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2

HUBBARD'S
POULTRY
SECRETS

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THE GIFT OF
PAUL POMEROY IVES 2D
IN MEMORY OF
PAUL POMEROY IVES

Charles Hubbard, Chicken Breeder, Dies in Cos Cob

Well-known Poultry Fancier Found Dead in Yard, Victim of Cerebral Hemorrhage.

Charles Henry Hubbard, internationally known as a chicken breeder and fancier, was found dead last night in his chicken yard near his home on Glendale St., in Cos Cob. Dr. John A. Clarke, Greenwich medical examiner, declared that death was due to a cerebral hemorrhage eight to 10 hours before.

Mr. Hubbard, who worked as a lobby man in the Citizens Savings Bank in Stamford, was the originator of two breeds of domestic poultry, the Foxhurst Rainbow and the Connecticut Peerless. He worked for 35 years to develop the Rainbow and had won many trophies in this country and abroad. The Peerless, a more recent development, has been shown only for the last several years.

Found in Snow.

When he failed to come home for dinner last night, Mrs. Hubbard called her daughter, Mrs. Harry T. Smith, at her home on Whitaker St., Stamford. Mr. Smith found him at about 9:30, lying in the snow in the chicken yard about 300 feet from his home.

A native of Glastonbury, the son of the late Annie Chapman and the late Henry Hubbard, Mr. Hubbard passed his youth in Glastonbury and Limestone. Already well-known for his work with chickens, he came to Cos Cob 22 years ago to work for A. C. Robertson.

Worked in Bank.

On Mr. Robertson's death, he started to work with Clayton S. Purdy, president of the Citizens Savings Bank, on Mr. Purdy's Black Orpingtons. Through him, he became associated with the bank, where he worked until yesterday.

(Continued on Page Two)

He was a member of

the Redmen in Limerock.

Surviving him are his widow, Margaret A. Hubbard; two daughters, Mrs. Smith of Stamford and Mrs. Robert McGould of Cos Cob; four grandchildren. A son, Charles, jr., died in 1921. Two brothers, George R. Hubbard of Meriden and Watson Hubbard of Stamford and two sisters, Mrs. Joseph Thomas of Meriden and Mrs. Charles Strit of Bridgeport, also survive.

Funeral service will be held from the late home, Monday morning, at 8:30, followed by a requiem Mass at St. Catherine's Church at 9. Burial will be in Falls Village, Conn.

Date Due

Feb 12 '59 D

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Hubbard's Poultry Secrets

On Mating, Feeding
and Conditioning Fancy Poultry for the Show Room.

IT gives me great pleasure to announce that I have prepared a Book of Poultry Secrets in which I have disclosed to the public every secret I used in placing Foxhurst Farm from a pen of birds for pleasure to the Undisputed Champion of the World. This system has not stood defeat at Madison Square Garden for 12 years.

My reason for writing this book is to assist the amateur and help to place him on an equal footing with the professional and I trust that my efforts in this direction will prove to be successful in promoting interest and success in the Fancy Poultry Business. (This system applies to all Standard Bred Poultry.)

PRICE, \$2.50

CHARLES HENRY HUBBARD.

ADDRESS:
HUBBARD'S POULTRY SECRETS,
LIME ROCK, CONN.

FW

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Introduction.

After many years of success in the breeding, feeding and conditioning of Fancy Poultry for the showroom, and in answer to the steady flow of letters from all parts of the world, seeking advice and information on questions arising in the experience of every poultryman; I deem it my duty to the poultry fraternity to place this system (disclosing all of the secrets which have been instrumental in placing the Black Orpingtons of Foxhurst Farm in the undisputed leadership of their class throughout the world) at your disposal.

I want to impress upon the mind of every reader that thoroughness and persistency are essential to your success, and that any system is worthless without good nursing and close attention to detail.

I adopted this system twelve years ago, and since then birds reared under it have never experienced defeat, and it is my belief that it will place the amateur on an equal footing with the professional, in the rearing of fancy poultry for the showroom, as I am giving the student of this system secrets that have never before been seen in print.

In this book, you will find a few illustrations of the many Blue Ribbon Winners which this system has produced and which have made the Foxhurst Farm strain famous.

CHARLES HENRY HUBBARD,

Lime Rock, Conn.

Foreword.

This system applies to All Standard Breeds of Poultry produced by Single Mating.

In all the different breeds or varieties of Standard Bred Poultry in the world, there can really be but two classes; the long or loose feathered variety and the hard or close feathered variety. We find, with the exception of the Bantams, the larger breeds are mostly loose feathered, while the close feathered varieties are mostly in the smaller breeds. The reason for putting all the different varieties into but two classes, is to make this system the leader in simplicity, by placing only one change in the requirements of the two varieties, namely, a change in the mash feed.

For loose feathered varieties, the best results are obtained by feeding wet mash twice daily, while the close feathered varieties should be fed hard dry grains only, for best results. You will find the tonic and feather-grower of great help in producing quality in the feathers of both varieties, while the trench-sprouted oats will give results in producing bone and muscle. The tincture of iron used produces a healthy appetite in growing stock and matured fowl.

From Shell to Showroom.

ONE MAN PLANT.

There is a great difference in opinion as to which is the best paying plant: A One-man plant, making a specialty of one breed; or, a large plant, carrying a number of different breeds and a number of men to care for them.

I am greatly in favor of the One-man plant.

Ten large plants fail to each one of the One-man variety.

I have often been asked, by people who wished to start in the Fancy Poultry Business, how many acres of land they should have; how many men to hire; and how much it would cost for stock and equipment.

Men with money, as well as men of moderate means and workmen, have asked the same questions.

Men of means wish to know if the money invested will bring good dividends; whereas, the workmen ask if it is possible to make a living and leave the factory or office.

My answer to both is alike.

My belief is that there is no other business that will pay dividends equal to the Fancy Poultry business, providing it is rightly managed. Like any other business, to be successful, there must be a system.

The One-man plant is the best paying plant in the country to-day. If I were to stay with Mr. Barnum, as manager of Foxhurst Farm, for the next twenty years, I would never allow it to grow beyond a One-man Plant, or just the work I can handle alone. As yet I have never had a helper in the Fancy Poultry Business.

There are many reasons why the One-man Plant is the most successful.

First, specialty breeders, devoting all of their time to one breed, have an advantage over the large plants, when it comes to producing birds of the highest quality for the show-room.

Second, a One-man plant can give better value for the money paid for stock and eggs, than the large plant, because of small operating expense.

The more expense a plant is under, the more they must charge for their stock, so here is another advantage for the One-man plant, in the fact, that it can afford to give better value for the money, and the small plant can gain a reputation and soon work up a trade to the extent that the demand is greater than the supply.

Another advantage for the One-man plant is, that a little advertising in Poultry Journals, will dispose of all the stock and eggs it has to sell, while the large plant must advertise extensively and continually in order to dispose of the large number of birds and eggs they have to sell, and which they must sell in order to pay running expenses.

When a One-man plant has disposed of its spare stock and eggs, advertising is cut down to just enough to keep the name before the public, whereas the large plant never gets to this point, but always has stock and eggs to sell.

I have visited large plants and have always found a number of good birds, which they *must* have, where they raise so many. On small plants, however, I have always found much

WINNER OF FIRST PRIZE, MADISON SQ. GARDEN,
NEW YORK, 1909-1910.
BRED AND OWNED BY FOXHURST FARM, LIMEROCK, CONN. U.S.A.

more quality in proportion with numbers, of whatever breed they made a specialty.

I will now try to explain why a One-man plant has more quality right through the flock. They are most always specialty breeders who give their whole time and study to the breed they are handling. It stands to reason that a man can get better quality by devoting all of his time to one breed. The average poultry-man works about fourteen hours a day, if he is only handling one breed, that gives him a chance to study this breed well. Now if he is breeding several different breeds, that only gives him a few hours each day to study and care for each variety. There is not a poultry-man in the business to-day that handles five to seven different breeds that can win in the Show Room against the specialty breeder, who devotes all his time to one breed.

I will now tell you what I consider a good One-man plant. One must have about five acres of land, about one-third of the land will be taken up with the dwelling house, barn, breeding coops and yards, and training quarters. This will leave you two-thirds of your land for growing chickens on free range. A One-man plant should consist of about twenty breeding houses and yards, and should also have twenty brood coops for hens and chickens. These brood coops should be scattered over the land used for free range, and should be placed at least fifty feet apart. By placing the coops fifty feet apart, the hens that are out on range with their brood all day will return to the right coop each night.

I have given a great deal of thought and study as to why there are so many men with money, who go into the Fancy Poultry business, put their whole heart and mind on it, and in two or three years quit in disgust.

Looking back only a few years I can count twenty different moneyed men who gave up the breeding of Fancy Poultry on

account of losing so much money, and while in it, these men were all good fanciers and liked the game, and would have stayed, if their managers had put their plants on a paying basis.

I will tell of one poultryman I have in mind, who had the management of five good poultry plants. This manager made a failure of them all, and the owners lost thousands of dollars. This manager could not breed winners, therefore, he had to buy them.

No manager can put a plant on a paying basis if he cannot breed winners. A poultry-man who does not understand mating and growing, is bound to make a failure of the Fancy Poultry business. Men of this class, as managers, are doing much damage to the Fancy as moneyed men lose interest in it, when dividends are not forthcoming.

A man who has money and wants to have a little pleasure in breeding fancy poultry and still make it a paying investment, should go about it in the following way: The first thing to be done is to look for a Poultry Manager, one who has a good reputation of breeding winners. The next thing is to agree upon a salary. You cannot expect to get a poultry manager, who has a good reputation, for less than \$1,200 to \$1,500 a year. You can get a poultry manager to manage a One-man plant cheaper. One of the best propositions to make a poultry manager and have him work for your interest and his own, too, is to let him know that you are willing to give him a good salary, providing he can put your plant on a good paying basis. Offer him a proposition like this: that you will give him \$65.00 a month and a ten per cent. commission on all cash business. Now if the man thoroughly understands his business, he will take you up on the ten per cent. basis, for he could soon put your plant where his salary would be from \$1,200 to \$1,500 a year. I think that if all poultry managers were on a ten per

cent basis there would be more better paying plants. This is a sure way to find a high class poultry manager, for he is bound to take more interest in his work, so he can increase his salary, for the harder he works the more he is making, and the owner of the plant, also.

Men with money make one great mistake by allowing a new manager to spend too much money on houses and stock before they know whether they have a manager who really knows his business. A manager should lay his foundation in the following way :

First, he should visit a poultry plant which has a good reputation and has won at the big shows with the variety that he intends to breed and buy a trio. He should be very careful in making the selection as this trio should be the real foundation of his success. Of course, if he were to pick out one of the best trios that a breeder had, he should expect to pay a good price, for high class birds are worth it. From this trio he should start line breeding as described on another page in this book. From the same breeder that he bought the trio, he should order eggs from his best mating to hatch two hundred chickens, the eggs to be shipped on an average of three settings a week until he had hatched two hundred. My favorite time to start would be the first of January. With only the trio to care for, that would give plenty of time to build brood coops and yards which would be needed in the spring for the hens and their chicks. After having the brood coops built, which would be about twenty in number, he should start building the breeding houses and yards which would be needed for the growing chickens in the winter.

By starting with a trio, it gives one plenty of time, outside of caring for growing chickens, to build all coops and yards needed for the first year. From the first of January to the first of September would be the hardest months, for all the

money would be going out and nothing would be coming in. The first of September he should insert a small advertisement in three of the leading poultry papers, in order to dispose of what stock has been hatched from the eggs bought in the spring. After the ad. has been placed, inquiries will begin to come at once. Any new Poultry Plant must offer more inducements and better value than the well established plants, if it wants to dispose of the stock.

Upon receiving an inquiry, he should study the buyer's wants carefully and describe the breed of birds the buyer wants according to his description, making sure when he ships the order that it fulfills the description given in the letter. He should offer to fill the order without any money in advance and express prepaid. This would give the buyer a chance to examine the stock free of charge, and, if he sends stock just as described, the buyer will have double the value the breeder asks. For example, if the buyer can't afford to pay over five dollars, make sure you send a ten dollar specimen; or, if the buyer is willing to pay \$15.00 or \$20.00, make sure you ship a specimen that is worth \$30.00 or \$40.00. Now, by following this method, he would land nine out of every ten inquiries that he received, and he would soon dispose of what stock he had for sale. Giving double value for the money received from customers would be the best advertisement a plant could have. The money received from these sales will partly, if not wholly, cover the expenses of the plant for the first year. This would make the owner of the plant feel much better towards his manager than if he had bought one hundred breeders, among which were many ribbon winners, and built many houses and yards, thereby having a deficit of many thousand dollars.

I would not sell the chickens I raised from the trio, as they would be the real foundation on which I would hope to put the plant on a paying basis. The best pullets raised from the

WINNER OF FIRST: MADISON SQUARE GARDEN, NEW YORK, 1908-09.
BRED AND OWNED BY FOXHURST FARM, LIME ROCK, CONN. U.S.A

trio should be mated with the best cockerels for spring egg trade. Select the best pullets from hen A and hen B to mate to cock C, which is explained in the chart of the line breeding, shown on page 50.

Show two or three of your best cockerels and pullets, and if you are lucky enough to win a blue ribbon at one of the large shows, that will help you to make your advertisement stronger, and increase your egg trade. Now by following this plan carefully for three years, the plant could be put on a good paying basis. It is a very easy matter in the Fancy Poultry business for the manager to work up a business of \$5,000 to \$6,000 a year, if he goes at it right. The foundation laid at the start means either failure or success, so he should lay his foundation well.

The working man who wants to start in the poultry business, should start differently than the moneyed man. It may be necessary for him to keep his job at least a year or two, and attend to his poultry before and after working hours, but he must start just as carefully as the man with money. A man who has to work cannot afford to buy eggs enough from a breeder's best stock to hatch 200 chickens, after buying a trio, so I would advise him not to buy the eggs, but to put all the money he can into the trio. Many working men make a failure of the Fancy Poultry business because they try to start by buying eggs at \$3.00 a setting, or they start with a \$10.00 trio or \$25.00 pen. This is just a waste of time and money and makes a lot of hard work, for competition is too keen for any man to have a ghost of a chance of winning at any of the large shows. With a start of this kind, one must win in the show room if he ever expects to make a living in the Fancy Poultry business.

Any breeder can afford to sell a high class breeding trio for \$100.00, \$25.00 each for the hens and \$50.00 for the male. If he

could afford it, it would be well to pay a little more than the above mentioned price for his females. Of course, this sounds like a lot of money for a working man to put into three birds, but my advice is that if any one can't afford to put \$25.00 to \$50.00 in them this year, it is better to wait another year and try to save up \$50.00 more so as to make his start right. He will save time by doing so.

From the trio, even with a little hard luck, he should be able to raise at least 75 chickens. Around the first of August, he should go through the whole flock and take out all culls and sell them for market. The money received from them should be used for advertising in one of the best poultry journals. The ad. should start in the September issue. I should also advise him to show some of his earliest cockerels and pullets at some of the September fairs. If he could make a good win at the early fall fairs it would be a good advertisement and help him to dispose of a number of cockerels that he did not want to carry over. Three or four of the best are all he would want to carry over for breeders. The rest should be sold at a fair price, making sure when he sells them that he gives double value for money received, and every bird sold would mean a satisfied customer. A satisfied customer is the best advertisement a Poultry Farm can have and helps to dispose of the stock the next year.

As for selling pullets, I would not advise selling many of them in the fall. They should be kept for the egg trade in the spring. The eggs he sells will help buy grain for the stock he has raised for the second year which should not be less than 200 in number. The spring and summer of the second year would mean lots of hard work as he would still have to hold his job and at the same time give his chickens good care. This would mean that he would have to care for the chickens' wants early in the morning and late at night. If he were married and

could get his wife interested in the chickens, it would help him still more as she could assist in feeding them while he was at work, providing he fixed the feed for her before he left in the morning.

