

# AMERICAN POULTRY WORLD

MAY, 1916

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# AMERICAN POULTRY WORLD

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# CONTENTS, MAY, 1916

FRONTISPIECE . . . . .	Speckled Sussex Feathers	
THE MOST VALUABLE LAYING HEN . . . . .	J. W. Parks . . . . .	533
SUMMER CARE OF CHICKS . . . . .		535
STANDARD REQUIREMENTS OF SPECKLED SUSSEX . . . . .	A. O. Schilling . . . . .	536
MISSOURI'S POULTRY EXPERIMENT STATION . . . . .	H. W. Jackson . . . . .	538
CARING FOR MALES BETWEEN BREEDING SEASONS . . . . .	W. A. Wolford . . . . .	539
LINE BREEDING AS PRACTICED BY J. V. McCONNELL . . . . .	G. M. Curtis . . . . .	540
EDITORIALS . . . . .		542
Line breeding is nothing more than intelligent inbreeding. Words of Needed Caution to the Novice or So-Called Beginner. The Wisdom of Buying into an established Strain. What to do with the "Best get" of those Chicks you are now raising. How many Eggs is it Possible for a Hen to lay in a Lifetime? President E. E. Richards at the Battle Creek Sanitarium. This Year's Annual A. P. A. Convention to be held August 8-10 Inclusive. "Nationalism or Fraternalism—Which?" Interview with a Master Breeder of Rhode Island Reds. Meeting of Standing Committee on Separate Breed Standards. Editorial Notes.		
EDITORIAL NOTES AND COMMENT . . . . .	Wm. C. Denny . . . . .	558
THE RED vs. SPECKLED SUSSEX . . . . .	A. A. Carver . . . . .	561
MAKING RAT PROOF FLOORS FOR POULTRY HOUSES . . . . .		565
THE SICILIAN BUTTERCUP . . . . .	Jessie Eichstedt . . . . .	570
POULTRY WORLD AFFAIRS . . . . .		572
SINGLE COMB BUFF LEGHORNS . . . . .	L. Wagner . . . . .	575
GOOSE RAISING . . . . .		576
GOVERNMENT WORK FOR POULTRY . . . . .	H. W. Jackson . . . . .	577
QUESTIONS AND ANSWERS . . . . .		599
BREEDERS' SPECIAL DISPLAY CARDS . . . . .		602
CLASSIFIED ADVERTISERS . . . . .		603
INDEX TO ADVERTISERS . . . . .		608

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## NEW YORK PALACE SHOW—DECEMBER, 1915

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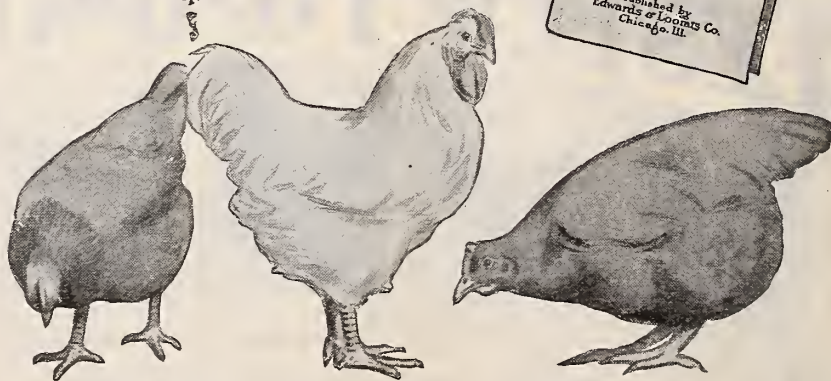
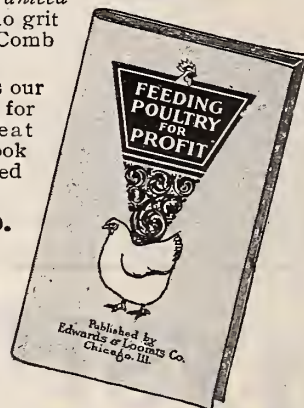
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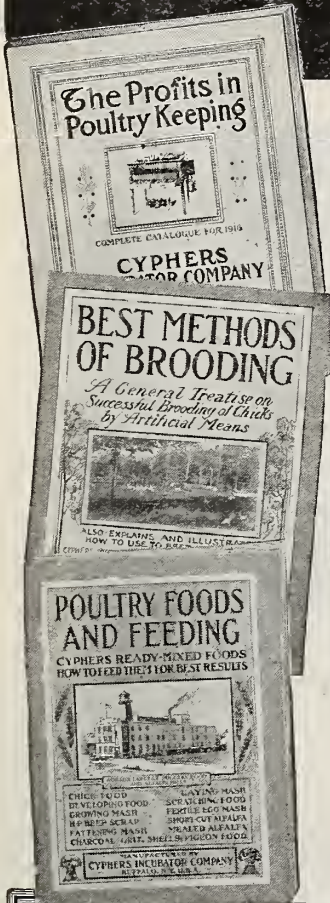
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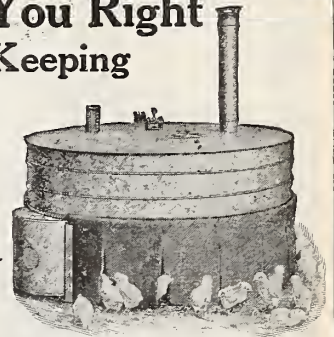
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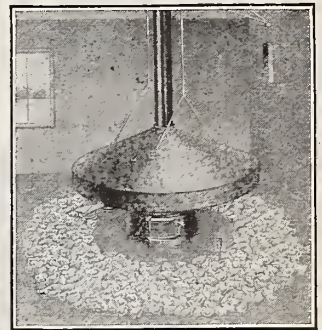
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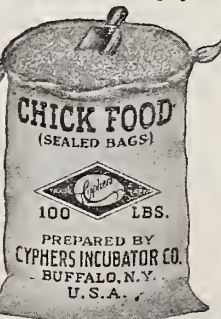
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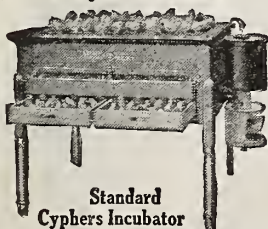


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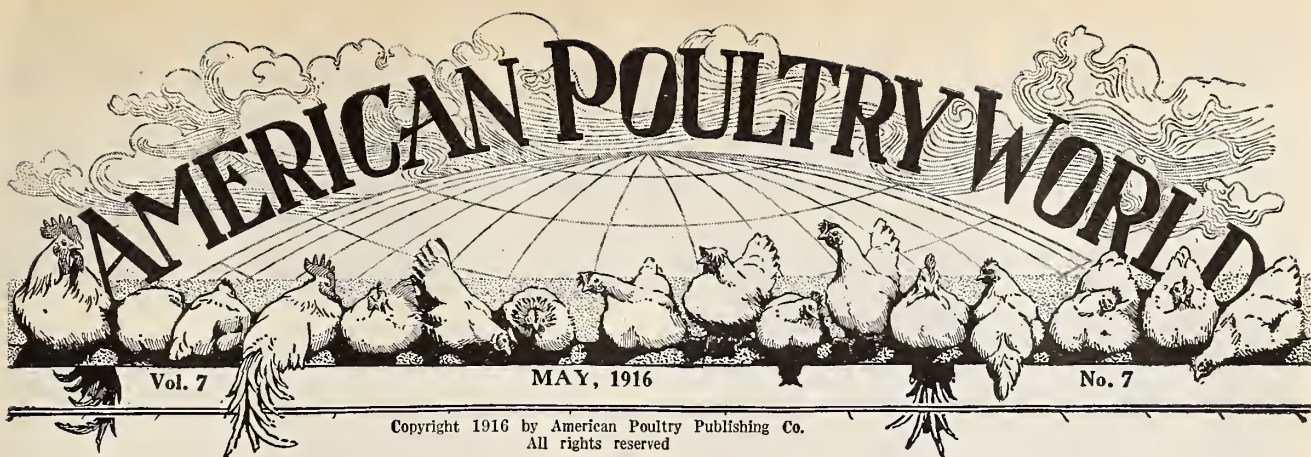
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The above chart represents a set of male and female feathers taken from winning Speckled Sussex at shows held last winter. Among them back, breast and body feathers from first and second pullets at Chicago Sussex Club Show, December, 1915, owned by Ravensley Shields Poultry Farm, Columbus, Ohio, also a number of breast, hackle and saddle feathers taken from their first prize cockerel which also won at the last Madison Square Garden Show. These feathers represent some of the best produced up-to-date compared to the ideal. See article, page 536.—A. O. Schilling.

Nov 5, 1916



## THE MOST VALUABLE LAYING HEN

Is It the Hen That Produces the Greatest Number of Eggs or the One That Produces the Greatest Value in Eggs That Is the Most Valuable? Prominent Barred Rock Breeder Brings Out These Questions and Incidentally Pays Some Compliments To His Favorites

By J. W. PARKS, Altoona, Pa.

IT IS encouraging to all true lovers and breeders of that grand old breed, the Barred Plymouth Rocks, to find our favorites so strongly entrenched in universal popularity that the big gun booming of the newer breeds has not dented our lines. I often wonder if the true old Yankees that originated our breed ever had any idea that they were making a breed that would fill the purpose of an all around fowl as well as the Barred Plymouth Rocks have.

### Lead as Market Fowl

As to their standing as a market fowl I believe we are still safe to leave their case in the hands of the market poultry buyers. Not many years ago a prominent poultry journal of the middle-west had a representative call on leading western buyers and packers, and I believe to a man, that he found that they gave first choice to the Barred Rock. As a show bird or a fanciers hobby I doubt if there is one that can replace them. If you want to find some friend or locate a lost kid in the show room you will more than likely find them in the Barred Rock alley.

No other breed furnishes the sport or requires the study that the breeding of Barred Rocks does. You can hardly wait until the chicks from some special mating are hatched to begin the study of results, or to select your coming winners from them. The suspense you are held in until the wing feathers begin to shoot, and show what your mating has given you in the way of barring is one of the fascinating features in the breeding of this variety. Of all the good qualities presented by this breed, none has made them more popular than their winter laying ability, a trait in which they are not surpassed by any other breed.

### The Utility Craze

The past few years have surely been utility years, in fact, I believe we might say that it has gone so far that some writers claim it a dangerous and contagious craze. In the past the fancier-breeders as a whole have neglected to give the utility or egg laying side, of their strains due consideration and are now paying the penalty, as their birds cannot measure up to the Standard set by strains bred exclusively for egg production. Unfortunately a majority of the utility breeders are paying little or no attention to the standard qualities of their layers, and we now have strains of certain breeds that have only the breed name left.

Furthermore at the rate they are now going they will not only sacrifice size of birds, but also size of eggs and vitality, in this mad rush for the highest egg record. For example, a foreign breeder who has won in a number of American laying contests was barred at one of the foreign egg laying contests on account of the undersized egg produced by his birds. We must not forget what happened to some strains a few years ago when that early laying craze struck the country. As one of the oldest, trapnest and pedigree, breeders for eggs we argued against early laying—quite often at the loss of trade. What was the result? Why pullets were actually laying almost before they had moulted their chick feathers, and breeders were advertising heavy breeds laying at less than four months. The result was a lot of undersized birds laying an undersized egg with no vitality to reproduce. Just what could be expected

and what would happen to our race today if our children were forced to go to hard work while in their early teens.

What we should strive for is a higher general egg yield. Phenomenal layers as a rule do not do the breed much good, as facts and figures have proven to us repeatedly in our long years of breeding along this line. The high average layers can always be depended upon to give the surest and most permanent results.

The pen of my strain that outlived all other breeds entered in the last Missouri egg laying contest; the pen that is now holding third place at this writing; and the pens of my strain that made the remarkable winter laying records, were produced by this careful scientific method of breeding and selection. Particular attention should be paid to the winter layers. Fortunately winter laying is one of the strong points of the Barred Rocks over other breeds, in fact about all the winter laying re-

records go to the Barred Plymouth Rocks.

Do not get it into your head that March and April are the only months to get your chicks out. With the unsettled weather we generally have at this season of the year, quite often the May and early June chicks if given the proper care will surpass the former, as the weather at this time is settled and they can be put out on the ground from the start. Many a great layer and winner is produced from chicks grown under these normal weather conditions.

### The Egg Laying Contests

We would feel as though we were not playing fair with our winter laying Barred Rocks if we did not make mention of the

NOTE.—In the accompanying article Mr. Parks has brought out some interesting questions regarding the value of the laying hen. They are questions that merit the consideration of every breeder of poultry whether they belong to the class referred to as fancier-breeders, or to those of opposite tastes, the so-called utility breeders. Particular attention is directed to his suggestions concerning the egg laying contests and we trust that some of those with whom the management of these institutions rest, will carefully read Mr. Parks recommendations and put them into effect at the contests to start this fall. To attain their full educational advantages, information of the kind suggested herewith should be included in their reports. It is dollars and cents in which the poultry public is interested and the value and weight as well as the number of eggs produced would indicate where one variety excelled another as a producer of value.—Wm. C. Denny, Assoc. Edit.

laying contests which have done a lot of good to awaken interest in the subject of increased egg production, and have taught breeders what was possible if they would but use care and selection in their mating and breeding. But after all are the final results given to us in proper shape?



A WINNING SILVER CAMPINE COCK  
BOSTON SHOW JAN 1916 BRED & OWNED BY  
HOMESTEAD CAMPINE FARM WAYLAND, MASS.

During the recent Boston Show, C. A. Phipps, Proprietor of Homestead Campine Farm, Wayland, Mass., invited us to look over some of his choice Campine males and among them we found the subject for the above illustration. This male won fifth prize in the open class, but as his type and color, also general qualities were so unusually good Mr. Phipps decided that a faithful study of him would be greatly appreciated. Probably the only real fault shown in this male was in neck and hackle which was too dark. However, despite this fact he was a bird full of merit in many ways. His wing color was remarkable while in general type and carriage he was hard to find fault with as a typical modern Campine. His comb was good, nicely serrated, and free from bad wrinkles. We consider him a very desirable breeder and no doubt Mr. Phipps will enjoy producing some wonderful specimens from the pen which he will head during the coming season.—A. O. Schilling.

Is it fair to the Barred Rocks or any other heavy breed to have a January egg count as one against the May or June eggs of the light weight breeds that do their greatest laying when everything lays that wears feathers? If the object of the contests is to show us how to make more money, then why not have the results in dollars and cents? Have a standard of so much per dozen, for eggs for every month in the year; have this price governed by the highest market price. Give the bird that lays a five cent egg credit for five cents and the one that lays the three cent egg credit accordingly, and at the same time let us have the weight of the eggs that the different pens are laying. Have prizes for the highest record pens; for the pen that lays the most pounds of eggs and most important of all give us a record of the pen that produces the most in dollars and cents as I believe that it is this that interests the most people. Above all, don't knock the fancy side of the business too strong. The motto of the utility or egg breeders should be for a closer relationship of the egg basket to the Standard of Perfection. It has come to the day where neither can go on successfully single handed. If it were not for the fancy, and the poultry shows, we would not have the organizations we have today nor would the buying public have become educated to the fact that one bird is worth more than another.

Do not undo what it has taken years and generations to accomplish, when you can still get the same results by the expenditure of a little more time, and still have the other good qualities you started with. The leaders of the Standard or fancy side of the industry are being awakened to the requirements, such as longer bodies, etc., and are modifying the standard requirements of the birds accordingly and it won't be many years until we will have more birds that are both profitable layers and pleasing to the eye.

#### Mr. Park's Suggestion a Good One

THERE is no gainsaying the fact that the egg laying contests have, to a certain extent, proved of benefit to the poultry industry in general,—the egg producing abilities of the various breeds in particular. That they have also worked some injury, is also very evident, as many breeders in their craze for high egg records have overlooked the qualities in their birds that have made the poultry industry what it is today—in fact the foundation upon which it is built.

It does not take the wisdom of a Solomon to appreciate the truth of Mr. Park's statement that, "the motto of the utility or egg breeders should be for a closer relationship of the egg basket to the Standard of Perfection". He also hits the nail squarely on the head when he adds "neither can go on successfully single handed". Yet there are those who have fed from the hand of the standard-bred poultry industry ever since they were able to sit their lazy bones in a chair, behind a desk, and hand out wisdom at so much per, that today loudly proclaim that the Standard is useless and unnecessary, and that any old hen that can produce the eggs is (Continued on page 567)



FIRST PRIZE COLUMBIAN WYANDOTTE COCK  
MADISON SQ. GARDEN 1915-16 BRED & OWNED BY  
WILBURTHA POULTRY FARM TRENTON JCT., N. J.

This Columbian Wyandotte male won first, shape special and color special at Madison Square Garden, 1915-1916. A further attempt to tell about this bird is hardly necessary. The story is compressed into the first sentence of this paragraph. In addition this honor Wilburtha Poultry Farms, Trenton Junction New Jersey, also won 1 pen, 1-2 hen, 5 cockerel and 3 pullet in this same show. This season the Columbian Wyandotte entries from Wilburtha have also been notable winners at the New York Palace and Pittsburgh Shows.—A. O. Schilling.



# Summer Care of Chicks



**The Essential Point in the Summer Management of Chicks is to Keep Them Growing Continuously. How This is Accomplished is Told Herewith by Well Known and Successful Breeders**

**U**NDER favorable conditions anyone with a reasonable amount of common sense can successfully raise chickens, but unfortunately conditions are not always favorable. Therefore, we must acquire the knowledge of what to do, and when to do it, if we are to succeed in poultry raising, especially with the care of chicks during the summer, when the extremely hot weather frequently imposes conditions that, if not corrected are detrimental to the proper development of the chicks.

## Overcrowding Dangerous

There is no condition that works greater injury during the hot summer nights than overcrowding. We hear much discussion about making two blades of grass grow where one grew before, or words to that effect. That may apply to some localities or certain soils, also it might apply to the raising of chickens, but woe be to the person who attempts to grow two chickens where only one should be grown. In other words disaster will be the inevitable result if the attempt is made to double up in chicken raising, therefore beware of overcrowding.

We could write page after page of "don'ts" to be observed in the care of chicks after they are removed from the brooder, but we believe a more helpful article will result if we let the breeders themselves tell the story. Putting this thought into action we requested several well known and successful breeders to outline their methods of care during the summer or after the chicks had been removed from the brooders.

## A Pennsylvania Breeder's Method

Among the first replies, the following from Leroy E. Sands, Hawley, Pa., successful breeder of Single Comb White Leghorns covers the subject thoroughly. Says Mr. Sands:

"The care of chicks after removing them from the brooders is quite a long story as so much depends upon conditions, such as weather, age of chicks, etc., all of which have a different bearing upon the care

given. The care taker must take these conditions in at a glance and act accordingly. First the removal of the chicks from brooder to colony houses should be done under mild weather conditions. This is important as chicks are prone to crowd when put into strange quarters and nothing is more detrimental than crowding. Many a fine lot of chicks or six to eight weeks' old pullets are ruined by carelessness at this

point. If the weather is warm when the change is made the house will be warm and with a little attention much of this trouble can be avoided. Crowding in corners or bunching together thereby causing "night sweats" is one of the most harmful things that can happen to a promising brood of chicks and every effort should be made to prevent it. A visit to the coops at dusk and carefully spreading out broods found in this condition is one of the necessary details at this time.

"If the chicks are hatched any time in April, my practice is to remove them to colony coops when eight weeks' of age. We separate the cockerels from the pullets at this time, thereby giving the pullets more room and removing the annoyance from the cockerels that is sure to develop sooner or later. We prefer to keep the pullets in small flocks as experience has taught us that to secure the best development they must not be hampered by overcrowding. One exception is made to this rule and that is where we are brooding in a large house in flocks of three or four hundred. In this case we only remove the cockerels and find by so doing that the pullets have the necessary room and as the usual thing, other conditions being favorable, develop rapidly into vigorous producers. In the case of the smaller flocks we keep them in the small house until they take to the roosts when we double them up in larger houses.

"At ten weeks of age I put the pullets on the same ration as the older fowls and feed by the means of an automatic feeder. The cockerels are kept by (Continued on page 590)



The value of color in S. C. Rhode Island Reds seems to be playing an important part in determining the prize winners in the opinion of a number of judges. This is evidently responsible for the production of so many remarkably rich colored specimens shown nowadays, but in our opinion the time has come when type cannot be neglected any longer. Owen Farms, Vineyard Haven, Mass., are among the first to come back to the idea that Rhode Island Reds must be improved in type if they are to remain popular, and during the past season we have seen among their exhibits birds that were really wonderful in symmetry and true Rhode Island Red form. We recall numerous males that have full breasts, beautiful, long, broad backs, wide at shoulders and carried horizontal that will head the breeding yards at this well established plant. No doubt Owen Farms' many customers will also benefit by the wisdom of these matings and it would seem only natural that the breed itself will also benefit by matings of this kind.—A. O. Schilling.

