STARTING THE CHICKS RIGHT

BY R. L. SCHARRING-HAUSEN.

The two methods of brooding baby chicks in large numbers are by the colony house heated with coal-burning or oil-burning brooder stoves, or by the mutiple brooder house consisting of a number of compartments side by side under one roof. The multiple house is heated in the same manner as the colony house, or else by steam or hot water from a central boiler. Each method of brooding has its advantages and faults, which I shall try to outline from personal experience.

To begin with, the colony house is usually a portable building about 10 x 12 feet. It should have a double floor, tight walls, a good roof, plenty of windows and a means of ventilation. With a standard colony-brooder stove and 52-inch hover this will hold 300 baby chicks and house the pullets that are raised from them until maturity. Such a house can be moved about on range, to the edge of a cornfield or orchard, providing fresh ground when the old is contaminated. However, this building probably costs a little more per chick to build than a multiple house, and during stormy weather is more trouble to take care of.

The multiple house, on the other hand, is cheaper to build and run, capacity considered, and easier to care for. A fire would play hob in such a house, though. Such a building, being permanent, requires more attention to sanitation and to cover-crops about the yards and runs.

I start my earliest chicks in the large buildings. I transfer the little pullets to rearing-houses on the range when they are old enough, and put the later chicks in colony houses—a plan which seems to work out very well.

SANITARY SURROUNDINGS.

Several days before the chicks are ready, the brooder house should be thoroughly cleaned, disinfected and whitewashed. Chicks are delicate, and all possibility of infection must be eliminated. This done, if the walls and floor are at all drafty a two-foot strip of builder's paper should be tacked to the studs next to the floor, and a 6 x 6 square of roofing paper laid on the floor where the stove and hover are to be. This will help to prevent chilling, which is disastrous. Next put a layer of clean sand on the floor, and over this, outside the hover, an inch of finely cut straw.

If hay sweepings are used in place of straw, several precautions are necessary. First, the chicks must not be allowed on them until ready for first meal, or they will pick up seeds which cause digestive trouble. After the chicks are two days old, the seeds will do no harm. Second, sharp particles are liable to be scratched into the chicks' eyes, and it will be necessary to watch for and remove these. Third, if the material is at all musty or very dusty it must not be used at all, or serious respiratory troubles will result. The heater stove should be run for a day or two before the chicks are put in, to be sure that the regulators are in good order. The temperature under the hovers should start at 100 deg. F., and be gradually lowered after the first week, until at eight to ten weeks the heat is eliminated. It is a good plan to leave the stove up, with a fire laid, in case a spell of cold weather or rain demands heat in a hurry.

For the first few days, enclose the chicks by a ring of poultry-wire (half-inch mesh) at least one foot high, placed 18 inches from the edge of the hover. When the chicks have learned the source of heat, this can be removed. It is advisable to round out the corners of the house with wire or building-paper, to prevent crowding there. The stove should be shaken down and cleaned out every morning, and inspected to see if it needs more coal late in the afternoon. Do not fool with the stove at night.

When the temperature is right, the chicks will run out from the hover to eat and scratch, and run back to get warm. At night they will sleep in a ring some distance out from the stove, and under the hover. Their actions are a better guide to the experienced poultryman than a thermometer.

Baby chicks should receive no solid food until two days old. It takes that long for the yolk to be absorbed, and until this is absorbed, other food will cause indigestion and result in death. Many poultrymen give the chicks, when first put in the brooder, a few drops of sour skim-milk or buttermilk from a medicine dropper. The lactic acid which these feeds contain acts as an intestinal antiseptic, preventing digestive disturbances.

MILK IN PORCELAIN.

Water or sour skim-milk or diluted buttermilk may be given from the first. Milk should always be fed from glazed pottery or porcelain fountains, or crocks, as the acid it contains will form poisonous compounds with metals. Drinking vessels must be kept clean. Baby-chick grit or sand may be scattered in the litter the first day. When the chicks are two days old, start to feed a scratch grain; put a little at a time on a piece of cardboard or shallow pan, and the chicks will soon learn to eat.

As soon as the chicks learn to eat, the feed may be scattered about in the litter. Use a good commercial mixture, or make your own of equal parts of pinhead oats, cracked wheat and cracked corn, chick size. Feed five times a day, but keep the chicks hungry. Do not overfeed. After the chicks are several weeks old, the grain may be fed three times a day. It should gradually be changed to equal parts of cracked corn and wheat, mixing the old ration with the new for a time.