By giving the growing birds good care through the spring and summer, with his wife sparing time to help him out where she could, it would greatly assist in getting a uniform growth. The birds should be moved from the brood coops to their winter quarters not later than the first of October. With 200 chickens properly grown and the best of his last year's stock, which is kept for breeding, he is in a position to do business with the public. I would now advise him to give up his work and devote all of his time to his chickens. He should begin to advertise in at least three of the best poultry papers. A small ad. in each one will do, making mention of his winnings of the year before. This will bring many inquiries for stock. He should answer all inquiries as soon as he receives them and offer to pay express charges both ways if the stock is not satisfactory. He should make sure the stock he ships is worth double value and he will receive nine orders out of every ten inquiries. He will find this a good way for a new plant to get its stock before a prospective buyer's eyes. When the buyer sees he has double value he will immediately accept the bird or birds, and send the pay for same at once. On the other hand, if you demand the money before you ship the stock, you may never hear from him again and the breeder that has the reputation will get the order. By offering to ship without any money in advance and express charges prepaid, the buyer receives the impression that you are offering more than value or you would not ship before receiving money for same. You should also figure to exhibit in at least two of the best shows, one of them being Madison Square Garden. If possible, you should not show less than three in

each class. That would give you five chances to get a blue and three chances in every class for getting the ribbons, for there are five classes in all breeds; cocks, hens, cockerels, pullets, and pens. Whatever your winning may be at any of the large shows, it will give you something to talk about and any breeder that can win will have no trouble in selling what stock and eggs he can spare from a One Man Plant.

I have now explained what I consider the safest way for the man with money and the working man to take up the breeding of Fancy Poultry, and make a success of it. You would be surprised to see how quickly you can work up a business of from four to six thousand dollars a year by following the methods given in this book.

SITTING HENS.

There is nothing in the chicken business that tries a man's patience more than sitting hens, but he must have patience and use good judgment in the handling of them. As each hen has a different disposition, it is very necessary that each one be carefully handled. I have seen and read a great many methods of caring for sitting hens, but the one I will now describe has given me better results than any I have ever tried.

The sitting room should be well ventilated but free from draughts. It should be so arranged that it can be kept a little dark in the day time, and it should also be the quietest place on the farm. The room I use to set my hens in is over the conditioning room, but when I have sitting hens in there, I never allow anyone in it but myself. That is the only place on the farm that is kept shut off. All my chickens are hatched by hens as I have never yet found an incubator that could hatch chickens equal to the hen. Raising chickens with an incubator and brooder is like raising potatoes in the shade. They

FIRST BLACK ORPINGTON COCKEREL
MADISON SQ. GARDEN - New York - 1912 - 13

Bred and Owned by
FOXHURST FARM • • • Lime Rock, Conn.

grow up on legs too much, and they do not feather out equal to the chickens which are hatched by a hen. The incubator is all right and the brooder is all right for the poultry man that wants to raise a large number of chickens, but if you are breeding fancy poultry, my advice is to let the other fellow use the incubator and brooder, and you stand by nature and nature will stand by you. We should always remember one thing and that is, that we can assist nature but we can't beat it.

I can set twenty hens at one time. Each hen has a separate pen, each pen is 4 feet long and 18 inches wide. I use wire for partition with the exception of the end where I use a board 10 inches high and 18 inches from the back of each pen. I nail one slat on each board. It is necessary to have a separate board 10 inches high and one which is the length of each yard to hold them in place. For the bottom of each nest, I use about 4 to 5 inches of sawdust which is wet down with tobacco water. This liquid is made one pound of tobacco dust to one gallon of boiling water. Over the wet sawdust, put enough fine hay to fill the nest box even with the top of the 10-inch board, and pack down solid. Form a nest with your hand. When this is done, take a handful of dry tobacco dust and sprinkle it over the top. Pat the hay with your hand so that the tobacco dust will sift down through the hay. You now have a nest in which a sitting hen can take comfort, one that contains plenty of moisture, and one that will be free from lice and mites, which ruin so many hatches. With a nest 18 inches square, you still have a floor space 18x30. There should be a pail of road dust in each pen so the hens can dust themselves in it. Their feed and water should not be put in the yards. Cut a four-inch square opening in the end board of the pen and place a pan of water and feed in front of the opening. This is very convenient to feed and water sitting hens.

Put a handful of grit and oyster shells in the corner of each pen. Old whole corn is the best feed for a sitting hen, as it keeps up the heat of the body and the hens will not get diarrhea from it. The drinking water should be changed once each day. Sitting hens handled in this way will make very little trouble. The method excels any incubator that I have ever yet tried. A chicken well hatched from healthy stock is half grown.

BROOD COOPS FOR HEN AND CHICKS.

There are a great many kinds of brood coops on the market for the hen and her brood, but I have never found any the equal of the one I will now describe.

A cut of this coop and yard will be found on another page. This coop should be made of good matched lumber, well painted. The roof should be covered with a good grade of tar paper. This coop will last a life time if it is painted once a year. I have been using twelve of these coops for seven years and they are as good to-day as they were the day they were built.

The coop is four feet long, thirty inches wide, eighteen inches high in back, thirty inches high in front, with a window sash, 24 x 12 inches, for a door. There is a small slide door for use when the large one is closed. This small door is 8x12 inches. There is a slat partition that goes inside the coop. The slats are nailed four inches apart. This partition is fastened to the roof with hinges and is hooked to the floor so the hen cannot push it out of place when she is reaching for food. The partition in the back of the coop is eighteen inches from the back end. This leaves a space for the hen of 18x30 inches and a floor space for the chickens of 30x30 inches.

When the chickens are big enough for the hen to run with them, which should not be before they are a month old, the slat partition should be pulled forward from the floor, and hooked to the roof. This leaves the whole floor space clear for the hen and chicks.

The coop should be placed on runners by nailing 2x4s to the bottom; thus it is much more easily moved around. If you live in a section of the country where hawks, skunks, and cats take your chickens, you will find that a yard arranged as shown in the cut will protect your chickens from the enemies mentioned above. The yard is made in the following way:

Any length may be used, but the ones I have are sixteen feet long and just the width of the coop. The bottom boards are a foot wide, the two long boards are nailed to the 2x4s on the bottom of the coop. This raises the coop a foot from the ground. The coop should be placed in the center of the yard. The top board of the yard should be six inches wide and nailed to the side of the coop, leaving a ten-inch space between the top and bottom board. You should put a narrow board upright in each corner of the yards and nail it fast. This will make your yards secure. When you have the two ends nailed on, run a foot wire around the whole yard to cover the ten-inch opening and wire the top, and you have a house and yard that will protect your chickens from rats, cats, hawks, dogs or skunks.

In a coop and yard of this kind, your chickens can be out in all kinds of weather. I have failed to find a coop that excels this type, for the comfort and protection of the chicks. I find that chickens start better if they are kept in these yards until they are six weeks old. They should be moved the width of the yard twice a week. Two men, one at each end, can move a coop and yard of this size very easily.

HOW I DISCOVERED THE RIGHT AND WRONG WAYS TO FEED BABY CHICKS.

After many years of hard work and study, I find that wheat, corn, and oats are the three principal grains which should be used for the best results. In fact, they are the only three grains I have used in making the reputation for Foxhurst Farm Black Orpingtons. This farm is the only farm in the world that ever won all of the five blues in one season, at Madison Square Garden, which is the hardest poultry show in the world to win a blue in. This farm showed thirty birds, and twenty-two of the thirty birds shown won ribbons. These winnings were as follows:

First and third cocks.

First and fourth hens.

First, third, fourth and fifth cockerels.

First, second, third, fifth pullets.

First and fourth pens.

What does a record of this kind mean when all the best birds that England, Canada, and the United States could produce, were in competition at the show? It means that I am offering to the poultry world the greatest system of Mating, Feeding, and Conditioning of Fancy Poultry for the show room that was ever offered. Earlier in this article I said that wheat, corn, and oats were the only grains I used in making the reputation for Foxhurst Farm. They are, with the exception of a little rice I use in feeding baby chicks, and a little barley I use for hens which are overfat. I will tell about barley later on.

From the corn we get whole corn, cracked corn and corn meal. From the wheat we get whole wheat, wheat bran, and wheat middlings. From the oats we get whole oats, ground oats, flaked oats, sprouted oats, and pin head oatmeal. You

FIRST BLACK ORPINGTON PULLET
MADISON SQ. GARDEN-New York-1912
Bred and Owned by
LYNHURST FARM . . . Lime Rock, Conn.

see what a nice variety of feed you can obtain from the three grains mentioned above. Thus we have whole grains, cracked grains, ground grains, and sprouted grains. By properly mixing this variety of feed, we get better results than can be obtained by feeding any other variety of grains.

Now, my dear readers, I want to impress on your minds that it is not what a chicken eats, but what it digests, that counts. If we keep digestion good, we can get very rapid growth, but if we over-tax the digestive organs we will throw the whole system out of order and the chick's growth will be checked. The liver will become effected, the crops will be filled with a watery, slimy substance, and later the bowels will be loose. If these conditions exist the chickens will have what is called white diarrhea, for which there has never yet been found a successful remedy.

I don't think there is a poultryman that has given more study to the cause of the dreaded white diarrhea than I have, and I have proven to my own satisfaction that seventy-five per cent. of all white diarrhea is caused by the man or woman that carries the feed pail. The majority of methods advise feeding baby chicks from six to eight times a day on this or that brand of prepared chick feed, which they claim is made up of a variety of six or eight different kinds of cracked grains and seeds properly balanced. For best results, I find that this method of feeding baby chicks is very unsatisfactory, as I do not think it is following nature closely enough. I do not think that nature ever intended that a baby chick should be fed on hard, dried grains, any more than a newly born baby was intended to be fed on beef steak.

Why, then, do I not use the method described above, which is used by so many poultrymen? I will try to answer that question and explain my system, in such a way, that I think you will see it as I do.

In the first place, every poultryman does, or should read, one or more poultry papers. By reading them we find that fifty per cent. of all chickens hatched die of white diarrhea before they reach the age of six weeks. With such a loss, it certainly looks bad for the prepared chick feeds that are now on the market.

I have tried nearly every brand of chick feed that was ever put on the market, but I have given up feeding it, because it was too hard for the baby chicks to digest, and for the first six weeks they did not grow as they should. If we expect to win the blues in one of the big shows where there is hot competition, we must start our chicks from the shell. I claim the first six weeks of feeding has more to do with making a show specimen than at any other time of feeding. Chicks can stand heavy feeding after six weeks of age and still make good specimens, provided they have been properly fed up to the age of six weeks, and provided that digestion has not been overtaxed. If we overtax the digestive organs in these six weeks of feeding, we never can mature that bird into as good a specimen as nature intended him to be, no matter how we feed or what good care we give him.

I do not want you to think that I am trying to run down other people's methods of feeding, for I am not. I will tell you how I proved that nature never intended that a baby chick should be fed on hard, dried grains.

About fifteen years ago, I noticed a robin that built its nest in an apple tree, this nest was built very close to the ground. About a week after she had hatched her young, she was caught by a cat. The male bird made such a fuss that it drew my attention to the nest. I looked into the nest and there were two baby robins about a week old. Along towards dusk I went to see if the male bird was going to care for the young robins. I found he was around and wilder than ever, and would not

come near the tree, so I saw it was up to me to care for the young robins. I found a can that would fit nicely on the inside of the nest. I punched some holes in the side of the can for air, and left the top on to keep off the rain. I filled the can with cotton batting, just so it touched their backs, placed a piece of cheese cloth over the cotton so they would not get it in their mouths, then placed the can over them, and left them for the night. The next morning the first thing I did was to go and see if the robins were dead or alive. I lifted the can off the nest and found they were two of the hungriest and brightest little robins I had ever seen. Every time I touched the nest they would raise their heads and open their mouths for something to eat. I began to wonder what I could give them. The first thing I did was to dig some worms, feed them, and then placed the can over them again. Their first feed was at six o'clock; at 9 o'clock I fed each one a little chick food composed of hard dried grains. At 12 o'clock, I fed them two worms each, at 3 o'clock I fed them chick feed, at 6, I again fed them two worms each and covered them up for the night. The next morning they were bright and hungry as ever. I fed them as I did the day before and kept up that method of feeding for ten days. For eight days, everything was all right and the birds grew like weeds, but the ninth day I noticed that there was something wrong. On the tenth day white diarrhea set in, and on the twelfth day one died and on the fourteenth day the other died.

I never had anything bother me so much in my life as to think that I lost that pair of robins after I had taken so much pains in feeding them. I was really lonesome for them. My desire now was to find out whether I had killed them by feeding them the worms or by feeding them the chick feed. There was only one way for me to find out and that was to find another nest of young robins. After hunting around I found

another nest in the same orchard. This nest contained eggs that were not yet hatched, so I continued my hunt and in the next orchard I found a nest of newly hatched robins. This gave me a chance to find out which food caused the white diarrhea. I decided to test the chick feed first. The only way to make the test was to feed one robin chick feed, and not feed the other at all. I knew the mother would feed them both. Therefore, I marked one with red ink so I would know it. Three times a day I fed that robin a half a thimble full of chick feed, and on the seventh day of feeding, the young robin became sick with white diarrhea, and on the eleventh day he died. To continue my test, I went back to the other orchard and found the first nest. By this time the eggs were hatched and the robins were about four days old. This gave me a chance to test the worms. I fed them three times a day. In this test I found no white diarrhea. I continued feeding them until they were all feathered and ready to leave the nest. This proved to me that it was the chick feed that caused the white diarrhea and killed my first pair of robins. It also proved to me that nature never intended that a young robin should be fed on hard dry grains.

It also proved that if you want to be successful you must study nature and follow along natural lines. I then said to myself, "It isn't any wonder that fifty per cent. of all chickens hatched in this country die before they reach the age of six weeks." The reason is that we are not following along nature's lines as nature intended we should.

I set a hen and when she had hatched the chicks I decided not to feed them at all, but to watch her with her flock and study her habits and method of feeding. For the test, I choose a pit game hen as I knew she would have a wilder nature than a common hen, and care for her flock as nature taught her when fowls were in the wild state. I choose a

FIRST PRIZE COCK

FIRST PRIZE HEN

FIRST PRIZE COCKEREL

FIRST PRIZE PULLET

WINNERS MADISON SQUARE GARDEN, NEW YORK, 1912-13

BRED AND OWNED BY FOXHURST FARM, LIME ROCK, CONN.

place a quarter of a mile from the house, and set her under a heap of brush. About one hundred feet from where she set, there was a brook so I didn't have to bother with water. I made the nest and placed six common eggs in it, and then put the hen on her nest and covered her up for two days. At the end of the second day, I uncovered her to give her a chance to come out, and to make sure that she would go back herself. The next morning she came off. I took the six common eggs out of the nest and placed eleven very choice Buff Orpington Eggs in their stead. I set her on the 12th of June, left her a pan of whole corn and didn't go near her again until her twenty-one days were up. That evening, I took a lantern and went to see how many chickens she had. I found from the eleven eggs she had hatched nine chickens. I took out the shells of the two eggs that didn't hatch. I then put a few drops of oil of sassafrass in the bottom of the nest to rid the chicks of lice, and keep ants and mites from bothering them. I then left her alone. The next day she didn't leave the nest at all. The following day the farthest she got from the nest was to the edge of the brush heap where the sun could hit the chicks. She never offered to feed them at all that day. I was really surprised at that. The next morning when I went to see her, I found she was about one hundred feet from her nest in a shallow ditch scratching and calling her flock for the worms and grubs she was scratching up, and they were piling over one another to get them. I had never seen chicks so strong and so large for their age. They really looked as though they were a week old. The old hen had already shown me where I had been making a great mistake, and that was by feeding the chicks too soon after they were hatched. I had been making a practice of feeding the chicks when they were 24 hours old, thinking it was right, as they seemed to be very hungry then.

