THE REARING OF CHICKENS ON A WIRE-NETTING FLOOR

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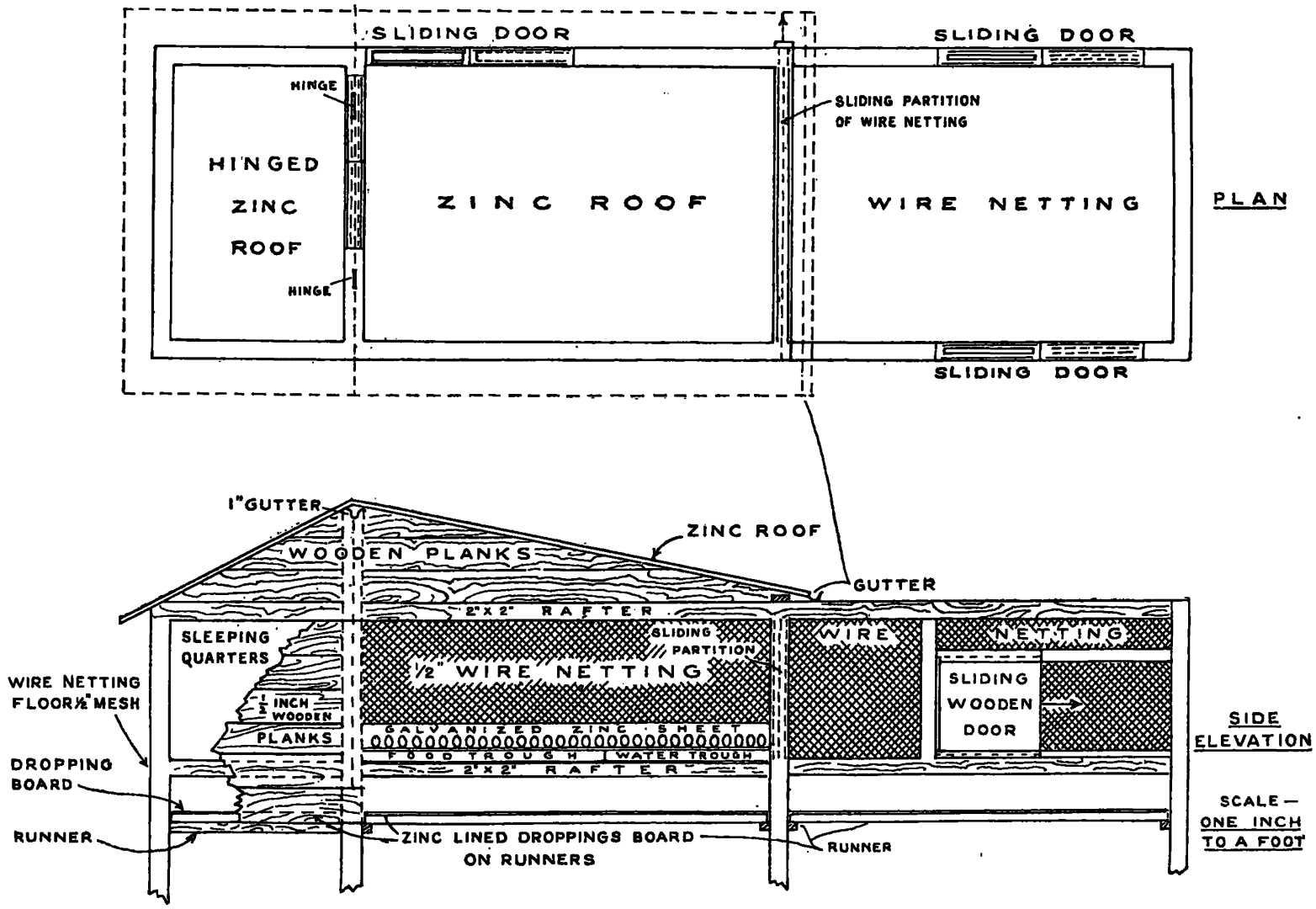
TOWARDS the end of the year 1936, there was a high mortality among chickens at the School Farm, Peradeniya. Losses from coccidiosis, round-worm infestation, and gapes were mainly responsible for the high death rate, which in some cases reached as much as 50 per cent. of the hatch.

Suitable fresh ground, the most essential requirement in chicken rearing, was not available on the Farm, where poultry had been kept under semi-intensive conditions for seven or eight years. Periodical turning up of the soil, liberal applications of lime, and resting of runs had been carried out, but these efforts were attended with little success. It was therefore decided to try rearing the chickens off the contaminated ground—on wire-netting—as this system had been well reported on from other parts of the world and was in use in Ceylon at Wester Seaton, Negombo.

A make-shift pen was constructed by fitting legs to an ordinary rectangular chicken coop and replacing the wooden floor by one inch wire-netting. A small coop (to which an additional framework of wire-netting was fitted about three inches above the floor level) was placed against the entrance to the coop, and served as a shelter for the chickens at night.