A few days after the chicks have begun to eat, feed some form of finely chopped green food, such as sprouted oats. Give as much as will be cleaned up in 20 minutes. In about a week, feed dry mash. Any good commercial mixture will do, or the poultryman can mix his own. Here is a recommended formula: 300 pounds wheat bran, 100 pounds each of cornmeal, flour middlings, sifted ground oats and meat scrap.

Baby chicks do best when getting some form of milk. Some poultrymen feed skim-milk or dilute semi-solid, others feed straight semi-solid in small chunks on a board, and others add powdered skim-milk to the mash, which is perhaps the most convenient. In starting with dry mash, feed a little at a time in a saucer, until the chicks are used to it, after which time it should be before them all the time. A low open trough is the best form of hopper. Baby chicks are often caught and smothered in the type of hopper that feeds from above.

Be sure to supply grit.

The science of nutrition has lately been enriched by the discovery of vitamins—substances found in certain foods—which are necessary to growth. Leafy vegetables and milk contain certain of these vitamins. These feeds also keep the digestive system in good order. Egg yolk is especially rich in vitamins, and it is a good practice to provide the baby chicks with hard-boiled eggs once a day after the first week, at the rate of three eggs for every 100 chicks. Infertile eggs from the incubators are good for this purpose. Another carrier of vitamins, especially valuable in leg weakness, is codliver oil. This is fed every few days in the mash—about 3 per cent., well mixed in.

As soon as chicks are a few days old, they should go outside, whenever the weather is at all fit, for an hour or two in the middle of the day. Bank the earth up to the exit for a runway. Enclose a little lot (about ten square feet) with poultry-wire to keep the chicks from wandering off. Place a baffle board inside the exit on the floor to prevent drafts. Watch the chicks to see that they do not forget to go back if cold.

RULES FOR SUCCESS.

Scientists have lately discovered that direct rays of the sun are essential to proper growth. Exposure to sunlight, and contact with the bare ground, are outstanding factors in preventing leg weakness. These, with plenty of exercise, are important factors in controlling toe pecking, cannibalism, and other results of idleness and overcrowding.

Successful brooding can be summed up in a few points:

1. Proper heat without drafts.
2. Careful and regular feeding, without sudden changes, ration to include milk in some form, and green stuff. Avoid overfeeding.
3. Get chicks on ground as soon as possible. Cut a sod and put in the pen if the weather is stormy.
4. Avoid overcrowding.
5. Sanitary surroundings — clean, dry litter, especially under hovers, dead chicks removed at once. Clean water fountain.

Our Confetti Factory.

Making confetti is a new employment for the little fingers which need to be kept busy. Save the colored papers which come into the house—wrapping paper, envelopes, pictures, circulars, even yellow paper bags. Then when the usual amusements fail, get a large shallow box or spread a newspaper on the floor or bed, get the blunt scissors and the supply of gay paper and start a confetti factory.

Cut the paper into strips and then snip the strips into squares or near squares. A real game may be made by declaring that any snip which is scattered outside of the box or newspaper is "out of bounds." This makes fun for winter days.

When summer comes and a picnic is planned, tie the confetti into paper bags, one for each child, and take it along. It may be used in a paper chase or to shower a wedding party. Trust the youngsters to find a way to use the bits of brightness.—E. J. W.

In Place of a Gate.

Two pairs of steps each with two risers and treads, will do away with a gate into the hog lot. A gate at best takes a lot of time and materials, and if left open accidentally the hogs are into the corn in no time.

For an ordinary wire fence less than three feet high two risers are sufficient. The pair of steps are placed against the fence and two cleats can be run through the woven wire and the ends nailed to the side pieces. Or, if the material used is two inches thick, there will be enough weight to prevent displacement. One doesn't have to set down a pail to open the latch when both hands are full, with this arrangement.

In like manner higher fences can be negotiated equally well by adding one, two or even more risers to the hurdle.

A child seeing a bill on a telegraph post: "Oh, Mother, look! A message has fallen down!"

Lambing Time in the Fold.

The lambing time is a critical time on the sheepman's calendar. This is the time when the possibilities of profit or loss are largely determined. If the ewes come into the barn in good condition and have proper feed and exercise, very little trouble should be experienced. In case of difficulty in parturition the necessary assistance may be given, always very carefully and never with undue force.

It is essential in cold weather and desirable at all times to know that the young lambs are on their feet and nursing soon after birth. After this they will withstand surprisingly low temperatures and are, in fact, largely capable of looking after themselves.

If the ewe will not own her lambs she may be laid on her side and the lamb assisted to nurse. The ewe and lamb should then be confined in a small separate inclosure for a day or two until she accepts the lamb, after which there should be no trouble.