Now, instead of feeding her chicks at the age of 24 hours,

the hen kept them very quiet and let them rest, not offering to feed them anything until they were 60 hours old. By doing this, she got much stronger and larger chicks than I did by my method. I found that by following her method of letting the chicks rest, and not feeding them until they were sixty hours old, I got just as strong and large chicks as she did, and I have followed her method ever since. I think this is one of the greatest secrets of starting baby chicks right.

For the next six weeks I was kept very busy watching her and studying her method of feeding. The first three days, she fed the chicks very little. The food they got was composed of worms, bugs, seeds from weeds, timothy seeds, and tender grass just sprouting up. I noticed they were very fond of this. In fact, I should judge that twenty-five per cent. of the food they ate was green stuff.

The first thing in the morning, I would find the hen in the shallow ditch scratching for worms. Then she would work up land into the grass and weeds. She would reach up and pull down the timothy hay stalks, and strip the seeds from it and call her flock. They seemed to be very fond of this. She would also feed them seeds from the different weeds. Then she would go over into a meadow that had been mowed and catch grasshoppers and bugs. It was a sight worth seeing, those bright little chicks following their mother who was running down a grasshopper. They were right on the job every minute. Now I had found that their food consisted of worms, bugs, seeds of different kinds, of weeds and grass. Another thing I learned, that she fed her chicks only three times a day. She would feed them in the morning and then take a long rest. After the noon feed, she would take another rest, and about four o'clock start feeding them again. This feed would continue until bed time. I noticed the last feed was the heaviest of the day. I also adopted her method of feeding the first

two feeds light, and the last time giving them all they wanted. It stands to reason that the last feed should be the heaviest to carry them over the night.

I found this method of feeding would keep them hungry every minute, and as it did not overtax the digestion, made them grow like weeds. In fact, I have never seen a check in growth where this method is followed; but I have seen many a flock of baby chicks ruined by the feeding of hard dried grains five or six times a day.

Now, before making this test, I had been raising chickens for eight years and thought I knew a great deal about feeding baby chicks, as I had always read the different methods of feeding, written by men who were doing most of the winning in the show room with their breeds.

I adopted one man's system which seemed to be the best, as he always won wherever he showed. I raised some wonderful birds by following his system, but had a heavy loss from white diarrhea during the first six weeks.

Now, after I had followed the hen for six weeks, and watched and studied her method of caring for and feeding her young, I found that I had been using a method that was just opposite from nature's system. During those six weeks, I learned more about feeding baby chicks, than I did in all the other eight years of my experience.

In feeding, there was one thing about her method that I could not understand, and that was, for the first two weeks, she never once took her brood of chicks to the brook to drink, though the brook was within one hundred feet of where she had hatched her brood. It was very difficult for me to understand how little chicks could get along without water for two weeks in hot July weather. It took me some time to find out why they did not crave for water like all other broods of chickens.

I found after making a thorough examination of the food they ate, that it contained a great deal of moisture. The worms and bugs they ate were very soft and juicy, and did not need any water to swell them like hard, dry grain. I also found that the seeds that they were eating contained moisture, as they were not yet quite ripe. In fact, I found that everything they ate contained a great deal of moisture. It was then very plain to see why they did not go to the brook for water. They did not need it, as they had been fed on the food which nature intended them to have, and which contained water enough for them up to that age. I also found that birds of different kinds never gave their young ones water to drink, but furnished them with food that was soft and easy to digest, and contained all the moisture they needed up to the time they were able to care for themselves. Then they drank water as often as nature called for it.

This test taught me that nature never intended a baby chick to be fed on hard dried grains, but on food that contained moisture and was easy to digest. So twelve years ago I gave up feeding hard dried grains to baby chicks, until after they were six weeks old. I then adopted a system of feeding moist food, and since that time my system of feeding has never stood defeat. I have bred and raised more winning Black Orpingtons than any other poultryman in the United States, or any other country where Orpingtons are raised. My winnings for Foxhurst Farm at Madison Square Garden for the past three years (see cuts showing the ribbons) prove that my system stands alone, for my birds defeated all the best birds that England, Canada, Australia, and the United States could produce.

In competition at Madison Square Garden Show two years ago, 1912-1913, there was a black hen, for which the owner had paid \$500, and pullets costing \$200 each shipped from Australia and guaranteed to win the blue, which my system de-

FIRST PRIZE HEN MADISON SQUARE GARDEN NEW YORK 1912-1913.
BRED AND OWNED BY FOXHURST FARM, LIME ROCK, CONN.

feated. There were a cock, hen and two pullets shipped from Canada which had never been defeated in that country. The owner paid \$700 for them, and guaranteed they would win; my system defeated them. There was another man who gave his manager \$10,000 to buy the best birds that England could produce; my system defeated him. There was also another man who bought up the best birds he could find in the West. One of the birds cost \$200, my system defeated it.

Of course, I felt very proud of being the first poultryman in the world who ever won all the five blues at Madison Square Garden in one season, and defeated all the best birds that money could buy. It was not the winning of the five blues that pleased me the most, but the record I made in the cockerel and pullet class. When you stop to think of winning 1, 3, 4, 5, on cockerels, and 1, 2, 3, 5, on pullets in the best show in the United States, it surely is a thing of which to be proud.

I have been asked by a good many poultry editors if I expected to win again at New York Madison Square Garden Show next winter, and my answer was, "Yes, I do expect to win again at the Garden this winter." If I did not expect to win, I should not be writing about this system to-day. If I do not win, it will prove that my system is no good, and I would not try to put before the public a system that stood defeat.

Now, my dear readers, don't think I expect to win the whole five blues again this winter, for I do not. I do expect to win something in all the classes, for you know it is considered that any man who wins a blue at Madison Square Garden in any class, during one season, has done a good year's work.

Now, I have been a winner at the Garden with birds that I have bred for twelve years, but not once in the twelve years have I ever allowed myself to get a swelled head over any of the records I have made. I was asked by Mr. Frank W.

Platt, Editor of the Reliable Poultry Journal, two years ago, at the New York Show, if I would write and send to him my system of mating, feeding, and conditioning for Foxhurst Farm Black Orpingtons, telling how I get such size and color. He thought it would assist the amateur as he believed it was the amateur that was keeping the fancy poultry business where it is to-day, and we should do all in our power to help him to the road of success. I agreed with him, and promised to write and send him the system I used in making Foxhurst Farm Black Orpingtons what they are to-day, regardless of giving away all of the secrets I had learned in the twenty years of hard work and study of breeding poultry. This gentleman told me that it was the duty of every poultryman to assist the amateur. That word "assist" has been ringing in my ear ever since, so instead of writing an article as I had promised, I decided to wait and write a book and explain it in a way that it was never told before. By so doing, I knew I would assist the amateurs and place them on an equal footing with the professional in the Mating, Feeding, and Conditioning of Fancy Poultry for the Show Room.

MY METHOD OF FEEDING BABY CHICKS.

My method of feeding the chicks from the shell to the show room is as follows: After the chickens are hatched, I give them a rest for from 48 to 60 hours, before feeding them. For the next six weeks, they are fed three times a day on the following mixture of grains:

Three parts wheat bran,
Two parts wheat middlings,
One part rice flour,
Twelve parts of flaked or rolled oatmeal,
Twenty-four parts of hominy.

Never feed any meat or beef scraps of any kind for the first six weeks of feeding. For animal food, I use new milk, not skimmed, that has just come to a boil. The first week, use just enough hot milk to make the mash moist and crumbly. After the first week, use more milk, to make the feed a little more moist. Give them all they will eat in five minutes, taking away any that is left. If this system of feeding is followed very carefully for six weeks, the chickens will grow very rapidly. Their digestion will not be overtaxed and they will be able to stand a little heavier feed without poor results. For green food cut a piece of sod and put it in their coop. They will enjoy scratching it to pieces to get the grass and roots.

For the next six weeks I feed them five times a day. Use the same mixture as before, only this time add to it a few mashed potatoes. These potatoes should be cooked in water which contains a little salt. You will find that by adding the boiled potatoes to the mash, it will be much relished by the chicks and it will make them grow much faster, which will pay you for the extra trouble of boiling them. Use this mash in the morning and evening.

For the other three feeds use a scratch food, which is composed of wheat, cracked corn, and sprouted oats, which should be fed separately, not mixed together. As stated above, the first feed early in the morning should consist of mash, not all they will eat, but what is called a half-feed. Their next feed should be at nine o'clock, and should consist of wheat thrown in the litter, which will make them work to get it. This should also be a short feed. At noon, they should be fed oats, which have been sprouted in the following manner:

Soak two quarts of oats in a pail of water for 24 hours.

Add 40 drops of tincture of iron to each pail.

Plant the oats in a warm sunny spot in a trench and cover with about three inches of dirt.

You will find that in from three to five days you will have the best chick feed that it is possible to get and one that is much relished by the chicks.

You not only get full value of the meat of the oats, but you get a great many tender roots and sprouts also. For their noon feed you should dig up some of the sprouted oats, dirt and all, and give them just as much as they will clean up. They will scratch and dig the sod to pieces and pick out every oat and root in it. You will find that the dirt which sticks to the roots of the oats is very good for the chicks, in fact, it keeps all the digestive organs in perfect working order. This way of sprouting oats is far ahead of any other method.

If sprouting them in a box, which is the old method, you must be very careful that the box is clean and sweet, or the oats will sour and get slimy and will cause trouble by feeding.

Their next feed should be at three o'clock. It should consist of cracked corn thrown in the litter, and should never be more than they will clean up. At six o'clock they should be given mash the same as used in the morning, but instead of half a feed they should be fed all they can eat. Be sure to make their last feed the heaviest feed of the day, so that it will carry them through the night.

FIRST PRIZE PEN S.C. BLACK ORPINGTONS,
MADISON SQUARE GARDEN N.Y. 1908-9 & 1910.

Bred And Owned By
FOXHURST FARM LIME ROCK CT.

FEEDING GROWING CHICKS.

I have now told my method of feeding up to twelve weeks of age.

If you have followed this method very carefully you should have a flock of chickens that any man would be proud of, and a flock that has not been forced and whose digestive organs have never been overtaxed in any way. They should have made frame very fast and be uniform in size and a flock that is free from runts.

After they are three months old I feed them a dry mash which consists of:

Wheat bran three parts.

Best grade beef scraps, one part.

Wheat middlings, two parts.

Hominy, twelve parts.

Flaked oatmeal, twenty-four parts.

I find that it is impossible to over-feed a growing chick for the next three months, so we must get all the growth we can while the system will stand it. It took some time to find out how long a growing chicken would stand forcing without doing it harm as a breeder, and at what age it would stand forcing best.

This dry mash is kept before the growing chickens in hoppers, so that they can help themselves at any time. Be sure to place your hoppers where rain and sunshine cannot strike them. I use the Norwich Automatic Hoppers for my scratch feed, which consists of: Wheat, corn and oats, equal parts, one part wheat, one part cracked corn, one-half part best grade

clipped oats, one-half part flaked or rolled oats, mixed thoroughly. These hoppers are placed in front of each brood coop. You will find that the chicks learn to work the hoppers in less than five minutes.

Now take a heart shaped hoe and make a trench ten to twelve feet long and from three to five inches deep in front of each brood coop. This I fill about half full with soaked oats and cover up with dirt, mixing the dirt with the oats. After this is done lay a board over them so the chickens can't dig them out before they start to sprout. At the end of four days take the board off, and dig up one end of the trench so that some oats will show. After the chickens see the oats, they will start to eat them and will dig out every oat in the trench. They will leave almost any other feed for the oats. This is one of the best secrets I have in getting large frame on the birds I grow. There is no other method of feeding known that will give a growing chick more exercise than to dig the oats from these trenches, and it is exercise that they enjoy. We feed sprouted oats in this manner almost the year around, even in our cold climate here in the east where the seasons are short. There is no feed known that quite equals oats as a frame builder, and to keep a flock of chickens in good condition.

By feeding the ground grains and scratch feeds in hoppers and the oats in trenches the labor of caring for a flock of growing chicks is reduced to a minimum. The only hand feeding we do is to feed two mash feeds a day, one in the middle of the forenoon, the other in the middle of the afternoon. For this wet mash use the same mixture of grains used for the dry mash only omit the beef scraps. Give bone meal in its place. You can now cut out the milk used in mixing the mash for the first twelve weeks, and substitute fresh ground liver and water in its place, which you will find much cheaper and better. To

prepare this mixture take one quart of finely ground beef liver and mix with seven quarts of cold water, stir water and liver until you have it thoroughly mixed. Use this liquid to mix your mash.

After you begin to feed this mash you can almost see them grow, and they will take on a plumage that is hard to beat in the show room. This is a secret worth knowing, as liver is far superior to milk for producing plumage on show birds of the highest quality. This mash should be fed quite wet, as they will eat more of it if fed this way.

Growing chickens will eat less during the hot months of July and August than at any other time in the year, and if you are not careful their growth is apt to be checked during these months, as they will drink more than they eat and will not make frame as they should. We all know that if a growing chick gets a set back of any kind in the growing period, no matter from what cause, whether lice, worms, crowded quarters, filth or any other cause it never can win the blue in any large shows in hot competition. Therefore, I substitute the following for these two months: Half a pail of flaked oatmeal. Pour enough boiling water into this to fill the pail. Put a cover on and leave it until it is cool. One quart of water to two quarts of cooked oatmeal water is given them to drink instead of clear water. You will also find this a good substitute for milk for growing chicks. A common milk pan makes the best thing I ever tried for the oatmeal water. They are cheap and easily kept clean, and as they are shallow can be put under almost anything to keep them out of the sun. Never leave the drinking pans in the sun, for oatmeal water will soon sour and be rank poison to growing chicks. By using oatmeal water in this way we don't have to worry if they don't eat as much as they should, as they are sure to drink more than usual during this hot spell, and the oatmeal in the water gives

us an even growth during these two months. By not eating so much in these months the digestive organs seem rested when the nights and days get cooler and for the next six weeks they will eat twice as much as at any other time during the growing period, and this is where we should force them in any way we can. Be sure to have plenty of sprouted oats in the trenches, for the more we make them exercise the more food they will digest, and if their two mash feeds are quite moist they will eat much more than if it is crumbly. Put plenty of charcoal in this mash and you will never have any trouble from feeding it moist. Only five parts water to one part liver should now be used, as this will produce feather growth and put on a finish for the show room. Keep up this method of feeding them until ten days before the show. My method of conditioning for the show room you will find on another page. Now, my dear readers, I have given you my secrets of growing a bird from the shell to the show room in six months, and have given you a system that has not stood a defeat in twelve years, and I have also given you a system that has defeated the best known in England, Canada, Australia, and the United States, and here is my proof, the winnings of the last three shows in Madison Square Garden. (See cuts of ribbons.)

TONIC AND FEATHER GROWER.

We all know that a chicken changes its feathers three times, from the shell to maturity. It is one continual growth of feathers from seven to eight months. That is why you have to feed so heavily to keep up this steady growth, and still make frame and bone, and have the birds in good condition at the same time.

Now, to do this, I find that grain alone is not enough to keep up the steady growth of feathers, bone and meat. Common

QUEEN-BEETLE

COLOR

HUBBARD BOY

MISS BEETLE

WINNERS OF ALL FOUR FIRST PRIZES IN SINGLE CLASSES, COCK, HEN, COCKEREL & PULLET
AT MADISON SQUARE GARDEN, DEC. 26-31, 1913. BRED AND OWNED BY R. N. BARNUM, LIME ROCK, CONN.
FOXHURST FARM

sense has taught me that nature needs assistance in the form of a tonic that will keep the whole system in perfect working order. I find when this tonic is used, that nature will do its work from six to eight weeks quicker in maturing a growing chicken from the shell to the show room.

