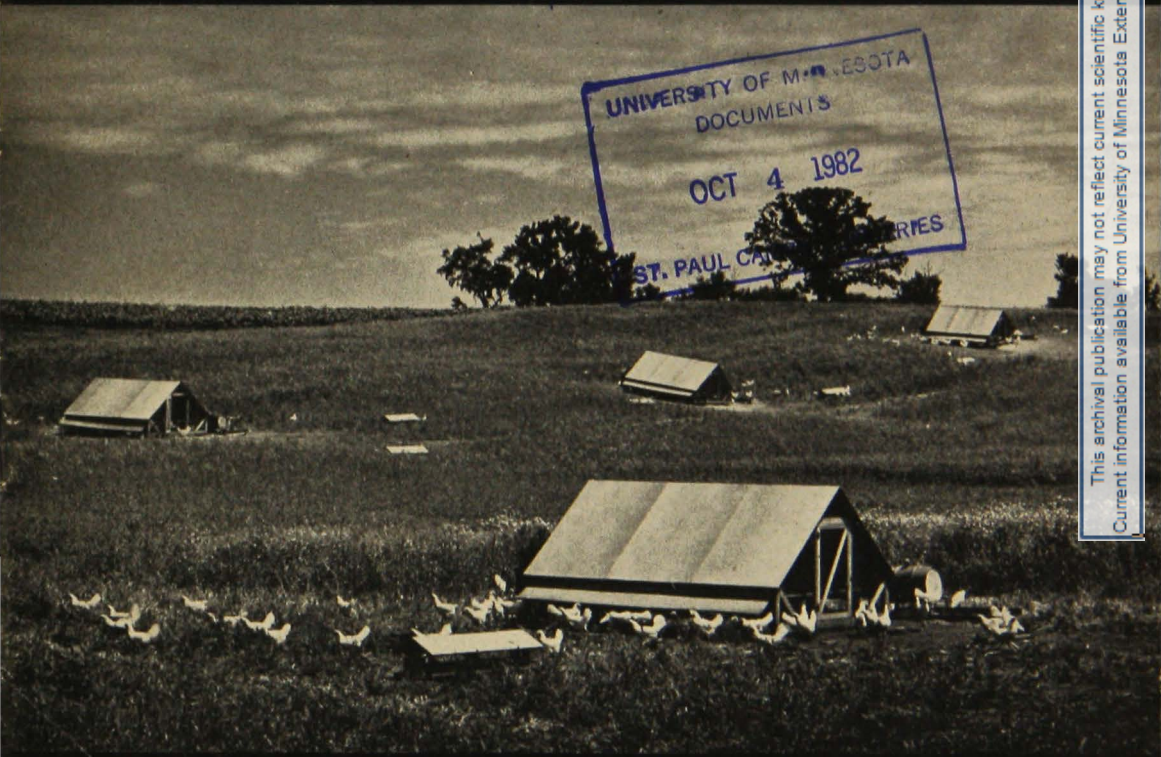


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# EQUIPMENT FOR CHICKS



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## BY CORA COOKE

AGRICULTURAL EXTENSION DIVISION—UNIVERSITY OF MINNESOTA

### 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

by Cora Cooke

**G**OOD EQUIPMENT can play a large part in solving some of the chick raiser's worst problems. It can be a big factor in the control of disease and in reducing cannibalism to a minimum. It can be so constructed as to save time as well as feed and to assure the birds of getting as much feed and water as they need for best growth. These advantages should be considered when planning equipment, especially if it is to be used on a distant range where frequent attention is impossible.

Because of the narrowing margin of profit in the poultry business, farmers will benefit from increasing the size of their flock whenever possible without a corresponding increase in labor. Having the right equipment can play a large part in making such a move possible.