Soon after the arrival of the lambs a creep should be provided where the lambs can have access to grain in a trough by themselves. The grain should consist of two parts of bran, two parts of crushed oats, one part of cracked corn and a half part of oil meal. Small quantities of fine clover or alfalfa hay should be kept before them at all times.

In the meantime the feeding of the ewe is important, for it is from her that the young lamb gets the most of its feed for the start. Furthermore, a heavy milking ewe will produce a lamb of better quality and greater weight than will a poor milker.

If the lambs are born on grass and the pasture is abundant, the ewes will milk as well as they can be made to. If the lambs come when the ewes are on winter feed, succulence should be provided through roots. Good silage may also be fed, however. The hay should be the best procurable, and a moderate grain ration should be fed. This may consist of equal parts of oats and bran, with a half part of cracked corn and a half part of oil meal.

When the lambs are well started and from two to four weeks of age, they should be docked and the male lambs castrated. Both operations are simple and add materially to the value of the market lambs.

Care of Storage-Battery.

Two important things in battery care are supplying distilled water at regular intervals and preventing terminal corrosion. Supplying distilled water is a matter of memory; preventing terminal corrosion is a matter of forethought. After corrosion once starts in it can be retarded by scraping the affected parts with a screwdriver and painting them with thick gear-grease. Even then, however, corrosion will continue in mild form, resulting finally in the need for new terminals. Recently, a battery service man told me this corrosion could only be prevented by greasing the terminals before the first stages of corrosion set in. He said the purchaser of a new car should have the battery inspected the first day or two it is used, making sure the attendant paints the terminals with thick gear-grease.—P. T. H.

The Irish potato, instead of originating in Ireland, is a native of Peru, and contrary to general opinion, was unknown in North America before the coming of the white man.

Every neglect in poultry raising has its cost.

Improvement in Cereal Experiments.

During 1924 the Cereal Division of the Dominion Experimental Farms, now under the management of Mr. L. H. Newman, formerly secretary and leading director of the Canadian Seed Growers' Association, initiated an additional method of procedure to supplement and accelerate its efforts. This new plan, says Mr. Newman in his annual report, consists of sending newly created plant "families" resulting from recent crossings to certain branch Farms for propagation and observation before undertaking any extensive selection with them. After a number of generations have elapsed the most promising of these "families" composed as they are of a variety of types (combinations) will be subjected to a thorough analysis. Large numbers of heads will be selected for separate or "pedigree" cultures, the less promising being eliminated. The succeeding progeny of the surviving heads are reduced in number with each generation until only the best remain.

By the plan here outlined the amount of work involved compared with the results possible is expected to be greatly reduced. The plants selected will have a chance to demonstrate their relative adaptability to the conditions under which they have been grown for the period under test at the branch Farm, thereby increasing immensely the chances of securing superior varieties or strains.

Mr. Newman adds that the introduction of the so-called "rod-row system" of making preliminary variety and strain tests, both at Ottawa and the branch Farms, has made it possible to test and study a much greater number of forms than was possible under the old system which depended upon large plots almost exclusively.

Windbreaks for Apple Orchards.

A well established windbreak offers much protection to an apple orchard, according to a bulletin on the cultivation of the apple in Canada issued by the Dept. of Agriculture at Ottawa. It tends to limit the loss of moisture from excessive evaporation caused by high winds, prevents the loss of fruit and injury to trees due to severe windstorms, and may possibly limit the drying out of trees in winter. Windbreaks are especially necessary in Western Canada, where native White Spruce is a good tree to use for the purpose. For shelter purposes the trees are planted from eight to ten feet apart. Norway Spruce is a good variety to use in Eastern Canada. The bulletin, which may be obtained free from the Publications Branch of the Dept. of Agriculture, mentions other trees which may be used as windbreaks, and gives detailed instructions for the establishing of these shelters.

Hot Drinks for Cold Days.

For the between-meal hunger that seizes most of us at times, for bracers for the children or the invalid during the long period between dinner and supper, or for any other time when a nourishing hot drink is desired, these one-egg beverages will be found just the thing on cold wintry days.

Tomato and Egg Bouillon.—One egg well beaten, one crushed beef cube and two tablespoonfuls of tomato soup. Fill cup with boiling milk and sweeten to taste.

Hot Egg Chocolate.—One egg well beaten, one tablespoonful of melted chocolate and one tablespoonful of heavy cream. Fill cup with boiling water and serve with whipped cream.

Hot Egg Coffee.—One egg yolk beaten, one tablespoonful of sugar and two tablespoonfuls of cream. Mix and fill with boiling hot coffee; add the beaten white and serve immediately.