# Standard Requirements of Speckled Sussex



**A Discussion of Speckled Sussex Color and the Problems that Confront the Breeder in his Attempt to Produce the Correct Markings. An Excess of White in Wings or Tail Make the Production of Clean Cut White Spangling in Body Sections Difficult**

BY A. O. SCHILLING

**A**MONG the newer varieties of Standard-bred poultry no other breed that has ever been introduced to the American fancy presents the same evident combination of fancy and utility, that is embodied in the present day Speckled Sussex. This color type is not entirely new, as we first found this style of marking presented to us in the early Jubilee Orpingtons some years ago. At that time breeders of Jubilee Orpingtons exhibited specimens showing various markings and we do not remember seeing a single female shown possessing clear red ground color among the early imported Orpingtons. However, even at the present time, there is still a large percentage of Speckled Sussex females that show this same defect. Despite this fact, it is encouraging to note that within the last two years Speckled Sussex breeders have been able to produce a fair percentage of females that are beginning to be clear in ground color, minus the undesirable characteristic mentioned which appeared in Jubilee Orpingtons. Quite a few remarkably clear colored hens and pullets were shown at last winter's shows.

It is not our intention in this article to treat the subject of utility qualities to any great extent, as this qualification being one of the most redeeming characteristics of this worthy breed it should be handled in a separate article describing Standard type which as we all know should be a mater of utility values idealized or Standardized in harmony with a type which the breeders of this variety have adopted.

## Color Problems

The problem of producing ideal color in Speckled Sussex is a very difficult proposition because of the fact that this breed was regarded purely a table fowl and little atten-



"BLUE SPECIAL" ANDALUSIAN COCK WINNING COLOR SPECIAL CHICAGO ANDALUSIAN CLUB SHOW DEC 1914 FIRST PRIZE CHICAGO COLISEUM DEC. 1915 OWNED & EXHIBITED BY HORACE G. MURPHY MUNCIE, IND.

That Blue Andalusians are taking their place among the most popular breeds in America today seems to be an established fact judging from the large exhibits at recent shows held throughout the country. They have made themselves popular as producers of large white eggs, while their markings and color is one of the most attractive in all poultrydom. Among the most active members of the Blue Andalusian Club who have been doing good work for the promotion of this breed and who has been successful in the show room is Horace G. Murphy, Muncie, Ind. The above illustration pictures the wonderful Blue Andalusian cock "Blue Special" which has carried off the highest honors at New York and Chicago. At the Blue Andalusian Club Show, Chicago, December, 1914, this individual was awarded color special while during the past season he succeeded in carrying off first honors at Madison Square Garden and Chicago Shows. He was a bird of excellent type and wonderful color having breast lacing that was clean cut and distinct carrying same well up towards front of neck. He possesses a beautiful ground color which may be described as a rich pigeon blue and his hackle, back and saddle was a dark lustrous blue black, with practically no indications of brassiness. He is a bird to be appreciated as a show specimen, while as a breeder he may be considered invaluable on account of his many redeeming qualities.—A. O. Schilling.

tion was paid to perfecting of color and markings by their originators in the Sussex districts of England. The breed being of a white meated variety, for which it is especially prized in its native country, seems also to possess the infusion of a large percentage of the blood of fowls having white plumage which was introduced during the stages of its early origin. This is evidenced by the fact that a general tendency in breeding Speckled Sussex is to run to solid white feathers, especially in wings and tail, in fact to such an extent that these sections appear solid white in color of plumage. We have known the Sussex for many years and have studied them at the best American shows, we have also seen them at shows in England where they were exhibited in fairly large classes during 1911. We began an earnest study of this color type at the time of our visit to Europe when we purchased a trio of Mille Fleur Bantams from a breeder in Germany. This breed possessing exactly the same pattern in feather marking that is required by the present day American Standard for Speckled Sussex. We feel that we have to a degree solved some of the breeding characteristics of this style of plumage. We have produced Mille Fleur Bantams both males and females that are near perfection, possessing defined markings and purity of color, equal to the best marked specimens of any parti-colored breed we have ever known. The fact is some of these midgets we consider wonderful examples of this style of plumage and they breed very true.

## How to Produce Proper Color

The laws governing the matings of these Bantams have taught us many valuable lessons and in this article, it is our aim to discuss the subject

of mating to produce this color, based upon our past experience and if Speckled Sussex breeders are benefited by our endeavor, we shall feel amply repaid.

At the time the Sussex Club applied for admission of their breed to the Standard, it was our privilege to be in attendance during the Revision Committee meetings when the first Standard was presented which gave us the opportunity to read the proposed color description to be adopted as ideal by the American Poultry Association. After reading the description accompanying the application above referred to, we learned to our surprise that it required the Speckled Sussex to have solid white main primaries and main tail feathers in the males. From past experience we knew positively that such requirements would never lead to success in perfecting a breed that is bred to produce clean cut white spangling at the end of each feather in both male and female. Further on, in this article, we will give our reasons and objections to specimens possessing these undesirable qualities. In this connection, perhaps it may be timely to correct an erroneous impression which I learned was spreading among Sussex breeders that the new Standard requirements as revised aimed to produce solid black tails. The writer was generally understood to be in favor of solid black tails and would demand such in awarding prizes. How this impression came about we cannot understand as at no time have we taken the position that this breed in order to be ideal should possess solid black tail or wing primaries. In my opinion we must take the best colored tails we have and be content with these, but by all means try to obliterate solid white feathers by selective breeding and by all means do not create a Standard demanding solid white feathers in any part of the plumage of a Splangled breed of this character.

#### Importance of Standard Description

The first and most important object in creating a Standard description for a breed is to establish a definite pattern and shade of color in the male that is in harmony with that of a female of the same variety. In our opinion this is so in the Standard requirements for Speckled Sussex as it now stands and we doubt whether it will be necessary for Speckled Sussex breeders to resort to double mating to any great extent. However, it is a fact that in all breeds known to be produced by single matings, breeders do make special matings to produce the best exhibition males or females. By this we mean, as an example, a Standard colored male may be mated to Standard colored females and the progeny may be to a large percentage Standard colored. At the same time in this same pen containing the Standard colored male and females several females darker than Standard requirements may be used in order to produce exhibition males.

The above methods are generally employed by breeders in their efforts to produce males and females of a desired shade of color, or vice versa. A male darker than Standard shade of

surface color may be mated to females of Standard color in order to produce or to enrich the ground color of a strain of females that appear to be washed out or faded, lacking richness and lustre of ground color. This practice is often carried on by Buff breeders and Red breeders and it is also true among Partridge breeders in their aim to retain strength of color in either male or female as the case may. We doubt if any breed can be classed as purely a single mating proposition.

#### Color Puzzles Breeders

Coming in contact with Speckled Sussex breeders throughout the country during the past several years, we have found that many of them are still unceratin as to the correct plumage marking required in males that are desirable as breeders to produce exhibition females. We can readily understand why this is so, in view of the fact that very few high class well marked exhibition males have been shown to date, which are known and tried breeders. In a recent letter from Len Rawnsley referring to breeding qualities of the hackle of the Speckled Sussex male, we quote as follows:

"From my experience in breeding Speckled Sussex I have found that you do not want a heavy black stripe in the male bird's neck and saddle hackle. You will notice the two feathers I have sent you carry the three colors distinctly and that the black stripe is very fine. Also, on the neck hackle of the female I prefer the neat black bar instead of the heavy stripe as I find these two things have a lot to do with the clear ground color of both males and females." Mr. Rawnsley points out the fact that heavily striped hackles in males will produce females having mossy or stippled ground color.

We are indebted to Mr. Rawnsley for his kindness to furnish us with the majority of the feathers which appear in connection with this article as a Frontispiece. The reader referring to the two feathers in lower left hand side of page marked "hackle and saddle," it will be noted that these two feathers do not possess a heavy black stripe, especially in the hackle feather. In this feather the black stripe extends not over  $\frac{3}{4}$  of an inch from the end of the white diamond point upwards toward the middle part of feather. This pattern is exactly the type of feather we had in mind and which

the present Standard now describes, as follows: "Neck hackle lustrous reddish brown with black stripe extending lengthwise to lower part of each feather which should terminate with a white tip at its lower extremity."

We have quoted the above just as it appears in the present Standard, but at this time it may be well to point out an error in wording of the word "to" appearing between the words "lengthwise" and "lower" should read "extending through lower part of each feather" instead of to lower part as it now appears in the Standard description of the Sussex male hackle.

Mr. Rawnsley's views as to correct markings for hackle and saddle of the Sussex male (Continued on page 556.)



Among the old and valuable varieties of poultry none are more beautiful than the Dark Brahma yet they have not attracted the attention of the fancier breeders that their many good qualities appear to merit. Few varieties can boast of a more beautiful color combination, the male with his silvery white top color over a body of brilliant black immediately attracts attention of all lovers of the beautiful, while the female with her more modest dress of steel gray, with its crescentic pencilings of black, presents a color pattern of rare beauty. We are pleased to note that this sterling old variety has been taken up by W. H. Besuden, Box 13, Evanston Station, Cincinnati, Ohio, who is in possession of one of the finest flocks in America. As an example of the quality of Mr. Besuden's productions, attention is called to the first prize pullet, at Madison Square Garden, illustrated above. She was a typical Brahma in form possessing that stateliness that has long been recognized as a characteristic of this variety. In color she was hard to criticise, being well penciled in every section with well striped hackle and exceptionally good wings and tail.—A. O. Schilling.



# Missouri's Poultry Experiment Station

The Only Independent Poultry Experiment Station in the United States. Well Equipped and Liberally Supported by the State Legislature Which Appropriated \$66,110 For Maintenance at a Recent Session

BY H. W. JACKSON

THIS unique institution is located at Mountain Grove, in south-western Missouri. It has the rare good fortune to be liberally supported by the state legislature and appears to have been developed partly as a result of a general belief that the interests of Missouri poultrymen would stand a better chance of receiving more consideration in an independent institution than as a subordinate department organized in connection with the State Agricultural College and Experiment Station. Another factor which seems to have entered into the matter was the desire to provide for the development of the backward agriculture of the Ozarks, in which region Mountain Grove is located.

Whatever may have been the various factors involved, Missouri has the distinction of having the only strictly independent poultry experiment station in this country. It has been in operation only about five years, but is quite well equipped, having forty acres of land and many buildings. At the last session of the legislature an appropriation of \$66,110 was made for the Station, to cover expenses for two years; and, as I recall it, there was an additional appropriation for the purchase of several acres of land adjoining the original forty acres, to round out the tract. Also, \$10,000 was appropriated for the assistance of the various county poultry shows, \$100 to each county.

## Buildings and Grounds

The Administration Building is approached through a well-kept lawn of several acres and is a large frame building providing offices, laboratories, showrooms and other necessary equipment. Back of the Administration Building lies the poultry plant proper. A good view of the plant taken from the second floor of this building is reproduced on this page. The buildings for fowls are almost exclusively of the colony type, though there is one large brooder house with a capacity of four thousand chicks. This is equipped with a hot-water brooding system.

I was much interested in the famous quarter-of-a-mile of poultry houses where different methods of poultry housing are being investigated. These houses, while nearly all of

comparatively small size, well represent a number of types of construction.

## A New Type of Laying House

As a result of the comparison of different types of poultry-house construction, there has been developed a two-story house which is believed at the station to be the best house yet planned for Missouri poultry keepers. This house is illustrated on page 596. The lower part is open on one side and entirely closed on all other sides. This story is about five feet high and above is the main roosting and laying floor.

This type of construction is especially suited to damp locations and also is quite popular where the maximum amount of floor space is desired for the amount invested and the land occupied. It also is especially recommended for backyard flocks. In sections where winters are severe, a house of this type is not generally considered practical. The open front below makes a very cold floor and the under story is of little use during the winter time. Under many conditions, however, houses of this type prove highly satisfactory, as is the case at Mountain Grove.

## The Egg-Laying Contest

Across the driveway from the experimental houses are located the pens of the National Egg Laying Contest, where a hundred or more pens are provided. The hens in these contests (the present contest is the fifth annual) represent many breeds and varieties and come from the best bred-to-lay flocks in this country and others as well. Probably these contests have done as much as anything else to awaken popular interest in the poultry industry and to show the possibilities of increased egg production with proper care and breeding.

The records that have been secured here are most interesting, and as the contests continue from year to year, comparisons between different years and averages covering the entire period will afford means of working out general averages and drawing conclusions in regard to methods of feeding, breeding, etc.; that cannot fail to be helpful to the average poultryman. Bulletin No. 10 of this Station, entitled, "Observations and Lessons Learned from (Continued on page 595.)



SOME OF THE POULTRY BUILDINGS AT MISSOURI POULTRY EXPERIMENT STATION

This view is taken from the rear of the Administration Building and shows, on the left, a quarter of a mile of experimental poultry houses of different types. Across the drive from these are the pens entered in the Egg Laying Contest on left; and on the right are shown brooderhouse, feed house and individual brood coops used for small experimental flocks.

# Caring for Males Between Breeding Seasons



The Proper Management of Valuable Males During the Interval Between Breeding Seasons is of Great Importance. The Accompanying Article Will Explain How it is Accomplished on Poultry Farms Where Large Numbers of Males Are Summered

By W. A. WOLFORD, Associate Editor

**"SWAT THE ROOSTER"** or in other words kill the rooster is the advice that is usually forthcoming at this season of the year from government experts and poultry experiment station authorities and in some states they have succeeded in having a day designated as "Rooster Day." On this day poultry raisers are urged to market all male birds and in some localities the government and state workers have enlisted the co-operation of poultry buyers to the extent that an extra price is given for all males marketed on that day.

## Object of the Movement

This "Swat the Rooster" movement is not general in its application but applies especially to the localities where great quantities of eggs are produced for market purposes. The object of the movement is to secure the removal of the males from the flocks at the beginning of warm weather and thus insure the production of infertile eggs, as it is an established fact that eggs of this character are of more dependable quality than those that have been fertilized. It is now generally known that a fertile egg deteriorates very rapidly in warm weather. In many instances the germ begins to develop before the eggs are marketed, in fact immediately after laying. This is easily accounted for as many producers are careless in handling their eggs and do not possess proper places for storing them until market day. They simply place them in baskets, boxes or pans on the pantry shelf where they are very often subjected to a temperature of ninety degrees or over, during the day, which is sufficient to start development of the germ. As the temperature is not maintained the germ dies and deterioration begins.

When no males are permitted with the flocks during summer there is no danger from this direction and buyers will as a usual thing pay a better price for eggs that are known to be infertile. In fact a well known Missouri authority once made the statement that it should be the practice of all

producers to market infertile eggs during the hot summer months. That an increase in price of one cent per dozen would mean in the State of Missouri, alone, an annual increase in returns of over a half million dollars.

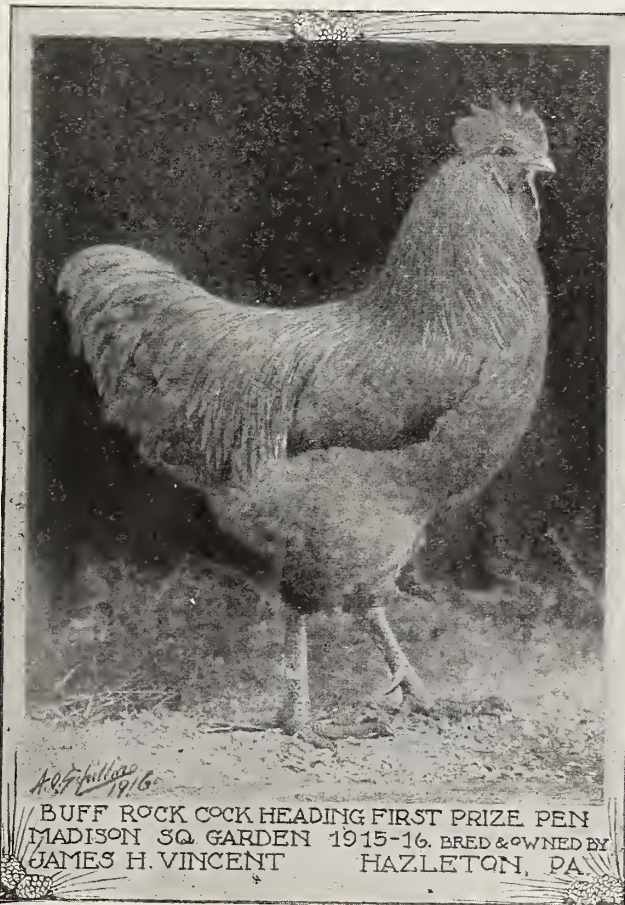
## Males to be Kept Over

The object of this article is not to deal with the quality of summer eggs, but to describe ways and means of managing, during the time between breeding seasons, the males that are too valuable to be marketed, but on the other hand require the best of care to carry them over in prime condition for use another season.

The same expert quoted above says: "Valuable males which have proven themselves to be good breeders should be placed in a pen with eight or ten females and kept for next year's breeding." This advice is all right as far as it goes but it is very indefinite and lacks the detail of care that we wish to bring out here. The poultry department of Cornell University elaborates on the question a little more, and expresses it in the following manner: "The male birds which are considered valuable enough to keep until the next breeding season should be placed by themselves in a large yard containing several feed hoppers and drinking places. Possibly it may be possible or convenient to keep them for a short time, at least, in the pen or coop where broody hens are placed."

## Caring for Birds of Quality

Now either of the above methods may answer for the ordinary poultry farmer, but how about the breeder of high class stock, that annually produces many high quality specimens, and desires to carry them over in prime condition for exhibition purposes at the fall and winter shows. To do this requires individual treatment, as few breeders of exhibition poultry would care to place their best males together in one flock during the summer months and take the chances of having the choicest ruined by accident, through fighting or otherwise (Continued on p. 585)



At the Madison Square Garden Show, James H. Vincent, Hazleton, Pa., was among the most successful exhibitors in the Buff Plymouth Rock classes. Mr. Vincent was successful in winning in all classes, including first prize hen and first prize exhibition pen. The cock shown in above illustration represents the male heading first prize pen. While examining this group of specimens we were forcibly impressed by the excellent uniformity in color and type shown. The male as will be seen by the illustration was a bird of beautiful outlines and symmetry. In fact, he had many true Plymouth Rock qualities. While in color he was one mass of beautiful Golden Buff all over. It was a shade of color that is difficult to describe and must be seen to be appreciated. The females in this pen were remarkably well matched in type as well as color and we recall that a number of his single class entries in females were practically the same shade. It is apparent that Mr. Vincent knows what he wants in the shade of Buff color and is producing it successfully which is proven by his wonderful show records in competition with the choicest found at America's best shows. —A. O. Schilling.

# Line-Breeding as Practised by J. V. McConnell



**A Man Who Has "Made Good" Abundantly With His Specialty, The S. C. Black Minorcas, and Who Therefore Has the Courage To Tell the Public the Facts About It. Says Line-Breeding is Intelligent Inbreeding**

By GRANT M. CURTIS, Editor

**I**N last month's issue, starting on page 445, was published a detailed, illustrated account of the unique, labor-saving poultry plant designed, erected and owned by J. V. McConnell, Garden Grove, Cal., one of the world's most successful specialists in the production of standard-bred fowl. Mr. McConnell has specialized in the Single Comb Black Minorca and it is doubtful if he has a superior in this field of effort.

As before stated in these pages, one of the main reasons, if not THE main reason which led us to devote five days to a trip from San Francisco to Los Angeles and vicinity, at a time when we were extra busy, was our desire to interview Mr. McConnell, J. C. Williams, Mr. and Mrs. E. B. Martin and Robert A. Rowan on "home ground", so to speak, in their respective capacities as highly successful breeders of S. C. Black Minorcas, S. C. White Leghorns, S. C. Brown Leghorns and White-Faced Black Spanish.

At the Panama-Pacific Exposition, we had seen on display, in competition open to the world, numerous remarkably choice specimens produced by these poultry specialists, and we felt confident they would tell us frankly how they breed them. What we were particularly interested in finding out were the views held by these poultry specialists on the important subject of line-breeding, or inbreeding. To come directly to the point, we asked J. V. McConnell for an off-hand definition of the two terms "inbreeding" and "linebreeding", and here is what he said in substance:

"Inbreeding—To use fowls of closely related blood lines, year after year, with little or no attention paid to vigor and stamina.