## SHELTERS FOR EXPANSION

An essential factor in disease control is keeping chicks off ground that has recently been used by chickens of any age. This is easily accomplished after the heat is discontinued by moving the flock to a clean range. During the brooding period, however, confinement is the only practical solution, since this permits keeping the chicks in a handy location. On the other hand, room to spread out and to get away from the heat and from each other, will go a long way toward controlling cannibalism and promoting good growth and feathering.

A wire-floored range shelter, described on page 5, is a practical means of allowing the chicks to spread out. It can be placed alongside the brooder house for the chicks to use whenever the weather permits. Excellent results are obtained when a wire-floored sun-

porch is used for this purpose; but since a sunporch can only be used a few weeks, it is an expensive investment. The range shelter is a valuable addition to the equipment for the entire season.

## FEEDERS FOR ALL AGES

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. To avoid waste, care should be taken to fill feeders no more than two-thirds full.

1. **Stands for water fountains** keep chicks out of filth that collects around fountains. Use 1-in. mesh hardware cloth—1 x 2-in. material for frame. (Fig. 2) If built-up litter is used, 1 x 6-in. will be needed.



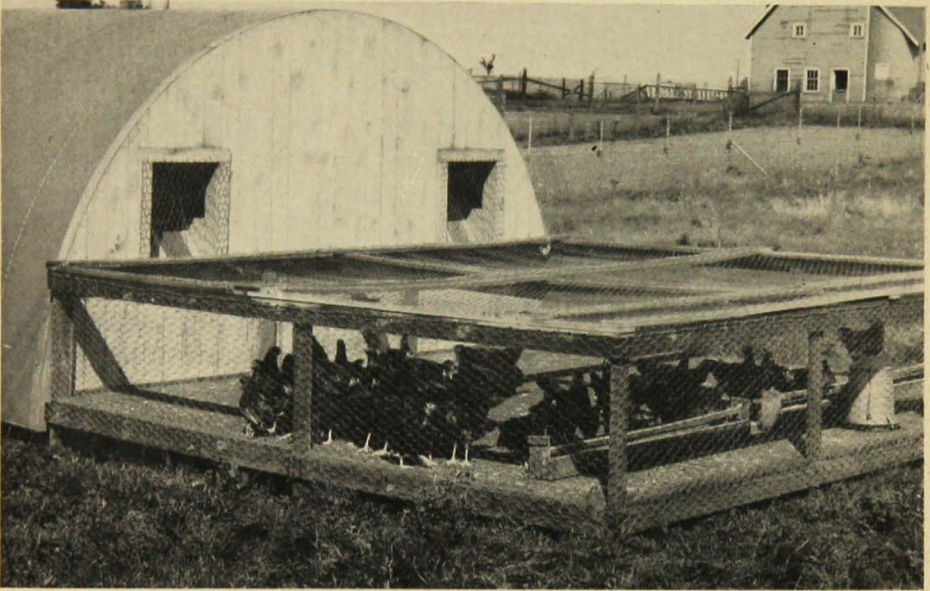


Fig. 1. Sun porch for sanitation.

**2. Small feeder for first two weeks.**

Use one 4-ft. feeder for each 100 chicks. The feeder is made of four laths, the center one set between two finishing nails in each end. (Fig. 2)

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

**Material required:**

- 1 board 1"x4"x4'4"
- 2 laths
- 1 strip 1"x1"x4'
- 1 piece galvanized iron 3"x4½"
- 3-penny box nails
- 2 finishing nails

