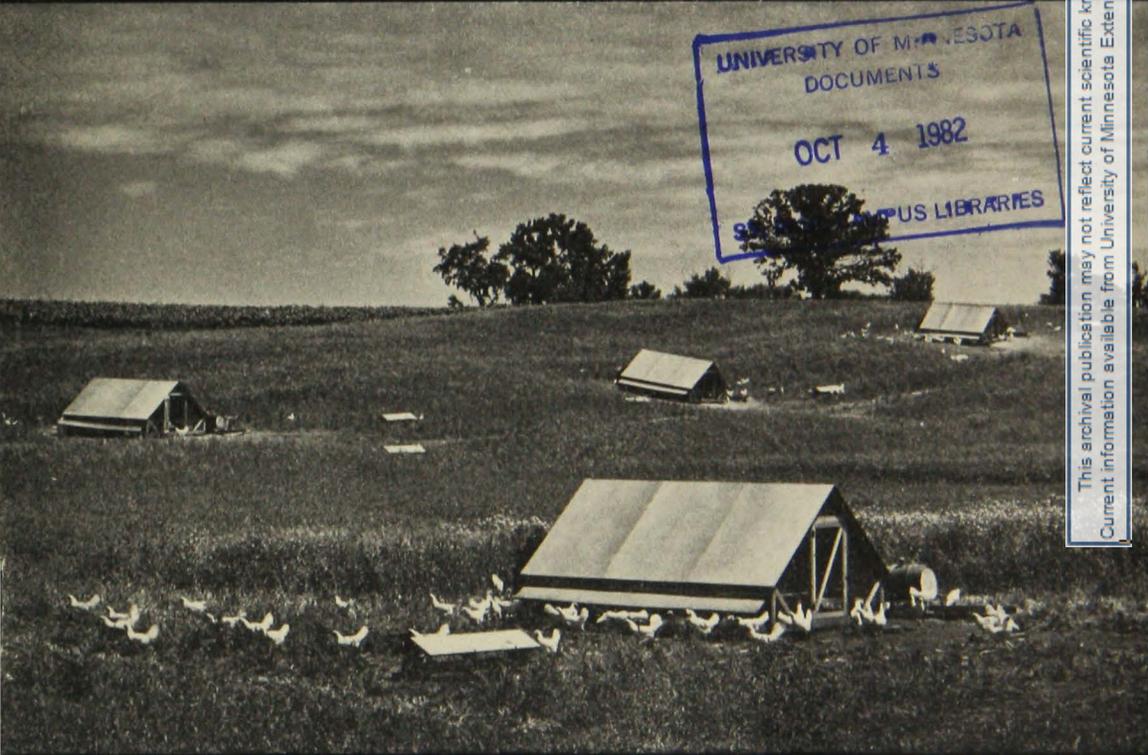


MN 2000 EB-163  
(rev. 1939)

# EQUIPMENT FOR CHICKS



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## THE "LITTLE THINGS" COUNT

It takes more than breeding, feeding, housing, management, and care to make success in poultry raising. These are the big things, but some of the minor details are just as necessary and play as big a part in the success or failure of a poultry venture.

**Chicks may starve** in the midst of plenty—if their feeders are too few or likely to be scratched full of litter.

**Chicks may die like flies** from coccidiosis—if they are put on old, contaminated ground.

**You can run your legs off**—if the chicks are moved too far afield the first few weeks.

**Hauling feed and water** may prove a back-breaking though necessary task—unless suitable equipment is at hand.

### BUT

Some simple pieces of equipment may prove the solution of all these problems and more. **Really satisfactory equipment should do the work, save time, and not cost too much.**

*Equipment for Chicks* brings you ideas used successfully by Minnesota farmers. They are presented to simplify your work and insure more satisfying results.

# Equipment for Chicks

**S**TYLES in chick raising change, and equipment must change at the same time. Control of disease under modern methods calls for moving the chicks out into the field where they can not go back to the old ground or run with the adult flock. But to do this requires more equipment and different equipment if the flock is to grow well with a reasonable labor expenditure.

