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TALKS AND WALKS
ABOUT THE
POULTRY YARDS.



By GEO. P. BURNHAM.

AUTHOR OF "DISEASES OF POULTRY," "SECRETS IN FOWL BREEDING," THE
"GAME FOWL," "RAISING FOWLS AND EGGS FOR MARKET," ETC., ETC.

FULLY ILLUSTRATED.

MELROSE, MASS.

1879.

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“THE POULTRY WORLD,”

Is a *Monthly* Magazine, devoted to the interests of Fowl-raisers entirely. It is the largest and most successful monthly of its kind ever published in the world—and now enjoys a greater circulation than has ever yet been reached by any such publication. 12 *superb Chromos* are issued with this paper, annually. As an *advertising* medium for poultrymen, it has no equal, and no rival, in America. Price, \$1.25 per annum. 75 cents *additional*, pays for the 12 elegant *Chromos*. Every one concerned in fowl-raising should subscribe for and carefully study its instructive, well-filled, and readable pages, from month to month—and thus inform themselves (as they can in no other way) what is transpiring among the fraternity, and how they may keep and rear good poultry-stock to profit.

“THE AMERICAN POULTRY YARD,”

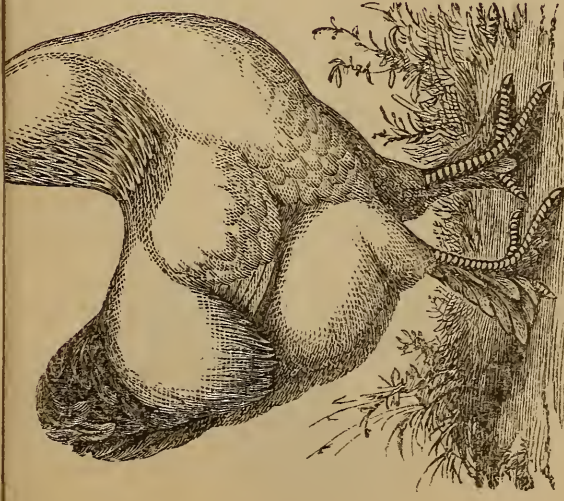
Is a well conducted *Weekly* paper, under the same management and proprietorship, the columns of which are occupied with full directions how to raise and care for domestic fowls, upon the most approved practical methods. Both these publications are edited by H. H. Stoddard, of Hartford, Conn., and each issue of both are *finely illustrated* with original drawings of fowl-houses, different varieties of poultry, implements, and accessories to the runs and yards of fowl-keepers, etc., while the contents of one are entirely different from those of the other; no part of the matter being used, except in the paper for which it is expressly prepared. Price of the *Weekly*, \$1.50 a year. For both *Monthly* and *Weekly*, to same address, \$2.00 only is charged. Address

H. H. STODDARD,

Editor “POULTRY WORLD” and “AMERICAN POULTRY YARD,”

Hartford, Conn.

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STANDARD LIGHT BRAHMA.

I send from my yards such fowls, or eggs for hatching, only as I breed myself, or set eggs from. I do not sell "cheap" stock—since it does not pay me either to raise or offer it to my patrons. I desire in every instance to give my customer his money's value, as nearly as I know how this should justly and honorably be done.

I select, mate, and handle my stock, personally. I have no "lowest price," and cannot fill orders for common or cheap fowls, of any kind.

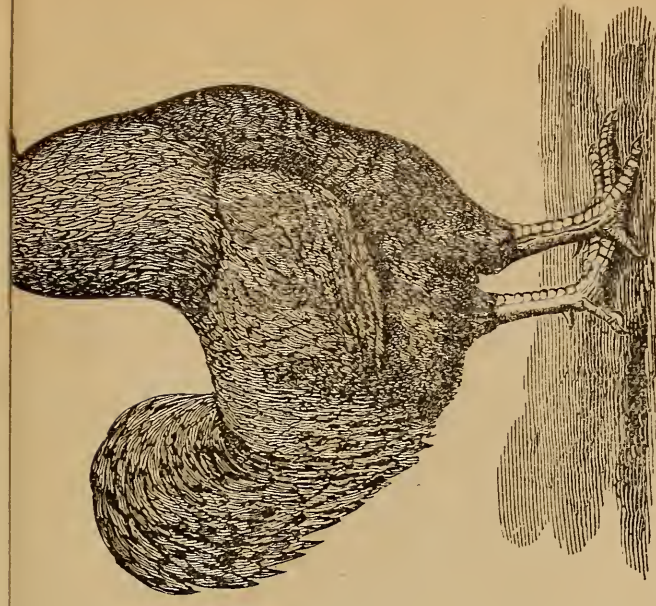
☞ Samples of my *breeding* birds, young and old, in 1878, at two State Shows where I won numerous valuable prizes, with strong competition, were scored by eight different judges, at 99½ points, 98½, 96½, 95½, 94½, 93, 92, 91½, 90½, and 90.

At Portland, Me., my best young Light Brahmas received the highest special premium awarded at that Show,

ONE HUNDRED DOLLARS IN GOLD

offered by the Editor of the "Hartford Poultry World." My duplicate "Queen's Cage" of Eight Light Brahmas, were there awarded the Maine State Society's grand Special premium, for excellence -- and I also took several other leading prizes at that Show in February, and at Hartford in January; 1st, 2d, 3d and 4th on "Pea Comb Partridge Cochins," others on "Dark Brahmas," and others on "Light Brahma" fowls and chicks; very clearly demonstrating what is the character of the stock I now have -- after breeding Asiatics for 30 years.

Eggs for Incubation, of either breed, are \$5 a setting, of thirteen. Orders booked in rotation, as received. I respectfully ask my customers to understand that I use my best efforts for their benefit—but I cannot *guarantee* the hatching of eggs.

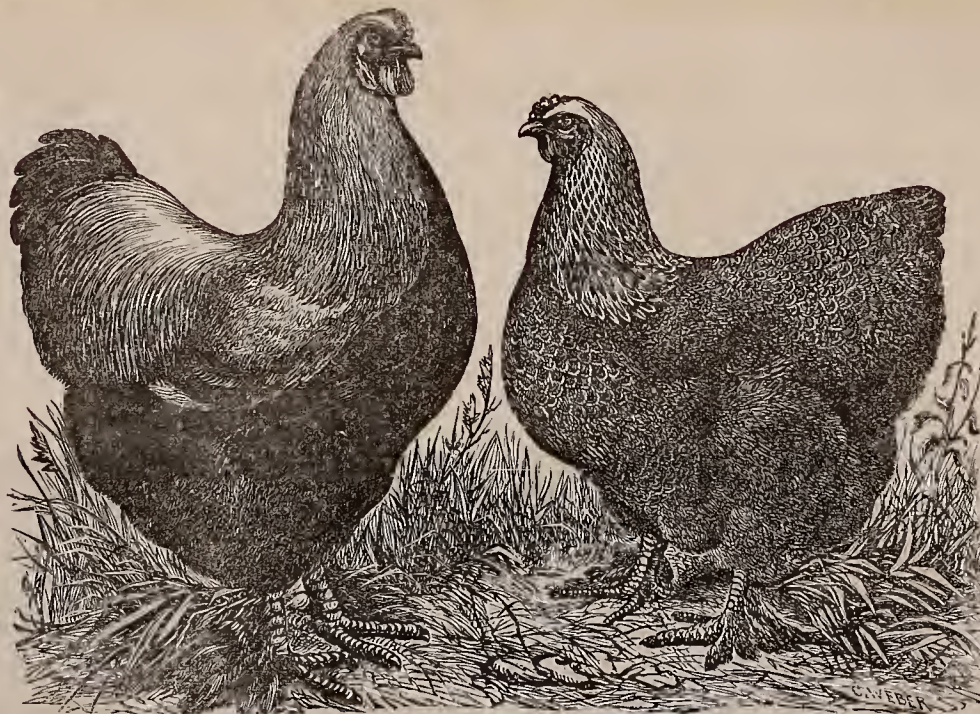


MODERN PLYMOUTH ROCK.

☞ I am able to furnish this season, for *breeding or for Exhibition* in 1879, trios of the finest and most perfectly bred birds, hatched from my PREMIUM BREEDING STOCK last year, of the above named varieties, that I have ever produced. These chickens, mated for breeding, or for the Shows, are now ready for delivery. Illustrated Circulars of Fowls, and new 50 cent Poultry Receipt on receipt of 3 cent stamp.

**GEO. P. P.
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are sent out from my yards except such as I use myself; carefully packed, but no warranty given as to Hatching.

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GEO. P. P.
Hc

PART SIX.

TALKS AND WALKS

ABOUT THE POULTRY YARDS.

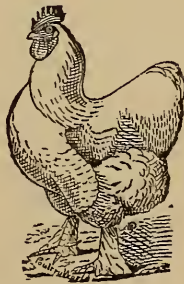
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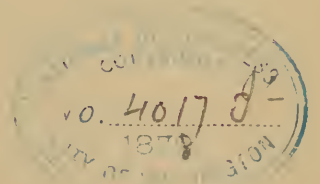
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PREFACE TO PART SIX.

The papers forming the contents of the following treatise, were written originally for the columns of "THE POULTRY WORLD," Hartford, Conn. The different articles were illustrated by the publisher of that popular monthly magazine—Mr. I. Porter, the special artist for that journal, having furnished the drawings for the most part, expressly for this series of communications.

The author considers this little volume quite equal to the previous *five* treatises he published in 1876 and '77, upon matters connected with the history and management of Domestic Poultry; and he has now added this as PART SIX to the popular fifty-cent series, all of which have been so kindly received by the American fraternity of Fowl-raisers and Fanciers, in every part of the country.

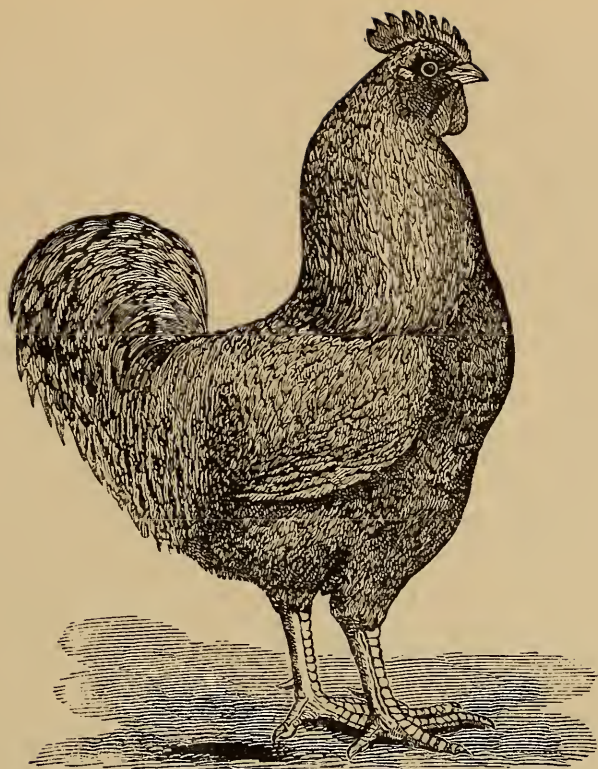
The style of this book is novel—the opinions of several experts in poultry culture, in conjunction with that of the author, forming the dialogue running through these pages—which renders the work entertaining; while a goodly amount of instruction and many valuable hints are thus afforded, in a way that is more generally pleasing than ordinary, in this sort of publication.

The good traits, general characteristics, and "standard" qualities of different varieties of modern improved breeds of fowls are herein portrayed. Numerous suggestions are embodied in this treatise from practical men, who understand how to raise prime birds. A share of the work is given to hints that are valuable to young beginners, and some fresh information may be gleaned also by older breeders, who will carefully peruse what is now written.

The author takes this opportunity to thank his numerous friends and correspondents who have so liberally patronized his five previous little works, of this series; and trusts that his present record of "TALKS AND WALKS *about the Poultry yards*" will meet the approbation of those who may continue to favor him with their orders.

GEO. P. BURNHAM.

Cottage Street, Melrose, 1878.



PLYMOUTH ROCK COCK.

TALKS AND WALKS

ABOUT THE POULTRY YARDS.

CHAPTER I.—PLYMOUTH ROCKS.

"It's a right crispy mornin', neighbor Burnham," exclaimed a well-known visitor, cheerily, as he entered my cosy office a few days since, rubbing his hands briskly.

And I turned from my desk to welcome my old friend, a retired sea-captain, who frequently calls upon and entertains me with his present home experience, and that of former days in foreign climes.

In his later years of retirement, Captain R. has enjoyed his quiet leisure upon a little farm not far away from my Melrose residence, where he has bred some excellent live stock, in a moderate way, among which he rather prides himself on his good poultry.

"A merry Christmas, Captain," I replied.

"And a happy New Year to you, neighbor Burnham," he rejoined, in his customary cordial manner. Then drawing from his ample pea-coat pocket a fresh copy of *THE POULTRY WORLD*, he sat down in the great easy chair before the cheerful fire, and added—

"I see, by our favorite poultry paper, that I took from the post-office last night, neighbor B., that you're goin' to give us a series of '*Talks and Walks about the Poultry Yards*,' in the next volume."

And the old gentleman read the editor's announcement of this undertaking, in the December issue, aloud.

"That's a good idea, neighbor B.," he continued. "That'll *take*, if you do your right best, for you know how to do it."

"Thank you, Captain," I answered.

"I will try to make these papers entertaining, and, so far as I am able to do so, I shall endeavor also to make them both instructive and readable."

"Your long experience in this sort o' thing, and your readiness with the pen on matters pertaining to poultry-raising, ought to qualify you for this pleasant task."

"But I want your help, Captain," I said. "You are an old stager in this business, and are well posted."

"Ah, well—I don't know 'bout that. I know some things—"

"Yes, and you raise good fowls, too."

"Well, I try to."

"And you have succeeded."

"What can I do for you, neighbor B? I can't *write* nothing, you know," he quietly replied.

"Tell me about the old times, when you went up and down the great seas, you know. And I can embody in this series of papers a good many valuable hints, gathered from *your* experience abroad and at home, that will materially assist me in making these articles pleasant reading for the patrons of THE POULTRY WORLD."

"Well—I will, to be sure."

Then pausing a moment, he asked, "what are you going to begin on? I've just come from friend Bush's place. He's got a right good show o' young fowl stock, this winter, and the best on 'em are the new breed we read so much about, o' late—the *Plymouth Rocks*. Suppose we have a little 'talk' about this variety?"

"The very thing I had determined on, Captain."

"It's a good kind o' bird, is this *Plymouth Rock*," continued the Captain. "I've been a watching and experimenting with 'em for three or four years. And I've come to the conclusion that Mr. Felch, when he spoke so well of 'em in his address before the Agricultural Society in Natick, a year or more ago, told the truth about 'em. They are the 'comin' fowl,' and they are the 'farmers' fowl,' in my opinion, for real, practical utility."

"I agree with you, Captain. And I agree with our friend Felch on this subject, as you do; though I don't agree with him upon some other points he advocates."

"For instance, about sp'ilin' our hens, by lettin' 'em get crossed with a strange cock?" remarked the Captain, with a smile.

"Exactly—yes. On that subject we

are diametrically, but good naturedly, opposed in opinion."

"Well, I read your '*Facts against Speculations*' in THE POULTRY WORLD, and I must say I think you have the best o' the argument, every time. And I have read Mr. Felch's '*Manual*' too, as well as your '*Secrets in Fowl-Breedin*.'"

"Let's not discuss that topic further, now, Captain," I suggested. "We were speaking of the *Plymouth Rock* fowls. Here—what do you think of this, for a drawing of a P. Rock cock?" I asked him, presenting a copy of the engraving of the fine bird that stands at the head of this chapter.

"That's a good pictur', neighbor Burnham. If the bars on the neck-hackle had been a leetle more distinct, it would have suited me better, for a portrait, though."

"Very likely. But I call that very good for a representative *Plymouth Rock* cock."

"So it is. And the outlines are excellent."

"When we can breed cock birds of this now popular variety uniformly as perfect as this representation is, we shall have attained pretty nearly *the* thing, Captain, for *Plymouth Rocks*."

"You are right. But I notice that this breed presents a singular characteristic in the colors of the two sexes. While the pullets come, almost without an exception, so far as I have met with 'em, quite *dark* in plumage, so the cocks come almost as universally of the extreme *light* Dominique hue, in feather."

"Yes. And this is accounted for, when we remember that this is a composite American fowl; a cross, originally, of the light Dominique cock upon Black Java hens."

"Yes, I know. This is the Spaulding and Upham theory, regarding the Connecticut stock of *Plymouth Rocks*."

"And of the Drake strain, as well."

"True. But there is another branch of this family—the old Essex county (Mass.) strain—bred for some years by Pitman, Pierce and Ives, of Salem and Danvers, and Beverly."

"That proved never so perfect a variety (or cross) as the others."

"For why?"

"Because, comparatively, but little care in breeding it was exercised by the originators of that stock; and it ran out, in a few years—'throwing back,' from in-

breeding, to the *Dominique*, or the *Cochin*, of which it was largely made up."

"But, in addition to the difficulty in breeding the Plymouth Rocks uniformly to color, I notice that all the fanciers have to contend with the continually occurring dark legs, too," continued the Captain; "which hurts the sale of these birds, amazingly, when you come to market 'em, as dead poultry."

"This is an objection, I admit. But all Plymouth Rocks do not show the bronzed leg, by any means, Captain."

"No. But all the different strains show this blemish, more or less; though I have seen many fine flocks, this year and last, and have bred them myself, a majority of which were very clear, bright, yellow-legged."

"This is what we want, I know, for marketing."

"Aye. And this is about the first thing that's looked at, unless dead chickens offered for sale in market are otherwise specially presentable, you know."

"True, and the *Standard of Excellence* makes the clean yellow leg a qualification in the show pen, for Plymouth Rocks, distinctly."

"But we don't get it!"

"No. Not without exceptions."

"As to size," continued the Captain, "I don't know but I agree with Mr. Felch again, on that p'int, in the Plymouth Rocks. You see, neighbor Burnham, when you come to talk about 'table-fowl' to the gentleman who eats poultry for a love of it, he tells you what *I* want, is, a good meaty well-balanced chicken, for broiler or roaster, that has come up from the shell to slaughtering time, quickly; and one that is neither a gob o' fat from fast feeding or stuffin', nor a mere mess of sinews and strings, over bone as big as a hen-roost, from lack of care and good nourishment when it's growin'."

"Exactly. And inasmuch as this variety is, as you say, very rapidly coming into popularity among the farmers all over the country, who raise poultry not for "fancy" purposes, as a rule, but for sale in market—it is necessary, if we would keep up the good reputation of the breed, that we should establish the bright yellow shank upon this stock, permanently, and make it a specific characteristic, uniformly."

"Ah, there comes the rub, neighbor Burnham," returned the Captain, dubi-

ously. "You see, the Black *Java* fowl carries the dark leg, inevitably. The crossing of the gray *Dominique* upon this strong-blooded breed of hens was a lucky stroke, by the originators. At first, the legs came yellowish, and the feathering formed by this union proved very comely; while the size of the 'Plymouth Rock' thus produced turned out to be the 'happy medium' between the moderate sized Dominiques and the stalwart Asiatics."

"The *Java*—you mean, Captain?"

"Yes, the 'Java'—in this instance. But the *Java* is a genuine Asiatic. Not a Chinese bird, but a Southern Asiatic. I have seen them in myriads upon their native heath, neighbor Burnham," continued the Captain, warming up.

"I know it, Captain. You have often spoken to me about this breed, of which we have very few good original samples in this country. Now, tell us what the 'Black *Java*' is, please. My own impressions are that we generally know very little about this fowl; which through its combination with the 'Dominique' in the formation of modern 'Plymouth Rocks,' plays so important a part in what is claimed by many breeders to be not only 'the coming fowl,' but positively one of the best American fowls, for general everyday uses, that has ever been introduced among us."

"Well," observed Captain R., "I mind me of the time—now thirty years ago—when I sailed the barque 'Roamer,' for an old Boston firm, from that port to and from the East Indies, and when upon every return voyage from Malacca, Java and Singapore, I brought home these very fowls, for years successively."

"And what was their general color, size and character, Captain, in those days?"

"Just what they are now."

"Black birds?"

"Almost uniformly black, or very dark feathered. They acquired the title 'Black Javas' from the fact that like the 'Black Spanish,' or 'Leghorn,' from the Mediterranean, these were almost universally of a sooty hue in plumage."

"And their size—?"

"Was quite large. They are not so tall and lank a framed fowl as the 'Malay,' or what we then knew quite as commonly as the 'Singapore,' but are shaped more like our 'Gray Dorkings'; standing higher on the leg, but having a heavy compact

body, with plumage close and rather coarse, as compared with that of the Chinese varieties."

"And how were they esteemed for table poultry?"

"Well, I can't say that I ever found them greatly admired in this respect, when bred among themselves, in this country. But for crossing our native barn-yard fowls, they were found quite valuable. But this was before the 'hen fever' raged much in America, and long before we had any papers printed that discussed the merits of domestic poultry, to any extent."

"But they were the same variety we *now* know in this country as the 'Java' fowl?"

"Precisely. The earliest importations came from the Island of *Java*. But subsequently from Malacca, from Singapore, from Mauritius, Sumatra, Bankok, Borneo, or other islands in the East Indian Archipelago, these very birds are now and always have been readily obtained, for half a rupee each, by officers of our vessels that visit and trade at those ports. Scores of them are taken on board ship for the cabin mess, on the return voyage. And what are not eaten by the officers, *en voyage* home, are delivered to the ship-owners or consignees, on arrival here, and so they get indifferently distributed among our farmers or poultry men."

"And these were dark-legged, as well as black-plumed?"

"Always. I have seen thousands, and brought scores of them into port. But I never saw a yellow-legged native Black Java, in my life."

"Then it is not strange in the Plymouth Rock cross (with even so strong a blooded variety as is the yellow-limbed Dominique), that we cannot always avoid the discoloration of the legs?"

"Not at all. And this is what I said, at first."

"But the bronze-hued leg *can* be bred off, altogether?"

"In time, perhaps—yes. In breeding them, if we select the cleanest yellow-legged Plymouth Rocks of both sexes that we have, or can obtain, and follow up this course a few years, no doubt this desirable object may be reached eventually. But we haven't attained this, yet, neighbor B."

"I know it."

"And as to breeding for plumage," continued the Captain, "I will tell you

what I have met with, in *my* experiments. If you occasionally get a darkish cock-bird among your chicks, and breed him the next year to your average dark pullets, or hens, their progeny will come largely splashed with *black* feathers, and the legs will be darker than ever. The 'Dominique' hue will almost disappear in the barred feathers, and the old Black Java will 'stick out' all over the most of the chicks. Breed *these* together the next year, and you will get the *black* Java again, almost without exception, to all outward appearance."

"And these are just what we do *not* want, for the Plymouth Rocks!"

"I know it. So I say again you must select for breeding in succession *only* the clear yellow-legged chicks of both sexes."

"But does not this course tend to make the progeny for the most part lighter colored in plumage, both of cocks and hens, from year to year?"

"Yes. And therefore we must discriminate. The blood of the Dominique fowl is very strong. We see that in the continuation, season after season, of the nicely barred feathering of these Plymouth Rocks, whatever may be the exact cast of their individual plumage, or the precise color of their shanks. So, while we aim to reproduce the golden colored limb, we must not forget that the average *medium* shade of plumage must, at the same time, be retained, or kept steady—or one of the chief characteristics of the P. Rocks (its popular *color*) is lost, or seriously impaired."

"How is the size affected, in this sort of mating?"

"Well, it is *not* increased. Mr. Felch argues very plausibly, I think, on this point again, when he says, in substance, that most cultivators of P. Rocks aim to make this fowl too big. We don't want a mammoth bird, in this variety. We want—not a Brahma, a Cochin, or a Java—but a good, fairly-proportioned, plump, meaty, solid, medium-sized bird; larger than the old Dominique, but less than the old Java. These are more economical to feed, to raise, to fatten, or to breed—and these are what farmers need, precisely."

"Another irregularity crops out not infrequently," continued Captain R., "which is a more serious blemish than the discoloration of the leg. This is the occasional imperfect feathering upon the shank."

"Yes. But this is peculiar only to the Massachusetts strains, I think. And it is accounted for. *That* variety was made up of Black *Cochins* with the Dominique—so it is claimed—instead of crossing the latter with the Black Java."

"I know it. And with many of our Plymouth Rocks, this is the source whence we get the Cochin size and shape, as well as the sparsely feathered leg, so often."

"You are right, Captain."

"Entirely, I think. You remember the *Standard* of the American Poultry Association requires the plumage of the Plymouth Rocks to be 'bluish-gray, each feather delicately, but distinctly penciled across with dark bars.'

"Yes."

"This same authority demands that the plumage of the Dominiques shall be a light slaty-blue, each feather distinctly penciled across with dark bars, etc."

"And in other respects—?"

"Well, a feathered leg, or legs of any other color than yellow; splashes of white or black in body-feathering, wry or squirrel tails, reddish or brassy feathers, etc., are each and all disqualifications in the show-pen. And these restrictions apply equally to both the Dominique and the Plymouth Rock varieties."

