

# Profitable Business of Poultry Raising in America

The brooding system is, perhaps, the most important part of poultry-plant equipment. Chicks must be raised each year, and faulty brooding appliances frequently cause such loss that little or no profit can be secured, no matter how carefully the plant is operated in other respects. The following hints from Professor Stoneburn will prove helpful to any one who is now struggling with this most important problem.

BY PROF. FREDERIC H. STONEBURN.

**T**HE profitable productive life of our domestic chickens is, unfortunately, limited. As egg producers, hens are usually most profitable during the first and second laying seasons, and few commercial poultrymen make a practice of keeping any birds, save a few choice breeding specimens, more than two seasons. Many renew their flocks of layers each year, selling their pullets as they go into molt and replacing them with early-hatched pullets.

Naturally, this situation makes it necessary for most poultry keepers to grow each Spring at least as many chicks as there are adult birds in the flock, if 50 per cent of the latter are to be replaced, since half the chicks will be males. If the entire laying flock is to be renewed, two chicks must be reared for every adult in the flock.

Egg farmers, producers of table poultry and fanciers are alike confronted by this problem, and in large degree their success in poultry husbandry is determined by the results they secure in hatching and rearing these yearly crops of chicks.

## Select Brooders With Care.

It follows, then, that one should pay particular attention to his hatching and brooding equipment. Any reasonable expense here is entirely justified if good results are obtained. It is poor economy to save a few dollars on brooders or brooder-houses only to lose all chance of making a profit because of inability to raise chicks through faulty or dangerous construction of machines or buildings. On the other hand, the most expensive machines are not necessarily most satisfactory. Mere price is not a guarantee of efficiency.

There is a vast number of different types of brooders on the market. One may choose between the small fireless brooder accommodating a score of chicks, the lamp-heated brooder with a capacity of 50 to 100, the colony brooder for 200 to 1500, or the great pipe systems which will care for many thousands. Each has its place, no one is best suited to all conditions. Therefore the individual poultryman must study his own problem and adopt that type of brooder which best fits into his general scheme of management.

First of all, the brooder must be efficient—it must raise the chicks. Every other factor is secondary. There is no profit or satisfaction in carrying chicks to the brooder and soon carrying them out to bury. Better have one good machine which will raise the youngsters than fuss with a half dozen death traps in the hope of finally getting a fair flock together from them.

The machine should be safe. Cheaply constructed brooders may cause fires which not only kill the flocks of chicks, but destroy valuable property as well.

The brooder should be convenient to manage. Complicated devices which require constant attention are a nuisance, and in too many cases the attendant is tempted to neglect them because they are so troublesome. Then disaster follows.

Finally, the brooder should be economical in operation. The consumption of fuel goes on 24 hours each day, and if the cost is high the cost of each chick reared is correspondingly increased.

## Durability and Simplicity.

Of course, durability and simplicity are desirable also, but efficiency, convenience, safety and economy are primary considerations.

In the space available it is not possible to discuss in detail the relative merits of the various types of brooders. The majority of poultrymen are today using either the lamp-heated hovers or colony brooders, and the proper management of such machines will be outlined below. These directions will apply to either, if the difference in their size is borne in mind.

The house in which the brooder is operated should be tightly constructed. Baby chicks are tender. They need constant comfort and protection. Therefore they should be

shielded against draughts, dampness, extreme fluctuations of temperatures and the many enemies which beset them. Or, to reverse this, the house should be dry, freely ventilated without causing direct draughts, light, sunny, cheerful and roomy. Prowling rats, cats and skunks may be baffled by having properly constructed floors and openings covered with close-meshed wire netting.

The floor should be dry earth covered with fine litter, as chaff, cut straw or hay, or similar material. If made of boards or cement, a layer of earth may be put on. A lively chick does enjoy having plenty of dirt in which to wallow, and when this is provided there will be less trouble with dry feet and shanks.

## Preliminary Operation.

Operate the brooder for a few days before putting the chicks under it. Learn just how to manage it. Study it until you know how best to regulate the heat and care for the lamp or fire.

Have the hover warm enough. Rather provide too much heat than too little, provided the chicks have liberty to move out to a cooler place. Remember that they have been in an incubator having a temperature of about 100 degrees, and a sudden drop is harmful.