## Suitable Equipment Necessary

Suitable equipment under these conditions must serve several purposes: feed, water, and care regularly supplied at a minimum of labor and expense; feeders that are built to prevent waste; protection of feeders against rain; shade for hot days; control of cannibalism; and many others.

Really good equipment that can be made at home makes for economy as well as efficiency.

## "RUNSTOP" SUN PORCH

Chicks can be raised on clean ground without constantly "running" a great distance to give them care during the first few weeks. A sun porch about

as large as the brooder house will provide all the out-of-door space needed as long as the chicks require heat. After that chicks can be cared for most easily on range and should be moved to some clean spot not used for poultry for 2 years or more.

## Use Mesh for Floor

The floor of the sun porch is of one-inch mesh hardware cloth; sides and top are enclosed with one-inch mesh chicken netting to keep the chicks confined; and the whole thing is up off the ground to keep the chicks from coming in contact with droppings and contaminated soil.

## FEEDERS FOR ALL SIZES OF CHICKS

Many feeders are needed so that all chicks can eat at one time. Having enough feeders will provide for rapid, even growth and prove a check to cannibalism. They should be easy to fill and care for, inexpensive, and as near nonwaste as possible. Feeders should be set on stands almost from the beginning to prevent their becoming

filled with litter. The stands should be low at first, but raised to a foot or more as soon as the chicks will use them.

1. Platforms for water fountains keep chicks out of filth that collects around fountains. Use one-inch mesh hardware cloth; 1×2-inch material for frame. (Fig. 2.)

2. Small feeder for first 2 weeks. Use one 4-foot feeder for each hundred chicks. The feeder is made of 4 laths, the center one set between two finishing nails in each end. (Fig. 2.)