The reel feeder is a flat trough with the bottom nailed to the side laths so

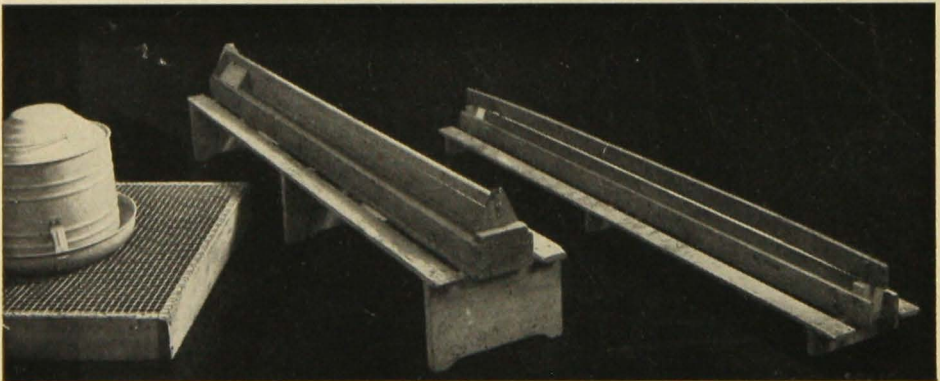


Fig. 2. Stands insure cleanliness.



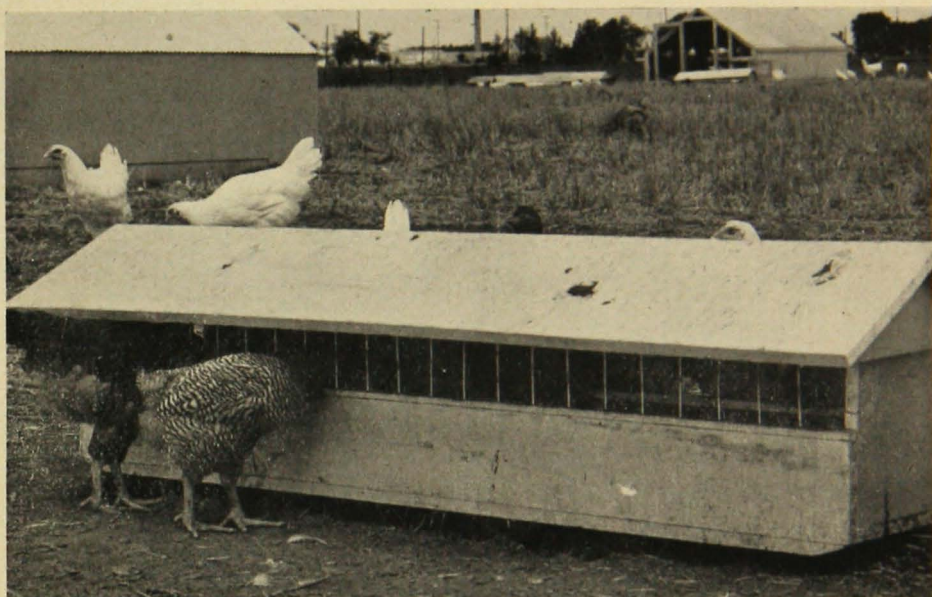


Fig. 3. Range feeder serves for the entire range period.

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 x 4 x 52-in. board. The galvanized piece has 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 x 1-in. strip allowing the nail heads to project about one-half inch.

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

## RANGE WATERER

A clean oil barrel with faucet and trough will furnish a constant supply of water. Placed on a stoneboat, 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.

The waterer in figure 4 has a tight bung, the water level being controlled by having the open end of the pipe extend below the top of the trough.

Setting the trough on a platform covered with a 2-in. mesh screen will prevent access to the wet spots which are a common source of spread for coccidiosis.

## SUMMER RANGE SHELTER

Probably the greatest handicap to efficient growth of young stock during the range period is lack of enough house room. Whether the flock consists