"Line-breeding—To use fowls year after year, that are closely or distantly related, at the same time exercising due care to preserve and increase, or to re-establish the vigor and stamina of the choice specimens, according to their 'ideal' or standard qualities."

Later on in our interview, Mr. McConnell said:

"LINE-BREEDING IS NOTHING MORE THAN INTELLIGENT INBREEDING."

**Raises 2,200 to 2,400 Fowls Each Season**

Mr. McConnell has line-bred

his S. C. Black Minorcas for a period of about ten years. He has been trap-nesting his line-bred specimens during a period of eight years. Last season—spring and summer of 1915—Mr. McConnell raised nearly 2,800 chicks, but this was above his average. They aim to produce 2,000 "good ones" each season. The home place, consisting of ten acres, is devoted entirely to poultry, and Mr. and Mrs. McConnell have full charge. Mr. McConnell does little else but to look after the fowls, including mating, feeding, conditioning, selling, etc.

When we first began to ask questions of Mr. McConnell, we got about the usual answers. Said we: "If we wanted to make a right start with your strain, what would you advise?"

Mr. McConnell: I have two lines of blood, broadly speaking: one for egg production, the fowls running decidedly smaller and lighter in weight; the other, my exhibition strain, where the birds, both males and females, equal and exceed standard weights. Both are line-bred and the breeders have been trap-nested during a period of eight years."

Explaining his prolific egg-yielding strain, Mr. McConnell reported that a hen named "Queen", with a trap-nest record of 276 eggs in 365 consecutive days, was the foundation. However, none of her daughters ever reached the egg record made by "Queen". The her best direct descendants could do were: 248, 256 and 264.

The present standardweights of Single Comb Black Minorcas are: Cock, 9 pounds; hen, 7½ pounds; cockerel, 7½ pounds; pullet, 6½ pounds. The present standard weights of Single Comb White, Rose Comb Black, Single Comb Buff and Rose Comb White Minorcas are: Cock, 8 pounds; hen, 6½ pounds; cockerel, 6½ pounds; pullet, 5½ pounds. Said Mr. McConnell:

"My best layers average about 5½ pounds as yearlings. We recommend from 5¼ to 6 pounds, whereas the standard weight for a S. C. Black Minorca hen is 7½ pounds; for a pullet, 6½ pounds. These standard weights are too much, if it is eggs that we are after. I have developed my egg-yield strain to 6½ and 7 pounds—in fact, I tried it three different times, but I could not hold them at 7 to 7½ pounds and get the eggs."

Continuing, Mr. McConnell said:

"These 5¼ to 6-pound S. C. Minorcas lay the 'big, white kind' of eggs—the kind that bring five to ten cents premium above current market prices. My smallest eggs come from pullets, but on the average my line-bred, prolific egg-yield strain produces eggs regularly that weigh twenty-eight to thirty ounces per dozen."



With but one or two exceptions Owen Farms, Vineyard Haven, Mass., have exhibited regularly in the Buff Orpington classes at Madison Square Garden since December, 1904, and it has been the exception when they failed to win handsomely. On one occasion in December, 1911, they won every first prize which to our knowledge is the only time that all firsts in Buff Orpingtons have been captured by one exhibition at this, America's Premier Show. At the recent show in a class of exceptional quality they were awarded first and fourth pen, second and fourth cock, first and fifth hen, second and fourth cockerel, first pullet and first collection. The first hen, reproduced in the above illustration was not only a grand example of modern Orpington type, but also a marvel in color, being one even shade of soft golden buff in every section, with sound wings and tail, characteristics that have made the Owen Farms Buff Orpingtons one of the leading strains in America today.—A. O. Schilling.



Speaking of a "200-egg strain", Mr. McConnell said:

"I now have between forty and fifty line-bred S. C. Black Minorcas with trap-nest egg records of over 200 eggs per year, but I do not claim to have a 200-eggs strain. Such a strain is not here yet, so far as my knowledge goes."

### Getting Back to Our Question, "How to Make a Start?"

Getting back to this question Mr. McConnell said:

"In every case, whether you wanted to start with a prolific egg yield strain or with my exhibition strain, I would advise you to buy a trio, the male and females being of the same blood lines, but perhaps five or six generations removed. To replenish the blood, you could cross under from family to family, doing so on the female side of the house, as a rule. Generally speaking, I prefer to keep five or six generations removed, if I can. However, sometimes we get nearer than we like, but in that event there are many things to watch."

Continuing, Mr. McConnell said:

"When we 'breed close', meaning only one or two generations removed so to speak, we must do everything we can to maintain vigor and stamina, while at the same time preserving standard qualities, especially color, etc."

"Then comes the question of intelligence and disposition. Our domestic fowls display a lot of both, and I always try to select the right kind in this respect. This is not foolishness, but fact! What I call intelligent birds with good dispositions are the best producers every time, other things equal."

Editor: "What size matings do you recommend for general practice?"

Mr. McConnell: "I mate six to eight birds with each selected vigorous male. Formerly I mated ten to fourteen birds and got fairly fertile eggs, but by cutting them down, I get better quality in the stock produced. The larger number of birds I formerly used did not affect fertility as much as it did quality."

Mr. McConnell single mates, and every bird on his ranch that is used for breeding purposes is pedigreed—is toe-marked so that Mr. McConnell can tell you the sire and dam reaching back one or two to eight or ten generations. They keep a book record of every mating. The past season they were to change over to a card system for keeping these records.

In order to maintain proper vigor in the breeding males—those mated for production—Mr. McConnell feeds the males separately, each in a small place in one corner of the breeding yards. Often this is found necessary, otherwise the females are over-fed. Gallant males as a rule will not eat until the females have finished eating. Mr. McConnell is carrying along "ten permanent families." He has had these six to eight years. They are of the same blood lines, broadly speaking, and he makes a close study of "mixing back and forth," as he expressed it, "so that coloring and blood do not fight." At the time of our visit the first week of December, 1915, he had six other experimental matings, as the foundations for new families. If these proved successful, they would give him a total of sixteen families—all members of the same strain. Said Mr. McConnell:

"I have had my best results from starting with an extra good female. I will pay more money anytime for an extra choice female than I will for an extra choice male."

Editor: "What is your policy as regards selling your 'best birds', so to speak?"

Mr. McConnell: "I never yet had a bird I would not sell, provided I had more of his blood in my flock and knew where it was—knew all about it. Last week I sold one bird well up in price. I had not expected to sell him, but a customer offered me too big a temptation. However, I have his sire, his grand-sire and two of his brothers. My theory is, if they won't reproduce, then the line is no good and it ought to run out."

Editor: "Mr. McConnell, what is your view of the practice of buying and using non-related males, also non-related females, paying high prices for same?"

Mr. McConnell: "Several times in my career as a poultryman, dating back to 1894, when I started in Ohio with Brown Leghorns and later sold out to George Osterhout of Nebraska, I paid as high as \$250 each for males that did not prove in my hands to be worth 250 cents. I tried every way imaginable to breed such birds and have them produce results when mated to the best females I owned that were non-related, that were not of the same blood lines."

Editor: "What benefit will come to the average buyer, Mr. McConnell, if he buys into an established strain?"

Mr. McConnell: "For example, take cockerels that we sell at from fifteen to two hundred dollars each. They will breed true and I know it, provided they are mated with related blood lines. A five-dollar bird, if well bred, of sound origin and mated to related blood lines, will give better results than a bird sold at twenty-five to one hundred dollars, when mated to non-related females."

Editor: "Do you have such a thing as extra good "producers" in the form of birds that would not win in strong competition, if placed on exhibition at a poultry show?"

Mr. McConnell: "I seldom exhibit my best birds. This is especially true of our best producers. In the first place, I do not find it necessary in order to win; in the second place, I cannot afford to risk them—their health or lives. Often it takes three months to get these show birds back into breeding condition. They go off their feed and off their legs. Combs go off and lop over to one side, etc. I can win with seconds and thirds, so to speak, and make a rule of doing so."

### Calls His Plan "Double-Lining"

Editor: "Do you practice double mating in any form?"

Mr. McConnell: "Yes, and no. I might reply that I have two lines: One to breed good cockerels and the other to breed good pullets—that being the quickest way. But we can and are producing high-class winners from single matings. Every bird I showed at the Panama-Pacific Exposition, except one unplaced pullet, was from single matings."

Continuing, Mr. McConnell said:

"I call it double-lining, that is, carrying two lines, one for males, the other for females. It is necessary to do this to match the luster of both sexes in the exhibition pen. We want and must have that beautiful green. It is a 'beetle green' that we want, not bluish green, and no purple is allowable. Not one judge in twenty-five recognizes the difference between bluish green and beetle green, but this difference exists."

Editor: "How long would you say that it takes to establish a strain?"

Mr. McConnell: "My experience is that it takes six generations to firmly establish consistent breeding. Select two extra choice, closely-related specimens, make sure that they produce well, then it will be six years before the progeny can be relied on to reproduce the desirable points consistently."

Continuing, Mr. McConnell said:

"Let me repeat that line-breeding is nothing more than intelligent inbreeding. We must correct bodily weakness with vigor, regardless of whether the feathers suit you. Most of us are still working in the dark, but here on my place, during (Continued on page 597)



It is really quite remarkable when one considers the wonderful improvements which have taken place in the breeding of Silver Campines since their introduction into this country. In addition to the improvement of color, American breeders have taken up the question of vitality which in our opinion was a move in the right direction. Mr. C. A. Phipps, Proprietor of Homestead Campine Farm, Wayland, Mass., is the originator of a family of exhibition Campines that are known as the "Vigorous Strain." A glance at the above illustration will plainly reveal to the reader that Homestead Campines possess color as well as vigor and vitality. The fact is, style, action and vigor are strongly depicted in the study of this male. He is a bird full of pluck and action which is bound to tell in his progeny. The fact is that a busy hen is always known as a laying hen and to produce active busy pullets means a more favorable opportunity for a full egg basket.—A. O. Schilling.

# AMERICAN POULTRY WORLD



DEVOTED TO THE  
Upbuilding of the Poultry Industry  
in All Branches

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W. A. WOLFORD, Associate Editor  
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CONTRIBUTORS: The best informed and most reliable men and women at work today in the broad field of Poultry Culture and advancement

## EDITORIALS

### "LINE-BREEDING IS NOTHING MORE THAN INTELLIGENT INBREED- ING"

**F**RANKLY, the writer of these lines does not find time to read the poultry papers. Going a step farther, it is not often that we have the leisure to read the numerous excellent articles that are published, month by month, in the two poultry papers with which we are connected—this one and the Reliable Poultry Journal, Quincy Ill. No doubt we miss quite a lot of valuable data and information. This last remark applies to twenty to thirty of our leading poultry papers.

We offer the foregoing statement of fact in the nature of an explanation. As we view the matter, it is our belief that the half dozen interviews that have been published here lately in A. P. W. and R. P. J. are of exceptional value. The interviews referred to are as follows:—

One with D. W. Young, Monroe, N. Y., S. C. White Leghorn specialist, beginning on page 1067 of the December, 1915, issue of Reliable Poultry Journal.

One with Mr. and Mrs. E. B. Martin, Downey, Cal., S. C. White Leghorn specialists, as begun on page 177 of the January 1916 issue of A. P. W.

One with E. B. Thompson, Amenia, N. Y., Barred Plymouth Rock specialist, in two parts, as published in the January and February 1916 issues of R. P. J.—

see page 1228 of January issue for part 1.

One with Lester Tompkins, Concord, Mass., Rhode Island Red specialist, as published in February 1916 R. P. J., and as republished in this issue of A. P. W., see page 552.

One with A. C. Hawkins, Lancaster, Mass., specialty breeder of Barred Plymouth Rocks, as published in the March issue of A. P. W., beginning on page 353.

One with J. V. McConnell, Garden Grove, Cal., S. C. Black Minorca specialist, published in this issue of A. P. W., beginning on page 540.

Possibly a considerable amount of similar information and "inside advise" has been given to the readers of the poultry press in general during the last five to ten years, but if so it has not come to our attention. If this same information, in equally impressive form and from the same "headquarters", has been published generally in other poultry papers, the readers of those papers certainly are to be congratulated.

**T**HOSE articles or interviews, as we view the situation, come pretty near being the "the real thing". As a rule these highly successful specialty breeders of standard-bred fowl answered all our questions frankly and plainly. On several occasions it appeared to be easier for them to answer the questions than it was for us to understand them.

These specialty breeders are "full of the subject", so to speak. They did not appear to hesitate, nor did they seem to be in doubt, at least not very often. The trouble with us was that we do not practice short-hand. In other words we are not a stenographer. This fact we regret, because the men interviewed said many things of value that we were not able to write down "long-hand" in our note books.

It seems to us that earnest readers of A. P. W. and R. P. J. owe these men (also Mrs. Martin) a vote of sincere thanks for the character of the replies they made to the questions asked of them, and for the value of the advice so freely given by them.

Few sane men and women like to sit around and poke fun at themselves—especially so if they have to pay the bills and the experiment is a costly one. Yet this is what hundreds, in fact thousands are doing in the standard-bred poultry field of English-speaking North America at the present time. If these persons would read UNDERSTANDINGLY the interviews here referred to, or even two or three of them, they would know what we mean.

Take the two that are published in this issue of A. P. W. as examples—the

one with Lester Tompkins, as republished herewith, see page 552, and the one with J. V. McConnell, which includes a letter from Mr. McConnell of date December 14, 1915, here given to the interested public for the first time.

To numerous readers of this poultry magazine, that interview with Lester Tompkins should be worth a cool thousand dollars! Here Mr. Tompkins tells how he started, the course he pursued, the breeding methods he adopted, the results he has achieved. Years ago we heard of a woman who cheerfully paid Lester Tompkins \$500 for less than ten pounds of chicken meat, bone and feathers, known as a Rhode Island Red cock bird—and now we understand better why, or how, he could get such a sum from a mere "rooster."

Every word that Mr. Tompkins said in this interview should be read, pondered upon and assimilated. This is true of every reader of these pages who is trying to produce worthwhile standard-bred fowl, either by purchasing adult fowls, hatching eggs or day-old chicks.

**W**HEN we come to the interview with McConnell and his letter of date December 14, 1916, we get still farther into the "mysteries" of successful fowl breeding by the methods that have commanded success for the present-day masters in this field of effort. Take for example the quotation from Mr. McConnell that we have selected as the title to this editorial. Said he: "Line-breeding is nothing more than intelligent inbreeding".

The latest authentic edition of Webster's International Dictionary does not give a definition of line-breeding. It does define inbreeding, and here is the Webster definition:—

"Inbreeding, n. Breeding from a male and female of the same parentage or very closely related to each other."

Evidently poultry breeders need two definitions: One for heedless inbreeding, so to speak, and another for intelligent inbreeding. This fact is brought out by the off-hand definition given by Mr. McConnell, as reported in the forepart of the interview with him, as published in this issue of A. P. W. It would appear that his remark, "Line-breeding is nothing more than the intelligent inbreeding" will stand the test of fact, of analysis and of time.

Undoubtedly there are numerous gradations of breeding, intelligent and otherwise. If size or weight is all that is wanted, that is one thing. If fowls that will "look alike" as to general size and average color are what is wanted, that also is a fairly simple matter; but if we have a natural standard—meaning one to which Nature can be made to





**FIRST PRIZE COCK**  
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To set the pace in the production of Standard quality in any variety of poultry is indeed a high achievement and an honor to which all breeders aspire. Few, however, ever reach this degree of success and those who do are entitled to all the honors that go with such an achievement. D. W. Young, Monroe, N. Y., is entitled to such honors as he has long been recognized as a "wizard" in the production of S. C. White Leghorns or in other words the Champion among breeders of this variety. Year after year he has set the pace at Madison Square Garden, the premier show of all America, and during all these years has maintained an advantage that his competitors have been unable to overcome. The secret of his success lies in the blood lines that he has so carefully constructed,—blood lines that can be depended upon, when guided by the master hand of "Dan Young" to produce the sensational specimens seen each year at the above show.—W.A.W.

conform—and we wish to develop a strain that will reproduce numerous desired standard characteristics, generation after generation, in profitable percentages, that is a very different thing—a far more difficult task.

The matter of first or prime importance would appear to be a "natural" standard, as to the requirements, each and every one, also a combination of these requirements in one fowl, as representing a breed as to type and a variety as to color, feather markings, formation of comb, etc. To try to breed a tail on both ends of a fowl, rather than to be content with a head on one end and a tail on the other, would of course be very foolish—yet it may be that fancier-breeders before now have tried to do some equally "unnatural" thing and at the same time have called it standard-bred.

If our standard requirements consist of what is natural and therefore practical, or possible to achieve, singly or in combination, then our task as fancier-breeders is to find a way to establish

a strain or family of domestic fowl that will possess these natural characteristics and that will have the prepotent power to transmit them from generation to generation, doing so in profitable percentages.

Here we come to the important questions of line-breeding and strain-building. It is these questions that are touched upon and told about in the interviews here mentioned. Judging by what these foremost successful poultry specialists had said, there is a right way and a wrong way to go about the work.

**H**OW many of the men and women who spend money each season for standard-bred fowl, eggs for hatching and day-old chicks, GO ABOUT IT IN THE RIGHT WAY? That is the question—and it is a matter that comes close home to many

readers of A. P. W. and R. P. J. It was the best interests of these numerous readers that we sought to serve and promote in those interviews.

If a man or woman owns a flock of "white chickens"—say White Leghorns, White Rocks, or White Wyandottes, and wants some "new blood", it is a simple

matter to send away for a non-related male bird, or a sitting of eggs from non-related hens. In many, many cases there is value in an investment of that kind—but how much? For what purpose is the new blood introduced? If it is merely meant to liven up the flock, or to increase the egg yield, or to add weight to the young stock, well and good; but it takes far more than this to develop and establish a "strain" of highly valuable fowls ON STANDARD LINES, either for home enjoyment or for show purposes.

A first question to ask yourself, reader, is this: What am I trying to do—that is, what is my goal? Many of our readers either have show-room victory as their goal, or at least wish to have



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**H. W. Halbach, Box 500, Waterford, Wisc.**

their birds "look like" the pictures in the American Standard of Perfection. They not only want them to be winners in public competition and to look like the pictures in the Standard, but they want them to be able to reproduce fowls of this kind, breed for breed and variety for variety.

It is to all persons who have this de-



Mirimichi Poultry Farms, Foxboro, Mass., specialize in the production of S. C. Rhode Island Reds, White Wyandottes and White Plymouth Rocks and have been successful with each variety. They have won scores of honors at such shows as New York, Boston, Brocton, and Providence and last fall sent a team of Reds to the Panama-Pacific at San Francisco and won first cock, first and second pullets, seventh hen and third exhibition pen, a truly remarkable performance, after such a long journey. Readers wishing to secure quality in either of the above varieties should write for the Mirimichi circulars and prices before placing orders elsewhere.

sire that we strongly recommend a close personal study of the interviews here mentioned. In those interviews these highly successful breeders of the present day have told a good many things of vital importance to YOUR SUCCESS. This is our view of the situation, and we believe we are right.

If high-class, standard-bred fowl could be bred by the hit-or-miss system, there would not be much enjoyment in it for the fancier-breeder, nor would much value be added to the products of his skill and persistence. It is the very difficulty of the task that makes it inviting—also that commands high prices for the successful product.

**I**NBREEDING, when intelligently performed, is truly a wonderful thing. Just how much can be accomplished by it, no one knows. In that line of work we still are infants, despite what has been accomplished in general live-stock breeding, in horticulture, in floriculture, etc. In this field of great possibilities, the Creator has turned over to us his workshop and put into our heads, into our brains and souls, the opportunity to accomplish really marvelous results.

As poultrymen or poultry specialists, we must do this **BY LINE-BREERING AND STRAIN-BUILDING.** Of that fact (or facts) there appears to be little room for doubt. Better still, what D. W. Young has done, what E. B. Thompson has done, what A. C. Hawkins has done, what J. V. McConnell, and hundreds of others have done, present and past, in this country and in foreign lands, still other hundreds, in fact thousands of others CAN DO.

And these present-day leaders in the work have been fair and candid in telling us how they do it—how they now are winning success! For this indispensable information and for their personal advice we owe them our earnest and hearty thanks.

Some will say, including those of a supercritical mind, that these foremost

successful specialty breeders have not told us enough—have not told us all about it. Perhaps so, but our view of that point would be that the fault lies not with the interviewed, but with the interviewer. We do not pretend to know

as much about these matters as we should. However, we have tried hard to get the real facts and to obtain worthwhile advice for our readers. Probably what we succeeded in getting was a strong enough "dose" for the average person. Later on we shall try to do better.