3. Reel feeder—2 weeks to 3 months. Use one 4-foot feeder for each 50 to 75 chicks. (Fig. 2.)

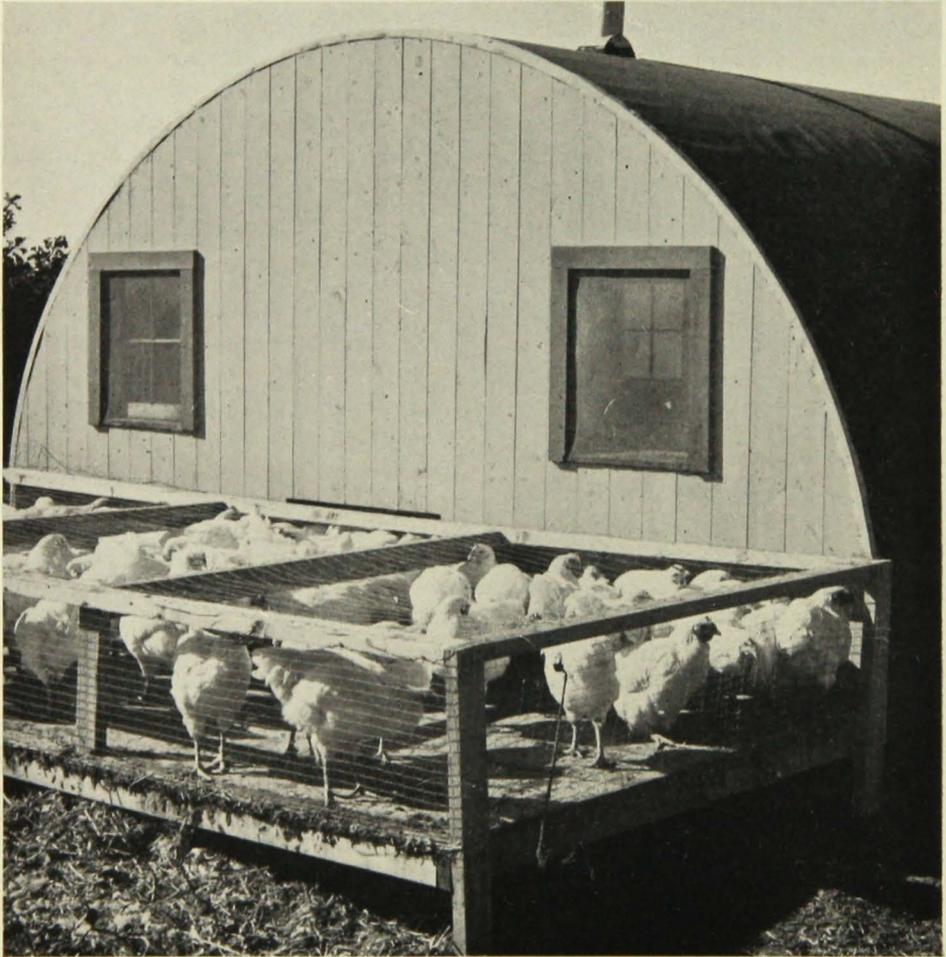


FIG. 1. SUNPORCH FOR SANITATION

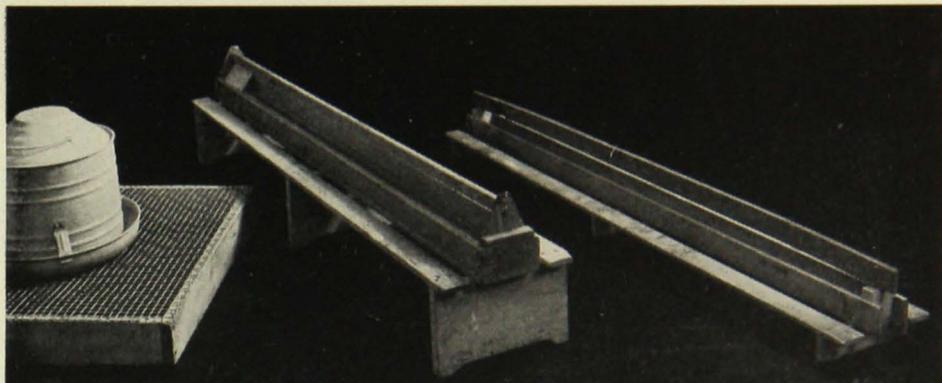


FIG. 2. STANDS INSURE CLEANLINESS

**Material required:**

- 1 board 1"×4"×4' 4"
- 2 laths
- 1 strip 1"×1"×4'
- 1 piece galvanized iron 3"×4½"
- 3-penny box nails
- 2 finishing nails

This is a flat trough with the bottom nailed to the side laths so that the full width of the lath forms the depth of the trough. The end pieces are cut to fit, from the end of the 1"×4"×4' 4" board. The galvanized piece is provided with three holes one-half inch apart to provide for setting the reel at different levels according to the needs of the chicks. The reel is made simply by driving a finishing nail into each end of the 1"×1" strip allowing the nail heads to project about one-half inch.

4. Range feeder—3 months to maturity. Use one 5-foot feeder for each 50 pullets. (Fig. 3.)

**Material required:**

- Bottom ..... 1-1"×10"×59¾"
- Ends ..... 2-1"×10"×16¼"
- Sides ..... 2-1"×6"×59¾"
- Guards ..... 2-½"×1½"×58"
- Adjustable Feed Spacers ..... { 2-1"×2"×58"  
4-5/16"×3" carriage bolts  
4-5/16" thumb nuts  
8-5/16" wrought iron washers
- Perches ..... 2-1"×2"×59¾"
- Cross pieces to which perches are nailed ..... 2-1"×3"×19"
- Lifts—nailed on bottom ..... { 1-1"×3"×19"  
2-1"×1½"×11⅞"
- Center bearing of perches ..... 2-2"×2½"×4"

**COVER**

- Sides ..... 2-1"×12"×64"
- Ends ..... 1-1"×12"×19"

Slots for sliding bolts in ends of adjustable spacers are 3½ inches long, one inch from edge of end piece and 2 inches below top of end piece.

