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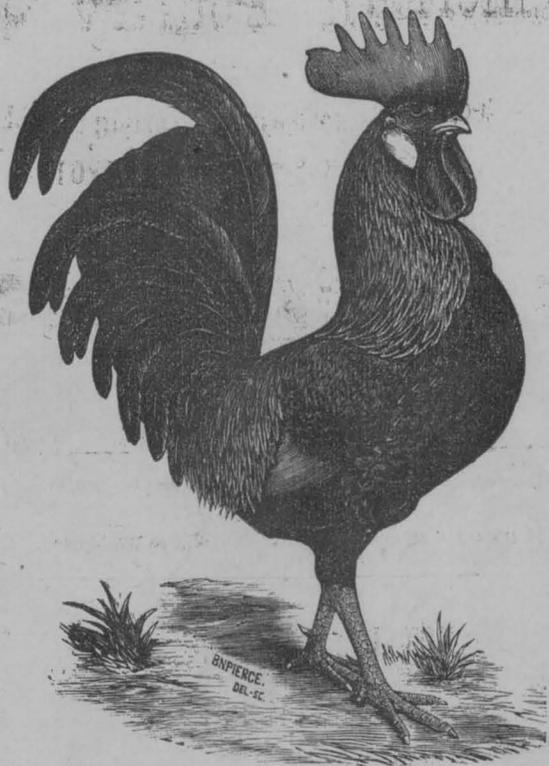


HOW TO HELP A MANAGE AND NEED
BY THE AUTHOR OF THE
FIRST BOOK



L. 6.

THE BROWN LEGHORN FOWL;



B. PIERCE.
DEL. SC.

HOW TO REAR, MANAGE AND BREED.

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By CHAS. R. HARKER.

PRICE 30 CENTS.



ROCHESTER, N. H.
Courier Book and Job Printing Establishment.
1879.

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INTRODUCTION.

“Of the making of many books there is no end,” saith the wise old preacher, perhaps in wonder—perhaps in despair. But if he could glance in upon this bustling modern world of ours, what would he think of his threadbare saying! Society, to-day, is inundated with books. Every minute in the fourteen hundred and forty that make up the day sees a book of some sort, somewhere, issuing from the laboring press. Countless is their number! They penetrate every nook and corner of the civilized earth. Through grand public libraries, they are offered to all, without money and without price, and the rich and the poor alike feast on them, uniting in praise or condemnation. Time was, when one musty, vellum-paged volume was held as a treasure dearer than gold—to-day, what home, worthy to be called such, has not a score of books? They are bought by twos, tens, hundreds, thousands, and, though the supply is always far ahead of the demand, yet over the globe still rings the cry, “All hail the mighty printing press! May its shadow never grow less.” And how motley is its offspring: books thoroughly good, books thoroughly bad, books thoroughly indifferent—the latter largely in the majority.

Why, then, need one more be added to the vast throng already so superabundant in number? To this I have only to reply that, though we have poultry books in plenty, some sixty odd, yet this little pamphlet has the presumption to stand nearly, if not quite, alone in the field which bounds its subject—Brown Leghorns. It cannot hope to fill it, but if it awakens a fresh interest in the beautiful and valuable fowl of which it treats, and if it proves interesting as well as, in a measure, instructive reading, the ambition of its author will be more than satisfied.

To old and experienced travellers, who know every rock in the beaten road they have followed for years, guide-boards are useless; but to the stranger in the land, they serve to point out the way.

So this little book is not written with the purpose of showing the wise the ways of wisdom, but in the hope that the novice in poultry breeding may derive some benefit from its perusal, and that it may prove at least pleasant reading to both veteran and raw recruit.

Thus, with no further apology, and with hearty thanks to my advertisers, who have given me substantial aid in many ways, I send the bantling forth to the generous hands of a poultry-loving public, trusting that they will temper their criticisms with the reflection that, in one respect, books are as birds—none are perfect.

CHAS. R. HARKER.

ROCHESTER, New Hampshire, Jan. 1, 1879.

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OWNED BY C.A. KEEFER

HYDE, MINNEAPOLIS

The Brown Leghorn Fowl.

HOW TO REAR, MANAGE AND BREED, FOR THE
SHOW-ROOM OR THE EGG MARKET.

CHAPTER I.

THE POULTRY INTEREST.

The origin of the domestic hen is as unsettled as the origin of man. No direct mention of fowls is to be found in the Old Testament; but geese, and birds which resemble the gallinaceous fowl, are depicted on the ruins of old Egyptian tombs, and it is extremely probable that those ancient dwellers by the Nile, who worshipped nearly every animate object, from a bull to a grasshopper, also revered a sacred breed of fowls.

Aristotle, Cicero, Columella, all before the Christian era, not only write understandingly of fowls, but of distinct breeds. Columella even so far agrees with the views of our modern breeders, as to say that the smaller varieties, with white ear lobes, produce the most eggs. Aristotle's description of a chicken during the different stages of incubation, has never been improved; but, instead of attempting it, later writers go back to the ancient sage for information.

The economic value of fowls was recognized by the Emperor Charlemagne, who commanded, in one of his edicts, that all the greater villas in his empire should keep at least one hundred hens and thirty geese; and all the lesser places, fifty hens and twelve geese.

But in those days, as in these, a certain indefinable stigma was attached to poultry culture. It was not, and is not, considered, by

the world in general, a manly occupation. The reason for this is not deeply hidden. From the earliest ages, women have taken a motherly interest in chickens, and, on this account, lordly man gradually came to look upon fowls with a sort of good-natured contempt—in fact, with much the same feeling, passion aside, that he looked upon woman, as something that, while serving his pleasure at times, was too far beneath him to demand his serious attention.

However, enthusiastic chicken fanciers, of the male persuasion, abounded then as now. Then, as now, they went about with a fowl under each arm, and an eye keenly alive to a trade. Then, as now, their tongues were glib when chanting the praises and virtues of their feathered pets. Old Rome, indeed, boasted of one royal breeder, Honorius, the Emperor. But it must be confessed that the noble Honorius was not in all respects an honor to the fraternity. Yet, while his moral character was not above reproach, he possessed the true fancier's instinct to a remarkable degree. When his courtiers rushed in wild alarm to tell him that the terrible Alaric had captured Rome, he was frantic with grief, until informed that by "Rome" the courtiers did not mean his Majesty's beautiful "rooster," christened by that lofty title. It is said that the august Emperor gave a sigh of relief at this comforting intelligence, and, after the repeated assurance that the favorite cock was safe, dried his tears and listened calmly to the details of the sack of the Eternal City.

Coming from ancient Rome down to modern America, we find that in 1810 a breed of fowls, called "Merinos," was brought to New York from the East Indies. After them came the deluge. Where, oh where! are, to-day, the Guilderlands, the Chittaprats, the Calcuttas, the Jersey Blues, the Chittagongs, the Bucks Counties, the Singapores, the Bolton Greys, the Royal Cochin Chinas, the Creoles, and the so forths and the so ons? Some of them remain, under different names, but nearly all of them sprang up like mushrooms, and enjoyed about as long a life. But while they did flourish they were thoroughly alive. Far and wide they scattered the seeds of that curious disease, known as the "hen fever," which raged so furiously in these United States in 1849—50. It and the gold fever were contemporaneous. Men in perfect health one day, smiling, perhaps, at the antics of the afflicted, were on the morrow themselves as wild as loons.

The crisis of the strange malady was safely passed at the great Boston Hen Show, in the fall of 1850, where, in a mammoth tent, in the Public Gardens, three hundred and thirty-eight exhibitors showed nine thousand fowls to ten thousand people.

There were not wanting wise doctors to make a careful diagnosis of the new complaint. They, one and all, pronounced it harmless, a mild sort of lunacy, which would quickly die out for lack of fresh victims. What was it but an affection of the brain, when one fever stricken patient told out \$120 for—what? FOR A HEN! Ye gods on high Olympus! was ever madness carried further? One hundred and twenty dollars for a HEN? Not for a cow, or a horse, or an ox, but for a HEN! What though it was called a Wild Indian Game, what though one of the great high priests of feverdom sold it, and other great ones among the afflicted called him a fool for so doing, nothing could cover the glaring fact that a HEN had been sold for \$120. But, while shaking their heads at such folly, the long-headed prophets predicted that, as the whole thing was clearly a bubble, the day was near when it must burst.

To-day, the seventy poultry shows, the twelve poultry journals, the thousands of breeders, scattered from Maine to California, all bear witness that the wisecracks of yesterday were sadly, sadly mistaken. But, even now, there are many well intentioned bats that are blind because they refuse to see. You may tell them that Mr. G. P. Burnham sold his fowls for \$25 per pair thirty years ago, and is still in the same line of business; you may tell them that the popular interest in what is called "fancy" poultry is growing, not dying; that capital, brains, and energy are pushing fowl breeding as never before, but they will only blink in the sunlight, and tell you that the bottom must drop out, sometime, and that to-day it is very loose, and cracked in the middle, or they can't see straight. They are croakers, one and all, and as greatly mistaken as were their ancestors in 1850.

It is true poultry breeding is considered a trifle old womanish, or somewhat boyish. The young man may dawdle behind a dry goods counter, if he will, or perch himself before ponderous ledgers in the stale air of a counting house, and he is getting on famously in the world. But CHICKENS?—well yes—all well enough, in their way—but, seriously, are they much more worthy a MAN'S earnest attention than canaries, or white mice? Well, yes, I think they are, slightly.

The eyes of the nation are turned yearly, with anxious looks, on the prospective wheat crop. We all rejoice, or should, when it is bountiful. Yet with our yearly product of eggs and poultry we could buy every grain of our WHEAT crop, vast as it is; and the same may be said of CORN, every ear of it, and of COTTON, every bale of it, and of HAY, every spear of it. Not one of these great staples equals the egg and poultry value. Is it a white mice business?

It has been iterated and reiterated, and proved by statistics, that the total value of the eggs and poultry yearly consumed in the United States was rising \$600,000,000. Beef, mutton and pork, combined, foot up about \$400,000,000. No ONE edible product is worth so much, by millions, as is the product of eggs and poultry.

In September, 1878, a grand dairymen's fair was held at New York. Honorables, professors, ex-Senators, ex-Governors, and other high and mighty dignitaries, addressed the honest dairyman. Gen. B. F. Butler patted, as it were, the dairyman on the back, and told him that the total value of all the butter and cheese produced in 1877, in the United States, was \$350,000,000.

Three hundred and fifty millions of dollars! A giant sum, but not more than HALF the total for eggs and poultry during the same period—as the latter has grown prodigiously in the last three years. Mr. I. K. Felch is to be credited with the \$600,000,000 a year estimate, which he made from the United States census tables of 1870—nine years ago. I do not think he exaggerates the total.

Not that comparisons have ceased to be odious, but we wonder how long it will be before we shall behold ex-Governors, and ex-Senators, and spectacled professors, all making speeches and growing enthusiastic at a poultry show? No, the old notions in regard to chicken rearing are still abroad in the land—the public eye is still placed at the large end of the spyglass, when viewing this industry, and it is belittled accordingly.

But, until the wheels of progress retrograde, poultry culture is bound to advance in importance with each succeeding year. Thousands have flocked to it as a last resort during the past five years of business depression. The field is pleasant, but it requires toil to till it. The soil is rich, but it nurtures weeds as well as grain. There is no fabulous wealth to be squeezed from it—no millionaires are to be found in it, that I am aware of, but the wealth, though not great in quantity, is good in quality—it is gained honestly. Capital, experience, and work, will bring, at the end, success.

CHAPTER II.

THE BROWN LEGHORN FOWL.

The sunny shores of Italy, washed by the blue waves of the Mediterranean Sea, is the native home of the breed of fowls which we call "Leghorn." The city from which the bird derives its name, is a bustling seaport on the western coast of Italy. Travellers tell us that Leghorn is a cleaner, livelier, more progressive place than the average Italian town. But, nevertheless, beggars swarm in its streets, and one of its principal articles of export to the United States is rags. It must not be supposed that Leghorn is the only Italian port from which true "Leghorns" have been brought to America. This would be as absurd as to say that Brahmas are confined to Massachusetts. Genoa can show as good Leghorns as Leghorn itself, without a doubt, but probably none of the inhabitants of either would know a good bird from a bad one—as we define the term. But how any American admirer of the Leghorn fowl would enjoy looking over Dame Lucetta's flock of chickens, matured for market. Think you he would see any STANDARD bird in the motley collection? Perhaps, but the probabilities are that he would not see anything that he would care to pedigree.

