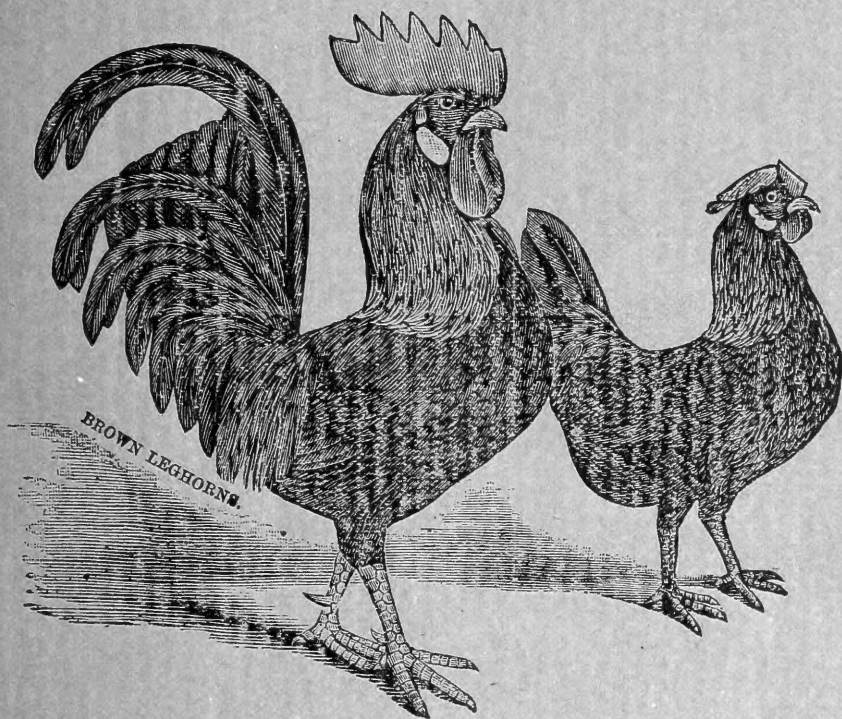


PRACTICAL EXPERIENCE

-WITH-

POULTRY



-BY-

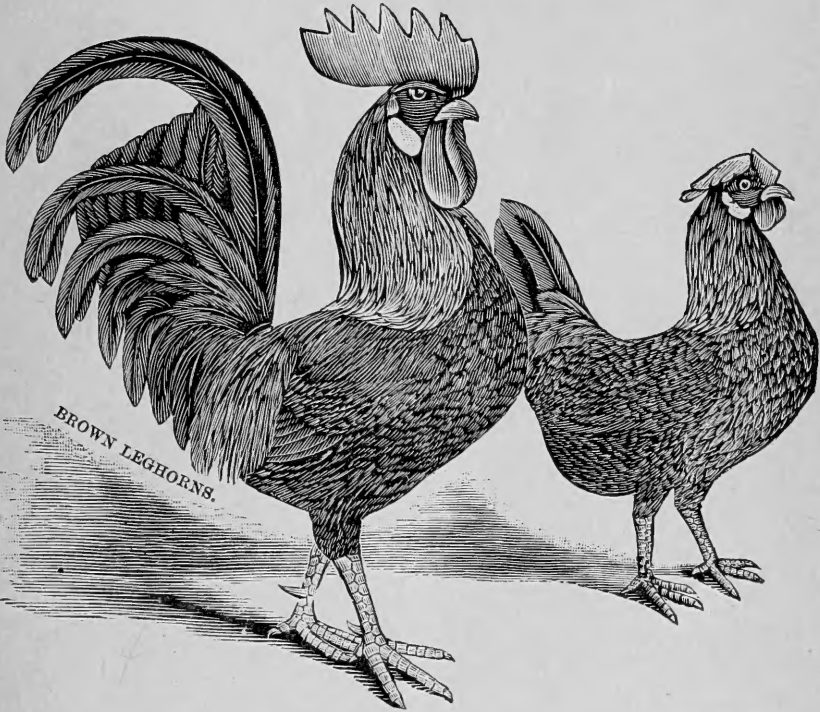
GEO. M. DAVENPORT.

Price, - 25 Cents.

PRACTICAL EXPERIENCE

—WITH—

POULTRY



—BY—

GEO. M. DAVENPORT.



Price, - 25 Cents.

*New York
G. M. Davenport*

SF487

D24

ENTERED ACCORDING TO ACT OF CONGRESS,
AT THE LIBRARIAN'S OFFICE,
WASHINGTON, D. C.
BY
GEO. M. DAVENPORT.

GEO. H. BURNHAM & CO., PRINTERS,
180 WEST HOUSTON STREET,
NEW YORK.

E. G. H. J. 22 / 12.

PREFACE.

This Book is intended to fill a void long felt, among practical poultry growers. We mean a treatise that shall combine all the information contained in larger works, without their verbosity and come within the means of every child who can procure a dozen of eggs.

DEDICATION.

To the women and children of New England:—I dedicate my little work on Poultry, with the sincere wish that they may derive that benefit from it the Author intended and which they so richly deserve. THE AUTHOR.

Practical Experience with Poultry.

In placing before the public my practical experience with poultry, I am actuated with a desire to benefit the working farmer. Yet it can be of service to others than the practical agriculturalist. The centralization of population to villages and cities the past few years, and the importation from the West of the great staples of productions such as corn, wheat, beef, pork, and many other products formerly produced in the past has worked very disastrously for the farmer in the East and Middle States. Under the present condition of things he must seek some other branch of industry to procure his subsistence from the soil. Poultry, which has heretofore been looked upon as one of the extras of the farm, can be made a specialty, and with a due exercise of brain and intelligence made profitable, and not as laborious as many former branches of work. It is not my purpose in this preface to write a homily upon labor, or what has produced the present condition of the farmer. It is sufficient to know it is so, and some method should be sought to change it: that we fit ourselves to existing circumstances, if the old methods no longer pay, ascertain what can be made profitable on the farm, but do not forsake the old home, and the only employment you understand, for new homes and some employment you do not understand. You have learned not to covet all the land that joins you, you must also learn not to attempt to cultivate more land than you can cultivate to advantage. You cannot exercise the mind mentally in thought and study, if you are physically exhausted. We have known people to live years in one locality, hardly making a living, while some new comer would see a way to better his condition. I look upon the present degenerate condition of the farmer as being produced by circumstances he might have controlled, but for lack of foresight in the past. Now let us take soundings, see where we are, and if we are in a bad condition, study some way to extricate ourselves. The United States the past year, 1885, imported sixteen millions four hundred and eighty-seven thousand two hundred and four dozen of eggs, at the cost of two million six hundred and seventy-seven thousands three hundred and sixty dollars. This is appalling. This is an agricultural country, who boast they feed the world, and yet cannot supply themselves with eggs—whose reasons for not raising farm produce has been, in the past, that they cannot sell it; that the home market is glutted. This does not apply to eggs alone as regards importation of farm products easily produced by the working farmer. We simply state it in its application to our subject. Every farmer can, and should, give each son and daughter who has arrive at ten years of age land and suitable fixings for one hundred hens, giving them an early insight of the duties of life, bringing with it an independence of thought a glimpse of

their responsibilities as a higher order of beings. Teaching them work is recreation, not a task; that reasonable labor is elevating; that idleness is debasing. You may think ten years is too early to learn; yet you would not think four years too early to learn the complications of the alphabet. The farm can be made the children's school, illustratively, if you will do your part. We all know that children in cotton mills understand the workings of machinery at ten years, learned under discipline as wage-workers. We also know they will learn much quicker when appeal is made to their reason under the loving guidance of a father or mother. Never be harsh with them, and they will always come to you for counsel, never resorting to duplicity. When passed the meridian of life, a complete change in our circumstances compelled us to resort to some occupation, not only for a subsistence, but to divert our mind from the debris of the past. A friend suggested poultry, which advice we acted upon.

I intend to give the reader in detail what I learned in two years' experience in the management of poultry, making a specialty of eggs and breeding chickens for practical purposes, giving the subject careful attention and sparing nothing that would enable me to obtain a knowledge which should be satisfactory to me, a net profit could be derived from keeping poultry as a legitimate business. My experiments the first year lessened the net results from what they would have been had I possessed the knowledge I now undertake to impart to the reader; yet there was no time during these two years that I did not receive from my labor a fair remuneration: and from my practical experience I claim there is nothing in the present conditions of the practical farmer that pays as well in New England, for however low other products may be or forestalled by capitalists, the successful management of poultry depends on skill and intelligence, placing it beyond the reach of the ignorant and incompetent. Neither can the market be forestalled for high prices on the consumer by moneyed power. No corner can be made on eggs.

If the farmer of New England (and this will apply to the Middle States at the present time) must depend on his daily sales of milk, butter, vegetables, fruit, poultry and eggs, and all these products excepts eggs are more or less affected by foreign producers who in the season will flood the East with vegetables and fruit from the Pacific coast, the Southern States and Bermuda, the West packing her butter and condensing her milk, the Northern egg will still maintain its price. Again I reiterate, the poultry product in the East is paramount to all others.

The business can be enlarged to any limit that those engaged are endowed with capacity. Capital may be desired at the start—industry, ability and perseverance will make the capital only a question of time.

I do not intend to state anything in this short treatise that would cause the new beginner to lose money, or time, which is of more value than money, and if he does, I assert it will be from neglect of the rules I here advance.

And at this point I must say 75 per cent. of those engaging in the vocation will fail from neglect of details, hence the monopoly for the competent and persevering engaged in the occupation.

I commenced in the month of October with 50 hens, continuing twenty-six months, the first year breeding all the chickens I could, experimenting with every feed. In fact, my first year was a tissue of experiments, both book and brain, and I never realized the magnitude of my employment at the outset.