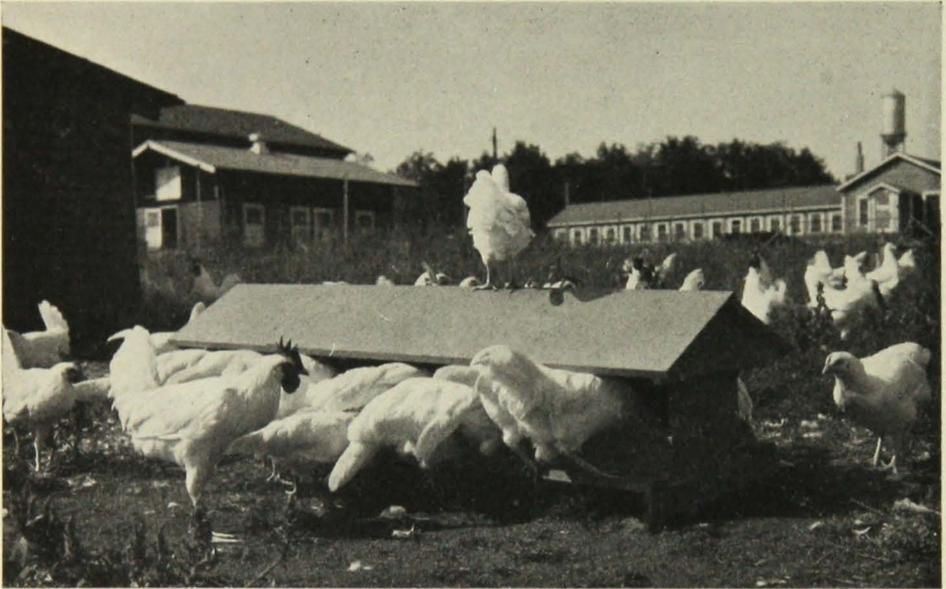


FIG. 3. RANGE FEEDER

### RANGE WATERER

A clean oil barrel with faucet and trough will furnish a constant supply of water. Placed on a stone boat, the barrel may be hauled in and filled every other day. Wooden or galvanized troughs may be used.

A small float fastened to the faucet which controls the level of the water in the trough and keeps the trough from overflowing is an inexpensive device to prevent formation of puddles around the waterer. If the float is not used, the faucet may be turned just enough to drip, but care must be taken to prevent overflowing, since disease may be more easily spread in muddy spots.

### SUMMER RANGE SHELTER

When stationary brooder houses are used, or available brooder houses are too small, a range shelter like the one in figure 5 becomes a most useful piece of equipment. Lightly built, it can be moved readily by two men. Its cost is low, often meaning a great saving to the person who must provide additional range quarters for pullets.

Pullets can be moved to the range shelter as soon as they can go without heat, or in early May as soon as they are feathered. The shelter provides necessary protection against storms and yet assures ample ventilation.

Occasionally, in case of late spring cold spells, gunny sacks tacked over the ends may be needed.

### Construction

Shelter and wire floor are made separate to facilitate moving and cleaning.

A good grade of galvanized roofing makes a satisfactory roofing. It is more durable than most fiber board but is no heavier. A fiber board roof is likely to make the shelter heavy on the wet days that are most often chosen for moving. If a fiber wallboard is used, it should be of a sort that is water-resistant and one that the birds will not pick. Lumber may be used but would require battening or roofing and would be heavier and more costly.

The center roost supports should be cut into the posts and extend one foot beyond the posts on either end of the shelter to serve as handles for moving although the shelter may, if desired, be placed on skids and moved with a team. The roosts are 1x2 inches, cut 4 feet long, and set 6 inches from each end and one foot apart. This allows for 10 roosts on each side or 80 running feet. The roosts should be laid flat so as to lessen the danger of crooked breastbones. A space one foot wide is left for a walk down the center of the house between roost ends.

