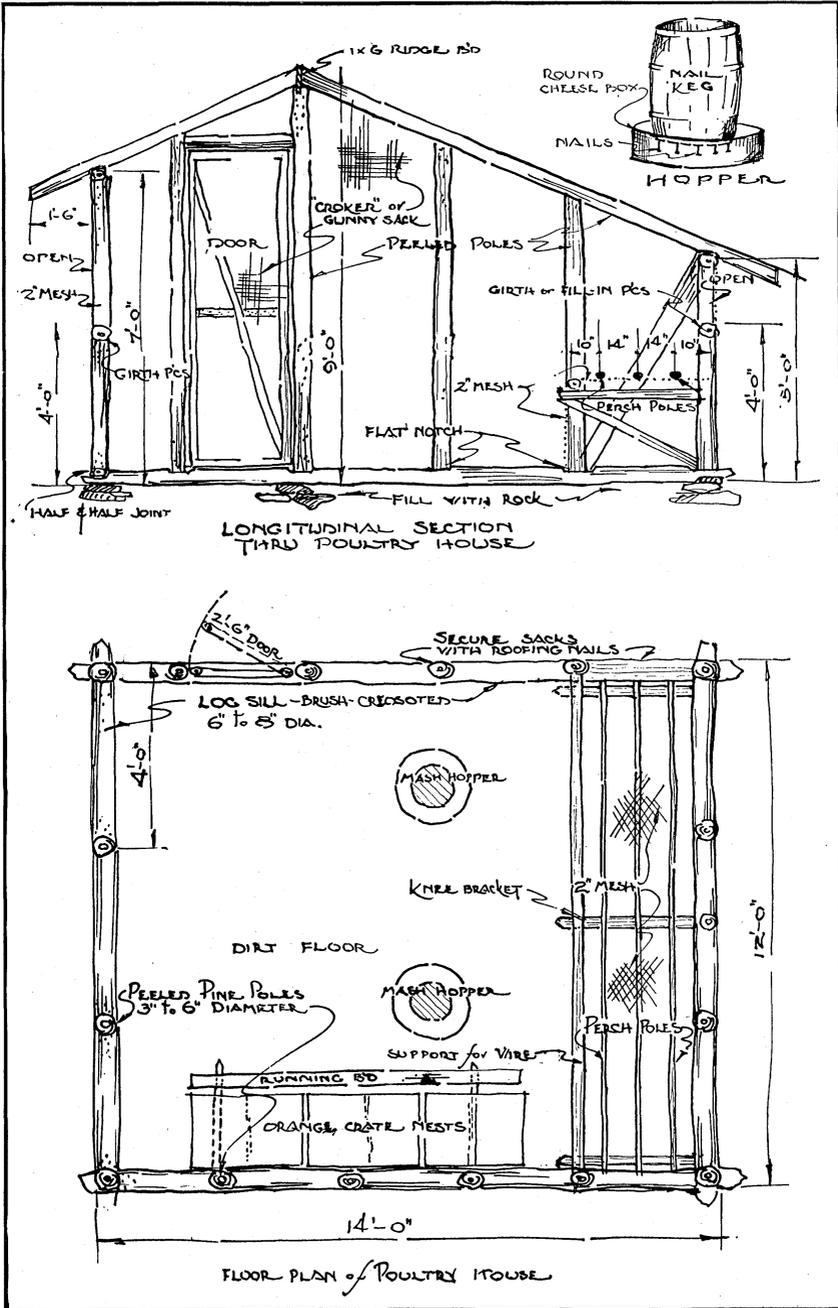
(3) The cement mixture is made as follows: Put 2 pounds of lime and 1 pound of salt through a sieve to get rid of any lumps. Add 5 quarts of clean water, free from sediment or dirt, stirring slowly. Add 12 pounds of cement, stirring thoroughly to form a thin paste. Finally, add ½ pound of powdered alum, stir, and the mixture is ready for use. Do not mix more at a time than can be brushed on before the cement hardens. The cement coating should not be applied during freezing weather.