At this point, our little party received an accession, in the person of one of our village doctors—an educated man, who takes an unusual interest in the cultivation of the old-style Dominique fowl.

"Ah, Doctor! come in," I exclaimed.

"You are just in the nick of time. We were talking of the good qualities of the Dominiques and the Plymouth Rock birds. You can assist us, and you will enjoy the discussion, I know."

"Good morning, gentlemen," responded the Doctor, courteously. "Yes, I like to talk about my valued favorites, whenever I have leisure. To this fine variety, which I aim to breed in their purity, and up to *Standard* in quality, you are indebted, in the first instance, for your

beautiful 'Plymouth Rock' plumage, you know."

"Well, Doctor—the Captain and myself have had a very pleasant chat this morning, upon this subject. I am preparing a series of papers for the next volume of *THE POULTRY WORLD*—"

"Under the capital title of '*Talks and Walks about the Poultry-Yards.*' Yes—I saw the announcement in the December number; and it struck me as a very good thing," remarked the Doctor.

"Well—I shall make it agreeable reading for you."

"No doubt of it."

"But, I shall ask *you* to assist me in this little enterprise, Doctor."

"With great pleasure. I will give you some hints within my experience."

"Thanks. What with Captain R.'s extensive knowledge about good poultry, your practical ideas, the experience of the Major, whose shining face I see approaching the door at this moment, my own random thoughts, and the advice and counsel of our neighbors Edmonds, Weymouth, Kimball, Mansfield, etc., I shall contrive to make this series of '*Talks and Walks*' not only interesting, but of some value, I hope, to the fowl-breeding fraternity, during the issue of *THE POULTRY WORLD* for the coming year."

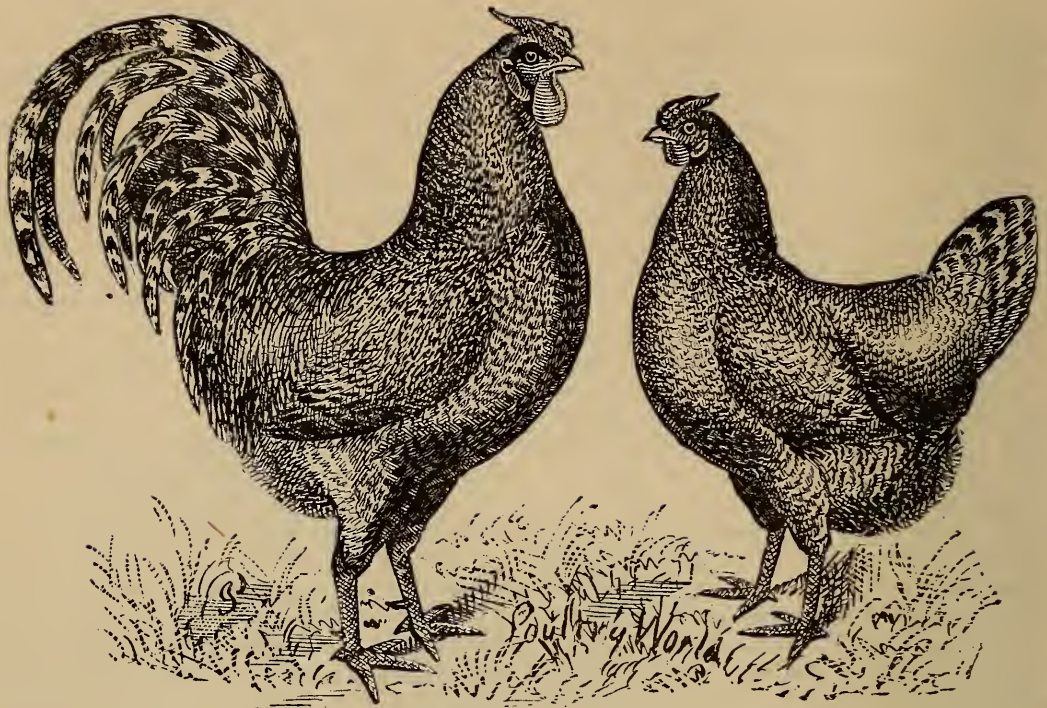
"You have made the *Plymouth Rocks* the subject of your first paper, then?" asked the Doctor.

"Yes. The Captain and I thought this excellent variety a good one to begin with."

"Well. In the next number, let us talk about the *American Dominiques.*"

"So we will, Doctor. I have a nice illustration of this breed, got up by Porter, recently. And as the limits for each of these papers are now already reached, in this opening chapter, we will halt here; and at our leisure we will prepare the second paper of the series, for February—to be devoted to a consideration of the merits of the American *Dominique* fowl, the Leghorns, etc."





AMERICAN DOMINIQUES.

CHAPTER II.

AMERICAN DOMINIQUES AND WHITE LEGHORNS.

"I remember well," observed the Doctor, "the character and origin accorded to the American Dominique fowl, some thirty years ago, by what was at that early period considered very good authority—to wit: Dr. John C. Bennett, then residing in and enjoying a lucrative medical practice at Plymouth, Mass., where he had, also, an extensive hennery, on which he prided himself."

"And was not this Dr. Bennett the originator of the 'Plymouth Rock' fowl?" asked the Major.

"By name, yes," replied the Doctor. "But the *first* 'Plymouth Rocks' were quite a different fowl from the modern Plymouth Rocks. Our neighbor Burnham, here, exhibited the first dozen birds of this variety ever shown in the world; and credit for this was duly accorded him in the official report of the pioneer poultry association in America (in 1849). They were exhibited that year at the Public Garden, in Boston."

"I recollect that original American fowl-show well," exclaimed the Captain. "And a very good one it was, too."

"Dr. Bennett wrote to the Massachusetts *Ploughman*, Boston, in 1849, as follows," said the Doctor, "regarding the *original* Plymouth Rocks:" "I have given this name to a very extra breed of fowls which I have produced by crossing a Cochin China cockerel upon a hen that was a cross between a fawn-colored Dorking, a Malay and a Wild India bird.' Thus the Plymouth Rock is, in reality, one-half Cochin China, one-fourth fawn-colored Dorking, one-eighth Malay and one-eighth Wild India."

"All which," observed Mr. Burnham, "in the light of to-day, appears to me to be a very absurd conglomeration!"

"It will be seen from this early account of the origin of the *old* Plymouth Rocks," continued the Doctor, "that they were quite unlike the later so-named variety. But they soon run out. And the modern fowl being composed of but two breeds—both of which are decidedly strong in blood, and distinct in color and characteristics, give us a much more promising cross; which, through prudent and skillful selection and mating of the progeny,

insure us far better satisfaction, continuously."

"But the history and utility of the *Dominique* and *Leghorn* fowls are what we were to discuss, to-day," observed the Major.

"Yes. And as you have had a goodly experience, Doctor, with the former breed," suggested Captain R., "suppose you tell us all about this old favorite."

"We have quoted what Dr. John C. Bennett wrote, over thirty years ago," rejoined the Doctor, "about the Plymouth Rocks. Now, in 1849-'50, this same authority spoke of the Dominiques, thus: and his opinion was quoted in the agricultural papers and the poultry books, very largely afterward. Dr. B. said, 'I know of *no* fowls which have stood the test of mixing, without deteriorating, better than have the Dominiques. They are said to have come from the Island of Dominica—but I doubt this. I should incline to the opinion that they took their name from being 'tenants at will' from some feudal sovereignty. Why it is that such perfect bloods should have escaped description by modern poultry writers, I am unable to divine. True, they are smallish. This is the worst thing that can be said of the Dominiques. 'They were introduced by the French, and are not a Dutch (or Holland) fowl, as some suppose.' Thus writes Dr. Bennett. But the first I ever heard of the Dominiques—under this *name*—was the account given by Mr. Devereux, formerly Treasurer of the original 'New England Poultry Society.' He spoke of them as having been brought into Massachusetts, now forty years ago, by Capt. Perley, whose birds were bred in Essex county, where this fine old standard variety have been cultivated largely for nearly half a century. The venerable Samuel Allen wrote of them, almost forty years ago: 'The Dominiques are a breed that are becoming more and more in favor. They are universally pronounced hardy, good layers, careful nurses, and as affording excellent eggs and flesh for the table. And, besides this, their beautiful uniform appearance, when in full plumage, is quite an acquisition to farm-yard, lawn, or run.' And Mr. Allen was right," concluded the Doctor, with emphasis. "They do not change in color, in fine appearance, in good average size, as layers, as mothers, or as breeders. And we have had the Dominiques around us, now, fully half a century."

"But they are not a large fowl?"

"No. Yet they come even in size, and always average about the same thing, put them where you may, or breed them as you will—anywhere in this country, at least. Mr. Pierce, of Danvers, Mr. Devereux, of Salem, Mr. Pitman, of Beverly, tell us that, taken all-in-all, they are one of the very best breeds of fowls we have, and none alter so little from in-and-in breeding as do these."

"The Dominiques deservedly enjoy a good reputation," remarked the Major. "They are of a handsome, hardy color; they lay bountifully; their meat is excellent for broiler, fry, or roast; their legs are free from feathers and always come yellow as gold, if purely bred; in market, they are never a drug, as dead poultry, they are so presentable when fattened and well dressed; and, on the whole, they may be said, truthfully, to rank among our *best* American domestic fowls, for ordinary utility, as well as beauty."

"Yes," added the Doctor. "They are *my* choice, above all others. And while, as the Major states correctly, this breed has maintained all the above characteristics, noticeably, from generation to generation, during so many years, they have been improved in quality in the past two decades, through the extra care that judicious breeders have given to this variety, in cultivation."

"As how?"

"Well, we produce Dominiques nowadays, Major, that average larger in proportions than formerly. We have worked out the full rose-comb upon them, with good success, where at first they came more than three-quarters with the single comb. The limbs of thoroughbred Dominiques are now almost universally light yellow, or pale orange colored. And the plumage in a well-cultivated flock is remarkably even, clearly 'barred,' and of clear steel blue in the darker markings."

"This is what the *Standard* calls for."

"Aye. And when you can give us these 'points' as accurately upon the Plymouth Rocks as we Dominique fanciers produce them upon our stock, year after year, you will have achieved a triumph; because you *do* get size in this cross (which the Java affords), and which, in the Dominique, *alone*, we cannot attain."

"Still, the rage is for the Plymouth Rocks, Doctor!"

"I know it. *I* am content with the Dominiques, nevertheless."

"Well. This is as it should be. If we all preferred *one* breed of poultry," asked the Captain, "what would become of the 'fancy,' pray?"

"You may have your Dominiques, Doctor," chimed in the Major. "As you breed them, they are a beautiful fowl, and, in the hands that cultivate fowls as you do, they cannot but prove highly satisfactory. The Captain may have his Plymouth Rocks, too. Neighbor Burnham can enjoy his fine Brahmas and Peacomb Partridge Cochins. But give me *Leghorns*—Brown, White or Black—and I will count you out more eggs in twelve months, from the same number of this popular variety, than you can begin to produce from either or any of those which you gentlemen breed so carefully, so successfully, and so admirably."

"So you can, Major," responded Captain R. "You can get a greater *number* of eggs from the 'Leghorns,' as we all know. But, pound for pound, the Brahmas and Cochins will beat you—and give you odds—if they are properly fed and looked after."

"I don't know that, Captain."

"No. Because you are wedded to the *Leghorns*, and do not know what others know of the good laying qualities of the larger varieties, Major."

"Well, I never knew any favorite breed that were not pronounced by the cultivator of it to be 'wonderful layers, very hardy, good mothers, easily reared, nice table food,' and all that. But I will tell you, now, what *I* know about the *Leghorns*—if you please."

"Yes. You are posted upon those varieties, I know. But, to begin with," insisted the Doctor, argumentatively, "they are as restless as weasels, they will fly like eagles, and can scratch like devils—if they are not closely penned up in a cage!"

"Well now, Doctor—hold on a bit. And let me say a few words about *my* favorites."

"Yes. Excuse me, Major. Go on," said the Doctor, blandly.

"The *Leghorn* fowl is really a most valuable acquisition to the stock of American poultry. Give them their liberty, in a good wide range, and their 'scratching' propensity (which, I admit, they are especially addicted to, for they are great foragers) will do no harm. They are a *small*

breed—granted. But, ah! what layers they have proved, to be sure. We have not had this nice little fowl a great many years in America, you know."

"No? I thought it was quite an old-style bird among us."

"And there is where you err, Doctor. Considerably less than twenty years ago, the first fowls of this variety were recognized in this country."

"Why, I have known the White *Leghorns* as far back, almost, as I can remember!" exclaimed both the Doctor and Captain R., at once.

"As '*Leghorns*'?" asked the Major, with a smile. "I think not, gentlemen. Come! Turn over the leaves in your memories, now. And if you *can*, just tell us in what work upon poultry, or in what secular or agricultural paper published in America or England, you can find, say fifteen years ago, any mention whatever made of '*Leghorn*' fowls?"

The Doctor hesitated.

"Now, then. Let me enlighten you a little."

"Well?"

"Twenty-five years ago, there were exhibited at an early show in Birmingham, England, a pen of '*White Spanish*' fowls, so-called, that were considered a curiosity. A writer of that period observed, in regard to this fowl, that, 'although it very closely resembled, save in color, what is known as the Black Spanish, the white cheek and ear-lobes were much smaller on this white fowl. And, as this peculiarity constitutes the great beauty of the Spanish family, but little approbation could be accorded to this variety, as belonging to the Spanish race.' This occurred in 1852."

"Well, and what of that?"

"Simply this. That pen of white birds were not '*Spanish*,' any more than were the Brown, or the Dominique varieties—possessing all the characteristics *they* did—which came to be known and recognized but a few years afterward in this country (and rightly) as the *Leghorns*—White, Brown, Dominique and Black."

"Why did the English breeders call them '*White Spanish*,' then?"

"Because they came into England, as they did into America, from the Mediterranean—whence come the so-called Spanish."

"Yes," said the Captain. "All through the country bordering that vast sea, and

upon all its islands, domestic fowls abound—like our barn-door varieties—of all colors. These are the native breeds of that region. Most of these birds reach us in vessels coming direct from Leghorn—a port on the west coast of Italy. Hence the name given them.”

“And those birds exhibited in England, in 1852, were White *Leghorns* then, Major?” asked the Doctor.

“Exactly. And not ‘White Spanish.’ This, evidently, was a misnomer—because there are no such fowls known in Spain. And *all* these white ear-lobed fowls, whether Brown, Dominique, Black or White, are now familiarly known to come only from Italy, or other Mediterranean ports in the vicinity of Leghorn.”

“And what then?”

“Only this, Doctor,” continued the Major. “I have told you whence the *Leghorns* are derived, and now let me add that we have had them here, in this country, not more than twelve or fifteen years, during which time we have proved them remarkable layers, non-sitters, easy keepers, and highly valuable as table poultry. While, at the same time, they reproduce their like in color, form and characteristics—when well bred—with wondrous uniformity, and continually.”

“But, are there no Black Spanish fowls, do you contend?”

“Of course, there is a variety called the ‘Black Spanish,’ Doctor. But, what I argue now, is, that there are no White, Brown, or Dominique Spanish. So, when we are talking of *these* colors, when we know that all these different plumaged birds are, in every other respect, identical, and that from the first we have imported them (both into England and America) direct from Leghorn (*Livorno*), Italy, and from nowhere else, we see the entire propriety of naming them ‘*Leghorns*.’”

“But we have *Black Leghorns*, too.”

“O, yes—fine ones. They come from the same ports. And they very closely resemble what we have long known as the Black Spanish, here.”

“Are they not *the same thing*, in your judgment?” queried the Doctor.

“This is a mooted question, Doctor. The ‘White-faced Black Spanish’ birds are different from the white ear-lobed Black *Leghorn* only in this particular feature, so far as I could ever discover.”

“And is not this extreme ‘white face’

the result of peculiar cultivation, probably?”

“That may be, and this is what I believe it to be. I remember well the time when the larger the white cheek and face, the better were the ‘Black Spanish’ esteemed by those who bred this variety; and who deemed this feature a *sine qua non* toward perfection in this fowl. But, so far as we know, to-day, this very ‘Black Spanish’ fowl came, originally (*not* from Spain, at all), but from the old Spanish ports in the Mediterranean. All our *Leghorns*, from black to white, came from the Mediterranean. And why should not *this* variety be a Black *Leghorn*, properly speaking, rather than a Black *Spanish*?”

“I think your theory quite plausible, Major.”

“As to this extreme white face or cheek, it is purely a point attainable in excess by cultivation. I have seen hundreds of these so-called Black Spanish birds, that had no larger a white ear-lobe and cheek than I have frequently met with upon the Black *Leghorn* cocks. These were considered inferior samples for White-faced Black *Spanish*. But they would pass in the exhibition room for very superior white ear-lobed Black *Leghorns*!”

“What is the advantage of this peculiarity in the Spanish?” enquired Captain R. “I have observed this characteristic in our show-rooms, and have often wondered what it was good for?”

“That question can best be answered by the fanciers of the White-faced Black Spanish breed,” responded the Major.

“Is it an ornament?”

“It is a peculiarity of the fowl.”

“What fowl?”

“The Black Spanish, Captain.”

“Well, I have seen thousands of these coal-black birds in Leghorn, Sicily, the Minorca Islands, and at other ports in the Mediterranean—but I never saw this sort of face upon them until I visited the New England fowl-show rooms, a few years back.”

“Why could not this enlarged white cheek be bred upon the white ear-lobed Black *Leghorns*, if it were desirable?” asked the Doctor.

“Undoubtedly it could be. But, *cui bono*? What is the good?”

“True.”

“I think the only result that would follow would be that we should have another

new variety to record, or recognize, namely: the 'White-faced Black Leghorn,'” concluded the Major.

“If we could get a little more size in this variety,” observed Captain R., “the Leghorn, of any color, would be vastly improved. For dead poultry, these are very indifferent. As layers, we must all give them the palm, so far as *numbers* of eggs are produced in a year, by this now popular breed.”

“How many eggs, annually, will these Leghorns give us?” asked Mr. Burnham, quietly.

“A good many more than will your Brahmas and Cochins,” retorted the Major, promptly.

“That does not answer my question, Major,” responded Mr. B. “How many, now, will they lay in a year?”

“A good many.”

“A hundred and fifty?”

“Yes—more.”

“A hundred and seventy?”

“More, sir.”

“Two hundred?”

“Yes, and over that.”

“Two hundred and twenty?”

“I have known them to do even better than that!”

“Two hundred and fifty, Major.”

“Well—hens of this variety have been known to lay two hundred and sixty eggs in a twelvemonth?”

“Known, by whom?”

“The owner and breeder of them.”

“Where?”

“In Massachusetts.”

“Are you sure of this, Major?”

“I have it from the man himself, who bred the fowls.”

“I don't believe this story.”

“Who said you did?”

“I don't think *you* believe it!”

“Well, they are mighty good layers, neighbor Burnham. And I tell you again, I *know* this fact.”

“So they are, Major. But just think of it! Two hundred and sixty eggs in a year, from a single hen!”

“It is not impossible, is it?”

“It is exceedingly improbable, Major.”

“In *your* estimation, very likely—because you swear by the heavy-bottomed Cochins and Brahmas, that don't lay half this number in a year. But—”

“Wait a bit, Major. When do these wonderful layers *moult*?”

“When their time comes for moulting.”

“Of course! Don't be hard on me now, Major. But say, when do they shed their feathers?”

“In due season.”

“How long are they about it?”

“I don't know. Two months, perhaps.”

“They don't lay during this process; that is, much, I suppose?”

“No. Very little. But all the rest of the year, they—”

“In mid-winter?”

“Well, perhaps during December and January, or in November and December, they don't lay a great deal, usually.”

“Precisely. That is what I wished to call your attention to, in my calculation.”

“What calculation?”

“What the probable number of eggs your favorites will lay in a twelvemonth. You allow two months for moulting and two months in the extreme cold weather, when they don't lay at all. Now—does this breed lay more than one egg in a day, when they are about it?”

“No! It is claimed only that the Cochins and Brahmas lay two eggs a day, and frequently three—so far as I have heard of this extraordinary performance,” replied the Major, sarcastically.

“Ah, well. Now—do the Leghorns lay *every* day, on the average, Major, when they lay?”

“No! Who said they did?”

“How frequently?”

“Well—five or six eggs a week.”

“That is doing splendidly, Major! Let us say they lay six eggs in a week, every week, in eight months of each year. And give them the other four months to moult in, and pass the two cold months of winter. What is the result?”

“I don't know.”

“And I *do*, Major!”

“Well, what is it?”

“Thirty-five weeks of steady laying—allowing six eggs per week, every week—would give you two hundred and ten eggs, from a single hen, in a year.”

“Well, that is good laying.”

“So it is! But you never saw ten Leghorns, in a flock of one hundred, that would average this.”

“Perhaps not. Still, they are prime layers—”

“I know they are, my good fellow; but let us talk sensibly, in this series of papers, Major. And let us try and state what we have to say (for I shall write it

all out for the public eye), just about as it is. The hens that lay two hundred and sixty eggs a year, or two hundred and twenty, or two hundred, and follow it up, are very scarce, I assure you; no matter what breed we assume can perform these wonders."

"I don't know but you are correct, Mr. Burnham," said the Major, thoughtfully. "No fowls can lay *all* the time, of course. They must have time, annually, for the shedding of their feathers (during which natural process they lay but indifferently, or not at all), and few fowls that lay through the early spring, summer and fall, are able to lay much in winter time, I know."

"No. You are right now, Major."

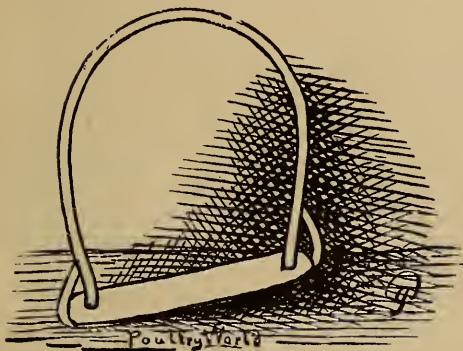
"Well. The Leghorns are the best layers on earth," insisted the Major, bravely; "and don't you forget it!"

"Of *numbers* of small eggs, they are, Major," responded Mr. Burnham.

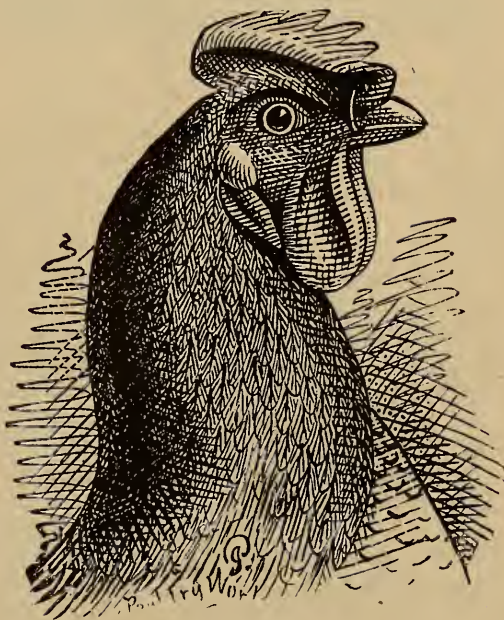
"Now, what next?" inquired the Captain, at this juncture. "We have discussed the P. Rocks, the Dominiques, the Leghorns and the Black Spanish."

"At a future convenient day, gentlemen," said Mr. B., "call and see me again. Our next meeting shall be devoted to considering the uses, the beauties, and the character of the Crested Fowls—the Polands, the Houdans, etc.

And these latter varieties, finely illustrated, will form the subject of our paper in *THE POULTRY WORLD* for *March*.



LOOMIS'S BIT.



THE BIT APPLIED.

THERE are no sorts of domestic fowls so prone to *feather-eating* as are those described in the foregoing chapter. The "Loomis Poultry Bit" (to prevent and cure this offensive habit effectually) is a capital little invention. And as this article may

be had for a few cents each, we advise all who are troubled with feather-eating among their flocks to send to the "Poultry World" office for this admirable contrivance, and rid themselves of this annoyance in the hen-house.



SPANGLED POLANDS.

CHAPTER III.

CRESTED FOWLS—POLISH, HOUDANS, Etc.

"The class of modern *crested* fowls," remarked the Doctor, when we met a few days subsequently to closing the discussion detailed in the February issue of THE POULTRY WORLD, "are sufficiently various, and distinct in features, to merit more than ordinary consideration."

"That is so," added the Major. "I have my own preferences among poultry—as I have many times stated. Yet the Gold and Silver-Spangled Polish are a beautiful variety, and the jet black-bodied, white tufted Polish are among the prettiest of the race."

"They are a very stylish, comely fowl," I admitted. "And when these varieties are bred up to the point of perfection that many American fanciers contrive to bring them, they are superior, in some respects, to the other small sized fowls."

"Generally speaking," chimed in the Captain, "the 'topknot' fowls are fair layers, while they are not largely inclined to sit; and so you are saved a deal of trouble with these varieties, as compared with the Cochins or Brahmas, in the breeding season."

"They lay well, they are peaceably inclined, their meat is excellent when dressed for table use, and they have thousands of admirers, who prefer these varieties to any others."

"The *Houdans* belong to this class, I think," suggested the Doctor.