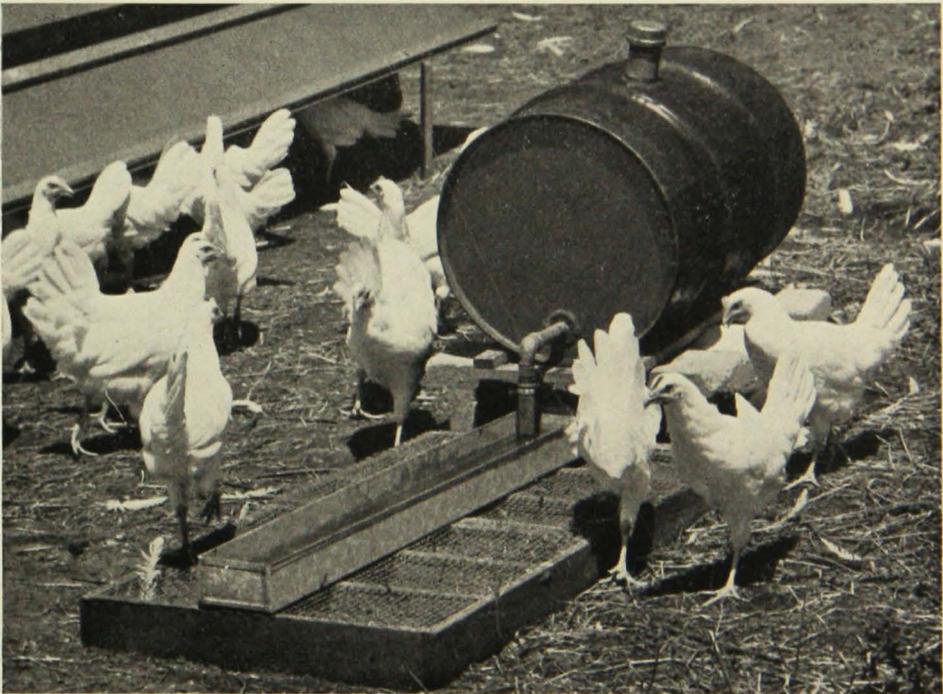


FIG. 4. BARREL WATERER

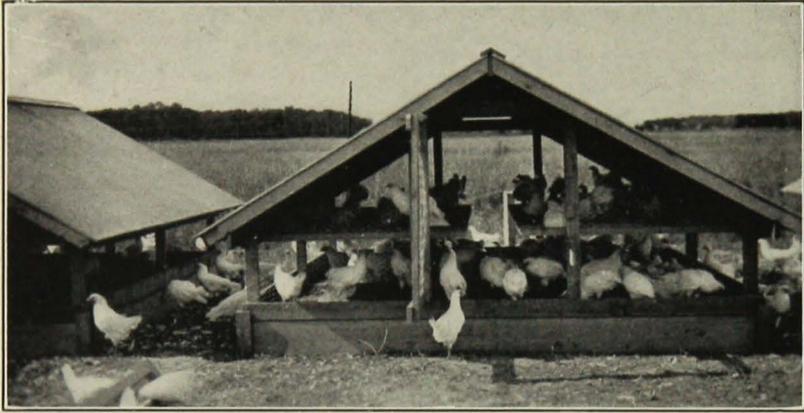


FIG. 5. SUMMER RANGE SHELTER

Size, 9x10 feet; capacity, 150 mature pullets; cost of material, not more than \$20.

One-inch wire netting, one foot wide, is run entirely around the house, cut only to finish the ends and doors. The narrow strips can easily be fastened by twisting the outside strands with a nail.