Meantime, we again strongly recommend that every earnest reader of these pages, man or woman, who wishes to become a successful fancier-breeder of standard fowl, as per the current requirements of the American Standard of Perfection, should read carefully every question that was asked and answered in the half dozen interviews that are listed in this article. Do this, reader, and then if there are other points, few or many, that you would like to know about in the case of anyone of these successful specialty breeders, let us know about it and we will undertake to se-



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cure for you frank and helpful answers. Now it is up to you, as the saying is.

### WORDS OF NEEDED CAUTION TO THE NOVICE OR SO-CALLED "BEGINNER"

The preceding article entitled, "Line-Breeding Is Nothing More Than Intelligent Inbreeding" ought not be given to the general poultry-raising public without a strong word of caution. This word of caution is meant for the experience, guidance and protection of the amateur poultryman, man or woman.

In the opening paragraph of his letter to the editor of A. P. W., of date December 14, 1915, J. V. McConnell, eminently successful specialty breeder of prize-winning S. C. Black Minorcas, says: "I want to say, while this (close line-breeding) is a delicate subject for the INEXPERIENCED BREEDER to fool with, EXCEPT ON A SMALL SCALE, I am very glad to give you my experience along this line."

The "inexperienced breeder" will know for himself who is meant. Let us therefore consider the phrase, "except on a small scale."

Most any of our readers can test "the effects of close line-breeding" on a small scale. They can—and probably should—try this with only a few birds, with two or three, or half a dozen, season after season—keeping accurate records and noting results carefully.

To do as above advised will not endanger the main flock—will not jeopardize the business interests of the poultryman or woman who depends on the receipts therefrom to pay the weekly feed bills and to earn a profit each year.

Unfortunately it is a quite general practice for the human mind and for the average individual to "go the limit", so to speak, in matters of this kind. For example, when Mr. McConnell, Mr. Hawkins, Mr. Tompkins and others state frankly that if they believe it will benefit a "family" of their strain, or will "intensify" certain desired qualities or characteristics, they mate brothers and sisters, the "inexperienced breeder" is

quite likely to go to this limit, whereas without exception these successful poultry specialists really advise against this course, as regards very close inbreeding.

Without exception, to the best of our knowledge, they prefer to keep farther away. For many years it has been generally recommended that males be mated with the first generation of their descendants and that cockerels be mated back with their dams. Numerous experienced and successful poultrymen contend that this is the limit of safety in the way of close inbreeding. Nevertheless, we have the frank testimony of present-day leaders to the effect that they "go the limit," provided they believe it is necessary in order to achieve highest results.

Probably we shall never forget, while memory lasts, the picture of J. V. McConnell resting on one knee in the sand on his new poultry plant at Garden Grove, holding a specimen Black Minorca male on the other knee, and exhibiting its valuable qualities, also its remaining defects of color, to Franklane L. Sewell and the writer. Said Mr. McConnell:

"By my system of inbreeding you can literally sweep this purple color and purple barring off the neck, back, tail and wing feathers of a Black Minorca, each generation representing its measure of progress. First you can clean it off of the hackle feathers, the next generation part way off the back proper, the next it will all be gone from the back and will begin to decrease on tail and wings. The last place it shows is on the secondary wing feathers. This bird still has the purple barring in that section. Another mating with a deep black female—or perhaps two matings—will finish the job. I have seen this take place repeatedly in the ten families I am now breeding according to the system I have just explained to you."

This is interesting and remarkable work! It is here that the love of the beautiful, that the "fancier instinct" comes to the front and is paramount. If the reader of these lines is interested merely in selling eggs by the dozen at daily market prices, or in producing poultry meat by the pound for table use, then what is here written may not interest him or be of value; but if you own a Standard of Perfection and are a visitor to the winter poultry shows, small or large, and if you wish to be among the

blue-ribbon winners at these shows, then what we are recording as coming from such men as Mr. McConnell, should be "bread and meat" to you.

As stated in our interview with Mr. McConnell, as reported in this issue of A. P. W., Mr. McConnell employs pair matings and also mates in trios—that is, a male and two females. Generally these two females will be sisters. Perhaps they are in every case—we are not sure as to that point. As regards pair matings, he will select the male of his choice, of known blood lines, and with this male will mate a female that he believes will improve the family to which the two birds belong. Now and then he will out-cross in these pair or trio matings, intermixing the blood of two families, but the blood on both sides of the house is wholly of the McConnell strain. These outcross matings also are experimental. Under no circumstances are the progeny allowed to mix with other females, or to be lost track of.

In other words, "seeing is believing" with Mr. McConnell, so far as actual results are concerned. The blood mixing takes place beyond his view, but the "products" are there for him to see! He may have to "trust to luck", as regards the chemistry of Nature when it comes to a progressive intermixture of the blood of two families, but his keen eye, well trained at the work, sees and recognizes real progress in the off-spring of these experimental matings. He can readily compare the best of the progeny, generation after generation, with the parents, grand-parents, great grand-parents, etc.

But the point of this article is our desire to warn the average reader not to "go it blindly" in this matter of close inbreeding or line-breeding. Better decide to go slowly—to feel your way along, rather than to conclude that here is an easy problem well solved and to "risk all," without having had personal experience. This personal experience IS EASY TO OBTAIN and it can be secured in a safe way. Not much harm can come to you from risking three, or four, or half a dozen choice specimens—not as a rule. Later on you can double or triple

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**U. R. FISHEL, Box B, HOPE, INDIANA.**



this number, as success crowns your efforts.

Not to make a start in this direction is for you to continue to produce mediocre fowls, as regards standard requirements, rather than to produce high-priced fowls of exhibition quality in profitable percentages. Except by intelligent line-breeding, we do not believe standard fowl can be produced, generation after generation; hence the importance of studying this problem and of having valuable advice given to us by men who have succeeded. We then should put this advice INTO PRACTICE in our own yard, or yards, among choice fowls that we have bred or bought. Our advice to you, reader, is to "try it out" and to BEGIN NOW, because for each of us the DAYS ARE PASSING and there is no time like the present.

### THE WISDOM OF BUYING INTO AN ESTABLISHED STRAIN

To develop and establish a new strain of standard fowl is quite likely to be a tedious process. This is especially true in the case of inexperienced poultrymen or poultry women. The latest 1915 edition of the American Standard of Perfection, in its glossary of technical terms, defines the word strain as follows:

"STRAIN: A family of any variety of fowls bred in line by descent by one breeder, or successor, during a number of years, that has acquired individual characteristics which distinguish it more or less from specimens of other strains of the same variety.

Particular attention or thought should be given to these phases in the foregoing sentence: "bred in line"; "individual characteristics" and "more or less". Probably this definition could be improved on, but it is good enough for practical purposes.

The words, "or successor", might well have been omitted, or some other words could be substituted to advantage, so it would seem, unless by "or successor" is meant ANYONE who buys fowls or eggs from a "family" or "strain" and proceeds to breed them, independently of the original owner. As a matter of course, these two fancier-breeders will be handling the same strain or family at the same time, perhaps on parallel lines.

But we shall get nowhere by quibbling. Our point is that it takes YEARS of intelligent selection and persistent efforts to establish a really valuable strain—its value being measured by the desirability of and the public demand for those "individual characteristics", also by the percentage of birds each year that possess, in profitable degree, these valuable characteristics.

Time is money, therefore the average person who becomes interested in the production of standard-bred fowl will do well to "buy into" an established strain—one that possesses these desired individual characteristics—their desirability being determined, as before stated, by the public demand created by their being able to win highest honors at current poultry shows, under the judging of disinterested experts, so-called.

To "buy into" such a strain is not a difficult matter, provided you know what you want and of whom to buy. To find

out what you want, a copy of the Standard of Perfection should be bought and studied. To know of whom to buy is a question of finding out who it is among the breeders of the variety of your choice that have built up valuable strains by intelligent selection and years of patient inbreeding, or line-breeding. These men exist and those of our readers who wish to produce high-quality standard-bred fowl must FIND OUT who these men are and then deal with them, frankly and continuously, at least for some time.

By "continuously" we mean that after you once decide to "buy into" a certain strain, it will be a mistake, as a general rule, for you to purchase choice specimens elsewhere (or hatching eggs and day-old chicks) from a breeder who owns a different strain—a different blood line, and to intermix the two lines of blood. To do so MAY benefit you, in exceptional cases, but in a large majority of cases it is certain to set you back, unless the individual bird purchased by you (or owned by you) is decidedly superior to the average of the flock you own.

There is plenty of room for experimentation, we freely admit, but to make REAL PROGRESS it is necessary to select a well established strain and then to proceed systematically. Play at it if you wish, as time goes on, but if you are in "dead earnest" about it and are anxious to succeed SOON, then we strongly advise that you BUY INTO an established strain—a strain that possesses individual characteristics that you prefer, and that you then keep on with this strain, doing your utmost to improve it, even to the point of excelling the best contemporary products of the man who originated the strain—the man from

whom you bought either adult fowls or hatching eggs, or day-old chicks.

Your ambition, let us assume, is to OWN A STRAIN and to know how to control it—how to improve it. To get into this position you must either create or establish a strain of your own, starting with a mixture of blood lines, or you must buy into such a strain, thus making a better start, as a general rule. Selecting "your strain," therefore, is a matter of real importance. It may mean success or failure for you! And back of the strain is THE MAN—is the person with whom you will need to deal each year, or every two or three years, for some time to come.

Your problem, therefore, provided you are actually a "beginner", is to decide on the breed that suits you; then to select the variety of this breed that appeals most to your fancy or taste; then to post up as well as you can on the different "strains"; then to learn something about the man back of the strain that pleases you—and then to buy either adult fowls, hatching eggs or day-old chicks.

In other words, it isn't so simple a matter after all to get WELL STARTED in the standard-bred branch of the poultry industry. How many start right, so to speak, and what percentage of the readers of the average poultry journal "go it blindly", or words to that effect? We should judge that far too many "go it blindly"—and probably this accounts for numerous failures, so-called, meaning cases where within three, four or five years the beginner "gives up in disgust," as he expresses it, and pronounces the whole business a "gamble"; or words to that effect. Either this man, in a majority of cases, acted on poor advice—or he

## KEELER'S WHITE WYANDOTTES

3 seconds, 2 thirds, 3 fourths, 2 fifths, 7 specials

Eggs are remarkably fertile this season and on April 15th. I have something like 2000 chicks of my World's Greatest Strain, so on and after May 10th eggs will be sold at half price. \$15.00 pens now \$7.50 per 15, \$14.00 per 30; \$10.00 pens now \$5 per 15, \$9.00 per 30, \$14.00 per 50, \$25.00 per 100; \$5.00 matings \$3.00 per 15, \$5.50 per 30, \$10.00 per 60, \$15.00 per 100. Order direct from this ad and save yourself time. Look up my former ads in this paper. My catalogue is free and describes the matings these eggs come from. Send for your copy today.

CHAS. V. KEELER,

R. F. D. 17,

WINAMAC, INDIANA.

## TAYLOR'S COLUMBIAN PLYMOUTH ROCKS

Win from coast to coast at THE PANAMA PACIFIC EXPOSITION, MADISON SQUARE GARDEN, and THE GREATER CHICAGO SHOW. They won 8 out of a possible 12 first prizes competed for. I am booking orders for eggs from the best mated pens in the world. MATING LIST FREE.

JAS. H. TAYLOR,

R. D. 5,

WOODSTOCK, ILL.

### EGGS

### EGGS

### EGGS

THAT HATCH BIG HUSKY CHICKS—EVERY EGG GUARANTEED FERTILE REGARDLESS OF DISTANCE SHIPPED.



## McCONNELLS C.B. MINORCAS

America's Greatest Trap-Nested Egg Producing and Exhibition Strain, Won 16 International Ribbons and All Specials at World's Fair, San Francisco.

The largest and strongest MINORCA class of the season. Over 100 shows were won with my strain.

My 40 pens mated for 1916 trade were never equalled by any other breeder in America. For quality, size and number of eggs produced, no other fowl can approach them. If interested in these wonderful egg producing MINORCAS, SEND FOR MATING LIST, IT IS FREE. Breeding stock on green range every day in the year.

Breed For Eggs My Hobby.

J. V. McConnell, Box 27 G, Garden Grove, Calif., U. S. A.

should have looked in a mirror for the main cause of his disappointment.

**WHAT TO DO WITH THE "BEST GET" OF THOSE CHICKS YOU ARE NOW RAISING**

After flying our kites far up in the blue sky—as has been done to a greater or less extent in the foregoing articles—let us now get down to earth, down to brass tacks. Suppose, reader, that you bought one or more sittings of eggs this spring, or a dozen, fifty or one hundred day-old chicks: what ought you do with the best specimens that you raise from these eggs or chicks, or from a breeding trio or breeding pen you purchased at what seemed to you to be a high price?

Read again the three articles that precede this one, then if you truly mean business IN YOUR OWN BEHALF, get hold of the six interviews mentioned in the first editorial herewith and study EVERY WORD they contain. Never mind how well or how poorly these interviews are written; what you need to do is to get at "the truth of the matter"—to get out of those interviews the advice that will prove most helpful to you.

From this year's chicks, raised from fowls, hatching eggs or day-old chicks bought by you of this, that or the other "well-known breeder", you should be able to select a pair, a trio, or a breeding pen, consisting of good individuals as to quality—"good" in physical development, vigor, etc., also "good" as to standard shape, markings, etc. Now you are face to face with the question of inbreeding, close or otherwise.

If these "select" birds, as they approach maturity, are the sons and daughters of a breeding pair, a breeding trio, or a breeding pen that you bought from some owner of an established strain, then your problem is comparatively easy, because by general agreement it will be safe for you to mate the original cock bird with the best of his pullets, and to mate the best cockerel back with the ori-

ginal hen, or hens. This is said to be "good practice and few will question the advisability of this form of line-breeding.

Even in this case, however, you need to study closely your Standard of Perfection, and it should help you GREATLY to write to the breeder from whom you obtained your fowls, doing so in order to secure his best advice on how to mate up your second year's breeders. You should describe to him in detail, to the best of your ability, just what these "select" pullets are as to shape, color, markings, etc.—and the same with the choicest cockerels of the lot. Sending him feathers will help, but a detailed description, with or without photographs, will be still better. Of course there can be no objection to doing both—to sending specimen feathers along with the detailed description, and perhaps one or more photographs.

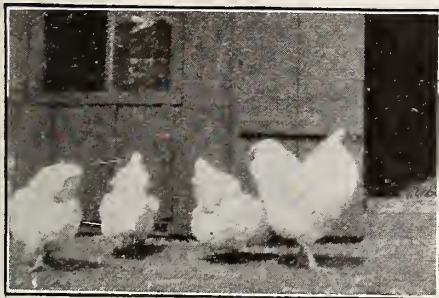
Remember, we are writing these sentences for men and women who are ambitious to succeed, and to succeed SOON. The other class will go about it in their own way, regardless of anything we may say. How to get ahead five years in two, or ten years in four, is the problem for the ambitious



Above is shown three generations of the Park's family, Altoona, Pa. This family has two peculiarities, first the affinity for the name of Joe, for we have three Joes in the above picture, and second their love of poultry particularly Barred Plymouth Rocks as they have specialized for years in the production of a heavy laying strain of this variety, in fact it is a family characteristic, one that appears to be handed down from father to son. The best part of it is that they are realizing their ambition and the Park's heavy laying Barred Rocks are a reality and are making a name for themselves in the hands of customers in all sections of the country. Park's Barred Rocks have proven conclusively that beauty and utility can be combined.

to master, and it is that class that we are trying to help in these articles.

If you bought hatching eggs or day-old chicks from a new strain and therefore have no adult birds of this strain, then



# REGAL FERTILITY

At this season of the year fertility is a most important question. The finest pen in the world would be of no value if you could not get fertile eggs.

**Regal White Wyandottes** have always been bred for vigor and today I am getting results. Letters like the following are very pleasing:

Mr. John S. Martin, Port Dover, Ont., Colorado Springs, Colo., Mar. 18, 1916.

Dear Sir:—  
The one hundred Dorcas White Wyandotte eggs purchased of you on March 1st, 1916, proved to be 85% fertile and am greatly pleased with such fine results from eggs shipped so early. I remain  
Yours truly,  
C. W. BROWN.

Later Mr. Brown reports a satisfactory hatch and says "they are the finest chicks I ever saw; they are surely doing fine and at four days old they look and act like chicks two weeks old."

Are you having satisfactory results? If not, why not try the Regal Strain? May is the best month of the year to hatch prize winners and I positively guarantee satisfaction.

Eggs for hatching from twenty beautiful exhibition matings \$5. per 15, \$9. per 30, \$12. per 45, \$24. per 100.

Dorcas Matings composed of trap-nested heavy layers, \$5. per 15, \$15. per 50 \$27. per 100.

Utility matings \$9. per 100.

FREE—Send for twenty-page catalogue and mating list.

Send one dime for the Regal White Wyandotte Book telling all about White Wyandottes.

**JOHN S. MARTIN,**

**Box W,**

**PORT DOVER, CANADA**

your mating problem is a bit more difficult, unless you decide, or are willing to mate brothers and sisters—a thing that is done by experienced, foremost specialty breeders, but a thing that they counsel against, as a general rule, on the part of beginners or amateurs. Probably quite a number of our readers who find themselves with only brothers and sisters to start with, will decide “to take the bull by the horns,” so to speak; but on the basis of our knowledge, dating back more than twenty years, in the nature of experience and close observation, we advise against this.

The better plan, as we believe, will be for you to send to the breeder of whom you bought the hatching eggs or day-old chicks, provided he is the owner of an established strain, ALSO provided the chicks he sold you turned out well. We would send to him and buy a choice male bird, this bird to be mated with the best pullet, or two pullets, or several pullets, produced from the hatching eggs or the day-old chicks.

The best two, three, four or half dozen cockerels—if you have that many—can be saved for use as cock birds. When two years old, they can be mated (at least the choicest one of the lot) on pullets of the second generation. That is quite close inbreeding, or line-breeding, but it will be found safe, as a general rule, provided you do the other things necessary.

By the “other things” necessary we mean, in particular, proper housing and yarding, proper feeding, proper care, etc. Be careful of that word “yarding”. Remember, please, that growing chicks positively will not do well—not as well as they should—if confined. They need free range, or at least they need to be fooled into the belief that they are enjoying free range. Grass or clean soil must be kept under their feet. Also they must have plenty of green food and enough “meat food” of different kinds to keep them vigorous and thrifty. Furthermore, they must have clean, pure water, and have ample shade in hot climates, etc.


When it comes to the matter of hatching and brooding, it will not do to try to raise chicks of the kind we are writing about “on the wholesale plan”, either as to inenation or as to brooding methods. The colony or mammoth brooder is for “market purposes,” and not to be used in breeding high-class standard-

bred fowl possessing the kind of desired individual characteristics that are treated of in these articles and that are illustrated in the Standard of Perfection to such good purpose, also that “win the blue” at winter poultry shows, small and large, near and far. Do not let anyone fool you into the belief that you can raise the kind of chickens here meant in GROUPS of 300 to 1,500, no matter what kind of a brooding device you use—not even if you were “on guard” twenty-four hours out of every twenty-four and had all the knowledge and “wisdom” of a chicken Solomon. To do that “is not in the cards”, as the saying is.

No, this matter of producing HIGH QUALITY, as regards standard requirements in domestic fowl, is a question of individual birds, of pair mating or trio mating or small pen mating, and of then giving the chicks thus produced EVERY PRACTICAL OPPORTUNITY to develop “individual quality” from shell to show-room. Disriminating readers of the kind of articles that are published, month after month, in A. P. W. and R. P. J., ought to realize fully the special pains taken by successful foremost breeders of standard fowl to give their best chicks the MAXIMUM CHANCE of developing their quality to the point of standing back of a blue ribbon at a poultry show,

in keen competition, under the judgment of disinterested experts. That is your goal, reader, and it isn't an easy goal to reach. If it were “easy”, then winners of the blue could be bought at pound rates, or by the dozen.

Why do we have leaders in this field, and why are they so few, comparatively speaking? The difficulties of the path



**Am I worth one cent?**

You can “insure” my life by feeding me

**Pratt's**

**Baby Chick Food**

Try it and if you are not satisfied you can get your money back.

Dealers everywhere sell it on this Guarantee

191

## Semi-Solid Buttermilk Makes Chickens Grow Makes Hens Lay

Feed Semi-Solid Buttermilk. It is ordinary buttermilk with 84 pounds of water extracted from each 100 lbs. of buttermilk leaving 16 pounds of 98 per cent digestible flesh builder. The character of the buttermilk is in no way changed. Our exclusive process leaves it the same in quality as the fresh buttermilk. All food values retained. Extremely nutritious. Tones up the system without the use of medicine of any kind. Reduces the death rate. Cuts your feed bill. Increases your profits.