"Yes. That is to say, the Houdans are a crested fowl. But these are a French bird, and possess characteristics altogether peculiar to themselves, aside from the open 'topknot' that surmounts their heads."

"Their color is different, also."

"Yes. The clean-bred Houdan is clear black and white in its plumage—which is splashed or mottled, irregularly, all over the body, the head and bushy tuft included."

"And they are a larger fowl, too?" queried the Major.

"Yes. They lay a much larger egg, usually, than do any of the Polish."

"But not so many in numbers," Captain.

"Well. The fanciers of the French fowls claim that they are among the best

layers known, take them the year through, quite equaling the Black Spanish; which latter, by the way, are said to be such wonderful layers, when well fed and kept in their purity."

"And how about their flesh, for the table, Major?"

"Oh, it is excellent! The Frenchman is an epicure, you know. And the Houdan is a French fowl. In Paris, no *poulets* rank so high in the esteem of the good livers in that famous 'high-feeding' metropolis as do these and their neighbors, the *La Fleche* and the *Crevecoeurs*."

"Some years ago," remarked the Doctor, "I became infatuated (in my earlier chicken-raising experience) with the Black Polish. After breeding these a few years, and with more than average success, I met, at a poultry show, with a few beautiful specimens of the Golden Polish, of which I obtained a few. And subsequently, I had a pen of fine Silver-Spangled birds, which pleased me, vastly, for a time."

"But you tired of them?"

"Well. I found that the young chicks were delicate, and rather difficult to raise. I could not, for a time, imagine why it was, after getting the little ones out of the shell and fairly upon their feet, that so many of them died off; apparently from no local or positive disease!"

"And what was the cause of this unusual fatality among them?" enquired the Captain.

"I looked for this, in vain," responded the Doctor.

"You probably did *not* look for the evil in the right place."

"At first, no—I didn't. But after I had buried some hundred or more young chicks, the second season I bred them I discovered where the trouble was hidden, and to this single cause I attribute my own heavy losses, among the Polish and Houdans, as well, which I have hatched out and reared up to six or eight weeks old; when they have been found dead, five, ten, or twenty in a flock, sometimes, week after week, in my own clean, well-kept runs!"

"And what was it, Doctor?"

"Lice, gentlemen!"

"Vermin?"

"Yes. And not upon their little *bodies*, mind you. But in their immature *crests*. Here the parasites find a favorite lodgment. The heads of the young chicks be-

come infested with them, at this particular spot, where they multiply in legions; and, filling the ears of the comparatively helpless birds, they actually eat their way into their nostrils and brain, and thus destroy thousands of younglings, the owners of which have no idea what it is that causes this common fatality among their infant poultry-stock."

"Surely this evil can be avoided?"

"Not easily, let me tell you."

"And why not?"

"Because, as I have said, the little soft tuft is a most inviting and capital place for these diminutive pests to thrive in. And the tops of the heads of the chicks are tender, you observe."

"But lice can be killed, of course, *there*, as elsewhere?"

"True, it *can* be done, to a certain extent. But the better way (as I have ascertained), is to prevent the accumulation of the vermin upon this precise spot."

"Exactly, Doctor."

"But most breeders neglect or omit this precaution, until it is too late."

"That is their misfortune, then."

"Not at all. It is their *fault*! I repeat it, Major, nine-tenths of all the losses among the Crested chicks (when from six weeks to three months old) are attributable to this lice nuisance, and to this alone."

"And you have determined it, satisfactorily?"

"Yes—to my heavy cost. But not until after I had lost, first and last, over three hundred chickens under ten weeks of age."

"And then?"

"I began to apply a remedy."

"I should say, in your case, it was quite time you did,"

"Yes, indeed! But having satisfied myself beyond a doubt that this *was* the difficulty, I went about the work of remedying the evil, systematically; and had the satisfaction of proving to my own mind that the *absence* of vermin upon both hens and chicks, from the day the latter were hatched, gave me about seventy-five per cent more living, healthy chickens, at four months old, than I could raise with my utmost care, in any season, for three or four years previously."

"That was conclusive."

"Yes. And so I say that I desire it set down, clearly, in the records of our present discussion—for the benefit of the cul-

tivators of Crested fowls—that if they will studiously guard against the presence of lice upon their young chicks, and especially if they will keep the downy tufts upon their heads clear of these insidious parasites, they may raise their favorite birds much more bountifully, and far more easily, than they can by the usual negligent course adopted by breeders (and especially by novices) who cultivate this particular species.”

“And what is the better remedy for this pest, Doctor? Having determined the prime *cause* of the evil, tell us how you succeeded in obviating the difficulty, or in relieving the chicks subsequently from the murderous attacks of these parasites?”

“When I first found out where the trouble was located, it was too late to apply my remedy, to any great extent. I saved a few chickens that were seriously debilitated; but most of the flocks I had died on my hands.”

“And then?”

“At a later date, I got out nearly a hundred more—”

“Of the Crested chicks?”

“Yes. Houdans and Polish. Soon after they were hatched I sifted carbolic powder upon their downy bodies, and, mixing a little lard and kerosene together, in equal parts, I put a drop or two upon the top of their heads, and another under each wing-joint, on their sides.”

“This is a powerful application, isn't it?”

“I know it. But I used very little of this pungent mixture, at a time. Three days afterwards, I rubbed through the hen's feathers a small quantity of flour of sulphur. But this I did carefully; for an excessive quantity would be worse than none. If too much be used, the sulphur falls upon the heads of the chicks, and fills their eyes. This creates soreness, and it will often blind the younglings. They cannot see to take up their food, and so starve to death.”

“And this is as bad as the assaults of lice!”

“So it is, if not applied judiciously. You must remember that young chickens are delicate, of any breed—at first. So we must measure our remedials for their little ills in accordance with their physical strength. A *little* sulphur, or a *little* kerosene applied to their heads and under their wings, will destroy both lice and nits, in half an hour—clean. Then, follow up

with carbolic powder once a week thereafter, upon both hen and chicks, for a month, and you may raise nine-tenths of the young Crested birds; where, through neglect of this trivial work, you will lose three-fourths of them, nine times in ten! This has been my unfortunate experience.”

“There are other varieties of Polish fowls,” I suggested—“which have more recently become popular in certain quarters—as the White-Crested, and the three ‘Bearded’ or ‘Muffed’ varieties. All these are *Standard* fowls, and some of them have been bred down to exquisite fineness.”

“For example, the clear White stock of Mr. Sperry, of Hartford, and the superior Golden and Silver Polish of Messrs. White, Rand, and others.”

“You are right, Doctor.”

“Now, whence comes the *name* of these Crested fowls? And why do we all call them ‘Poland,’ or ‘Polish?’” asked the Major, at this point in our discussion.

“It would be difficult to answer this question,” responded Mr. Burnham. “My own opinion is that this is, and always has been, a *misnomer*. Inasmuch as these birds do not hail from Poland, at all!”

“Where did they originate, then?”

“Their actual origin is unknown, gentlemen. Away back as far as the time when the famous Italian *Aldrovandus* wrote (three centuries ago), that early poultry author gives us detailed accounts of what he called ‘Crested,’ ‘Top-Knot,’ and ‘Tufted’ fowls. These included the *White*, with the lark-crest; the *Dwarf* (*Pumilio*), of different colors; the ‘*Frizzled*,’ the ‘*Woolly*,’ the *Turkish* (or *Sultan*), the *Paduan*, etc.”

“But how come these fowls to be called ‘Polish,’ in our day, if they are the same varieties?” queried the Major.

“I think you will find,” replied Captain R., “that Mowbray writes of them, fifty years ago; and in his work he describes them as *Polands*. This is the first written authority we have, in respect of name. And the birds figured in his book were thought to be an ‘English innovation’ of a then recent date.”

“That is true, Captain. But it was not then given to these fowls from the fact that they hailed from Poland, at all.”

“What then?”

“He explains, in substance, that the round upright *crest* these birds wear is

their leading distinct feature—and that the head, or *poll*, was their chief peculiarity. So he alludes to them as the breed with the remarkable *head*, or *poll*. Hence, *pollish* fowl; which was subsequently shortened to *polish*, and then capitalized ‘Polish,’ not unnaturally. At all events, they never came from the country of Poland, any more than did our beautiful Light Brahmas hail ‘from the Valley of the Brahmapootra River, which empties into the Bay of Bengal!’”

“And, besides this,” observed the Doctor, “you will find that Mr. Tegetmeier states with some force that, presuming this derivation to be correct, or reasonable, the superiority of the now accepted title of ‘Polish,’ over that of ‘Polands,’ is very apparent, without taking into consideration the totally ungrammatical character of the latter (not uncommon) title.”

“They are, generally, non-sitters,” added the Doctor. “They are a nervous, fidgetty fowl, in their runs, usually—and the heavy flowing bunch of feathers that adorn the heads of the male birds, prevents him from seeing clearly what is going on around him. So with the full-bred hens. They are easily frightened, from the fact that they cannot always see distinctly. And strange sounds worry them.”

“They are good mothers?”

“No. They will lay litter after litter of small eggs, and never show signs of broodiness,” responded the Doctor. “This is esteemed a good quality, Major. For how easy it is, if you would increase your stock of Polish birds, to set their eggs under common hens, for hatching—and so keep the layers at their more profitable work of supplying you with eggs, through the season.”

“True. And they are a hardy fowl?”

“Oh, very. And prolific, as well as easily bred. They are moderate eaters, and may be reared in close quarters, as readily as any variety I have ever known, if you will keep them free from vermin.”

“As to their plumage and general stylish appearance,” continued the Major, “I am sure they are both beautiful and stately. Upon a smooth green lawn, or in a bright clean graveled run, there are very few (if any) birds in a flock that are prettier than are the *Polish*—whether Black, Golden, or Silver plumed.”

“Mr. Hewitt, of England, considers the Polish fowls as highly ornamental, and he

declares very earnestly in favor of their usefulness, also. They are ‘interminable layers,’ so he avers. And for years these have been his favorites.”

“They must be bred upon a dry soil, however,” said the Doctor. “In my experience with them, I have found that they were sensitive, in this respect; and that a cold wet locality is *not* the thing for the successful breeding of these varieties, I am well assured.”

“When diseased,” I remarked, “they are exceedingly difficult to cure. A Polish (or Crested) fowl of any sort, with the *roup*, is a hard kind of case to manage toward restoration. And very few of this variety are worth the trouble it entails to try to cure them, if they once get seriously ill. Still, they are not so liable to disease, as are many other sorts—since the ample head-covering of feathers and the heavy beard that many of them are furnished with, afford them a protection from attacks of cold, that most other varieties of poultry do not naturally possess.”

“But you must not expose these birds to bad weather,” resumed the Doctor, “nor will they stand under a sudden storm of rain, or sleet. The head-feathers, in such cases, become saturated with wet and they will hold a great quantity of water. This gives them a cold in the eyes and nostrils. And when once they get thus affected, you cannot reach the poll to bathe the head, as you can upon the smooth-poll birds.”

“You have alluded to the timid character of the Polish fowls, Mr. Burnham,” remarked the Captain.

“Yes; they are very easily frightened,” I said.

“So much so, that many times it has occurred that persons have injudiciously grasped their skittish birds, in the runs, taking them up from the ground suddenly, perhaps harshly, and had the little creatures die in their hands—from paralytic fright. I have known this to happen, more than once.”

“As to breeding these ‘top-knot’ birds nicely—say for the show-pen,” added the Doctor, “I will tell you what I have found to be a very good plan, in their cultivation.”

“Of all the varieties, Doctor?”

“Of *any* variety. The principle is the same. A cock with a first-class well developed crest, when mated to indifferently crested hens, will always give you finer

crested chickens than can be got out of a poorly crested cock bred to good tufted hens."

"This we can appreciate, Doctor."

"And why? Because we all agree, today, as do all authorities in past days, that the well-formed, full, stately *crest* is this fowl's prominent characteristic. And it is a noticeable fact in *my* experience that the *sire* must possess this feature, as near to perfection as it is possible to reach it, in breeding, in order to reproduce upon the progeny the average fine showy crest, which all fanciers of these varieties so earnestly covet and admire."

"And as to hatching their eggs, Doctor. How have you managed *that*?"

"The eggs should be set under smallish hens," replied the Doctor. "The heavy fowls, like the Cochins or Brahmas, won't answer for this purpose."

"But the Asiatics, surely, are excellent mothers, Doctor?"

"So they are. But *not* for these small, thin-shelled Polish eggs. When the chicks are first hatched they are diminutive, weak, puny little things, comparatively. And the big-footed, clumsy Cochins will easily crush the chicks in the nest. I have lost scores of young birds from this kind of

management. The Asiatics *are* good sitters, and to their own kind they are good nurses and mothers. But they are too heavy and over-clumsy for the Polish eggs. Use smaller fowls—say barn-yard hens, Dominiques, Games, and the like, for incubating purposes. This is my most successful practice."

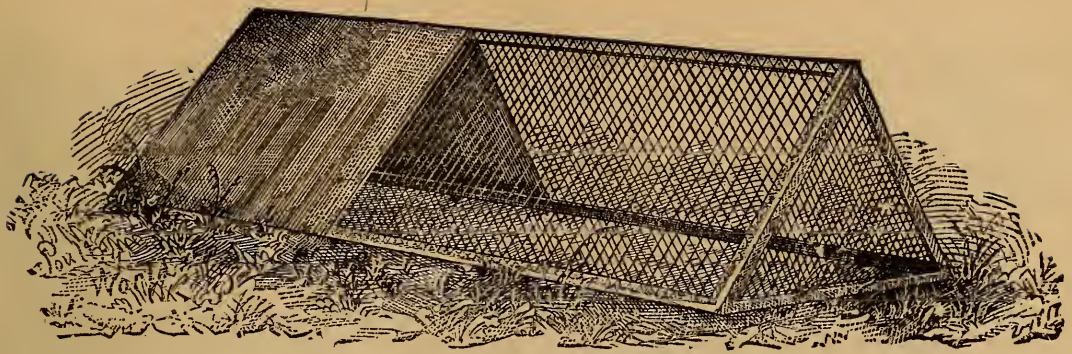
"And now, gentlemen—we have reached our limit again, for the present paper. Next month will be April. Most fowl-breeders give their attention to hatching their spring chickens, in that month."

"Yes. And I have found," said the Major, "that no better month than *April* occurs, when this business may be well done. Although we have the advice of many 'old breeders,' like our friends Burnham, Felch, and others, to the effect that 'the earlier in the year, after February, that we can get out the chicks—the better, the finer, the larger, the more profitable they will prove,' for succeeding fall and winter uses."

"Well. In our next issue we will discuss this question, at length. And so give the readers of *THE POULTRY WORLD* our experience as to the best methods *we* are acquainted with for the successful hatching of chickens."



WHITE-CRESTED BLACK POLISH HEN.



CHAPTER IV.

ON CHICKEN HATCHING, Etc.

Our old friend, W. S. Weymouth, of Melrose—who in the past seven or eight years has bred many of the finest Light Brahma fowls produced in Massachusetts—joined us to-day. The Major, Captain R., our village Doctor, and Colonel S., of Essex County were also present.

“You do well, neighbor Burnham,” began the Captain, “to discuss, in April, the seasonable topic of chicken-hatching. The readers of *THE POULTRY WORLD* are all interested in this subject. And as this month is the time when most of us set our hens, in this cold New England climate, your suggestions in this regard will be timely, and valuable to amateurs and beginners, especially.”

“I have found,” responded Mr. Burnham, “that hens set from the middle of March to the last of April, annually, give us the largest average numbers of healthy chicks to the hatching, in ordinary seasons.”

“But you commence much earlier than this to set your eggs, do you not?” enquired the Colonel. “I notice some chicks in your coops here, Mr. B., that must be six weeks old, now, at the least.”

“Yes, I have two broods now well advanced, as you will observe, that were hatched in January. Last year, I got out nearly fifty Light Brahma chicks before the 10th of February. Of thirty-eight of these, at a week old divided up among five good hens, subsequently to that date—I contrived to raise to maturity only seven birds. And among these seven, three were winners at the late Hartford and Portland shows.”

“What became of the rest?”

“Most of them shared the fate attributed by the poet, to other favorite ‘little

ones.’ You remember the sentence ‘the good die young!’ The early spring of 1877 was memorably cold and cheerless, and they mostly dropped away before April, from lack of sun and warmth during the dreary cloudy period we experienced that season.”

“But you try it again, I see?”

“Yes—every year I start a few early broods. These are the fowls (among the Brahmas and Cochins) which in the succeeding fall and winter make the birds for our shows—if we are successful in rearing them, you know.”

“But it is a difficult thing to do.”

“You are right, Colonel. Still, if the fancier has the proper facilities, and takes extra good care of mothers and younglings, the chicks that see the light in January and February make the largest and finest specimens (of the Asiatics) that we can produce.”

“And how is this done?”

“Well—it is impossible to *raise* chicks in our frigid northern climate, even if we *hatch* them thus early, unless they are cultivated under glass, or in an artificially warmed house, during the colder spring and late winter months.”

“And does this process pay?”

“As a rule—no. Some of our leading old breeders succeed in getting out and carrying through to the milder weeks of spring, a few dozen chicks. Then by especial care in feeding, these—or a portion of them—may be saved. When this is accomplished, they usually prove the most desirable for sales subsequently at good prices; or, as I have said, for exhibition at nine or ten months old; provided always that they come from prime stock.”

“But for general purposes,” asked the

Major, "you think, Mr. B., that March and April are the better months when chicks should be hatched?"

"Decidedly, Major. And I am also convinced that *May* hatched chickens are on the whole more likely to turn out well, in the succeeding fall and winter, than will these 'earlier birds' we have spoken of, except under specially advantageous circumstances."

"Still, you have a few very handsome well-grown chicks here," said the Captain.

"So they are, but remember how they have been brought to this point. They were hatched in a glazed house. At night regularly, since January 10th, an air-tight stove has been used to heat the atmosphere of the house evenly up to 70°. Grass is growing luxuriantly, you notice, all over the floor of this house. There are sixteen chickens, cared for by two good large Plymouth Rock hens; and the eggs they were set upon were from my choicest old Light Brahma fowls. They *ought* to be good ones."

"As they certainly are, so far," replied the Colonel.

"In this way, gentlemen, a *few* birds may be raised, to advantage. But when we come to talk about hatching and rearing hundreds or thousands of chicks, in this cold season, it would cost far more than it would all come to, to attempt to do it in *this* way. Such a man as Mr. Baker, of Cresskill-on-the-Hudson, with his grand facilities of artificially heated, enormous houses, his incubators, and his admirably conducted method, can do this to profit—on a huge scale. But the lesser breeders must conduct their work 'in the natural way,' to succeed—and hatch out their hundreds of chicks, or broods, at a time of the year when the mother-hens can care for them, mostly, in the open air."

"Now then, friend Burnham," remarked the Colonel, "please give us your ideas as to how this business of successfully-hatching and raising chickens may best be accomplished. I have taken the hen fever you know but recently. Here are the Captain, the Doctor, the Major, Mr. Weymouth and yourself, all 'old hands' at it. What we new beginners want to know is, how you *do* this thing? For few men in this country have succeeded in the business so fortunately as you have, as all of us are aware."

"My neighbor Weymouth here can tell you how he breeds young chickens advan-

tageously," responded Mr. B. "And since he is one of us here to-day, I shall ask him to give you light upon your query, Colonel—for the benefit of yourself, and the readers of 'Talks and Walks.' What he doesn't know about the best practical methods of setting, hatching and raising fowls, is worth very little, I promise you, to anybody."

"I haven't bred a Light Brahma chicken for nearly two years," said Mr. W., modestly. "Still, I think I know how this thing may be done."

"Tell us how you did it when you were engaged in this pursuit, for several years, with Mr. Burnham," said the Doctor.

"Well—it is not a difficult thing to do. There is no secret about it, that I ever knew of. My habit was to start the hens at sitting as early in the season as I dared to. That is after the middle of February to March first—when the last snows were disappearing.

"Chickens that can be brought out of the shell by the first to the middle of March—and from that time down to the first of April—ordinarily do as well as any. They will, when youngest, need a few weeks of extra care. But the warm days that come along in April and May helps them up. And if the hens are well feathered (like the Cochins or old Brahmas) they will usually take good care of their broods, in the rougher or colder weather, if their shelter-coops be comfortably constructed, so that at night and on stormy days they may be exempt from the harsh winds and rain.

"*Hens'* eggs—in preference to those of pullets, when they can be had—are the best to set. Stronger and larger chicks come from the former. Your hens should be placed in their sitting nest always in the evening, when first set. Thus they become better wonted to their duty, and will continue the work of incubation steadier, usually, afterwards.

"I have found," continued Mr. W., "that eleven good sized eggs each, are enough for the first or earlier sitters. I begin in early March. I set half a dozen or a dozen hens at one time. When the broods come off, say on the same day, or within a few hours of each other—some hens bringing out five or six, and others doing better, perhaps—I divide the entire hatchings among my three or four or more best brooders, giving to each hen ten or a dozen of the chicks. There is no trouble

about this distribution, if it be done while the chicks are but a day or two old.

"My first feeding is of dry material—chopped hard-boiled eggs mixed with bread crumbs. This for a week. Then scalded wheat and corn meal, for a week. Then cooked potatoes and meal (always dry rather than soggy wet). After the third week, I give the chicks boiled meat, chopped fine, mixed with their meals—a little daily—alternated with 'green food,' such as cut cabbage leaves, or crushed turnips, until the new grass starts. Ground bone is very good in their feed. This helps to make bone and muscle, both.

"They must have a run, if possible, where they can exercise (outside their coops), and pick up the little insects, worms, grubs, etc., that come out of the softening earth at spring-time. The *hen* may be confined, but the *chicks* should have their liberty from the outset, if possible—to enjoy the sunlight and fresh air, at least during the warm portion of the day. Cats, rats and other poultry enemies must be provided against. And above all, both mother and chicks must be kept free from lice, constantly.

"When my chicks are a month old, I give them all the cracked corn and broken wheat they can eat, at night before sunset. I find the earlier daily feeding is better for their growth and thrift if it be given often and composed of cooked meal and vegetables. This, with a supply of chopped new grass, or thin sods thrown into the runs (if they are confined to close limits), will keep them in good condition. Chandler's scraps are too greasy for young birds. This will scour them. Corn meal mixed in *cold* water, will do the same thing. Whole wheat, even, should be fed sparingly, as this has a loosening tendency, when over-fed to younglings.

"They need very little water, at first. This should be placed in shallow pans, and be always fresh. When they are six weeks old, a little cayenne pepper or a few drops of the tincture of iron, is excellent as a tonic. Let them and the hen-mothers have a box of fine clean dry gravel to roll in (not ashes alone), and mix with this a pound or two of flour of sulphur and carbolic powder. Thus vermin is kept at a distance. After they are two months old, I have very little trouble in raising my chickens—and rarely have any sick ones, under my mode of treatment.

"As I said at first," concluded Mr.

Weymouth, "I do not consider this fowl-raising much of an 'art,' as some do. Perhaps I have had better average good luck than most breeders have. But I do all that I do upon *system*. I never neglect my stock. I do not deputize others to care for them, when I can do this myself. But I never found that I could succeed with them as I wished, if I did not adopt a regular method in their culture, and adhere to my plan all the time. Domestic fowls cannot take care of themselves—particularly when they are shut up in clo quarters.

"They must have care, good feed, clean water, variety in their food, green stuff, bones, dry gravel, ample ventilation of their houses, etc., and they should be kept free from the attacks of parasites in their nests, upon their roosts, and especially on their bodies. This is the way *I* do it, gentlemen. But here comes our neighbor Edmonds—who breeds the 'Pea-comb Partridge Cochins' so finely. He can tell you how *he* does it, if you desire, and I am sure that few of us know how this raising of right good chickens is accomplished better than he does."

"Thank you, neighbor Weymouth," said Mr. E., as he entered my office, at this moment. "I overheard the closing remarks of your little speech, and I think you have told the story quite as well as I can."

"These 'Pea-comb Partridge Cochins' you have grown to such perfection, Mr. Edmonds," observed the Doctor, "are coming to be quite popular, I hear."

"I have cultivated this variety about seven years," said Mr. E., "and I have found them remarkable birds, in many respects. They breed with closer uniformity as to color and markings in plumage, certainly, than any parti-colored bird I ever knew. As to the comb, I can breed upon a hundred of this new variety more pea-combs that are accurate in shape, by twenty-five per cent, than I can produce upon either the Light or the Dark Brahmas—do my best."

"And my experience, in this respect," added Mr. Burnham, "I confess is identical with that of Mr. Edmonds."

"Their qualities for egg-laying in *winter* time, are unsurpassable," continued Mr. Edmonds. "Early hatched pullets begin to lay in November, as regularly as the fall comes round. And all winter long they continue to lay, plentifully, as I have never before known *any* breed to do."

"And how do you find your chickens of this variety, as to hardiness and general thrift, when young?" enquired the Colonel.

"No class of young stock, that I have ever handled, seem to be so well adapted to the rigors of our New England climate," responded Mr. E. "I assure you that I suffer but the most insignificant losses among these chicks, from year to year. They are exceedingly hardy, always thrifty, grow rapidly, mature early, and have given me great satisfaction in the rearing, now, for over seven years."