The second year found me with one hundred and forty hens including two pure light Brahma roosters and two Brown Leghorns, with twelve pure Light Brahma pullets and the same number of pure Brown Leghorns; the remainder were grades of every description. My product the second year was 1,353 dozen of eggs sold to consumers, excepting those consumed in the family and set for chicks, which were rated at the same price as those sold when thus used. The extreme of prices was 16 and 36 cents per dozen, averaging twenty-six cents per dozen. My eggs were sold in the city of Worcester, Mass., during the months of March and April, when there was a surplus of eggs in the market I set thirty-four dozen, never setting over nine eggs under one hen, and in most instances seven—raising one hundred and sixty-four chickens, about equally divided in sex; I lost about fifty per cent. of my chicks by a cold storm.

The net profit from all sold and consumed, viz., dressed poultry, eggs, manure and feathers, was one dollar and thirty-six cents per hen, amounting to \$184.96. I believe, had I continued the following year, I could have carried the net gain to a much higher figure, for I learned my success was proportionate to my experience. The question is simply this, can you ascertain what is required for one hen? and if you can supply one hen all that is wanting for success, can you extend it to unlimited numbers?

There should be at all times in the hennery or yard raw vegetables, but they should never be cooked. I prefer potatoes or turnips, the turnips to be cut through the centre, but beets, carrots, parsnips, pumpkin, squash or sweet apple will answer. Vegetables of some kind are necessary. If boiled they clog the crop. Have a box of cracked bone, oyster shells and pounded flint stone convenient for them. The stone you can pulverize with a heavy hammer on another stone. Keep each article separate, and remove them at night from the house. They can stand out permanently when the hens are running at large. Occasionally cut the vegetables fine as corn. In the winter they must have fresh meat. Take a beef's head, hang it in such a position that they will have to jump about a foot for it, then they will not eat enough to injure them and the exercise is necessary. Remove the head at night from the house. In summer feed scraps twice each week. Fresh meat taints too quick in hot weather, and it is important that no tainted food be fed. Again we affirm, the hen properly cared for will eat no impurity. If one lives in the vicinity of a pop-corn factory, he can procure the siftings from the

imperfect popcorn. It can be purchased much less than its real value, and it is the most valuable of all feeds for either hens in the laying, or growing chickens. One factory in the city of New York makes six hundred bushels annually of this feed.

The hen must be kept quiet. Allow no officious visitors to ramble about the yard; it annoys them. They love and know their attendant, desiring no other company. Keep the hen free from all excitement. Never was the phrase, "Business begets business," better exemplified than in one hen exciting another to lay eggs by her demonstrations. Hens must not be permitted to eat snow or drink snow-water, and the same applies to rain-water or water in sink-drains; all soft waters are physicking to poultry. Hard or lime water is best—we do not mean water from steeped lime which should be avoided.

The constant attendant can gather the eggs when he pleases, and he need never act slyly or go skulking about this work; nothing more disgusts the hen, unless boisterousness. The hen will be pleased to witness the interest he takes in the business. Remember, this only applies to the constant attendant. The gathering of the eggs is the only part of the work you need have no rule for. Remove the windows in extreme hot days, or shade them so as not to reflect the sun. Endeavor as nearly as possible to keep the house at a temperature of 65 to 70 degrees. They do not lay as well in extremes or either heat or cold as in an even temperature.

LOCALITY.—In starting a poultry yard a southern exposure is to be preferred. It is also desirable to be sheltered from winds and draughts as much as possible. One acre of land is sufficient for one hundred fowls. This gives an area of 272 superficial feet per hen. One-eighth of this should be free from grass or vegetation, and once in two weeks should be spaded or ploughed, sowing one-half bushel of oats over the surface before spading. The hens will soon find there are oats in the soil and never cease working it for more. This employment is an important item in the business. Many of the oats will not be found until sprouted. Sprouted grain is a luxury for the hen, and beneficial. The young plant, being tender, is eagerly eaten in preference to grass. Build the poultry house in what you think the most desirable part of the plat. That portion free from grass, to surround the house: on the lawn portion, should be planted small covers of shrubbery about 8 ft. square. Four or six of these covers are sufficient, and as hens are poison to any tree or shrub, they should be made of brush. Procure birch or some other brush (birch is best). Cut them when the leaves are two-thirds grown, they will then adhere to the twigs in dying, and last one or two years. Have the body of the brush or main stem one and a half inches in diameter and three feet long; select that well covered with brush, making holes with a small bar eight inches apart and the same in depth to hold them in position. When becoming dilapidated you can place fresh brush on the top, until the stands are broken down, then renew them in full.

Hens or chickens must not be permitted to run on the grass when the dew or rain is upon it. To allow poultry to get wet is one of the stumbling blocks to success. To avoid this that portion of the yard free from grass should be at the entrance of the house and should be fenced, even then they should not be out when raining. It is indispensable that poultry be not exposed to wet.

THE HEN HOUSE.—A house suitable for one hundred hens can be 30 by 20 feet, 7 foot post; the eastern and southern exposure to be partly glass. Have the windows so the sun will come in on rising, a tight plank floor, the plank smoothed; no part of the frame except the sills need be over 3 by 5, and for warmth in winter and coolness in summer have it ceiled or plastered inside. Ceiling is preferable. Let the house inside be free from any obstructions, or what will tempt the hen to perch on any place than that allotted to them, the house to be whitewashed fall and spring.

For ventilation, run a box one foot in the clear under the building, procuring the air pure from the outside; have a small tube of boards four inches in the clear running up through the floor from the main box below, with a valve to be opened and shut as found expedient. In warm days or when necessary the window can be opened to let any vitiated air pass out. The expense of such a house made of cheap lumber need not be over \$100. A common, intelligent laborer with a carpenter can do much of the work, lessening the cost. Have the perches on one side of the house fifteen inches apart, running lengthways of the house, made of soft wood, two by three scantling; the broad side to the surface. Place movable supports for them to rest upon. The perches should not be over twelve inches from the floor. Have two sets of perches to be changed weekly, cleansed and aired.

I particularly urge the low perches. More hens are killed flying from high perches than all other causes. They will quickly conform to the habit of perching low, if there is no inducement to fly higher, but if left to themselves they will get as high as they can.

For nests place a row of connected boxes 6 inches deep on the front, 10 inches at the back, with partition every 12 inches, this row of nests can be placed about 14 inches above the back perch. The hens can easily alight in them from the perch. Have a lid or cover running the entire length to let down at night, so steep they will not wish to perch on it. If more nests are wanted you can make them in other parts of the house, not over 12 inches from the floor. Inside of the nest should be a braided concaved mat of corn husks. Have two sets of these mats, that they can be cleaned each alternate week. Straw or hay should never be used for nests, they will acquire a habit of searching it for seeds, procrastinating their stay upon the nest, oftentimes breaking the eggs, from which they will quickly learn to eat, a habit which if once formed they cannot be broken of. Poultry, like everything domesticated, acquire pernicious habits which should be guarded against.

A hen at maturity, will consume four ounces of food per day in some form. This includes all partaken of. Their food should consist of grain, grass or hay, vegetables, meat, bone, gravel and charcoal, which includes all the articles necessary. Of course, if they run at large they will eat many other things, and in this connection I will say if properly cared for they will eat greedily under other circumstances. As both the egg and flesh will be affected by the food to some extent, more particularly the eggs, it is important that they should be habituated to suitable food. Whoever has the care of hens must be up before the hens. The food eaten at night on going to perch is now digested, and nothing is more ravenous than the hen with an empty crop. They begin to move on the perch uneasily, and as soon as it is day they will alight. It is all important they do not fret, waiting for their breakfast. This first meal should be soft food. Whole grain will not permeate the system sufficiently quick. This meal should not be prepared the previous night.

Poultry must not be given stale food or vitiated water; thus it will not do to leave food or water in the hennery through the night. The morning meal must be stimulating food. For this meal, take 4 pounds coarse wheat bran to one pound of corn meal, mixed with warm water (if the morning is cold) dissolve one tablespoonful of black or one half that of cayenne pepper and one tablespoonful of salt in boiling water to mix with the feed. One hundred hens will eat about one pailful at breakfast. Twice a month put the following mixture in the feed, $\frac{1}{2}$ gill to each 100 hens: Receipt, to $\frac{1}{4}$ lb. sulphate of iron and one oz. sulphuric acid, dissolve in 4 qts. of water, see that it is thoroughly incorporated in the feed. After they have eaten their morning meal give them hard water to drink and have plenty of water of easy access to them through the day. Be sure the vessels for food or drink are kept clean, and to remove all vessels from the house at night. The taint of the hennery is injurious. Three hours after breakfast give them the second meal or lunch, the same as the first meal, also any portion of the first that may be remaining at this time. They will not require but about half, as at the morning repast. One will soon learn what is required for a meal and govern himself accordingly. At twelve o'clock give a dinner of all the oats they can eat. If any are not consumed let them remain, but you will soon learn what they can eat, and do not practice giving more than they can eat readily. For supper, which should be at time of going on to the perch for night, give all the whole corn they can eat. Let, oats, barley, or buckwheat be substituted for corn during the short nights—say from first of May until the first of September. In regard to this last meal it is desirable the hen should have in her crop during the night what will be retained until morning, as I have before stated, the moment the crop is empty she will begin to be uneasy. This is to be avoided. Soft feed will not be retained in the crop over three hours: the crop filled with oats will last six hours,

The same may be said of other grains excepting corn, which will last 12 hours. I have come at these facts from actual examinations and am thus particular in describing the giving of the feed, simply that the hen may be kept calm and quiet. On this much depends. Corn as a regular food for hens is too heating and should never be fed only as stated, as a retainer during the long nights six or seven months in the year. Another valuable food for hens is tomatoes. For keeping them in a perfectly healthy condition there is nothing equal to it.

CARE OF POULTRY IN THE WINTER SEASON.