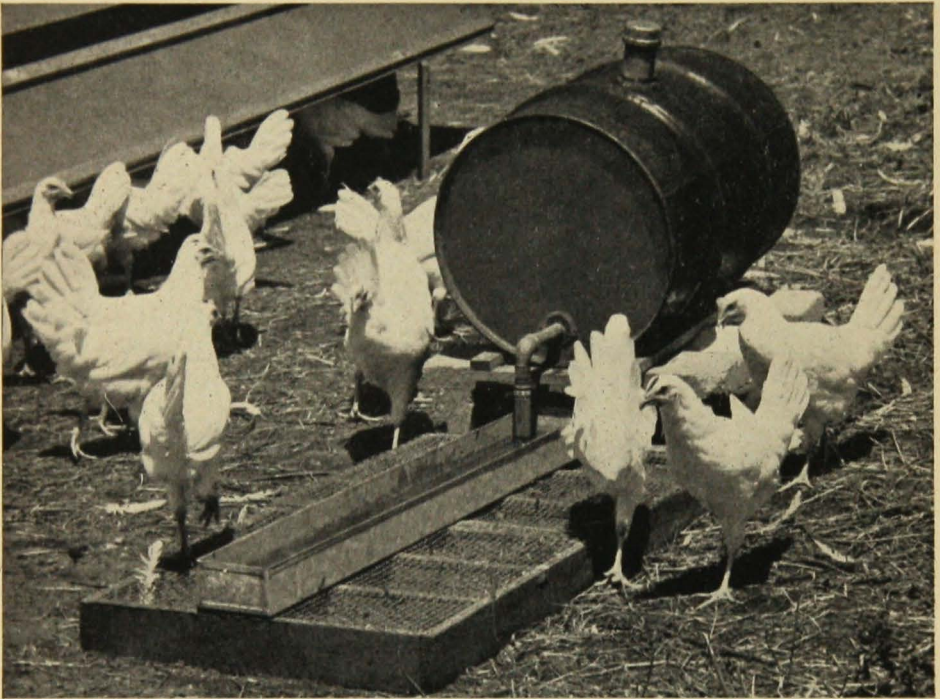


Fig. 4. Top: Barrel waterer. Bottom: Water piped to the range is a labor saver.



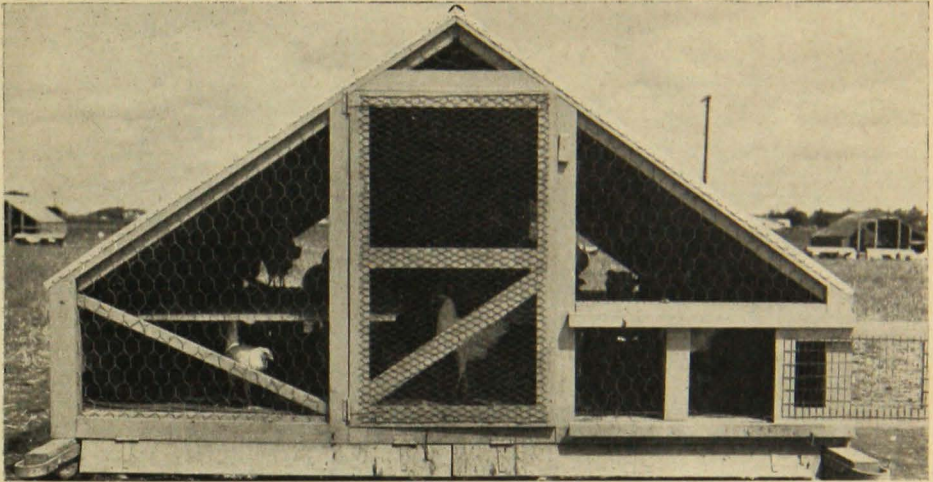


Fig. 5. Hinged guards on range shelter keep chickens from running underneath.

of pullets or of straight-run chicks the original brooder house is only about half the needed size after the brooding period is over. This lack of room is the main cause of poor fleshing in market cockerels and of slow growth in the pullets. The situation is greatly aggravated during hot weather and gets progres-

sively worse as the birds increase in size. A wire-floored roosting shelter not only provides an inexpensive solution but also furnishes almost ideal conditions for growth and feathering during hot weather.