"And you breed only these?"

"No. I have found the Pea-comb Part-ridge Cochins so reliable, they come season after season almost so precisely alike in size, plumage and shape, that I am quite content to give my sole attention to this variety, as a specialty."

"As to my habit in cultivating them, I adopt the general plan of Mr. Weymouth in hatching chickens, and we feed our stock pretty much alike. I know of no better mode, and I manage to rear a good many fine birds, annually."

"Well, we all of us have more or less sick fowls in our runs—both young and old—from time to time. Now our friend Burnham has written largely upon 'chicken diseases.' Perhaps he will tell us, briefly, what he does for his young stock, when they show weakness in their limbs, in infancy—when they droop, and snip, and fall away in flesh and condition—when they grow blind in the eyes—and get soreheaded and miserable—or suddenly show indications that they are about 'played out,' and are ready to die?" suggested the Colonel.

"You have now laid out a world of questioning, my dear Colonel," replied Mr. B., "to be answered in a breath."

"Not at all. You have this subject quite at your fingers' ends."

"Only in so far as my own experience goes," I answered. "It would be impossible, in the limited space allotted to these monthly papers, to reply satisfactorily to your extended queries, Colonel. Still, I will say here that my *first* 'curative' for all the above-mentioned ills in the fowl runs, is *prevention*. It is much easier to avoid than to cure diseases, in either fowls or chicks."

"Very likely."

"*This* is a secret in fowl-breeding which few of us learn, except through long practice. I have, nowadays, very little trouble

on this score. Last year (1877), for example, I did not lose a single bird from all my broods hatched out after March 10th, except three that were suddenly killed outright, by accident. During the entire season, I had *no* sick chickens."

"You were fortunate, indeed!"

"Yes—and no. I took care of my stock, as they should be cared for. I did not cram the younglings with *wet*, sour, uncooked food: this will knock the legs from under them, as surely as they are so fed. I did not permit them to droop, and snip, and grow thin in flesh, because, upon the exhibition of any such symptoms, I instantly took them in hand, and restored them to good condition with very simple tonics, or palliatives. I had no 'blindness among them, inasmuch as I never allow them to be exposed, when young and delicate, to cold raw winds, bad rain storms, or rough weather—for a single hour. With these precautions, that occasion very little trouble to the poultry-keeper who understands his business, and attends to it, young chicks do not droop, or often get 'played out,' Colonel."

"Thanks for so much good advice. But I tell you, friend Burnham, that there are hundreds of young fanciers who *were* thus troubled, last year, and who thought they took the very best care of their young stock."

"So it happens every year, more or less, I am aware, Colonel. These novices *think* they do all that is necessary to be done for the health and thrift of their birds. But they frequently do *too much*. They overdo it. They over-feed, they pamper and cloy their fowls. They stuff them to repletion one day, and starve them the next. They buy a bag of corn and throw it to their flocks in heaps, until it is gone. They give no *variety* of feed, and they get sick of seeing the same thing thrown before them, day after day. They have no system in their work, and the birds suffer in consequence. Their owners allow filth, and vermin, and miasma to accumulate in or around their houses, nests and roosts—and sore heads, pip, blindness, weak limbs, roup, and *death* results. We must reform all this, Colonel. We *are* reforming this, and improving upon such carelessness in fowl-breeding, constantly. And when the advice so often repeated in the columns of THE POULTRY WORLD comes to be appreciated—when we all believe the fact that there is but one way to have in

our runs and about our fowl-houses, poultry-stock that is healthy, thrifty and profitable to the keeper—and that that one mode is the RIGHT way, in its management—we shall be wiser in chicken lore than we now are, and we shall be better advised than some of us at present seem to be, as to how this simple but agreeable work may be successfully carried on.”

“That is so,” murmured Captain R., approvingly. “And now what are we to talk about in next month’s issue?”

“At the late State shows in New England,” replied Mr. Burnham, “there were exhibited some of the newly invented *In-*

cubators that are just at this time engaging the attention of poulterers, who are desirous of hatching chickens more rapidly than we have been in the habit of doing, in the ‘old way.’ As this subject is *apropos* to the season, and as I am asked to say something—from various sources—about these inventions, we will have a talk for next month about Artificial Chicken Hatching. And this will interest most of our readers, I think—at a time of the year when, given the chickens *hatched*, the weather will permit them to be easier *raised*, than in our colder seasons.”



A Multitude Fresh from the Incubator.

CHAPTER V.

ARTIFICIAL HATCHING, Etc.

"There's money in the invention of a right good *practical Incubator*," observed Captain R., when we met to discuss the merits of this novel machine for multiplying "chickens by thousands," through the use of modern egg-hatching apparatus, which several of our American mechanics and scientists have introduced to the public of late years, in one shape or another.

"And yet I do not learn," remarked the Doctor, "that any one of the inventors of this artificial process of producing chicks in this manner has yet grown rich by means of his invention."

"No," rejoined Mr. Burnham. "But up to date, among the originators of the different machines presented to the American public, which claim to be suited to the purpose desired, it does not appear that any one of them has yet been *perfected*—to answer the full expectations or anticipations either of sellers or buyers."

"I notice, friend Burnham," said the Major, "that you have rather inclined to set your face against the practicability of this process, both in your books and writings on artificial egg-hatching."

"Well, what I have said or written, Major, has been done conscientiously. Years ago, I tested the 'eccaleobon,' that was invented by a Massachusetts mechanic, and which several other poulterers

thoroughly tried at that time without results—except in so far that experiments made with this machine proved utterly unsatisfactory, and occasioned both losses and chagrin to the parties who attempted to utilize the invention."

"What *was* this 'eccaleobon'?"

"A very simple affair, Colonel," rejoined Mr. B. "The whole machine was constructed of blocked tin. The form was cylindrical, and there was an inside and outside upright casing, or vessel; both shaped alike—one being about an inch smaller in diameter than the other. This last mentioned vessel was set inside of the other, upon three knobs raised at the bottom of the larger casing, about two inches—so that there was an open space all around and beneath the inside vessel, to be filled to the top with common sperm oil, when the machine was 'set' for hatching. The eggs were deposited upon perforated round tin shelves fitting the inside case, one above the other, from bottom to top, at a distance of three inches apart. And about two hundred eggs could be thus used at a 'setting.' A common three-tubed oil lamp was placed under the machine, upon a table, the oil was heated by this means—and thus the 'incubating' process commenced, and was continued for three weeks, night and day."

"With what results?"

"Well. In *my* case, Colonel," said Mr. B., "the success was altogether indifferent. I tried it (as I believed) very faithfully, four different times. But I was green at the business! The first experiment was a dead failure. The second time I *boiled* ten dozen good eggs so hard that the fowls in my runs couldn't eat them when we took them from the machine. My third effort was more satisfactory; because out of 156 eggs used, I got out 17 weakly but live chicks, that died within three days of their birth. And the fourth attempt yielded me from a similar number about two dozen poor young birds."

"Then the thing was really feasible, after all?"

"But it was utterly impracticable."

"You didn't stick to it long enough, probably."

"Long enough to satisfy me that it was a losing game, Colonel! There were three important ifs which presented themselves to my mind in the course of these experiments, to-wit: *If* I kept the heated oil too cool, the eggs were shortly addled; *if* it were too hot, the eggs were boiled; *if* I did the best I could do, and everything went right for three weeks from the outset, I could obtain, in puny chicks, only about eight per cent. of the number of eggs I used. So I gave up eccaleobion chicken-hatching, and concluded that the inventor was right, when he declared (after I recited to him my ill-luck) that I 'might be able to raise very good Cochin and Brahma chicks in the ordinary way, but I didn't know how to do this with his machine!'"

"Your experience with this early or primitive invention was certainly amusing," said the Doctor.

"To whom?" I inquired. "It may seem a joke to *you*, gentlemen, but to *me* I assure you it was a serious matter."

"Well. This is the occasion of your prejudice against incubators, generally, then?"

"By no means—except so far as that result went. But I have cited this fact in support of my frequently-uttered conviction that the fault lies not so much in the modern machines invented for incubating purposes, but rather that *the average poultryman does not understand how they should be managed*. Hence their repeated failures with incubators."

"But there are machines more recently put forth that the proprietors claim are

pronounced a success, even in unskilled hands."

"Very true, Doctor. And having frankly stated my own experience in this direction, suppose we now refer to some of these later and as you say vastly improved inventions."

"The *principle* of artificial egg-hatching is an ancient one," continued Mr. Burnham. "For centuries, the hatching of eggs by fire-heat has been successfully carried on in China, in Syria, in Egypt, and in other countries. But *incubators* are a modern affair. Chickens have been hatched out, experimentally, in hot-beds or tanks of manure. Monsieur de Reaumeur did this, a hundred and fifty years ago. Within a few years a Mr. Corbett has accomplished this same thing in this country, I am informed. And some of his patrons have also succeeded in thus hatching chicks; but not to any extent, probably. This last-mentioned process certainly cannot be an agreeable method, and is not a generally practical mode, I believe, at all."

"Yet you do not doubt that chickens *may* be hatched in incubators advantageously, at the present time?"

"Oh, no. I am aware that this has been done, and quite successfully, in certain quarters, under the supervision of those who knew how their machines should properly be controlled and managed. What I argue, is, that all the incubators that have latterly been introduced among us, are in some way too complicated and too difficult to be run by ordinary hands."

"But are there not exceptions even to this objection among our American inventions for the purpose?" queried the Doctor.

"We shall come to that point shortly, Doctor," responded Mr. Burnham. "You must observe that, individually, I have no possible interest in—for, or against—any man's machine. I should be gratified to see the inventive genius of our American designers encouraged, and crowned with complete success, in this direction. But I am slow to believe that *as yet* we have hit upon exactly the thing we require for general utility and every day practical use."

"Well—we have come pretty near to this, I think," persisted the Doctor.

"Granted—my good Doctor. *You* are an educated man. *You* can take an Ax-ford, a Halsted, a Samuels, a Higgins, a Cantello, a Baker, a Graves, a Weston, or

other advanced modern incubator, and in *your* hands it will turn out chickens 'alive and kicking' probably, by hundreds or thousands, very readily. But what I contend for in the matter, is, that we must have the machine to do this work successfully, profitably, easily and regularly, that *any* man or woman of ordinary capacity can use—as they can a lawn-mower, a sewing machine, a thresher, a reaper or other common patented agricultural or farming implement. When this sort of incubator is produced, that shall cost but a moderate price, and work every time in *un-scientific* hands to advantage and satisfaction, it will be exactly what we want; and the fortunate inventor of it may triumphantly exclaim, 'EUREKA! *I have found it!*'"

"I admit the force of your reasoning, friend Burnham," responded the Doctor. "But I notice that in your recent book on '*Raising Fowls and Eggs in Quantity for Market*,' you think that the artificial hatching establishment of Mr. Baker, at Cresskill, is pre-eminently a success. And he uses the modern style of incubators, surely?"

"You are right again, Doctor. Mr. Baker hatches out and raises in his immense steam-heated establishment, successfully, tens of thousands of chickens, annually. But, as the brother Jerome once said of Bonaparte, the elder, 'There is but *one* Napoleon!' so I say 'there is in this business but one Wm. C. Baker.' He has spent ten years experimenting, and seventy-five thousand good dollars in cash to create the wonderful artificial chicken-raising establishment he carries on, upon the Hudson River. Will *he* ever have a rival in this country, think you?"

"Probably not. But —"

"Then we cannot include Mr. B. in our estimates regarding the comparative merits of American incubator inventors. He stands quite alone, in his sphere."

"Well. We have the 'lesser lights,' whom you have already mentioned. Now, since you have unquestionably made yourself acquainted more or less with these inventions, generally, whose—if either, or any—is in your judgment the better or more promising incubating machine we have at present in this country, for general utility?"

"Now you come directly to the mooted point, Doctor. The latest improvements that several of these incubator originators

have made upon their machines, makes yours rather a difficult question to answer, clearly. But I can reply, without prejudice, so far as my own individual opinion goes. And first let me quote what Mr. Halsted wrote me (in 1871) about his own incubator. Mr. H. said very frankly, at that time—"I can myself, with care and attention, hatch 75 out of 100 eggs, in my incubator. But I will not warrant that any other person can hatch a single one—with *mine*, or in any *other* incubator; since one day's *mismanagement*, while in process, proves fatal. The difficulty is that 'directions' cannot be followed by the inexperienced. * * * While, therefore, I frankly state that—alone, and by itself—the incubator is a failure, still as an aid, I deem it invaluable in completing what the hens begin; as thus: allow your hen to sit upon eggs ten days, say; then remove these to the incubator, and set a fresh clutch under her. She will set three or four weeks. You can *finish her work* in the incubator. Your chicks will come out strong, healthy, free from vermin, and none are trodden to death by careless mothers, etc. * * * But whoever attempts to use the incubator, *from the outset*, must first inform himself thoroughly, by patient study and care, as to the details of its rightful management—to make it a success."

"This is the candidly-expressed opinion of a manufacturer of one of the leading incubators of the day. And this is my opinion of incubators, generally," said Mr. Burnham. "What has always been the bar to success with them, is this one difficulty: they cannot be properly managed by inexperienced or unscientific hands."

"But have not there been made many improvements in these machines since 1871?" inquired Captain R.

"O yes—of course there have."

"And even upon this very invention you have just referred to."

"Yes—both by the original inventor, and by several others, who have put out new (or later) machines. But all are constructed upon the same general principle," returned Mr. Burnham. "That is, the heat is artificially applied to the inner boxes, or trays of the incubator, which are filled with eggs. And this heat is kept up (*must* be so kept up) to 100° or 103°, Fahrenheit. This must be continuous and regular, night and day, for three weeks—when more or less of the eggs will

hatch, if they be fertile. If the heat falls to 90° or 80° (or less) for a single night—the eggs are ruined. If the manager does not know how to keep up this steady heat, or neglects to attend to this important matter, the result is disappointment—he cannot say why. So that, as I have said, the modern incubator is a difficult thing to handle properly, as a rule, in the hands of the average poultryman, who is not a scientist.”

“Yet most of the inventors of these American incubators claim that their machines can be managed by a child a dozen years old,” said the Colonel.

“Very well. I do not dispute your assertion, Colonel, nor do I deny that this claim may be substantiated. But I say I do not think anybody’s machine for hatching eggs is really so very simple, notwithstanding these assertions; inasmuch as so far as my own observation and experience goes, they are generally by far too complicated for general practical uses, in *any* hands save those of their inventors.”

“I comprehend you, friend B.,” observed the Colonel. “And now let us note some of these machines, and learn, if we can, where the better or the best ones may be obtained.

“The *Axford*,” continued the Colonel, “is certainly a popular incubator, at least in the West. And if the assertions of its originators, and the commendation of several who have worked it can be accepted, it has, for the time it has been upon the market proved a very satisfactory machine.

“Then we have *Weston’s*, the Maryland inventor’s. This, for a time, promised to be highly successful, even in inexperienced hands, if I am correctly informed. How it has latterly proved, I do not know. But it began with a very goodly reputation—and I was predisposed to believe that this was an average success.

“The *Graves* machine did very well, in certain quarters, for a while. This has gone out of the market now, I believe—Mr. Samuels of Waltham having purchased all the best ‘improvements’ belonging to that incubator—which he has applied, in part, to his own lately constructed ‘*Eclipse*’ machine.

“There is the *Higgins*, or ‘Moll Pitcher’ machine, also. This is worked by the proprietor at Lynn, Mass., and *he* manages I heard to turn out a great many chickens, himself, every year. I am not aware that

he offers duplicate machines for sale, however.

“The invention of E. A. Samuels of Waltham, in my judgment,” said Mr. Burnham, “is the best thing of its kind that has yet been introduced into the American market. It is certainly more simple in construction than any of its predecessors; and it is very easily managed by any person possessing sufficient intelligence to wind up an eight-day clock, or run an ordinary sewing machine. This ‘*Eclipse*’ incubator (as Mr. S. calls his) will, I do not doubt, prove popular; and having seen it in successful operation, in the hands of four or five different persons of both sexes, I am inclined to believe with its very latest improvements, its thoroughly automatic character in working, and its plainly practicable arrangements—that any one can hatch chickens with it, who is able to care for it attentively, when they possess it.

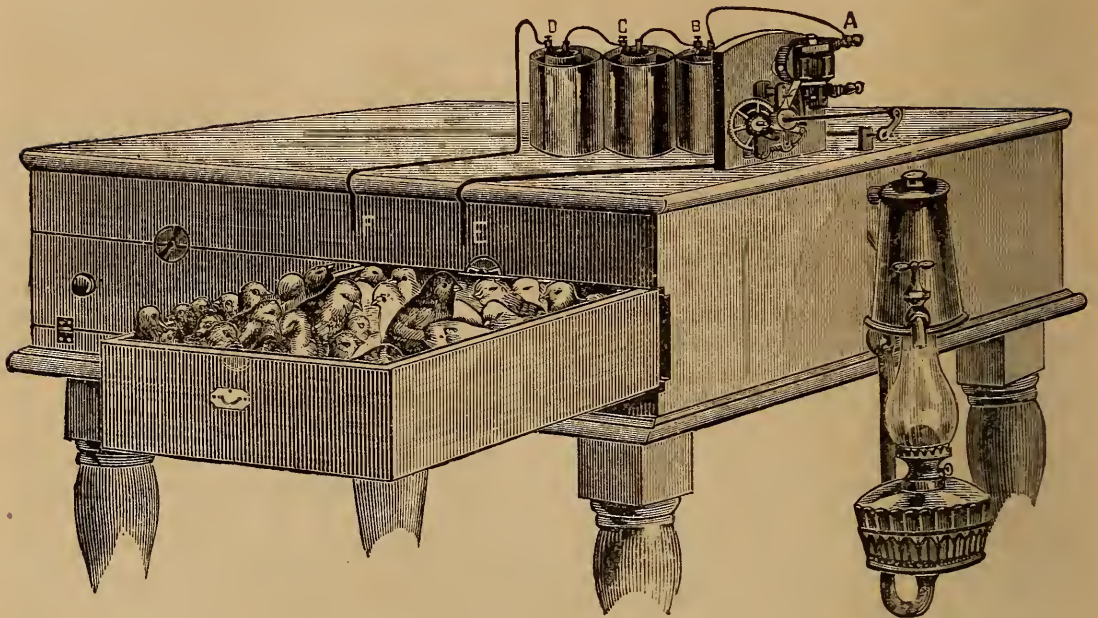
“The Automatic incubator of the Day Brothers of Baltimore has a good reputation, and is indorsed by several who have used this machine with greater or less success. It is claimed for this incubator that it stands the test quite as well as any invention yet tried in America; and sales of this have resulted satisfactorily to purchasers, so far as we have heard from it. This is said to both ‘hatch and rear the chicks,’ and is not so intricate in construction as are some of the later models.”

“There are other machines in the market besides those now referred to,” rejoined the Major, “are there not?”

“A few, yes,” replied Mr. B. “But we have mentioned the principal ones. Now I wish to refer to one more important matter in this connection, before we adjourn. And this will include all we have space to say in this series of POULTRY WORLD papers, upon this topic. We have spoken of the incubating process, the machines, and the average chances in hatching large broods or numbers of chicks, through this means. Now, when they *are* hatched, what shall we do with the tender little ones, so as to *raise* them successfully, for broilers, breeders, roasters, or whatever the fancier, who is fortunate in getting the birds out of the shell, may desire?”

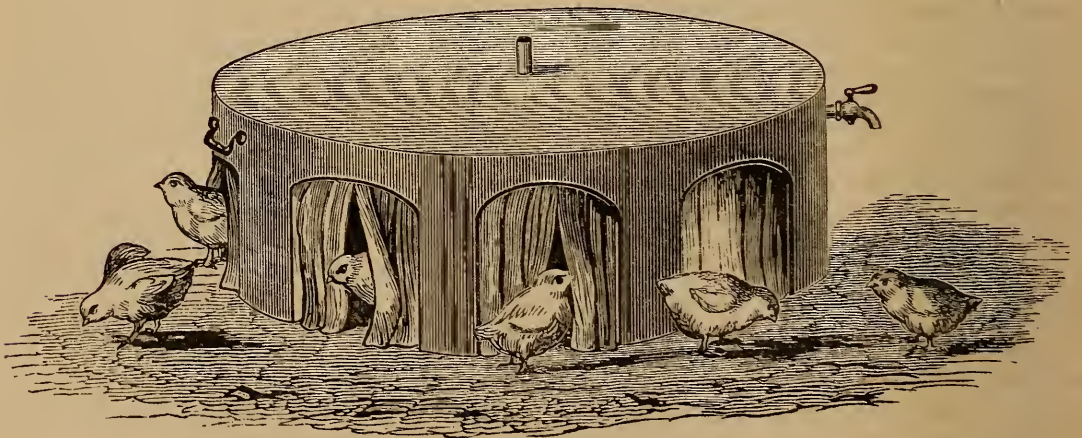
“This is a point of the greatest importance, of course,” rejoined the Colonel. “For, what is the good of *hatching* a thousand chicks, if we can’t *raise* them!”

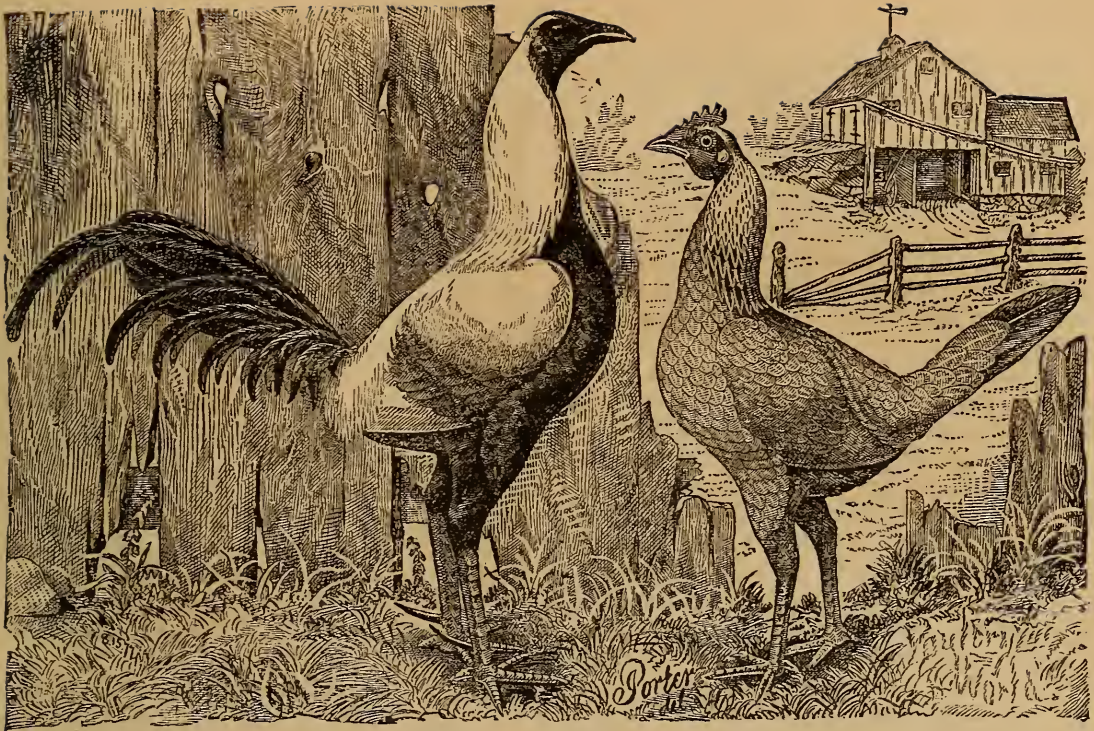
THE ECLIPSE SELF-REGULATING INCUBATOR.



This is E. A. Samuels' Machine, (of Waltham, Mass.) In this invention, the heat, radiated from a tank which is so contrived that there is a uniform circulation of hot water through it, is applied to the *top* of the eggs; these are placed in drawers, the bottoms of which consist of wire-netting; and beneath the drawers is a series of ventilating-pipes, which conduct to the *bottom* of the eggs a full supply of cool, damp air. This system of ventilating the eggs is entirely new. The management of this Incubator is easy, it works reliably, and as it is now made — with latest improvements — it is

the best on the market, without doubt. And below is a drawing of the "Artificial Mother" invented by Mr. Samuels, which is a grand contrivance for economically brooding the chicks, when hatched. Both these machines should go together. The recent additional invention by Mr. S. of an exceedingly sensitive "pyrometer," which is attached to each of his incubators, (and which is used *only* upon the "Eclipse" machine), has been found to serve as the nicest "regulator" of the heat that has yet been discovered, as applied to the modern American Incubator.





Duckwing Games.

CHAPTER VI.

GAMES AND GAME BANTAMS

"I had the pleasure of visiting my old friend S. N. Thompson, of Southboro', Mass., not long ago," said Mr. Burnham, when our little party met once more, upon a fine 'May morning' last month.

"Thompson?" remarked the Major, "I know him well. Seven years ago he sent a neighbor of mine the finest dozen of breeding Light Brahmas that I remember ever to have seen, outside of your yards, neighbor Burnham."