Let us go back forty years or so, and, in the absence of any more solid data, imagine that a bluff sea captain is about to clear his ship for the port of New York, from Leghorn. He is mindful of the joys of roast chicken in mid ocean, and sees that the hen-coops aboard ship are well filled. A handsome cockerel, with a huge comb lifted upward like a scarlet banner, attracts the attention of one of the ship's company—it may be the cook, or the mate, or even the captain. "Ah!" muses this individual, whoever he is, "that's a pretty bird—too bad to kill him, I declare; and there are some pullets that look as though they were of the same breed. Faith, I

think I'll keep that rooster and those pullets for Ward, in New York."

And so, though it is sheer fancy, we will say that in this manner the first Brown Leghorns came to tread the soil of the New World. We know, in sober fact, that in 1835, Mr. N. P. Ward, a cracker baker of New York City, received as a present a few Brown Leghorns, direct from Leghorn. If there is no mistake in the date, and it undoubtedly is correct, they were the first importation. The next, of which we have any account, came over in the good ship "Asa Fish," and were brought to Mystic River, Ct., by Capt. Isaac Gates, in the fall of 1852. After this followed other importations, at various times and places. One of them was made by a sailor, in 1859, who brought his stock from shipboard to Dedham, (Mill Village), Mass.

According to the published statements of Mr. F. H. Ayres and Mr. Roswell Brown, of Mystic River, there seems to have been some rather undesirable outcroppings in the birds imported there in 1852. They bred nearly as many "rose" as they did single combs, and their flight and sickle feathers were WHITE, instead of the regulation color.

Mr. W. E. Bonney, the veteran breeder, of South Hanover, Mass., writes me that in the Mill Village lot he noticed no white feathers whatever, and all had single combs, and bred them single the first year—the second year ONE rose comb cropped out.

The Brown Leghorn, since its first arrival in America, has been vastly improved by judicious selection, and the enforcement of Darwin's law of the "survival of the fittest." But what a vast deal of UNNECESSARY vexation we have undergone, what years of useless labor might have been saved, if a knowing fancier of Brown Leghorns could have selected the first stock in Italy. For instance, we have been fighting white feathers, MAINLY because one of the principal importations of Brown Leghorns was about half and half between White and Brown. The red ear lobes we have been struggling with for twenty years, striving to make them white. Some have given up the task in despair, and declare that the red ear lobe is the one intended by nature. Yet Mr. Bonney informs me that he received direct from Leghorn, only four short years ago, twenty four Brown Leghorns, and ALL had fine white ear lobes. But his letter is interesting enough to bear quoting:

SOUTH HANOVER, Mass., Dec 11, 1873.

MR. C. R. HARKER, Rochester, N. H.:

Dear Sir,—Yours at hand. I commenced the breeding of Brown Leghorns in 1860, from stock imported the previous year by a sailor, who brought it to Mill Village, (Dedham), Mass. The year of 1860, chicks had most of them red ear lobes, but few being tinged with white. In plumage I noticed *no* white feathers, although in 1862 I had one entirely white chick, a pullet, [And also a “sport,” probably.—*Author.*] Their combs, during the first year’s breeding, came all of them single,—the second year I noticed *one* rose comb. In plumage they were reddish brown. This strain was invariably non-sitting. I have always given it the preference. Feb. 25th, 1874, I received, direct from Leghorn, *via* bark “Hancock,” twenty-six specimens of Italian fowl, as near the style of our so-called “Leghorn” breed as could be procured at that place. I also, Nov. 21. the same year, received from the same port another invoice of twenty-four birds. In this last lot there were some fine specimens, good plumage, pullets nicely penciled, with good combs, nice white ear lobes—in fact *every* bird had ear lobes pure *white*. One cockerel was extremely fine in every respect.

Very truly yours,

W. E. BONNEY.

Even in those early days of 1852, the marvelous laying properties of Brown Leghorns—or Red Leghorns, as they were then, and in some sections are now, called—speedily became notorious; and well have they held the name of the “champion egg layers” down to this day. They are, and always have been, general favorites.

“Well,” said I, not long since, to a knotty, hard-headed old veteran, who had tried all, “which breed, on the whole, do you like best—Brahmas?”

“No; fat, lazy, hulking, broody humbugs—fat up on a diet of shingle nails every other day.”

“How about Cochins?”

“Same thing—different name.”

“Houdans?”

“Blamed scarecrows.”

“Games?”

“Feathered wildcats.”

“Spanish?”

“Crows—little more bone an’ skin, not much.”

“Plymouth Rocks?”

“Fair ter middling—best yit.”

“Polish?”

“Hain’t got no hot house.”

“Hamburgs?”

“Blue-legged fist full of feathers—lay like thunder, though.”

“Brown Leghorns?”

"Fust rate, fer a hen—best on 'em ain't good fer much, anyway. But these Red Leghorns are tough, likely lookin', yellow legged, plump, and the consarndest hens to lay I ever sot eyes on. Combs air tender—but tarred paper an' shingles ain't high." And they are not.

No one ought to keep fowls, of ANY kind, in a place cold enough to freeze the comb of a Leghorn. They are not house plants, by any means. It must be cold, biting and keen, to freeze them, and when it is cold enough outside to freeze living flesh, fowls of any breed are better off indoors. Where the shelter provided is so unworthy of the name that the birds feet are sometimes frozen to the roost, the patient hens can only, so to speak, grin and bear it, and pray for summer, while their owner, very likely, is anathematizing them for not laying eggs when eggs are high!

No variety of pure bred poultry, in my prejudiced opinion, combines beauty, hardiness and utility, like the Brown Leghorn. They are persistent and active foragers.

Speaking of this reminds me of a scene I once overlooked between a mouse and a bright, alert Brown Leghorn pullet. The mouse came running boldly out from beneath a shed, and stopped short, almost at the pullet's feet. She drew back, with a startled cackle, and then stood with head leaned forward, breathlessly eyeing the audacious little intruder, apparently transfixed with amazement, slightly tinctured with curiosity. His mouseship appeared equally surprised at sight of the pullet, and regarded her fixedly, with its little bead eyes. The tableau lasted full three minutes, and was broken by mousy turning tail and darting for its hole. But it little gauged the agility of the pullet. Its safety lay in jumping towards, not from, her. On the instant—a cat could have leaped no quicker—she pounced on the mouse and pinned it to the ground with her bill, just on the edge of its hole. Then, as a terrier would a rat, the pullet shook her luckless prey, beat it out to a lifeless string, and then, with great gusto, swallowed it whole.

At another time I saw a pullet tackle a striped snake in much the same manner, and though the reptile wriggled and twisted, as only snakes, eels, and small boys, can wriggle and twist, the battle was one-sided throughout. Once the snake did wind itself about its captor's neck, but she pluckily tore her scaly opponent off with her claws, and beat its body again and again on the ground. At last the victory was won, but was not followed, this time, by a feast on the

remains of the vanquished. With a merry cawing of triumph, the pullet left her victim limp and lifeless, and, as she passed me, seemed to ask my opinion of her prowess.

Brown Leghorns bring on, sometimes, with remarkable suddenness, that dread disease, the "hen fever." We will suppose a person of an economical turn of mind to be attacked with the complaint. To possess a fine cockerel is the first desire of his heart. He sees one. Perhaps he goes ten miles, or fifty, to see it. What a beauty! How he covets it! What do you ask for it? What? five dollars! Five dollars for a chicken! FIVE DOLLARS! Off he goes, horrified, perhaps cured; but I say unto you that if he has the genuine "fever," he will retrace his steps. He will flutter over that bird like a moth around a tallow dip. He will dream of him day and night, and, at last, the five dollars are paid over, and the prize is his. Then will he place him in his coop, like a rare jewel in a casket, and for one short week gloat over his treasure. But the gilt soon wears off; the gloss of newness fades. "Aha!" he will mutter some fine day, "that bird's ear lobes are not QUITE solid white, after all. His plumage isn't just to my fancy, nor his comb—not JUST. Cheated, after all, I guess!" Alas! for the beautiful cockerel. He is like a Turkish vizier, to whom all bend the knee to-day, and to-morrow he shall lie at the bottom of the Bosphorus with a bowstring about his neck.

Disgust follows enchantment. Other birds are bought and sold, at a prodigious shrinkage of values. They are but a sop to Cerebus. The fever cries, like Oliver Twist, for "more." Still the victim dances after the will-o'-the-wisp, and never grasps it—but, oh! how many times it was just at his finger's end! This is the true "hen fever,"—to be longing after the possession of all sorts of fowls—to be satisfied with none.

It is not an imaginary disease, far from it. It is as real as typhus, and a "run" of it is full as costly, in a financial point of view. But as the fever of the body frequently clears it of previous ills, and leaves it all the sounder, so the "hen fever," laughable as it sometimes is, still frequently rids the patient's mind of many fanciful and extravagant notions, and prepares the way for a healthy admiration of fowl pets, and an earnest desire to improve them. And improvement is needed. You want to rid the Brown Leghorn of every vestige of white in its plumage; you want its ear lobes spotless and smooth; you want a vigorous constitution, a symmetrical,

beautiful form, which tells of high blood as plain as a race horse shows it; you want a golden yellow leg, ALWAYS; a STANDARD comb; a STANDARD bird. And if the STANDARD is ever reached you want it placed higher. It must always be BEYOND and ABOVE, to spur on the laggard to greater exertion; while he who, with patient toil and skill, climbs nearest the prize, should be well rewarded for his efforts.

The AMERICAN STANDARD OF EXCELLENCE minutely describes all the points of all the recognized breeds of poultry. The clause in the "disqualifications," which barred out Brown Leghorn cockerels which showed "white or partially white feathers," was stricken out in the latest revised edition—1878. The following are the essential points in a good Brown Leghorn:

THE COCK.

Head, deep, medium length, dark bay. Beak, yellow, with a delicate dark stripe running down the upper mandible. Eyes, deep red, bright and piercing. Face, red, free from folds. Comb, bright scarlet, medium size, firmly fixed on the head, single, straight, evenly serrated (from four to six points), free from twists, side sprigs, excrescences, or bulging in front. Ear lobes, white or creamy white, smooth, rather pendant, and plump. Wattles, bright scarlet, pendulous, medium length. Neck, long, finely arched; full hackle, hackles glossy golden bay, striped with black. Back, medium length and width, dark red, each feather striped with golden bay. Breast, clear, jet black, full, plump. Body, under part black, of medium length and width. Wings, large, closely folded; bows, dark red, each feather striped with golden bay; primaries, clear black, each feather edged with rich brown. Coverts, greenish black, forming a clear lustrous bar across the wings. Tail, clear black, upright and full. Sickles, lustrous greenish black, long, and well curved. Legs,—thighs, of medium length, clear black; shanks of medium length, smooth, bright yellow; feet, well formed, yellow. Carriage, upright and proud.

THE HEN.

Head, delicately formed, of medium size; color, brown or yellowish brown. Beak, yellow, dark stripe down upper mandible. Eyes, clear, red, full and bright. Face, red and smooth. Comb, bright red, medium size, fine in texture, single, falling to one side,

evenly serrated, free from side sprigs, distinctly pointed. Ear lobes, white or cream-white, plump and smooth. Wattles, red, delicately rounded. Neck, rather long, finely arched, yellowish brown, each feather striped with black. Back, soft seal-brown, penciled with light brown. Breast, full and round, salmon brown, running light under body. Body, full and plump; color, light brown. Wings, large, closely folded, primaries and secondaries a dull black, on inner web, slightly penciled with brown on outer edge. Coverts, brown, penciled with a lighter brown. Tail, erect and full; color, black, penciled with light brown on outer edge. Legs,—thighs, slender, medium length, ashy brown; shanks, medium length, smooth, bright yellow. Feet, well formed, bright yellow. Carriage, alert and upright.

The Disqualifications in Brown Leghorns should be,—COMBS, twisted, bulging out over and beyond the beak, or falling over to either side, in male birds; side sprigs in comb of either sex; red ear lobes; crooked backs; wry tails; "squirrel" tails, in cocks or cockerels; legs other than yellow; white, or partially white, feathers in cockerels; white, or partially white, feathers in hens.

What does the "Standard" mean by "black feathers in hens," being a disqualification, when the inside tail feathers are always black?