This shelter is used in various ways. With straight-run flocks it is desirable

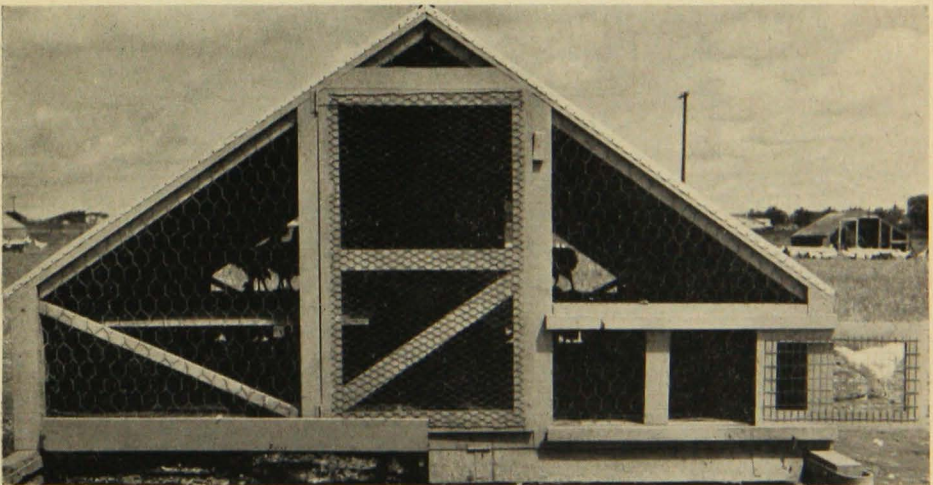


Fig. 6. Hinged guards on range shelter can be raised for moving.



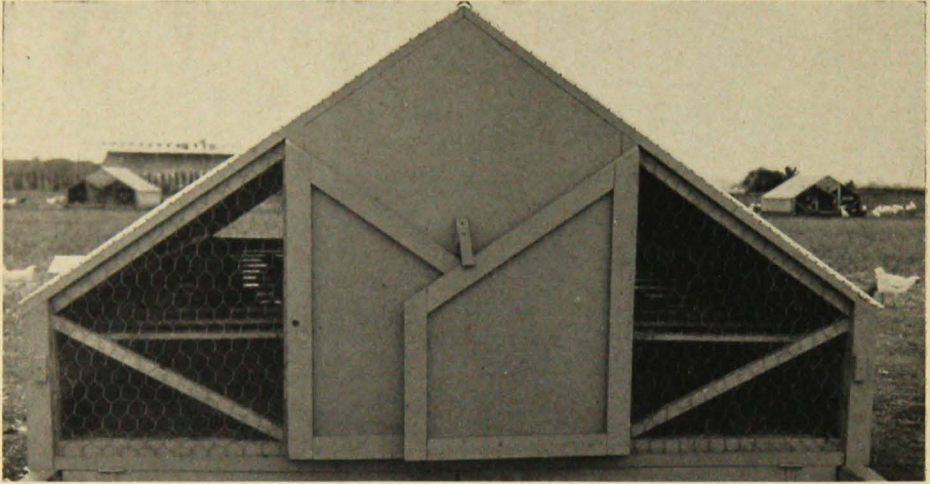


Fig. 7. Hinged doors on north side of range shelter can be closed against storms.

to use the shelter on range for the pullets and to leave the cockerels in the brooder house until sold. For all-pullet flocks both shelter and brooder house may be used on range, or two shelters may be preferred.

Many poultrymen think a stationary brooder house and a range shelter for

range use only are economical long-time investments for large flock owners because they eliminate moving damages and make moving easy.