It is important to get as many eggs in winter as possible, the price being double that in summer. To do this, it is not best to force them to lay in July, August or September. This will prepare them for moulting early, and they need a strong vitality at this time, for they have to make an entire new set of quills, at this period. If the hen wishes to set during these months, let her set on artificial eggs as long as she pleases, forcing her to partake of food when she will not do so voluntarily. When thus sitting she will keep in good condition with very little food. Especial care should be taken she does not get infected with lice. This sitting will be rest for the winter, preparing her for more active work. In the case of hens in winter, I shall be pardoned for repetition. They must not be allowed to leave the house when the snow is on the ground or in windy days. You will have in the boxes pulverized charcoal, fine sand, as well as bone and flint stone. Any cobble pounded to the size of corn is suitable; also oyster shells, etc. Hang the beef's head so that when pecked at it will swing. This pleases her, and exercise mentally is as necessary to the hen family as to the human family. By no means must the hen in winter be without occupation. Not to waste feed, have boxes one foot wide, two long, and two inches deep, with strips of lath rounded and smoothed at the corners, nailed over the top, one inch and a half apart. This not only prevents waste, but filth. Again, remember to remove all boxes at night. Never make use of broken or pounded earthenware; it turns to clay in the crop. Also make no use of prepared lime, either in the shape of old mortar or pure; it dries and parches the crop.

There should be at all times a box of early-cut hay of the best quality before them. This to be cut fine, not over $\frac{1}{4}$ inch—long hay entangles in the crop. Steam the hay if you wish by pouring on boiling water, but do not permit them to drink this water, it is too astringent. A cabbage head hung in the manner of the beef head is advisable. Heads of wheat or millet, barley or rye can be scattered over the floor in small quantities to occupy their time and keep them excited, or what is better a sheaf of wheat or oats hung like the cabbage head, for them to fly at.

BREED OF HENS.

From two years' experience with common dung-hill fowls and a great variety of grades and the few pure bloods before named, I will not decide

GATE CITY STONE FILTER CO.

Highest Awards at American Institute. N. Y. 1885,
and at all Expositions wherever exhibited.



Endorsed by Boards of Health, Sanitary Associations, Physicians and Scientists as the Best, Simplest and most perfect Filter known to the World. Is as easily kept clean as an ordinary Water Pail.

It is the only filter that can be thoroughly cleaned by simply brushing the surface of the filtering stone. The filtering medium being a natural porous stone will last for years, and for families and offices it has no equal. No metal in these filters to poison the water.

Our China Filters are artistically decorated, and regarded as the finest ornament, as well as a filter, that has ever been made. The world has not produced an article of equal worth to the human family. It will remove all sorts of larva or spawn of worms or insects, or strange loathsome animalculæ, or impure floating matter, and renders the water pure, healthy and drinkable.

This cut represents the *simple and common sense construction* of all our filters. There is *nothing of it* but a natural stone disc and two jars. No animal charcoal, burnt sponge nor any other compound that retains the filth from water where by the least neglect worms are generated; nor is there any combination of Zinc, Iron and Lead to generate active poison.

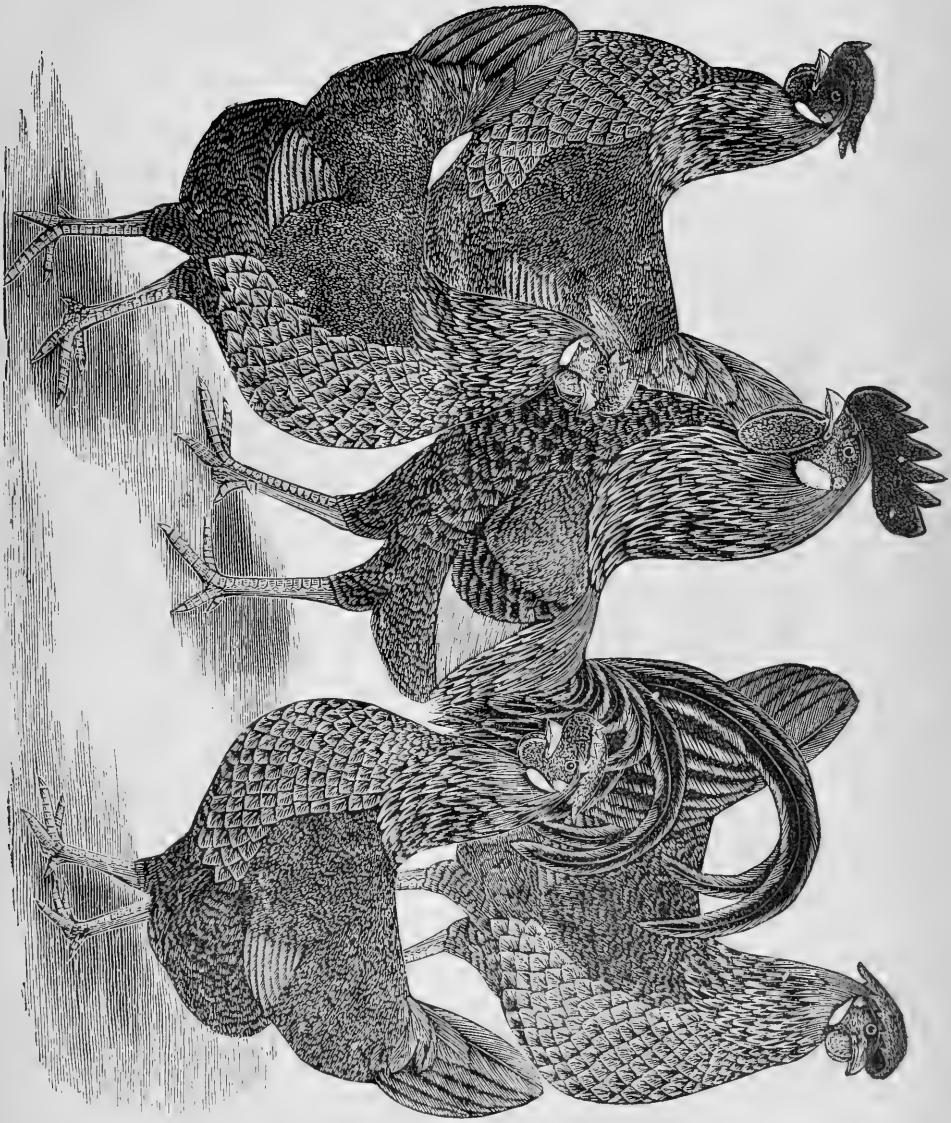
MANUFACTORY AND DEPOT AT

Union Porcelain Works, Greenpoint, N. Y.

OFFICE AND SALESROOMS,

839 Broadway, and 63 E. 13th Street, New York.

BROWN LEGHORNS.



on any special breed; believing as I do that more depends on management than on breeds. Yet the breed is a matter of importance to the practical poulturer. As a practical worker in the business, I decided on the Brown Leghorn for layers and the Light Brahmas for sitting and culinary purposes. I think the Brown Leghorn is more hardy than the White, yet both are equally good layers. I believe if my brood of 140 had been all Leghorns the net profit would have been much increased. She is a business hen who devotes herself to her work. Her pullets, if hatched in April, or even May, will lay through the winter. The cocks will mature in ninety days fit for broilers, and should be disposed of at that age. Neither the male nor female Leghorns are good for the table at a later period. They are much attached to their attendant, are more sensitive and intelligent than any breed I am conversant with; great feeders, laying a rich, solid egg, eight to the pound. The light Brahma is to be preferred to all others for eating when matured, and for a large fowl is extremely delicate and fine flesh, is an excellent hen to set for hatching chicks, on account of its size and warmth of body for brooding. To the negligent manager the particular breed is of no moment. I am inclined to the opinion that blooded fowls are best for all purposes. I mean pure bred, which I do not think applies to animals; for them I prefer grades, except in swine, which I prefer pure, but always breed with pure bred males; yet old breeds will be improved, and new ones brought into being in the courses of evolution, for all of which we must thank the fancy breeder and enthusiast in poultry. I have always noticed that hens of a solid color are the hardiest and best layers, and think the fancy for yellow legs is only fancy. The dunghill has nearly gone out of existence, and grades are the poultry of the day. Everyone engaged in the poultry business (and in has become a business) should read some good special publication upon the subject. Ascertaining what poultry publications there are in the country, procure a copy of each, and subscribe for the one you think best adapted to your locality. Also, procure standard works on the subject. For these last I prefer English or French authorities, as less superficial. Yet American works are more progressive and inventive and not as conservative. You will read much that is worthless, but you will read much worth retaining. The beginner of limited means will wish to ascertain what knowledge he can obtain before expending much time or money. As before stated, with proper care any breed will pay. Neglected, the farm has no greater curse. All engaged in it as a business will neglect no means of information, advancing with its progress from year to year. He will have a pride in his occupation, will not be diverted by outside issues, respecting his work sufficiently to respect himself, ever remembering your respect from others will be proportionate to your success. Enter into the spirit of your occupation. Look on nothing small that has large results. One hundred hens consume about the same amount of weight in food as

one cow, and cost about the same amount to purchase; no more liable to disease; but if you lose one hen you lose but a fraction of your property. If you lose your cow you lose a hundred hens in value. A hundred hens will produce much more manure than one cow. A hen farm will not require as much land, will not deteriorate in quality, while the dairy farm, in lapse of time, will lose its virginity and run to forest. This may not be entirely the fault of the dairy business, but the business has much to do with it. I think the poultry occupation is calculated to bring to the surface a person's better qualities.

Who can but partake of the spirit of a brood of hens after eating their breakfast? so happy, so noisy, like a bevy of school children just set free, and generally more civil. I mean no ill will to the children. They have not had the same watchful care I demand for your hens. But few realize their responsibility, whether hens or children.

In former days the hen would lay but about 50 eggs in the season, now they will produce twice that amount, and I claim this last amount will be improved upon to that extent, that those engaged will not be satisfied with less than four times the first product. Formerly, a dozen of eggs would not weigh as much by 40 per cent. as now; were cheap in summer, in the winter they were not to be had at any price. Now you have them fresh throughout the year, are much firmer and richer than formerly. You very quickly notice the difference in a basket of eggs brought from the bush and those produced near the town where the facilities for progression are greater.

DISEASES OF HENS.

The diseases of hens are few, and generally result fatally from inattention at the commencement. Nearly, if not quite all the ailments of poultry arise from colds, improper ventilation, aggravated by bad food. Roup, the effect of colds, is contagious, quickly discovered by a running at the eyes and nose. The moment it is noticed the hen should be isolated from the flock. If, after a few days, you find no more affected and this one does not improve, kill it. The loss is small and you may have saved the flock.