The separate wire floor will add to the ease with which the shelter can be kept sanitary and clean. It is the same size as the shelter and is built entirely

separate to facilitate moving and cleaning. It is laid on a frame made of 1- $\times$ -8-inch boards for the four sides and a center brace directly under the walk. Three 1- $\times$ -3-inch cross strips, 2½ feet apart, will support the wire as much as is necessary. Use one-inch wire mesh, 3 feet wide. Three strips of wire, 3 feet wide, make the 9-foot width without waste.

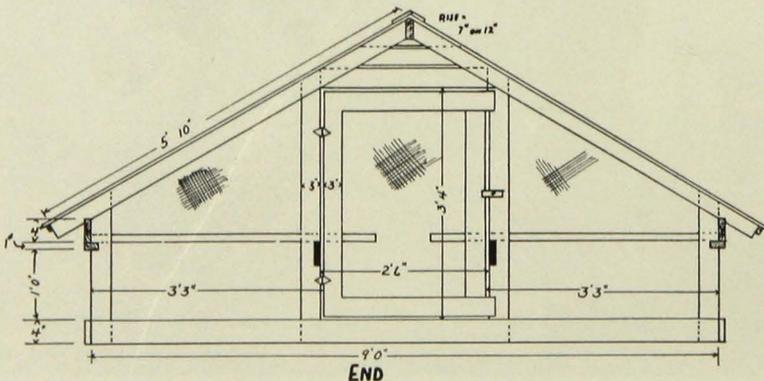


FIG. 6. RANGE SHELTER—END

## BILL OF MATERIAL FOR SUMMER SHELTER

(Size—9'x10'—Use All Planed Light Lumber)

	De'ailed Bill	Order Bill
Posts .....	6—2"×3"×2'	} 2—2"×3"×14'
Posts .....	4—2"×3"×4'	
Base boards .....	2—1"×4"×9' 2"	} 9—1"×4"×12'
Base boards .....	2—1"×4"×10'	
Plates .....	2—1"×4"×11' 11"	
Roost supports .....	2—1"×4"×12'	
Ridge pole .....	1—1"×4"×11' 11"	
Tie beams .....	2—1"×4"×2' 6"	} 11—1"×3"×12'
Saddleboards .....	2—1"×3"×12'	
Rafters .....	16—1"×3"×5' 10"	
Door .....	2—1"×3"×3' 4"	
Door .....	2—1"×3"×2' 8"	} 10—1"×2"×12'
Outside roost supports .....	2—1"×2"×10'	
Roosts .....	18—1"×2"×4'	
Rafter spacers .....	2—1"×2"×12'	
Wallboard or galvanized sheeting 2—6'×12'		Nails—5 lbs. 1½" galvanized roofing
Wire—65'—1' wide, 1" mesh		Staples—1 lb. wire
Nails—5 lbs. 8 d.		Hinges—1 pair 3-inch strap
Nails—5 lbs. 8 d. finish		

## FLOOR

Wire 30'—3' wide 1" mesh 16 gauge  
Boards 5—1"×8"×10' 3—1"×3"×10'

## SHADE SHELTER

When pullets are given an open field for range, portable shade shelters become practically essential. They furnish protection for feeders and for chickens so that they continue to eat regardless of weather. They also serve to keep the pullets on their clean range instead of having to go back to the old range for shade.

Shelters that are A-shaped may be used, similar to the range shelter except without the wire netting. Another

very satisfactory and extremely simple shade shelter has a shed roof. Such shelters may be made of a size to utilize waste lumber that is available. A convenient size is 10 feet square, 1½ feet from ground at back, and 3 feet in front. Two-by-four's are used for corner posts, braced to give strength. The roof is made of boards and battens. Feeders and fountains should be placed underneath, and the shelter should be moved often to prevent a heavy accumulation of droppings.