# BUTTERMILK

Semi-Solid Buttermilk makes hens lay more eggs. Saves the life of the little chicks. Keeps the bowels regulated and in fact keeps them in a state of perfect health which other feeds fail to do. High in protein (milk sugar) carbo-hydrates, lactic acid, salts and fat. The ideal food.

Use no fish or meat scraps when feeding Semi-Solid Buttermilk. Lactic acid creates appetite, extracts the food value from other grains, promotes digestion and assimilation and wards off many poultry diseases

135 chicks fed on this and have only lost one and the chicks are the weakest lot I have ever had in my sixteen years experience from an incubator. But they are growing like weeds on rich soil in warm wet weather, and look as slick as young rabbits.—A. J. Lawson, Cleveland, Tenn.



Send for a supply at the following low prices: 100 lbs. for \$3.50; 200 lbs. for \$6.00; 500 lbs. for \$12.50, F. O. B. Lincoln, Neb.

Consolidated Products Co., 1029 W. Adams St., Dept. W, Chicago, Ill.

**SUPERIOR** **W. H. BESUDEN** **SUPERIOR**

BOX 13, EVANSTON STA.  
CINCINNATI, OHIO.  
SUCCESSOR TO  
WAHEBE BANTAM YARDS

**DARK BRAHMAS** **AMERICA'S BEST COCHIN BANTAMS** **BUFF ORPINGTONS**  
BLACK - BUFF - PARTRIDGE - WHITE

and the length of the journey, offer the most reasonable explanation. It takes brain, not brawn; patience, not vacillation; persistence in place of frequent change; common sense, rather than mere book-learning—and then the course still is one that has to be traveled with caution. **GOOD JUDGMENT MUST BE USED IN ALL RESPECTS.** Obstacles must be overcome; disappointments ignored—victory commanded!

After all that is said and done, it is the man or woman that counts most. Personal good judgment is the corner-stone of success in this field of effort, as in nearly all others. It isn't a matter of "talk"; it is a matter of thinking—of thinking on YOUR part, or REAL STUDY. If you get a "right start" and then have the good judgment to keep on "going right", the course can be shortened greatly and success won at an early date—say within two, three, four or five years.

This article (and all others like it by us) was dictated—not written. We are simply "thinking out loud" and having a stenographer take it down in "hen tracks". Later on it will be transcribed, then put in type and you will do us the honor to read it. Our intentions are of the best. We want to give you the benefit of our thought, whatever it amounts to—doing so with the hope that we may be able to point out the right course for you to follow in your poultry breeding activities. Some of these thoughts should be of value to you—if not to you, then to some one else, and we, at least, have done our best—have done it frankly and freely. Here is hoping that each one of our readers may secure a little benefit from this month's articles in A. P. W. on the question of "intelligent inbreeding."

**HOW MANY EGGS IS IT POSSIBLE FOR A HEN TO LAY IN A LIFETIME?**

This question has been raised before in these columns—and it will remain unanswered long after every reader of these pages has passed to his final reward Dr.

Raymond Pearl, biologist, connected with the Maine Agricultural College, Orono, has reported that a normal hen in good health, when she begins to lay, has (or at least many of them do have) the natural capacity to lay 3,000 eggs or more, if she could remain on the job long enough and shell out the eggs fast enough.

Dr. N. W. Sanborn, Holden, Mass., produced a Buff Wyandotte hen some years ago that laid more than 1,000 eggs in trap-nests during her life-time. As we recall it, she lived to be nine years old, though it may have been seven years. Now comes James Dryden, Professor of Poultry Husbandry at the Oregon Agricultural College, Corvallis, with the record of a White Leghorn hen, to which has been given the name "Oregona". This hen, now in her sixth year, has laid over 1,000 eggs in trap-nests. Following is her record, as furnished by Professor Dryden, and it is a truly remarkable one to date:

**"Oregona"**

White Leghorn—Oregon Agricultural College,

240....	1st year.
222....	2nd year.
202....	3rd year.
155....	4th year.
168....	5th year.

987...now over  
1,000 at beginning  
of 6th year."

The foregoing data was furnished to us by Professor Dryden under date April 11th, and at that time Oregona was still laying at a good clip. It will be noted that during her fifth year she laid a larger number of eggs than she did in her fourth year. This would appear to be a surprising fact, generally speaking.

Furthermore, here was a hen that laid well over 200 eggs per year, three years in succession. During the three years (her first three as a producer) she laid a total of 664 eggs, or 221 eggs per year on the average for this period.

For a dozen years or more Professor Dryden has made a special study of prolific egg yield on the part of domestic

fowl. Ten years ago or more fowls under his care had reached the 240-egg mark or better. Less than two years ago he told the world of the performance of a White Leghorn-Barred Rock hen, which, in her first year of record production laid 303 eggs in trap-nests in 365 consecutive days.

Up to that time this was the world's record for a hen on an Agricultural Experiment Station, or at a State Agricultural College. Shortly after that H. W. Sanborn, Attleboro, Mass., (another Sanborn) announced the trap-nest record of a Single Comb Rhode Island Red, this record touching the 309-egg mark. Still later a White Leghorn at the Delaware Agricultural College made a record of 314 eggs, so we have been informed.

No doubt this high egg record will be excelled in the near future. Hundreds of poultry keepers are now "at it", as compared with a dozen or less than that ten to fifteen years ago. Professor Dryden has done his share to bring about this general interest and growing demand for prolific layers. The same is true of the national and international egg-laying contests. In view of the fact that "the egg" is the "neck of the bottle", as regards production, as to numbers at least, it is of great importance that mankind should find out how many eggs can be laid by domestic chickens, ducks, turkeys and geese, not only per year, but during the productive life-time of these valuable creatures. Unquestionably there is far more to learn about it than we have found out thus far. That makes the problem all the more interesting and gives added value to such records as Professor Dryden has now announced to the public.

**PRESIDENT E. E. RICHARDS AT THE BATTLE CREEK SANITARIUM**

Readers of A. P. W. will regret to learn that E. E. Richards, Cedar Rapids, Iowa, president of the American Poultry Association, has found it necessary to go to the Battle Creek Sanitarium, Battle Creek, Mich., under orders of his physician.

**May and June are Banner Hatching Months**

Records show that 75% of all winning Show Birds and valuable Breeders are hatched during these months. Best of all, you can purchase hatching eggs from famous Wilburtha strains at prices that mean a substantial saving. "Wilburtha" means quality, plus. Our S. C. White Leghorns

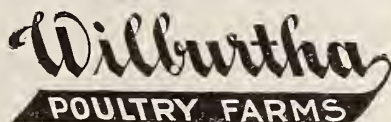
have won during the past five years 103 out of 132 possible first prizes at the leading Shows. And our other varieties are bred to the same standard. We offer hatching eggs and baby chicks from carefully selected pens of the following breeds:

- S. C. White Leghorns
- Columbian Wyandottes
- White Plymouth Rocks
- S. C. Buff Leghorns
- Columbian Plymouth Rocks
- S. C. Rhode Island Reds

**Hatching Eggs at Reduced Prices**

Hatching Eggs from exhibition matings	15 eggs - \$5	30 eggs - \$9
Utility eggs, all varieties	100 eggs - \$6	

We guarantee 90 per cent fertility. You take no chances with Wilburtha eggs. Baby chicks, exhibition and utility strains. Prices on request. Orders filled in rotation. Don't delay. Send your order now.



Chas. J. Fisk, Owner

M. L. Chapman, Gen'l M'gr      D. G. Keyler, Sup't

32 River Road      Trenton Junction      New Jersey



After Mr. Richards got home in December last from the A. P. A. convention, held in San Francisco, November 16-19, it was several weeks before his friends heard from him by letter. Reports were circulated that Mr. Richards was ill, but it was not known that the matter was serious. Later on it developed that he was suffering from a high blood pressure and early in April his physicians, after a thorough examination, ordered him to Battle Creek for several weeks.

Mr. Richards was greatly disappointed with this development. If he had known that the trip to Battle Creek was necessary he would not have accepted reelection to the office of president of A. P. A. However, he is continuing to give the work of that office such attention as he can and it is hoped that a few weeks at the sanitarium will put him back on his feet.

Editor of A. P. W. during April had a number of letters from President Richards, relating to work to be done by the Standing Committee on Standards in connection with getting out Separate Breed Standards, and while President Richards very much regretted the situation, he was cheerful, nevertheless, and expressed his determination to do all that he can for the organization, even while he is "on sick leave", so to speak.

#### THIS YEAR'S ANNUAL A. P. A. CONVENTION TO BE HELD AUGUST 8-10, INCLUSIVE

While the voting by mail ballot does not close until May 5th, it is really certain that the forty-first annual meeting or convention of the American Poultry Association will be held in Cleveland, Ohio. The Cleveland poultrymen had expressed a wish that the convention might be held the week of August 14-19, but it developed that the new constitution of A. P. A. provides that "the annual meeting shall begin the second Tuesday in August of each year, the place of holding it to be determined by mail ballot," etc.

The reason that the Cleveland poultrymen wanted the A. P. A. convention to be held in their city the week of August 14-19, was that the great Forest City fair and fall poultry show is to be held that week at Randall, a suburb of Cleveland, and it was thought that both events might draw a larger attendance if they were "on" at the same time.

Here would appear to be a case of "good luck" for the association. Important work is to be done at this convention and really there ought not be any unusual diversion—meaning diversions of special interest to members of the association. The Cleveland members of A. P. A. and other friends of poultry culture are now reconciled to the dates prescribed by the A. P. A. constitution and undoubtedly this will be one of the largest attended and most interesting annual meetings held by the organization during its more than forty years of history.

\*\*\* Why not try and get a few subscribers for A. P. W.? We have a very liberal proposition that will interest you.

\*\*\* If you like A. P. W. tell your friends about it. Let them share some of the good things.

## "NATIONALISM OR FRATERNALISM--WHICH?"

A Well-Meant Article From the President of a Canadian Branch of the American Poultry Association, In Which He Raises a Question of Concern To All Persons in English-Speaking North America Who Are Interested in the Production of Standard-Bred Fowl. Recent Letters on this Same Subject from E. E. Richards, President of the American Poultry Association and from S. T. Campbell, Secretary; also an Extract from a Letter from Mr. Higgs, Written After He Had Heard From Messrs. Richards and Campbell

SOME time ago the editor of A. P. W. had placed before him an article by W. Miller Higgs, Victoria, B. C., president of the British Columbia Branch of the American Poultry Association, entitled, "Nationalism or Fraternalism—Which?", with the request that same be published. Later on there was referred to us a letter of date March 6, 1916, from Mr. Higgs, wherein he reported that he had forwarded copies of his article to E. E. Richards, president of the American Poultry Association, and to S. T. Campbell, secretary. We quote from Mr. Higgs' letter of March 6th, as follows:—

"Mr. Curtis will, I know, be able to see the point of the article which I have tried to write in the best interest of our great A. P. A. I sent the article to two other papers, namely, the American Poultry Journal and the Pacific Poultryman only, and have requested publication, and the former has written me under date of February 25th saying that they will endeavor to make use of same at an early date. I have received a letter from President Richards in which he fully endorses the sentiments expressed by the article and says how little he had any intention in his speech of in any way fostering the National idea. Secretary Campbell has also written me a nice letter expressing similar views. (I enclose copies of their letters).

"We, however, cannot get away from the fact that there is tendency to bring the National element into our association and in many cases quite unwittingly and my article has been written with the one aim in view of doing all I can to show the danger that exists and prevent a split. As president of the British Columbia Branch I can say that there was strong feeling expressed at the annual meeting this year and after reading our president's speech to the convention at Frisco, I felt that something should be written upon the lines of the article sent you. I am glad to see that President Richards (as I felt at the time of writing) never thought how some would misunderstand his words. The whole trouble is really in the misleading name of the A. P. A., which should be North American or—American Continental. Many people do not stop to think about these things and as it is now, they come to hasty and wrong conclusions."

Letter from President Richards to Mr. Higgs

"Cedar Rapids, Iowa, Feb. 26 1916.

"Mr. W. Miller Higgs,  
Victoria, B. C.

"My dear Mr. Higgs:—

"Mr. Campbell has forwarded to me your article on 'NATIONALISM OR FRATERNALISM—WHICH?' I fully agree with all you say in this article and am fully aware of the splendid service that has been rendered this association through its affiliation with the Canadian Fanciers.

"The history of the American Poultry Association is full of good things that have been done by our Canadian friends, in fact, the Constitution and By-Laws under which the association was originally formed was written by a Canadian, Mr. Daniel Allen, of Galt, Ont.

"All through the years our Canadian friends have been loyal to the American Poultry Association and I hope that the association has been of profitable service

to the Canadian fanciers.

"Any illusions I made in reference to the association, without taking into consideration our Canadian friends, were merely a lapse of speech—errors of the head and not the heart.

"With best regards, I remain,

"Yours respectively,

E. E. RICHARDS."

Letter from Secretary Campbell to Mr. Higgs

"Mansfield, Ohio, Feb. 24, 1916.

"Dear Mr. Higgs:—

"Just received your letter, 'Nationalism or Fraternalism—Which?' I agree with you that in the broad term America, we are all represented, no matter on which side of the line we live.

"Your article is a good one and I wish to assure you that President Richards had no thought of any reference to the United States or to a national organization. The A. P. A. is international.

"Doubtless you have received a copy of the San Francisco Proceedings in which you will find members listed as residents of England, Australia, Newfoundland, etc.

"You are an American just as much as I am. I have visited Canada and I have never met more hospitable people. I have many friends on your side of the line and in all of my letters and printed matter I endeavor to include Canada as a very important part of our international association.

"Each of the Canadian Provinces has representation on the Executive Board and I hope that British Columbia will be represented by having an elective member on the Executive Board chosen to serve in that capacity.

"Very truly yours,

AMERICAN POULTRY ASSOCIATION,  
S. T. Campbell,

Secretary.

"P. S.—Canada has in recent years had three vice-presidents—namely, Messrs. Donovan, Baldwin and Russell. Some years ago a Canadian was president.—S. T. C."

Following is the article that was prepared by Mr. Higgs after he had read the report of President Richard's address, as delivered at the A. P. A. convention, San Francisco, last November:

Nationalism or Fraternalism—Which?

"Brother Members of our A. P. A. in every state and in every province of the North American Continent where a branch organization of our great poultry association exists, I ask your careful and very thoughtful consideration of the subject upon which I have felt bound to write, as it is one of VITAL importance at the present time.

"The Quarterly Bulletin (January) is no doubt by this time in the hands of every member and we are all familiar with what was done in connection with the Fortieth Annual Convention. Our President Richard's address is before us all; he is as anxious as any of us for progression, but in order that our association may expand and we may be enabled to co-operate with him to this end there are certain matters which must be made clear and his address to the convention meeting at Frisco emphasizes this fact.

"The subject assigned to him for his address was—'The History and possibilities of the American Poultry Association.' In opening his address he said—'The historical part of the association I am going to eliminate, because I see we have an attendance of live ones, and Mr. Lively has informed us that this is an exposition of modern ideas and I am simply going to take the latter part of



my text, the Possibilities of the American Poultry Association."

"Now—Brother Members—by our leader cutting his 'text' in two and only dealing with the latter half I venture to believe, and I also feel that many will agree with me that Mr. Richards had inadvertently made a serious mistake. The real meaning of the 'Text' has been lost and many new members may be entirely misled by his address upon the great work of the American Poultry Association. It is impossible to eliminate 'The History' of the Association without losing the very character of this great organization and it is this which has led me to take a somewhat strange subject upon which to write to all our fraternity."

"For forty years the American Poultry Association has been attempting to promote the poultry industry of America'. What do we understand by this? Do we understand that the Association has been working for the upbuilding of a great organization as a United States Institution or as a great association of poultrymen on the continent of North America—which. It would seem by our president's address that he holds the former view, but if we remember the history of the organization we know that the word 'America' means the continent of North America."

"Brother Members, the very name of our association has come to be misleading to many. Many forget that our emblem is composed of the Stars and Stripes, surmounted with the Maple Leaf of the Canadian section of the continent, with the Wish-hone of good will, which in itself very clearly denotes the character of the A. P. A. and it is because we are a body of 'live ones' that we regret that our president has omitted to deal with the history of our association. We are an organization of live poultrymen whose one aim should be the furtherance of the breeding of better stock and if we are to progress upon the old lines on which our Association was founded we cannot allow 'nationalism' to have any place. If the feeling of the majority of our members is that the A. P. A. shall be national in character, then in all consistency remove the Canadian emblem, for unless we are to hold together as a great fraternal body of poultrymen, irrespective of nationality, with equal rights, representation and privileges, we had far better work separately under our own national emblems."

But, is there need for such a break? Is there any sane reason for bringing a national spirit into so old an organization which has done so much in building up a great continental industry? However, to my way of thinking there is a pressing need at the present time to make the true character and history of our association known and should it be thought wise in order to maintain and emphasize its old character to make some change in the name as 'The North American Poultry Association.' I am personally strongly against any such change as—'The American-Canadian Poultry Association' a name which I have heard rumored, as that at once brings into it national feelings which will work more harm than good."

"We cannot get away from the fact that there is amongst us a good deal of the national element which is not a 'modern idea'. But for the misunderstanding of the very NAME of the association there would be a far larger Canadian membership. Again and again Canadian poultrymen have raised this point with me. Time after time have I endeavored to explain the true character of the A. P. A., both personally and through the poultry press, and unless some action is taken soon to safeguard the interests of the organization by making this point definitely clear to all, nothing can prevent a quite unnecessary break."

"Our President by his address has, though no doubt quite unintentionally, emphasized the national spirit and deterred membership from the thousands of poultrymen in Canada. He freely speaks of the United States Department of the Agriculture, but the same Department of the Dominion Government which is doing great work for the poultry industry is not mentioned. Then there is the question of the Text-book for use in our schools, the importance of which cannot be too strongly emphasized in order that our younger generation may become familiarized with the rudiments of poultry knowledge. This Text-book, however, cannot expect to be received by both the Educational Departments of the United States and the Dominion unless it is drawn up and put forward in a diplomatic manner as from an association which is in no way national in character."

"I entirely agree with our president when he says: 'If there is anything to be done to

elevate this industry, it lies in the hands of this association—it lies in the hands of the officers and members of the association' and as I am now serving the B. C. Branch for my third term of office as its president I feel that a very serious responsibility rests upon me to do all in my power to further the good work of the A. P. A. and to point out to all my brother members, no matter in what states or province they made reside, the absolute necessity at the present time for organization upon a broad and fraternal basis and a cutting out of any national feeling which no doubt has crept into our association from a misunderstanding of its very name."

"I feel sure that our President when he reviews the matter, as I have but feebly tried to point out, will see how his address for advancement may be misunderstood by many poultrymen in Canada and that instead of encouraging their support and co-operation it will probably have the opposite effect. I also feel sure that he will, with all other state and provincial officers be willing to do all that is possible and maintain the very foundation of the A. P. A., namely, a great fraternal organization of poultrymen on the whole of the continent of North America for the good of our great industry, and thus save any possibility of a serious break on narrow national lines."

"Fraternally yours,  
W. MILLER HIGGS."

Individually, we think our Canadian members and friends should overlook or tolerate the use of the word "American" as part of the name of the American Poultry Association. Really it does not seem to us that this is a question that need be raised, or that an issue should be made of it. On the other hand, if there were in fact any disposition whatever on the part of members of A. P. A. who live in the United States to introduce "nationalism", then it would be well to take promptly all necessary steps to eliminate such an intention or activity."

Writing as one who strongly has fostered for a term of years the greatest practical fraternalism between all English speaking poultrymen and poultrywomen throughout North America, we believe that the United States and Canada should have the same Standard of Perfection and that it is both practical and truly desirable for them to belong to the same continental, English-speaking poultry organization—an organization devoted to standard-bred fowl as illustrated and described in the American Standard of Perfection."

Fraternalism, YES—nationalism, NO, neither American nationalism nor Canadian nationalism. We fail to see that there would be any benefit in fostering either kind of nationalism in the councils of A. P. A. or in its varied activities."

Canadians have always been in a position to choose for themselves, as to whether they prefer the English Poultry Club Standards or the American Standard of Perfection—the latter being a book in which they have long taken an active part, as to its preparation and in fixing its requirements, etc. It would be practical for Canadians to organize a Canadian poultry association, if they so desired, and still to adopt and follow the American Standard of Perfection, rather than to adopt the English Poultry Club Standards, or a modification of either. But would it pay?"