If, on the contrary, you find a number in the same condition, put them by themselves in a warm, dry place, feed them with warm, soft wheat bran and boiled beef. Let them have the water the beef is cooked in for drink, but have it cold. Also, let them have cold skimmed milk; no condiments or seasoning, such as pepper, salt, or other astringents. Feed regularly three times each day, staying by a few minutes, and if they do not eat remove the food and try again. Be careful to remove all droppings when you feed; permit nothing filthy to be in the room. Never drug poultry. Of all animated life, nothing suffers so much from drugging as poultry. Pip is caused by obstructions in the crop, brought on by eating cooked vegetables too hot—and they are always too hot—broken earth, which turns to clay, long hay or straw, causing obstructions and made more malignant by causes

named in roup. Treatment the same as in roup, with the exception of diet. For food, give wheat or rye in the kernel and cold water for drink.

APOPLEXY.

For this there is, of course, no cure but a change of the evils it arises from, viz., too rich food and flying from high perches; in this case the hen is generally found dead in the nest or on the floor in the morning.

FOUL LEGS.

This is caused by the hen trailing in wet grass, not keeping the house clean from droppings, or by traveling in the soil; the dirt adhering to the leg is cemented by the wet. It is not contagious, but the same cause that produces it in one produces it in the entire flock, forming scabs on the legs and feet, producing large protuberances which harbor vermin, ending in unfitting the hen for all practical purposes. It is easily cured by bathing the legs in kerosene morning and evening.

Slipping eggs on the perch is caused by food or water of a relaxing nature. Lard, tallow or fat meat will contribute to this. Fish, when fed in large quantities will taint the egg. I could not get my hens to eat fish when cared for properly. And now again in reference to meat: if fed to excess, you will discover fragments of it in the white of the egg. Soft shelled eggs are from some physical derangements, and not from lack of shell-making food. The deformed thick-shelled eggs can be attributed to the same cause. You might as well affirm a cow should eat hair, to give her calf a coat, as that the hen should eat crude lime, to give the egg a shell.

Gapes in chickens are caused by worms at the root of the tongue; are easily removed by inserting the tip end of a quill to the nest of worms, thereby scattering them.

VERMIN.

Another difficulty in the keeping of poultry is vermin. To most people this seems insurmountable. I found this the least of all the trouble in the management of poultry, yet hens will do nothing overrun with vermin. There are two species of hen lice, those infesting the hen day and night, always remaining on them, and those that remain on the perch throughout the day, feeding on the hen at night, after the manner of bed bugs. Of the two, I think the night prowlers the most pernicious. The hen seems to have no remedy at night; in the day she can wallow in the earth, which she will do. For day lice, bathe at the roots of the tail feathers, also the wing feathers, on top of the head, and under throat, twice each month. If very bad, twice a week. The night lice can be eradicated by removing the perches and stand each month, supplying their places with a second set. Always have two sets. Another method is to call the hens from the house on a pleasant day and fumigate the house, first making it tight, burning one-half pound of powdered sulphur, placing it in an iron kettle, burning at least one hour. This will suffocate every living thing. Always remember that

prevention is better than cure in the multiplying of lice as well as in the diseases of poultry. A disinfecting egg for nest egg is important. I used one turned from wood, soaked in kerosene. One can be made from sulphur, carbolic acid and oil of cedar, compressed hard; the properties being brought out by the heat of the hen's body. About this nest egg, have it large like a goose egg; a large egg really pleases the hen. It is on the same principle the man permits his hens to get lousy that he lets his garden be overrun with weeds—*shiftlessness*—and such a person should have no employment requiring care and thought. In the morning clean up all droppings of the previous night; put them in a barrel away from the hennery; mix no ashes with them. These droppings, properly managed or sold for their intrinsic value, will pay a good portion of the expense of keeping the flock. Spread under the perches every day equal bulk of sand or loam as the droppings of the night. Have the floor dry before spreading the loam.

The manure from one hundred hens, mixed with loam or sand as described, will amount to ninety bushels yearly. For cold, wet soil, sand is preferable; if to be used on light, sandy soil, then loam. We ascertained twenty bushels of hen manure to be fully equal to ten cords of cow manure as a fertilizer. It must not come in direct contact with the seed. It would kill the vitality of any seed. It must be considered that the labor of cultivating a crop with the droppings of poultry is much less than with stable droppings, taking in consideration the cost of team work. A hen farm of ten acres, with 100 hens to the acre, would renovate an exhausted farm of 100 acres in a few years, under competent management.

SALES.

If you have one thousand or more hens, and I see no reason why the business cannot be extended to thousands, each hundred being kept by itself, you had better sell your product by contract to the town dealer. You cannot afford to huckster a large amount, and it detracts from the dignity of your occupation. Hens should be fitted for market, with exceptional instances, the third year, not including the year hatched. The second year will be the most profitable for eggs (except in some large varieties). They will begin to decrease in eggs the third year. I will say in this place that very large varieties begin to develop their best laying qualities about the time the smaller breeds begin to decrease; but large fowls, like large men, are not active workers. Commence selling the hens you intend for market about the first of June. They need not be confined for fattening; dress them in the condition they are in, select the poorest layers first, continuing weekly until the first of September; have them all sold at that time. Chickens will come into the market then, and scarcely any one will buy old hens when chickens can be procured. After disposing of the hens, confine separately in a yard what young roosters you have not sold earlier for broilers, which, if you have consulted your own interest will be few, and sell before cold weather,

when they are transported from a distance. You need not shut your poultry up in a dark place to fat them, neither should young roosters be allowed to run with hens at the expiration of sixty days from birth.

In dressing poultry so as not to tear the skin, dip them in cold water.—Have a barrel of cold water at hand, and on taking off the head plunge them in the water, holding them with the hand until they cease fluttering, and on taking them out the feathers will readily come off, leaving the skin smooth, not puffing it as when scalded, and being much more readily sold under the former method. Let the entrails remain until the fowl is cold, then they can be extracted much cleaner. Remove the crop when you do the entrails. Then hang in a dry place where the air can circulate through them, and they will be better for cooking at the expiration of a week, than when first killed. If your chickens are not permitted to perch young, and your perches are three inches wide, you will have no deformed or crooked breast-bones; No one should risk his reputation by sending a bad or second-rate article to market. Another method of plucking the feathers from fowls is to tie them up by the legs, inserting a small knife through the neck, separating the vertebra; while in the death throes the feathers will all scrape off. There is nothing inhuman in this method, the bird being oblivious to pain upon the separation of the vertebræ.

BREEDING CHICKENS.

Before entering upon this subject I must say a few words upon domestication—I might say civilization—of the hen. A few Indians roam over large territories to procure food sufficient for sustaining life, while civilized man wants but little land to supply his wants. Five acres devoted to poultry, under skillful management, will supply a family of six with all their wants and many of the luxuries of life. A single brood of partridges will fly over a thousand-acre forest to find enough to eat. But one hundred hens can be supported on one acre of land.

The hen must be thoroughly domesticated to be of practical value. This domestication is produced by your familiarity with her; learning all her peculiarities, she in the meantime learning yours; adapting yourselves to each other, with this difference: you will make her think she has her own way, when, in reality, she does not. We do not advise setting over nine eggs under the hen; if the hen is small, seven are sufficient. Our reasons for this are that the chicks will come out with stronger vitality, this vitality improving as they grow older, from good brooding. A good foundation from the start in everything, means the after success. The young chicks will appear at the end of twenty-one days. As soon as the young chicken lifts its head up in the downy feathers of the mother, the lice gathered during the setting will go for the young and tender chicken's head. This should be attended to immediately; a couple of drops of kerosene oil or camphor will drive them away. The first week chickens should be fed on hard-boiled

eggs, sufficiently hard to crumble, and with corn bread, baked so hard you can granulate it. After the first week omit the eggs entirely, having shallow boxes of food for them to go to at will. For food, have the crumbled corn bread, granulated beef scraps, bone and oyster shells, sour milk, with plenty of fresh water always at their command. When thirty days old, omit the corn bread, feeding corn-meal mixed with skim milk, diluted with water; also at this time give them wheat screenings, which contain various kinds of seeds, giving them the same care as regards cleanliness as you do your laying hens. The chicken should not go on to the perch before the age of three months, and the mother should be the judge as to time of weaning.

Let the hen with chickens be cooped the first four weeks; she will brood the chickens much more. Care should be taken to move the coops every alternate day. Also keep the brooding hens and chickens separate from the laying hens. To break a hen from setting, confine her in an open coop where she can see the other hens, and she will soon begin to sing, when she can be set at large.

We have refrained from saying anything in regard to incubators, simply from the fact that we have no practical knowledge of them, other than witnessing their operations at the Madison Square Garden exhibitions in New York. That they perform the work assigned to them well is unquestionable. To us the only objection seems the after brooding. But we are assured by those using them that the artificial brooding is equal to the brooding of the mother. Presuming this to be so, then, for extensive operations, they would be advantageous as well as economical. They are extensively used about New York City for rearing early chickens to supply that market.

CONFINING POULTRY

Hens will not fly over any fence without first alighting on the top. Hence the fence should have no resting place there. A picket fence 3 or 4 ft. high will keep them in their limits. Should there be an unruly one, dispose of it before it contaminates the flock.

A very good, cheap and efficient fence can be made from birch brush, such as mentioned for covers in a former part of this work. A man can make 100 feet per day of this kind of fence, interlacing the slender twigs at the bottom, the branches projecting upward from the top. They will not attempt to rest upon them. Hens are never known to alight on the slender limbs of a tree, as birds will. A wire netting 18 inches high for the foundation fence, with the twigs of birches interlacing the meshes, projecting upward makes a good, cheap and durable fence, with occasional repairing; it also pleases the hens.

A family in the city can keep a bevy of a dozen hens to advantage in a back yard of 300 square feet. They will be very productive, creating no filth or vermin if you follow the details laid down; but unless one feels an

interest in poultry, he should not attempt it. In the city you should not raise chickens, but the hens properly managed will keep you in fresh eggs.