"He has in the past ten years turned out a great many fine flocks of both Light and Dark Brahmas," rejoined Mr. B. "But among the several varieties he breeds upon his extensive and well-managed poultry farm at Southboro', including the Brown and White Leghorns, the Dominiques, the Plymouth Rocks, and one or two other standard kinds, I noticed some fine Games and Game Bantams there, which pleased me much. And this reminds me that *these* varieties (in accordance with last month's promise) are to form the theme of the present month's discussion."

"Yes, I remember. And you have laid out a good deal of work for this one issue," suggested Captain R., "for there are so many kinds of *Game* fowl, and such a variety of the beautiful *Bantams*, that we must make our present chapter of record a lengthy one, indeed, to do justice to *all* sorts of these two popular and varied classes."

"I understand you," said Mr. B. "We cannot go into long details upon any particular breed, in these papers. But we will do our best to make the records just, and as clear and reliable as possible, without entering too largely (in these communications) into the minor history of the stock we have in America."

"It is a matter well known to travelers and to those who may be residents in the low latitudes of Europe, that *Game* fowls—in some form—are immense favorites among the aristocracy, as well as among the commoners, almost everywhere. While, all over the United States, from north to extreme south, this valiant breed of fowls are cultivated most extensively among us, in all directions."

The cut at the head of this chapter represents the Duckwing Game fowls very accurately. The style of these birds is not unlike that of the imported specimens of this race in late years brought over from England. The Black-breasted Reds, the Ginger Reds and the Brown-breasted Reds are all of similar fashion, build and general proportions, varying only in their respective different *colors*, as above designated.

"And these are bred as you have hinted," remarked the Doctor, "very extensively, both in Great Britain and in this country, for pit, for spit and for the show rooms."

"But largely for exhibition purposes," responded the Major. "Few of these fowls find their way among professional cockers, inasmuch as these latter gentry entertain a strong prejudice against what they term 'these dandy birds' which have not fulfilled *their* expectations (as a rule) when placed in the pit, it is claimed."

"At the same time," observed Mr. Burnham, "you will find that many leading breeders of these modern gallant-looking fowls insist that all this is merely prejudice on the part of those who choose this fowl for its fighting qualities. And most of our American breeders of Games declare that their favorite strains are not only 'thoroughbred,' but that they will prove 'game to the death,' when pitted in the ring."

"I have known the Game fowl well, for many years," remarked Captain R., "and although I agree that these later samples we have had from England are bred more closely 'to feather' than they were in the days when I knew the foreign varieties at their best, yet it is a fact that this nicer cultivation of these birds has taken the fight out of them in no small degree."

"But they will stand steel like the rest, of course?" suggested the Colonel. "The blood is there, and the more exquisite the fashioning of the race, the better they should prove—upon general principles, I imagine."

"That is the theory, I know," responded the Doctor. "But it is averred by those who have tried these fierce-looking fowls in the cock-pits, against those that have been produced by experts in rearing other varieties—known previously as Tartars, Derbys, Strychnines, Irish Shawls, Heathwoods, Dusty Millers, Slashers, Georgians, Mealies, Duns, and many

others—that the newer varieties are no match for them, generally speaking, when they come to confront their favorites in the arena, weight for weight."

"There are, no doubt, great numbers of the Games bred in America for pit uses," said Mr. B. "But where one is cultivated for this purpose only, hundreds are raised annually, in every State in the Union, for consumption, for exhibition, or for their beautiful appearance in the fowl runs.

"We must not lose sight of the facts, too, that as mothers and as protectors of their young, no hen is so good a bird as is the Game. For the table no fowl meat surpasses this in quality. As layers the hens yield a goodly quantity of very rich though small-sized eggs. And as feeders, they are but very small consumers of grain, as compared with the larger varieties we have among us."

"And you might add," remarked the Colonel, "that as show birds no class named in your Standard is so attractive to the mass of attendants upon your yearly poultry exhibitions as are these elegantly-plumed, high-spirited, valiant representatives of the domestic feathered tribe."

"A cross of the Game cock upon *any* variety of hens we cultivate in this country," continued Mr. Burnham, "and I may add especially upon the Asiatics, if we desire the product for family uses merely, cannot well be excelled. A full-bred Game cock among a flock of ordinary barn-yard fowls will wondrously improve the progeny of such common stock."

"Yet they are a difficult sort to raise," suggested the Major. "The chickens are usually hardy and tough enough naturally, but they are so predisposed to pugnacity that it is hard to prevent them from pecking each other to death, first or last; and from the very shell they will quarrel incessantly, if kept in limited quarters, or permitted to come in contact with each other."

"This is an objection to breeding them in large numbers together, I am aware," responded Mr. B. "But, under proper management, all this difficulty can be overcome. Ordinarily, it is true these spunky little creatures 'had rather fight than eat,' I know. But if they are discreetly fed, and can have (as they ought to have) convenient range, rather than to be housed up in close quarters, they will do very well, in moderate-sized flocks, up to five or six months old."

"Who among our breeders to-day have the best and most reliable stock?" asked the Colonel. "For one, I confess that I am partial to the Games; and I would like to know where I should apply to get the Simon-pure article."

"I cannot answer your query," replied Mr. B., "in this place. You observe, Colonel, that there are so many adepts in Game breeding, and opinions as to the quality and character of this stock, on the part of American fanciers, are so various and so conflicting, that it would not be easy for any one to decide this point."

"Still, as I understand that you write about, but do not breed this variety, Mr. Burnham," continued the Colonel, "there certainly can be no impropriety in your giving us this information, if you possess it?"

"Possibly not, Colonel. But as I said just now, there are so many fanciers who breed good Game fowls, of one sort or another, that it would savor of partiality if I praised the stock of any particular breeder."

"You are acquainted with A. D. Warren's Game stock, at Worcester, I fancy?"

"O yes—very well."

"You have seen Mr. Lincoln's?"

"Yes, frequently."

"And that of Dr. Betts, Dr. Trask, Col. Hudson—Mr. Bestor's, Neil Thompson's, E. R. Spaulding's, H. D. Warner's, Gray's, E. T. Bailey's, McQuillin's, Allen's, Twells', Webb's.—"

"Yes, Colonel. And those of fifty others you and I could name."

"And where do you recommend me to go, to procure the best of their kind?"

"Personally, I have no choice, Colonel. Some of these fanciers have cultivated Games much longer than have others. Some have one strain, or variety—some another. In the advertising columns of *THE POULTRY WORLD* and those of *The American Poultry Yard* may be found the cards of scores of good men who breed this class of fowls, and some among them to great perfection, through long practical experience. So—for a choice of Game fowls—first deciding in your own mind what you want (or rather for what uses you desire this variety), I refer you to the advertisements of those who cultivate them; with the suggestion simply that there are enough of them to be had, among the superior thoroughbred stock-

we have at the present time, in various parts of the country."

"The successful hatching and rearing of Game fowls," continued Mr. B., "is not essentially a different process in detail from that requisite in the raising of any sort of domestic poultry. The known pugnacious disposition of the male chicks can be easily managed, with care, and the natural hardiness of this variety is largely in their favor, under all ordinary usage."

"Yet different fanciers have ideas peculiarly their own in regard to handling, mating and breeding this stock," said Captain R. "I met with my first experience among Game birds in the East Indies—forty years ago, almost."

"And what variety were you first acquainted with, Captain?" asked the Colonel.

"The Malays," responded Captain R. "Upon the Island of Java these strong-limbed birds are fought by the inhabitants in every village and hamlet on the coast. And they are bred largely for this purpose, there."

"The Malays?" queried the Major.

"Yes, Major," continued the Captain. "And if you will examine the form, the carriage, the action, the increased size, and the general contour of some of the later imported birds that come into this country now from Great Britain, you will find, in many of the larger strains, that there is a strong dash of Malay blood in these stalwart samples, undoubtedly."

"A cross—then?"

"All good Game fowls are the result of crossing, Major."

"But the *original* Game birds—so far as we know—are claimed to descend from English and Irish breeding," remarked the Doctor.

"I understand that," responded the Captain. "But the Derby Games; and the now more commonly called Black-breasted and Brown-breasted Reds, are a made-up fowl. That is, they come from the early Knowsley Park stock (which has been bred there for a hundred years, or more). But this strain was created upon this old 'Earl of Derby' estate, in skillful hands, by crossing the English native Games with fresh East India blood, of some sort."

"These Derbys, when purely bred, are a small variety, comparatively, I think?" asked the Colonel.

"So they are. A fighting Derby cock

that weighs over four and a half pounds is ruled out of the pit, in England. While in this country, we find them to average six pounds, and over; and in the ring, they are pitted *here* weight against weight, more commonly."

"To mate and breed Game fowls," said Mr. Burnham, "for popular results as to color and marking, is not unlike the mode to be observed in cultivating any specific variety of good poultry. We read that 'like produces like.' This maxim does not always prove strictly correct, however; inasmuch as many a like produces *un-like* progeny, in fowl breeding. But if the better-known class of stock be obtained at the outset, the results, as a rule, will prove generally satisfactory.

"Upon choosing such stock as you fancy, then, it is important that the cock and hens you are about to breed shall be rightly mated, first, as to color. The Black-reds, the Brown-reds, the Silver or Golden Duckwings, or the Ginger-reds, for instance, are now the five leading varieties, most popular and best known in this country. Either of these breeds are distinct, and all have their admirers.

"Dr. John C. Bennett received from Calcutta, several years ago, a Java Game hen, which proved a very strong strain of fighting stock, in his hands. He gave to this variety (which he crossed with his imported Sumatra Games) the name of 'Wild Indian Mountain Game.' And I notice that inquiries are made, to-day, for this 'Wild Indian' breed, every now and then! I can only say, in answer to such queries, that this particular strain of blood (like the *original* 'Plymouth Rocks' of Dr. Bennett) run out more than twenty years ago."

"But the crossing of the Black-reds upon the Duckwings mars the plumage in the succession, and an apparent 'mongrel' results; while the clean-bred Black-red, or the Duckwing, is by itself a beautiful bird."

"Old cockers care very little about this matter of *color*," suggests the Captain.

"Very true! But nothing is gained to the fancier by this cross," continues Mr. Burnham. "He loses the brilliant clean red, black and golden feather of the one, and blurs the silver, brown and yellow of the other, in the product."

"But he gets no 'mongrel' out of two such thoroughbreds," insists the Doctor.

"As to fighting quality, *no*," replies Mr.

B. "But, *cui bono?* What good comes of the mixture?"

"I do not know," says the Doctor. "But this I know: it is a very common thing among professional Game breeders to make this cross."

"Granted. But if the fancier desires to reproduce the same stock of birds that he purchases to breed, he must not mix these variously-colored Games. The blood of either sort is so strong that both will show in the chickens bred from a cross, most unmistakably. And neither the clean Black-red, or the clear Duckwing can afterwards be obtained from the progeny of such a cross."

"Well. Given the clean-bred birds of either variety," asks the Colonel, "how are they bred to best advantage?"

"As easily as any variety we have," replies Mr. Burnham. "Out of your product take the finest, best-plumed, strongest and boldest birds you can find, for stags. Select for pullets those that most closely resemble the mother-hens. If your sire is an exceptionally fine bird, take the young ones from the brood that nearest resemble him—because (in this breed, especially) the old cock's superior characteristics are valuable, and the *sire* plays a very important part in the production of the progeny. When you come to *selecting*—do not fear to cull your flock. A few prime birds are far more valuable, for any purpose, than many indifferent ones. The culls will serve for excellent table meat. But a poor Game fowl is a most unprofitable biped to have about your runs, after he gets old enough to show what he has come to!"

"How many hens should be bred to one cock?" inquires the Major.

"Half a dozen, if you look for cock birds. Ten or twelve, if you care only for a majority of pullets. But there is no exact rule to govern this. As in other breeds, *old* birds are better than young ones, for breeders. They will give you stronger chicks, ordinarily. But you cannot obtain of the young males *all* such as will please you—do what you may, or cultivate whatever strain of Game stock you may chance upon, to begin with."

"The Game hen is a rarely good mother," continues Mr. B. "There are none better, in the whole race of poultry; none that will take such jealous care of her young brood; none that will tackle cat, rat, dog or other vermin so valiantly, and

oftentimes so successfully. She will forage for her young as will no other domestic fowl. And at any time of the year, except when moulting, the Game is in order to kill for table use, if they are given a fair chance in the runs."

"Is this infusion of *Malay* blood among Game breeding stock desirable?" inquired the Colonel.

"No," says Mr. B. "Except to increase the size of the lesser varieties, and to introduce fresh foreign blood. It is very charily done in England; and few leading breeders there will admit that they do this at all. Still, it is very clear that this *is* done; inasmuch as the Black-breasted Reds are not grown, ordinarily, to exceed 4½ to 5 pounds weight for cocks. And no other known variety (except the Malay) will give the additional size we so often meet with, the greater length of leg, and at the same time preserve the true colors of the Black-reds."

"And you think the *crossing* of the varieties you have mentioned—say the Black-reds upon Duckwings—is not advisable?" suggested the Doctor.

"For *why*?" asked Mr. B. "I know this is done, largely, among cockers. Through this method the various mottles, duns, mealies, grays and splashed birds are obtained. And as those who breed Game cocks for the pit only, do not, as you say, care about the *color* of the birds raised—so that they prove dead game—it is perhaps of little consequence to *them*. But my idea is, that if you fancy Black-reds, you should breed this variety, by itself. If you like the Duckwings best, breed that sort, clean. But never cross two distinct varieties, when either is of itself good enough; provided you have what is really first-class original stock. There is no reason why this should be done among fanciers with the Games any more than with the Light and Dark Brahmas, for example. And surely no one who knows anything of the two latter-mentioned kinds, would ever think that he could improve either breed by crossing these, I apprehend? The principle, I claim, is identical.

"Young Game chicks should be fed half a dozen times in a day, after leaving the shells, upon hardboiled eggs, mixed with bread crumbs and finely-cracked wheat. If steeped in milk, all the better, at first. Thus for a week. Then give them boiled rice and vegetables mixed, and let them

have a grass run, if possible, outside the coop, where the hen for the time being is best confined. If this grass-patch is not availed of, they must have chopped cabbage, bruised raw onions, lettuce, etc., for 'green' food.

"Furnish them with insect food, or finely-chopped liver in place of this. When four or five weeks old give barley, wheat-sweepings, crushed corn and ground oats. Two or three times a week let them have coarse crushed bone, and occasionally chandlers' scraps.

"Confine them at night, and be careful that they be kept out of the rain, or from waddling about among the wet grass early in the morning, before the dew dries off. Preserve them free from lice, at all times. At six weeks old set the hen at liberty, and let them forage for a part of their living. The spirited Game mother will take good care of her brood, and thus the chicks may be reared—strong, healthy and thrifty—as a general rule."

"And the *Bantams*?" asked the Major. "We were to say something of these pretty birds this month."

"Yes. There are a good many varieties of this class, Major, and most of them are worthy of cultivation, as pets. The Japanese, the Sebrights, the Gold and Silver-laced, the Africans (or black Spanish), the White, the Nankins, etc. But the Black-red and Duckwing Bantams—'diamond editions' of the full-sized Game fowl, are just now the most prominent, the most attractive, and most desirable birds we have in America."

"Some of these sprightly, high-stepping pigmies are very beautiful birds," remarked the Colonel. "At the fowl shows, for a few years past, they have attracted a great deal of attention."

"And deservedly, too," continues Mr. Burnham. "I think we may refer to those contributed to the public exhibitions in New England, for the last two years, as among the choicest specimens of this diminutive but exquisitely-plumed tribe that have ever been shown in the United States."

"And they are very popular."

"Yes. Until within a few years the Golden and Silver-laced Sebrights have carried away the palm, *par excellence*, among the Bantam race. Now the rage is for the tiny Game Bantams."

"They average much smaller than the others, I think?"

"Somewhat, yes. The Standard gives the minimum weight of the Sebright cock at 26 ounces, and hen 24 ounces. The Game Bantams must not exceed 22 ounces for cock, or 20 ounces for hens. And they often fall below these weights. The plumage of either of the latter is required to be that of the Game fowls—of the same variety—throughout."

"But *these* little creatures are said to be quite difficult to breed, I believe," observed the Doctor.

"Not at all! Any one who can breed other fowls, successfully, finds no difficulty with these. True it is that there are those who excel in cultivating Game Bantams. They make a specialty of this variety. And some of them have brought this thing down to a fine point."

"E. R. Spaulding, of Jaffray, N. H.; G. S. Merritt, Hartford, Conn.; O. W. Volger, and G. W. Chidsey, of Elmira, N. Y., for examples," suggested the Doctor.

"Exactly. You are right, Doctor. The finest bred Black-red and Duckwing Game Bantams I ever saw, and which certainly fully deserved the high encomiums passed upon them at the last grand show in Portland, Me., were those exhibited by the two fanciers you first mention—Mr. Spaulding taking the lead in the prize-list for some exquisitely formed and pigmy samples of both varieties."

"And these are now bred smaller and finer, year by year."

"Well—it is aimed to produce the most diminutive perfect birds that are attainable, in these varieties, as the Standard for *weight* credits the Game Bantams for $\frac{1}{2}$ a point on each ounce a bird may draw less than 22 for cock and 20 for hen: or, 20 ounces for cockerels and 18 ounces for pullets. It is not an uncommon thing to meet with mature *hens* weighing even less than 16 ounces."

"That is very small!"

"Yet they are perfection itself in symmetry, plumage and style."

"How is this done?"

"Mostly through delaying the hatching of these varieties until fall, or late in the summer. The cold weather sets in before

they get feathered, and the subsequent winter runts them, in growth."

"All the little Bantams are not so raised?"

"No. Mr. Spaulding informs me," said Mr. Burnham, "that this is not his method at all. He hatches them in the spring, and by a judicious mode of feeding—that is, a moderate diet, and learning them to forage for their living in part, when insects are plentiful in summer—he keeps the size down, selecting always the smallest and most perfect birds he raises for his breeders, in succession."

"As to their general care and culture," concludes Mr. B., "this does not differ materially from the requirements detailed for Games. The chickens of the Bantams are not more quarrelsome than are any ordinary fowls. And it is very little trouble to grow a brood or two of these tiny birds, as they need but limited space for their accommodation, and the amount of food that fifteen or twenty of them consume annually is very trifling, as to its cost.

"At four to five months old, both the Games and the Game Bantams may be dubbed; and this process will improve the appearance of the head, vastly. The operation is a simple one—this trimming of the comb and wattles—and may be performed in a couple of minutes, with a sharp pair of shears. The wounds will bleed but slightly, and the birds take no notice of it. Sometimes it is necessary, for a few days, to set the stags aside from their hens while the wounds are fresh, lest they peck at the blood and keep the heads and gills of the crowsers sore.

"But we must close the discussion for this month, gentlemen—here. We have already over-reached our limits."

"And next month——?"

"As this is the season best adapted to the purpose, and as numerous correspondents have requested it, in our next month's paper we will have something to offer that will interest a great many readers, on the subject of *Capons*, and the *Process of Caponizing Fowls*," responded Mr. Burnham.

And to this topic our paper for July will be specially devoted.





CHAPTER VII.

CAPONS AND CAPONIZING.

The above drawing is a good representation of a caponized (or castrated) male fowl, a year and a half old: The process is a simple one, and any nimble-handed farmer or poulterer may perform this work successfully, with a little study, after having had some practice in the surgical operation.

When a cock is thus deprived of the organs of reproduction, he grows rapidly in size, and puts on flesh proportionately. The capon, well fed, will reach an immense weight at a year and a half old—frequently rivalling the cock-turkey, at same age.

From the time the operation is performed upon him, however, he drops the carriage of his tail, and is no longer a “high-stationed” bird—of whatever breed he may be. As shown in our drawing, the tail is thenceforward carried in a horizontal or downward position; and he becomes

an arrant coward, in the poultry yard—the butt alike of hens and breeding cocks. But the capon is a rare dish upon the table, and these are *par excellence* the most admirable of all domestic fowls, to the palate of the epicure, or *bon vivant*.

“I have made many a good capon, in my time,” remarked Mr. Burnham, when the friends met for discussion, once more.

“And you have no doubt slaughtered more than you ever succeeded with,” responded the Doctor, good-humoredly.

“That is true, Doctor. Yet after a little practice I found no difficulty in this work, and did not lose one bird in ten that I operated upon.”

“You were lucky, friend B. I consider this quite an art, myself. And I know more about surgery than you do, I think.”

“So you do, Doctor. And you understand how to manage *this* procedure ad-

mirably—as we are all aware. Now, will you give us your method, for the benefit of the readers of 'Talks and Walks,' and the patrons of THE POULTRY WORLD?"

"O yes—with pleasure."

"This caponizing is a very common thing in the East Indies, and in China," observed Captain R. "I have seen it performed very quickly by Malays, Malaccas, Chinamen, Sepoys, Borneo negroes, and the Javanese. In the latter Island, capons are grown to very large proportions. They make use of young cocks of the Malay and the Black Java tribe for this purpose; and some of the yearling capons reared there will weigh, dressed, ten to twelve pounds. They are a tender though rather dry meat, but are esteemed among the better families as the best table poultry in the world."

"It is now some years since I experimented much in this process," continued the Doctor. "But I have felt surprise that more capons were not grown in this country; where they are really so desirable for the table, and where it may be done so well by an intelligent and careful hand."

"Like other matters requiring skill, some knowledge of the anatomy of a fowl, and a modicum of patience," said Mr. Burnham, "many failures occur among our people—of which we often read."

"And yet it should not be so," contended the Doctor. "For, although it is a nice thing to perform, the art may be acquired readily, if, as you observe, the operator will exercise due patience, care and common-sense in his management."

"How came you to be initiated into this secret, Doctor, and how did you succeed with it?"

"O, many years ago, gentlemen. The first time I ever saw the caponizing process performed, it was done at the poultry farm of a friend in Dorchester, Mass., and the operator was a Chinaman, at that time body-attendant of Captain Sturgis, of the U. S. Navy, commander of the revenue cutter stationed in Boston harbor.

"Chinfu had this art at his fingers' ends, literally. He used no knife in the operation, after making the skin-slit between the hip bone and two ribs, but, passing his immense long hook-like finger-nail (which the Chinaman glories in cultivating) under the testicles, he deftly removed one and then the other, in less time than I

have taken in relating the fact, and in better shape than I could do it with forceps and scalpel."

"But we Americans do not pride ourselves upon the extraordinary length and curve of our finger-nails, Doctor."

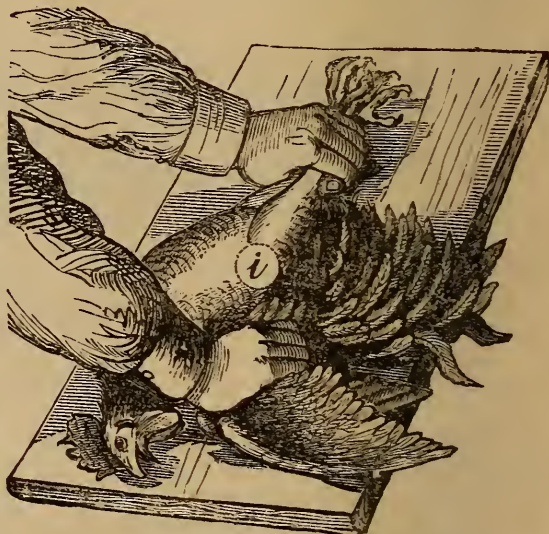
"No. And therefore we must make use of the proper tools that are manufactured for the purpose indicated."

"And what are these?"

"Very few in number and quite simple in construction. I have never seen any great improvement upon the instruments used by the Chinese for centuries. These were but four originally, but in later years a fifth has been added; the latter being of flat spoon-handle shape, three and a half to four inches long, and half an inch in width."

"What is this for?"

"It may be used instead of a common



teaspoon handle, to push aside or keep the intestines out of the way, after the outward skin incision is made, and while you are operating to remove the testicles."

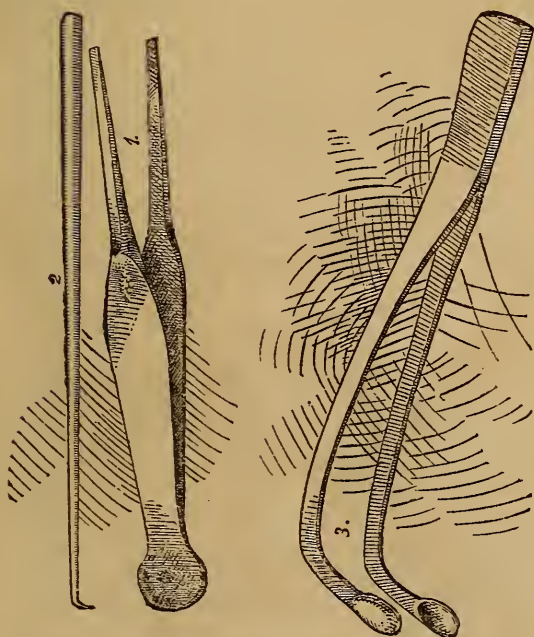
"Now, please explain this whole method of caponizing, Doctor. There are many poultrymen who have no idea what it is. And when, as you remark, it may be rendered a source of large profit to the market poulterer, over and above the usual plan in disposing of surplus cockerels annually, I am sure the readers of this magazine will be gratified to learn how this may be done."