Technical terms:—"Side sprig," a fleshy point growing out from the side of the comb. "Cockerel," a male bird under one year of age. "Carriage," the style, or natural posture of the fowl when standing erect. "Condition," of its health, plumage, and flesh. "Symmetry," perfection of the different parts of the body, and their relation to each other as a whole. "Sickles," the long, curved feathers of the tail; "tail coverts," the curling, short, glossy feathers at the base of the tail. There are other technical terms, the meaning of which is more or less apparent to the uninitiated,—as "squirrel tail," a tail carried up over the back like a squirrel's—but all are plainly set forth in the "Standard," a work which, as it is the only absolute authority on "points," is indispensable to the poultry breeder.

The following is the scale of points used in scoring Brown Leghorns to ascertain how near to perfection a bird is :

Head,	7
Comb,	15
Ear lobes and Wattles,	15
Neck,	5
Back,	5
Breast and body,	8
Wings,	5
Tail,	5
Legs,	5
Symmetry,	10
Size,	10
Condition,	10
	100



BONNEY'S "LADY FLORENCE" (885).

CHAPTER III.

BREEDING BROWN LEGHORNS.

It is my purpose, in this chapter, to take up, one by one, in their order, the "points" in a Brown Leghorn, to the improvement of which so many earnest and skillful fanciers are giving their time, money and attention—as all keenly realize that the value of a bird increases in a direct ratio with the perfection of its fancy points.

THE COMB

Of the HEN should rise up nearly straight from the head, first, then fall gracefully over to one side. Avoid a large, leathery, LIMP comb, which comes over the eye so far as to blind the bird: the comb should never interfere with the sight of either eye, and, therefore, it should be nearly erect at the base, and roll about half its height. The number of serrations is not material, if they be even; side sprigs should not be tolerated. A comb which stands almost erect, while not generally considered so handsome as a rolling one, still is not the worst defect in the world, as it will help stiffen the cockerels' combs, in chicks bred from the hen. By the way, we say SIRE^d by a cockerel, why not say DAME^d by a pullet? One reason, I suppose, is the wretched pretext it offers to punsters.

The comb of a Brown Leghorn Cock is his glory. A common evil is a

"LOPPED" COMB,

As a cockerel's comb which falls over to one side, like a pullet's, is called. It is one that is either "dished," hollowed, twisted over, no matter how thick and firm-set on the head it may be, or it is thin and flannel-like, flapping about the eyes as readily to one side as to the other; sometimes, though, it is so tall, large, and top-heavy, that its own weight brings it over.

As a rule, the sire governs the comb of his cockerels. If his comb is thoroughly bad, his cockerels, nine out of ten, will be the same. A good comb on the male bird is, therefore, all important, as no one point counts so high as the comb—15. A comb very large, badly twisted, flabby, coarse-grained, or bulging out over the beak, is to be shunned. One that is of medium size, fine texture, firm-set on the head, straight, nothing concave or twisted about it, is to be sought.

Don't mind the serrations so much—their precise number is of minor importance. But I have seen men, who ought to have known better, speak approvingly of a comb which was stumpy, twisted, "bulgy" in front, falling over at rear, and had, withal, jagged, uneven serrations, but their number was FIVE, and they were content. Indeed, so universal is this fallacy, that all a great many know about a Leghorn's comb is that it should have five points. I have seen would-be connoisseurs gravely count the number of points on a cockerel's comb which fell over to one side as gracefully as that of the pullet beside him. Eight are too many, three are too few, but between these lies the golden mean, and no preference should be given to four, five, six, or seven—at least not till the comb is made perfect in other respects.

However, all does not depend on the comb of the bird itself—we want to know what sort of a comb his father had.

"What," says a gentleman, incredulously, "do you tell me that that cockerel, whose comb is absolutely STANDARD, will breed 'lop-combed' cockerels? Bosh! I don't believe it—like begets like, he will breed like himself. I don't care if his father did, as you say, have a huge, flabby comb, I don't care if this bird is an exception, if his brothers all have bad combs, I'll breed from him, and risk it."

He did breed from him, and had to kill and eat nineteen out of twenty cockerels of this bird's get, for the sole fault of lopping combs.

SIDE SPRIGS

Are an abomination, and should be bred out with an axe.

ROSE COMBS.

On this topic, Mr. F. H. Ayres, of Mystic River, Ct., and myself have had a brief passage at arms in the columns of "The American Poultry Yard." It has been hinted that I am a Standard wor-

shiper, and opposed to all new breeds, but I have seen no fair reason given for such an assumption. I have never, that I am aware of, written a line against forming new breeds, nor against admitting them to the Standard as soon as they have proved their right to be placed therein.

The Mystic River importation bred rose combs, it seems; other importations did the same, though not in so great a degree, and because of this, we are told that the Brown Leghorn comb is NATURALLY "rose" as well as single. This I dispute. We must go back farther than Mystic River, farther than East Windsor Hill, farther than "a farm in the town of Groton," to find what nature intended as the true type of the race of fowls to which the Leghorn belongs. Whether the bird comes to us from Italy or Ireland, if it has a LARGELY-DEVELOPED, smooth, thin, single comb, the family of fowls of which it is a member has no common origin with that breed which possesses a low, flat, rose comb. It is no argument to remind us that ALL of our breeds, traced back step by step, must at last end in one pair of fowls,—why not go a trifle farther, and settle the mooted question, Which was FIRST, the EGG or the HEN? As well say that man, according to the theory of evolution, goes back step by step to the moist tadpole, and that, therefore, all men are tadpoles, improved by ages of breeding. All of which may be true, but it has no bearing on the question, Are Caucasians and Malays different RACES of men? Both are men, but of a different "breed." We class them as they are to-day, as the varying influences of years without number have shaped them. All bear a certain resemblance to one another, yet how widely dissimilar are individuals of one race from those of another. The fact that the old Brown Leghorns did show rose combs, counts for nothing. It is no proof that because they were there that they belonged there. By the intermingling of the blood of two opposite breeds we can change the type of both, in the offspring. We can put the "pea," or the "rose," or the single comb on any breed of fowls, with time, skill, and patience. But if the comb is large, and of any clearly marked shape, how do we change it? By crossing with fowls of another breed which possesses the comb we seek to engraft. If a single comb appears in a well-bred flock of rose combs, it is the outcropping of a cross, more or less ancient; and if the rose comb shows in the single-comb race, it is the old blood emerging into daylight again. If our fancy leads us to prefer the one or the other, whichever we choose, we eliminate one and

strengthen the other, and inasmuch as we establish the blood of one we put down the blood of the other. Selection from one breed alone will not do, if the fowls are pure bred, because the first step cannot be taken. How are we to breed the FIRST "rose" when all are single combs?

I do not pretend that in the gradations of color, or in the large, low-combed breeds, every shade of plumage, or every shape of comb, denominates a distinct race. Not at all. But I do maintain that in a fowl with a large, luxuriant, thin, single comb, and in one with a low, wide-spreading, flat, rose comb, two races confront each other.

Thousands of Leghorns are bred yearly; how many rose combs crop out? Perhaps one, out of a thousand of pure bred birds. Does that one, if there, prove its purity and right to show itself BECAUSE it is there? W. E. Bonney noticed ONE rose comb in his flock of Brown Leghorns, the second year after importation. Is that an argument in favor of the purity of rose combs? If, in a flock of fowls coming fresh from a country where scientific breeding is unknown, where fowls of all sorts run as promiscuously together as they did in any barnyard here, a few years ago, some birds do not breed "straight," what wonder?

Italy and Spain have both been great commercial centres. The harbors of Venice, and Genoa, and Barcelona, were once filled with vessels from all quarters of the globe. The Spanish peninsular once swayed the world. Commerce is the life of Leghorn, to-day. What more probable than that the Hollanders, with their mighty traffic and intimate connection with both Italy and Spain, should introduce into those countries the Dutch Hamburg fowl, with its rose comb, where it bred freely with the native birds? We know that the Dutch carried the fowls of Spain to Holland, and there bred the most beautiful Black Spanish that could be found in Europe.

There is another source, however, from which the rose combs may have come. The island of Sicily, in the Mediterranean, which has for ages enjoyed the most intimate relations with both Italy and Spain, produces a fowl called "Sicilians," which have cup-shaped combs, but in color resemble Brown Leghorns.

But cup combs, rose combs, all, in my opinion, are of Dutch origin, bred into the Leghorn, or true Italian fowl, through the Golden Hamburg, and not by a native fowl of the land bordering the Mediterranean.

Wherever rose combs came from, they have my best wishes. Nevertheless, until rose-combed Leghorns are acknowledged to be the result of a cross, more or less recent, let us quote Macbeth versus Macduff, to the end. They have no ill will of mine, crosses and all. Let us have new breeds. Originate, select, mate, exhibit. Throw down the bars of the Standard, carefully—but down with them, if anything worthy of being admitted stands without, until fowl breeding sees days it has never known since the first "biddy" was brought from India to Europe by the great Alexander.

NECK AND HACKLE.

The Hen should have a neck that is neither long and thin, and crane-like, nor yet short and chubby, but it should gracefully arch. The hackle should be full, the feathers a bright yellowish brown, clearly striped with black. This is the sort of hackle to choose for exhibition, but a hen with a reddish hackle, broadly striped with black, will breed well with cockerels rather light in neck.

The Cock's hackle is important, as in color, it should be borne in mind, "like father like son." His neck should be rather long and finely arched, the hackle full and sweeping—no short, close-feathered, game hackle, be it understood. The color should be a deep, golden bay, each feather clearly and broadly striped with black, but not, by any means, a black hackle fringed with bay, as some seem striving for. Such a hackle is not rich-looking at the distance of a rod from it, and cannot compare with a lustrous red and black.

However, a very dark-hackled cock is the bird to correct faded hackles in pullets.

A clear, deep yellow hackle, glossy and full, and clearly striped with black, is not bad to look at, by any means, and will breed fine stock, if put with reddish-black hackled hens. But if not striped with black, at least at the base, it is deficient in color, and will breed lighter each generation, bringing up, at last, almost flaxen.

EAR LOBES.

In the color of ear lobes, my observation has led me to believe that the influence of the dam predominates over that of the sire. That is, if the hen's ear lobes are pure white, the chick's ear lobes will be the same, in greater proportion than if the male bird's ear lobes were fine and the hen's poor. It cannot always be laid down,

as an infallible law, that the influence of the sire is greater than that of the dam, in breeding for any point, for a great deal depends on the individual; some hens have an organization superior to the male bird, in all respects, and cases have been known where a strong hen would throw chicks like herself, no matter what styled bird was mated with her.

The ear lobe should be plump, smooth, and plum-shaped, white, or cream-white,—this is the ideal ear lobe—but how discouragingly hard it has been to secure it. Some breeders think it unnatural; they tell us it SHOULD be red. Mr. I. K. Felch, in his valuable "Manual," seems to favor this view, and suggests, as a remedy, the crossing of a Black Spanish male on a Brown Leghorn female. He says: "If you would cross for a white ear lobe, use the Spanish male on the Leghorn female, for the progeny carries back to grand-sire, and Spanish crosses will show the white ear, even to the sixth generation."

All of which is granted. But will Mr. Felch kindly tell us where the Black Spanish LEG is hidden during those six generations? Is n't the white in ear lobes rather dearly bought at the expense of black in leg?

Oh, no! that's not the way out. Crossing is not the thing at all. Selection is the sure and safe road to improvement. The breed does not need strange blood, FROM ANOTHER BREED, to keep up its stamina. No breed under heaven has a better supply of fresh blood to draw from. We are constantly importing, from the native source, our Brown Leghorns. Where does the new blood for our Cochins and our Brahmas come from? From England, where many of the same families are bred that are bred here; nearly all of it is "cousinly" blood, more or less removed. The first importation of Brown Leghorns had red ear lobes, simply because red ear lobes were selected in Italy, and considered as good as white ones. Recent importations show that white ear lobes might have been chosen, or else the world moves in Leghorn, too, and the lazzaroni there are waking up, and breeding fowls to the STANDARD, as well as we. It seems, verily, as though the American Brown Leghorn breeders would do well to send a buying agent to the Mediterranean coast.

THE EYE

Of the Cock should be deep red and piercing; of the Hen, light red, bright and clear. The eye is an important index of the char-

acter of the animal, low or high. A lack-lustre eye betokens a diseased body or a sluggish-blooded one.

But in Brown Leghorns, beware, above all things, of a BLACK eye. Just as sure as a bird shows a dark, melting black eye, just as sure its progeny will show a dark leg, and the beautiful Hamburg find its own again.

WATTLES.

The STANDARD for the Male's wattles is "long, thin and pendulous," but wattles of medium length are as desirable as a comb of medium size. Long wattles are always more or less bedraggled with dirt, and interfere with the bird's eating freely.

The Hen's wattles are more delicate, and should be rather small, and well rounded.