The average farmer will speak depreciatingly of keeping hens. His only idea of the business is a flock running at large over his premises, making everything filthy they come in contact with, scratching his garden in the spring and his grain as soon as housed in the fall. He cannot tell what number he has; neither cares. He gets an egg if he can find the nest, and some chickens for Thanksgiving if he can catch them. They are as antagonistic to him as he is to them. Could he come to see the importance of this business, he would appreciate it.

We intended saying, when speaking of chickens in another part of this book, that it is not advisable to hatch them after the first of May, if you wish for pullets to lay the following winter. If hatched early they will lay the first winter, presuming the rules are followed as mentioned for breeding.

As no poultry moult the first season, the earlier they are hatched in the Spring the sooner will they moult the succeeding season. When moulting you will feed freely corn, sun-flower seed, buckwheat, meat, or any rich food, without regard to their laying eggs, but change the feed when through moulting.

In regard to the one-acre yard and single poultry house I occupied for my hens. This, I think, could be subdivided into four yards, with twenty-five hens in each, or eight yards with twelve hens each, with henneries proportionately arranged, requiring but little more work in the case, and perhaps enhancing the product. We also think a well-ventilated open basement or cellar might produce more eggs in winter.

Chickens hatched in March and April should have a fire in the room they run in if there is any danger of being chilled. Care is very necessary with chickens brought out thus early to keep them improving.

We must apologize to the reader for omitting to make mention of the many different breeds of poultry. As reporter for the *AMERICAN DAIRYMAN* we have attended the numerous poultry exhibitions in Madison Square Garden, New York, but have seen nothing to change our opinion as to the special breeds to keep from those named in the earlier part of this work. Of over fifty different breeds, those we should desire to experiment with, or rather those we thought of the most practical value, were Plymouth Rock, Wyandottes, Dominiques, Andalusians, Houdans and Dorkings. It is for those engaged in the business to exercise their own good sense and judgment in the prosecution of their work, never forgetting that minor details are not to be lost sight of.

It is said by most agricultural journals, poultry keeping, to be lucrative, must be confined to small numbers; but it is to be remembered that special agricultural papers are simply reflectors of public sentiment among farmers, often made up of contributions from those who theorize without practice.

A young man of my acquaintance in Windham County, Connecticut, on being married, purchased ten acres of land, leasing a small cottage adjoining. He, with the assistance of his wife, commenced the poultry business, dividing his land into ten lots of one acre each, having on each all the appurtenances for keeping 100 hens. At the time of visiting his place he had been five years in the occupation, keeping a minute account of expenses and income. Cheerfully showing me his books, we found his annual profits were one dollar and forty-five cents per hen above all cost excepting the labor of himself and wife, six hours at different periods of the day, but it was light work. We could not but contrast the contented cheerfulness of this couple with a couple in an adjoining town in the same county possessing 400 acres of land, yet unable to get a living; but, nevertheless, viewing with contempt the *hen business* of Mr. M—— and his estimable wife.

The public have been made familiar with the enterprise of Mr. Hawkins through the numerous poultry exhibitions at Madison Square Garden. Mr. Hawkins has a very successful poultry farm in Lancaster, Worcester County, Mass., keeping six thousand, in the gross, of special breeds, shipping them over the country, and through this employment has acquired a competence, also proving the fact that large numbers can be kept on the same farm.

France leads the world in its production of poultry and eggs. She has immense numbers of small farmers, proprietors or lease holders, who raise poultry and eggs for exportation to London and other large places on the continent. Her people enjoy that supreme contentment and pleasure which can only be derived from working the soil under the broad canopy of heaven, having no more land than they can work themselves without overworking, having plenty of time to educate their children, forming and molding their infant minds in such a manner that an impression is left which can never be effaced. Such are the attachments of the French people to home, they have no desire to emigrate. Her capitalists learned a lesson in the revolution of 1793. She learned in that and succeeding social convulsions, that there is a limit to the endurance of man.

One last word to the mothers and children of the rural sections. In 1883 the poultry product of this country amounted to five hundred and sixty millions of dollars. It was double the value of the dairy product and more than double the value of the cotton crop. For this immense product the country is indebted almost entirely to you. But you are not credited; do not even know the fact yourselves, your products flow from every hillside and valley. Shall the children of farmers have a fair showing at home, or shall they be forced to accept of employment as factory operatives, shop-girls or saleswomen, etc.? We have never yet seen the girl who would desert home and home associations if home was made desirable and an opportunity given to advance herself there.

One more word to the wives and daughters of farmers, from one who knows full well the trammels of their surroundings. To you the country is in debt for its poultry and eggs. Without realizing the fact, you are driven to this work from sheer necessity for means to supply the many things you need and ought to have. At the present day the husband and father is battling against the head-tide of monopoly in producing corn, wheat, beef and pork. He has become unconsciously an aristocratic pauper. Should he have a dollar extra above his wants he sinks it in a savings bank to be drawn by the capitalist to corner wheat, or build up the city—money he should use to beautify his own home and surroundings.

And now one word to farmers from one who is of them. The rules that governed your fathers in their generation, are not the rules to govern you in your generation. It was as impossible for them to know what your wants might be as it would be for you in your manhood to wear the swaddling clothes of your infancy. If you can see where your parents erred in your early training, see to it you do not commit the error in the training of your boys. Give them some inducement to stay at home; take no advantage of your legal right to twenty-one years, but let them have the freedom that will make home desirable. Be a boy in your manhood, making a man of them in their boyhood. One word to the boys and girls, and we have done. We would not take from youth one jot or tittle of its joyousness. We can be young but once; the morning is fresh the evening is weary. We wish you to find real amusement in what will conduce to your mental and material comfort. The two are inseparable. Never wish for what you don't need, because some of your mates possess it. Cultivate a taste for reading, and all sides of a question; avoid as much as possible all prejudice; cultivate candor and charity; inform yourselves of the world you know and see. In your pursuit for knowledge travel the highway of science; get familiar with geology—you should know what the soil is formed of; astronomy—you should learn something of the heavens you hear so much about; chemistry—it is necessary in these days of adulteration; botany—that you may know about plants as well as see them; geography—you learn the earth's surface without traveling. All these studies lead you to think, give you an inquiring mind; make you nobler, purer, better.

GEESE.

The common goose was found domesticated as far back as when Cæsar first came to Britain, and has been a popular fowl for the table, its feathers for beds and its quills for writing ever since. We well remember when no other pen was in use but the pen made from the goose-quill.

The wild goose of America, which migrates from north to south, is a very handsome bird, and will thrive and breed well in a domesticated state; is good for the table, and in all respects, we think, equal to the domesticated goose of Europe under like treatment.

Its head, two-thirds of the neck, the large quills, rump and tail are black, the back and wings are a light brown, the base of the neck and the under plumage pale gray or white. There are a few white feathers about the eye. A white cravat of a kidney shape forms a conspicuous mark on the throat, the bill and feet are black. The above description of the wild goose we jotted down while viewing a domesticated wild goose in Central Park.

When domesticated it ceases to be so strictly monogamous as in a wild state.

The wild geese migrate in the spring north, returning in the fall to their winter quarters. When they commence their journey from the south northward early, the farmer knows spring will open early; if they commence their return early in the fall, he knows the winter is nigh. Some years they begin to migrate as early as the 15th of March, and to return as late as the 1st of November. Other years their migrations may be three weeks later or earlier. Their instinct in this respect is truly phenomenal. They fly in the shape of the letter A, with a leader, in flocks of from thirty to one hundred, making a very discordant noise as they pass. If the atmosphere is hazy they will fly low, often within reach of the sportsman's rifle, and sometimes one is brought to the earth. They never fly over cities or villages unless lost in the fog. We recollect the leader of a flock of about fifty being shot, when the entire flock became so demoralized they turned about in their course, alighting on a small pond in the vicinity, seemingly stupefied, and were all captured in a few days.

The following season some lilies, of a bright red color, but in other respects like the white lily, were found growing in this pond; the seed were supposed to have been deposited by the geese. It is be regreted that they were afterward destroyed by curiosity-mongers. Wild geese are exceedingly fond of cranberries, and scatter these and other seeds in going over the country, which, if congenial to the soil and climate, take root and become indigenous to the country.

In a good pasture geese will nearly get their living. Turning their head sidewise, they nip the grass off quite close and consume a good quantity. The idea that nothing will feed after geese arises from the fact that nothing can feed after them. They nip the grass so close that none remains until time restores its growth. Different flocks of geese will keep distinct, and a good feed of corn at roosting time will keep up the wish and willingness to return home at night. The feathers have a high market value, and are taken from the geese to save their loss at moulting time. At that time, the skin round the shaft of the old feathers shrivels for want of nourishment, the moulting feathers come away with a touch, and the poultry woman takes only those that are ready to fall. If this process is not managed with the greatest care and tenderness, it may be revoltingly cruel; but if it be confined to the removal of the moulting feathers, it is less so than the goose-plucking we often

hear of. The goose house or shed need not be entirely closed. The roof should be tight, so as not to let in the rain, and care should be taken to preclude the cold winds on the geese at night. The floor should be dry and the straw should be removed as often as cleanliness requires, and always kept dry.

Geese are essentially vegetable feeders; they will eat any kind of grain, any good quality of grass or any sort of garden vegetation. They are clean feeders, and will not touch offal or animal food of any kind. If the geese can have a pond at command within the day's range, so much the better; but they can do without it. The old geese require a little corn twice a day—a mere sprinkle in the morning if they have the opportunity of doing much for themselves, and a good feed at night. It is a good thing to feed the breeding-stock well in the winter, to promote early laying and sitting, for the chance of the goose producing a second brood the same year. At the beginning of the breeding season feed freely plenty of boiled barley, corn, wheat, or any kind of meal.

In mild seasons the goose will lay early. She should have a good, large nest in a secure, quiet corner. She can cover about fifteen eggs at a sitting, which takes thirty days. See that plenty of food and water are at hand for her when she leaves the nest. She is a patient, good sitter and a good mother. It is unnecessary to separate her from the gander when she sits, as he will take an interest in her work and be as good a father to the goslings as she is a mother.