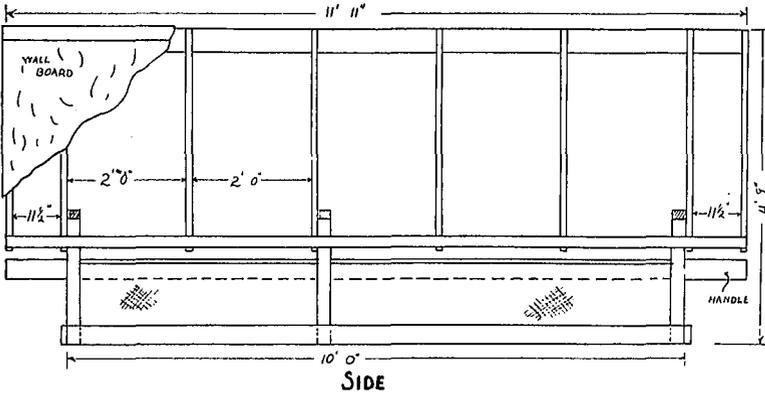


FIG. 7. RANGE SHELTER—SIDE

ROOST PLATFORM

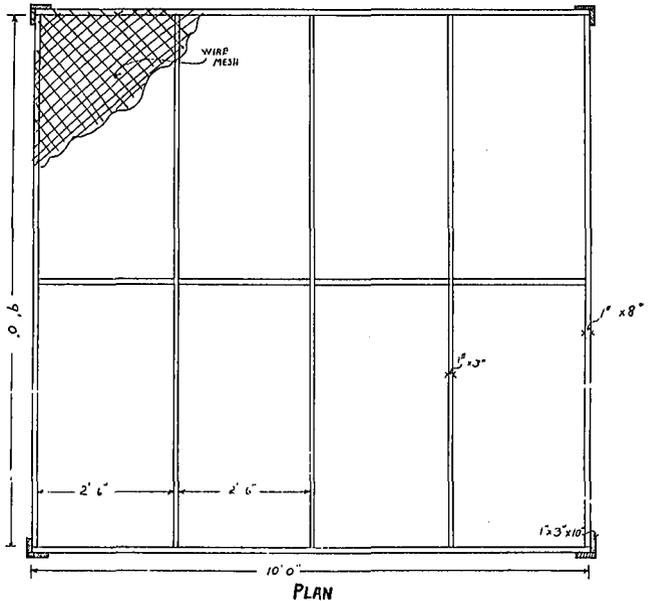
Chickens can be taught to roost readily and without crowding if a sloping roost platform, covered with poultry netting, is used. The platform closes off the corners and keeps chicks from crowding underneath the roosts. The

roosts are 1x2 inches, laid flat, and the netting, one-inch mesh.

The roost platform is hung so that it is about 18 inches off the floor in back and tight to the floor in front.

Roosts can be put in place in the spring when the brooder house is be-

FIG. 8. FLOOR PLAN OF RANGE SHELTER



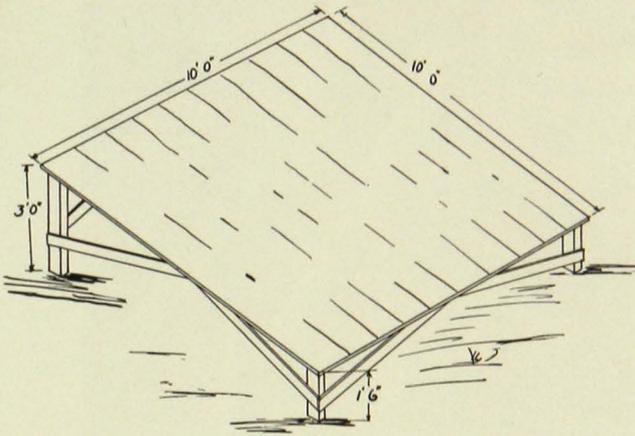


FIG. 9.  
SHADE SHELTER

ing prepared for the chicks. Hung to the rear wall by screw eyes and hooks, they may be raised and hooked to ceiling or wall, out of the way but ready for use when needed. The earlier the roosts can be in place for use, the more readily the chicks will learn to use them. This will save labor in teaching chicks to roost and will also lessen the danger of roup, which frequently develops when chicks are allowed to pile up on the floor in warm weather.