At first the hover temperature should be from 95 to 100 degrees. After five or six days reduce it to 90 degrees. Continue to reduce it slowly as the brood develops until heat is no longer required.

This temperature should be registered by a thermometer having its bulb but three or four inches from the floor not considerably above the chicks. This is an important point.

Use warm baskets or boxes to carry the chicks from incubator to brooder, especially when the weather is cold. It is an easy matter to chill the tender youngsters and when this happens trouble follows.

Place the chicks under the hover so they will quickly learn where the heat is. They will soon begin to come out and inspect the strange world in which they find themselves, running back to the shelter of the hover when alarmed or uncomfortable.

Put up a low fence or partition of some kind to hold the brood near the hover for the first day or two. This will prevent any individuals from wandering too far away and thus getting killed, and from piling up in the corners of the room.

Do not be afraid to ventilate the building freely. Let in the health-

giving air, but avoid draughts at all times. The building should never be hot and stuffy. Any objectionable odor is always the sign that more fresh air is needed. Let it in!

Sunshine in the brooder-house is most desirable during the months of Winter and Spring, and it is an easy matter to admit it. During the hot season it is usually best to shade the windows to keep the sun out, since it is desirable that the house temperature be then kept as low as possible. Always bear in mind this fact—the chickens must be kept continuously comfortable. Give them warmth and sunshine in cold weather, protect them against too much of these during warm weather.

Keep the brooder and house clean. Not somewhat clean, but actually clean and sanitary. Remove the accumulated droppings at frequent intervals, especially under the hover. Replace the soiled litter as circumstances require. The house cannot be too clean, but it may easily become too dirty. Keep on the safe side.

Get the chicks out on the ground as soon as possible. After settled Spring weather has arrived they may be permitted to run out in their yards when four or five days of age. Early in the season, while snow lingers or the earth is wet and muddy, they must be kept in the pens until somewhat older. But let them out as soon as it is safe to do so. They will grow better.

## Some Mortality Expected.

No matter how carefully the brooder is attended to, some loss must be expected. It is the duty of the poultryman to keep such loss as low as possible by learning what dangers exist and then avoiding them.

The machine is not always responsible for all deaths among the chicks placed in it. The mistakes made in caring for the breeding stock, the use of weak breeding birds, improper incubation, all may manifest themselves by mortality among the chicks and obviously the brooder cannot correct these.

Sudden changes in the brooder temperature, chilling or overheating, frequently cause much trouble. This danger may be avoided through the use of temperature-regulating devices and careful attention.

## Avoid Chick Diseases.

Diseases may be kept away, at least the majority of them, by maintaining good sanitary conditions. Enemies must be fought by every

means at hand. Keep them away from the chicks at night. Make use of dog, gun and traps.

Accidents may take their toll, but most of these may be prevented. Swinging doors, falling boards, uncovered water pails do their work effectively if given a chance. But none of these are necessary. Any loss from such sources is due to carelessness.

Small chick doors leading from house to yard are also troublesome at times. If the chicks in the yard are suddenly attacked by cat or hawk, or if a heavy rain comes on quickly, the youngsters will hustle for cover. Reaching the narrow doorway they will jam into and block it, many being bruised and otherwise injured, while the rest are held outside, to become victims of enemies or weather. The remedy lies in having roomy doors through which the whole flock can quickly pass.

The observant poultryman who studies his business and keeps his eyes open will be constantly observing little practical points like the last. If he then permits "accidents" to happen he has only himself to thank.

As the chicks get old and strong enough they will begin to disregard the brooder, squatting outside the hover and roosting on feed troughs, etc. Immediately put in some low roosts, strips of wood elevated but a few inches above the floor. The stronger individuals will soon make use of these, and presently the whole brood will be found there at night. The work of the brooder has then been completed and the chicks are ready to go to the colony-house, where they will be carried to maturity.