Practical wisdom, on commercial lines, would seem to make it advisable for Canadian poultrymen to continue to breed their fowls according to the American Standard of Perfection, because of their well-known utility values and because of the accessibility of the United States market, especially for choice standard-bred specimens and eggs therefore for hatching. It is easily possible

that as time goes on, more and more dressed fowl will be shipped from Canada to the British Isles; yet it is doubtful if that market ever will become as attractive and profitable as the United States market."

However, we feel that this is clearly desirable, at least for the present, for our Canadian friends to continue to be members of the present ALL-AMERICA POULTRY ASSOCIATION, though it would not surprise us at any time for them to adopt a different view and to organize a Canadian poultry association, this association (probably) to accept the American Standard of Perfection as its authorized guide. Yet how that would benefit matters, we fail to see. It is extremely doubtful if two such organizations would be able to agree ON THE SAME STANDARD. If we failed to do this, then Canada, quite naturally, would have to look to Canadians alone for a general market for the many choice specimens of standard fowls of exhibition value which they are producing year after year. Either this, or it would be necessary for them to adopt and follow the English Standards."

In this comment we have written frankly on the subject—just as Mr. Higgs would have us do. It is not a case of flattery, of buncombe, or even of sentiment, though we proudly admit that "blood is thicker than water". On the contrary, it is a matter of commonsense, of practical commercialism, plus fraternalism—meaning the kind of brotherly feeling and intercourse that should exist between men and women of the same European origin, with the same literature, the same jurisprudence, the same religious faith, etc."

Let us hope, therefore, that such difference as now exist, no matter under what name they travel, will be tolerated or ignored—with the result that Canadian poultrymen and poultrywomen may continue for many years to take an active, helpful and truly important part in all the progressive work of the American Poultry Association, regardless of the name this organization bears, so long as the right feeling exists, and to the best of our knowledge ONLY that kind of feeling now exists on either side of the line. That line is largely invisible—and imaginary line, AND IT SHOULD REMAIN SO IN POULTRY MATTERS, as between the two governments and two peoples for a long time to come."

#### KEELER CUTS PRICES

White Wyandotte fanciers should welcome the announcement of Chas. V. Keeler, White Wyandotte specialist, Winamac, Ind., in this issue. He has made some sweeping reductions in the prices of eggs from his best matings thus giving A. P. W. readers the opportunity to obtain the highest quality produced in White Wyandottes at Kellerville, at prices that anyone desirous of raising the best cannot afford to overlook. Mr. Keeler reports remarkable hatches of vigorous chicks that grow like weeds and his success in producing large numbers of early chicks has provided a grand opportunity for all to produce some of this choice stock at very low prices. There can be no question as to the quality of the Keeler Whites as their show room record proves conclusively that they are there with the goods when it comes to winning prizes. His wonderful record at the Chicago show in January, is but a single step in his climb upward on the ladder of success. You can start a record of this kind if you make the right start. Mr. Keeler will be glad to start you right if you will give him the opportunity. Just look up his "ad" and order direct to save time. If you will mention A. P. W. it will be appreciated."

# Interview With a Master Breeder of Rhode Island Reds

Lester Tompkins, Concord, Mass., a Pioneer Breeder of Rhode Island Reds of Standard or Exhibition Quality, Talks Freely About His Strain, Its Origin, How It Was Developed and How It is Being Maintained in the Front Rank

BY EDITOR OF A. P. W.

EDITOR of R. P. J. spent two days at the great Boston poultry exhibition (January 14-15) and took advantage of the opportunity to interview Lester Tompkins, one of the world's foremost successful breeders of Single and Rose Comb Rhode Island Reds. Our object was to find out how long Mr. Tompkins has been breeding his present strain, what his methods of strain-building are, how he practices line-breeding, etc., etc. Mr. Tompkins answered frankly all questions that we asked him.

The Lester Tompkins strain of S. C. Rhode Island Reds can be traced back forty to fifty years. This is a remarkable statement, but no doubt it is correct. Said strain has been bred by Mr. Tompkins in person during a period of twenty-two years. The original pen used by Mr. Tompkins was presented to him by his father, John H. Tompkins, deceased, who at that time lived at Adamsville, in the Little Compton District of Rhode Island, where the Rhode Island Reds originated sixty to seventy years ago or more.

Lester Tompkins and his father were born at Adamsville, Little Compton, Rhode Island. When Lester was a lad just able to run about, his first "play-mates" were Rhode Island Red chickens. We should judge that Mr. Tompkins is now in the near neighborhood of forty-five years of age. Said he:

"Father every year would pick out a small-sized mating, confine it during the breeding season and would set eggs from this mating to get his flock the next year. He was among the limited number of persons in the Little Compton district who did this. The result was that he was away ahead of many of his neighbors, as regards type and color of these 'Red' chickens and many neighbors came to him each fall and winter for cockerels. They paid him 75 cents to \$1.50 each, which was above the market price by considerable."

Speaking of his own experience, Mr. Tompkins said:

"As before stated, I began breeding my present line of S. C. Rhode Island Reds twenty-two years ago. Sixteen or seventeen years ago I adopted the breeding and sale of Rhode Island Reds as a business. I began exhibiting at Boston in 1901 or 1902. At that time I won a big share of the prizes, simply because I 'had the goods.' It is correct for you to state in R. P. J. that I have been line-breeding for practically eighteen years.

"Twenty-two years ago father made me a present of what he considered to be a choice pen, as selected from his large flock. They were good in type and color for those days and he had also given his attention to size and color of eggs. During the next three or four years father sent me a nice cockerel or two each year. He died eighteen years ago and the next fall I went to a neighbor of his and obtained male birds that were directly related to father's stock. Bought two birds of his neighbor and no new blood has been introduced by me since then. Fact is, that was not new blood, because the birds were of father's breeding. That was why I went to this neighbor for them."

**How Mr. Tompkins Practices Line-Breeding**

Editor:—"How and to what extent do you practice line-breeding?"

Mr. Tompkins:—"I started what we call our 'old No. 6 strain' in 1900. Other strains were started at the same time, but this one proved to be the best for several years. We spoke of the different strains according to

the numbers of the houses in which they originated. As a matter of fact, we should call them 'families,' not strains. They are all separate families of the Tompkins strain. I now have six families that are distinct—that is, six old families. Lately we have started two new ones.

"All these families were developed from two pens of related females, headed by extra choice males of the same blood lines. At the beginning I had two extra good males, one that was given to me by my father and one that I bought from a neighbor who took pains with his birds and had bought from father and had also exchanged eggs for hatching with him in the early days. In 1900 I started to keep records and since then I know the blood lines and origin of each exceptional specimen produced on the place, or practically so."

Editor:—"How close do you inbreed?"

Mr. Tompkins:—"I mate brothers and sisters if I want to, but prefer to limit myself to mating birds more distinctly related. I make a general practice of mating sires with daughters. One can inbreed or line-breed

Explanatory Note:—The interview herewith is reprinted from the February, 1916, issue of the Reliable Poultry Journal, Quincy, Ill. It is published here because of its value to all persons who wish to practice intelligent line-breeding and thereby establish or improve a strain of domestic fowl that will meet Standard requirements and possess exhibition value. All such persons, as they come to understand the situation, will appreciate the public-spiritedness of such men as Lester Tompkins, J. V. McConnell, A. C. Hawkins and others, who frankly explain their methods of selection and mating "for best results". Lately E. B. Thompson, Amenia, N. Y., originator of the Ringlet Strain of Barred Plymouth Rocks, submitted to a similar interview, which we shall republish in these pages next month and the month following—doing so far the genuine benefit of our readers who "mean business" in this field of effort. It will be recalled that in the January, 1916 issue of A. P. W. we published a lengthy article relating to the methods of Mr. and Mrs. E. B. Martin, Downey, Calif., the title of that article being, "Successful Line-Breeding of Martin White Leghorns"—Editor.

for size and vigor as well as for shape and color. It is the same with increased egg-production. To produce a prolific egg-yield strain it is necessary to line-breed, as a general rule. The same general principle applies to cattle breeding, hog breeding, etc., as is well known.

Editor:—"If you recall the facts, kindly tell R. P. J. readers how you started 'Line No. 6' or 'Family No. 6' of the Tompkins strain."

Mr. Tompkins:—"I took an exceptionally fine cock bird—fine for that period—and bred him to his own daughters. From this mating I produced a cockerel that won second at Boston. Another bird from that same mating won first at Boston the same year, but he was not equal to the second prize bird, not in my opinion.

"I took this second prize Boston cockerel and mated him to sisters of his father. I then bred him the next year to his own daughters and again to daughters of the next generation and kept this up for five years, with the result that the stock from this mating established a line that will reproduce winners at our largest shows."

Editor:—"What you mean, as I understand it, is this: You bred this same male bird five or six years to his daughters, of each succeeding generation, selecting each year from among his

daughters, the birds that in type and color suited you best?"

Mr. Tompkins:—"That is correct. Two or three other lines or families were started back there. From a pen produced from this old male—originator of old No. 6 strain—came the pen that won first at Madison Square Garden in 1908."

**Tells us He is "Strong" for Selection**

Editor:—"What was your method of selection as regards picking out individual birds for the different matings?"

Mr. Tompkins:—"By watchful, intelligent selection 'the points' where the original male was weak, were made practically perfect. This was done by means of selecting females that were strong in these points. At the same time by the method of line-breeding I have described the strong points of that old male were established to a remarkable degree. This plan of line-breeding fixed the good points in the blood so that these standard values are transmissible, not only in the case of males, but the females also transmit these points, as I have learned by experience and observation."

Editor:—"Yet you do not mate up double matings in an attempt to make greater progress?"

Mr. Tompkins:—"No. Take my first prize pen at the Palace last month, as an example. Every bird in that pen, including the cockerel and four pullets, were bred from the same mating—from the same identical pen. I practiced this style of single mating back in 1904, at the time the Rhode Island Reds were admitted to the Standard of Perfection and I have adhered to this plan ever since. I am not smart enough to 'pick them out for a double mating and I do not try. One thing that I wish you would say in this connection is this: My fowls are bred by me, not bought. All these years I have bred my winners, absolutely every one of them: I lose some times, but I always 'come back,' as the saying is."

**Blood Lines Must be Maintained for Progress**

Editor:—"How about selling an exceptionally good male or an exceptionally good female to some person who owns a different strain for his use in improving his stock?"

Mr. Tompkins:—"That is not the right way to go about it, in getting a good start. Take my own case as an example. Notwithstanding my experience and close study of the matter, I could not go into some one else's flock and pick out a male bird which, if mated to some of my choice females, would reproduce his color, or reproduce their color. THIS CAN ONLY BE DONE IN BLOOD LINES THAT HAVE BEEN DOING IT. Line-breeding, in other words, is the only way I know of to accomplish such results and I would not waste time on any other basis.

"There are a lot of theories in print as regards successful poultry breeding on standard-bred lines, but they do not work out. This is proved by the fact that these theorists have to buy their winners. The results do not 'prove out' when they put their theories 'to the test' in actual practice."

Editor:—"What special pains do you take to secure vigor and size?"

Mr. Tompkins:—"A fowl to be a valuable breeder must have GOOD SUBSTANCE and real vigor. By good substance I mean standard size, typical frame, a good head, strong legs and muscular flesh. I do not believe in over-sized birds. They are out of the Red class. It is easy to get them so big by breeding and selection that they are not as good as they should be as layers. The agricultural college at Amherst has found that my strain 'does the business' when it comes to prolific egg yield. They have writ-

ten me that nothing has been found to equal my strain in this respect. I breed for eggs as well as feathers and also handle and feed my strain with a view to producing fertile eggs and quick growth in the chicks. This has been proved time and again and now is generally conceded."

#### Breeding and Sale of "Reds" His Sole Business

Mr. Tompkins breeds about 2,500 birds each year. It is his sole business. He sells breeding stock, also exhibition specimens and eggs for hatching. Orders are accepted by him for day-old chicks, but they must be ordered at least thirty days ahead, in which case eggs are set to fill each separate order, the price fitting the quality. By this means he can furnish day-old chicks from any mating that is described in his annual list. Said Mr. Tompkins:—

"To tell the truth I do not like the day-old chick branch of it. Some do wonderfully well with the chicks, but this is not true as a rule. My advice to customers is that they would better get the eggs, provided they have the facilities to hatch them. Baby chicks are easily chilled or weakened. Last season, for example, I shipped two hundred chicks the same day in two lots of one hundred each. One customer reported fine success; the other was much disappointed. This happens too often in the case of day-old chicks."

Editor:—"Please give us a concrete illustration of this method of selection."

Mr. Tompkins:—"Take the matter of light color in tails. That old male bird in house No. 6 had a tail too light in color. Each generation, in picking new mates for him, we were careful to select females with black tails. By this simple method much darker or 'Standard' color was produced and established in the tails of cockerels (also in the blood of the females that came from this old male and that formed our No. 6 strain or family."

Editor:—"Have you ever started a family by mating brothers and sisters?"

Mr. Tompkins:—"No, I never have. I once bred a son back to two-year-old females that were of the same breeding exactly, but for some reason or other this experiment did not turn out satisfactorily."

Editor:—"You depend a good deal on 'selection' as well as on blood lines?"

Mr. Tompkins:—"Yes, I am strong for selection. My advice is, keep in the same blood lines and select your birds with great care as to their individuality. Here is where the natural breeder has the advantage. By 'natural breeder' I mean the man or woman who is fond of choice fowls and enjoys studying these breeding problems and watching results. There must be a fondness for the work, also for the breed or variety. That is what spells success. Such a man or woman can see points in a bird that others do not seem to notice."

Editor:—"Do you find it easier, as the years go by, to select the right bird?"

Mr. Tompkins:—"Yes and no. For example, this year I have a phenomenal male—a simply wonderful bird. Just what to do in selecting mates for him I do not know. Have not yet decided. This bird was first cock at the Palace show last month. Have never produced his equal. At the Palace show I refused \$500 for him. Of course I shall have to decide what mates to put with him, but am in doubt for the present."

#### Knows Which Matings Produce the Winners

Editor:—"Do you mate individual females with certain males?"

Mr. Tompkins:—"Yes, I do this and keep the eggs separate. For example, I know the hen that produced the first cock at the Palace show. Frankly, I do not sell my best producers. To do so would be a bad mistake unless I wanted to retire from business or be put out of it. One of my customers sold a three-year old bird, a line-bred high-class 'producer' for \$300.00. Since then he has gone backward every year. That 'producer' had it in him and he 'nicked' well with the pullets and the hens of his blood line. The poultryman who means business should never

do that. In other words, 'do not sell your shirt.'"

Editor:—"You say you have not introduced any new blood in your strain during the last fifteen to eighteen years?"

Mr. Tompkins:—"That is correct, except that I have bought back a few birds produced from my strain. They were obtained from customers, as a rule."

Editor:—"Do you double mate?"

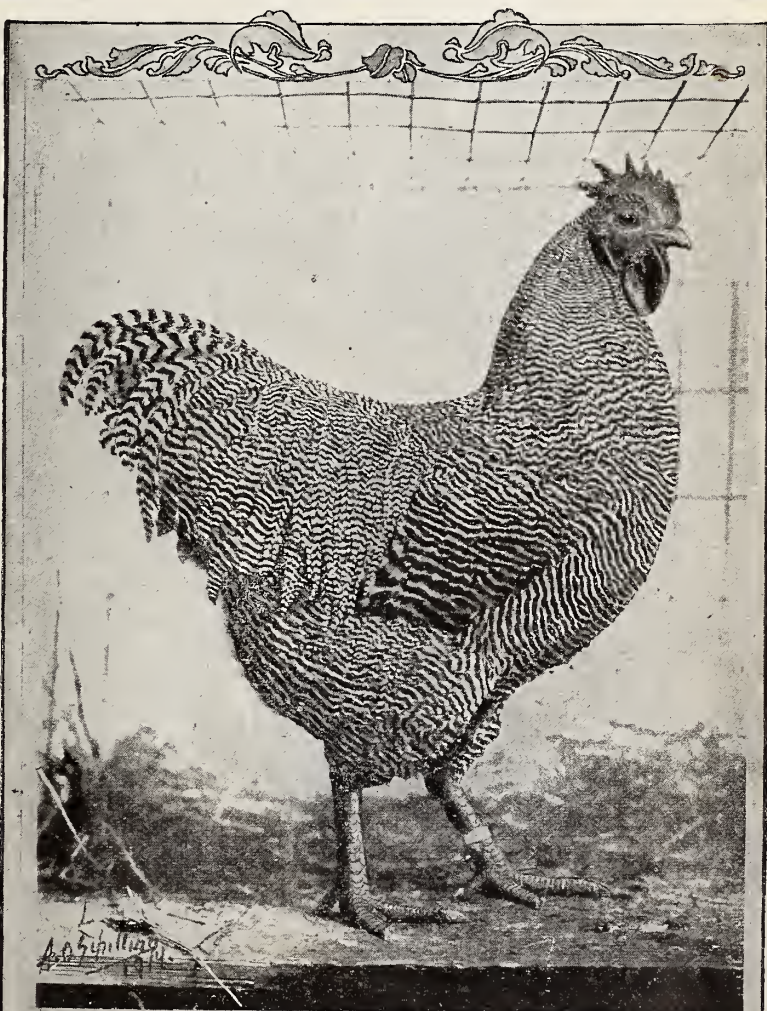
Mr. Tompkins:—"No, I do not believe in it and do not want to do it. When you come to figure it out, however, a pen mating is double mating in a sense, because sometimes a male with a certain female in a pen will breed the best males, while the same male, in the same pen, with another mate, will breed the best females."

#### MEETING OF STANDING COMMITTEE ON SEPARATE BREED STANDARDS

The Standing Committee on Standards, representing the American Poultry

Association, held a meeting in Buffalo Friday and Saturday, April 21 and 22, which meeting was attended by S. T. Campbell, secretary, by Robt. H. Essex, chairman of the committee on Market Poultry and Egg Standards, and by Franklane L. Sewell and Arthur O. Schilling, Homer W. Jackson, who is to act as editor of the Separate Breed Standards, was in attendance.

The schedules of contents for the first three Separate Breed Standards, those to be devoted to the Plymouth Rocks, Wyandottes and Leghorns, were laid out, embracing the general scope of the work, and a considerable number of illustrations were decided on and arranged for. It is hoped that the bulk of the reading matter and a majority of the illustrations can be ready for submission at the forty-first annual meeting of the American Poultry Association to be held



FIRST PRIZE BARRED ROCK COCK  
MADISON SQ. GARDEN DEC. 1913 BRED AND OWNED BY  
E. B. THOMPSON AMENIA, N. Y.

The regularity with which E. B. Thompson, Amenia, N. Y., captures the principle prizes at Madison Square Garden, N. Y., with 'Ringlet' Barred Rocks has made him the recognized leader in the production of quality in this old and popular American production. His record on males alone has been most remarkable and for three years in succession he has won all prizes offered on cockerels. In addition to this he won all five prizes on pullets at the last Garden show which was the second time that the 'Ringlets' had accomplished this feat. Mr. Thompson has issued an interesting little booklet on Ringlet eggs, that should be in the hands of all lovers of the Barred Rocks. It will be sent free to readers of A. P. W.

in Cleveland, August 8-10 inclusive of this year. The work was taken up earnestly by the committee, and Mr. Jackson and the two artists now are available to push this work along rapidly.

Help is to be asked for from specialty clubs and foremost successful specialty breeders who are members of the American Poultry Association and every effort will be made to have these Separate Breed Standards supplement the provisions, descriptions and illustrations of the main Standard so that these books respectively can be used with general success for the selection and mating of standard fowl—the kind of fowl that meet the requirements of the American Standard of Perfection and that will be competent to receive high scores and win the prizes at poultry exhibitions, small or large.

The foregoing committee consists of E. E. Richards, Cedar Rapids, Iowa, Arthur C. Smith, St. Paul, Minn., W. R. Graham, Guelph, Ont., Canada, W. S. Russell, Oakland, Calif. and Grant M. Curtis, Buffalo, N. Y.

**EDITORIAL NOTES**

The following news note has been sent to the poultry press from the Publicity Department of the Missouri State Poultry Experiment Station, Mountain Grove, Mo.: "The Missouri State Poultry Board met at the Experiment Station in Mountain Grove on March 23-24 and accepted the resignation of Mr. T. E. Quisenberry, who has been director of the Station since its establishment five years ago, and elected in his stead Prof. C. T. Patterson, formerly pathologist at the institution." Mr. Quisenberry is president of the American School of Poultry Husbandry, with offices at Kansas City and Mountain Grove. Lately he has accepted the editorship of Poultry Culture. This poultry journal formerly was published at Topeka, Kansas, Associated with Mr. Quisenberry is Victor O. Hobbs. For several years Mr. Hobbs has been editor of Useful Poultry Journal, formerly

published at Mountain Grove. This journal has been combined with Poultry Culture and the "new" Poultry Culture is in excellent hands. Mr. Quisenberry is to secure and furnish "copy" for Poultry Culture and Mr. Hobbs will act as business manager, so we understand. Here is a strong combination and we wish them the best of success.