The gander quite assumes his monogamous habits when the goose sits and hatches, devotes himself to her entirely and puts forth his no small degree of strength and vigilance in her defense and that of her little ones. He is so good a defender that there is no better plan than to put the brood and their parents into an inclosure together. The goose will not be interfered with while she is hatching. If any attempt to meddle be made, she only injures her brood intending to defend them.

The little ones may be fed on corn or wheat meal, with some cooling green food chopped up with it, such as grass, parsley, etc. After a few weeks you can feed any variety of meal with caution.

At first they should not be put out in the morning until the grass is dry, and they should be housed early at night with a good bed of clean straw. They are reared with little care or trouble, but where they have their ranges wild hemlock and poisonous night-shade should be destroyed. What is known among children in the country as the pollywog is sure death to the goslings; the old birds are too wise to eat them. The young birds should never be allowed to fall off in condition, but kept up by constant good feeding until wanted for the table or market. They can scarcely be too highly fed if large size is desired.

For breeding, allow three geese to a gander. Let them be of mature age, and they will do well up to twenty years. If the season is early, they will lay early in March, except in the Northern latitude where it will be a little later. They usually lay every other day, and if the eggs are left they will want to sit when they have about twelve or fifteen; but if they are removed they will often lay a great number. They will sit twice a year, and occasionally three times.

In contradiction to the saying that nothing will eat after geese, it is well known that their manure is excellent for improving the grass of coarse meadow lands, and that cows relish the feed. It is a very powerful manure, and is needed in but moderate quantities. When young geese are penned up to fatten, from six to ten will do better together than a smaller number. Feed them for a couple of weeks on corn in water, and finish their fattening with meal. The house or inclosure in which they are put should be kept quiet, dry, warm and rather dark. Before the time for their being killed, if they are allowed to go in the water, they will be picked more easily, and the feathers be better and cleaner.

We give the following account of a goose farm in Mansfield, Bristol County Massachusetts, by George A. Stockwell and published in the *Agricultural Review*, (Scotland).

A Goose Farm.

BY GEORGE A. STOCKWELL.

In a town of Mansfield, State of Massachusetts, is a goose farm— a farm of sixty acres on which geese and ducks are fattened for market. As the number of geese is larger than that of the ducks, the farm is, in truth, a goose farm. About twenty years ago, Mr. G. F. Austin, since associated with his son, Mr. C. M. Austin, began to deal in green geese, buying the goslings in spring, and hurrying them toward market plumpness as speedily as corn and meal could make the transformation. The business has added to itself until sixty acres is not enough, and other and larger fields must be found.

In April or the latter part of March, the goslings begin to arrive. They are then three weeks or a month old, and were hatched in southern Rhode Island, the greater number coming from Tiverton and Little Compton, and the region round about. They have ample room for growth, and their appetites are ministered to with care and regularity. The gosling is a hearty eater, enjoys his dinner every half hour, if he can get it; has no digestion troubles, and hence adds fat and tender muscle quickly. In this great goose mill, the fledgling, the wingless gosling becomes a green goose in a few weeks, perhaps not fully grown, but worth more per pound in the green state than when the ripeness of full maturity is upon him.

Accordingly, the young geese begin to move toward market a few weeks after they arrive, to take their places, a new and later crop comes to the farm. The goslings arrive up to September and October, the later hatched goslings coming from Canada. In the early history of the business, the proprietor went to Canada, and bought, personally, all the goslings he could find. Later, an agent on the ground collects the goslings, arranging with the inhabitants in certain towns to rear and sell.

No attention is paid to the breed of geese. All the proprietor wants is a goose-frame, and he will be responsible for its filling out. The flocks contain, apparently, every known hybrid. There are individual specimens that appear to be pure Toulouse, and brown and China geese. From Canada come many "mongrels." The mongrel is a cross between the wild and tame goose, and, strange as it may appear, the mongrels are all mules. The geese lay, but there is no germ of life in the egg, from which it may be inferred that the wild goose is not a goose, but belongs to some other species of aquatic fowls.

During the season 20,000 goslings came, and departed as geese. At one time this year, there were on the farm 13,000 geese and 7,000 ducks all in good spirits, and all singing their little song. Imagine 13,000 goose-screams combined and added to the total sum of 7,000 duck-quacks. To the untutored ear there is music in it, but the man who deals out the food, and is with the geese and ducks constantly, exclaims, "Noise? 'I don't hear anything!" No, he doesn't hear anything, for the same reason that an operative in the room with a hundred looms going at full speed, does not hear anything.

At this time of the year (near Christmas) the stock grows light, and by the first of January, or soon after, the last goose has gone, and the goose machinery rests for two or three months. When the writer visited this goose ranch, only about 4,000 geese remained, and of this number 2,000 were in one flock. Did you ever see 2,000 geese together? The sight is worth a five-mile walk—just what the writer paid. The members of the flock appear to be governed by a common impulse. Now, all, or the greater number, sit down, and thrust the bill under a wing (the day was cold), now they stand up on one leg, drawing up the other to warm it, and now they have important business at the other end of the pasture, and away they go, stretching and craning their necks, some flying, and all running, and all making much talk about it. They rest awhile, and then come back in the same hilarious manner. The 2,000 came late, and are allowed to run, but before slaughter they will be kept in small pens where they cannot race and run, and where they can only eat and drink and grow fat. In twenty pens were groups of geese undergoing the final process—the process of adding the triple or quadruple plate of fat. From these pens they go to the coops, where they remain un-

til "empty" (they are not drawn), and then are delivered in turn to the executioner, the picker, the washer and dresser, and to the packer.

What do they eat? Scalded meal is the steady diet, fed twice a day, and whole corn once a day, three meals regular, and green stuff in its season, between. The average amount of grain per day fed during the nine months is thirty-six bushels. The cook and waiter has been in service six years. A kettle holding ninety gallons is filled with water, and the water brought to the boiling point. In a large trough near are seven bushels of meal, and to this is added the ninety gallons of water. He mixes with a shovel, and when cooled transfers to trays on a wheelbarrow. In summer the food is given cold; in winter warm, but not hot. As soon as one "batch" is ready another is prepared. When the eaters are more numerous, the cook can be cook only, and another man waits on the goose tables. When corn is fed to the big flock, a man takes a bag on his shoulder, and holding the mouth of the bag, lets the corn run out as he walks. Then may be heard the rustle of corn down two thousand goose necks. The scalded meal is placed in troughs or shallow boxes, and a supply is at hand all the time. At the first meal in the morning there is a general clamor, and every one of the two thousand demands instant relief from the pangs of hunger. If food be present the goose appears to be hungry every ten minutes, and helps himself.

In the goose pens and pastures there is nothing grown except the geese, they have eaten, root and branch, everything that dared to grow, whether mullens, thistle or grass. About thirty acres of green stuff was raised for the geese. The oats were cut green, and without any further cutting were dealt out as to cattle. Corn was raised for the same purpose, and fed standing. When the corn was in the milk the geese were turned in. They ate the corn, the cob, the stalk, leaves, everything above ground, and then pulled up the roots. Nothing was left to indicate that a corn field had been there.

The farm plant consists of about a dozen different buildings, with a wind-mill in the centre for pumping water. As the geese and ducks do not have access to natural water sources, water must be supplied, and this is a work of some magnitude, for no animal is so continually thirsty as a goose or duck. There must be abundance for drinking, and for ducks at least enough for bathing. The duck must have also mud, simply mud, a place where the water stands and softens the earth. A duck on sandy soil, where the rain disappears as fast as it falls, will not thrive, although sufficient water may be supplied for drinking purposes.

About thirty men are employed throughout the nine months. In the busy season seventeen pickers or pluckers find enough to do. Each picker can "strip" forty geese in a day, but he must hurry, and has no time to spin yarns or to exchange gossip with his fellow pickers. At the present time, early part of December, two hundred and fifty geese a day are prepared for

market, and about eight hundred chickens, not raised on the place, are dressed every week. These are drawn, but all the geese are sent to market undrawn.

The raising of geese, or any other kind of poultry, is not difficult. They raise themselves if food and proper care be present, but it is not always easy to find a market at good prices for large quantities. The proprietors of this goose farm have a store in Boston near the Quincy market as a distributing depot for Boston and the East, but for the West and South, shipments are made from the farm to three great markets, New York, Brooklyn and Philadelphia. A dealer in Fulton market, New York, has ordered two thousand geese for the holiday trade. The demand exceeds the supply.

It is believed, or it has been said by some agriculturists, that the excreta of geese was useless as a fertilizer. Let this fact stand against the statement. The goose farm has become so enriched by the presence of the geese, that the proprietors do not dare to use it longer, fearing it may be unhealthful. Therefore, next spring, a farm of sixty acres, new land, near the present farm, will be used for pasture, while the old farm will be devoted to crops of forage, which will grow upon it luxuriantly. In a few years the geese will come back and the other farm will be cultivated.—*Agricultural Review* (Scotland).

DUCKS.

Ducks are very hardy, easy to rear, and easy to feed as regards quality of food. They will eat almost anything with appetite and relish. As regards quantity, they are less easily satisfied, being decidedly great consumers. They will with tolerably free range, do much towards their own keeping, foraging industriously on land and water.

Feeding twice a day, morning and night, is quite enough for the old ducks, if they have liberty. Oats are the best feed for giving firmness of flesh, and they are best thrown in water for them. A medley made of all kinds of refuse vegetables and other kitchen scraps, with a little meal, is good as a portion of their diet: they will eat boiled vegetables of all kinds with especial relish. They help largely towards their own keep if they have the opportunity, by eating all kinds of small reptiles and insects in great quantities. They are useful in the garden for destroying insects, providing it is at a time of the year when the hard flattening down of their tread is not injurious to the plants. They will eat filth and garbage, but this should be kept from those intended for cooking.

A shed with a water-tight roof and dry ground floor is sufficient house. If the floor is damp, they are apt to break the eggs. However quiet the setter may be, there should be convenience for shutting them in at night, as the laying time approaches—about the first of April; if the season is early, the first of March. If they are shut in every night at this time, they will form the habit of laying their eggs in a nest, as they lay early in the morn-

ing. They are very wandering layers, if no precaution is taken, dropping their eggs about, even in the water. The appearance of weight behind, swimming with their tail flat on the water, are indications that the time of laying is near. The nest can be made of straw, on the ground; shutting them up from intrusion while sitting, except at feeding time.