THE BEAK

Should, on both sexes, be stout at base, good length, well curved, the under mandible clear yellow, the upper darkly striped in the centre. A clear yellow beak in the Cock shows lack of color, which he is likely to breed in plumage.

THE BREAST

Of the Male should be rather broad, full, and jet black, carried well up, almost "lantamish," neither wedge-shaped nor baggy in form. Brown feathers in males are THE defect here. But a hackle clear black striped, nearly always gives jet black breasts. All cockerels, of course, have brown breasts until their chick feathers are entirely shed. Sometimes, when the brown feathers seem loth to leave, the trouble is helped by carefully plucking the objectionable feathers, when they will frequently be replaced, by kindly Dame Nature, with those of the coveted color.

The Hen's breast should be clear salmon-brown, shading off to a light buff under the body. I have seen pestilential strains of Brown Leghorns which showed breasts splashed and spangled with white. Such birds can only be gazed at with admiration when, well browned and stuffed, they repose on the dinner table.

WINGS.

Here we have the home of WHITE FEATHERS.

Mr. I. K. Felch says of these: "Were we making a specialty of this breed (Brown Leghorns), we would certainly make the follow-

ing crosses for future use—viz.: A Black-red Game cock upon a mahogany-breasted Partridge Cochin hen, breeding a pullet of this mating to a Black Spanish cock, and that progeny back to a fine Brown Leghorn cockerel, and breed his pullets back to him. The breed would, in this way, get the needed size, quiet disposition, and constitution of the Cochin, and also run clear of the white feathers, produced by the Claybourne Game of recent crosses. Such a stock of birds would, in three years, be much valued."

Condensed heresy! in my opinion. I will yield to Mr. Felch as law and gospel on Brahmas, but when he proffers me this dish of Leghorn, I must decline the mixture with thanks.

It would be very pleasant, and highly profitable, if we could cross for the points we want, and get ONLY what we want; if we could eschew the evil and hold fast to the good. But we must take all or nothing. If the first cross is a Black-red Game, we secure the plumage and also the willow legs; if we take the Cochin for size, we take the sitting instinct with it; and if the Spanish follows with its ear lobes, it brings another dark leg to keep the Game one company. If we strive to breed out these blots, we are only trying to rid our birds of the very blood for the sake of obtaining which we made the original cross, and, at the end, we have our labor to reward our pains.

"Such a stock of birds will, in three years, be much valued." For what? For labor bestowed on them in vain, for time wasted, for vexation of spirit, for disqualifications?

With all due deference to Mr. Felch's veteran experience, I can see nothing but nonsense, pure and simple, in the statement that we can cross Black Spanish, Cochins, Games, and Leghorns, and reach the *ne plus ultra* of breeding the latter—all in three years. Mr. Felch himself digs at the foundation of his structure when he says that the Spanish blood will carry the white ear lobe to the sixth generation, and the building, so to speak, comes toppling about his ears when he acknowledges that the best Brown Leghorns in the country to-day are those which are of the purest LEGHORN blood.

No, gentlemen breeders, SELECTION is the watchword, selection with a big S, selection of the best, and the "survival of the fittest."

But WERE white feathers brought into Brown Leghorns through Claybourne Games? I think not. I think they are inherent. Was there ever a breed of fowls known, of the COLOR of a Brown Leghorn, which did not show more or less white in plumage? Don't

the Partridge Cochins show it? Don't the Games show it? Didn't the Brown Leghorn-colored "Malay," of forty years ago, show it? Didn't the Brown Leghorns themselves, of twenty-five years ago, show it? Mr. Roswell Brown, of Mystic, Ct., tells us that they most assuredly did. He says, and he is good authority, that the Brown Leghorns of 1853 had white FLIGHT and SICKLE feathers. White feathers there for you—with a vengeance!

But can we not, by persistent selection, get rid of white entirely? I think we can. I have, myself, bred hundreds with not a pullet showing a trace of it, and others have done the same. Cockerels are harder to deal with, and cocks harder still. It has never been a disqualification for two-year-old male birds to show white. But, it has, until lately, disqualified young birds. Last year—1878—the American Poultry Association decided that "white, or partially white, feathers in cockerels" was NOT, henceforth, a STANDARD disqualification, but it is to be "cut severely as a defect." At first thought I was inclined in favor of this change, but upon more mature reflection, I am utterly opposed to it. You CAN'T cut SEVERELY; there is NO LIMIT as to where the white may show. The wings, where it shows most frequently, only figure five points, all told; where is the leeway for SEVERE cutting? If the white were confined strictly to the primaries, the evil would not be so bad, as it would, at least, be out of SIGHT, but as it is, the whole wing may be snow white, and not disqualified for exhibition.

No, let us bar out such an evil, as the surest way of eventually getting rid of it for good and all.

Pullets run clearer of white feathers than do cockerels, as a rule.

A cockerel with a touch of white in primaries only, and first class otherwise, will breed well with pullets or hens entirely clear of white.

Pullets with reddish, or brick-colored, secondary wing feathers, are faulty, but often breed fine cockerels. No touch of white to be tolerated in pullets.

THE BACK,

At all hazards, should be free from splashes of white. That of the hen should be, in color, a soft salmon-brown, finely penciled with lighter brown; but not one in ten is perfectly plumed. That of the male should, above all, be straight, and of fair width, no resemblance to a "roach." The bird's tail will generally tell whether the

back is straight or crooked. If straight, the tail is carried upright; if one hip is higher than the other, the tail goes over to the lower side.

LEGS

Should be smooth, bright yellow, and of medium length, as to shanks. The thighs of the male bird should be free from brown feathers, as the latter show a lack of that deep, clear color so desirable in the male bird's plumage.

WILLOW LEGS

Are an intolerable eye-sore, from first to last. They are caused by an outcropping of Game or Spanish blood, and when once planted they hang on like a certain very uncomfortable disease, known as the seven-years itch. It is almost impossible to get rid of them. I have known them to "cry back" to the great-grandparents to such an extent that a golden-legged cockerel, mated with a pullet which was faultless in this respect—the grandparents of both had clear yellow legs—bred nine willow-legged chicks out of a hatch of twelve.

TAIL.

A full, sweeping, bushy tail, with long, glossy tail coverts and sickles, is one of the chief glories of a full-plumed Brown Leghorn male, and he should not be shorn of his pride by trying to breed the close, whip tail of the Game. All Brown Leghorn cocks, or cockerels, show more or less white or grey at base of tail coverts, and it is not a serious defect—unless the white runs up into the greenish black feathers of the sickles, or the long coverts, as the under color of the saddle is white, and it will "fluff out" a little at the tail, especially in old birds. That of the hen should be full, and the saddle feathers should form a cushion at the base—no approach to white, of course.

A WRY TAIL

Is caused either by a crooked back or a weakness in the cords of the tail itself. It results, sometimes, from an injury, when, of course, the bird would breed a fair proportion of straight tails, but if a natural deformity, the bird should never be bred from. Pullets are rarely troubled with this defect.

A SQUIRREL TAIL

Needs no explanation. It is a deformity, generally, and is common among ill-bred, short, "squatty" specimens.

SIZE.

Leghorns are naturally small, compared with Asiatics. But it is universally conceded that small breeds are the most prolific in egg production. This does not, however, mean that we should select small Leghorns; the BREED is of moderate size, but we want good-sized specimens of it to breed from. About nine pounds to the pair is fair average weight.

SYMMETRY

Is something hard to define, though very palpable to the eye. The grace of the Apollo Belvidere all can admire, though it would be difficult to tell, in set terms, just wherein the charm lies. It is the ideal of symmetry fulfilled—perfection. A judge could tell at a glance, whether a bird was symmetrical or not, but if he tried to explain the why and the wherefore, if he tried to tell you that the breast was so, and the tail set this way, and the body formed that way, you would consider him, at the end, well skilled in his business, but, all the same, YOUR EYE must tell you when a specimen is symmetrical, words from another cannot do it. And your eye must be well trained, used to seeing super-excellence as well as mediocrity. The body, the tail, the head, neck, in short, the bird, must form a graceful outline, which pleases the most uneducated eye, and is called symmetry.

It will be noticed that I have used the words SHOULD HAVE in describing the various points to be attained. Not that they are attained, not that any man or woman in the world can select his or her birds for breeding, and follow strictly all the STANDARD requisites. Oh, no! The perfect bird has not yet arrived on the scene of action. There is a hot chase after it, but it has not yet been captured. And who shall say it ever will be? But because our yards are not full of perfect specimens, shall we give up, and not try to do the best we can with what we have? Put in new blood, improve imperfection. Patient selection and watchful breeding have accomplished wonders in the past, which is a shadow of the present.

IN-AND-IN BREEDING

Is pernicious, if carried too far, but if we wish to preserve or form a certain type or strain, we must breed in-and-in, or never find what we seek—uniformity. But unrelated blood must be had, or stamina

is lost. The sire usually gives the general type and color, therefore new blood should come from strange pullets, unless the male line is radically bad, when it should be dethroned at once. Never put a new bird, of any sort, into your flock unless you know where it was bred, and what the general average of the stock was that it came from. Many a fine-looking, but poorly bred, bird has brought disaster to carefully bred flocks through his false-blooded ancestors.

BREEDING FOR MARKET

Should be conducted solely with an eye to the main chance. Select your breeding stock for their valuable market qualities, regardless of "points." "Run" your flocks as you would run a machine—to get the most work out of it; and remember that the machine will return you most when well oiled and well cared for; don't imagine that the poultry business, when once started, will run itself, and all you have to do is to open your pockets for the dollars to drop in. If there is a royal road to a fortune, it doesn't pass through a poultry yard.

It will generally be found that pure-blooded, medium-sized pullets lay the greatest number of eggs, and, in keeping Brown Leghorns for market, prolific egg production is above and beyond any other quality. If poultry and eggs are wanted,

CROSSING

May be resorted to; and there is no better cross than that formed by mating a Brown Leghorn cockerel with a Light Brahma hen. The progeny will be large, small boned, a light buff in color, but few feathers on shanks, good layers and mothers—not bad sitters. The Brown Leghorn male should always be used on the Light Brahma female—not *vice versa*, because the sire gives the color, the dam the size. A Light Brahma cockerel and Brown Leghorn hen will produce lank, large-boned specimens, medium in body, and a muddy Light Brahma in color.

Never breed from the cross, unless prepared for years of labor. The pure stock should always be kept for breeders, as after the first cross comes "crying back" to the original ancestors.

But your cross will not lay quite so well as the pure Leghorn; and, as a general rule, crosses are not quite so good as pure-bloods, even for utility, while, of course, that which makes pure-bloods so pleasing to

the eye, nice uniformity of color, cannot be secured in cross-bred flocks. Indeed, it is almost amazing how some Brown Leghorn pullets will lay—all are not alike in this respect, by any means. But one smart Brown Leghorn pullet has been known to lay, by actual count, two hundred and seventy-nine eggs in one year. Imagine what a drain on the bird's small system must be the production of this number of eggs in a twelve-month! Scientific men have been kind enough to tell us that the ovary of a hen could only furnish, at most, six hundred eggs, no matter how long the hen might live. Mr. F. J. Kinney, the veteran Brown Leghorn breeder, of Worcester, Mass., writes me on this point, that his famous old "Red Ribbon" hen "Had laid nearly ONE THOUSAND eggs. I sent her body to Professor Agassiz, who had said once, in my hearing, that a hen could not lay over four hundred eggs. He dissected her, and wrote me that he was surprised to find that she might have laid five hundred MORE eggs!"



CHAPTER IV.

MANAGEMENT.

SELECTING EGGS FOR HATCHING.

There has been, from first to last, a vast deal of nonsense afloat in regard to the sex of eggs—but it is nonsense. There is no test, none whatever, by which we can tell a male germ in the egg from a female one. So the sooner the eggs “pointed at one end,” or “flat at both ends,” “with wrinkles” here, or wrinkles there, “very large,” or “very small,” are given no preference, the sooner the humbug will die out. Even-sized eggs are the best to use when the time arrives for

SETTING HENS.