A. P. W. has been favored with a 1916 copy of "Rhode Island Red Hen Tales," the official Year Book of the Rhode Island Red Club of America. Probably we have W. H. Card, secretary-treasurer, to thank for this favor. B. H. Scranton, Rising Sun, Ind., is now president of the Rhode Island Red Club of America—and a better man could not have been chosen for the place. Lester Tompkins, Concord, Mass., is vice-president, and E. L. Prickett, Hazardville, Conn., is election commissioner. Following are the members of the Executive Committee: D. Scott Quintin, Petersburg, Va.; J. W. Simmons, Geneva, Ohio; C. C. Loomis, St. Matthews, Ky.; A. A. Carver, Seville, Ohio; Harold Tompkins, Concord, Mass.; Ira M. Crowther, Willoughby, Ohio; Dr. C. R. Watson, Miller, Nebr.; Henry W. Alt, Buffalo, N. Y. "Red Hen Tales" is an unusually valuable "Year Book" and a copy should be in the hands of every man and woman in the United States and Canada who is interested in this deservedly popular standard breed—the third great addition made by America to the world's races of domestic fowl, the other two being the Plymouth Rocks and Wyandottes. To this galaxy must be added the Buckeyes, a breed that is growing steadily in popularity.

One of the neatest and most impressive poultry catalogues published for 1916 so far as they have come to our hands, is the 1916 mating list of Sheffield Farm, Glendale, Ohio, specialty breeders of the Premier Strain of Partridge Wyandottes. H. B. Hark is manager of the poultry department of Sheffield Farm. Additional to Partridge Wyandottes of prime exhibition quality, they breed Rouen Ducks and White Guineas. Of late years Sheffield Farm, under the management of Mr. Hark, has moved into the front rank as headquarters for choice standard-bred Partridge Wyandottes. Undoubtedly they own one of the two or three best and most reliable strains in North America. Furthermore, they are strictly reliable—and on that basis we endorse them unreservedly to readers of A. P. W.

One of the handsomest, most interesting and most convincing catalogues of standard-bred fowl ever published in this or



**COCK OF THE WALK**

The Blue Andalusian cock shown above carried off first honors at the Panama-Pacific Exposition, November, 1915. He was exhibited and is owned by John McKibbin, Willoughby, Ohio, specialist in the production of high class Blue Andalusians.

**\*\*\* We believe A. P. W. is the best poultry magazine published. What is your opinion? \***

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Beginning May 1st, our regular price for S. C. White Leghorn and White Rock Hatching Eggs will be reduced one-half. Regular \$10 setting from best pens now \$5. Send for MATING LIST.

1st Cock, New York State Fair, 1914

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The Buckeye Incubator Co. 527 Euclid Ave., Springfield, O.



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any other country is that of Owen Farms, Vineyard Haven, Mass., Maurice F. Delano, proprietor, as same is now being mailed to the interested public. This catalogue is 9 x 12 inches in size and contains a large number of splendid illustrations, most of them by the world's two greatest poultry artists, Franklane L. Sewell and Arthur O. Schilling. Every reader of these words who is interested in any of the Owen Farm specialties should obtain a copy of this catalogue. Owen Farms, as our readers know, are breeding strictly high-class Buff and White Orpingtons, White Plymouth Rocks, White Wyandottes, S. C. White Leghorns and S. C. Rhode Island Reds. It will be an inspiration for you to handle and read this latest descriptive and sales book of the Owen Farms—probably the greatest pure-bred poultry establishment now in existence. Despite "war times" Mr. Delano is making a proud success of Owen Farms—and he has done it on the basis of manhood, truth telling and honest dealing. Probably no other man in the standard-bred poultry business gives better value in filling orders or treats customers with greater consideration. This is the solid foundation of the continued success of Owen Farms since the death of the founder, Wm. Barry Owen, some three years ago. Full credit for these methods has belonged to the present proprietor and manager. In his great work Mr. Delano is ably assisted by Frank H. Davey one of the "white fowl" wizards of the standard-bred industry in this country.

**CHOICE WHITE WYANDOTTES**

Fifteen years with one variety surely should put a breeder in position to know how to produce the choicest specimens.—specimens that not only rank high in Standard qualities but also prove valuable as producers of large numbers of eggs, as a breed must produce well if it is going to prove profitable to its owner. Fred C. Lisk, Romulus, N. Y., has been breeding White Wyandottes for fifteen years, and he has developed a strain that is noted both for high standard qualities and heavy egg production. Regarding his experience Mr. Lisk in a recent circular states: "The past year has proven the most successful of my fifteen years of breeding high class "bred to lay and win" White Wyandottes the best year in the amount of my my sales—the best in quality of stock I raised—the best for my many customers. "The third White Wyandotte cock at Madison Square Garden show, 1916, was hatched from eggs I sold. I have not showed any this past season, preferring to sell stock and let my customers do the winning, which is just as profitable to me and also gives me great

pleasure when I learn of my customers great success in the show room and laying pens. "For several years back I have given vigor the first place on my farm and now I am reaping the benefit. Every bird in my breeding pens is selected first for health and vigor. Eggs hatch good and chicks will live and grow. My stock is all raised on free range on my fifty acre farm and housed in modified open front houses. They are not pampered, but are made to hustle for their living, so are strong and healthy. My stock has won for myself and customers at New York, Boston, Chicago, Indianapolis, Baltimore, Pittsburgh, Easton, Rochester, Auburn, Syracuse, Buffalo, Elmira and many other large shows. I can say without fear of contradiction that my matings this year are the best I ever had, in fact visitors to my place frankly say that they never saw so many high class White Wyandottes."

We can endorse every statement of the above quotation. We know that Mr. Lisk's customers are meeting success and we also know that his birds are constitutionally strong and vigorous, productive of high Standard quality. Readers of A. P. W. wishing to take up this variety or improve their own stock should look up Mr. Lisk's announcement on another page and note the great reduction in prices of hatching eggs from his best matings. Customers in the past have produced winners from eggs from his yards. You can do as well. Why not give them a trial!

**THE FAMOUS VIGOROUS STRAIN**

Attention is directed to the advertising of the Homestead Campine Farm, Wayland, Mass., on pages 555-579. This farm has produced some of the country's choicest productions in Silver Campines and has succeeded in building up a flock that is known from one end of the country to the other as the "Vigorous Strain". The Homestead Farm productions have not only proved their right to the name Vigorous but they have also proved to be prolific layers of large white eggs maintaining the reputation established in Belgium, their native land where they are commonly referred to as "Everlasting Layers". C. A. Phipps, owner of the above farm is very enthusiastic over his favorites and is doing much to extend their popularity in America. He has just issued a beautiful catalogue containing an insert in natural colors of one of his winning males. Every lover of the Campines should secure a copy of this book. It will be sent free to all who mention A. P. W. when making request.

**HERING INSTALLS MAMMOTH INCUBATOR**

Recent advice from Frank E. Hering, South Bend, Ind., states that he has installed a Mammoth Incubator and Brooding system. We understand that this step was made necessary by the extraordinary demand for the Hering Silver Campines and S. C. White Leghorns. The former are known as the "Green Sheen" strain and the latter as the "Frost White" strain. Both varieties under the careful handling of Mr. Hering have made remarkable records in the leading shows and are recognized today as one of


the leading strains of these popular varieties in the middle west.

On page two of the cover, of this issue Mr. Hering has an announcement that should interest all readers interested in either Campines or Leghorns. He is making a big reduction in the price of hatching eggs from his best matings making it possible for our readers to obtain this quality stock at prices that are no higher than some breeders ask for utility eggs. Better look it up and if a few settings are desired order direct from the "ad" thus saving valuable time. Late May and June hatched birds can be made profitable and are raised without half the trouble of earlier hatched chicks.

**\*\*Tell us what you think of A. P. W. We appreciate good words from our readers.**

**\*\*Ten cents sent at our risk will bring A. P. W. on trial for four months.**

**KEYSTONE POULTRY FARM** S. C. White Leghorns, R. and S.C.R.I. Reds, White Rocks. None better anywhere. SEND FOR FREE CIRCULAR. **GUY E. SCHREEF, Mgr.** LINCOLN, NEBR.



## RAISE TWO CHICKS

For every one you counted on. Don't spend good money

and time to hatch chicks and then lose them before you get any profit.

**CONKEY'S LICE POWDER** dusted on the setting hen gets the body lice before the chicks hatch out, and keeps them off the delicate chicks. 25c.

**CONKEY'S BUTTERMILK STARTING FOOD** is great for the little fellows. Makes them husky. Keeps off disease. Buy a Bag, \$1.00.

**CONKEY'S GAPE REMEDY** should be ready against the appearance of the choking gape worm. 25c, 50c.


**CONKEY'S WHITE DIARRHEA REMEDY** in the drinking water keeps out this contagious, fatal disease. 25c, 50c.

**CONKEY'S HEAD LICE OINTMENT** rubbed on the chick's head gets those murderous head lice. 25c.

**CONKEY'S POULTRY TONIC** keeps all birds in vigorous health all year 'round. 25c, 50c.

Resolve to save your chicks this season. Put a Conkey Corner in Your Poultry House.

**THE G. E. CONKEY CO.**  
1004 Conkey Bldg., Cleveland, Ohio



# Homestead Silver Campines

## The Vigorous Strain

- AT THE BIG BOSTON SHOW, JANUARY, 1916.**  
At the largest winter show of the season—cock, 1-2-3-5-6; hen, 1-2-3-4; cockerel, 1, 3, 4; pullet, 1, 3, 5, 6; 1st and 2nd exhibition pen, 1st display, special for best cock, hen, cockerel, pullet and pen.
- PALACE SHOW, NEW YORK, 1915.**  
At the second largest show of the season, Frank L. Platt, Judge—1-4 cocks, 1-2 hens, 1-5 cockerels, 2-4 pullets, 2nd exhibition pen, 1st display, special for color and type, 1st hen, special for color, 1st cockerel.
- NEW YORK STATE FAIR, 1915.**  
The first big show this season—2nd cock, 1st hen, 3-5 cockerels, 2-3 pullet, 1st old exhibition pen, 2nd young exhibition pen.

**WON AT BOSTON, 1915.**  
Thirteen regular prizes—four firsts, special for best display best cock, hen, cockerel and pen. The comment on the quality and condition of our birds at the above shows was universally—WONDERFUL! We have many more good birds at our HOMESTEAD CAMPINE FARM and if you are interested we shall be pleased to send you one of our new catalogues. Our aim always is to give full value and satisfaction. We would suggest to our prospective purchasers they book their orders as soon as possible that they may not be disappointed for from present indications, the demand for both hatching eggs and stock will be greater than the supply.

We have mated about twenty pens for 1916 all headed by prize winners and we are giving our patrons the full benefit of every prize winner and not a single egg is shipped from our farm that we would not use for our own purpose.

**Homestead Campine Farm, Box W, Wayland, Mass.**



## STANDARD REQUIREMENTS OF SPECKLED SUSSEX

By A. O. Schilling

(Continued from page 537)

coincide with our own. We have found that in using males possessing heavily stripped hackles and saddles that these individuals will have a tendency to produce stripped ground color in females. In our opinion this seems quite natural. For the following reasons it is generally known that the corresponding female color to a black red male is one showing a surface color, on back particularly, having fine stippling and penciling. This female color characteristic appears in all breeds in which the males have a tendency towards striped hackles such as Brown Leghorns, Silver Penciled Wyandottes, Dark Brahas, etc. In pointing out this natural characteristic in the pattern of female plumage, no doubt the reader will understand that if we were to require a Speckled Sussex male to possess a heavily black striped saddle and hackle, our females would persistently appear with faulty ground color showing the undesirable stippling which now is found so common among average quality Speckled Sussex females. Probably the next most important breeding quality to consider in the mating of Speckled Sussex would be undercolor. The relation of undercolor to surface color plays an important part in the breeding of all fowls, yet at the same time, it is not our desire to impress the reader that Speckled Sussex should be judged by the quality of their undercolor in the show room. In the mating of Mille Fleur Bantams, we have found that the desired undercolor is one which shows a fair amount of slate extending from the surface color towards the base of feather and then gradually shading into salmon color until it is practically white at extreme base. It is a difficult matter to make an exact description of undercolor to fit all sections as the amount of slate, salmon color and white will vary in its distribution, relative to the section of body referred to, but in a general way we have found that all three colors, white, salmon and slate should appear in the undercolor just as white, red and black appear in the surface color. Our experience in breeding this color pattern has proven that when specimens are bred together which have very little slate in the undercolor and a fairly large amount of salmon, we have found that the black bar at end of feather on surface had a tendency to diminish. On the other hand we have found that specimens having an overdose of slate lacking in the salmon or red color, these specimens in almost every instance had the black bar at end of feather on surface too large.

The principle in practice proves itself. In breeding for too much red, or salmon in undercolor, the black on surface disappeared. On the other hand in breeding for too much black slate in the undercolor, the black increased to too large an extent on the surface. As previously stated it is impossible to lay

down a steadfast rule for the exact description of proper undercolor, as oftentimes practically no salmon and reddish buff will appear in some sections, but our main object has been to avoid specimens having extremely dark slate undercolor. If it is of soft slaty blue or with a slight tendency toward white, or greyish buff it is a safe color to use. It will be found that Speckled Sussex on account of having white skin and as previously stated a large percentage of the infusion of the blood of white fowls in their make-up, white feathers persistently make their appearance and for this reason it should be the aim of breeders to eliminate this undesirable characteristic by selection. However, it is our opinion that this will only be accomplished by continuous selection of specimens possessing a fair amount of strong colored wings and tails. It is quite evident that specimens possessing solid white feathers in one or more sections of their plumage that this characteristic will also appear in other sections resulting in the numerous large white splashes in hackle and saddle and other parts of surface color which we find so prevalent in the present day Speckled Sussex. This is our reason for objecting to a Standard which would require solid white feathers in tail and wings and from our own experience and of other Sussex breeders, we have found that this practice is beginning to tell and that better tails and wings are being produced every year, without the loss of the required white spangling.

Owing to the fact that this breed has received the attention of fanciers and specialty breeders only in recent years with the object of improving color, the offspring from certain matings may be apt to show considerable variation. This is due to the fact that the color and marking if not permanently fixed and established by years of selective mating it will require persistent and continued effort on the part of careful breeders to establish this characteristic. In due time specimens will begin to reproduce themselves more faithfully as the blood lines are cleared up and desired characteristics established. It is really remarkable to see how well and how thoroughly this marking is established in the Mille Fleur Bantam of the present day. We have specimens that have feathers showing the white tip with the black bar next to the red or golden buff surface in practically every section of the plumage extending from the smallest feather on top of head to the minutest fluff feather upon thighs and lower parts of body. We are of the opinion that this color type is a very old one in Bantams and if these excellent results have been accomplished by Bantam breeders, there is every reason to hope that breeders of Speckled Sussex can do likewise. It seems to be a natural feather pattern to domesticated poultry and when perfected will be one of the most beautiful and striking in all poultrydom.

No doubt a difficult problem confronts breeders of Speckled Sussex in selecting specimens as desirable breeders for the

reason that well marked specimens are none too numerous and that common faults will be found in the best of them. In order to be successful in producing exhibition specimens, much judgment will be required in the selection of specimens to produce the desired results. Certain individuals having well marked plumage in some sections will lack or fall short of Standard requirements in other sections. The breed being a tri-colored one, presents many problems to solve by the breeder in establishing matings that will nick well together, one defect or good quality counterbalancing the other. We have pointed out in the fore-part of this article, some of the most undesirable qualities to eliminate, yet at the same time it seems impractical to lay down a steadfast rule or to set forth a certain definite plan to follow in making matings. As previously stated, even the best specimens found in this country today are apt to be deficient in certain qualities and it will require plenty of good judgment which can only be solved by studying the specimens carefully and taking into consideration the influence of one color characteristic one upon the other, in order to create a well balanced mating. For example, we have a male that has a beautiful well spangled saddle and hackle, but he may show main tail feathers that are pure white except 5 or 6 out of 14, which carry considerable black color. While this is considered rather a poor tail still if he has other redeeming qualities you may be justified to use him in the breeding yard if mated to females having strong colored tails.

The most common faults to avoid in the selection of breeders are heavily striped hackles and saddles in males, specimens showing too much dark slate undercolor and practically lacking in salmon or red undercolor. It will be found that these heavy undercolored males will generally have so large a black spangle on breast plumage that very little red ground color appears on the surface between these spangles resulting in an apparent black breast spangled or tipped with white on feathers. A male that is a good female breeder should not have the black spangle too large. The fact is the black spangle should be sufficiently large enough to be plainly visible, yet small enough to, allow the upper part of the surface plumage of each feather which is rich red to appear. The fact is the ideal male breast should resemble that of the female breast, except that the black spangles as a rule will be somewhat larger on each feather than those of the female. Up to the present time, we have found very few Speckled Sussex males even among the specimens shown at last winter's exhibitions which really had breasts resembling the female and in nearly all cases as previously pointed out, the black spangle was too large.

A theory was offered by several breeders that if black is to be increased in tails and wings that such breeding would result in too much black in breast and back plumage. We have not found

**SLADE'S BUFF ORPINGTONS**

EGGS HALF PRICE:

For balance of season eggs from my best matings two sittings for \$5.00. Order direct from this ad, and save time. Orders filled promptly for any quantity.

H. W. SLADE,

Box W,

NEWARK, N. Y.

this to be so in our experience and we recall several specimens shown last season which had plenty of black in tail and wings that also had a good amount of red in surface of breast plumage. We recall particularly a young cockerel shown by Mr. Rawnsley at the recent Madison Square Garden Show. Contrary to this advance theory we have proven to ourselves that it is a matter of the equal distribution of black, red and white over the entire plumage of the body and this applies to undercolor also as previously pointed out. The stronger this tendency is established as a dominant quality, so much better marked will Speckled Sussex be when this is done.

A few words regarding shade of red in surface of male and ground color of female. In order to retain the beauty of this breed which has as its main qualification the striking contrast of three colors, deep rich red as a ground color and black and white distributed over same as contrast. In order to retain this contrast a shade of red ground color which is too dark would naturally detract from the breeds general appearance. In our opinion a shade of red color that has enough richness and stability to be beautiful and striking would be the proper sort to establish as the ideal. We do not advise breeders to aim at a lemon color in the male saddle and hackle as lemon colored males will produce females that have a washed out or grayish buff effect in surface color. The most desirable shade of color is one which we would describe as a lustrous dark cherry red. Males of this color should produce females that have plenty of pigment and strength of color in their surface plumage to withstand exposure to sunlight throughout the summer months without much apparent fading.

Shaftiness in the ground color of females is another undesirable quality which should receive considerable attention in selecting breeders. We believe that the use of males having lemon colored hackles are very apt to produce shafty surface colored females. One of the most important characteristics to consider when selecting promising cockerels from the flock especially for breeding purposes, is the fact that specimens which in their cockerel plumage show very little white spangling, will during their second moult into cock plumage show an increased amount of white spangling. As youngsters these cockerels may only show slight indications of white spangling, but will have a large amount of red surface plumage. We have found these individuals to be very desirable to hold over as promising specimens for show purposes as cock birds. Among the pullets which are intended to be kept over as exhibition hens, those specimens showing very small white tipping at end of each feather are the desirable ones to retain for this purpose. The natural tendency for this breed is to increase the amount of white plumage from year to year, still at the same time we have known instances in Mille Fleur Bantams where females in their third year moulted a large amount of white spangling, in fact too much to make them desirable as exhibition specimens, but in their fourth year, they seemed to come back

to their original first year hen plumage and the over abundance of white which appeared in their third year had disappeared to the proper proportion.

There seems to be exceptions to nearly all rules, but the average majority in all matters should determine final results in establishing definite decisions as a safe guide to follow for future use in the breeding yard. During the Annual Meeting of the Sussex Club held in connection with the Chicago Coliseum Show last winter, the writer offered the motion which was adopted, to the effect, that all breeders of Speckled Sussex should make notes

of the results obtained from special matings during the present breeding season, the object being to present these observations by the various breeders at the next annual meeting for comparison mainly from an educational standpoint. It is our opinion that we could all learn from one another in benefiting by another's experience.