"In the first place, then, the cock birds intended to be caponized should be not over two and a half to four months old. Three months, generally speaking, is about

the right age at which they should be castrated.

"Two persons are better than one to perform this operation; one to hold the bird—its left side downward—firmly upon the table, by limbs and wings, so that he will not struggle under the first application of the knife, while the operator makes the outward incision, and removes the organ of reproduction. The cut on opposite page shows the bird in position to be experimented upon.

"The small circle inclosing *i* is the spot at which the opening slit should be made, at a point on a direct line between the shoulder and the hip, or upper part of the



thigh. The skin should be drawn backward smartly before cutting, so that when the work is done, it will slip over the wound and resume its natural place. This obviates the necessity of stitching up the slit.

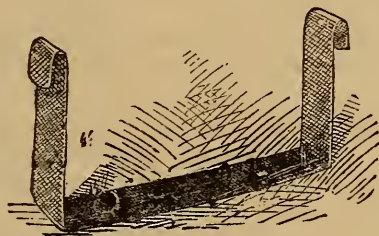
"Before cutting the skin, the feathers must be removed, say for two inches square space. Then make the straight cut carefully, just midway between the two last rib bones—not too *deep*, lest you wound the intestines—but deep enough to part the two ribs clearly at this point. Then, using the round-pointed hooks (one at each side of the opening) to keep the slit widened out, proceed to withdraw the testicles.

"The Chinese method of doing this is by cutting off the cord, which holds them,

with a horse-hair loop. But the better way is to wring or wrench them off. This causes less bleeding, and is quite as expeditious, when performed adroitly.

"The two days previous to operating upon the young cockerels should be days of fasting with them. Thus the intestines are not clogged with food, and you are less liable to injure them. All that is necessary to be done in this proceeding is to *take away the two testicles, and nothing else*. When these are removed, the feathers you have plucked off may be matted over the slit, in the fresh blood, and the fowl may be set at liberty. No washing, bandaging, or stitching is needed. The wound will quickly heal up, and your bird will prosper satisfactorily, if you have done your work clean and thoroughly.

"Should you cut too deeply, and the victim bleeds to death—as they will, in your first trials, often—he is just as good for eating or marketing, as if you had cut off his head. But you need not lose many,



if you exercise care and patience, and learn something about what you are to do, before you commence operations.

"For two days after this, feed very sparingly. Give them all the water they will drink, and only cooked meal and shorts for a week. Thus you may begin to 'make a capon' rightfully.

"When you have the slit fairly open, you will discover the parts you wish to remove lying snugly together, about an inch below the skin, beneath the two ribs you have parted. Over these is formed a thin inner skin or sack. This must be broken into, and the two testicles raised up. They may then be twisted out and separated from the spermatic chord very easily. The fowl is subjected to no pain in this operation, and the whole proceeding need not occupy more than three minutes, ordinarily, in safely completing."

"Where can these tools be obtained?"

"I think the set of caponizing implements advertised at THE POULTRY WORLD office are very good ones. Those who

have used these instruments (which cost only four dollars complete), inform me that they have worked very nicely. This set of implements is well made, and they consist of a pair of broad-shafted tweezers and a pointed hook, as shown in the accompanying cuts, respectively marked 1 and 2, and a pair of crooked concave forceps, marked 3. The other two instruments are a common keen-bladed pocket-knife, of any ordinary description (for making the first incision in the skin), and the steel splint, with a broad flat hook or curve at the outer ends, as shown in the cut marked figure 4.

The proprietor sends with them full printed instructions for their rightful use; and I do not know that they are manufactured elsewhere in this country, though there are some that are imported at much higher cost; but which are no better, in the hands either of novice or expert."

"What breeds, Doctor, do you consider the best fowls to make these capons of?" asked the Major.

"In England, the Dorkings and Malays have been used for many years—until the Cochins and Brahmas were plentiful there. In the East, as the Captain tells us, the Malays and Java fowls are used. In France, the Houdan cocks have been tried; but these do not come up to the desired *size*, although their meat is very fine. In this country, the 'Bucks County' fowl is used very largely in Pennsylvania, and the 'Jersey Blues' in New Jersey.

"Of late years, however, the Chittagongs, the Cochins, the Malays and the Colored Dorkings have been turned into capons, in the Middle States, very generously. Any of the larger species of fowl will answer. But I doubt if among all the varieties I have mentioned there is one kind so good as are the *Brahmas* for caponizing, or one that will average so meaty and so large a bird, after castration, at eighteen months old, when properly fed."

"What is such dead poultry worth, Doctor?"

"The very highest market price that is paid, in the season when they are sent in for sale. Thirty to forty cents per pound is the average figure. And good fat capons are never a drug in the sellers' hands. In Philadelphia enormous quantities are sold, and in New York or Boston large numbers are consumed in a season. Three to four dollars is the average cost of a good-sized bird, and as high as five dollars are paid

for the best and heaviest, at certain times in the year."

"It is strange, then, as you say, Doctor, that no more attention is paid to raising capons in this country," said Captain R.

"The business is not understood generally," continued the Doctor, "and the results of cultivating this desirable poultry are not appreciated. There is money in it, gentlemen, whenever or wherever it is well done."

"There has latterly been a good deal of inquiry upon this subject," observed Mr. Burnham. "And I am quite certain that there are scores of our American poultrymen who every year have large numbers of young surplus cocks among their flocks of Cochins and Brahmas which might thus be utilized to good advantage, but which are nowadays turned into the shambles at a merely nominal price, as 'culls.' These are the imperfectly-developed cockerels, that at three to four months of age show some deformity in shape, or lack in color or other standard qualities, which are disposed of to the butcher at a low figure usually."

"Yet these would make very good capons, if treated rightly?"

"The best in the world, I contend," responds Mr. Burnham. "Many of these birds have the frame upon which might be built an enormous fowl, as to size, in a twelvemonth's time, after castration. But they come with hollow backs or twisted wings, wry tails or heavy lopped combs, spotted backs or extreme light neck-hackles, and are consequently useless for sale as 'fancy' birds, at any age. But caponize them, feed them well, and fatten them at sixteen to eighteen months old, and as table poultry no fowl equals them, of any breed with which I have ever yet had any acquaintance."

"Why has not this fact been known hitherto?" queries the Major.

"Because very few of our poultry cultivators have any knowledge of caponization at all, or its advantages, Major. This is the general reason. And another is found in the fact that most of those who would very willingly undertake the thing—and believe it to be feasible—fancy that it is a very mysterious and risky operation, with great difficulty performed, and they fear to make the experiment."

"I can understand all this. Yet if what you and the Doctor have now said be true, it is surely an object to some, or

any, of our cultivators of the larger breeds to make the most of it."

"Very true, Major. And this is why I deemed it proper to make this caponization the subject of our present monthly discussion."

"I think, with our good friend the Doctor's timely remarks, combined with your own suggestions to-day, you have managed to give us all the light needed, at least for a beginner at this business."

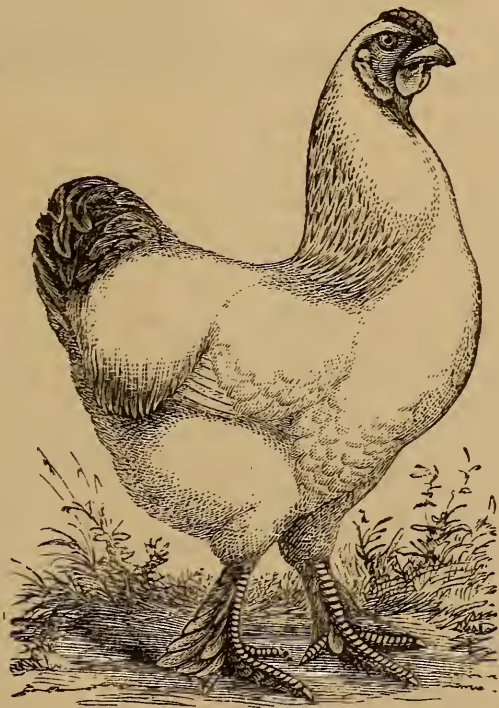
"My impression is, that if those who feel inclined to undertake this thing will supply themselves with the needful set of tools referred to—which are quite complete for the purpose—and make a trial upon some of their young male culls this summer, they will find that this 'art,' as the Doctor is pleased to term it, is just what Monsieur de Reaumur describes another to be: 'So simple, that we no sooner

become introduced to it, than that we shall find it to be no 'art' at all.' For, once a man succeeds in performing this process of castrating a fowl well, he can never forget how he did it; and he will rarely make a mistake in repeating the performance, so long as he is properly careful and observant during the operation."

"I quite agree with you, neighbor Burnham, in this suggestion," added the Doctor. "And I hope the readers of THE POULTRY WORLD will avail themselves of the hints now given."

"Next month, gentlemen," said Mr. B., "we will have a 'talk' about the *Cochin* tribe—the White, the Buff, the Partridge, the 'Pea Combs,' and the Black varieties."

And this being agreed upon, our little party separated—to enjoy their July "vacation."



LIGHT BRAHMA COCK, 18 MONTHS OLD. (BURNHAM STOCK).

The above bird is a very good style, for any purpose—but no variety of fowl we have in this country at present grows ordinarily to such large proportions, or is so well adapted for making

good Capons as is this. At eighteen months old, they will average as many pounds weight (after early castration,) as any breed in the world, and are peculiarly suited for caponizing purposes.



COCHINS.

CHAPTER VIII.

ASIATICS—BRAHMAS, COCHINS, Etc.

THE COCHIN FOWL, *per se*, is so well known throughout this country and England, to-day, that a detailed description of this fine variety of domestic poultry is hardly necessary. But our "Talks and Walks" would be quite incomplete, did we not devote a chapter to this splendid breed—which embraces the five distinct varieties of White, Buff, Partridge, Black and Pea-comb Partridge Cochins, recognized in *The American Standard of Excellence* as separate individual kinds, in this favorite Class.

"We are indebted to England, I believe," observed the Doctor, "for the earliest and best 'improved' strains we had in this country, of most of the modern varieties of Cochins?"

"Not at all," responded Mr. Burnham, promptly, to this suggestion. "The first 'Cochins' that came to America, under this name, I imported myself, in 1848-9, from the then famous Queen's stock."

"But these were the Cochin Chinas, and were quite a different style of bird to those

we have at the present time in this country."

"So they were, Doctor. But they came into Massachusetts direct from the royal stock, which had a year or two previously been presented to Her Majesty by the British Ambassador in China. And the originals came direct from Shanghai."

"They were smooth-legged fowls, if I remember?"

"Yes. But they were what were then called Cochins—or 'Cochin Chinas.' And about the same time (say in 1847) several other importations were made by Missionary Brown, by Rev. Mr. Marsh, by R. B. Forbes, by Capt. Cushing, by Cope, by Palmer, and again (in two instances) by myself—all from Shanghai, China, direct. And all these latter birds were feather-legged, as we have them to-day."

"Still, I think that the Englishman had several fine strains of these birds in London as early as '47," insisted the Doctor.

"Well. I know that our importations into Pennsylvania and Massachusetts were

among the earliest that came from China. And I know also that I sent to Great Britain, from my own imported stock—which we then called ‘Shanghais,’ and not Cochins (though they were precisely the same bird in color, form, and points that we now know as ‘Cochins’) a good many superior specimens, that were highly prized there as breeders.”

“Well, I do not think it of much consequence who *first* brought the Cochins among us,” observed the Major. “One thing is pretty certain: they have had a wonderful good run of popularity in this country; and their introduction among the common barn-yard poultry of the United States has proved immensely valuable to the fowl-stock we breed, in all directions, since 1847, or thereabouts.”

“Yes, indeed it has,” said Mr. B. “I remember very well the old days—when Dr. Bennett, Capt. Williams, Rev. Mr. Marsh, Eben Wight, Col. Jacques, Capt. Alden, Capt. Forbes, Messrs. Hyde, Andrews, Devereux, John Giles, Ad. White, Jona. French, Chas. Sampson and myself first came into possession of the early Cochins (or Shanghais), and how actively we competed with each other for the supremacy in the show-rooms, in those days.”

“And were these birds at that early period as fine as those of the same varieties and colors that we have nowadays?” asked the Major.

“Every whit,” responded Mr. Burnham. “Indeed, I can call to mind some of those birds, which became quite notable from 1848 to 1855, that were very superior.”

“But they were not, at that early time, bred to any particular ‘standard,’ if I read aright,” said the Doctor.”

“No, we had no standard then, in fowl-breeding,” responded Mr. Burnham. “The aim appeared to be to grow or possess the *biggest* kinds of Cochins cocks or hens, chiefly—without especial regard to color, or other nice points.”

“And all sorts were bred together?”

“Yes, indiscriminately, for years,” replied Mr. B.

“Which gave you progeny that proved ringed, streaked and speckled—so far as the color of their plumage was concerned?”

“Exactly—for a long time after we first commenced to breed this stock,” continued Mr. Burnham, “We had the White, the Buff, the Grays, the Lemon, the Red, the Cinnamon, the Drab, the Brown, the

Bronze, the Partridge, the Grouse and the Black birds.”

“And all were *imported* originals?”

“Yes. And each clutch or importation was clearly and distinctly colored, as I have now enumerated them. While, at the present day, many of these distinctive colors have entirely disappeared; and we have at present only the White, the Buff, the Partridge, the Black, the ‘Brahmas,’ and, lastly, the ‘Langshans,’ as standard varieties. But *all* are Chinese, or China fowls; and *none* of these breeds have been shown to have come among us from any other country, originally, that I have ever been able to discover.”

“The blood of these foreign fowls has proved potent, indeed, among American poultry”—remarked the old Captain.

“When I first brought home from the East Indies the great *Malay* and *Java* fowls, now forty years ago, there was no excitement in this country in regard to chicken-rearing.”

“The ‘mania’ had not then broken out, Captain!”

“No. We put these young birds on ship-board for eating, on the voyages homeward from Calcutta and the Indian Ocean. Those we had left on arrival, after a six or eight months’ voyage, had grown to be full-sized fowls. We gave them away to our American friends, and they bred them among their dung-hill fowls; but no notice was taken of the fact, that I heard of, for years afterward.”

“But these were *not* the *Cochins*?”

“No. They were East India birds. Tall, gawky Malay, Javas, and the like.”

“As I recollect them,” continued Mr. Burnham, “the Marsh, Forbes, Missionary Brown and Cushing Shanghais were the finest specimens of China fowls I have ever seen, then or since. These were clean Buff, clean Yellow or Partridge, and clean Golden hued. In England, about this same time (1847 or ’48), Mr. Sturgeon’s clerk, in London, bought on the deck of a newly arrived Indiaman (from Shanghai) a trio of Buff fowls, at a cost of seven or eight shillings each, that were very fine. This price Mr. Sturgeon considered very exorbitant. But he lived to raise from that trio the most extraordinary strain of Buff Cochins that ever were seen in England—many a single descendant of which stock was subsequently sold for twenty or thirty times the cost of the original three birds! Among these chickens were grown

the famous hen 'Queen,' which brought twenty pounds sterling (\$100) at an auction sale in London three years afterward, and the noted cock 'Jerry,' at same sale, which sold for thirty pounds (\$150) gold."

"And many a trio of both the Buffs and the Partridge Cochins have since then been sold in America at equally fabulous figures," said the Major.

"Oh, yes," rejoined Mr. Burnham. "I paid Capt. H. H. Williams, of West Roxbury, in the show-tent at the Public Garden at Boston, in 1852, \$100 cash for the first prize Buff Cochin cock at that exhibition. And in 1853, Mr. John Baily, of London, paid me \$100 for a trio of Dark Brahmas—one pair of which he re-sold at the Birmingham, Eng., show, the same season, for \$500 in gold!"

"Ridiculous prices, these!" exclaimed the Doctor. "Surely no such value as this exists in a domestic fowl?"

"An article possesses value according to what it will command in the market, Doctor," returned Mr. Burnham. "I have paid these large prices, willingly, for prime birds—and I have received such prices, oftentimes, when I have parted with favorite specimens."

"But all that doesn't make the birds worth the figures you mention."

"How else can you manage prices?" asked Mr. Burnham. "It is simply the result of a standard rule in trade; demand and supply."

"Ah, yes. I understand *your* theory, friend Burnham. But I tell you again, that no Cochin, or Brahma, or other fowl that ever was raised on God's earth is, in my judgment, intrinsically worth the price you have mentioned!"

"To *you*? No. To *me*—yes!"

"Well, I fail to see it."

"Wait a bit, my good Doctor," insisted Mr. Burnham. "At the last State show, held at Portland in 1878, I paid \$50 for a good pair of ten months' old Light Brahma chickens. At the latter show I declined \$100 for my prize pair of year-old Light Brahmas. A pair of Golden Polish fowls, imported from England, exhibited at this same show, cost the owner \$100, and he was offered (and refused) \$150 for them. A well-known breeder of Partridge Cochins disposed of his first prize cockerel at a Rhode Island exhibition, three years ago, for \$200! I sold a young Light Brahma cock to a stranger, after the Portland show (in Melrose) for \$60. And I

had a standing offer of \$100 for my '99 $\frac{1}{2}$ ' Light Brahma cockerel (first at Hartford in 1878), which I declined for months."

"I do not wish to purchase any such fowls," concluded the Doctor, good-naturedly.

"No! But others do, Doctor. That is what we breed them for—good birds and good prices."

"Well—about the *Cochins*, of to-day. Which, of the present known varieties, do you consider the best, for ordinary uses?"

"I have little choice, Doctor. I admire the clean White birds, for their purity of color and grand proportions. We are now breeding this variety very finely in this country. At the late annual leading exhibitions there were many coops shown that were superior, and which did the owners credit in the breeding. I do not intend to be over-partial in expressing my opinion regarding particular strains of birds," continued Mr. B., "but I think it but just to say here that Mr. W. B. Dalton, of Maine, and Mr. W. T. Fenton, of Indianapolis, Ind., have produced, of late, some of the finest White Cochins we have ever had in America. A few years since, Mark Pitman, of Beverly, showed some extra stock he bred; and W. H. Todd, of Vermillion, O., has very good birds of this variety."

"And the Buffs?"

"We have not so many good Buff Cochins in America now as in former years."

"What is the reason for this?"

"The stock we have now has been too long bred in-and-in. We have not imported a great deal of fresh blood in late years, of this color, and what we have on hand has degenerated. There are a few fanciers who continue to produce the Buff Cochins, who breed them very well. But as a rule, I think this variety, comparatively, gives less satisfaction, in the succession, than do some others."

"They are a splendid fowl," said the Doctor.

"So they are—when clean bred," replies Mr. Burnham. "There is a Mr. Meekum, of Malden, Mass., who has some fine stock that he cultivates very carefully. Mr. Williams, of Taunton, has bred choice samples, in late years. Mr. Merry, of Ilion, N. Y., has exhibited many fine coops of these birds; and Mark Pitman, of Beverly, has grown some superb specimens of Buffs. But the great difficulty, nowadays, with all this stock is to preserve its

purity of color. The clear buff blanches, or turns drab, in the hens, after the first moult, mostly. And this mars their beauty, seriously."

"The Partridge Cochins have been improved, I think, within the last five to seven years," continues the Doctor.

"Yes—largely, in marking and penciling, where this excellent stock has been judiciously cultivated. The strains of Messrs. Brackett, of Boston, Bradley, of Conn., Todd, of Ohio, and several others who have given careful attention to the breeding of this variety, have become notable and deservedly popular. The Pea-comb Partridge Cochins originated by Mr. Edmonds, of Melrose, are being bred very nicely for color, now—after an experience of eight years with them."

"And the Black Cochins?"

"Are not so widely cultivated as are the others. They are a grand good fowl, nevertheless. Their color is against them, in the esteem of many persons—but they breed as uniformly as do any of the species, in good hands."

"You named the 'Langshans,' in this connection, Mr. B.," said the Major. "What do you think of this breed?"

"I have examined the Langshans upon Mr. E. A. Samuel's premises, at Waltham, Mass., and I think well of them. They are a Chinese fowl—the originals being imported direct from the district in the north of China bearing this name. They are more closely allied to the Black Cochin—I fancy—though their extraordinary fine plumage is entirely devoid of the brassy hue that is so often seen on the Black Cochins. Their feathers are of a glossy, purplish-black, all over—upon both

sexes. They are single-combed, as are all the others, and so far they have given promise of being rendered a valuable acquisition to the 'improved' breeds of both England and America."

"Are they good layers?"

"All the Chinese fowls we have in America are good layers. There is a choice among the Cochins, in this respect, I think. I have found, of the five or six varieties whose character we have discussed to-day, that the *Partridge* colored Cochins are the best average layers, and that the Pea-comb Partridge fowls are the best *winter* layers we have. Such, at least, is my own individual experience."

"And as to size?"

"Ah, well—any of these birds—the Brahmas or the Cochins, of any color, are big enough. The Buffs, perhaps, may run the heaviest, take a hundred, together. But the Partridge variety breed evenly, and are quite large enough for all useful purposes," concluded Mr. B.

"We will all enjoy our summer vacation," remarked the Major, at this point, "before we meet again?"

"And then we will discuss the merits of the *Brahma* fowls—say for September paper," observed Mr. Burnham.

"Yes," responded the Doctor. "And no doubt our friend Burnham will, upon *this* favorite theme and breed of his, be able to 'offer a few feeble remarks' that will prove entertaining and to the p'int."

"I will try to, gentlemen," said Mr. Burnham, modestly.

And so—next month—we will have a "Talk" about the BRAHMAS, *Light* and *Dark*.





Cockerel 99 $\frac{3}{4}$ Score.

First at Hartford, Conn., 1878.

Pullet 98 $\frac{3}{4}$ Score.

First at Hartford, Conn., 1878.

CHAPTER IX.

BRAHMAS—LIGHT AND DARK.

"The *Brahmas*, Light and Dark," observed Mr. Burnham, at the meeting of the friends last month, "are now known the world over as the most generally popular and desirable improved domestic fowls extant."

"They are certainly very beautiful birds, when well bred," admitted the Doctor.

"And, for all useful purposes," continued Mr. Burnham, "these will remain at the head of the list, in my judgment, many years—without a real rival."

"You can tell us all about *this* variety," remarked the Colonel, pleasantly.

"Well, gentlemen, I have bred the *Brahmas*, now, for nearly thirty years. I claim to have owned and introduced this breed to the public—from the start. And the best 'strains' among all the breeders of the *Brahmas* who came after me, or who have cultivated this stock nicely in the past fifteen or twenty years, more or less, can be traced back to the Burnham stock, directly or indirectly—so far as I have ever been able yet to inform myself regarding the true history of this magnificent variety.

"Among the breeders of *good* Light *Brahmas*, to-day, we have in Melrose several careful fanciers who turn out prime stock every year. Geo. C. Bucknam (at the Highlands), is an old breeder, and has a fine strain of the 'Colossus' stock, which give heavy birds of good color, but incline to the hue that Mr. Felch describes as dark-plumed, frequently. J. Kimball of Melrose, and W. H. Bush also, have produced hundreds of this popular race of fowls, in the past five years, some of which have proved very superior samples at maturity. E. H. Moore the well-known pigeon-fancier, has an extensive hennery also upon his premises, stocked with a good line of leading fowl-varieties, among them several pens of first-class Light and Dark *Brahmas*, that he breeds very successfully. I mention these parties, specially, because they are my neighbors, and because I have opportunity to know that their Light *Brahma* stock is among the best that is cultivated, within my personal acquaintance.

"I shall say very little, here, about the *origin* of the *Brahmas*. It matters nothing whence they came, or when we first had

them in America. We have them *now*—spread broadcast all over the land. And there are hundreds of fanciers who cultivate them—in every State in the Union—to acceptance.

“I have, myself, bred many thousands of them, successfully, since 1849 and '50, and other good men in New England, in the Middle States, in the West, have also cultivated them largely, and creditably—as everybody knows.

“I think that none of us can honestly boast, to-day, that we have better ‘strains’ of these birds—one more than another. We all have *good* stock; and each of us may be fortunate, one year with another, in producing superior samples, as the chances go.

“But there is with this, as with other distinct varieties, a certain method or system requisite to be observed in its cultivation, to bring about what is popularly deemed the best results.”

“Still,” suggested the Major, “I think that the Light Brahmas, in the hands of the novice or the more experienced breeder, will reproduce their like from well-bred stock as truthfully, and as successfully, as will any sort of fowl known among us.”

“Very true, Major. The blood of this fowl is strong, and it is a certain thing that amateur or older fanciers can readily raise good Light Brahma chickens, under ordinary circumstances—almost anywhere. This is a parti-colored fowl, however, whose plumage is simply white and black. But the nice point in breeding it, is, to unite these two opposite hues of color in just the right proportions, so as to breed the white feathers upon both sexes where they properly belong, and place the black plumage where it will most perfectly adorn the bird’s body, in conformity to accepted ‘standard’ requirements.”

“And who does this?” asked the Colonel, interestedly.

“Nobody,” responded Mr. Burnham, “that I ever knew. Some of us have approached this desirable consummation, in greater or less degree, from time to time. But a *perfectly* plumed Brahma cock or hen is yet to be seen.”