Ducks begin to lay early, and are generally good layers; will often continue to lay until commencing to moult. They do best with the use of a pond, but will thrive with a small tank, if kept well supplied. Four ducks to a drake is sufficient. They are too greedy, dirty and sloppy for other kinds of poultry to be kept with them. It is a mistake to rob the duck of her privilege to set and rear her own little ones, for two reasons: 1st. When judiciously placed, not unnecessarily interfered with during setting, or circumscribed in her ramblings with her little ones, she is a good mother, as she was a good sitter. Rearing by a hen seems to bear out the old game fowl breeder's idea of the sitter's influence on the brood she hatches and rears. We think all poultry, to be prosperous, should be reared by its kind. In addition, as the duck is an affectionate mother caring for the wellbeing of her brood, there is no reason why she should be denied the lot universally coveted by all living animals—maternity.

The duck makes known her wish to sit by keeping to the nest perseveringly, and shows her intention not to be interfered with pretty evidently by bestowing a good peck with her hard, broad bill on any hand that approaches. She so much objects to interference, that in hers, as in all similar cases, it is best to let her alone. When positively necessary to remove the eggs take her up and set her down on the outside of the door while the requisite attention to the eggs or duckling goes on.

For a good-sized duck, from ten to twelve eggs are sufficient for a sitting. Give her corn near her nest, and water convenient, that she may come off and feed when she wishes. It will also do her good to bathe in the water, imparting that warm moisture to the eggs which is favorable to incubation. If the duck is a quiet one, the ducklings may be left with her as she hatches. When you think some of the little ones have been hatched a good many hours, some corn meal mixed with skim milk or warm water should be placed before the duck. She will soon teach the little one to eat. When she shows a wish to lead them out, she may be penned on the grass if the weather is warm and dry; otherwise, in a shed.

Two or more ducks may be penned together with their young, as they never quarrel. For the first few weeks it is best the little ones have no water to immerse themselves in. It is not best to wet the down at that age. The mother should have a tub for bathing herself; a small mug for the little ones to drink from, fastened so as not to turn over, and too small to get into. They can then bathe and wash their breasts, but cannot wet the down about the abdomen. Their supply of water should be often renewed.

Ducks, old and young, should have a good bed of straw, or anything that is dry will do. The eggs do not keep as well as hens' eggs, and should be set fresh.

The fattening of ducks is no difficult matter, they are so willing to aid in the work themselves. They will fatten at large with extra supplies of food, or they may be shut up for the purpose. Corn meal, cracked corn, or indeed any variety of meal will answer the purpose of fattening. Nothing fattens so easily as the duck. We give the names of the breeds of ducks which we should select to breed from: Aylesbury and Rouen; these are the only breeds we have had experience with. Any one living near a small pond can make the breeding of ducks exceedingly profitable. Wild ducks are common all over the country. We are familiar with them on our native river; have found their eggs, set them under a hen, scarcely ever failing to hatch them. They will fly away the first opportunity in the fall, which is the best part of the business. They are small and ill-flavored when cooked; and if it can be called sport to hunt and kill the most harmless of all birds living, then that must be their redeeming virtue. But one must get nearer to them than we ever could to shoot them on a river. On a pond or lake they can be shot as they rise. They fly in a single line, like Indians on the warpath.

TURKEYS.

When America was first discovered the wild turkey, among other hitherto unknown birds, was found. It has now been under domestication for so long a period that the wild seems almost a distinct race. The wild is fast disappearing. It was formerly plentiful from Maine to California. It was migratory, keeping in flocks, yet irregular, without the systematic order pertaining to wild geese. In autumn the gobblers would congregate in flocks of ten to one hundred, seeking their food apart from the hens, who still kept with their broods. The season of courtship would commence about the first of March. In April the hen would arrange her rude nest, which was generally a collection of withered leaves well concealed by brush-wood, several hens often laying in the same nest, always keeping them well covered with dry leaves. The wild hen lays but one litter of eggs in the season and will choose dry, undulating ground as a range for her brood; yet, in a dry season, the stock of wild turkeys are much more plentiful than in a wet season, which is an evidence that the wild cannot endure damp more than the domesticated. At about two weeks old they begin to roost on branches of trees still brooded by their mother. Their food is strawberries and other wild berries, grass-hoppers and other insects. By the month of August the young birds use their wings and legs vigorously, congregating in companies of several broods together until after the October migration, when the males separate from the females. For the foregoing description of the wild turkey I am indebted to a former resident of North Carolina

The old birds among our domestic turkeys are extremely hardy, not subject to disease, requiring but little care beyond feeding, shelter from rain and a good range. The young are extremely tender, requiring constant attention to make them prosper. There is a wonderful difference in temper and disposition between the male and female turkey. The cock is arrogant, irreful and implacable. The hen is gentle, good-tempered and good to her little ones, sometimes treading on them from her awkwardness.

Turkeys do not attain full growth and maturity until they moult after they are two years old, and for this reason should not breed until after that period if you wish for first-class birds. The hen should sit on the first litter of eggs she lays in the season, that they may have the best of the year to make their growth. The cock is generally spiteful to the hen and their young ones, and is not necessarily needed after the early part of the season, and the eggs of the hen are fertilized. The entire clutch of eggs are fertilized at the first intercourse. One turkey cock can serve for an entire neighborhood. He is in his prime from three to seven years, or even ten years. In breeding turkeys, more than any other fowls, first-class birds should be selected. Their plumage should be black; yet russet is not undesirable; but never breed from white plumage. In the domestication of turkeys, the hen should be watched when about to make her nest, and with a little humoring, will make it where you desire. Make her a good solid bed of straw and dry leaves in a snug, secluded spot, giving her a nest egg. When she seems anxious to lay shut her in until the egg is laid, and for the first two or three times, after which she will keep constant on the nest. Remove the eggs as they are laid, only leaving the nest egg. Keep them in a dry place of medium temperature until she wants to set, when they should be placed carefully under her. She is a steady setter; will scarcely leave her nest to take necessary food, and should be lifted off for that purpose if going too long a time. The person she is familiar with should attend her. She should never be disturbed by others, or meddled with unless breakage or any other unfortunate accident makes it necessary to arrange the nest. Presuming all to be right, the young can be looked for in twenty-eight or twenty-nine days. If she has been a nice quiet setter, leave her young with her, only removing the empty shells, but if she has been fidgetty, remove them, keeping them warm until all are hatched, but the mother warmth is best when she can be trusted. The domesticated bird will sometimes lay and hatch a second brood, but it is not desirable: they require too much care, and are never hardy, contending with the chilly mornings and cold nights of Autumn. The young turkeys are extremely delicate, and this continues through the first six weeks; until then they must not be neglected. At first the little ones should be fed on hard boiled eggs, chopped fine, mixed with bread crumbs, young onion tops, lettuce, nettle and parsley. Give their water in shallow pans to avoid wetting the down. As they get older feed corn meal boiled in milk, cracked corn and milk curd. They

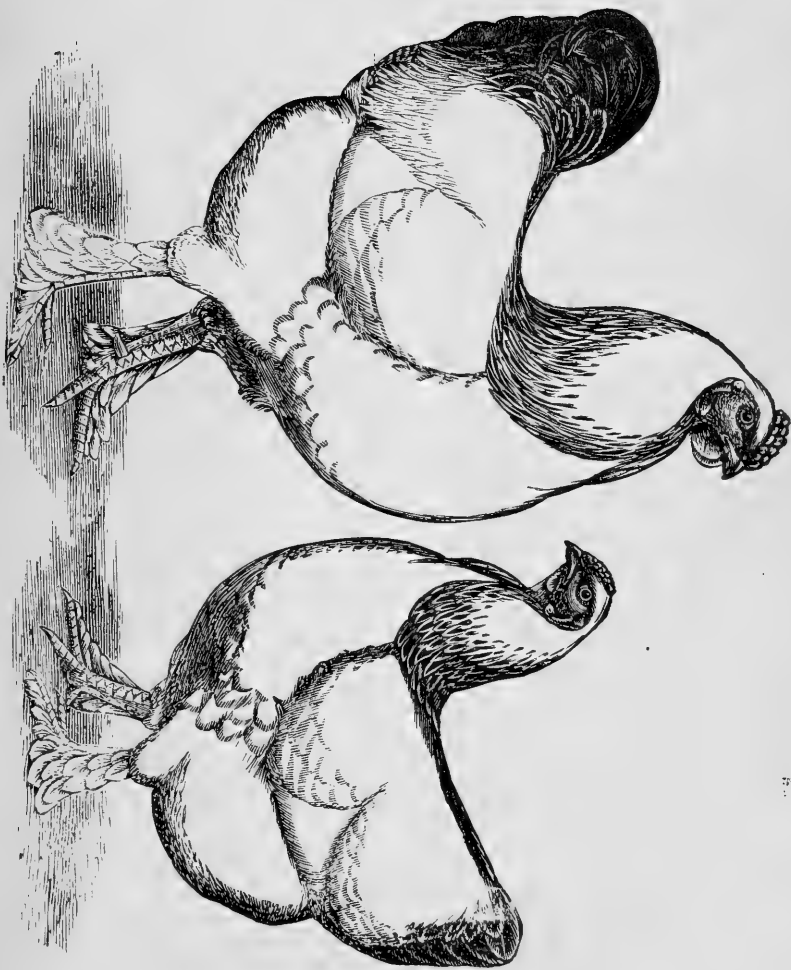
must be constantly well fed from the first, so as to never lose condition: for if they once get poor they can never be restored. The most important thing of all is to never let the little turkeys get wet or damp. Keep them in in the morning 'till the dew is off the grass, put them up before the damp of the evening, and never let them out in the rain. Farmers wives rear turkeys success fully by strictly obeying the above rules.