“When a woman will, she will, and you may depend on’t. When she won’t, she won’t, and there’s an end on’t.” It’s the same with a hen—especially a broody one. Philosopher Josh Billings says: “Sum hens will try in hot wether to hatch chickens out uv two brickbats an’ a door nub—a hen is a darn fool.” Correct, Joshua! A broody Cochin or Brahma is a vacuous, sodden idiot. Their persistent blockheaded daftness at times almost reaches sublimity. I have looked at one such, before now, with a feeling akin to awe, as though I had been feebly trying to outwit fate. After a motherly biddy has been locked out from her home over night, been rudely ejected therefrom ten distinct times, ducked, by her exasperated mistress or master, thrice in cold water, crept stealthily to her nest only to find in it a pan of water, what wonder that she, in the depth of her resources, plays possum? Her owner gives a calm smile of satisfaction—he thought that old hen couldn’t get the best of HIM. The victory is won, so he uncovers the nest—perhaps the

hen may want to lay. The next day he comes again, and blessed if that infernal, dunder-headed, idiotic, blanked old hen is n't on the nest again, as calmly unconscious of the world without as the Egyptian Sphinx.

But if a would-be sitting hen is confined, in a place where there are no nests, with a smart cockerel, the broody instinct is soon put to rout, horse, foot, and dragoons.

A NEST FOR A SITTING HEN

Should be neither very damp nor very dry. Only three things are essential to a good hatch—viz: good eggs, good hens, and a warm, secluded place. Porcelain eggs should first be put under her, after the nest is prepared for her, and she has been placed upon it, AFTER DARK, always. Don't be impatient now. Let biddy get fairly settled before you disturb her again. Then, when she would sit on bricks, if need be, place the good eggs under her, and with the good eggs one a great deal better, one of "Woodward's sulphur medicated nest eggs." This will keep at bay that pest of the sitting nest—vermin; it is worth its weight in gold for this purpose; never set a hen without one of these nest eggs. As to the number of eggs, never use more than thirteen, no matter how large the hen is—and by the way, large hens do not usually make the best sitters, a ten-pound Brahma being about the worst brooder and mother that can be imagined. If your eggs, place and hen are good, ten to one the hatch will be the same. Make it a point to see the eggs each day. If the nest is fouled, clean it. Don't be afraid to touch the eggs, if needed, but don't be "puttering" around the nest at all seasons. Above all, don't, in mercy's name don't, try to "SHOO" a hen on to her nest, when you think she has been off too long; grown men have been known to grow insane (with rage) in trying to attain the unattainable in this fashion.

Sometimes not till the twenty-fifth, sometimes at the eighteenth, but, in nine cases out of ten, at the close of the twentieth day of incubation, the chicks are out of the shells. If a weakling remains unhatched, don't touch it, it does no good, usually, to take it from its prison by hand; if it lives, which is doubtful, it is rarely worth the trouble—I am writing from experience.

Eggs chilled during incubation hatch on time, in most cases. The vitality of the embryo is wonderful. I once set a valuable

clutch of eggs in a hole, in the bare ground. Two weeks passed, the attendant biddy behaving beautifully. But one fatal summer evening, the fifteenth of incubation, I glanced in upon the hen, and behold! the nest was filled with earth, and not an egg to be seen. I let the hen pass out of the coop, as she was thoroughly "broken up," and unearthed the eggs. The faithless brooder had scratched nearly a peck of dirt over them, but none were broken. All were, however, absolutely as cold as lead. I judged the hen to have been off the nest four or five hours. With but little hope of saving the eggs, I placed them beneath a flighty pullet, with broody inclinations. Two hours after, I was slightly disgusted to find her roosting quietly on the edge of her nest-box. With indifference, now, I gathered up the eggs again, cold as so many stones, and removing some common eggs from under a sitter, put those I disliked to throw away in her charge. On the evening of the twenty-first day, promptly, nine chicks, pert and handsome, emerged from the twelve eggs, and they proved uncommonly robust in after life.

THE CARE OF CHICKS

Does not devolve on us till they are at least twenty-four hours out of the shell. They won't starve, not a bit of it, nature feeds them, at first.

On the night of the twenty-first day, lift the hen carefully from the nest, take out all shells, dead chicks and live ones, and the old nest. Put in clean straw, a new medicated nest egg, then the hen, lastly the live chicks.

Now come away, and let mother and young alone for a day by themselves; they don't need your services a particle.

The first food of the young chicks should be egg—hard boiled and chopped fine. Follow this shortly with coarse bread crumbs, and bits of meat. Don't be afraid to give plenty of the latter, especially if the weather be cold. I have kept young chicks, bright as crickets, in a room where the thermometer was but little above zero, on a diet of meat and wheat.

In warm weather, chicks ought, by right, to range for green and animal food.

Of one mixture beware, at all seasons and times—corn meal, wet up to a sloppy mush with cold water. I know they tell us our grandmothers fed chicks year after year on this diet, and rarely lost

one. Our grandmothers, however, did lose chicks, frequently, and they never hatched them "early," and their chicks ranged at will, all of which does not disprove the fact that cold meal dough is injurious chicken food. In my opinion it is, as a rule, only second to rat poison in its effects on chicks cooped up by reason of cold weather or limited range. Banish it from your bill of fare, and try wheat, crushed oats, bits of meat, and bread crumbs. Wheat screenings are said to be unhealthy, causing gapes, but I never could see much philosophy in attributing the cause of the gape worm in the WINDPIPE to food passing through the GULLET. But, nevertheless, stranger things happen, as witness the following, which is a nut for our medical breeders to crack :

A gentleman, whose word is truth, writes to the Rochester (N. H.) COURIER, that he has a hen passionately fond of potato bugs. As, during the past summer, there was no lack of the wherewithal to supply her appetite, it may be imagined that she devoured great numbers of the striped bug of Colorado. At all events, she laid an egg one day, and in that egg, so fair externally, imbedded in the white was a large and very fat-looking slug of the potato beetle—no counterfeit resemblance, but the genuine thing. A milky substance surrounded it, and it appeared to be contented and thriving finely on its exclusive diet of egg.

How did it get there? That is for the aforesaid medical gentlemen to determine, not for me. It was there, alive and kicking. Perhaps it came there through the hatching of eggs contained in the old beetles swallowed by the hen, the embryo living in the blood and passing into the egg. However it was, the eggs laid by that particular hen were quoted below market rates for some time. The Icelanders, it is said, consider a half-incubated egg a great delicacy, but even their hearty stomachs might revolt at a live potato slug. But this is a digression. Let us, as the French say, return to our mutton, or rather chicken.

It is not best to let the hen loose with her brood, for the first fortnight, even if the weather is pleasant. She is stronger than they, and is liable to weary them with her incessant marchings to and fro. Put her in a slat coop, in a sunny spot, and, by the way, have the slats of the coop run PERPENDICULAR, and thereby avoid crooking the breasts of the chicks as they pass in and out. Let the chicks run at will, keep the hen contented by occasionally changing the coop to a fresh scratching-ground. After the chicks are well

feathered, the critical period in their lives may be said to have passed, and then it is time to think of

HOUSING.

A poultry house can be made to cost much or little. A neat, substantial structure may be built for one dollar per head of stock, after ten dollars are expended. That is, ten hens require a twenty-dollar house, twenty hens a thirty-dollar one, and so on, as lumber is now. One-inch hemlock boards, of cheap quality, a light, cheap frame, cheap shingles, tarred paper, and you have your materials, except glazed sash for the South or East front. With first boards, then tarred paper, and shingles over all, the Leghorns inside will defy the most piercing blasts of the coldest polar wave, and there will be no need of stoves to keep their combs from freezing. If, through some accident, a comb should get frost-bitten, it can be saved if taken in hand before it begins to thaw; place it in a dish of cold water, and in five minutes you can scale the ice from it with your fingers, then place the bird in a cool, yet not freezing place, and the comb is safe.

Whitewash and fumigate the hen-house in summer. Keep vermin at bay in warm weather, never fear them in winter. Summer is their breeding season. Drive them from the roosts with kerosene, from the nests with the same pungent oil, supplemented with Woodward's nest egg.

Give the fowls good dusting places, at all seasons—but don't imagine that SAND or ASHES will take the place of DRY LOAM.

Neglect! neglect! neglect! is at the bottom of all the complaints of the lice pest. There is a great deal of zeal shown at the start, but it soon dies out, and before you know it the roosts and house are swarming with vermin.

ROOSTS.

Never put up little, round poles, full of cracks, in lieu of roosts. Small, round roosts cause crooked breast-bones. Get three-inch-wide, and three-inch-thick lumber, of the desired length, be sure of no cracks in it, to harbor lice, have it planed smooth, and you are possessed of a good, solid roost, that will not sag or break. Place it over the platform of close-laid boards, built to catch the droppings of the hens. Never NAIL it. You want it so that it can be removed easily, and sopped with kerosene. Remember the roosts are the

great gathering place for parasites. No where else will they swarm so, if left in peace. Their victims are bound to come to the roosts, nightly; in this spot alone are they SURE of them. Rout the hordes from headquarters, and the victory is half won; and when you have conquered the vermin evil, you are fairly on the road to successful poultry keeping—not before.

One hen will drop, from the roost, nearly a bushel of manure per year, which is worth, at any tannery, or as a land fertilizer, fifty cents per bushel. Thus, in this peculiar manner, like no other animal, a fowl returns to its owner about half the cost of its keeping, unless said owner is foolish enough to let it be wasted—and a good many are.

NESTS

Can be made under the platform beneath the roosts, or in boxes, or perhaps there need be none at all. There is a theory that nests are useless harbors of vermin, that fowls will lay just as well on the floor of the hennery, which should be well littered to receive the eggs. At first sight this plan would seem to be impracticable, but one of the largest fowl breeders in Massachusetts has shown that it can be made a success. He keeps over a thousand hens, for market only, and gathers from the floors of his hen-houses sometimes sixty dozen of eggs in a day. He has no trouble with egg-eating, and would not be bothered with nests. But wherever nests are, keep them clean.

FEEDING.

Feed with systematic variation; at regular times, but not with regulation food. Fowls crave variety; little bits of this, that, and the other, is the food they would choose for themselves.

Mush is a delectable compound, but it is quite an art to make it, at its best.

Take, as the receipt books say, two quarts of boiled potatoes, pour a pint of scalding water over them, and crush to a mush; then pour into the pail two or four quarts of hot, but not scalding, water, according to the number to be fed; now season with a teaspoonful of salt, a dash of red pepper, or egg food, or powdered meat scraps, being generous with the latter ingredients if the weather be cold. Next thicken to a thin batter with corn meal, then add shorts till the mush is "crumbly," but not "choky." Now, bear it,

pipin hot, and steaming gratefully, to the hens, and, my word for it, the fowls will enjoy a royal meal, and thank and pay you richly for your trouble.

Corn and oats should be the staple grains, because they are good and cheap. Feed generously, but not lavishly. It is a fact that ill-fed, ill-cared-for birds will show foul feathers, no matter what stock they are from. Feeding has a great deal to do with the making of prize winners.

Don't throw down a peck of corn to your flock at once, and think they need no more for a week after such gorging. Don't make them fat and lazy by indulgence, don't make them lean and starving through neglect. Don't have them rushing at their food like a pack of ravenous wolves, nor look at it with supreme indifference, when it is offered to them. In short, use common sense with fowls, as with other things.

Treat them gently. Don't get mad and swear at them like a madman, if you can possibly help it. It's hard, sometimes, to pursue the calm and even tenor of one's way, in the fowl house, but it should be done. Don't rush into the place as though it was on fire, and in so doing scare the wits out of the naturally timid flock of Leghorns within.

"As wild as hawks," are Leghorns? They are not, begging your pardon, Mr. Excitable. It is you that are wild. I have seen Leghorns that could not be touched with a ten-foot pole, transferred to other quarters, and soon they were as tame as pet kittens. My difficulty is to keep mine from under foot. I never had a pullet that would not eat from my hand, with a little coaxing, and but few cockerels that repelled such advances. Few are naturally wild, but many are made so. They are timid of strangers, but should never be afraid of their daily attendant.

At all seasons, fowls should have free access to crushed oyster or clam shells, and broken bone. Water should be by them constantly, fresh, clean, and, in winter, warmed before it is given to them.

PREPARING FOR SHOWS.

Poultry shows are the fancier's training school. They offer him something to strive for. Rivalry begets excellence, and the hope of winning, sometime, leads to judgment and care in breeding. We now have close upon seventy Poultry Associations scattered over the U. S.

and Canada, all alive, active, and enterprising. Every breeder should do all in his power to promote their growth. As they live, he succeeds. He may not take all the prizes, may not take any, may have to combat favoritism or ignorance in the judges, but the show helps him, directly or indirectly. Judges at our shows are not all that they should be, some of them. No man should judge a fowl unless he thoroughly understands its breeding. What may be justly said of a judge who allows personal bias or personal spite to influence his decision? He is put in his place simply to decide which are the best birds, not to honor his favorites, not to be hypercritical in one instance and pass lightly over glaring faults in another, not, in short, to be a partizan, but a judge—clear-headed, impartial. The STANDARD allows a wide scope for the judge's judgment. It does not, it cannot, tell the judge his business, he must know that for himself. One of the greatest evils is the judge's prejudice against, or in favor of, certain "points," or "strains," or PERSONS. It ought to be impossible for a bird to score ninety-five points at one show, and eighty at another, and be disqualified at another. The injustice is too apparent and gross to be long endured. ONE score was right—the others wrong; the bird was the same with all. A perfect system is not made in a day, but, as it is, the subject will bear agitating.