The shelter shown here has solid panels along the sides and in the center of one end. Hinged panels at the end can be closed in case of cold or rainy

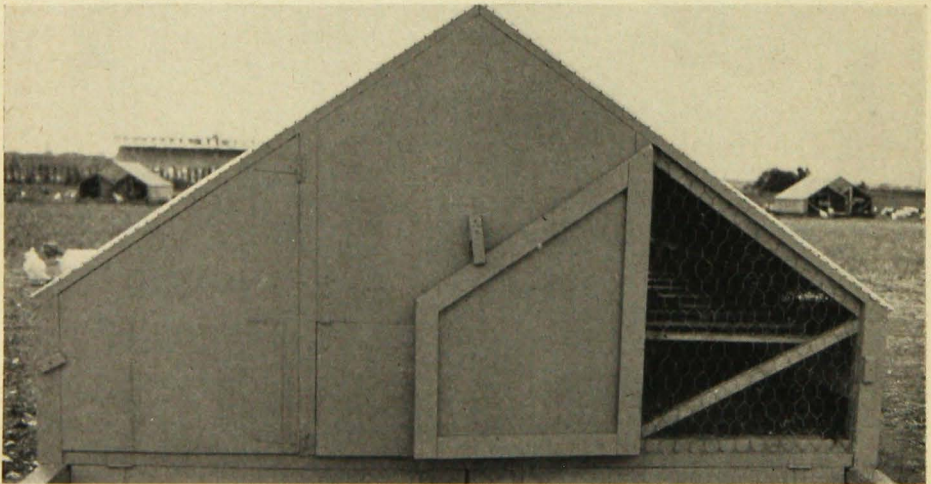


Fig. 8. Whole north side of range shelter can be closed in cold or rainy weather.



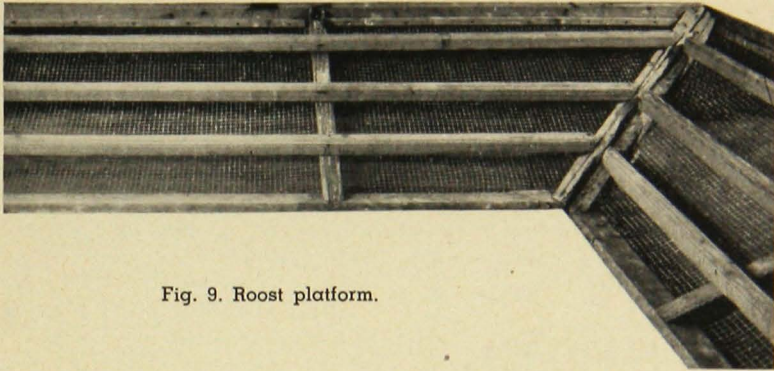


Fig. 9. Roost platform.

weather. Thus the shelter can be used from about May first until pullets are housed in the fall.

To keep the pullets from running under the shelter, skids are placed under the outside walls and hinged boards are placed between the ends of the skids. These boards can be raised for moving.

### SHADE SHELTER

When pullets are given an open field for range, portable shade shelters become advisable. They furnish protection for feeders and for chickens so that the chickens can continue to eat regardless of weather. They allow the pullets to stay on the clean range with-

out having to go back to the old range for shade.

Shelters that are A-shaped may be used. These are similar to the range shelter except that they have no wire netting. Another very satisfactory and extremely simple shade shelter is one with a shed roof. Such shelters may be made of any 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.

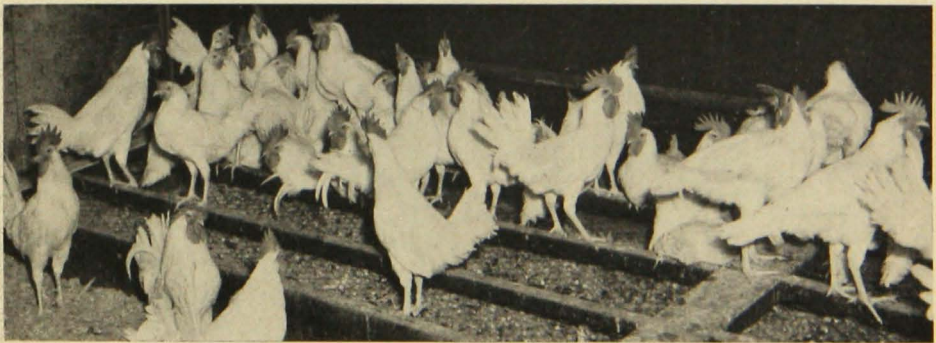


Fig. 10. Droppings pit is a labor saver in the brooder house.