As soon as the chicks learn to use the roosts regularly, they may be raised to a level position.

### RANGE FEED BINS

A feed supply kept on the range will prove a real labor saver for those who have a large flock of pullets. An extra brooder house is sometimes used for this purpose and to store equipment. Large watertight bins on skids or

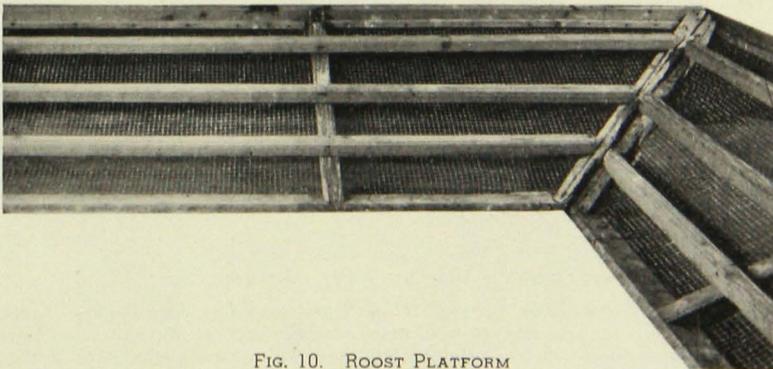


FIG. 10. ROOST PLATFORM

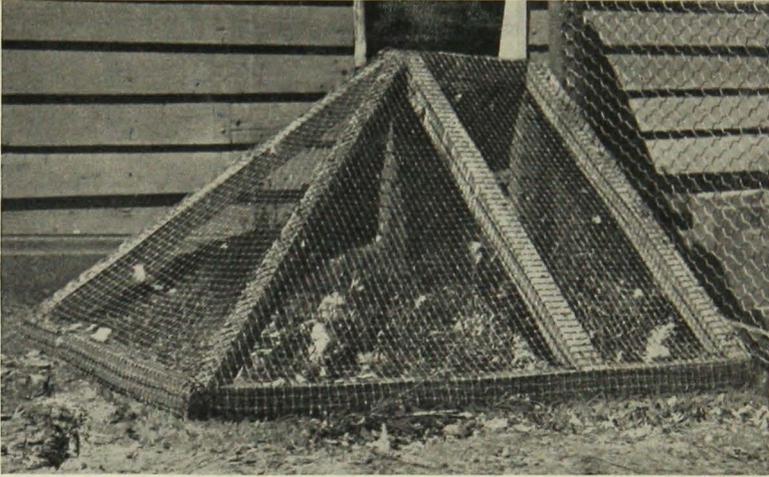


FIG. 11. WIRE RUNWAY

wheels can hold a large supply of mash and of scratch feed, thus reducing to a minimum the daily hauling and carrying.

### RUNWAY TO BROODER HOUSE

If chicks are placed on clean range from the beginning, a gently sloping runway from the ground to their exit door will be found an inducement to them to run in and out. Such an arrangement will prevent many a serious loss from sudden storms or from chilling. The runway should be built so as not to permit the chicks to gather under or back of it.

The one shown in figure 11 is especially convenient for a brooder house that is set high off the ground since the wire mesh gives the chicks a foot-hold. Wooden runs of the same type should have cleats to serve this purpose. A mound of earth packed solidly and covered with sod proves satisfactory for brooder houses that are set somewhat lower.

Whatever type of runway is used, it is advisable to set up a roll of netting to provide a very small yard during the first few days the chicks are outdoors, until they learn to go into and out of the house.

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Cooperative Extension Work in Agriculture and Home Economics, University of Minnesota, Agricultural Extension Division and United States Department of Agriculture Cooperating, P. E. Miller, Director. Published in furtherance of Agricultural Extension Acts of May 8 and June 30, 1914.

15M-12-39