“*You* have seen them, surely,” exclaimed Captain R.

“Never,” replied Mr. Burnham. “I have bred and raised great numbers of superior birds, both of the Light and Dark Brahmas, in my time. But a perfectly

marked fowl of either kind—in all its proportions, penciling, markings, comb, size, and symmetry—I never saw.”

“The recent portraits we have of your notable prize birds,” urged the Doctor, “are certainly very fine.”

“O, yes. And these are exceptionally good Light Brahmas. At the State show in Hartford, Conn., last January, a pair of these exhibition samples were scored by four judges as high as 99 $\frac{3}{4}$ points for cock-erel, and 98 $\frac{3}{4}$ for pullet. But this was extraordinary scaling; the highest I ever knew; coming within a fraction of perfection.”

“Well, they were superb samples.”

“So they were. But it is not an easy thing to breed many such birds as are these, in a hundred, I assure you!”

“Give us an idea of your method in breeding them, friend Burnham,” said the Colonel. “I am sure you cannot furnish a chapter in these ‘Talks and Walks’ that will prove more generally interesting than this may be made, if you will oblige us.”

“I have no objection to this, gentlemen; but there are other breeders in this country who produce very superior Brahmas every year, whose system in cultivating this favorite fowl is quite as good as is mine; and who show us every season, in the exhibition halls, how well *they* also can do this thing—we must remember.”

“For example,” continued Mr. Burnham, “although I do not agree with Mr. I. K. Felch upon some minor points, I take pleasure always in crediting him with having in the past ten years accomplished, in his way, more than has any other fancier in America, toward the absolute improvement and fining down of the Light Brahma race of poultry, to its present general quality of excellence. And his system of selecting and mating, for the production of the higher class of these birds, in succession, is substantially like my own, in general terms.”

“But he is a ‘pedigree’ breeder, I believe.”

“So are we all. This is the true principle, of course. Mr. Felch was one of the earliest advocates of this method, in the country. It is a good one.”

“But you don’t practice it?” said the Doctor.

“No. I have never taken the pains that Mr. Felch has, in *this* direction. I breed (and have bred) too many Light Brahmas to follow up this system as it should be done, to make it convenient in

my breeding. Yet the plan of cultivating a given strain of stock from sires and dams of repute and proved superiority, is the true way to breed good stock of any sort. I know what line of ancestry gives me the best average run of birds, from year to year. These I continue to breed together until the progeny shows signs of deterioration. I then introduce new male blood, of other strains, among my hens—and so keep up the general good character of the succeeding product. It is quite immaterial to me where these fresh male birds come from—or who may chance to breed them—so that, to my eye, they are right in general form, color and points, for my purposes.”

“But is not this a ‘mixing’ of quality, that is hazardous in fine breeding?” asked the Major.

“Not at all. I repeat it, I *know* what I need among my stock. I know what a good Brahma fowl is, I think. So it matters nothing to me if Mr. Felch, Mr. Williams, Mr. Smith, Mr. Comey, Mr. Todd, Mr. Bucknam, Mr. Sweet, Mr. Josselyn, Mr. Mansfield, Mr. Woodward, Mr. Ball, Mr. Bullock, Mr. Dalton, Mr. Hunt, Mr. Sanford, Mr. Cornish, Mr. Buzzell, Mr. Plaisted, Mr. Flower—or Mr. Anybody-else who breeds good stock, shall furnish the cocks I seek, from time to time, to mate with my chosen Light or Dark Brahma hens and pullets. The *progeny* of this breeding is of much greater consequence to me. If the chickens produced from this combination are good ones, I have no difficulty in disposing of them—and I do not need any ‘pedigree’ to help their sale.—If they prove poor birds, it is my loss.”

“Others have found the pedigree plan an advantageous one, nevertheless,” insists the Doctor.

“I know it,” responds Mr. Burnham. “There is no objection whatever to this system. But I do not trouble myself with its details. That is all. I never did this—and it is ‘too late in the day’ now for me to begin anew in my practice.”

“Well, Mr. Felch has a good strain of Light Brahmas,” observed the Colonel, “pedigree or no pedigree.”

“You are right, Colonel. I agree with you. So have I.”

“Yes—we know that.”

“So has Mr. Comey, of Quincy. His ‘Duke of York’ strain was one of the most notable ever produced, in continuation, in

this country. And Mr. C. has, from this identical bird, and his sons, probably raised and sold more winners, of both sexes, than ever came out of any one known line of fowl ancestry in the world. But Mr. Comey is not a ‘pedigree’ breeder, except as we all are. He prides himself upon his ‘Duke of York’ strain, however—and justly. He was a remarkable bird, and hundreds of his descendants have been distributed all over the United States—from Maine to California—that have given great satisfaction in the hands of their fortunate possessors.”

“That is true,” remarked the Colonel. “Where did this famous cock come from?”

“Out of the old ‘Autocrat’ stock, bred from the ‘Phillips’ hens.”

“And the Phillips stock was what?”

“This was the same as those I sent to Queen Victoria, in 1852. Mr. Felch, in his recently published ‘*Amateur’s Manual*,’ page 81, writes that “Mr. Phillips, just before his death, stated to Mr. Comey that his flock came from the birds sent to the Queen by Geo. P. Burnham.” He also announces that “in 1866 the purest blood of Mr. Burnham’s strain was found in possession of Mr. Phillips, and it was then known and handled by both Mr. Williams and Mr. Comey, as the Phillips stock.”

“But the ‘Autocrat’ stock, by itself, was quite notable,” suggests the Colonel.

“O, yes. He was a very fine specimen. Mr. Estes, late editor of the *N. Y. Bulletin*, tells how he bought *this* famous cock ‘in Fulton Market, New York—the seller avowing that he was imported!’ (See Felch’s book, page 89.) Now I have not the slightest doubt, and never had, that this very ‘Autocrat’ cock—which possessed all the best characteristics and peculiar color of my original ‘Gray Shanghai’ stock, in a remarkable degree—went from my Melrose yards, indirectly, to Fulton Market, New York. For, had it been *really* an ‘imported’ bird, Mr. Estes, Mr. Williams, and Mr. Comey, who bred this stalwart fellow and his descendants so successfully, subsequently, would have been pretty likely (*I think!*) to have learned something more definite as to *whence* this ‘Autocrat’ was imported, and in what ship he came to New York, in the year 1866,” observed Mr. Burnham.

“At any rate, the old ‘Autocrat’ was bred first upon the Phillips hens,” said the Colonel.

"Yes — by Mr. Williams and Mr. Comey."

"And out of this union came the 'Duke of York' bird?"

"Exactly."

"The Phillips hens were from your stock, Mr. B.?"

"Yes—and the old 'Autocrat' also, undoubtedly."

"Then why does not this afford a full 'pedigree' of all this stock, traced back to *your* originals?"

"Undoubtedly it does. At any rate, there is no question that the best descendants in the direct line, bred by Messrs. Phillips, Williams, Comey, Estes, and Plaisted, namely, these 'Autocrat,' 'Favorite,' and 'Duke of York' Light Brahmas, can be accurately traced to the Burnham blood. In the case of the 'Teas' stock (Philadelphia), it is the same. And wherever you may have found the better strains of Light Brahmas—either in this country or in England, within the past score of years—you will find, if you care to learn their *true* history, that directly, or indirectly, all these so-called different 'strains' originated from eggs sold by me, or from chickens sent from my Melrose yards. But again I say, all this is of no consequence. The facts speak for themselves, and the birds are no better (nor no worse) for their *origin*."

"Still, we all like to know the truth," observed the Doctor, approvingly.

"Yes, that is natural, I am aware," replied Mr. B. "But, as I have many times said, a great deal too much has been written upon this single point of 'Brahma fowl origin,' and it is not surprising to me that the poultry fraternity have tired of this wearying and valueless controversy. As to *breeding* this stock, judiciously," continued Mr. Burnham, "we have much to learn, yet."

"I have already stated that the most difficult thing to manage, at the present time, in producing accepted 'standard' Light Brahmas, is to get good *color* in the plumage. The pea-comb is of course indispensable, and should be as perfectly formed as it is possible to attain. Size and proportion in body and limb, will nowadays take care of themselves, ordinarily. Weak, drooping wings, or wry tails, must be avoided. Long necks, and longer shanks, on the cocks, are a serious fault. Full leg-feathering—devoid of a show of vulture-hock—is a desideratum.

A good length of body, and ample fullness of the breast in both cocks and hens, is very desirable. The larger the pullets and hens used, the better. But monster cocks do *not* commonly prove profitable or useful, as breeders."

"Then, as to color?"

"Yes. Judges differ in their opinions as to what this should be, precisely," remarked Mr. Burnham. "For years and years, the *under* color upon the Light Brahmas, for instance, has been accepted in the show-pen, whether it chanced to be dark or light—other things being equal in excellence. Within three or four years, although the *American Standard* allows this to pass as 'white or bluish white,' an authorized judge decides that the common *darker* hue disqualifies! And so, to win under this arbitrary judgment, the under-color of Light Brahmas must be white."

"Yet, I read in Mr. Felch's late work, to which you have just referred us," observed the Colonel, "that in all the remarkable stock you mention as having been bred by Messrs. Williams, Comey and Estes, out of old 'Autocrat,' 'Duke of York,' etc., and in subsequent crosses of these, 'the *dark* under-color prevailed.' Again, Mr. Felch says 'all the crosses of this old bird with the Felch stock resulted in dark-plumaged birds.' And 'Colossus,' another splendid stock-bird out of old 'Autocrat' and the Phillips (Burnham) hens, bred *dark* under-color upon his progeny—as did all the rest—for many years in succession."

"Very true, Colonel. But all this occurred before the new light was let in upon the dimmed vision of us 'old breeders,' who were deemed superannuated in our opinions regarding this nice matter of color in the under-plumage of Light Brahmas."

"It seems to me, then, that this judgment is more nice than wise," remarked the Doctor.

"And nineteen-twentieths of all the Light Brahma breeders in America agree with you, my dear Doctor," responded Mr. Burnham. "But what of that? The official judge in our show-rooms pronounces his *ipse dixit*, and down go the Light Brahma birds of four-fifths of the contributors, publicly 'disqualified for dark under-plumage.' And there is no appeal from this decision!"

"But cannot this be avoided in breeding?" asks the Doctor, dubiously.

"As a rule—no. This dark under-fluff was a fixed characteristic in my original stock. It continued to be bred (as Mr. Felch avers) through all variations of sires and dams that succeeded the Queen's stock, the Phillips hens, the Estes crossings, the Williams, the Comey, and the Felch breeding, my own cultivating and crossing and recrossing—almost invariably, for more than twenty years. It was 'bred in the bone'; and was part and parcel of the original conformation of the true Light Brahma birds, legitimately."

"Yet I suppose the dark under-color can be bred *out* of this stock, of course?" asked the Colonel.

"Wherefore? To what purpose?" returned Mr. Burnham. "What is gained by this innovation? Can you inform me? It is a part of this Brahma's proper color. Natural, original, inherent and uniform, in the early stock—always."

"But isn't the other an improvement?"

"All changes are *not* improvements, in my estimation, Doctor," insists Mr. Burnham. "And *this*, I maintain, is no improvement at all, but simply a crotchet."

"Well, I am not a Light Brahma breeder," said the Doctor, "and I cannot argue the point."

"It is not a subject for argument, Doctor. Nature gives this under-color its hue. It *never* was clear white, originally; but was always of the darkish or darker grayish cast—so far as all early observation went. But, suddenly 'a Daniel comes to judgment' among us. A young man appears upon the tapis, three or four years ago, as umpire at a leading New England State show, who declares that, as *he* construes the letter of the Standard, this dark under-color doesn't properly belong to exhibition Light Brahmas; and a few accidentally *white* under-fluff birds in that exhibition bear off the palm and the prizes for super-excellence, under the peremptory decision of this novice, to the dismay and astonishment of scores of experienced good breeders of this variety of stock, who protest against this fiat in terms not to be misunderstood, but without avail."

"And the managers of the association sustained this judge," replied the Doctor.

"So they did. And, under all the circumstances, perhaps they did just what they should have done. But this does not change the fact I have presented to you to-day. I was not an exhibitor at this

show. And, personally, I had no interest in that judgment, on the occasion referred to. But I tell you, Doctor, and gentlemen, this decision is erroneous. And when Mr. Magrane—the courteous and polite, but grossly mistaken judge alluded to—has bred and seen and examined as many thousand Light Brahma fowls as I have, or as I. K. Felch, W. H. Todd, C. C. Plaisted, Philander Williams, E. C. Comey, Henry S. Ball, B. S. Woodward, George C. Bucknam and a hundred other American fanciers I could mention, have bred and handled in the past quarter of a century, he will know more about the true characteristics of this variety of bird; and be much more competent to render a correct decision as to their rightful comparative merits in the exhibition-room, than he *now* does—at least in my humble judgment."

"Is Mr. Magrane alone in his views?"

"I know of *no* other prominent judge who agrees with him," responds Mr. Burnham. "Mr. Felch is opposed to this new-fangled judgment, and contends, as I do, that the letter of the *Standard* gives no warrant for such decision."

"If the clear white under-fluff cannot be bred upon these fowls, I do not see why it should be attempted—or why birds accidentally carrying this color below the surface feathering should take precedence, in any judge's opinion, over the others," said the Major.

"It is a mere notion—or crotchet; a false idea of an enthusiastic but stubbornly prejudiced young man, whose real knowledge of the natural 'points' of the Light Brahma fowl *may* be ample, though in my judgment it is but superficial, Major. Still, you must understand me, now. I do not say that this white under-color cannot be bred, at all; but I contend that where it *is* produced, it is the exception to the rule. Very few birds can be thus bred at best, say not ten in a hundred. And the attempt to *continue* its breeding, by selections from any strain of well-bred Light Brahma stock now known among us, must inevitably be attended with bleaching the plumage on the *outer* surface of the progeny of these birds, and destroying the black penciling upon hackles, wing-tips and tail feathers."

"There remains much to be talked of yet about the Brahmas," said the Doctor.

"But we can print only so much each month, Doctor. And we must not make

these papers prosy, you know. I intended to speak somewhat in detail regarding the Dark Brahmas. But these came in the first instance (in 1853) from the same original parentage."

"The *Dark* variety?"

"Yes. I bred the first of these that were ever known—and sent many fine specimens to England, from my Melrose yards, for years subsequently. Like the *Light* variety, they too have a wondrously successful history. And they are bred to-day from the English stock (which descend direct from mine) very largely, both in Great Britain and in America. The superior stock of Mr. Mansfield, of Waltham; Mr. Sanford, of Providence; Mr. Williams, of Taunton; Mr. Sweet, of Buffalo; Mr. Todd and Mr. Seamans, at the West; Mr. Perry, of Wallaston, etc., is well known and appreciated, everywhere. But we cannot farther consider these birds, in our present paper."

"One word more ——"

"Well?"

"Briefly, in your experience, what is the better mode toward combining the two colors we have spoken of to-day, so as to produce the 'happy medium' of color and penciling upon the *Light* Brahma cocks and hens?"

"To reach this result most satisfactorily," concluded Mr. Burnham, "we must know what the stock is that we are experimenting with; and whether the white or the black feathering preponderates naturally in the strain from which we select our breeding sire and dam. But if we have no prior acquaintance with the stock, then we should choose a light-hackled cock, to

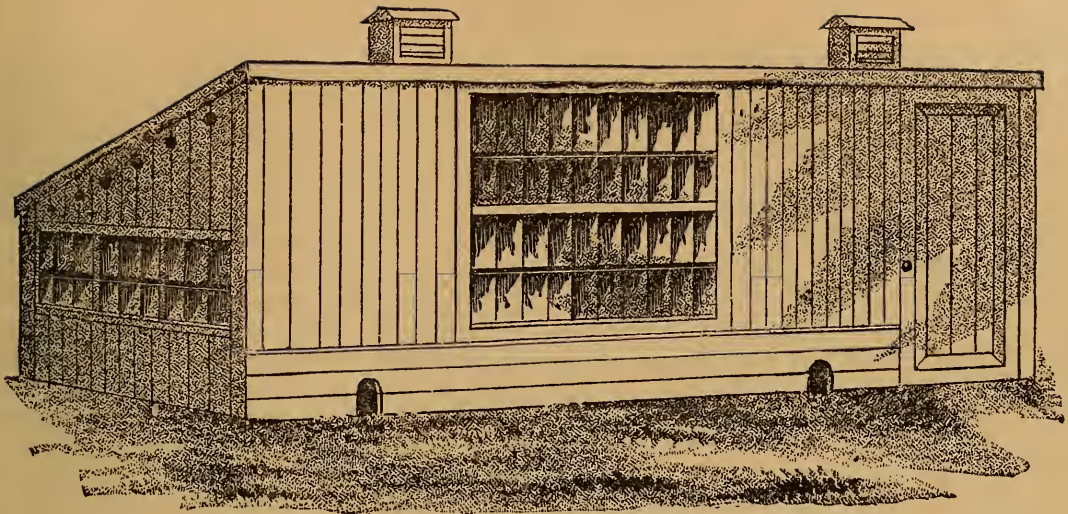
mate with dark-hackled hens, as a rule. A medium dark-hackled, black-tailed cock, bred with dark-necked and dark under-fluff hens, will give us a majority of chickens in the progeny quite too dark for exhibition birds. These will, in nine cases of ten, yield spotted-backed pullets, and darker hackled cockerels, whose wings also will be badly discolored.

"If, *per contra*, we mate an extreme light-hackled cock to thin, light-hackled pullets, we can get the white under-fluff upon many of the successors; but the progeny will show little or no neck penciling, and will be quite devoid of black color of any distinctness in the plumage, anywhere. These are what nobody wants. They are useless in succession for breeders, they are altogether unsaleable, and would not be noticed at all in the show-room by the judges.

"But if we study the prevailing range of the two colors in the strain of stock we choose from, and mate our breeding birds judiciously—setting the preponderance of white in one sex against the average strength of black feathering in the other sex—we shall be pretty sure to get evenly-marked chicks from this combination, generally. And among such broods, we shall frequently meet with those whose under-color is purely white, or palest 'blueish white,' as is demanded or admitted by the letter of our official Standard of Excellence."

"And next month?" queried the Captain ——

"In October issue we will talk about Fowl-houses, Chicken-coops, etc.," responded Mr. B.



CHAPTER X.

FOWL-HOUSES, Etc.

The above drawing represents one of Mr. Burnham's economical fowl-houses, arranged for two breeding-pens of birds, and situated upon his premises in Melrose.

This building is shed-roofed, of batted sheathing, ten feet high in front, six feet in rear, thirty-six feet long by thirteen wide; divided in the center by a wire netting partition, and ventilated at top and ends.

Two yards of twenty by fifty feet are fenced outside—one in front and the other at the west end—shaded by ample outdoor grape-vines. The entire cost of this house, glazing and painting included, is about one hundred dollars; and is large enough to accommodate comfortably forty adult fowls.

"The fancier can spend as much or as little money as he chooses upon the henery," observed the Captain. "I have found that very good summer buildings can be put up, for the accommodation of forty or fifty birds—old and young, that have a fair-sized run to exercise in outside—for a very moderate sum of money."

"Oh, yes," replies Mr. B. "The idea that domestic poultry require any ornamental surroundings, or buildings for their convenience, is a mistake. In our New England climate we need roomy houses and tight ones in winter-time, of course. But during seven or eight months of the year all that is required is well-ventilated shelter and accommodations that can be easily kept clean, for their nesting and roosting-places."

"In exposed situations," remarked the Doctor, "where there is danger from incursions of night vermin, such as foxes, minks, cats, rats, etc., it is well to have your buildings so arranged that they may be closed up after nightfall. But, as a rule, there is no doubt that the flocks are better off, two-thirds of the year, if they can have the open air to live in—at all times."

"Yes. And to have our poultry enjoy this free circulation, it is a good plan to have the glazed sashes of the house so arranged that these will furnish plenty of light and sun-warmth, in the four or five excessive cold months, and which may be removed in late spring-time, to give place to wire or tarred-twine screens (of the same dimensions), which may be put up handily, for service all through the rest of the year."

"That is a capital plan," remarked the Major. "And the cost of all this is nowadays but trivial, comparatively. This twine or wire netting is an admirable invention for dividing partitions, and is now largely used, also, for fencing, by poultrymen who have learned its economical advantages."

"Is this *twine* mesh durable?" inquired the Colonel. "I should think its exposure to the weather would cause it to rot shortly."

"Well. I have used it two or three years," said Mr. B., "inside and outside of my fowl-houses, and I find no difficulty with it in that respect. The *tarred* twine

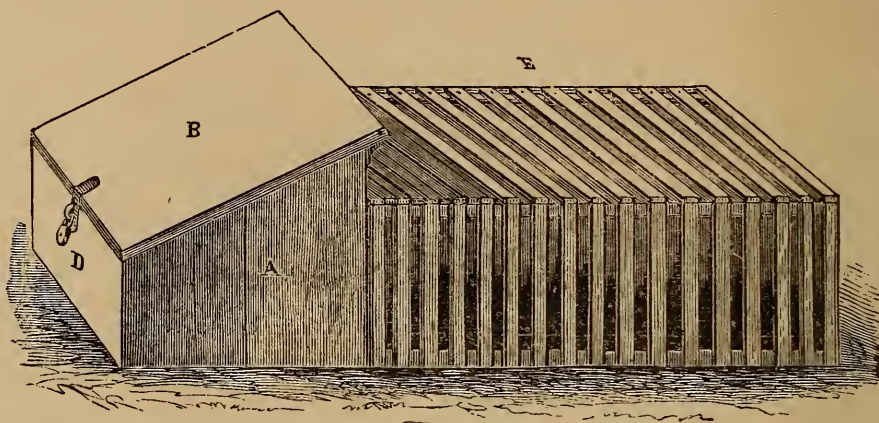
netting seems to harden with age, rather than incline to decay. And friends of mine who have used it four or five years continuously, have proved its entire utility and economy."

"It is a Yankee invention," said the old Captain, "but a good one. This netting is manufactured in Eastern Massachusetts; and the twine factories that were originally intended to turn out their product for fish-nets, seines, etc., now supply large quantities of their manufactures—of different sized netting—for the purposes we have just mentioned, to be used by poultrymen."

"I first saw the attention of fowl-raisers called to this convenience in THE POUL-

while the chicks are growing—say for two or three months after hatching. It can be made of any *length*—four, six or ten feet long—as is desired. At one end may be placed a covered box (or a barrel turned down upon its side), which will afford protection to mother and younglings in the night, or in bad weather.

We give also (on page 57), from *The American Poultry Yard*, a cut illustrating B. S. Woodward's chicken-coop, a very neat and handy arrangement of its kind. We can only suggest one improvement upon this, and that is its size. We should advise that the coops be twice as large as these are, upon the *floor* or bottom of the cage. Otherwise, this may be set down



Coop with Lath Covered Run for Hen and Chicks.

TRY WORLD, a year or two ago," said Mr. Burnham. "Since then Mr. Stoddard has furnished thousands of yards of netting to his patrons, all over the country, I am informed; and the demand for this article is largely increasing—since it has proved so handy, so serviceable and so cheap for the uses to which it may be appropriated, both inside and outside of the fowl buildings—for partitions, for fences, for *coverings* of the runs, where high-flying fowls are kept (like the Leg-horns, Black Spanish, Dominiques, Plymouth Rocks, etc.). For myself, I can say that I have never found anything so well adapted to its purpose as this is, and surely there is nothing that costs so little and goes so far, for the expense involved."

Above is shown a neat and cheap open coop for hen and chicks. It is made of two-inch framing and laths nailed on at the sides, two inches apart. It is light and portable, and may be moved about the grass-plot handily, from time to time,

as a neat and useful arrangement, altogether.

"A great deal has been written, and more may be said," observed Mr. Burnham, "in reference to poultry architecture. But the simpler the hen-house is in construction and in its internal arrangements, the better and the more practical it will prove."

"A good deal of fancy work is displayed upon some houses," replied the Captain, "which costs money and serves no good purpose."

"Except to gratify the taste of the more ambitious or well-to-do poultry fancier," replies Mr. B. "There is no objection to this, at all. If a man has the means, and chooses to beautify his premises with ornamentation in this direction, that is all right. But the average fowl-raiser requires but inexpensive buildings for his ordinary stock of fowls and chickens.

"These houses should be substantial, if used for summer and winter; if for

cold weather—when all our birds must for four or five months, in the North, be confined almost altogether within the buildings—such houses must be roof and wall tight; and sufficient portions should be glazed, upon the south and east sides, to admit warmth and light, during the long winters we have.”

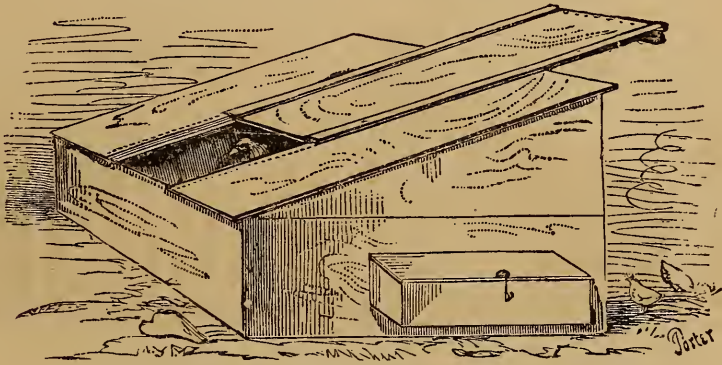
“But for summer houses,” remarked the Doctor, “I think your open-air plan much the healthiest, friend Burnham.”