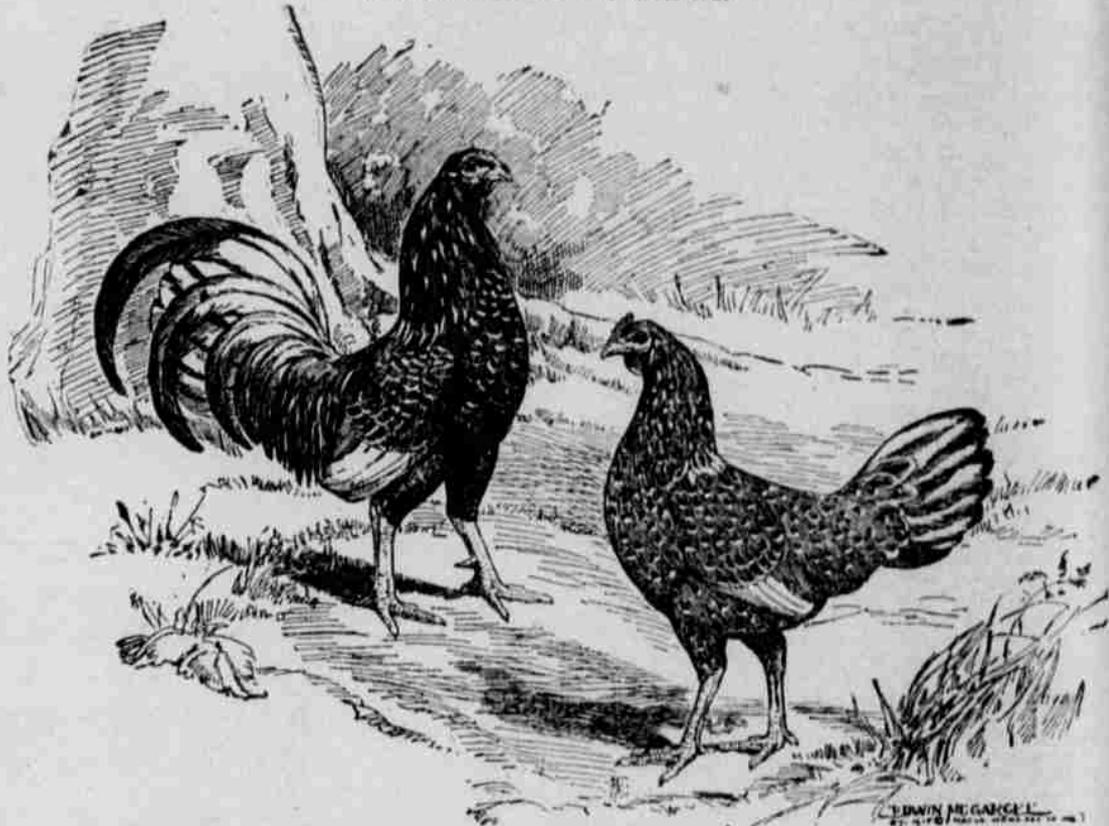
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## Only Worse.

A Philadelphia school teacher has lately been instructing her pupils in Grecian mythology. It is the plan to have the children read the tales aloud, and the next day recount them in their own language. One lad, to whom was given the assignment to render in his own language the story of the Gorgons, did so in these terms:

"The Gorgons were three sisters that lived in the Islands of Hesperides, somewhere in the Indian ocean. They had long snakes for hair, tusks for teeth and claws for nails, and they looked like women, only more horrible." — Pittsburgh Chronicle-Telegraph.

## OLD ENGLISH GAME BANTAMS.



This is a non-standard bantam, a miniature of the Old English Game fowl. Though bred for many years in England, it has only recently attracted the attention of American fanciers, and there are but a limited number of good specimens in this country. The drawing shows the spangled variety, one of the most beautiful of the several varieties. The plumage is an odd combination of red, brown, black and white, the peculiar spangles being a characteristic feature of the color plan.

Though small in size, these little Games are muscular and powerful and retain the spirit of their fighting ancestors. They are worthy of the description of the original bantam as written years ago by that great English authority, Mr. Harrison Weir:

"The cock was most pugnacious, rivaling the Old English Game cock in this respect, neither the size, form, nor weight of the opponent being any deterrent to his vigorous attack. Nothing daunted the courage or impetuosity of the assailant, no matter how he was overmatched or beaten down. Again and again he would rise to renew the contest, never giving in as long as he had power to move. Unable to stand, he would lie and peck until, from sheer exhaustion, the fight ended in death."

Since the Old English Game Bantam has not been admitted to the American standard, no official weights can be given.