A batch of 43 chickens was reared in this manner until they were two months old, when it was necessary to remove them from the brooder as they had acquired the vice of feather eating, which in two cases resulted in cannibalism. This appears to be the only drawback in this system of rearing chickens, but it has been remedied to an appreciable extent by hanging up small bundles of grass or bones with shreds of meat on them, so that the chickens are kept busy pecking at them most of the time. That close confinement was solely responsible for this vice was clearly shown by the fact that the chickens ceased all such activities once they were given more scope on the ground. At this stage the chickens were found to have made splendid



PLAN & SIDE ELEVATION OF CHICKEN BROODER

Block by Survey Dept. Ceylon. 13.5.38

growth, and being about two months old were able to withstand parasitic infection to a greater degree than they would have done had they been exposed to similar conditions as baby chicks.

The success which attended the rearing of the first batch of chickens prompted the writer to design and have constructed a more elaborate type of brooder as shown in the illustration

This brooder consists of three compartments, one closed in with ½ inch planks on the outer sides for housing the chickens at night, ventilation being provided for through the partitions between this and the next compartment, which is wire-netted on all sides and roofed to provide shelter from the rain and excessive heat of the sun. The third is an open air compartment intended for use during favourable weather.

In order to prevent contamination of food and water the troughs are placed on the outside of the brooder, the chickens having access to them through openings in a galvanized zinc sheet, which is fitted with a sliding shutter and enables adjustment of the openings to suit the size of the chickens. Zinc-lined dropping boards are provided to facilitate cleaning and to obviate the necessity for shifting the brooder from place to place.

The cost of constructing a brooder of the dimensions shown in the plan, using *sapu* timber and 24-gauge zinc sheets, is approximately Rs. 45.

Too much emphasis cannot be laid on the necessity for providing the chickens with all their requirements. The provision of some form of grit, vegetables and meat scraps should not be overlooked as the chickens are entirely dependent on the rearer for these necessities.

The method of rearing chickens in these brooders which has proved a success at the Farm at Peradeniya is detailed below :—

The newly hatched chickens after drying are transferred from the incubator to the hover, which consists of an ordinary wooden box with a wire-netting framework on top. Heat is supplied by a hurricane lantern round which is placed a circle of wire mesh to prevent the chickens from coming in contact with the heated lantern.

No food is given to the chickens until about thirty-six hours after the time of hatching. Any weak or crippled chickens are then picked out and destroyed. A mixture of broken rice and *kurakkan* (*Eleusine coracana*) in equal parts is given to the chickens in a shallow trough ; they soon begin to peck at and eat the grain which should be given them at intervals of three hours.

Care should be taken to provide sufficient warmth to the chickens. Any undue chirping should be looked into and the cause remedied. A supply of clean fresh water should always be available for drinking and this is best provided in the form of a shallow drinking fountain, which prevents the water being soiled and the chickens from getting themselves wet in attempting to drink. When the chickens are about five or six days old a little dry bran is added to the *kurakkan* and broken rice. Skim milk or diluted whole milk is substituted for water and care should be taken to see that the troughs are well scalded with boiling water every day.

When the chickens are about a week old they are transferred to the chicken brooder with wire-netting floor. In cold weather a lantern will be necessary both day and night until the chickens are about a fortnight old, but when warm weather prevails the lantern will be required only at night. The chickens are then given alternate mash and grain feeds every three hours. The mash mixture consists of the following :—

	lb.
Maize (finely ground)	10
Pollard	25
Wheat bran	15
Sussex ground oats	10
Rice bran	12
Linseed poonac	3
Fish meal	6
Bone flour	2
	83

Two per cent. cod liver oil is added to the mash just before it is required for feeding. Sufficient water or skim milk is added to the mash mixture to make it friable. The grain mixture is made up of the following :—

Kurakkan	2 parts
Broken rice	1 part
Crushed wheat	1 „

The frequency of feeding may be reduced to four times a day and may be given as follows :—

7. 0 A.M.	grain feed
10.30 A.M.	mash feed
2. 0 P.M.	grain feed
5. 0 P.M.	mash feed

The quantity of food to be given at each meal would depend entirely on the appetite of the chickens, and will be approximately that which they would consume in about half an hour. A tray containing clean sand or fine gravel, and fragments of charcoal should be made available to the chickens. Small bundles of grass, spring onions, cabbage leaves, &c., should be

hung up here and there inside the brooder, so that the chickens get sufficient exercise in jumping for them. Meat scraps should be given twice a week.

The chickens are reared in the brooder until they are two months old, but in case they develop the vice of feather eating and cannibalism it may be necessary to have them shifted on to the ground earlier. This should only be resorted to when other methods fail to prevent the chickens pecking at each other. When isolated cases occur it would be best to segregate the injured chickens and paint their wounds with tincture of iodine. Cutting off the end of the upper mandible has been advocated but this has not been attended with much success. The chief thing to aim at is to keep the chickens busy all the time, and the suspending of vegetables, grass, meat scraps, &c., helps to a great extent.