The young cocks shoot the red about nine weeks from hatching. This is a critical time, and they will require rich and nutritious food, which should be continued. They must be kept plump and never allowed to shrink until ready for their destination. The turkey will not fat perfectly until matured. Even the few weeks intervening between Thanksgiving and Christmas show the superiority of the latter. The most perfect turkey for the table is the hen who has lived over one season and brought up her brood. Cramming turkeys to fatten them is much practiced. We hardly see the necessity for this process, if the turkey has plenty of good feed mixed with skim milk sweetened with cheap molasses.

Turkeys will make a fast and great growth getting extremely fat if the season is what is termed a grasshopper year. Grasshoppers seem to be the natural food of the turkeys. We have never known but one turkey in our long experience to be puny, and that was a late-hatched one and we must consider them the hardiest of all the poultry after getting beyond the ten weeks named, when the males show the red.

The turkey is a peculiar bird in some respects. In driving them they will not run under a fence, are always looking up, yet alone by themselves will quickly discover any loop-hole. Sixty years ago speculators in Vermont would buy large droves of turkeys of many thousands, driving them on the road to Boston market like cattle, a team leading them scattering corn on the way, endeavoring to be near trees before nightfall. Early in the morning they would come at call to pursue their journey. A peculiarity of the hen turkey is she will set continuously for a long period, if the young are removed from her as they are hatched and fresh eggs placed under her. We have known of their setting three months and their setting six months voluntarily has been affirmed. When sitting in this manner they become very fat, consuming scarcely any food. Every farmer should certainly raise at least a dozen of turkeys for his own table. It is this thoughtfulness about little things that leaves an indelible impression on the family circle.

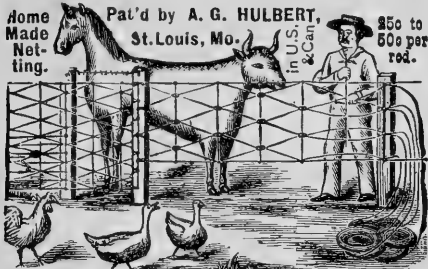
LIGHT BRAHMAS.



GIRLS are wanted in every country town to sell this work, to whom a liberal discount will be made.

Address, **GEO. M. DAVENPORT,**

Truth Seeker, Office, 33 CLINTON PLACE, N. Y.



Home-made Netting Model, 50c. Ready-made Netting, Barbed and plain Wire, Iron Gates, Posts, Tools, City, Cemetery and Farm Fences, 2 c. to \$1.00 per foot. The best Picket and Wire Fence Machine only \$10. Farmers and Agents make Money. Catalog free.



A. G. HULBERT, 904 Olive St., ST. LOUIS, MO.
Fencing Furnished Farmers For Factory Figures.
Write me before buying, and save store profits

CHICKENS

Pay, but they must be managed right to be profitable. If you keep only a dozen, or a thousand hens, to know how to care for them in Health, Cure Diseases, Rear Chicks Build Coops, Breed Fine Birds, etc., you want the

Practical Poultryman and Farmer,

A large illustrated Monthly Magazine, devoted to the interests of Poultry, Pigeons, Pets and the Farm.

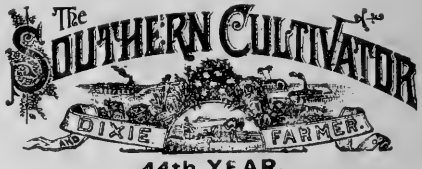
TOM. W. INDER, Managing Editor.

It is the **LARGEST FIFTY-CENT PAPER IN THE WORLD.** Sample Copy 5 cents. "The Dog and How to Train Him," the largest and best book on the Dog ever published. Finely illustrated over 100 pages. More regarding the Origin, Rearing, Keeping, Training and Management of Dogs than can be had in any other book. Price 25 cents, or the paper one year and the book for 65 cents. We want good agents to work for us. Big Pay.

Live Stock Job Printing.

We make a specialty of all kinds of live stock and poultry printing. Over 1,000 cuts to select from. Send for estimates.

The Practical Poultryman and Farmer,
Warsaw, Indiana.



The Great Farm, Industrial and Stock Periodical of the South.

It embraces in its constituency the intelligent, progressive and substantially successful armers of the South, and as an advertising medium of the Merchant, Manufacturer, Stock Raiser and Professional Man, is **ABSOLUTELY UNRIVALLED.** Space judiciously employed in its columns is always remunerative.

Advertisements, per line, - - - - 30.
Subscription, per annum, - - - - \$1.50.

Address, **CULTIVATOR PUB. CO.,**
P. O. Drawer 8. **ATLANTA, GA.**

The Franklin Publishing House

Is the Leading Book and Job Printing, Blank Book and Electrotyping House in the South.

CONSULT US BEFORE PLACING ORDERS.

JAS. P. HARRISON & CO.,

Geo. W. Harrison, } 32 & 34 W. Alabama St.,
Sec'y & Treas'r. } **ATLANTA, GA.**

\$1,500 000

Lost Annually by Cholera and Roup.

I have a **SPECIFIC** for Chicken Cholera and Roup. Any reliable Poultry Association that will make a practical test of its merits, and give me the benefit of the test by a testimonial, I will furnish, **FREE, SUFFICIENT SPECIFIC** for same.

W. W. GARIG,

Breeder and Dealer in

Thoroughbred Poultry, Dogs, Southern Song Birds, etc.

Box 170, **BATON ROUGE, LA.**

CHICKENS
ARTIFICIALLY
Hatched and Raised.

Are much stronger and healthier and attain a larger growth at an earlier age than when hatched by the natural method, provided they are hatched and raised by the

PERFECT HATCHER AND BROODER, which is conceded to be the only reliable and successful apparatus in the world for this purpose. The past year we have won the Gold, Silver and Bronze medals over all competitors at all the leading exhibitions, such as the Cincinnati Exposition, the American Institute, the Madison Square (N. Y.) Poultry Show, the greatest ever held in America this year of 1884. The Cincinnati Exposition offers us the choice of location in their buildings, and go to an expense of \$1,200 to provide extra facilities for our exhibition. This is an extraordinary offer, something never before offered to any exhibitor. Chickens can be hatched and raised for broilers up to three months of age for 6c. per lb. or 12c. each; therefore it is easy to see that

MONEY IS RAPIDLY MADE

with small capital invested. A first-class market exists in every important section of the country, and can never be overstocked. For further information apply to

PERFECT HATCHER CO.,
ELMIRA, N. Y.

A FORTUNE
Raising Poultry.

SUBSCRIBE FOR

The OHIO POULTRY JOURNAL

And Learn How.

A large and beautifully illustrated Monthly, devoted to Poultry and Pet Stock. It is full of practical suggestions, and its correspondents are among the leading breeders of the country. It has one page devoted to the management of Bees. Price, \$1 per year. Sample copy will be sent for only SIX cents in stamps.

ROBERT A. BRADEN,

PUBLISHER AND PROPRIETOR,

DAYTON, - OHIO.

GATE CITY STONE FILTER.

Gold Medal and Highest Awards at World's Exposition.

The filtering medium is a natural, porous stone, so close in its texture that no animalculæ or other small impurities can enter its pores. It removes all kinds of spawn of worms, or insects and impure floating matter and renders the water pure, healthy and drinkable. Endorsed by Boards of Health, Sanitary Associations, Physicians and Scientists as the best, simplest and most perfect filter and purifier, and is as easily kept clean as a water bucket. Write for price list.

Gate City Stone Filter Co.

New York City,

April 25, 1885.

GENTLEMEN:—The great danger from impure water arises from the presence of living organisms of a very low order, and these are absolutely unable to pass through the stone. Careful microscopical examination of the stone after it has been in use and then broken, shows that all solid matters are excluded, none of these penetrating beyond the surface. I have therefore no hesitation in expressing my belief in both the durability and efficiency of your filter.

Very truly yours,

Prof. JNO. PHIN, Ed. Am. Journal of Microscopy.

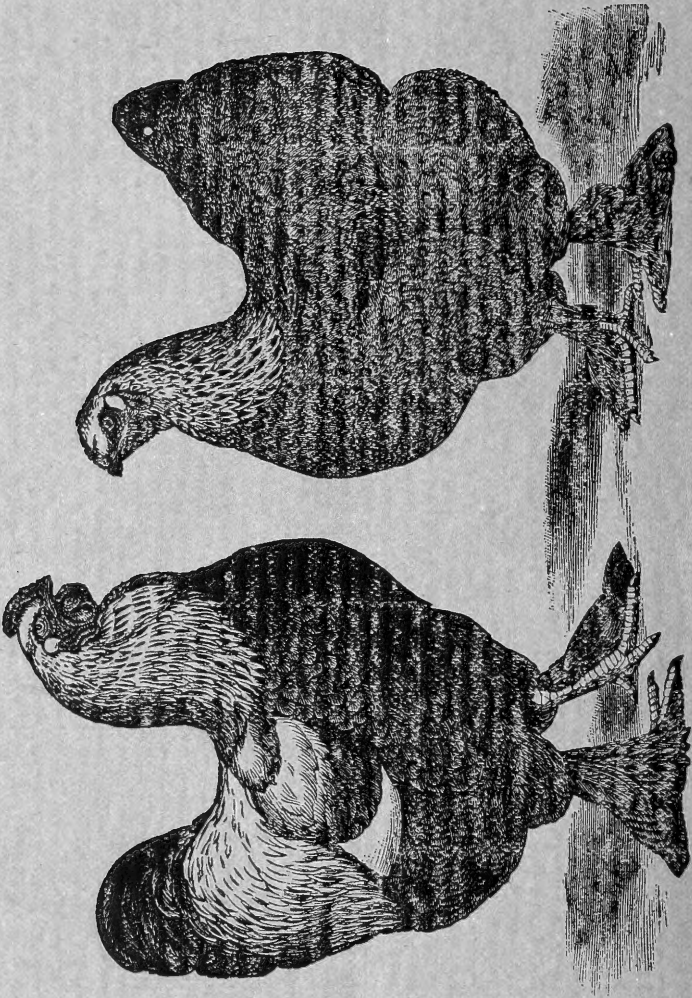
Gate City Stone Filter Co.,

839 Broadway,

New York.







DARK BRAHMAS.