Select the birds you consider the best for exhibition, a few weeks beforehand, put each by itself, in a warm, rather dark apartment, if you can; provide good dusting places, give but little green food—instead, give pumpkin or sunflower seeds, and lean meat. Mush in the morning, oats, wheat, and corn, for grains. Keeping the birds in good condition, out of the reach of quarrelsome mates and harsh winds, is the main object. Before putting them into the shipping-coop, wash combs, wattles and feet in weak alcohol and water—not clear alcohol, it will blister the comb. Put the bird in the shipping-crate at night,—never try to catch it in the day time—have the hamper smooth inside, with cloth or matting, so that neither combs nor plumage can be injured, then ship to the destined show, make up your mind you will be beaten out of sight, and whatever happens will not disturb you. If your fowls don't win, do not damn the judges, the association, and the breeders, as cheats, one and all, and declare the whole thing a fraud from centre to circumference. Try again, and remember that the swift win the race and the strong the battle. True, a rich gentleman of leisure may go about with full pockets, and buy choice birds at extravagant figures, right and

left, until he has a superb collection. If he then exhibits and sweeps all before him, be not disturbed at his loud-mouthed crowing. Money moves the world, and it is no disgrace to be beaten by so powerful an antagonist. But the cash paid for the premium fowls rests safely, you may be assured, in some skillful BREEDER'S pocket, for he alone can produce the birds which Cræsus covets.

VICES

Are but two in number—feather plucking and egg eating.

FEATHER PLUCKING

Is a disgusting, vicious habit, formed, I think, accidentally, and growing with gratification into an abnormal desire. The feathers taste rather pleasant, and it is both amusing and agreeable to pluck them from the male bird—too chivalrous to resent the indignity. It will appear as if a disease of some sort was rapidly thinning the handsome plumage of the cockerel, when it is only a stealthy, feather-eating pullet, or hen, at the bottom of the mischief. Pullets about to lay, or hens in moult, are the most likely offenders. Watching will soon detect the culprit. You will see her step quickly forward to her lord and master, with a half-guilty air, and with a venomous twitch of her sharp beak, out will come a saddle or hackle feather, which she at once swallows with great gusto, and immediately repeats the operation, never heeding the painful start, as each feather is pulled, of her miserable, henpecked husband.

Fowls have sharp eyes; the rest of the flock see one enjoying a feather diet, and one by one they join in the unnatural feast—then woe to the master of the harem! vultures could not be more pitiless than are his cruel wives.

But, happily, there is one sure, easy and harmless way of stopping this disfigurement. Take a rather thin piece of leather, cut it half an inch long by a quarter of an inch wide, insert in each end a ribbon, or narrow strip of stout cloth. Now catch the guilty one, be sure it is the one, and, opening her beak, place the leather bit inside, pass the end bands around the back of the hen's comb, draw them close up to her head; tie them firmly, and the job is done. She will eat no more feathers, so long as the bit remains in her mouth, as the feather, when she tries to pluck it, slips through the edges of her beak—the leather preventing it from closing tight. This contrivance causes the hen no pain nor inconvenience what-

ever, in eating or drinking, and though she may try to pluck feathers, she soon grows tired of fruitless efforts. Examine the bit frequently to see that it does not injure her beak.

EGG EATING

Is caused, usually, by carelessness in feeding egg-shells, or in leaving the eggs to accumulate in the nest, where some are broken by accident, at once devoured, and the first step thereby taken. Egg-shells are nearly worthless, and should be given to the fire rather than to the hens; supply the hens with FRESH shell-forming material—shells, bone, and lime.

The cure for a confirmed egg-eater is the knife first, last and always, unless she be very valuable, when a nest with a false bottom may be constructed for her benefit, so that all eggs laid roll out of her reach under the nest. It is also a good plan to leave china eggs scattered about the floor of the hen house, for evil-minded hens to peck at, unavailingly; but the trouble is easier prevented than cured.

DISEASES.

ROUP.

Many are the ills to which chicken flesh is heir, but Roup ranks first and foremost in the number of its victims. It is a feverish catarrhal affection of the throat and head, and may be known by a drooping of the head, and an offensive slimy discharge at the nostrils of the fowl attacked. Remove the invalid, at once, to quarters by itself. If you can't remove it, kill it—the sooner the better. If the case is a mild one, it will soon be mending, in dry, warm quarters, with warm mush as a diet, and a wash of strong alum water, or carbolic acid applied frequently to the nostrils and eyes; or the acid may be injected up the nostrils with a small syringe. If the disease is virulent, from the first, death is a mercy; nothing will cure the patient without more trouble, danger, and disgust than it is worth—for it is dangerous to handle carelessly a roup-y fowl. Pills and powders are excellent, in mild cases, or to prevent the spread of the malady, but if rigid cleanliness and good care are observed, the visits of Roup will be few and far between.

CHOLERA.

Of this dread disease I know absolutely nothing, from experience. It sometimes rages at the South and West, and seems to baffle treatment, like the human scourge to which it is allied—Asiatic Cholera. It is fatal in the great majority of cases, and presents many curious anomalies. Poultry in one yard, with the best of care, die as though smitten with the plague, while those in an adjoining garden enjoy the best of health. So contradictory are the phases of chicken cholera, and the rules prescribed for its treatment, that it would be presumption to try to handle the subject as it deserves, in a work like this. Those who may wish for further enlightenment are referred to the exhaustive treatise on "Poultry Cholera," by Drs. A. M. Dickie and W. H. Merry.

SWELLED HEAD.

I am in doubt as to whether or not this hideous disease is Roup, in one of its various forms. The sick fowl frequently has a ravenous appetite, a blood-red comb, and I have even known a pullet to lay when she could hardly see her way to the nest.

The head, about the eyes, swells frightfully, a cheesy substance forms under the eyelids, and closes the sight. It is a disgusting complaint, but if the bird afflicted with it is well cared for, it usually comes round in time as bright as a new dollar.

CROP-BOUND.

The knife—only this, and nothing more, is the cure. If the crop is swelled, and hard, or if a very hard bunch can be felt in it, make an incision at one side with a keen knife, after plucking out a few feathers; stretch the body-skin with thumb and finger, so that it will close of itself, after the operation, and then cut carefully through the first skin, then through the crop itself. Make the opening large enough to insert two fingers, then clear the crop of its contents—whatever the nature of them, and wash it out with warm water; sew up, with silk, the edges of the cut, the crop first, then the body skin, and the bird is safe. There is no danger whatever, the fowl will eat with avidity in five minutes, that is, if crop-bound was really what ailed it; be sure of this at the start. It is nonsense to talk of oils and pills removing a substance which the crop cannot get rid of in the natural way.

I have taken out of a turkey's crop a quart measure of matted, tough grass-roots, which would inevitably have killed the bird, if not removed by hand.

SORE FEET,

Sometimes called "bumble foot," is another unsightly disease. Leghorns are not often afflicted with it, as heavy fowls are more likely to bruise the ball of the foot, and upon such injury inflammation ensues, the foot puffs up between the toes, and, altogether, it is not a pleasant object to look at or endeavor to cure. The cause of bumble foot will bear investigation; hot, dry yards, in summer, or flying from high roosts to a hard floor, has something to do with it, perhaps, but farmers' hens are rarely troubled with sore feet.

If the ball of the foot is opened, a yellowish, tough core will be found, and the sore very much resembles a boil, in all its stages. A touch of nitric acid, dropped in the centre of the core, is said to be good. It is a local affection; hens hobbling about with it are apparently the healthiest ones other ways, and laying as well as the best in the flock.

In treating diseases, **FIRST**, remove the patient to separate, suitable quarters; **SECOND**, find out what ails it before you try to cure it; **THIRD**, decide whether or not it will pay to doctor it; **FOURTH**, either set about killing or curing, without delay.

CHAPTER V.

The Trade in Pure-Bred Poultry and Eggs.

The breeders of pure-blooded poultry are, at present, counted by thousands in America. It is a traffic of greater magnitude than is commonly supposed—this trade in fancy fowls and eggs. In carrying it on last year, hundreds of thousands of dollars changed hands; and the buyer trusts solely to the honor of the seller, in these transactions. It is not like selling merchandise, the quality of which is known to all, but it is as if a trader in New York sent to one in Chicago for one hundred yards of cloth, and the western merchant could send, at his option, either calico or silk. How many would choose the costly fabric?

John Smith's birds are all sold, but poor ones; an order comes for a pair at a fancy price, he hasn't the heart to send the money back, but he ships a disqualified pair of chicks to his confiding customer, and one more is added to the list of those ready to swear, at all times, that poultry breeders are swindlers to a man.

Tom Jones is a scamp of a different sort. He sends worthless eggs and stock, because he expects to live by cheating, and would not care to give satisfaction if he could; but his sort, thank Heaven! we seldom see.

It is for the best interest of the breeder himself that he should please his customers, and buyers should always remember this self-evident fact.

But there is unfair dealing. There are shysters. So much smoke bodes some fire. If, for instance, a gentleman writes for a bird, and wishes no white in wings, and the breeder expressly agrees that

the bird he furnishes shall have not a touch of the objectionable color, and he then ships a white-winged chick, he swindles—outrageously and boldly. If he agrees to send a yellow-legged chick, and sends instead a willow-legged one, he cheats again. In short, whatever he AGREES to do he should do, and there should be no ambiguous phrases in his agreement, which he calmly reads one way and his indignant customer another. If, through carelessness, or ignorance, mistakes are made, he should be willing to rectify them. But it is not upon such that anathemas deserve to be heaped, it is upon him who “knows the right, but still the wrong pursues;” who gives a knowing wink, and says money is what we are all after, and he intends to get his share of it.

All honorable breeders return the purchase money, if chicks are sent back by return express, of course deducting express charges. Describing the birds, and warranting them to come up to the description, is a good plan to ensure satisfaction. “But,” says one, “I can’t sell chicks on the ‘description plan.’ If I don’t say they are A. 1, prime, extra, faultless, if I mention the least defect, the sale is lost. The man who puffs his birds most, and describes them least, has the largest sales. They’ll blow me anyway, whether I send good or bad; they’ve seen so many chromos, and lovely pictures of Standard birds, that they run away with the idea that such beautiful specimens are as thick as mosquitoes in a Jersey swamp, and if I don’t send one like the picture, I’m a swindler!”

True! True as preaching. Nine buyers out of ten do think that they, at least, will be favored with the “perfect” bird, which has never yet been seen.

And what queer ideas some of them have! Here is a letter, with names and dates changed:

TOPEKA, KANSAS, NOV. 9, 1878.

JOHN SMITH, ESQ., Burlington, Vt.:

Dear Sir,—Upon receipt of this, you will please ship to me a Brown Leghorn Cockerel, of the following description: [Here a very careful description, copied verbatim from the Standard.] You will see that I know what a good Brown Leghorn Cockerel is, and the one you send me must be as above in every identical particular. If I find him just right, I will weigh him, and send you, in thirty days, (I am rather “short,” just now, but you can depend on it,) *one dollar per pound!* Chickens here are selling at ten cents per pound, and I can buy such birds as I have described, for that, *plenty of them.* But I want to “brag” that I have an Eastern bird. Of course no live chicken is *worth* one dollar a *pound*, but I’ll give you that for one just as described. Please ship at once.

Respectfully, etc.,

THOMAS JONES.

Reply, (after breathing freely):

BURLINGTON, VT., Nov. 14, 1878.

MR. THOMAS JONES, Topeka, Kansas:

My Dear Sir,—The immortal Shakespeare tells us that there is a tide in the affairs of all men, which, taken at the flood, leads on to fortune. It is plain to me that your affairs are at high tide. Kansas is a great State; we of the East only dream of perfect birds—you sell plenty of them at ten cents per pound (live or dressed weight?). You will please ship to me ten samples (express prepaid), and, if I find them PERFECT, I will remit at the rate of *ten dollars per pound*. The margin, you will observe, between your market rates and ours will afford you a profit that would rejoice the heart of a sewing machine agent. Please ship at once,

And believe me,

Yours wonderingly,

JOHN SMITH.