Hot Egg Orange.—One egg, juice of half an orange, rind of a quarter of an orange and one tablespoonful of sugar. Mix well and add boiling water. Sprinkle with nutmeg.

Hot Egg Milk.—One egg well beaten, one tablespoonful of sugar, two tablespoonfuls of cream; flavor with vanilla. Add boiling milk to fill; top with whipped cream and sprinkle with nutmeg.

Hot Mocha Caramel.—One egg, one tablespoonful of cocoa, one tablespoonful of cream, one tablespoonful of sugar and one teaspoonful of vanilla. Fill cup with boiling hot coffee.

A good dairy ration for use with mixed hay or corn fodder is as follows: 100 pounds cornmeal, 200 pounds standard middlings, 200 pounds ground oats, wheat, bran or alfalfa-meal, 200 pounds gluten feed, 200 pounds cottonseed-meal, 100 pounds linseed-oil meal, ten pounds salt, ten pounds steamed bonemeal.

Use shelf oilcloth instead of paper in pantries and closets. The oilcloth is easier to clean and lasts several years. Aside from that advantage, roaches will keep out, for there is something about oilcloth which they dislike.

COVERS FOR YOUR CUSHIONS

BY HAZEL SHOWALTER.

Cushions help wonderfully in brightening a room and giving it a homey and inviting appearance. A cushion should be made primarily for service, for it is fulfilling its chief duty when it is snuggled comfortably behind one's back or under one's head. This does not mean that cushions should not be pretty—far from it. It merely means that one should choose the forms of prettiness that are not harmed by use.

Almost any kind of stitchery can be used in making or decorating a cushion—applique, patchwork, cross-stitch, embroidery or crocheting; also block printing, batik, and stencil work. The foundations of the cushions should be considered first, unless you have old cushions to recover. Stuffed cushions ready for covering can be bought at reasonable prices, but if you have feathers, you will want to make the cushions yourself. It pays to buy the best grade of feather-ticking, for feathers work right through a cheap grade, making the cushions more of a nuisance than a pleasure. When pillows are filled with down, iron the wrong side of the ticking with a hot flatiron well rubbed with beeswax each time before it is put on the cloth, and the down will not work through. Old hosiery and underwear torn into small pieces can also be used for filling cushions. Corn husks cut small make satisfactory filling. The cases for such cushions can be made of unbleached muslin or flour sacks, and will be softer if lined with outing flannel.

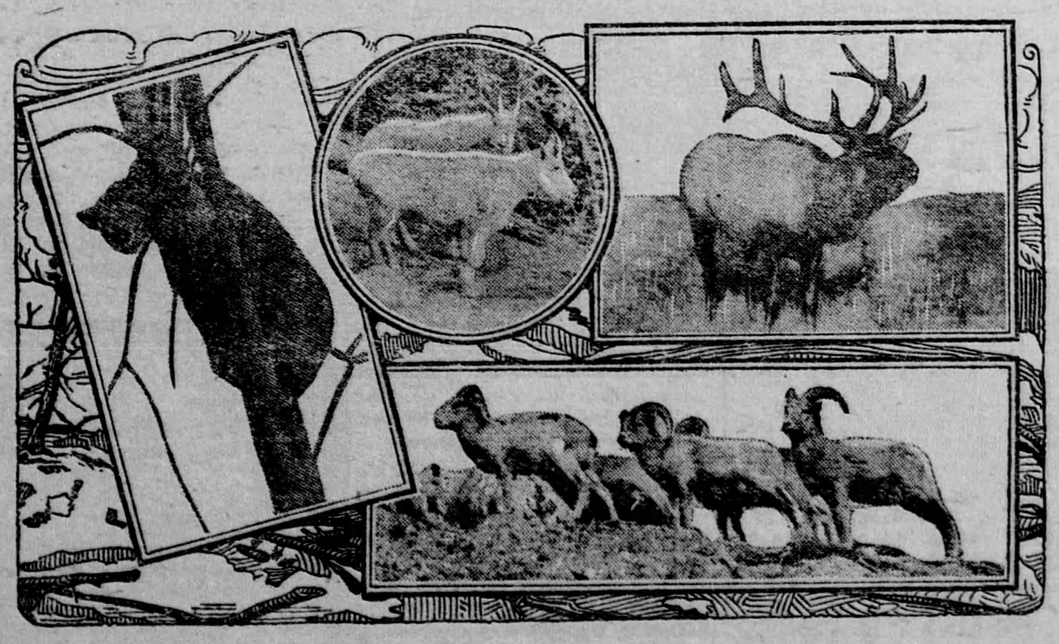
YOU WILL WANT VARIOUS SHAPES.