I will now give you one of the best secrets I have. You will find this one of the best tonics and feather growers known. It is made in the following manner:

Take five pounds of French Poultry Mustard and three pounds of sulphur. Mix thoroughly together by hand. Now take one tablespoonful of sulphate of iron, and dissolve it in a little water. When dissolved add it to one gallon of molasses and mix well together. Then pour the gallon of molasses over the sulphur and mustard, and mix all thoroughly with your hands to a thick paste. When this is done put into an earthen jar that has a cover. Keep the cover on at all times to keep the dust out. The above amount will last a breeder a long time as it will not spoil.

The tonic should be fed in a mash to growing chickens after they are three months old. It does not make any difference what you use to wet your mash, whether it is water and liver, or clear water or milk. Dissolve one tablespoonful of the tonic in three quarts of the liquid you use to wet your mash. This should be fed in their mash for three days and then skip three days, until you have fed it nine days in each month. Start to feed it the first of each month, and after you have fed it in their mash nine days, as described above, for the rest of each month use in their wet mash one heaping tablespoonful of flax seed (not the meal), to every twelve growing chickens. There is nothing known that will beat this secret for growing length of feather, and putting on the high sheen which is wanted so much in the show room. Use the same method for moulting out your old stock. They will put on their new

feathers in a much shorter time and their plumage will be in the best possible condition. I have never seen anything to equal it for keeping young and old stock in prime condition.

WORMS ON GROWING CHICKS.

I consider worms one of the worst things that a poultry-man has to contend with in the growing of chickens, as they ruin more flocks of growing chickens than any other one thing. You see so much in the poultry papers about lice, but you hardly see anything about worms, and I know that worms cause ten failures in the chicken business, where lice cause but one. I will admit that growing chicks should be kept as free from lice as possible for best results, but you can have some lice on your birds and still grow into husky, big birds. But if they have worms I don't care how much you know about feeding or what your method of feeding is, there is no method known that will grow them into show birds, if something isn't done to rid them of the worms. I rid my growing chickens of worms once each month all through their growing period, and I think that is one of the reasons that I have had such good success in the show room.

The first treatment for worms should be at the age of two months. You will find the symptoms of worms as follows: The chickens seem to be hungry all the time, eat a lot, but do not feather out as they should. The feathers that do grow stand up or out, and won't lay down and follow the body as they should. Their backs remain bare a long time and a little later they seem to look thin between the eyes, their beaks seem to be longer than they ought to be, and still later they will not have much meat on their breast bones. These are all sure symptoms of worms, but the worms should be gotten rid of

before the last symptoms appear, as your birds have had a bad setback when their beaks look long and they haven't much meat on their breast bones. Of the different things I have used to rid the chickens of worms, I find that garlic ground fine in a meat grinder and mixed in their feed once a day every other week, is the best. I have used the garlic method and had good success for a number of years, but for the last five years I have used turpentine and find it as good a method as I have ever tried. It will do the trick if it is used right. The amount of turpentine to be used all depends on the size of your flock.

We will say your flock will eat six quarts of mash to a feed. First take three quarts of hominy and put it in a water pail. Then take about $\frac{1}{2}$ gills of turpentine and pour over the hominy, and mix it all thoroughly together by hand, rubbing it between the hands to get it evenly mixed. Then take a quart of ground liver and add one quart of water. Use this liquid to mix up the hominy and turpentine. Use this mixture quite wet so all the hominy will stick to the liver. The day you feed this worm mixture you should take away all other grains. Feed them all they will eat in the morning and at noon. At night give them all they will eat of the same mixture with a little salts added. The reason I use the salts in the last mash is to physic them, so as to carry off the worms. By using this method once a month you will keep your growing chickens free from worms, and their feathers will grow the right way, and by fall you will have very few undersized chickens.

This year I tried Spratt's worm powder, which is put up for horses and cattle, and found it worked well. It is put up in small boxes, one dose in a box for a horse. I use one of these boxes for every twenty growing chickens. I give it in their regular mash twice a day for three days in succession each

month and the last feed on the third day, I add salts to physic them and carry off the worms. It is useless to doctor for worms without using a physic after giving the worm medicine.

Any one of these three methods will do the work. Do not neglect to treat them once a month for worms, as worms cause more runts, small bone and poor color chickens than all other things combined. One often reads of chickens growing light and tubercular, but I wager that in nine cases out of every ten it is nothing but a bad case of worms.

FREE RANGE.

There are a great many breeders that differ in regard to which is the best method for raising show birds. Some claim free range is best, others claim the yarding system is best, and still others claim that a coop 3x6 makes a coop large enough for a dozen breeders, and ample room to grow twenty-five chicks.

I have studied and watched nearly every system known for raising show birds, and I have visited a great many poultry plants where the different systems are used, just to study the general health and vigor of the birds under the different systems. I have found that nature's system of free range is the best for producing show birds of the highest quality. I don't mean to say that there haven't been some good chickens raised under some of the systems mentioned above, but I have found them to be my very easiest competitors to defeat in the show room, as their stock lacks stamina and the best qualities of feather.

When I say free range is the best, I don't mean that the chickens must have free range from the day they are hatched

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"ELEANOR BEETLE"

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FIRST PRIZE BLACK ORPINGTON HEN
MADISON SQUARE GARDEN SHOW NEW YORK FEB. 1915
BRED AND OWNED BY FOXHURST FARM LIME ROCK CONN..

until they reach maturity ; but they should have at least four months of free range over fresh ground each year, if possible, as they will make better breeders and better show birds. There is a certain amount of goodness that they get from the earth for which man has never discovered an equal. It, therefore, can readily be seen that chickens which are raised on fresh ground each year grow much better than those raised on the same piece of ground each year. Of course, we can't all have fresh ground on which to raise our growing chickens each year, but for best results, we must turn it over at least once a year.

The best time to give growing chickens free range is at the age of two months. By that time, they will be strong and well feathered out, provided they have been fed, cooped, and yarded by the method described in this book.

For instance, chickens that are hatched the first of April, should be kept in their coops and runs until the first of June ; after that, give them free range until the first of October. At that time, cockerels and pullets should be separated and put into their winter breeding pens and yards. By mating, feeding and conditioning as explained in the following chapters, there should be some chance in the show room for the owner of the chickens.

NORWICH AUTOMATIC EXERCISER AND FEEDER.

Above you will find a cut of the Norwich Automatic Exerciser and Feeder which I consider one of the greatest labor saving devices that was ever put on the market. In fact, it would be impossible for me to do all the work on Foxhurst Farm alone if it were not equipped with these Feeders. They are not only a labor saving device, but when properly regulated

keep a breeding pen in the best possible condition, for they are so arranged that you can set them to meet the different requirements of each pen. For instance, if you have a pen of breeders that are over-fat, and you want to thin them down, all you have to do is to just close the slide so they have to work hard all day for what they get to eat. By following this meth-

NORWICH AUTOMATIC EXERCISER AND FEEDER.

od you will find in a week or ten days that you will have your over-fat pen down in weight and in good breeding condition. In fact, you can regulate each feeder according to the condition of your breeding pen, whether it be over-fat or under weight. I consider these feeders just as valuable for growing chickens on free range, as I do for the breeding stock.

Of course, it is like any other machine ; you have to use good judgment and set it according to whatever result you wish to get. If your hens get overfat it is your fault, if they get too thin it is your fault. With good common sense you can set them to meet all the requirements of the different pens, from young to old, whether on free range or yarded, and they pay for themselves many times over in a year by the saving of feed. You can use them indoors or outdoors, just as you see fit, and they will last a lifetime.

I do not want the readers of this book to look at this write-up of the Norwich Automatic Exerciser and Feeder, as an advertisement for the Feeder. I only speak of it for the benefit of the readers of this system.

THE BEST BREEDING AGE OF A FEMALE.

There is a wide difference in opinion among different breeders, as to whether hens or pullets will breed the strongest chickens. Some claim hens are better, while others claim that pullets, mated to a cock, are just as good. I have experimented a great deal and watched results from both hens and pullets, as breeders. Any man in the fancy poultry business must study, and make tests, to find out when a hen or a pullet will breed her strongest and best chickens.

Pullets that are only five or six months old make very poor breeders, and I would not advise hatching chickens from them at that age ; but a pullet ten or eleven months old can be depended upon to throw strong stock, whether mated to a cock or to a well matured cockerel who is ten or eleven months old. By using the following method, I have bred some of the very best show specimens from pullets. A pullet, hatched the first of May, if she is properly grown and cared for will begin to lay in November and should lay well all winter. If she becomes

broody around the middle of February, set her at once. After she has hatched her chicks, take them from her and put her back into the breeding yard. She should begin to lay again in two weeks and she will breed three grades of chicks before going broody again. The first five or six eggs she lays, after putting her back in the breeding yard will run a little small in size. Set them, and you will have only fair chickens from them. As soon as her eggs run uniform in size save and set every one of them up to the time she begins to cluck, or shows broodiness again. These eggs will hatch the best chicks of the season. If you set the eggs she lays from the time she shows signs of becoming broody, until she takes to the nest, the chickens hatched will be the poorest lot of the year. The same thing applies to the hen as well as to the pullet. A hen will breed her best chickens after she has been allowed to set three weeks, then break her up and put her back into the breeding pen.

I only raise two hundred chickens a year, but they defeat the best birds from England, Canada, Australia, and the United States, at the Madison Square Garden show. The reason for this is that I have found out when a hen and pullet will breed her best chickens. I was a long time finding out this secret, but I consider it one of the best secrets I have written in this book. It is worth thousands of dollars to any breeder of Fancy Poultry who is in the business for a living, for it gives him a chance to sell at a big price all the eggs that his best hens and pullets will lay up to the time they become broody. The customer who buys the eggs from the breeder's best hens and pullets is getting more than value for his money as he is getting stock from the breeder's best hens and pullets and so is bound to get some wonderful results. The customer will have a good chance in the show room, and that is the best advertisement a breeder can have.

This year our egg trade started early in February, and to date, which is the 7th of April, I have shipped nearly every egg that our best hens and pullets have laid. Many customers make a mistake in ordering their eggs too early. If they would order their eggs in April and May they would get much better stock.

Nearly every breeder shows his best stock and it takes at least a month to get the birds back into good breeding condition, especially if he makes more than one show, for by the time he gets them into breeding condition the zero weather comes on. Even if his birds are laying good through the zero weather, the fertility will run low and the chickens hatched will not have the life in them that they would have when the weather is warmer and the breeding birds can run out of doors. I have never won with a cockerel or pullet at Madison Square Garden, in the number of years that I have been breeding Fancy Poultry, that was hatched before the first of May. Three years ago our winning cockerel was hatched the 17th of June. Two years ago our winning cockerel was hatched the 12th of June. This year the winning cockerel was hatched the 18th of May. My favorite time for hatching pullets is from the middle of May to the middle of June, as that gives plenty of time for finishing them for the show. As cockerels need about a month longer to finish, a hatch about the first of May is necessary in order to have them in good condition for the Garden Show, which is usually held the latter part of December.

The reason I have been so successful with late hatched chickens is because I breed them as above described. Then, feeding as I have described will put them in prime condition. They will start to take on new flesh, and you will be saving their eggs for hatching when they are gaining in weight.

A sitting hen eats very little and the heat of the body dries up all of the surplus fat, so when she is putting on new flesh

she is gaining in strength, and the eggs she lays after the first few days, up to the time she becomes broody again, will produce the best stock she has bred that year.

By this method of selecting eggs, any breeder can raise more blue ribbon winners from two hundred chicks than he could from six hundred by taking the eggs as they come.

MATING.

The following system of mating is entirely different from any other. It is known to no one but myself.

Most other systems use one male and one female, but in starting this system I use one male and two females. The three birds, of course, should be good individuals. No matter how much you pay for stock or how good it is, if you do not mate it right, you are throwing money away. Fair birds, properly mated, will produce better stock than the best birds improperly mated. I will try to explain to you how this is.

I have never yet seen a perfect bird, therefore, you must be sure not to breed from a male and female that have the same weakness. For instance: If the male's tail pinches too much, and he carries it just a little too high, you must select a female that has a well spread tail and a low carriage; or, if the male bird is a little flat in the breast and has a short back, you must select a female that has a very full breast and a long back, etc. You will be surprised to find how quickly you can patch up the weak parts by mating two strong parts to one weak part. If you follow this system of mating, you will find that you will never have a reason to be disappointed so far as mating goes.

After using this system of mating for a few years, the weak sections will all disappear and ninety-five per cent. of all the birds raised can go into the show room, and win as far as type is concerned.

In regard to mating for color*, be sure that the three birds you are going to line breed from are purchased from a breeder who has bred and raised his own winners. Don't buy them of a breeder who buys his winners and then advertises that he has raised them. There are a great many breeders to-day who are buying their winners and not breeding them.

The best way to find out whether a breeder is buying his winners or line-breeding them, is to go to the show room yourself. Study the breeder's birds that win the most prizes. If they are line-bred, they will look like one family; they will resemble each other. If there is no resemblance, you may be sure that they were bought here and there, and not line bred.

We will take it for granted that the birds you have selected are line bred. Supposing one hen comes from England, from a winning strain, one hen from Canada, and the male bird from this country. Now, by studying the chart of line breeding, which is on another page in this book, you will see how, in six years, you can combine all of the good qualities of the three birds. They will have the equal blood of the three birds in their veins, and with the good qualities of the three birds combined, you will have a family or strain of birds that you can challenge the world with and win. My last three years of winnings for Foxhurst Farm have proven that this system stands alone.

On the chart for line breeding, we will call the bird from England, Hen A; the bird from Canada, Hen B, and the bird from this country, Male C. By naming the birds A, B and C, it will be easier to follow the chart. We will put hen A to the left, hen B to the right, and male C in the center. The first year's mating will be as follows:

The chickens hatched from hen A, we will call group No. 1, which is one-half the blood of hen A, and one-half the blood of male C. The chickens hatched from hen B will be group No.

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* Refer to page 51.

2, which is one-half the blood of hen B, and one-half the blood of male C.

The second year, take the best cockerel from group No. 1 and mate back to his mother which is hen A. This will be group No. 3, which will be three-quarters of the blood of hen A and one-quarter of the blood of male C. Then take the best cockerel from group No. 2 and mate back to his mother, which is hen B. This will produce group No. 4, which is three-quarters of the blood of hen B, and one-quarter of the blood of male C. Now take the best pullet from group No. 1, and mate her back to her father which is male C. This will be group No. 5, which will be three-quarters of the male C and one-quarter of the blood of hen A. Then take the best pullet from group No. 2, and mate her back to her father, which will be male C. This will produce group No. 6, which will be three-quarters of the blood of male C and one-quarter of the blood of hen B. This will end the second year's breeding.

The third year take the best cock from pen No. 2 and mate him to the best pullet of group No. 3. This will produce group No. 7 which is three-quarters of the blood of male C and three-quarters of the blood of hen A and one-half of the blood of hen B. Then take the best cock from group No. 1 and mate him to group No. 4. This will produce group No. 8, which is three-quarters of the blood of male C, three-quarters of the blood of hen B and one-half of the blood of hen A. This ends the third year's breeding.

We now take the best cock from group No. 6 and mate him to the best female in group No. 7. This will produce group No. 9 which is one and one-half parts of the blood of male C and three-quarters of the blood of hen A, and three-quarters of the blood of hen B. We now take the best cock from group No. 5 and mate him to group No. 8. This will produce group No. 10, which will be one and one-half parts of the blood of male

C and three-quarters of the blood of hen A, and three-quarters of the blood of hen B. This will end our fourth year's breeding.