## RANGE FEED BINS

A feed supply kept on the range will prove a real laborsaver for those who have a large flock of pullets. An extra brooder house is sometimes used to store feed and equipment. Large water-tight bins on skids or wheels can hold a large supply of mash and of scratch feed, thus reducing to a minimum the daily hauling and carrying.

## 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 1 x 2-in., laid flat, and the netting is 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 being prepared for the chicks. Hung to the rear wall by screw eyes and hooks, they may be raised and hooked to ceil-

ing or wall where they are 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 colds which frequently develop 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.

## 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 for 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 in such a way 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

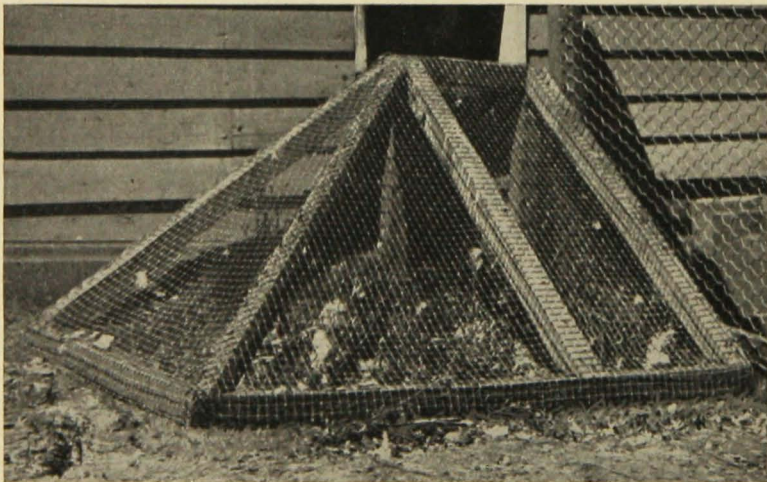


Fig. 11. Wire runway.





Fig. 12. Catching crate in sections makes the fall roundup easier.

the wire mesh gives the chicks a foothold. 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.

## HANDLING THE EQUIPMENT

Having plenty of the right kind of equipment to reduce labor and insure comfort and a steady supply of feed and water for the growing stock is only part of the job. Sanitary equipment

can be kept sanitary only by frequent cleaning. Perhaps more important is the fact that feeders, waterers, shelters, etc., must be moved often. Disease and parasites spread among growing stock in spots that are heavily contaminated. Such contamination is increased on ground that is allowed to become bare or where moisture and droppings pile up.

A good rule is to change the position of feeders and waterers daily. Shade shelters should be moved about every week since feeders placed underneath cause large accumulations of droppings. Moving the wire-floored range shelters once or twice during the summer will usually be safe.

In case of an outbreak of coccidiosis or other diseases, moving all shelters and equipment immediately will benefit the flock, although treatment with one of the sulfa drugs may be preferred.



## OTHER POULTRY BULLETINS

The Agricultural Extension Service, University of Minnesota, has published several other bulletins of interest to poultry raisers. These include:

Bulletin 121—Poultry Housing

Bulletin 124—Talking Turkey

Bulletin 154—Timely Truths About Poultry Troubles

Bulletin 176—A. B. C. of Chicks

Bulletin 198—Brooder Houses

Bulletin 214—Common Diseases of Turkeys

Pamphlet 40—Round Top Brooder House

Pamphlet 123—Now You Can Spot the Loafer Hen

These bulletins may be obtained through your local county agent or by writing the Bulletin Office, University Farm, St. Paul 1, Minnesota.

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