There are plain square, oblong, and round cushions, as well as box cushions in the three shapes just named, made by sewing a long strip of ticking between the top and bottom. Bolster cushions are in the shape of cylinders with either flat or tapering ends. A triangular-shaped cushion is an oddity easily made by folding a square piece of ticking diagonally. When sewing the ticking, baste the two edges together, then turn them over before stitching, or bind the seam with a piece of tape so the feathers will not work through. Stuff the cushions tight enough to make them hold their shape, but not tight enough to make them hard.

Unless you have a special color scheme or plan of decoration to carry out, the cushions can be made in all colors and need not match, especially if the room needs brightening. One should, however, take the colors of the room into consideration. If the room has much blue in it, there should be at least one orange and one brown cushion; if there is much yellow, there should be at least one red and one blue cushion. If the room is in gray or dull colors, any or all colors may be used. The color of the sofa or davenport and of the upholstered chairs must be considered. One would not want a blue cushion on a green chair nor a purple cushion on a blue chair. Rather put a red or brown cushion on a green chair, a yellow, orange or brown cushion on a blue chair. Black cushions go anywhere.

Nearly every sort of material, except that which is very thin, can be used for covering cushions. Figured cretonnes and denim make pretty coverings, and the pattern or design will furnish all the decoration needed. Silk or cotton materials having bright stripes in one or more colors are also desirable. Cushion covers crocheted from jute or cotton yarn are suitable for the porch or sun parlor and they wear well. Tassels are handy for trimming the cushions—long and short tassels can be made by winding yarn or heavy thread around a book or card; or crocheted, knotted or stuffed ball tassels can be used with good effect.

Jasper Park - Game Sanctuary



JASPER National Park, Alberta, in the heart of the Rocky Mountains enjoys not only the reputation of being the world's largest national playground but also of being one of the world's largest game sanctuaries. In every square inch of its huge area of more than 4,400 square miles Jasper Park gives to animals and birds all the protection that the rigor of the law and the ingenuity of man can provide.

The results of this wise policy of protection and conservation are apparent. Every year the number of animals within the Park is increasing and Col. Maynard Rogers, Superintendent, states in his most recent report that animals and birds are now to be found in the park that never before inhabited this type of country. As examples he cites the presence of large numbers of moose and prairie chicken.

The pictures printed above show only four of the many types of animals thriving in Jasper National Park. Up the tree, and none too pleased about it, is bruin whose black and brown sisters and brothers inhabit the park to the number of well over 2,000. The black fellows are great friends of the visitors to Jasper Park Lodge and are to be seen frequently about the hotel, on the golf course and on the trails. For a sugar lump or some other dainty they will agree to a photograph and they remain good humored as long as they are not pressed.

In the circle are two mountain goats. These animals inhabit the most inaccessible spots on the mountains and you can get near them only if you possess a pair of strong binoculars or a sturdy pair of legs and a clear head. There are 5,000 goats in the Park.

At the upper right is seen a Wapiti or mountain elk. From a number not exceeding 150 these animals have increased to almost 1,000 and the sanctuary afforded them in Jasper Park is said to have saved them from extinction. A naturalist said that this photograph which was taken by the official photographer of the Canadian National Railways is the best of a wapiti he has ever seen.

In the bottom panel is a herd of mountain sheep. Like the goat these animals live in the high altitudes and are difficult of approach. More than 10,000 make their home in Jasper Park and because they have learned to have no fear of man in that territory, the camera hunter has a better chance of getting a "shot" at them there than in almost any other spot on the continent.

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This frock, although of tailored genre, diverges from severe simplicity in a rather interesting way, introducing a one-sided effect. Plain fabric makes a smart flare at the left side of the skirt and harmonizes in tone with the background of the bordered kasha, chosen to develop this chic frock. The collar is convertible, and the front closing is of the new diagonal type, long rolling revers ending in a pointed tab. The back is plain, and the tailored sleeves are finished with trim little cuffs. No. 1294 is in sizes 36, 38, 40, 42 and 44 inches bust. Size 38 bust requires 5½ yards 39-inch, or 4 yards 54-inch material. Price 20c.

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By keeping our sap-buckets painted, we have used the same ones for the past 30 years, and they are apparently just as good now as they were in the beginning. On slack days at this season of the year we touch them up if the paint has been knocked off anywhere. Then they are ready when sap begins to run. "Save the surface and you save all," you know.