We now take the best male from group No. 4 and mate him to the best female from group No. 7, which will produce group No. 11. One part of the blood of male C and one and one-fourth parts of the blood of hen B and three-quarters of the blood of hen A. We now take the best male from group No. 3 and mate him to the best female of group No. 8. This will produce group No. 12, which is one part of the blood of male C and one and one-quarter parts of the blood of hen A and three-quarters of the blood of hen B. This will end the fifth year's breeding.

Now we will take the best male from group No. 11 and mate him to the best female in group No. 12. This will produce group No. 13 which is the two equal parts of the blood of male C and the two equal parts of the blood of hen A and the two equal parts of the blood of hen B. We now take the best male from group No. 12 and mate him to the best female of group No. 11. This will produce group No. 14, which is the two equal parts of the blood of male C and the two equal parts of the blood of hen A and the two equal parts of the blood of hen B. This ends the sixth year's breeding.

I have now shown you how you can buy three birds from different parts of the world and mate them for six years to produce a flock of birds that has an equal amount of the blood of each of the original three birds.

By using this method of mating, the chickens will gain in size and bone each year. This system can be used for a lifetime without ever introducing new blood. There are a dozen different ways one can follow the chart and get almost as good results, but the one I have just described will produce stock which will defeat the best birds that the world can produce.

HEN

COCK

HEN

HUBBARD'S
POULTRY CHART
FOR
LINE BREEDING.

This I consider my greatest secret.

MATING THE BLACKS.

I will now give you my method of mating Blacks, Buffs, and Whites for color. We will take the Blacks first. I find from the letters that come to Foxhurst Farm that there is a very wide difference of opinion among poultrymen in regard to mating Blacks to get the beetle green sheen free from purple barring. A good many letters read something like this, "I have a male bird that has a very high sheen but has purple barring. What will you charge me for a female that has no sheen and is just a dull black in color with no purple barring." Others will say their male has not much sheen and is free from barring, and would like to buy a female that has a very high sheen. Others want the price on a trio or a pen; females of dull black color with male with very high sheen, saying their reasons for wanting them mated in this way are to avoid purple barring and the red in hackle of the cockerels raised from that mating.

I do not like the above method of mating to produce the beautiful green plumage free from purple barring and to avoid red in the hackle of the cockerels, for if it is followed, it will force one to double mate to get the beautiful green plumage on both cockerels and pullets. For instance, if a high sheen male is mated to very dull black females, either the cockerels or pullets will be off color. If the cockerels get good color from this mating it will be necessary to mate the reverse, to get good colored pullets.

The purple barring comes more from improper care and feeding than from the mating. I have yet to find any red in hackle from any pure Foxhurst Farm bird that I have ever raised, and there is not a strain of Black Orpingtons in existence that has any higher green sheen than Foxhurst Farm Black Orpingtons. They are noted for this, both in male and

female, but still I can mate the two high sheens together and be free from any red in hackle.

About five years ago Mr. Barnum, owner of Foxhurst Farm, paid a big price for a bird that won high honors at New York. I did not want to use the bird as a breeder as he was a stranger to me. However, I mated this bird with five good females. From this mating we produced red in the hackles; consequently in the fall I killed off every young bird I raised from the mating, and I never again placed that bird in the breeding yard.

The method I use in mating Black Orpingtons to get the beautiful green plumage in both cockerels and pullets is to mate a male and female that have the same shade of green, or as *nearly as possible* to match them. This will produce cockerels and pullets of the beautiful green sheen from a single mating.

I learned to mate Black Orpingtons by killing a pair of crows; a male and a female. I noticed that the plumage of the two birds was exactly the same shade of green. You could not pick the male from the female in regard to color. This proved to me that nature never intended that a high green sheen male should be mated to a dull black female, but that the plumage of the male and female should be of the same shade. I have never yet found purple barring on crows' feathers. This also proves that the purple barring does not come from mating a high sheen male to a high sheen female. If it did, I would have found barring in the plumage of the crows.

I then went to work and experimented on the different methods of caring and feeding and I proved to my own satisfaction that seventy-five per cent. of the purple barring in black plumage is caused by improper care and feeding, which causes a stunt of feather growth.

I will now give you some of the causes for stunted feather growth: The first, over-feeding the chickens when they are too young which often causes indigestion, therefore, throw-

ing the whole system out of order. Second, the feeding of grains that do not contain the proper material for a quick feather growth. Third, crowded quarters on warm nights which cause the birds to sweat and become overheated. Fourth, head and body lice; also filthy quarters. Fifth, worms ruin more flocks of growing chickens and cause more off color than any other one thing. There is not one poultryman in twenty that ever rids his growing chicks of worms and still they are one of the worst enemies to growing chickens, and take more dollars out of a poultryman's pockets than any other one thing. Through the growing period you should rid the chickens of worms each month. On another page you will find my method of ridding chicks of worms.

Mate your Blacks as described, watch the little things that cause feather stunt, and follow the method of feeding, as given in this book, and you will grow Blacks with the beautiful green plumage, and eighty-five per cent. free from barring.

MATING THE BUFFS.

I will now take up the method of mating Buffs. Nearly every poultryman you meet will tell you that the Buff color is the hardest color to mate, and that you will have to raise a great many to get a few good ones. Now I don't agree with them, for I think that the Buff color is one of the best colors to control if you go at it right. Most of the winning birds are produced by the double mating system. One pen mated to produce cockerels and the other pen mated to produce pullets. From the cockerel mating you will get no good pullets. From the pullet mated pen you will not get good cockerels. I do not like this method of mating Buffs as you have to raise too many birds that you can sell to market only, and your per-

centage of good birds will be rather small. It is also too hard for the amateur to follow. My ambition is to try and explain a method of mating Buffs so that the amateur will have an equal chance with the professional in producing Buffs for the show room.

One of the greatest faults I find that most Buff breeders have, is the mating of cockerels and pullets together. Such a mating is very unsatisfactory, and does not produce very many high class show birds. The reason for this is that one cannot tell the breeding value of a Buff bird until it is two years old, or until it has shed out as a cock or a hen.

I will try to explain why cockerel and pullet mating results in so many poor Buff birds. We will say you breed from twenty pullets. Of course, they look good to you as pullets or you would not breed from them. When they take to molting and shedding out as hens you will find some of them with dark hackles and light bodies. Some will be mealy in color, some will come with white in the wings, and tail, and some will lose the under color which they had when they were pullets. You are lucky if you have five good hens out of the twenty pullets which you used for breeding. The other fifteen should never have been bred from, as they could not breed birds that would win in a pumpkin show. The lucky five that held their color are a gold mine as breeders. The same thing also applies to cockerels. There is no one who can tell the breeding value of Buffs until they have shed out as cocks or hens.

You can raise more high class show birds from a trio, two hens and a cock, than from ten pullets and a cockerel. There is a very wide difference in opinion between breeders of Buffs as to the proper shade of golden Buff color, that is desired.

I was asked by a certain Buff breeder to look at a Buff cockerel that he was thinking of buying, to see if he would make a good cockerel breeder. Mr. Buff Breeder said he had a

cock at home that shed out too light for a show bird, but would make a fine pullet breeder. I told him I did not believe in double mating to produce Buff color, and also that the cockerel in question was too high in color to suit me, as he was more of a red than a Buff color. Mr. Buff Breeder then said that I might be all right in mating Blacks, but he could see that I did not understand mating Buffs. I did not tell him that my favorite color was Buff and that I had bred more winners in that color than I ever did in Black, and that I did it by single mating.

Now in order to breed and hold the golden buff color, you should mate the male and female with the same shade of even golden buff, with under color to the skin. Be sure to train your eye for the golden buff color, not the light cinnamon buff nor the high colored red buff. From this mating the majority of the chicks will be golden buff in color. There will also be a few of the light cinnamon buff, and a few of the high colored red buff. If you keep on mating the male and female that have the same golden buff color, in about three years, you will find that you are breeding winning cockerels and pullets from a single mating, and you won't have to raise two hundred birds, more or less, to get a few good ones. After you have mated this way for a few years, with due regard to type, you will find that seventy-five per cent. of all the Buff birds you raise can go into the show room.

MATING THE WHITES.

We will now take up the mating of Whites. The amateur might think that white chicks are the easiest to produce, but it is quite the reverse. A pure white strain of chickens is one of the hardest things to produce; especially, in the male bird, although there are quite a number of strains where the males

are as white as the females. But as the White Orpingtons are not yet classed with the Rocks, Wyandottes and Leghorns as a white strain of fowls, there are but very few white male birds to be found in this country or in any other country. The practice of bleaching the White Orpingtons and selling them for white birds has killed the White Orpington business at present, but there is a great future for them, in spite of this. I think it will take from five to seven years, but by that time they will be one of the whitest strains of fowls that can be produced. Just as soon as we get them where they will stay white the year around, we will see one of the biggest booms on them that was ever on any strain of chickens, and it will stay, for they are one of the best all-around-chickens that I have ever seen, but we must breed them right and not fake them.

My advice to every White Orpington breeder is to keep at them and produce a stay-white strain, and if they have the Orpington type in them, you will have a gold mine. A great many of the White Orpington breeders cross in White Rock blood to get white males. I will admit they help the strain in regard to white male birds, but when they ship eggs out, they advertise pure white strain, and about one-third of the chickens hatched from these eggs come with yellow legs and beaks. They don't make the buyer feel very good after paying a big price for the eggs. Another man goes to the show room and buys a blue ribbon winner and pays a big price for him. After he gets him home and he runs out in all kinds of weather for about six weeks, instead of being the white bird bought at the show, he has become a yellow bird. This kind of faking has put the White Orpingtons to the wall.

A stay-white all the year around White Orpington male would be a hard thing for any breeder to buy as there have not

been many bred up to the present time, and any breeder who has one, would not sell him under any consideration.

I will now give you an easy and safe method for producing a stay white strain of White Orpingtons, and one by which the males will stand the weather the year around, after a few years of careful breeding. Select a White Orpington hen, one that has been tested as a breeder, and that you know has bred some of your best stay-white stock. Now, mate her with one of the best Black Orpington cock birds that can be obtained for type, making sure that he is a tested breeder. After mating this pair, set all the eggs she lays after they run uniform in size. After the chickens are matured from this mating, pick out the cockerel that shows the best all around Orpington type and best bone, and also pick out the best pullet with regard to Orpington type and good bone. Now the cockerel and pullet will be own brother and sister. After they are fully matured, from eleven to twelve months old, they should be mated, and you should set all the eggs you can from this mating. You will find they will breed you three colors of chickens; a pure black, a pure white, and a mixed color. About one out of every three to five eggs hatched will come pure white, and they will always breed and stay white. From this mating one should raise six to eight whites. The best white cockerel you raise from this mating should be mated back to his mother and from this mating you will produce a number of cockerels that are free from brass in their plumage. These white cockerels are badly in-bred by being bred from brothers and sisters, and then back to their mother. Now you must have new blood which should be secured by getting two more white hens that are tested breeders of the same strain as the first hen, if possible, select the best cockerel that shows the best type, bone and color and start line breeding as described in the chart on another page, and you will produce a strain of White Orping-

tons that any breeder will be proud to own. You will find that the little dash of Black blood will help out on improving type as well as color.

I have experimented on the crossing of Black cocks on White hens, then breeding from brother and sister, and from this mating I have produced white males that never have shown brass in their plumage and I kept one until he was three years old.

BREEDING HOUSES AND YARDS FOR OLD FOWLS.

I suppose there are not two men who agree in regard to what makes the best all-year-round breeding house. Some will tell you that the long house is the better, while some will maintain that the double-decker where the fowls have to climb a ladder to go to roost is superior; but both have their good and bad points. A chicken house fit for chickens to live in must have these three essentials:

First, it must be free from dampness; second, it must be free from draughts; third, it must be ventilated so that in zero weather the breath of the fowls will not cause the side of the coop to frost.

The following is a description of a house which has given me good results; it possesses the three essentials that I have just mentioned:

The house is 14 feet long and 12 feet deep, with a partition in the middle which makes two breeding pens, each 7x12; (the partition may be of wire but a board partition is better.) The floor is of cement. In order to be damp proof, a cement floor should be laid in the following manner: Consider sills as being four inches deep. First, put in two inches of gravel; over that an inch of cement. Let it harden for a day. Then

lay a good grade of tar paper over the cement, and over that another inch of cement, which will bring the floor to the top of the sill. When this is thoroughly dried, you will have a perfectly dry floor the year around, a floor that is easily kept clean and one that is rat proof. The coop should be $7\frac{1}{2}$ feet high in front, and 5 feet in back. Use good matched lumber for side walls, and shingles for the roof. Have one door in one end. In place of glass for windows, use muslin. (There is no glass in any chicken house on Foxhurst Farm.)

The windows should be thirty inches wide by 4 feet high. The frame that the muslin is tacked on should be hung with hinges. These windows should be closed only during showers in the summer. In cold weather, they should be shut every night, opened every morning, and left open all day, even when the weather is 20 below zero. The windows should not be less than 2 feet from the floor.

The roost should be at the back of the coop and as far as possible from the windows. It should be about $2\frac{1}{2}$ feet from the floor, and one foot from the wall so that the male bird's tail will not get ruined. As I breed only five females to a male, one roost is all that is needed for that number of birds. I do not use dropping boards, but two feet from the back of the coop I put a board six inches high so as to keep the chickens from scratching the droppings in the litter. I use a Norwich Hopper and Exerciser in each breeding pen.

There should be three good roomy nests in each breeding pen. These should be placed so that they won't interfere with the floor space, and so that the chickens cannot roost on them.

I have used this style of house now for seven years, and find it gives perfect satisfaction in every way; if I were to build twenty-five breeding houses to-morrow, I would use this one kind. My chickens have never had any swollen eyes, colds, or rattles since I have adopted this style of breeding houses.

On another page, you will find a picture of one of these houses and yards. It will give you a better idea of how they are built.

The yards, 20 feet wide and 50 feet long, are plenty big enough for a pen of breeders. The wire fence around these yards is nailed to the back of the house, running out 13 feet from each end of it. The gate is hung between the corner post and the end of the house, so that you can get into the yard and house. You should board up your partition fence in the middle 2 feet high to keep the male birds from fighting. You can use your own judgment in regard to how many gates you will need.

EXHIBITING FOWLS.

In this article I wish to touch on the different elements which are essential in exhibiting fowls. If you are in the fancy poultry business you should exhibit in at least one show. You must get your birds before the public. The purchasers look to the breeder who carries home the ribbons from the poultry show, and like any other business or profession, one must advertise. It has proven time and again that where one does not advertise he cannot get returns in the fancy poultry business. One of the best ways to advertise is by showing your stock. In this way a breeder comes directly before those who are interested in his particular breed, and becomes acquainted with many a prospective buyer. Your name, your stock and your winnings are associated, and the amount of publicity thus derived is remarkable.

A start has been made, and now you should place a well prepared advertisement in one or more of the leading poultry papers. In many instances, breeders confine their exhibits

entirely to the smaller shows, which is an error. Let me not be misunderstood in saying that home or neighboring shows should not be patronized, as it is a duty that every fancier owes to his home association to do all in his power to make his home show a success, and if this is done his home show will gradually grow to be one of the bigger shows. The point I wish to bring out is that a winning at one of the larger shows, such as New York, Boston, Chicago, Philadelphia, Baltimore, and Pittsburg is worth more than a hundred winnings at one of the smaller shows. The bigger the show is the larger the attendance will be, and the greater number of prospective buyers will view your birds. Those are the people you are to do business with, and unless you show your birds, you are out of the running, and your competitor will do the business.