“Decidedly it is, Doctor. And I have tried all manner of ways for keeping fowls and chicks economically and in good condition, in both cold and hot weather.”

“I know it. And I have proved,” added the Doctor, “that the common lean-to, or shed, open-lathed all round, with a battened roof for shelter from the hot sun’s rays, or the passing shower, was

closed buildings to winter in. But have a care that you do not undertake to house too many in one place, under one roof,” said Mr. Burnham. “Here is where we err, again. When the stock is fairly matured in the late fall, we too often have more in numbers than our housing space will properly accommodate, to carry through the winter. And by cramming a hundred or two, old and young, into the building or buildings where but half this number can healthily exist, we shortly find disease cropping out among them; and then we want to know ‘what ails the fowls?’ all at once!”

“And what dimensions do you consider a fair allowance, under cover, for say a flock of fifty birds?” inquired the Colonel, who had listened to the discussion thus far, to-day.



Chicken Coop, with Sliding Top in Roof.

in the summer-time the very best kind of a poultry-house in which to lodge the fowls and keep them healthy, as well as to preserve them comparatively free from vermin.”

“This is the out-of-doors roosting-plan,” observed the Major.

“Yes. And it is a good one. Fowls are thus kept from huddling together, in close and fetid quarters, upon lousy roosts. Broody hens (in the hot season) thus shut out from access to their customary old roosts, soon forget their sitting fever. Young chickens have the fresh air by day and by night through this management, and they thrive and come up tough and hardy, by being thus continually in the clear free atmosphere. My word for it, gentlemen, this is the true way to raise fowls, successfully. Breed them in the open air, until it is too cold for their comfort out of doors.”

“And then ——!”

“Of course provide them with good

“I have many times said that fifty adult fowls, in one apartment, are quite as many as ever ought to be crowded together. Thirty to forty in a room are enough. And if kept for breeding purposes, even this number should be separated into *two* flocks during the hatching season.

“In cold winter weather, if the house be say fourteen or fifteen feet wide, by thirty to forty feet long—fifty birds, in two lots of twenty-five each, will do very well. If a hundred breeders are kept, the floor-room *must* be doubled in dimensions, for their convenience; and they should be divided into *four* lots, by wire, lath, or twine mesh partitions.”

“And do you think, Mr. Burnham,” queried the Doctor, “that the house must be sixty to eighty feet by fifteen to accommodate a hundred fowls?”

“In winter-time, when they can go out of doors but very little, I consider such space quite contracted enough, Doctor, for their health. This affords but ten to

twelve feet moving space for each bird, confined exclusively almost to the house for four months, or more."

"Yes, I see. But this is a large hen-house."

"Not for a hundred good breeding-birds, Doctor."

"Well. The average building of ordinary poultrymen is generally smaller than this!"

"True. But they must keep a less number of birds, if their space is contracted. I tell you, in closer quarters, fowls will *not* thrive—even in cold weather—and the hens will *not* lay eggs, do what you may as to feeding and care, if they are cramped for room to exercise in, and are prevented from being able to avoid coming into contact with each others' bodies, by day or by night, in confinement."

"As to the style of the hen-house," continued Mr. B., "I have tried various kinds. The oblong square—such as I have just now referred to—is ample, as to proportions; half as wide as the building is long. If fifteen feet wide, say thirty feet in length, for fifty birds."

"This has no reference to the *young* stock that are bred. I am now speaking of winter quarters for adult breeding fowls. The chicks are kept in their outside coops till the cold weather sets in; and then all your surplus stock of younglings will have to be disposed of—or may have been mostly already sold."

"And these *chicken* coops are extra?"

"Of course you will have your small coops about the place, each containing its score or more of half or two-thirds grown birds, up to the latest days of the season. They are thus much better off, as long as the weather will permit, if they are kept in their coops outside of the main building."

"I agree with you," said the Doctor.

"This system refers to cases where a hundred or two fowls, or more, are annually raised on the premises. If a fancier breeds only a dozen fowls, and a single brood or two of chicks, less room is required to accommodate them, at any season of the year."

"Of course."

"What is of the greatest consequence to the interests of poultry breeders in general is, to learn how real economy may be practised, with a view to proper and

needful convenience in fowl-raising; that is, to learn the better way to realize the most out of a given quantity of good fowl stock, at the least average expense of keeping them rightly. And this matter of sheltering them is an item worthy of careful calculation.

"I have studied this subject earnestly," continued Mr. Burnham, "and the past five and twenty years' experience has taught me that good money may be squandered in ornamental frippery about the fowl-house, of the wasting of which there is no sort of necessity.

"The actual requirements for winter are tight-roofed, close-walled, roomy, well-ventilated, clean buildings, with earth floors, nests and roosts that can be kept easily cleansed, and a good share of glazing on the east and south sides, for admitting light and sun warmth.

"In such a house, or houses, the number of fowls to be wintered should not be too large for the size of the building. Thus they may be kept healthy, and will be easily fed and tended.

"For summer use, the open coops for clicks, and the outside roostings-sheds or pens for the old fowls, are all-sufficient. And such buildings cost but little, where lumber is attainable at fair average prices.

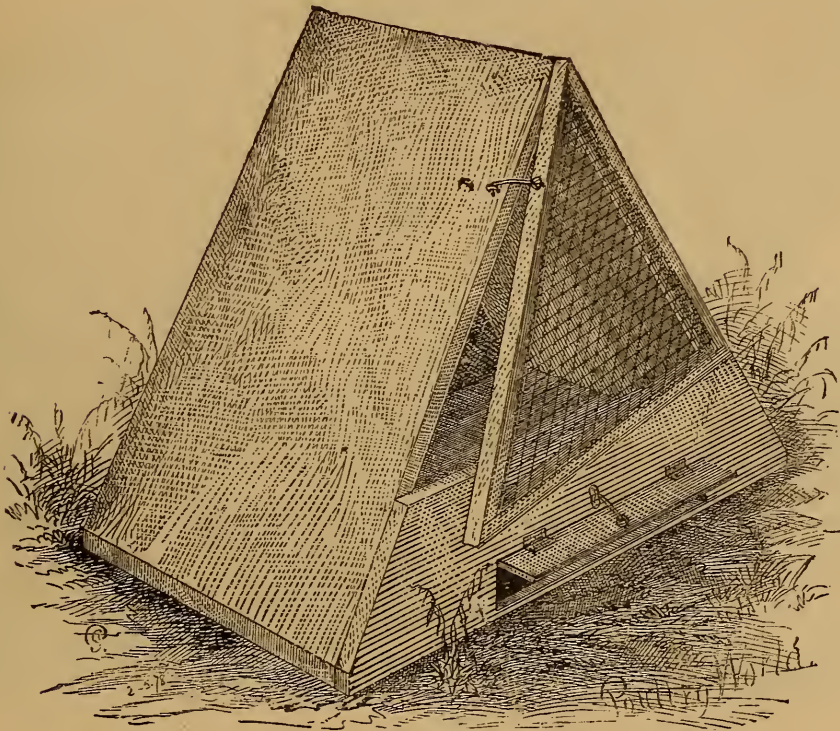
"The *fashion* of the fowl-house is in no sense a material point. In the pages of *THE POULTRY WORLD* during the past three years a hundred different models are given of high-priced and low-priced buildings, any and all of which possess merit, and from which designs the most fastidious may make his choice. I merely contend that there need be no complaint on the part of amateurs, or ordinary poultrymen, that we 'do not take into consideration usually the amount of investment required for winter housing of improved poultry'—as I see the statement recently made, by somebody who had been experimenting with a costly *house*, and found that his undertaking did not prove so profitable as he had anticipated.

"We should not fool away money on trappings and gewgaws; but look only to the essentials—if we are inclined to be economical in the building of our poultry quarters," said Mr. B., at last. "And as I have shown already, and as this has been practically proved by hundreds of other breeders, who aim to make this a work of

profit as well as of pleasure, first or last—the sum of fifty to one hundred dollars for lumber, glass and twine-netting, with a few days' labor by a handy mechanic or farmer, who can use the hammer, axe and saw, will give him a very good, service-

able and tasteful poultry-house, in these days."

Our next paper will be devoted to details of the culture of *Turkeys, Geese and Ducks*; an appropriate topic for consideration annually, in *November*.



Woodward's Coop for Hen and Chicks.



CHAPTER XI.

TURKEYS, GEESE AND DUCKS.

“THANKSGIVING is coming!” observed the jovial old Captain, as he entered my office a few days before November came in: “And this is the appropriate time, I should say, for us to have a talk about the three varieties of poultry that serve to adorn the tables of all classes (in New England, at least) on the festive day in this month set apart by the Governors of most of the States of the Union, when the people are expected, universally, to ‘have a social good time.’”

“Yes, Captain. And you have witnessed a good many of these pleasant anniversaries—when everybody who can contrive to obtain it (and who does *not*?) devours his full ration of roast Turkey, Goose or Duck—at the ‘Thanksgiving’ dinner.”

“Aye, neighbor Burnham,” responded the Captain, “I have passed the three-score-an’-ten mile-post; and I remember the recurrence of this ‘day’ fully three scores of times in my experience.”

“The Turkey, the Goose and the Duck,” observed Mr. Burnham, “are among the most valuable sorts of poultry that are raised, for home consumption. These are the largest, and are individually the most meaty of all. Comparatively, however, in point of numbers, but a small proportion of these are cultivated in this country. And it is a matter of surprise to me that so few of these birds are raised among our people, when so many might just as well be profitably reared and readily sold, from fall to spring, or early summer.”

“There is this fact to be considered,”

observed the Major, "in the cultivation of these large domestic and water-fowls. Turkeys, Geese and Ducks require peculiar conveniences, ample grounds, plenty of range and roomy water-space, if many are kept on one place. They are bulky in size. Turkeys must have woods and pasture-ground to roam in, after they get to be eight or ten weeks old. Geese (in any quantity) will not thrive well, except they also have ample field-runs and good water accommodations. Ducks can be reared in small flocks very well without this latter convenience; but if bred in large flocks they are kept much more profitably, and are more easily cared for when they have free access to a stream, pond or river during the day-time."

"Your suggestions are quite correct, Major," replied Mr. B. "It is true that to raise these three kinds of fowl to the best advantage in quantities, a good deal of land is required; and if it be well watered, so much the better. But in almost any section of this country, and not far away generally from a good market, there are hundreds and thousands of acres of "poor land," worn-out pastures, wooded farms, or low marshy grounds, of very little use or value in their natural condition for other purposes, whereon myriads of these birds could be kept to handsome profit, if those who own these uncultivated tracts would but turn their attention thus to utilizing them.

"But we have not the space to go into details as to the better modes of hatching and raising these birds. Given the stock, brought forward to maturity in good condition—at this season of the year—we will in this chapter discuss the work of fattening and preparing Turkeys, Geese and Ducks for market."

"A friend of mine in Rhode Island," said the Captain, "has been a fortunate cultivator of Turkeys for several years past. Until within some seven or eight years he has bred the 'Narraganset' variety, and very satisfactorily. Latterly, he has introduced upon his old farm the great 'Bronze' Turkey, which he procured first in 1870 from the Western country. And he now turns out every season some splendid flocks of this cross, individually of enormous size, that bring a good price in November and December, for Thanksgiving and Christmas."

"What is his method of culture, Captain?"

"A very simple one. He has plenty of both pasture and woodland for their range and comfort. But he feeds well, from the time when the young birds 'shoot the red' down to killing-day. For four or five weeks just before the holidays, his plan of final fattening is to increase the cooked vegetable and meal allowance, adding whole corn at night—as much as they will eat.

"He sets his earliest Turkey eggs under hens—giving each fowl but nine eggs. Later in the spring he doubles this number of eggs, and gives all his broody hen Turkeys a season of rest at sitting. He feeds his young poults, for two weeks after hatching, upon milk-curd, scalded wheat bran and hard-boiled eggs, mixed with finely-chopped onions or onion tops. Of this he gives them all they will eat up clean five or six times a day."

"That is somewhat of a task," suggested the Colonel, "if your friend breeds many clutches, I should say."

"Well. He makes a business of poultry raising for profit, by marketing it. He gives his time and attention to it constantly, and finds that he can make a very good living out of it, for a large family. If he did *not* thus apply himself to the work, he would be better off not to attempt it 'by wholesale' at all. Good Turkeys, Geese or Ducks can be produced, to profit, only as can other kinds of poultry, Colonel. They must be well tended to make them pay, you know."

"True—you are right, Captain."

"After fifteen days old his young poults have ground oats and cracked corn, with plenty of fresh water, or the surplus milk of the old farm, for drink. They are kept confined (on the ground) in boarded pens until they get strong and well forward—say six to eight weeks old. Then the hens and chicks are allowed to go to the woods and fields for forage during the day; being shut up at night regularly and liberated in the morning, after the dew is dried away from the grass, until they are three or four months old. Thus he loses very few from disease or cramps, and they go through the summer prosperously. At night a full feed of crushed grain is given them; and each morning, when they are let out to range, a good breakfast of grain, alternated with cooked corn-meal and vegetables, keeps them in constant thrift while growing.

"In the fall, say during this month and

the last, the Turkeys are fattened for slaughtering. Thanksgiving and Christmas-time are the harvest days for the Turkey-raiser. And my friend has a good supply, every year; which he sells from time to time at this season at the best current prices, for quality."

"And his method of fattening?"

"Is simply an increase of the same food he gives them all summer, with what they will eat of sound whole corn at the evening feed. His birds are mostly in good condition to kill at any time after they are six months old, you observe, since he finds it the better plan to keep them *always well fed*. And so when he is ready to put them up for market, he needs but fifteen or twenty days extra feeding to place them in their best condition for the table."

"And the introduction of the Bronze gobblers increases the size, you say?"

"Oh, very largely. Seven to eight months old gobblers will draw eighteen to twenty pounds each; and hens of the same age twelve pounds or more—on the average. I have seen yearling males within three years that drew thirty pounds on the scales; and even heavier birds than this have been exhibited at recent shows. General Mattocks at Portland, in 1878, showed two and three-year-old gobblers and hens whose live weights considerably exceeded those I have mentioned."

"The rearing of Geese and Ducks," remarked Mr. Burnham, "may be made highly profitable, if the proper surroundings and conveniences are at hand. Enormous quantities of both these aquatic fowl are annually required for family consumption and for sale in our city markets, at the hotels, restaurants, etc."

"The Goose is easily raised, since it is a hardy bird, and is little subject to disease. It is the longest-lived bird of all known varieties of domestic fowl. The late Rev. Mr. Atwood, of Big Flats, N. Y., sent me the photograph of one of this race, just before his death, that was nearly seventy years old. And in a late number of *THE POULTRY WORLD* I saw an account given of one that died near Baltimore at fifty-three years of age. Either of these specimens, however, would probably have proved rather a 'tough customer,' had it been slaughtered for eating!

"The goslings hatched in the spring annually are those that are commonly furnished us at the end of the year for the

table. Where they can enjoy a good pasture range, and the sheet or stream of water they naturally delight in, Geese will flourish and grow to good proportions, from February or March to December.

"They should be fully fed from about the first of November to Christmas, to render them meaty, and to put them in the best trim to kill. They need a good supply of green food always. They devour great quantities of coarse grass in the swamps and pastures where they roam. In addition to this, when being fattened, they should have a generous allowance of mashed boiled potatoes and bran, twice a day, with a variation of boiled corn-meal or oatmeal mixed with the vegetables.

"Geese kept as breeding stock (especially the White variety), after their first year will yield a pound of valuable feathers each, if they are plucked just before going into moult. These feathers are always saleable, and the price obtained for this annual yield will go far toward paying for their extra feed.

"Ducks may be similarly treated and fed to advantage. Either the Goose or the Duck are inordinate gormandizers, it is true. They will eat voraciously, and it requires some patience to supply their wants fully, when corn and grain is high priced. But if they have access to the pond or running water, they will forage largely for their daily sustenance during the summer and early fall, ordinarily.

"In six weeks from the time they are taken up to fatten, at last, they will nearly double their weight, if given all the nourishing food they will devour. This will 'pay.' Good plump green Geese and well-rounded mongrel Ducks will always find a ready sale in market. And the larger breeds—such as the Embden or Bremen, the Hong Kong and the Toulouse Goose, or the Pekin, Aylesbury and Rouen Duck—make splendid roasters for the winter and spring sales. While the inferior, skinny, stunted, half-fed birds of either species will be found unsaleable and undesirable, comparatively.

"It has long been my opinion, gentlemen," concluded Mr. B., "that while we fanciers of improved poultry are doing our best to produce the higher grades of modern *fowls*, it were well if our farmers and others, who have the proper locations where Turkeys, Geese and Ducks may be reared so handily, should give more attention to the cultivation of the latter.

“There is money in it, if it be properly managed. A few hundred dollars can be realized every year, and are now so made, upon some of the played-out farms to which I have alluded. But when so good an opportunity is presented to utilize these otherwise almost waste places, it would seem that if those who hold such territory can be made to appreciate the hint herein given, they would gladly turn their estates to some account by raising upon them such really valuable poultry as could there be cultivated in numbers, at small cost.”

“There are large quantities of these fowl produced already in New England, every year,” suggests the Colonel.

“Yes, so there are. But there may very many more be turned out annually and to profit; not only in New England, but elsewhere in the Middle States and at the West,” replied Mr. B. “And where there is so certain and so steady a demand for this kind of poultry meat—in every city

in the Union, year after year—it seems strange to me that our country people (thousands of them, in all sections), who might turn their now useless, untillable lands to such good purpose, fail to avail themselves of their chance to raise upon these idle lands such profitable and easily-managed stock as are good Turkeys, Geese and Ducks.”

“Our next month’s paper terminates this series of ‘*Talks and Walks*,’” said the Doctor.

“Yes. We have nearly completed what we commenced in January, 1878,” responded Mr. B.

“And the closing chapter?”

“Will be devoted to the subject of our ‘*Poultry Shows and Show Birds*.’”

“This will be opportune.”

“Yes. And as the Exhibitions will be approaching in December, I think we cannot conclude these papers more appropriately than by then referring to that always important subject.”



BROWN CHINA, OR HONG KONG GOOSE.



Duplicate of the Cage and Fowls sent to Queen Victoria in 1852

CHAPTER XII.

POULTRY SHOWS AND SHOW BIRDS.

"This is the most interesting season in the year, to the cultivator of good poultry," remarked the Captain, as the friends gathered together for the last time, in 1878, on a fine November morning, to conclude their monthly "Talks," for the present.

"Yes," returned Mr. Burnham, "the show season is both interesting and profit-

able in many ways to fowl growers. If we could not have these pleasant annual gatherings, at which the fraternity of breeders and amateurs could come together and 'compare notes,' our work would be deprived of its most useful and entertaining auxiliary in advancing the progress of our vocation."

"True enough, this," exclaimed the

Doctor. "We couldn't get on very well without our yearly exhibitions. And the more we have of these the better for all concerned."

"A glance over what has transpired in the past quarter of a century," continued Mr. Burnham, "shows us how important a part our annual poultry exhibitions have occupied in the improvement of the domestic feathered race in America. From the very outset, in 1849 (when our first show was held in Boston), down to the present day, these exhibits have mostly grown and enlarged, and the advancement in the *quality* of the poultry we breed, of every variety, is enhanced beyond comparison.

"And to this plan of bringing into public competition yearly the best products of fanciers and breeders of fowls, generally throughout the country, are we indebted in very large measure for the continuous solid success which has resulted to so many American poultrymen."

"The management of Poultry Shows to-day," added Mr. B., "is a vast improvement upon the system adopted in the early days of modern fowl history. We now meet in the exhibition halls with not only immensely superior specimens of prime poultry stock, but, as a rule, we see few cages filled with ordinary or 'old-fashioned' fowls. Fanciers have multiplied largely, too, in the past thirty years; and every man, who makes a show of his birds at all, finds it necessary—be he an old or a younger breeder—to put in his choicest samples, if he hopes to win, nowadays."

"You have had a large experience in this direction, Mr. Burnham," suggested the Colonel.

"In former times, yes," replies Mr. B. "Of late years, however, I have not found it necessary or convenient to contribute so frequently as was my custom in the earlier days.

"At the head of this final chapter of our 'Talks and Walks' I place a handsome and accurately-drawn picture (from life, by Mr. I. Porter) of the decorated 'Duplicate Queen's Cage' and contents, contributed by me at the last Connecticut and Maine State Shows, in January and February, 1878.

"This novelty proved highly attractive in both those fine shows, and leading prizes were awarded to this contribution at both exhibitions."

"These were your Light Brahmas," suggested the Major.

"Yes. And very fine samples they were, too," responded Mr. B. "The score given by six or eight judges to these birds, as a whole, was a very flattering one; and at the Maine State Exhibition the Society's special complimentary premium was accorded to this cage of my birds by unanimous vote of the Executive Committee."

"The competition at American poultry shows, at the present day," said the Doctor, "is very sharp. As we grow in years and experience in manipulating the several breeds of fowls that are recognized in our present *Standard of Excellence* (a little work, by the way, that every fancier should possess certainly), we become not only more practically proficient as breeders, but we constantly find ourselves more earnestly anxious to excel in our pleasant work."

"This follows naturally, Doctor," observed Mr. B.

"I know it. But it is a noticeable fact that of the great numbers of poultry cultivators who embark in this enterprise, experimentally, a very large proportion *continue* in the pursuit. And almost all of us make it a prominent feature in our business lives—after *commencing* it—through sheer love of the agreeable employment."

"The work of raising good poultry," remarked Mr. Burnham, "is a very pleasant occupation. As a rule, the pleasure of this employment grows upon us. It has its drawbacks, at times, I know; and what pursuit in life has none! In a general experience of fifty years, I have never yet discovered the kind of work that is free from its disappointments, its vexations and its losses."

"That is true," replied the Doctor. "And you might have added that while no other branch of rural pursuits is so remunerative, first or last, to the economical and judicious manager—proportionately to its cost and the labor requisite in its prosecution—so no kind of occupation yields to the lover of the business such uniform satisfaction as does this."

"The shows of 1877 and 1878 were, as you have remarked, among the best exhibitions we have ever yet had in the United States," said the Colonel.

"That is so," replied Mr. Burnham. "It was universally acknowledged by the public and by contributors, that the two last years' leading poultry exhibitions in New England were, in all respects, the

finest as well as the most extensive ever held among us."

"And the prospect for the coming season?"

"Is that we shall be able to beat all previous efforts."

"This is encouraging."

"Oh, yes. If you will take note of current passing facts, you will observe how steadily and positively we are advancing in our humble but important calling. We have entirely revolutionized the character of American poultry during the past two or three decades. And one of the chief means or measures that have contributed to bring about this flattering condition of our business is the well-organized public poultry show—either great or small—of to-day.

"During the last two years, a great many minor local societies have been formed—at the suggestion originally of the editor of THE POULTRY WORLD. And these lesser associations have some of them already had their town or district exhibitions, which have proved very interesting and valuable to those who inaugurated and sustained them. Showing clearly that the poultry *exhibition* system is a good thing to encourage everywhere, and that without it we cannot expect to continue to flourish and grow, any more than we can by neglecting constantly to sustain our favorite weekly poultry paper and monthly magazine."

"Both of these enterprises are the life of the poultry trade, of course," said the Captain.

"And both are worthy of the generous and hearty support of the fraternity," responded the gallant Major.

"Without the constant aid and advice

obtainable weekly and monthly through the well-managed columns of THE POULTRY WORLD and *American Poultry Yard*—and incidentally, but steadily year by year, of the advantages derivable from holding our poultry shows—the lively interest now current in our chosen work would quickly retrograde.

"It therefore behooves the fraternity to foster these institutions," concluded Mr. B., "and always to bear in mind that while they concede to the able journals rightful support, as well as to the annual Shows their needed desirable approval, each and every poultryman may participate—in some way—in the success that follows upon sustaining these healthy and prosperous organizations and these deserving papers, devoted to our specialty."

"This is good logic," exclaimed the Doctor.

"But we must halt here, gentlemen," said Mr. Burnham. "Our *Talks and Walks* our now complete."

"And very pleasant 'walks and talks' they have proved," observed the Major, approvingly.

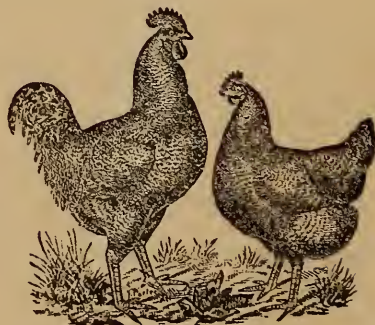
"I have enjoyed the record of our monthly interviews exceedingly," said Captain R.

"And I ——."

"And I," chimed in the Colonel and the Doctor.

And here the friends shook hands and adjourned, *sine die*.

The author thanks his companions for their advice and counsel, which has been set down in these papers at length; and our serial contribution to THE POULTRY WORLD for the year 1878 is now brought to its close.



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