Buyers should neither expect perfection, nor be satisfied with disqualifications. They should buy to improve, not expecting to excel the world in a six months. When an exhibition bird is purchased, it should be distinctly understood just what the fowl will be when received; have all "straight" before the bird is shipped—not after; and if neither party is unreasonable, satisfaction will be the result—and pleased customers are the breeders' best advertisement.

When eggs are shipped for hatching, they should be fresh-laid, true to name, and from choice stock. Eggs from trustworthy, clean-bred stock are worth the price asked, always, if they hatch, while the best of eggs from poor stock are dear at any price. That at least one-half of a given clutch of eggs shall contain chicks at the proper time, or the order duplicated, should be guaranteed by every breeder. This is simple justice. It is no concern of the breeder if the chicks be LIVE OR DEAD; if they are in the eggs, in some form or other, his responsibility ends, for it shows to all that the eggs were fertile. Don't, however, jump rashly to the conclusion that the seller has sold you as well as the eggs, if the latter are "clear" at the end of incubation. Remember it is for his interest that they should hatch well. You are a standing advertisement FOR OR AGAINST him. Put yourself in his place, and think which you would prefer, good will or ill.

Eggs sometimes give queer results. I have sent clutches to Ohio and Massachusetts on the same day, the eggs selected from the same pens, and packed precisely the same. The lot that went to Ohio (fourteen) hatched thirteen bright chicks, the near-by clutch only two. I could not understand why one should not do as well as the other, but it is a singular fact in my experience that I have rarely had a poor hatch from eggs sent a long distance.

Eggs that have been badly chilled, before being placed under the hen, will not hatch, as the germ is killed. Transportation does not injure the vitality of eggs. If they are well packed, fresh laid, and fertile, and a good hen has them in charge during incubation, they will hatch as great a per centage of chicks after a jolting journey of a thousand miles, as they will at home.

CHAPTER VI.

BREEDERS AND THEIR STOCK.

The advertisers in this book, I take pride and pleasure in saying, fairly represent the BEST Brown Leghorn breeders in the world. If the stock they hold to-day were destroyed, it would be the work of years to reproduce its like. They stand in the front rank, every man of them, and, it is my belief, are, taken as a whole, as HONORABLE, and TRUSTWORTHY, and SKILLFUL, in their way, as a like number of gentlemen selected from any of the commercial branches of trade. They are an honor to the fraternity. There! gentlemen, don't say I didn't compliment you! and don't blush—for you deserve it.

W. E. BONNEY.

Something of an idea may be gained of the scale of Mr. Bonney's breeding operations, when I state that his fowl house is TWO HUNDRED AND FIFTY feet long, contains twenty-five apartments, and all devoted exclusively to his favorites—Brown Leghorns. "Bonney's strain" is known all over the American continent, as he is one of our earliest breeders of Brown Leghorns, beginning with them in 1860—since which time he has seen new breeders rise and fall, by hundreds; and he has supplied not a few of them with their first stock of Brown Leghorns. Of the foundation stock of Mr. Bonney's Brown Leghorns he has told us in his letter on page 11. His name is known far and wide, and his scores of testimonials from purchasers show how they regard his stock. See his advertisement for post office address, and send for a circular, which is illustrated with handsome cuts of "Ajax" and "Lady Florence."

R. C. BRIDGHAM.

About six years ago, Mr. Bridgham began breeding Brown Leghorns, after purchasing two sittings of eggs from Mr. Lufkin, of Gloucester, Mass. From these eggs he got but two chicks—both cockerels, one of which is still alive. This bird he crossed with some of Beard and Wheeler stocks. A few years later he purchased stock from far and near, in search of the best, and, in this manner found one strain, which, in his words, "equals all the rest put together, for breeding chicks without white in feathers; I speak of the cock I call 'Prince of Wales.'"

This famous cock has taken EIGHT FIRST PREMIUMS, and Mr. Bridgham's Brown Leghorns have taken the following premiums: First and third on fowls; first, second and third on chicks, at Portland, 1878. First and special at Keene, N. H., at Greenfield, Mass., and Meriden, Ct.; special of \$50, for best collection; \$15, for best pair; \$10, for second best pair, at Portland, 1878. Value of premiums, \$150. He started the new year by taking, first, on fowls and chicks, special \$5, gold, special \$3, special \$2.50, at New Haven, 1879, and then did the same thing at Hartford, Ct., at Pittsfield, Mass., and at Boston, Mass., 1879.

From the above it will be seen that if there are any prime Brown Leghorns in America, Mr. Bridgham has most assuredly got his share of them. See his advertisement for address and prices of eggs.

C. A. KEEFER.

Mr. Keefer is another breeder who has a habit, and a very good one it is, of pocketing premiums right and left. The handsome frontispiece to this book represents Mr. Keefer's beautiful Brown Leghorns. His stock can hardly be excelled in the West, and if he should chance to enter at our Eastern shows, our breeders would find him a foeman worthy of their steel. I have not space to enumerate the premiums, forty or fifty in number, that he has taken, in the last THREE years, with his Brown Leghorns, at the largest shows in the West. At the Northern Indiana show, held at Fort Wayne, Ind., in December, 1878, he took first, second, and several specials. His success in this line has been, to say the least, remarkable. No Brown Leghorn breeder in the country can show a better record of his stock at shows, nor a longer list of pleased customers, than can C. A. Keefer, whose advertisement gives his address.

W. STAHLSCHMIDT.

Without doubt, the "Canadian Headquarters" for Leghorns are located in Mr. Stahlshmidt's yards. He has been breeding Brown Leghorns for three years, and in that time has shown what may be accomplished with good care and skill. His stock is formed of Todd and Bonney stocks, bred to the first premium cockerel at London, Ont., and the result is that he has won twenty premiums on Brown Leghorns since 1877, against the strongest competition. In shipping eggs and fowls he has also had remarkable success in pleasing his customers. All this is due to SKILL, CARE and JUDGMENT, Mr. Stahlshmidt's birds all having the best of quarters in winter, and large, grassy, shady runs in summer. See his advertisement for address, and rely on getting just what you bargain for, if you buy of him.

A. B. CAMPBELL.

Mr. Campbell is a gentleman who breeds Brown Leghorns, and thoroughly understands what breeding is, and what a Brown Leghorn was, is, and ought to be. As he has bred them, in this manner, for years, exclusively, and has some of the original stock in his yards, it may well be imagined that his Brown Leghorns are SECOND TO NONE. Furthermore, he is of the sort who send a customer always JUST what is represented. May his tribe increase! say all who have had any dealings with him. Look at his advertisement, which reads like business—and it means just what it says.

B. R. BLACK.

Mr. Banks, of Mt. Kisco, N. Y., bred one of the best strains of Brown Leghorns in the United States, a few years ago. Neither time, nor expense, nor skill, nor care was withheld in making "Bank's strain" known from one end of the country to the other. It was fortunate that this fine stock of birds fell into the hands of such a breeder as Mr. B. R. Black. He is a gentleman, in every sense of the word. When he tells a customer that he will ship a good bird, a good bird is shipped, every time; when he says the eggs he offers for hatching are from the BEST of stock, they are from JUST that kind. In short, Mr. Black is a breeder who can be trusted to fill every order given him, according to the golden rule; and I wish heartily there were more of his stamp. See advertisement for address.

A. C. NELLIS.

Mr. Nellis is a gentleman who breeds on a large scale. His famous "Mohawk Valley Poultry Yards" consist of eight yards and one hundred breeders; and he writes me that he is making preparations which will result in his having the largest and best-appointed Brown Leghorn yards in the world—as he aims to make his place "Headquarters" in reality. He began breeding Brown Leghorns some eight years ago, and since then has steadily advanced, until "Nellis' strain" is known and recognized by all. He believes, as all good breeders do, that CARE AND MANAGEMENT have a great deal to do in making good birds, as well as blood. His advertisement tells the rest.

W. ATLEE BURPEE & CO.

Mr. Burpee, of this firm, is one of the oldest, and best known, breeders of Brown Leghorns in this country. Years ago his stock took first premiums wherever exhibited, and he is not the kind of a breeder to let it go backward, or even stand still, in excellence. The advertisement of Messrs. Burpee & Co. gives a full statement of the business they conduct, and if that is not enough, send for their large, illustrated catalogue—which is one of the best things of the kind ever issued.

G. D. MILLINGTON.

Mr. Millington purchased his first Brown Leghorn stock of I. K. Felch, and has bred them with brilliant success. At the very outset he entered the field as an exhibitor, and his birds ably seconded him in his enterprise. At the Vermont State Fair, at the Vermont Poultry Show, in 1878, and at the large show at Troy, N. Y., in January, 1879, his Brown Leghorns swept the premiums, and established his stock as *creme de la creme*. See his advertisement, and notice that SATISFACTION IS GUARANTEED.

HENRY OSBORNE.

Mr. Osborne's stock was formed by crossing a "Banks" cock with "Halsted" pullets, then crossing their progeny with a "Gray"- "Sherman" cock; then a few birds that took first premium at one of our largest shows, came into his hands, and he placed them with his own birds, then crossed back with "Halsted" pullets. His birds

have all the good qualities of the "Halsted strain," but are darker in plumage. From the foregoing it will be seen that Mr. Osborne's stock takes rank with the highest, and is skillfully bred; and the best of it is that he is a thoroughly honorable gentleman, and any one purchasing eggs or stock of him is sure to get the full worth of every cent paid—and a little more, usually. Look over his advertisement for address and prices.

SALISBURY COMPANY.

The Secretary of this well known firm is Mr. John Salisbury, Jr., a gentleman of large experience in breeding. By extensive advertising and "square" dealing the Salisbury Co. have a long list of friends, who have purchased stock and eggs of them. While breeding nearly all varieties, they pay especial attention to Brown Leghorns; the stock from which they first bred coming, I believe, from Boston, Mass. They have taken HUNDREDS of premiums, at leading shows, and issue a fine circular of their stock of all kinds. See their advertisement, which may be known, everywhere, by the unique cut which heads it.

H. H. ROBERTSON.

Mr. Robertson is an enthusiastic admirer of his beautiful pets—Brown Leghorns. He bought his first trio in 1875, and, selecting the fittest, bred till 1877, when he purchased a fine cockerel of A. C. Nellis, and crossed it with his original stock; the result being that he has over one hundred fine Brown Leghorns, from which he will select TEN only of the BEST, and breed the coming season. May success attend his efforts. See his advertisement for address.