Every breeder should make up his mind to show his stock to the public as soon as it is convenient. True, not every bird you show will win a place, but do not be discouraged if this should be your first experience. If your birds do not win, as you wish they would, look up the judge, approach him in a nice manner, and tell him that you are an amateur and ask him if he will show you why your birds did not get any of the ribbons. Many times a small defect has put a bird out of the winnings. As I said before, a blue ribbon may not come the first, second, or third year, but by keeping at it and applying brains and putting your whole heart and soul into the business, the day will come when you will sweep the deck.

The foundation is now laid; but after this, real ambition, common sense and business methods must be used. Follow your birds to the show room and be on the job as much as possible. This is beneficial in two ways: First, you will be there to talk to those who view your birds and in this way you may make some sales. Second, you can attend to your own birds better than the over-worked attendants, and in this way you

are assured that they will respond when called upon to stand up.

To make sales on the floor, two elements are necessary; first, to be able to interest prospective buyers in the good quality your birds possess; second, never find fault in the show room. Every bird has its good and bad points. Speak good of your competitor. It will not hurt your birds or your business. Everybody avoids a "kicker" and once a man has confidence in your business methods, he will remember you when he is in the market for the kind of birds you handle.

If your water and feed cups happen to be empty, don't go to the secretary's office and enter a complaint that your birds are not getting proper care; but go and find a watering can and feed pail and attend to your own birds, if they are in need of water and feed.

I feel that it is just as much my duty to look after the wants of my birds in the show room as it is to look after their wants at home. Some breeders seem to be looking for something to complain about. Be sure you are not one of that kind. Be a gentleman in the show room and avoid complaining without having a good cause and you will make friends very quickly. One can never have too many friends in the show room.

If the judge does not place the rewards just as you think he should on your own string of birds, don't go around the show room telling everybody that the judge did not place your birds right. Remember you have watched and studied your birds from the day they were hatched to the day you put them into the show room. You have also studied the good and bad qualities of the team of birds you are exhibiting. Then the judge comes along to judge your birds, and that judge is going to do his very best to try and pick out what he considers the nearest to the standard of perfection, and what his conscience tells him is the best bird. A great many times it hap-

pens that your favorite bird does not show his best just at the time that the judge is to pass his opinion on him. He might get excited over something, or he might not be feeling just right at the time the judge is placing the awards. There are one hundred and one things that could happen that would cause your best bird to tighten up his feathers and not show his best at the time he is to be judged. The judge has all these things to contend with. How easy it is for him to make a mistake under these conditions. Remember the judge has not had the chance to study your birds as you have, so if the ribbons do not go to your birds just as you think they should, don't complain and say that the judge is crooked, or you wonder how much the other fellow had to pay him to place his birds over yours. Get that idea out of your head about judges being bought. Remember they have their reputation at stake, and they are going to protect it the best they know how, and place the ribbons on the birds that look the nearest to the standard at the time they are being judged. Some birds improve every day they are in the show room and others go back. Always remember that a bird which is gaining in weight will make a good appearance in a show coop, provided he has been properly trained before he is sent to the show room; and a bird makes a poor showing if he is losing in weight, as he is fast going out of condition. So train and handle your birds at home and arrange your feeding so that they will be gaining in weight the day they are to be judged. This will give the judge a chance to pass on your birds when they are at their best.

I have followed the show room for twelve years and not once in the twelve years have I ever suspected a judge of being crooked. There were years that I did not think that I got just what I thought belonged to me, and there have been other years where it has been a close thing for the judge to decide,

but I have been lucky enough to get the benefit of the doubt, so, when I look back over the twelve years and put the good luck against the bad luck I find that I have received what belongs to me.

TRAINING QUARTERS.

Your training quarters should be the pleasantest and the best ventilated room on the farm. The room should be free from draughts and so arranged that it can be kept at an even temperature of 65 degrees, which is about right for the best results. It is impossible to get prime condition in training quarters where the temperature runs as high as 80 to 85 degrees in the day time, while the sun is shining in the windows, and drops as low as 30 to 35 degrees on a cold night.

In order to get the birds in prime condition, you must heat the blood. This hastens the heart action and opens the pores; but as a bird in this condition takes cold very easily you must be sure that its training quarters are free from draughts. At the same time you must keep good ventilation, as birds grow stale very quickly in a room that is not well ventilated.

These training coops should be 30x24 inches in size, and should be so high that the male's comb will not touch the top of the coop when he stands. The back, tops, and sides of the coop should be tight, with just the front open. The three slats or rods nearest the end of the coop should be close together so that the males cannot get their heads out and fight those in the adjoining coops. The slats or rods in the middle of the coops should be farther apart so that the caretaker can get a clear view of the birds in their coops.

CONDITIONING.

No matter how much pains you have taken in growing and feeding your birds, if they are not properly trained and con-

ditioned your chances of winning are very poor, for a fair bird in good condition will defeat a good bird in poor condition. If you handle your male birds as I do, in houses and yards as described for housing male birds, a week in the training coop will be all they need to put them into prime condition. This is more of a job than one would think.

How often we hear said, "I have my birds in fine condition—they are all two pounds over-weight." One or two pounds over-weight is no indication that a bird is in prime condition, and I find, that it is almost impossible to get a bird into prime condition that is over-fat. Figure to have your birds at their best the day that they are to be judged. A bird will stay in prime condition from three to five days. See to it that your birds are not in prime condition five days before, or five days after they are to be judged, but have them on time. It takes from six to ten days to get a bird prime.

My method of training and conditioning for the show room is as follows: Before putting the birds in their training coops, all coops should be thoroughly cleaned, dusted, and sprayed with kerosene. Use fine hay or straw for litter. A handful of grit, shells and charcoal (about equal parts) should be in the corner of each training coop. Litter should be changed every other day to keep the birds looking fresh and clean. Birds gaining in weight are rapidly coming into condition and will remain in this state from three to five days, after which they will begin to lose. Things that indicate good condition are: Bright eyes, deep blood red color in comb and wattles, comb standing firm and straight, plumage should be bright and that of a male bird should have a high sheen. The male should be lively and fond of calling the hens when given food.

We get the above symptoms of condition by the following method of feeding and handling:

The first day we give them nothing to eat or drink.

The second day force two small pieces of garlic bulb from which the outer skin has been removed, down the throat of each bird, morning, noon and night. Give each bird a tablespoonful of olive oil. This will physic the system and carry off worms.

For the next seven days, the morning feed should consist of a mash made of ground milk crackers, three parts; flaked oatmeal, six parts; hominy, twelve parts; and cooked ground meat, one part. (Meat should be prepared in the following way: Boil a lean piece of round steak fifteen minutes, add a little salt to the water, grind fine.) Mix these ingredients thoroughly with the hands and add two tablespoonfuls of flaxseed (not meal) for each bird, add just a little red pepper to the hot milk before moistening the mash. Feed what they will clean up in ten minutes.

In the middle of the forenoon each bird should have a light feed of sprouted oats.

At noon, each bird should be fed the following mash: Run a little raw meat through the grinder, pour a little port wine over it, add a little dash of nutmeg, now add enough ground milk crackers to take up all the moisture. Give the birds all they will eat of this.

In the middle of the afternoon give a light feed of sprouted oats.

For the night feed give the birds all they will clean up in half an hour of whole wheat and cracked corn.

After feeding this method for three days you will notice a brighter color of eyes, comb and wattles and in about seven days they will have a deep red color. Their combs will stand firm and straight, their eyes will be bright and clear, and the feathers will lay close to the body and have a very high sheen. These symptoms indicate good condition.

For drink there is nothing better than spring water, to which has been added a drop of tincture of iron to each cup. Change the water at noon, but omit the tincture of iron. Be careful to clean watering cups thoroughly every night.

Bathe the face, comb and wattles with clear alcohol each day. This will check the heavy growth of their combs.

Use for a head dressing the day they are to be judged, five parts of turpentine to one of cocoanut oil. First bathe the face, comb, and wattles with vinegar and warm water, equal parts, dry, and then apply the turpentine and oil. This will put on a finish that is hard to beat. Shanks should be gone over with the same application.

Every bird should be handled twice a day. Remove bird from coop in the following way: Turn the bird's face toward you, with your right hand take a firm hold of the wing close to the body and pull the bird forward. Place your left hand under the keel with the hocks between the thumb and forefinger. This will give you a firm hold of the bird. Bring the bird toward you, leaving the whole weight in your left hand, with breast resting on your forearm. Open the bird's wing with your right hand, then change the bird to your right hand and with your left hand open the other wing. You have now handled the bird just as the judge will and he should not be man shy when taken out of the coop in this way. I have seen birds that were used to being taken from the coop with both hands, as amateurs sometimes do, and when a judge takes these birds by one wing and pulls them toward him, these birds would squack and become frightened because they were not used to being handled in this way. A bird frightened by strange handling will tighten the feathers and will not show real type. Many a good bird has lost a blue by not being handled properly in training quarters.

Have a barrel in your training quarters to stand your birds

on, and before putting them back in their coops rub the plumage well with a piece of silk. Study the position your birds look best in, and when replacing them in their coops teach them to pose in this position each time. No two birds should be taught to pose in the same position, as each should be taught to pose in the position that covers the faults best. For instance: if a bird is weak in breast, teach it to pose tipped a little forward; if you have one that holds his neck and head too far back, so the hackle covers the back too much, and shortens the appearance of the back, it should be taught to hold his head and neck a little forward. Whatever the fault is teach him to pose to cover it as much as possible. I have now given you my method of feeding, handling and conditioning for the show room, which has never stood defeat.

CONDITIONING BIRDS FOR BREEDING AFTER THEIR RETURN FROM THE SHOW ROOM.

I consider it just as much a trick to fit a bird for the breeding pen as I do to fit it for the Show Room. In the Show Room, a bird usually gets over-fed, and takes on too much weight. Birds that are over-fat are not fit to breed from, as they will not breed strong chickens. The best way to tell when birds are in the best possible condition to breed from is to lift them. If the comb is a good red and the bird feels light and corkey, and still seems to have plenty of flesh, it is in the best possible condition for breeding, and will breed strong chickens that will not give you much trouble to raise, and will grow like weeds.

If, when you pick them up they feel leady or a dead weight, and they have too much fat below the vent, even if their comb and face are red, they are not in breeding condition, and the

chickens hatched from such stock will be small and will give you lots of trouble to raise them.

I will now tell you the best method I know of for putting a flock of chickens into breeding condition after being returned from the Show Room, where they have been fed too much, and have taken on too much fat. All birds should be dusted with lice powder after their return from the Show Room. Use second crop clover hay for litter in your breeding coop. You will be surprised to see how much they will eat of it, and it helps a great deal to balance their grain rations, as breeding birds should be fed on a light, bulky ration, rather than on a solid, grain ration. The heavy solid grain ration will put too much fat on the intestines, which is not wanted in a breeder. The light, bulky food will not cause the intestines to take on too much fat, and will keep them in a better breeding condition.

After you have dusted your birds, and have your coops well littered, you are ready to mate them. If you are breeding Orpingtons, never breed over five females to one male. For the first three days they should not be fed on anything but crackers. In the morning and evening, take five milk crackers, break them up in your hand, and throw them in the litter, so they will have to scratch and work to find them. Follow this method of feeding for three days, and you will not have a lazy bird in the bunch. Good judgment must be used to give them just enough to eat to satisfy their wants, but be sure to keep them lively. This can be done by feeding three times a day. The morning and noon feeds should be a little light, and their night feed should be the heaviest. Do not let them go to roost hungry. Handle your breeders in this way, and the chickens you hatch will not give you any trouble to raise, and they will grow like weeds.

After they have been fed on crackers for three days, they

should be fed on wheat, corn and oats. The wheat and oats should be sprouted, which is done in the following way: Take two parts oats and one part wheat, mix thoroughly by hand and put in a wash boiler (which I think makes the best thing to soak them in), then pour enough water in the boiler to cover them well. Let them soak for 36 hours, then add to each pail of water you soak them in, 30 or 40 drops of tincture of iron (this pertains to a pail that holds 12 quarts of water), the oats and wheat should then be put in shallow boxes, which should be 18 inches long, 12 inches wide, and 4 inches high. Put about $2\frac{1}{2}$ inches of the soaked grains in each box, and place one box on top of the other. There should be a small crack in the bottom of each box to let the water drain off. The second day they are in the box they should be stirred up by hand. The morning of the third day they should be wet down with cold water, and stirred up by hand again. Each time after they are stirred up, the boxes should be placed one on top of the other. Don't place anything between the boxes to give a circulation of air as is advised by some, as this causes the top of the grains to dry out much faster than the middle, and they won't all start to sprout at the same time. By placing one on top of the other, it stops the currents of air from drying out the top and the grains hold the moisture better. The fourth morning you will find they have all started to sprout, provided they have been kept in a room where the temperature is from 70 to 75°. Then put all the grain into a big box which is $2\frac{1}{2}$ feet square, and 10 inches high. Stir them up well, wet them well with cold water, and put a cover over the box. Have a few cracks in the cover, but the cover must not be raised off the box. The grains should be kept in the dark, but they should also be moist. After they have been in this box for two days, they are ready to be fed to the birds. The time when sprouted grains are best for fowls is when they have made a good length

of root and the tops have just started to sprout; for now you have the full value of the meats of the grains with lots of roots to help make the bulk that is wanted so much in keeping the breeders in good laying condition.

The difference in weight between sprouted and unsprouted grains is about as follows: A pail of grains, as you get it from the mill, weighs about 25 pounds, and a pail of the same size of sprouted grain will weigh about 12 pounds; therefore, a pail of sprouted grain will feed the same number of birds as a pail of grain which is not sprouted. You can now readily see the difference between a bulk ration and a solid ration. By feeding the birds a pail of sprouted grain, their crops will be just as full and they will have less than one-half the weight in their crops than if you feed them solid grain. Feeding them solid grain will cause them to get over-fat, which will ruin them as breeders.

After feeding them crackers three days, their morning feed should be sprouted grain thrown in the litter. At noon they should have another feed of sprouted grain, and at night they should be fed cracked corn, thrown in the litter. The evening feed should be given one hour and a half before they go to roost, so they will have to work hard in the litter to fill their crops before bedtime. Twice a week your birds should have green ground bone, just enough to satisfy them. Once or twice a week substitute dry crackers in the place of sprouted grain for the noon meal. They relish this change very much. Each pen should be supplied with grit, shells, and charcoal. Don't keep any dry mash or beef scraps before your breeders. Keep your breeders lively and handle them as explained above, and your chickens will look a week old when they are hatched. Twice a week your male birds should be taken away from the females and fed all they will eat of a good strengthening food with a liberal amount of lean meat in it. This will

keep up their strength, as a good breeding male is very apt to see that his females get their share first, and when he comes to look for his share, there isn't much left.

You will find the above method a good one to follow after you break up your breeding pens and take the male birds away from the females. After you are through hatching, the male birds should go in separate yards and be fed the same as they were in the breeding pen, except that they should be fed wheat instead of corn, for their evening feed. Withhold corn through the hot months. The proper way to give your best hens comfort through the hot months is to go over your whole flock of hens and pick out the ones that you want to breed from next year, and also the ones you want to use in the show room, and arrange the roosts so they can sleep in the open air. If you have a meadow on your farm that you mow, you have an ideal place for your best hens. All you have to do is to arrange a place for them to roost. It can be done in the following way, and it won't cost much: Use four posts, two by four will do. The size of your roosting quarters all depends on how many hens you have. A roosting place 12 feet square makes good sized roosting quarters, and will accommodate a number of hens. A roof which can be made of any cheap lumber and covered with tar paper so it will not leak, should be placed over the roosting quarters. By arranging four roosts and running poultry wire around the outside, with a gate on one side, you have roosting quarters that can't be beat for the comfort of your hens through the hot summer. By shutting the gate at night, you can protect them against foxes, skunks and dogs. You can readily see that a meadow or pasture makes an ideal place for one of these roosting sheds, and your birds can enjoy free range. After you have your birds in their new quarters, you should feed so as to stop egg production as much as possible, as they need a rest. Be very

careful that they don't get over-fat. If your best hens become broody, let them set, as they will make better molt by doing so, and when the new feathers start, they will gain in weight and their feathers will grow much faster. The faster they put on these new feathers, the better color they will have. While they are on free range they should be made to pick the most of their living by catching bugs, grasshoppers and crickets. They should only be fed once a day, and that should be at night just before bed-time. This should be thrown in the litter to make them work to get it. It would be a good plan to put a few heaps of horse manure in different places around their roosting quarters, then you can throw their night feed in this, and they would enjoy scratching it out, and the exercise they got from it would keep them in good health. If you handle your show birds and breeders in this way, they will not disappoint you, and they will be birds of rare quality, provided when they begin to shed, that you feed them by the method which I have given on another page in this book, on feeding through the molt. You should also keep plenty of shells, grit and charcoal before them. Don't neglect going over them for lice once each month, and grease their shanks to keep them in good shape.