**AGRICULTURAL EXPERIMENT STATION  
OF THE  
ALABAMA POLYTECHNIC INSTITUTE**

**M. J. FUNCHESS, Director  
AUBURN**



Progressive Stages in Construction of House



Drawings Showing Details of Construction

(4) The cement mixture is applied to the sacking with a stiff brush, first on the outside and then on the inside. After the initial wetness has disappeared, but before the wall is completely dry, apply a second coat to the outside. Additional coats are perhaps desirable.

The roof, when constructed as described on page 1, will allow some water to seep through during continued rains. The moisture is usually not serious enough to materially affect egg production, but requires more frequent cleaning, and excessive moisture is always somewhat objectionable. This condition may be remedied by applying one coat of asbestos roofing paint to the roof after the cement mixture is completely dry. The paint is inexpensive and two gallons will cover the roof of the 12- by 14-foot house.

This type of construction may be used for brooder houses as well as for laying houses, especially where hover-type brooders are used, which do not require the entire room being heated to keep the chickens comfortable. Where brooders that heat the entire room are used, more fuel will be required than usual, since some heat will escape through the thin walls.

#### BILL OF MATERIAL FOR 12- BY 14-FOOT HOUSE

(Suitable for 50 Hens or 400 Baby Chicks)

9 poles 7 ft.—front rafters	30 lbs. lime
9 poles 12 ft.—rear rafters	15 lbs. salt
2 poles 12 ft.—sills	7 lbs. powdered alum
2 poles 14 ft.—sills	55 burlap sacks
4 poles 7 ft.—front uprights (studs)	15 lbs. roofing nails
5 poles 5 ft.—rear uprights (studs)	20 lbs. large nails (16 to 40 d)
8 poles 7 to 9 ft.—side uprights (studs)	2 lbs. staples for wire
3 poles 14 ft.—top of uprights (plates)	24 ft. chicken wire netting, 4 ft. wide, for front of house and under roosting poles
8 poles 6 to 10 ft.—braces	12 ft. chicken wire netting, 3 ft. wide, to cover rear ventilator and go from front of roosting poles to ground
Several small poles for roosts and door frames	
2 bags cement	
2 gallons asbestos roofing paint (optional)	

The cost, exclusive of the poles, should not exceed \$5.

#### FIXTURES FOR SACK-CEMENT HOUSE

A good feed hopper can be made without cost by filling a nail keg with feed and driving 6 eight-penny finishing nails into the rim, leaving the nails projecting about half their length. Place a round cheese box over the keg, allowing it to rest on the nails, and then turn the entire hopper upside down. The nails prevent the keg from resting directly on the bottom of the cheese box and thus sufficient space is left for the feed to pass into the cheese box where the chickens have access to it. Two of these hoppers are sufficient for a fifty-hen flock. Orange crates placed on the wall, as shown in the drawing, make suitable nests. There should be one nest for each eight hens.

Supplement to Special Leaflet  
A SACK CEMENT POULTRY HOUSE

This type of poultry house construction has been studied at this Station for a number of years. It has shown itself to be excellent for temporary housing of chickens. If the house is given three coats of cement when it is built, it will last from 1 to 2 years. However, an additional coat of cement painted on the outside of the house every 6 months will add greatly to the life of the house. The cost of additional coats of cement is very low. In some cases the expense amounts to only 25 to 50 cents.

In building the house, 12-inch boards should be placed around the bottom of the walls and the sacks tacked to these boards instead of the sacks extending all the way to the ground or sills. During heavy rains the bottom board protects the sacks from being splashed with water and dirt, which will cause rotting if the sacks extend to the ground.

Small cracks that develop in the walls and roof of the house after the cement has dried are the cause of the sacks rotting and walls or roof caving in. These small, hair-like cracks allow moisture to reach the sack. When moisture is present the sacks rot rather fast. The less of these cracks there are, the better the house. An additional coat of cement mixture will seal the cracks for several months.

The walls when built of this material are not strong enough to stand rough treatment. Therefore, the house should be protected with a fence from horses, mules, cows, and hogs. Should holes occur they can be patched by sewing a piece of sack over the hole and then painting with the original cement mixture.