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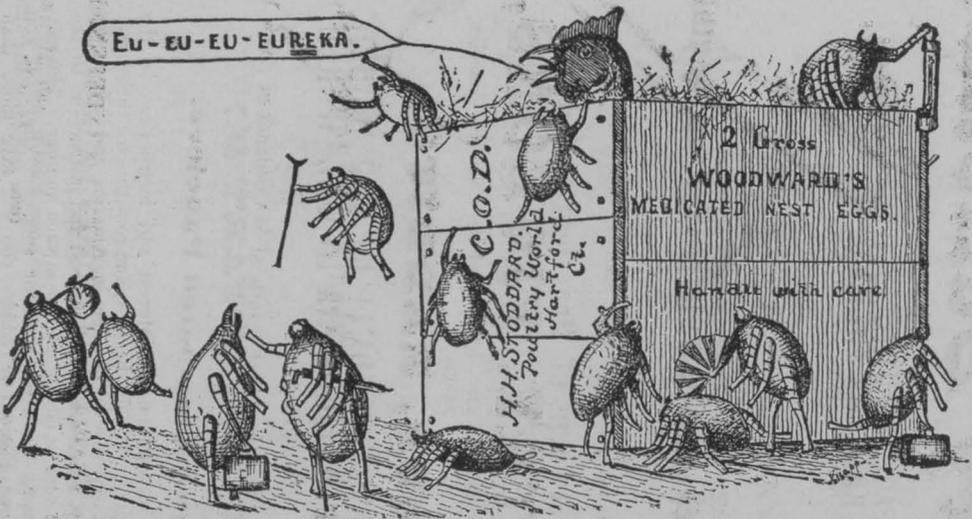
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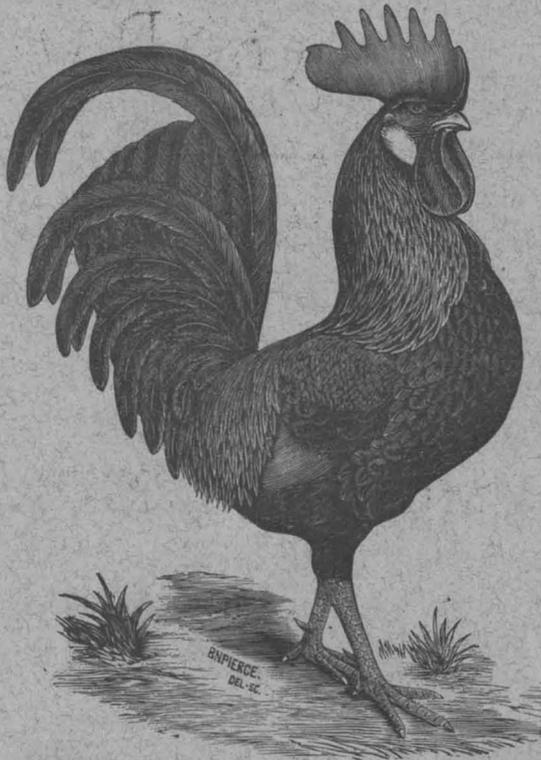
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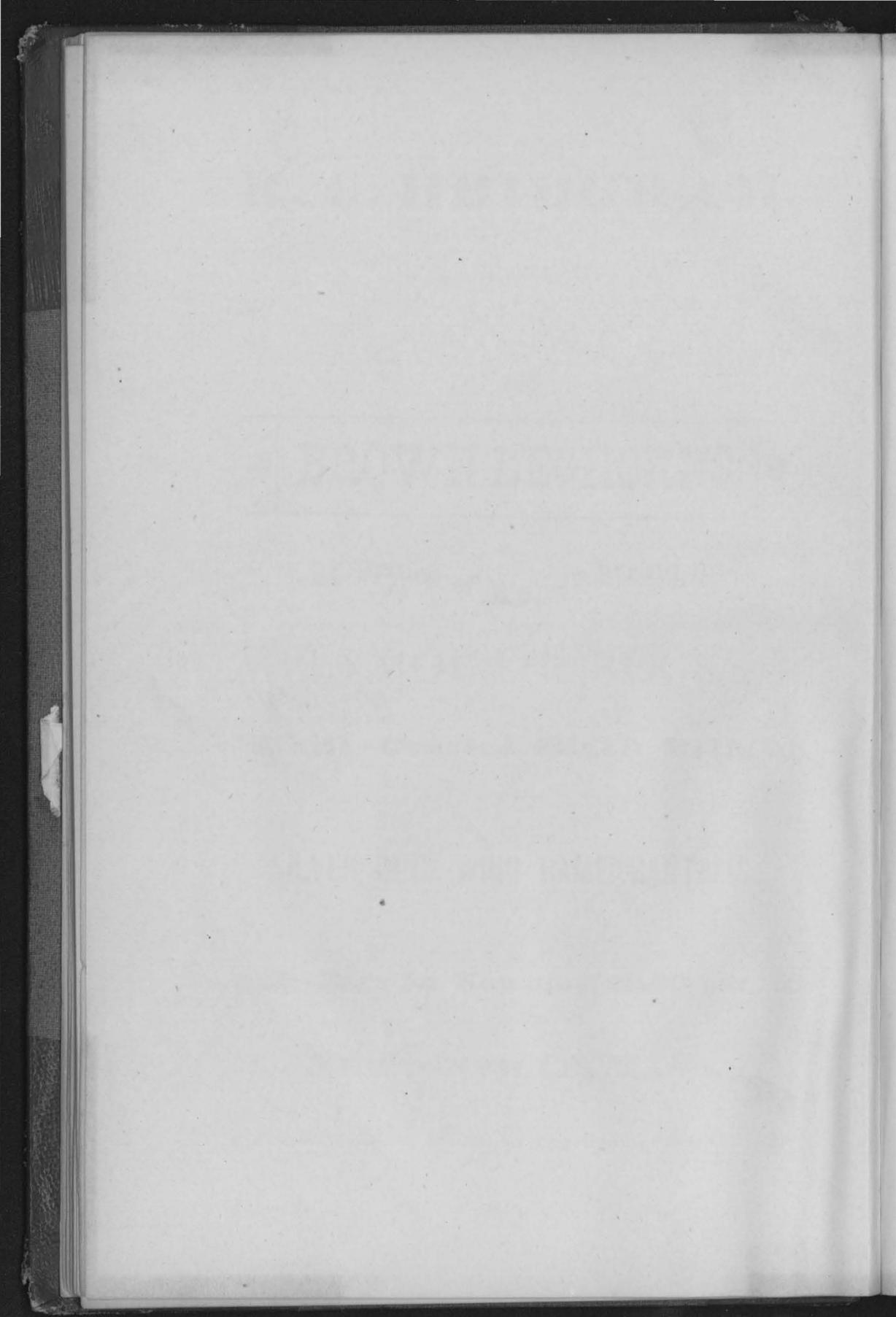
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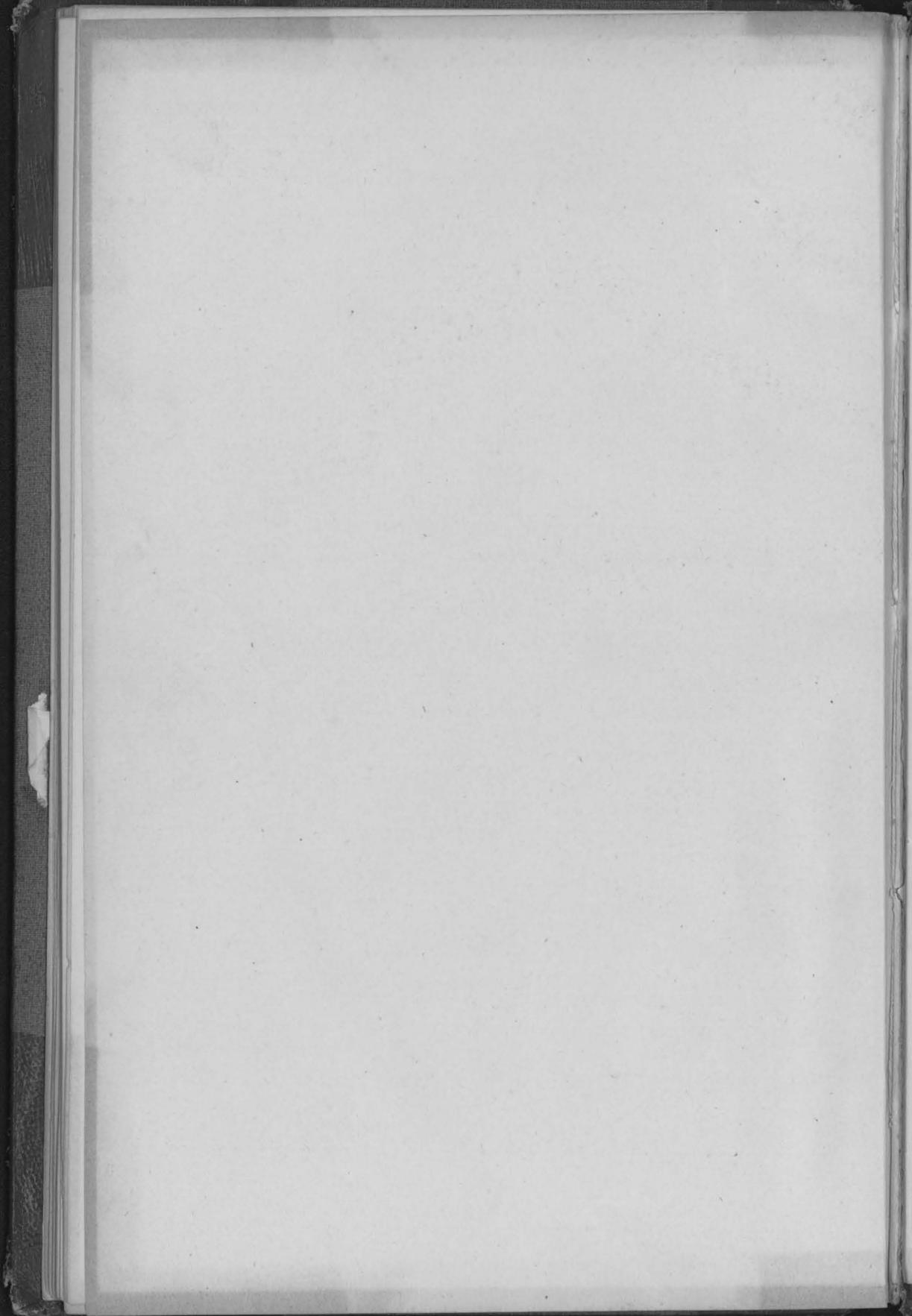
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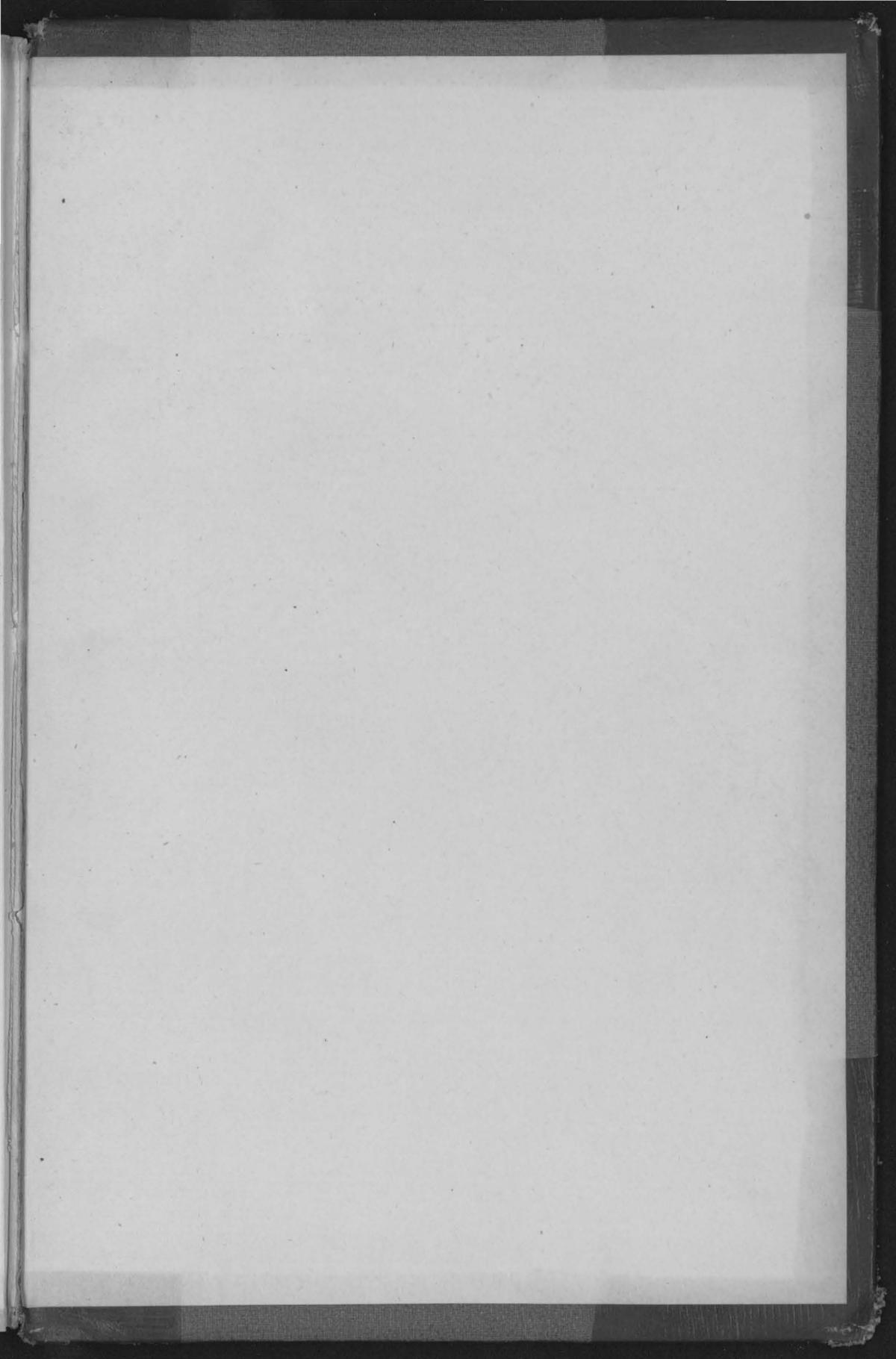
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