HOUSE AND YARDS FOR MALE BIRDS.

It is almost impossible for a breeder of Fancy Poultry to get along without having a separate house for his male birds when the breeding season is over and when the cockerels will no longer run together without fighting. There are many Blue Ribbon cockerels ruined by being allowed to run with other cockerels. When a cockerel is once "cowed down," it is impossible to get him to finish his feathers as he should; his

saddle feathers are the most effected. As an Orpington cockerel does not look finished if his saddle feathers are not of the proper length, his actions must be carefully watched. As soon as a cockerel gets "boss," and runs the others, he should be taken away and put into one of the male houses and yards.

Every poultryman who has seen the houses and yards used on Foxhurst Farm says that it has the best system of caring for male birds that he has ever seen. You will find on another page a picture of one of the houses and yards; this will give you a more adequate idea of them.

The house we have built for shedding our male birds is 72 feet long and six feet wide with a partition, which runs the whole length of the house. Then every six feet is a side partition. This gives us twenty-four pens, twelve on each side of the house. Each pen is 3x6 feet and each one of the twenty-four pens has a yard six feet wide and twenty-five feet long, with a gate at each end. Each yard is boarded up 2½ feet high to keep the birds from fighting, and also to act as a good wind break. Even on cold windy days in December the birds stay out in these yards all day, for the wind cannot get to them. Cold winds are bad for chickens; there are many days during the winter that I would have had to keep the chickens in the coop all day if the yards had not been boarded up in this way.

In these houses I train and condition each team of birds which I show at Madison Square Garden. I give them about ten days in their training quarters to put on the finishing touches, and to teach them the tricks of the show room. Foxhurst Farm is known the world over for having its birds in prime condition in the show room. The method I have just described for housing and yarding male birds has more to do with the prime condition than anything else, as the birds enjoy the open air up to a week or ten days before they are judged.

My winnings of the past three years are as follows:

At Madison Square Garden, New York, December 29, 1912 to January 1, 1913.

First and third cock.

First and fifth hen.

First, third, fourth and fifth cockerel.

First, second, third and fifth pullet.

First and fourth pen.

At Madison Square Garden, New York, December 26 to 31, 1913.

First, second and fourth cock.

First, second and third hen.

First, third, fourth and fifth cockerel.

First, second, fourth and fifth pullet.

Second pen.

At Madison Square Garden, New York, February 12 to 18, 1914.

Second, third and fourth cock.

First, second and fourth hen.

First, second, fourth and fifth cockerel.

First, third, fourth and fifth pullet.

First pen.

Competition at the three shows mentioned above was very great. Among those participating were William Cook and Sons, or the originators of the Orpingtons, with a team of birds selected from the best that could be found in England, including many winners at the Crystal Palace Show; the strongest team that could be found from Canada to Australia; and the best raised in America. In spite of this, Foxhurst Farm won nearly every place in each of the open classes and lost only two blues in the three years. This proves without a

doubt that I am offering to the public the best system ever offered on the Mating, Feeding and Conditioning of Fancy Poultry.

LICE AND HOW TO RID THEM.

There is nothing that causes a poultryman more work than lice. A man has to fight them twelve months in the year, and is lucky then if he is rid of them. I have tried nearly all lice powders and lice paint, but the following method has proven to be best. For lice paint, for roost, nests and all inside work, I find that there is nothing that quite equals kerosene and creosote. To every gallon of oil add one pint of creosote. This is much cheaper and does better work for keeping down lice and mites than anything I have ever tried. It can be made for twenty-five cents a gallon. It should be put on with a spray pump. You should spray the inside of the poultry houses at least four times a year, and the roosts and nest boxes once a week. This will keep your poultry houses free from lice and red mites.

For a lice powder I find that there is nothing that can beat Persian Insect Powder, and fine ground tobacco dust. To make it, mix two parts of fine tobacco dust to one part of Persian Insect Powder, and you will have one of the best lice powders you have ever tried, and as it is harmless to the chickens, you can use it freely.

Half dusting your chickens is throwing your labor away. They should be gone over thoroughly from the beak to the tail in order to get all the lice. The best and quickest way is to buy or rig up a tumbling barrel that will hold from six to eight chickens. Close the opening, turn them over and over a few times, shake them out as quickly as possible, and you will find they are dusted in all sections clear to the skin.

J. S. Smith

FIRST PRIZE EXHIBITION PEN
MADISON SQUARE GARDEN NEW YORK FEB. 1915
BRED BY HENRY F. KNEST FARM LIME ROCK, CONN.

The best time to do this work is at night, when they are roosting. You can catch them easily and in one evening can go over a large flock of chickens. Leave them on the floor after you have dusted them and the lice will fall off into the litter. In the morning, clean all the litter out of your house, and set fire to it. Spray your houses all over well with the lice liquid, then put in clean litter, and your chickens will be free from lice for some time. Do this at least four times a year, though once a month would be better, especially during the summer.

One-quarter of a poultryman's time should be used in fighting lice. My method of keeping lice and mites off from growing chicks is as follows:

You should not call yourself a chicken man if you allow your hens to hatch a brood of chicks that are covered with lice. Some writers claim that a chicken is born with head lice, whether hatched by hen or incubator. I can't say whether this is true or not, but I, myself, have never found any head lice on a chicken that was hatched in a clean incubator. I have noticed that almost all chickens hatched by a hen have head lice. When the chicks are strong enough to leave the nest and go to the brood coop, the first thing I always do is to take the hen in one hand and with the other hand I grease her feathers and skin using pure olive oil. When the chicks crawl under the hen, they moisten their down with the oil, and if there are any lice on her, or them, they will leave, for lice do not like grease of any kind. It not only rids the little chicks of lice, but seems to strengthen them. You must be careful not to put on too much of the oil for by using just a small quantity, the chicks will look bright and clean when they come from under the hen. Moisten her feathers with olive oil once a week for four weeks. After that add to the olive oil a few drops of oil of sassafrass. Keep up this method of

moistening her feathers and skin until she weans her chickens.

When using this method you don't have to worry about lice on your young chickens. After you take the hen from them, they should be dusted in a tumbling barrel once a month with the same powder you use on the old fowls. When the chicks are full grown and have their new plumage, it would be a little risky to put them in the tumbling barrel, as they might break a wing feather and this would hurt them for show purposes. So during this time it would be safer to dust your show specimens by hand.

For head and throat lice, put a few drops of oil of sassafrass on a small sponge and moisten the feathers well on top of the head and under the throat, and you will rid your chickens of lice in these parts.

At least ten days before your chickens are hatched, you should thoroughly clean your brood coops and spray them all over with the same liquid lice paint that you use in your large hen houses. After you have sprayed these coops, shut them up tight to hold the fumes in the coop and let it penetrate through the wood. The day before you put the hens and chicks in the coop, open the door so it can get aired out well.

I use peat moss for litter as you never get any bad odor from the droppings when this is used. It should be saved, especially if you have a garden, for it makes the best fertilizer for all kinds of crops.

Your brood coops should be cleaned thoroughly once a week, and once a month the litter should be changed and the coops sprayed all over inside. You won't be bothered very much with lice and mites if you follow this method.

POULTRY DISEASES.

It is not my purpose to explain in detail the various diseases of poultry, but I will give you my method of treating a few

of the most dreaded diseases that a poultry breeder has to contend with. Namely: Roup, cholera or diarrhea, chicken pox and canker.

Roup is one of the most dreaded diseases that a poultryman has to contend with. Many writers claim that the only sure cure for roup is the axe. I will admit that a cheap or just a fair breeder would not be worth bothering with and the axe would be the best cure. It is quite an undertaking to cure a bad case of roup after it has once gotten a good hold, but I have never seen a case of roup that I could not cure with the following treatment:

In treating roup, the first thing to do is to clean the system thoroughly. At night give the bird a dose of salts or castor oil. The next morning, wash comb and wattles with warm water, using cuticura soap, and wipe dry. If the eyes foam or are swollen, moisten a sponge with kerosene oil and apply it to the face and wattles. Don't be afraid of getting it into the eyes as it will do no harm, but be very careful not to get it on the skin under the feathers. If you do, it will blister and make a bad job of it. Put three drops of aconite in a teaspoonful of water, and give it in the morning. At noon, give one teaspoonful of olive oil with three drops of spirits of camphor in it. At night give the bird two tablespoonfuls of equal parts of rum and hot water in which has been dissolved two grain capsules of quinine and sweeten it with a little molasses.

You will find the best way to get medicine down a sick bird's throat is with a glass syringe.

Open the bird's mouth, put the end of the syringe a little ways down the bird's throat, and empty the syringe. In this way they get it all and none of it is wasted. If, on opening the mouth you find any cankers, paint them with tincture of iron. If the throat is patched, make a paper tube, and blow sulphur

and pulverized sugar down the bird's throat. For drinking use pure water sweetened with a little sugar. See that the birds get two feeds a day while sick. One feed should consist of stale bread moistened with milk, and the other feed should consist of two parts of stale bread and one part of raw meat put through a meat grinder. Give them all they will eat at each meal. Keep your birds in a warm dry place, free from draughts and treat them as explained above and in about ten days they will be ready to go back to the breeding pen.

CHICKEN POX.

Chicken pox is a Southern disease and it is very seldom we have it in the North.

My first experience with it was five years ago. We showed a string of birds at one of the southern shows and on their return home I placed them in their different yards on the farm and in about ten days most of the whole flock broke out with chicken pox. It was a week before I found out what was the matter with them, for I had never seen a case of it before. By that time it had gotten a good hold. I tried most everything I could think of for the sores on face, head and comb, and nothing I tried seemed to be able to check it. I then began to doctor the blood and I soon wiped it out. I used the following treatment:

I first cleaned the system good by giving them a dose of salts. I then gave them sulphur in their mash for three days, skipped three days, gave them another dose of salts and continued this treatment for nine days. I greased the sores with vaseline in which I added a liberal amount of camphor gum.

After I began giving this treatment, I could see an improvement every day, until the whole flock was cured, and I have never had a case of it until right now. This bird was

shipped to a show in Tennessee three weeks ago, and on his return home he had a case of chicken pox. I have been giving him the same treatment for a week, the sores have all disappeared, and the bird is in fine condition.

CANKER.

Canker is another troublesome disease with poultry, and throws a bird out of condition very quickly. In fact, it is impossible to get a bird in prime condition if he has canker. This is overlooked by a good many poultrymen. Any time you see a bird going out of condition if the bird hasn't a cold or diarrhea, nine times out of ten canker will be the cause. A good many times the canker will be so low down in the throat that it cannot be seen, or it might be in the ear. A canker in the ear is a bad thing and should be attended to at once. In the treating of canker whether in the mouth, throat, intestines, or ear, the first thing to do is to clear the system by giving the bird one tablespoonful of castor oil. All whole grain should be taken away from the bird for a few days, and the feed should consist of two mashes a day.

The morning feed should consist of a mash moistened with milk to which has been added one-quarter of a teaspoonful of flax-seed. For the evening mash, leave out the flax-seed and use powdered charcoal in its place.

For all cankers you can see in the mouth and throat, take a small brush and paint them with tincture of iron. Never scrape a canker to make it bleed, as advised by some.

For canker in the ear, dissolve a small piece of cuticura soap in a small quantity of water. Take a medicine dropper and work this well down in the ear. Do this two or three times and it will soften the canker. Then take the spoon end of a pair of tweezers and take out all the canker you can without

making it bleed. Work in all the cuticura ointment you can and leave it in the ear for a few days; then you will find that the canker is softened up so you can take the rest of it out. Clean the ear very thoroughly, paint the canker with the tincture of iron and the bird will need no further treatment. Never neglect canker for a bird is not fit to breed from that has canker any more than a bird is fit to breed from that has roup.

CHOLERA OR DIARRHEA.

I will not try to give you a cure for genuine chicken cholera as I do not think there is any cure for it, although a great many advertisers claim they have a cure for it. I have tried a great many of the so-called cholera cures on birds that had diarrhea and I have not found one of them that would even cure that to say nothing about curing cholera.

I have been breeding poultry a good many years but have never seen a genuine case of chicken cholera but once. The disease works very quickly; I saw a bird in perfect health at nine o'clock in the morning, and at five o'clock in the afternoon of the same day the bird was dead. The following method of treating diarrhea has saved many a valuable bird for me.

In treating diarrhea, the first thing to do is to give the bird a dose of physic at once, so as to carry off the cause. The bird should be put in warm, dry quarters and food of every kind should be kept away from the bird, as there is many a case of diarrhea lost by not giving the stomach a rest when it is in that weak condition.

They should not be fed for at least three days. Their nourishment should be given to them in the form of drink prepared in the following way:

Mix one cup of barley and one cup of whole rice with one

quart of water and let it boil for twenty minutes. Then add one quart of new milk, and let it again come to a boil. Strain this liquid through a cloth or a fine strainer. When cool give this to the birds to drink, and nothing but this for three days. Then feed a mash of corn meal with just a pinch of venetian red mixed in it. Moisten with milk that has just come to a boil.

RATTLES.

In case of rattles of the throat, give a dose of salts. Keep the bird in a dry, warm place. Rub the outside of the throat well under the beak and well down the neck with croup specific which can be bought at any drug store. Heat it as hot as your hand can stand it before applying. Mix equal parts of the croup specific and glycerine, heat it well, and pour a small tablespoonful of it down the bird's throat. Continue this treatment from three to five days and you will find it will cure the most stubborn case.

There is a cold or distemper that gets in many flocks of growing chickens in the fall, around the first of October. Growing chickens seem to take cold much easier in the fall than at any other time of the year. They will foam at the eyes, run at the nose, and cough a great deal. You might think the bird had a case of roup, but it is the fall distemper and if not attended to at once it will run into roup, so always be on the lookout for these fall distempers.

You will find that if one or two of your flock gets this disease, your whole flock will be affected in a few days. A good many times it comes with looseness of the bowels. It is much harder to handle in this form. A good many advise shutting the birds up, treating them in the same way you would for roup; but you would have to catch each bird and give him his

dose which would mean a great deal of work. The best way to treat a flock that has the fall cold or distemper is to keep them out in the air all you can on clear days.

On rainy days keep them in. They should be treated in the following manner: For drinking water use clear water to which has been added a tablespoonful of spirits of camphor (to two gallons.) Give them no other water to drink. They should be fed twice a day. These feeds should consist of mash which has been wet up with water and into which there has been mixed a large quantity of raw meat or liver; also put in three drops of aconite to each bird. Mix up what mash they will eat up at once. Burn a cresolene lamp at night in their sleeping quarters. Follow this treatment for a week or ten days and your trouble will be all over. If the birds show a looseness of the bowels use a little venetian red in the mash.

LIVER TROUBLE.

When a bird is affected with a bad case of liver trouble, the best thing to do is to kill it, but a light case can be helped by cleaning the system with a dose of salts. Then they should be put on a very light diet one that is easily digested. Boiled rice makes a very good food for a few days. Make one of their feeds sprouted oats, and a little later some whole wheat thrown in the litter to make them exercise. They should also be given some liver pills. A bird treated in this way will sometimes get over a bad attack of liver trouble.

Nine times out of ten a man can trace diseases to filthy quarters, crowded quarters, draughts, or improper feeding. See that you don't have any of the above faults and your chickens will be free from disease.

SCALY LEGS.

There is nothing that looks so bad as to see a flock of birds with scaly legs, and once it gets into your flock it takes a lot of work to get it out. Even if the breeding stock is free from scaly legs, one has to be careful when he buys sitting hens from the farmers, that they are free from them.

The best way I have ever seen to keep down this trouble and keep the shanks of your young and old stock in good condition is to take a shallow pan that is just two-thirds of the height of the bird's shanks, fill it almost full of water, and then pour just enough kerosene in the water to cover the top surface of the water. Then place the pan in front of the opening of the coop where your chickens come out so they will have to step both feet into the oil and water. Do this once a month and your birds will always be free from scaly legs. One pan is all that it is necessary to use for treating the whole flock. It might be well to leave the pan empty the first day and fill it with water and oil the next morning. By treating them in this way their shanks will always be in the best of condition.

Equal parts of lard and sulphur moistened with a little kerosene is another good treatment. This will do the work well, but as it necessitates the handling of each bird separately, where there is a large flock to go over, the work becomes very tedious.

HOW THE AMATEUR IS BEATEN IN THE SHOW ROOM BY THE FAKIR.

We always have had, and always will have, I am sorry to say, fakirs to contend with in the Show Room. As a rule, fakirs are not all-around high class chicken men. One of

the strongest points they have is that they show their birds in the pink of condition; that is that they are good fitters. Most of their time is devoted to the study of faking and conditioning, and they give little thought and study to mating and growing, on which points they are very weak. With these two strong points in their favor (faking and conditioning,) they are hard men for the amateur to defeat. Amateurs generally start showing at the early and late fall fairs, thinking that their chances of winning would be better than they would be at the large mid-winter shows. Here is where a great many times the amateur gets defeated by the fakirs.

I have known fakirs to follow the fall fairs with a string of birds that they themselves did not breed, and clear a thousand dollars on cash prizes. Two years ago I had a letter from a poultryman of this type asking if I had three cockerels and three pullets that were good type and size that I would sell cheap and that I had culled out in the Black Orpingtons. He said he didn't care if they had side sprigs, stubs, poor color or high tails, so long as they had the size and type, as he wanted them to show at the fall fairs. He was getting a team of over a hundred birds of different breeds and expected to clean up \$1,200 on cash prizes. This man offered me \$3.00 each for six culls, but he insisted on having good type and size. I never took the time to answer his letter, as I have always disliked poultrymen who are trying to make reputations on birds that they never breed. This man wanted to buy culls of me and fake them to win. Poultrymen of this type are hurting the Fancy Poultry business more than anything else. My heart really aches for the amateurs that have to stand defeat by the hucksters and fakirs at the early fairs.

Mate, feed and care for your birds as described in this book, and you can defeat any huckster or fakir in the business.

The above cut is an illustration of one of the latest brood coops for the hen and her chickens. I have used coops of this style for some time on Foxhurst Farm and they have given me better results than any I have every used. This coop is ten feet long and two and one-half feet wide. The bottom board is one foot wide, the top one is six inches wide, and the opening between the two is eighteen inches. The opening is covered with wire. Nail four 2 x 4's upright in each corner of the coop which will make the coop very firm. Tack a good grade of tar paper on one end of the coop as shown in the cut. This will act as a shelter for the hen and her chicks during a storm. This coop can be built for less than \$2.00.

The chickens shown in the cut are just four months old, and were raised by my son, Charles, who is also shown in the cut. Note the frame the chickens have made. This young boy won the first prize offered by Storrs College of Connecticut for raising the best chickens with the least cost. He scored 97 points, his nearest competitor being 78 points.

Following you will find a good many tricks used by the fakir in the Show Room:

SIDE SPRIG.

A good many times your best show cockerel or pullet has a side sprig. The amateur leaves him home, or sells him to the fakir. One method is to press it hard against the teeth, and bite it off close to the surface of the comb. Another is to lay the comb flat on a board and with a sharp razor to cut the sprig off. The method used most is to take a sharp pair of shears, and with the thumb on the opposite side, press hard against the blade of the shears and cut the sprig off as closely as possible.

STUBS.

If there are but one or two stubs on each shank, they will not take them out until just before they ship them to the show. It is done by taking your thumb nail, pressing down hard at the root, then pressing forward; the stub will then shoot out. If they want to kill the stub, they take a small darning needle and hold it over a flame. When the point is red hot, be quick and shove it up under the scale where the stub comes out. When the hot point of the needle touches the root of the stub, it kills it. When one uses the hot needle, it should be done at least two months before the birds are shown. The shank should be bandaged quite tight for three or four days. Grease the shank well with vaseline before putting on the bandage. The down between the toes is pulled out with the fingers or a pair of tweezers.

CARRYING THE TAIL TOO HIGH.

Where a bird carries the tail too high, the fakir lowers it in the following way:

They begin at the lower tail feathers first, and with their thumb and forefinger they put a kink in the feather close to the skin. They break down one side at a time. Every feather should be broken on the same angle. With a little practice one can get any angle to the tail he wants. A wry tail is caused by roosting in a corner or against the side of the building. It is straightened the same way as you lower a tail. If they carry the tail to the left, put a kink in tail feathers to the right. By doing so the tail will look straight. If the bird has a crooked back, this method will not help. That is one thing they can't fake.

COLOR FAKING.

There is no color faked so much as the white color. To get rid of the brass and creaminess in the male birds, the things used to bleach white are bluing, peroxide, oxalic acid, chloride of lime and ammonia. You will find how the different bleaches are used on another page where it gives the method of washing a white bird.

FAKING BLACK COLOR.

Every breeder of Black color has purple barring to contend with and a good many times your best bird has the most purple barring. The amateur sends him to the show room and he does not get in the money on account of too much purple barring. The same bird would wear the blue in the fakir's hands for he would put him in the show room without any barr on him. It is done in the following way:

Melt a piece of beef suet about the size of a small apple, and at the same time melt an equivalent quantity of lard. Pour them together, and while hot stir in a teaspoonful of sulphur

and let it cool. Work a small quantity of this mixture into the palm of your hand, wiping off any surplus. Spread out the bird's wing, rubbing the wing bone with this mixture. Always rub the right way of the feathers, never against them.

If your hen or pullet is barred a little on the back and saddle, it is best to rub the whole length of the back and saddle instead of trying to do separately the feathers that are barred. With a little practice, one can easily see how the fakir can fool the best judge in the business. I have had fakirs tell me they have won with birds that have been barred from the head to the tail by using this method.

FAKING WHITE WING FEATHERS ON A BLACK BIRD.

I obtained the following information by overhearing a conversation between two men which, if you desire to use, will produce good results:

From the drug store get the following prescription: Silver nitrate, one-half ounce; concentrated ammonia, two ounces; gum arabic, one-half ounce; water, one-half pint. In another bottle the following prescription should be put up: Gallic acid, one-quarter ounce; alcohol, one-half pint; water, one pint. The two prescriptions are used in the following way: First, the feathers to be faked should be dampened with soft warm water, making sure when moistening the feathers to rub the right way of the feather. When you have taken most all of the moisture out of the feathers, take prescription No. 2 and wet the feathers well. Let it stand a few minutes to soak in and then apply prescription No. 1, wetting the feathers well. Let the feathers dry, after which take a sponge that is just a little damp with water, and rub just enough to take off the roughness. Usually the first application is sufficient.

FAKING WHITE EAR LOBE.

White ear lobes are faked in the following way: Take a stick of caustic and moisten the end. Then go over the whole surface of the ear lobe that shows white. Do this twice a day for three or four days, and it will cause a blister, which will form a scab. When the scab comes off the white comes with it. When it heals up you have a red ear lobe. Never pull the scab off or touch it in any way. If you do, it will spoil the whole job.

I have known others to use Venetian red and red India ink, and get by with it. This is very risky, however, and one is apt to get caught at it. For that reason it is not used much. At any rate, the fakirs seem to be very lucky.

FAKING BUFF COLOR.

A good many times your best type Buff hens or pullets show different shades of feathers all through their plumage. The amateur puts them in the show room just as they are, and does not get a place. The fakir would pull out all of the off-colored feathers from the plumage, and would make an even surface, winning with the same bird that the amateur failed to get a place with.

For birds that show too loose and too long length of feather, which gives them a Cochin appearance when it is not wanted, the fakir will make a strong solution of alum water, and wet the feathers with it, which will help make the feathers lay much closer to the body, and will take away that look of Cochin feathers. If they want Cochin feathering, and their bird does not show enough of it, they wet the feathers with water sweetened with sugar. By dampening the feathers under the surface, one can easily get the Cochin effect, as this will cause them to lift up.

For a loose feathered bird that stands too low on account of too much length of feather they pull out feathers enough until the birds show better length of shank, or appear to stand higher from the floor.

I will not take up any more space in this book on faking in the Show Room, but I thought it my duty to tell the amateur a few of the many ways he is beaten in the Show Room by the fakir. Never, under any circumstances, should you use any of the above methods of faking, as there is nothing that has hurt the Fancy Poultry business like faking.

I was at one of the large shows last winter, and saw a Buff Orpington hen in the pullet class, and the judge gave her first pullet. The owner of the bird showed her to me before the pullets were judged. He asked me what I thought of her. I told him that I thought she looked like a hen. He then told me she was a hen. I tried to have him take her out of the class, but he said that he needed all the Blues he could get. After the judge got through with the Pullet Class, the owner of this hen came over to me and said, "Well, Hubbard, the judge gave that hen first pullet." Now, a poultryman of this type is not helping the Fancy Poultry business one bit, but is doing it much damage. If she were a pullet, she would have been cheap at \$50.00 for she would have been good size for a pullet, and would have made a large hen; but as it was, she was an undersized hen with small bone, and the man that would buy her would be disappointed when she didn't grow larger, and when she shed out the next year. He would also be more disappointed with the chickens she bred, as they would all be undersized; for a hen that is undersize, with small bone, is useless as a breeder, and should go in the utility yard. This breeder did not hurt the judge by his passing her as a pullet, but he did wrong to the men he sold her to.

FAKING WHITE BIRDS FOR THE SHOW ROOM THAT HAVE BRASS
AND CREAMINESS IN THEIR PLUMAGE.

A male bird that has creaminess and brass in his plumage should be washed three times. Once when his new plumage is about half in, the next time just before his plumage is prime and the next, three days before he is shown. When washing each time, use the same method of soaping and rinsing as you do in the other method of washing white birds, which is explained in the next chapter on "Washing White Birds," with the exception that you should put enough ammonia into the pail of hot melted soap, so that it smells good and strong. With this melted soap and ammonia, you should soap the bird in good shape, working in all the soap the feathers will hold. Put the bird in a warm room and leave him in there for a half hour. Then take him out and put him into the rinsing tub, making sure you get all the soap out of the feathers, then he should go into the bluing tub. Use double the amount of bluing you do in the other method of washing. From the bluing tub put him into the drying room and when the bird is dry he should be blue all over.

Now he should be put into the yard and allowed to run as before he was washed. The reason for using so much bluing is that when he is out in the sun, it will help bleach the feathers, and they won't take on so much brass. Wash the bird twice in this manner, let him run in the sun, and the next washing will put him in the show room a white bird. Three days before the show, wash the bird in the following way: Before you start to wash your bird the last time, you should get some clean white sand and heat it to 115 degrees. You must also have a box eighteen to twenty inches long about a foot wide, and high enough so that when the bird is sitting down his head will come to the top of the box. Now soap, rinse,

and blue as by the method given in the next chapter, being careful not to use too much bluing this time. After taking the bird from the bluing water, take all the moisture you can out of the feathers with a Turkish towel. Heat a bottle of peroxide as hot as your hands can bear it and pour the hot peroxide over the whole plumage, commencing well up on the hackle and wetting all the feathers well. Pour some ammonia on a damp sponge and go over the top surface. Then take the bird into the drying room. First put three inches of the hot sand in the bottom of the box, then set the bird in the box and cover him up with the sand heated to 115 degrees. Leave just his head sticking out. After the feathers dry out, take him out of the sand and you will find that you have a white bird. This is what is known as the sand bleach.

In bad cases of brassiness, oxalic acid and chloride of lime are sometimes used, but it will not be necessary when using the sand bleach, as it certainly saps the creaminess and brassiness from the plumage. You can now see how the fakir bleaches a bird that has brass, and wins in the Show Room. The man who buys the bird is disappointed when he lets him run in all kinds of weather and he goes back to the same color that he was before he was bleached.

WASHING WHITE BIRDS.

To wash a white bird that is free from brass one should have three or four tubs at least half full of warm water. The one you soak your bird in first should be the warmest. If you are using ivory soap, use one bar to every bird you have to wash. Slice your soap thin, put it in a clean pail and pour boiling hot water over it, and boil it until it is all dissolved. Then with a good sponge, your tubs filled with warm soft wa-

ter, a brush with which to scrub the shanks, and your drying room heated to 100 degrees, you are ready to wash your birds.

Take about two quarts of your melted soap and put it into the first tub. Take your bird and gradually put it into the tub and hold it under the water, with just its head sticking out; work the bird up and down to get its feathers wet to the skin. Now take your sponge and rub the feathers the right way. Never go against them. Then take your bird out and stand it on a table, or on a barrel, or on a barrel with a wire sieve over the top. By using a barrel, the soap runs off the bird through the sieve, and into the barrel, and does not get the floor wet. Have a pail of clear melted soap handy, as hot as your hands can bear it. Now turn the bird's head towards you, take your sponge, dip it in the hot melted soap and work all you can of this into the feathers. Make sure to work the soap in well with your fingers around the head and hackle and at the root of the tail. If the hackle is not yet all out of the quill, you should take a nail brush and comb the hackle out of quill as much as possible. Never comb out any of the top surface with a brush, for if you do, it will make a bad looking job when the feathers dry out. Take your nail brush, and with a little fine sand in it, rub the shanks well.

Put the bird back into the tub, and with the sponge, rub the whole top surface hard, making sure to rub the feathers the right way. Now you are through with your first tub.

Your next tub of water should be warm and have a little borax in it. This helps to get the soap out of the feathers. When taking your bird out of the tub that contains the soap, stand him on the edge of the tub and with your hand commence at the hackle and rub the right way of the feathers to the end of the tail. This will get off a large quantity of the soap suds. Now put your bird in the tub of rinsing water which contains the borax. The rinsing must be done very

carefully so as to get out every bit of the soap that is in the feathers. To be very sure of this rinse in the third tub of water. In the fourth and last tub put a little bluing.

Now if you have followed this system of washing and have gotten all the soap from the feathers and just bluing enough in the water, you will find that when your birds are dried that you have done a good job and no one will consider washing a bird in this way faking.

FINIS.

I have now gone over the whole field of the breeding of fancy poultry from the shell to the showroom and have tried to tell, in a way that will be easy for even the amateur to understand, how I have used these secrets in making Foxhurst Farm Black Orpingtons the undisputed Champions of the world.

The reader may think that I have had nothing but good luck and plenty of money back of me to make my road to success an easy one, but in this, he is mistaken; for I have had to take each step, as any other amateur, and I don't believe any poultryman in the business to-day ever worked harder than I to reach the goal of the true fancier: The Blue Ribbon and the Championship of the World for Foxhurst Farm.

In conclusion, let it be known, that in disclosing my system, I do not withdraw from the ranks of the fancier and exhibitor, for I believe this system will not stand defeat.