We have much to learn about the breeding of pure bred poultry and no doubt this plan would reveal many breed characteristics and tendencies to a brother fancier, which otherwise would probably never occur to him during his

(Continued on page 606)

# OWEN FARMS

**BUFF AND WHITE ORPINGTONS  
S. C. RHODE ISLAND REDS  
WHITE PLYMOUTH ROCKS  
WHITE WYANDOTTES and  
S. C. WHITE LEGHORNS**

Are fully described in

## MY NEW CATALOGUE

You will find in this profusely illustrated 56 page book complete description of

**My Farms,  
Flocks,  
Wonderful Winnings,  
Business Methods,  
Absolutely Fair Guarantee,  
Prices on Stock and Eggs,  
Unequaled Matings,  
Unexcelled Utility Qualities,  
Location.**

A careful reading of this book will make you an Owen Farms customer. The results you will obtain from stock or eggs will make you my permanent customer.

### EGGS WILL BE HALF PRICE AFTER MAY 10th.

Making eggs from my BEST MATINGS as they are on hand \$5.00 for 15; \$9.50 for 30; \$15.00 for 50; \$25.00 for 100.

From my GRAND SECOND QUALITY MATINGS, \$2.50 for 15; \$7.50 for 50; \$12.50 for \$100.

Send in your order at once and secure earlier delivery than if you wait. You will receive my Catalogue and Mating List, exceptional quality for your money, and remain my permanent and satisfied customer.

**393 OWEN FARMS BIRDS** have won **FIRST PRIZES** at **MADISON SQUARE GARDEN, NEW YORK**, as far as competition from other breeders is concerned. **NO SIMILAR RECORD HAS EVER BEEN MADE BY THE BIRDS OF ANY OTHER BREEDER IN ALL THE WORLD.**

## OWEN FARMS,

**115 William Street, Vineyard Haven, Mass.**

**MAURICE F. DELANO, Proprietor. FRANK H. DAVEY, Superintendent.**



# EDITORIAL NOTES AND COMMENT

By WM. C. DENNY, Associate Editor

Announcement is made that Reese V. Hicks, the popular and well known Business Manager of Rancocas Poultry Farm, Brown's Mills, N. J., will personally take over the breeding and mating of Exhibition S. C. White Leghorns and White Rocks formerly attended to by M. L. Chapman who on March 1st, resigned to accept a position as Superintendent of Wilburtha Poultry Farms. In referring to Mr. Chapman's resignation Mr. Hicks writes as follows:

"Of course, I very much regret to lose Mr. Chapman's services. On the other hand could not overlook the splendid opportunity before him at Wilburtha Farms and the only thing to do in justice to him was to let him accept the splendid opportunity with Mr. Fisk. I will personally take over the breeding and mating of the Exhibition White Leghorns and White Rocks for the balance of the season Mr. Chapman had already mated up the pens and everything was in shape and the mating list finished."

Rancocas Poultry Farms is known as the Million Egg Farm. Last year the S. C. White Leghorns on this establishment produced more than one million eggs. Thousands of these eggs were furnished to the large hatching establishments throughout the country while many thousands of baby chicks were sent to a long list of Rancocas customers. Mr. Hicks states that all baby chicks sent out by Rancocas Poultry Farm are produced from eggs laid at the farm. Elsewhere in this issue readers will find Rancocas Poultry Farm's announcement which is well worth reading by those who intend to invest in hatching eggs or baby chicks.

Chas. J. Fisk, Owner of Wilburtha Poultry Farms, Trenton Junction, N. J., announces the appointment of M. L. Chapman as Superintendent of his poultry business. In obtaining Mr. Chapman's services Mr. Fisk has secured one of the most competent and best known poultrymen in America. Mr. Chapman for several years has been in charge of the Exhibition Department at Rancocas Poultry Farm, where he succeeded in building up an extensive business and established an unusual show room record in exhibition S. C. White Leghorns and White Plymouth Rocks.

At Wilburtha Mr. Chapman has a rare opportunity as Mr. Fisk is desirous of establishing a poultry plant second to none and Mr. Chapman will have his enthusiastic and substantial co-operation towards that end. Already Wilburtha S.

C. White Leghorns, S. C. Buff Leghorns, Columbian Rocks and Columbian Wyandottes have established an enviable show room reputation. To these four popular varieties S. C. Rhode Island Reds have recently been added.

Assisting Mr. Chapman will be D. J. Keyler. Mr. Keyler will have charge of the Columbian varieties while Mr. Chapman will take active charge of the mating of the Leghorns and Rhode Island Reds as well as have general supervision of the plant.

Mr. Fisk has issued an interesting and helpful mating list describing in de-

think, speaks well of our way of sending out stock, which is all shipped on approval.

"We have sent stock into every section of the United States and many specimens into Canada, and in nearly all instances have letters expressing satisfaction from customers. This of course is gratifying to us as we believe a satisfied customer is our best advertisement.

"The egg trade is starting in fine,—and we believe we are giving the best values on earth. Smaller profits and more and better customers is our motto."

The Princess Strain as the Wadsworth and Caster Reds are known have a splendid show room record at foremost poultry shows in the Empire State where competition in Rhode Island Reds is keen and quality of the very best.

## WALTER J. COATES LIKES THE APRIL COVER DESIGN

East Calais, Vt., April 18, 1916.

American Poultry World,  
Buffalo, N. Y.

Having studied and line-bred Andalusians for seven years, I want to congratulate your Journal on the splendid series of write-ups and publicity afforded the Blues in your issue for April. Blue Andalusians deserve all you can say for them, and you certainly deserve the thanks of all our breeders. Artist Schilling's ideal male—see April cover design—is a revelation. As a breeder and exhibitor I have long had a mental picture of what the ideal Blue male should be. The official cut in the 1915 Standard was a disappointment to us all. Mr. Schilling has caught the mental picture and transferred it, glistening with life and color, to the printed page "Coronat Opus."

Sincerely yours,

Walter J. Coates,

Breeder of the Kinsbury Strain of Blues.

tail the matings for 1916. A copy of this interesting booklet may be obtained by addressing Wilburtha Poultry Farms, Dept. F, Trenton Junction, N. J.

The following taken from a recent letter from E. A. Wadsworth of the firm of Wadsworth & Caster, Wolcott, N. Y., specialty breeders of S. C. and R. C. Rhode Island Reds, is one of the many recent reports of improved business received from A. P. W. advertisers:

"This has been the best business year of our experience, and the most satisfactory part of it has been that all of our customers seem satisfied. In our four years in shipping Rhode Island Reds to all parts of the United States we have had only one bird returned. This, we

Through the courtesy of S. C. Babble, the capable and energetic Secretary of the National White Wyandotte Club, A. P. W. has received a copy of the new 1916 Club Year Book, a businesslike and attractive book of 72 pages. The numerous articles devoted to the care and feeding of White Wyandottes and club work, including a report of the annual meeting and a review of the White Wyandotte winners at the Club Show by J. W. Andrews, Dighton, Mass., who placed the awards, should prove interesting to all who breed and exhibit this popular variety.

The financial condition of the club is a tribute to the management of Mr. Babble. On his election as Secretary in January, 1915, there was a deficit of \$5.73. From that time until the annual meeting held November 18, 1915, receipts had amounted to \$864.10 and disbursements \$708.20 leaving a balance on hand of \$155.90. The success of a specialty club rests largely with the Secretary and the National White Wyandotte Club is fortunate indeed in having "discovered" Mr. Babble as well as for its good sense in re-electing him for the current year. The officers of the club are as follows: President John S. Martin, Port Dover, Ont.; Vice-President J. W. Andrews, Dighton, Mass.; Secretary-Treasurer S. C. Babble, New Cumberland, Pa.

The Year Book was printed by the job department of Poultry Item and is one of the many examples of good work put out by this concern. A copy may be obtained by addressing Secretary Babble.

During the past two or three years the rapid improvement in the quality of Rose Comb White Leghorns has been so noticeable that the breeders of the single comb variety, as well as judges, have begun to manifest an interest. This has



## FASHION PLATE BUFFS

Trap-nested for heavy egg yield, line-bred for vigor and to win—three in one, a triple value not found outside the FASHION PLATES.

We have the cleanest lot of Head line breeders—February and March hatch that were ever offered. Exhibition birds sold at real value, conditioned and trained without additional cost.

Tested breeders that have the blood lines to produce the best. Utility fowls raised from trap-nested families, at almost food prices—all sold guaranteed to please.

Send for the FASHION PLATE BOOK illustrated from cover to cover, contains description of all surplus stock with price attached; matings, eggs for hatching, etc. FREE.

A. E. MARTZ,

(Buff Orpington Specialist)

Box E,

ARCADIA, IND.



been especially true where some especially fine specimens have been exhibited in the larger shows.

In order to attract more, and more interest it is necessary to continue the rapid improvement in quality until such a time as the Rose Comb White Leghorn class compares favorably with the single comb class. It can be done but it requires careful study, more severe culling and smaller matings.

Undoubtedly in the past, judges who passed over any bird with a large comb regardless of other quality, have done much harm for that led to breeding for small combs and often meant that a bird excellent in type, color and vitality was discarded in favor of a specimen that had nothing but a good comb. Every breeder knows that it is much easier to start with a good, all around bird with a poor comb and improve the comb, than it is to start with nothing but a good comb and breed all the other required characteristics. This condition is much better now for judges have commenced to put type first, where it belongs, and the result is that type is becoming established and combs are being improved as well. It is only a matter of time when we shall have Rose Comb White Leghorns that are in every respect the equal of the single comb variety.

I would strongly advise my fellow breeders not to discard the bird of fine type, even though it has a poor comb, in favor of the bird with fine comb and no type unless you have females of a splendid type to mate with him and then do not use him the second year but use your best young male bird to mate back to the dam. In this way only, can you improve your stock each year. May we get fanciers and utility breeders more interested each year. They are commencing to buy now. A. F. Almendinger in National Rose Comb White Leghorn Club Spring Bulletin.

Harlo J. Fisk, well known to A. P. W. readers as a S. C. White Leghorn Specialist has followed the advice that Horace Greeley gave to the young men of a half a century ago, and moved west where he has located at Oconomowoc, Wis. Mr. Fisk has accepted the position as General Manager of the Pabst Stock Farms, especially noted for its Holstein Cattle, Hackney Horses and Hackney Ponies, as well as its poultry, S. C. White Leghorns and S. C. Rhode Island Reds.

Mr. Fisk's experience with S. C. White Leghorns extends over a period of fifteen years, while he was Superintendent of Skylands Farm, Sterlington, N. Y., and later, on his own place at West Springfield, Mass. During this time Mr. Fisk's entries have been successful in winning a long list of prizes at New York, Boston and Buffalo Poultry Shows.

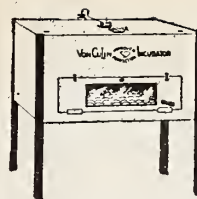
To the splendid collection of White Leghorns already at Pabst Stock Farm, Mr. Fisk has added all of his own birds, giving this farm one of the finest collections of this variety in America. A new poultry catalogue showing numerous illustrations of S. C. White Leghorns

and S. C. Reds now on this farm, and different views of the poultry plant, together with information regarding matings, prizes, etc., has just been published and will be sent to those who ask for a copy.

The reader will better understand the extent of the Pabst Stock Farm when it is stated that they consist of over 1,300 acres and that over 200 head of Holstein Cattle are kept on hand. Oconomowoc is on the main line of Chicago, Milwaukee, and St. Paul railroad, thirty miles west of Milwaukee and 118 miles northwest of Chicago. Visitors are welcome at the farm at all times and Mr. Fisk will be especially pleased to hear from and see his friends and former customers as well as those of Pabst Stock Farm.

Fred C. Lisk, of Romulus, N. Y., well known breeder of Lisk's "Stay-White" Strain of White Wyandottes sends us a letter from one of his customers Frank W. Floyd, of Troy, N. Y., who writing under date of April 19th, 1916, reported results from five pullets recently purchased from Mr. Lisk:

"Dear Mr. Lisk: My pullets are doing fine. They laid 105 eggs during the month of March and I now have over 100 young chicks from this mating. They are all strong and lusty chicks." Additional to their Standard qualities, the Lisk Strain of White Wyandottes is renowned for its prolific laying as well as its vigor and vitality. Mr. Lisk is offering eggs at reduced prices for the balance of the season and we suggest that A. P. W. readers who are interested look up his offerings elsewhere in this issue.



**Von Culin Incubator**  
The oldest make on the market. The latest up-to-date incubator. Made of sheet metal. Double and packed walls. Light and compact. Equipped with Von Culin Fireproof Lamp. Thermometer slides thru door. Price to compete with inferior makes. Catalog No. 14 free. GED. WATSON BEACH, Mfr. 126 Liberty St., New York.

**BARRED PLYMOUTH ROCK FIRST PRIZE COCKEREL**



**New York**  
(Palace Show)

In a Class of  
28 Competing

Others advertise big winnings where there is no competition, which means nothing, but our NEW YORK VICTORY speaks volumes for the quality of our birds.

**STOCK AND EGGS FOR SALE.**

The World's Best.

SEND FOR MATING LIST:

**SAMUEL WILLETTS,**

Brighthome Farms, Roslyn, L. I., N. Y.

\*\*\* Send us the annual subscriptions of two friends or neighbors and get your copy one year gratis.



**Sweeping Reductions**

Lower Prices Each Week

Beginning May 1st, we reduce every Leghorn chick 1/2 cent each week—all other breeds 3/4 cent each week. **Every Week a Reduction.** For example: Barred Rock Chicks shipped during the week of May 29th will only cost you \$14.25 a hundred—5 weekly reductions of 3/4 cent each from April prices.

Remember, these are actual reductions, made possible by greater hatchings of the famous, pure bred

**PITTSFIELD DAY-OLD CHICKS**

**APRIL PRICES**

(from which to figure reductions)

	For 25	For 50	For 100
Barred Rocks.....	\$5.00	\$10.00	\$18.00
White Rocks.....	5.00	10.00	18.00
S. C. Rhode Island Reds....	5.00	10.00	18.00
S. C. White Leghorns.....	4.25	8.50	15.00
White Wyandottes.....	6.00	12.00	22.00

**GET YOUR ORDER IN EARLY**

At these prices, pure-bred Pittsfield Chicks are sure to go fast. Tell us the breed you want—how many—when to ship.

**PITTSFIELD POULTRY FARMS CO., 276 Main St., Holliston, Mass.**

**PARTRIDGE ROCKS**

BIRD BROS.

AMERICA'S PROVEN CHAMPIONS, Stock and Eggs for sale. Catalogue giving price of stock and eggs and full details of our GREAT MADISON SQUARE GARDEN PRIZE RECORDS. Box 14,

**BRONZE TURKEYS**

MYERSDALE, PA.

For the good of all concerned, the publishers of the American Fancier should abandon their practice of publishing anonymous articles or those signed by a non-deplumè or some signature that means less, and especially that class of articles that directly attack or falsely insinuate against men and motives. A coward is he who lacks the courage to sign paragraphs or articles that accuse men of acts which if true would lower them in the esteem of their fellow men. Writers who do this are akin to the sneaking coyote of the plains and the curs of the alleys that run out snapping at your heels as you pass down the avenue.

If a writer really believes in the accoutains contained in his contributions, he should be man enough to sign his own name and take the responsibility instead of hiding behind a signature that no one understands, unless it be the publishers. The day of this practice has gone by. Today most publishers refuse to print articles, particularly those of the black-guarding type, unless the writer comes "out in the open" and takes the responsibility and shows that he is courageous enough to "father" and sign his own productions.

—o—

To be the only woman possessing the title of Professor of Poultry Husbandry is a distinction enjoyed by Helen Dow Whitaker, Pullman, Washington.

Mrs. Whitaker is an enthusiastic poultry worker and possesses a wide knowledge of poultry subjects—a knowledge gained in the school of experience. No doubt, there are other women possessing as much knowledge of the same subject but do they possess the ability of imparting this knowledge to their fellow beings? Helen Dow Whitaker possesses this ability and has been putting it to such good use that the State College of Washington added her to their faculty and bestowed the P. P. H. degree upon her.

That her work is attracting wide attention is evidenced by the following from the pen of Walt Mason in the Sunday Magazine of the Buffalo Courier:

"At Pullman, Washington, she dwells, and teaches in the college there; and of the Helpful Hen she tells, with eloquence sublime and rare. The students clustre at her feet, and learn how hens have builded States; how chicken eggs and chicken meat make plutocrats of needy skates. And when their schooling's done they rush to start up egg works of their own, and then they gather in the cush, the yen, the kroner, and the bone.

"In modern years the hens are pets, and every rooster has its charm; for poultry pays the yeoman's debts and lifts the mortgage off the farm. And so we study hens in schools, and pass up Latin and Low Dutch, and with the diagrams and rules of chicken-farming keep in touch.

"The subject of this artless tale has studied poultry all her days; she's gathered honors, fame, and kale by showing how the business pays. She had some money of her own—two thousand wheels, to be exact—when to the country, all alone, from freece Chicago's wilds she tracked. She built some modern coops and pens, with window-lights and rain-proof thatch, and stocked them up

with queenly hens, and waited for the eggs to hatch.

"To tell of all the griefs and woes that made the tears roll down her face, the hopes deferred and things like those, would use up too much priceless space. She blew in all the coin she had, until she stood without a cent; then borrowed money from her dad, and blew that where the other went.

"But nothing could dismay her soul, or drive her from her chosen task, and so at last she won a roll that would have filled a good-sized cask. Instructive is the yarn and strange, suggestive of these hustling times; and now she teaches how to change the old hen's cackle into dimes."

—o—

#### COMMENDS A. P. W.'S POSITION

Pickering, Mo., April, 19, 1916.  
American Poultry World,  
Buffalo, N. Y.  
Gentleman:

On account of my changing location I have missed several copies of your excellent journal. The April issue has been handed me. You are getting up a snappy, up-to-date journal. The cover is commendable; your position as to honest dealings and honest advertising is the correct one. Keep a clean sheet, let the other fellow fling the "mud". It may splash a little, but it will come off all right.

Sincerely,

Edward R. Kelley.

—o—

#### DISINTERESTED COMMENT

"Commenting on the article in Reliable Poultry Journal regarding the Harrison-Penick case, Dr. Woods, editor of American Poultry Journal says in part: "Reviewing the lengthy and tiresome report of the Harrison-Penick case in December Reliable Poultry Journal we are reminded of the old saying of Scott, 'Oh what a tangled web we weave, when first we practice to deceive.'" Then Dr. Woods goes on at length commenting on the various articles by Mr. Curtis and all the way down the line seems to defend Mr. Harrison. Now we know nothing of the two men involved in this much talked of controversy. And we do not know which is to blame, Mr. Harrison or Mr. Penick, however, we have read practically all the evidence on both sides since the beginning and we have always thought that Mr. Penick did not get what we would call a square deal. Moreover we do know that Mr. Curtis' opinion which he expresses only after careful investigation in such cases as this one, is usually pretty near right. Mr. Curtis is, we believe doing as much for the advancement and protection of the poultry industry in America as any man and unless Dr. Woods has stronger argument than that appearing in March American Poultry Journal we shall not believe Mr. Curtis has any other motive at heart than that which is honorable and for the best interests of his fellowmen."—D. R. McBrayer, Industrious Hen, April, 1916.

\*\*\* What do like best about this issue of A. P. W.? Sit down today and write about it.

\*\*\* Why not send A. P. W. to a friend 10c pays for a four months trial subscription.

S. C. AND R. C. REDS THE CRIMSON STRAIN  
New York State Championship R. I. Red Club  
and Red Breeders Club. Winners New York  
State Fair, Grand Central Palace and elsewhere.  
Write for mating list and prices.  
CHINA HANCHETT, VERONA, N. Y.

## Axford Round Incubator

For forty years the Axford has stood the test and has a reputation second to none in artificial incubation. The original sand tray incubator supplies proper moisture to eggs. Simple and safe lamp. Oil supply always in sight. Will last a lifetime with good care. Round, no cold corners. Write for catalogue.

AXFORD INCUBATOR CO.,

735 E. 45th Street, Chicago, Ill.

**I**F YOU want to stop extremes in your incubator, clamp to it a Universal Heat-Check and your eggs are absolutely safe from too high heat. No more care or worry. Fits hot water or hot air incubators without a mar. \$1.00 each and guaranteed. Write for circular now, or send in your order at once to Universal Heat Check, Desk 109, Buffalo, N. Y.

## NIAGRADOT

Berlin, Ont., Jan. 7th, 1915.

Dear Mr. Marshall,

Am ready for eggs now. Can by past experience expect winners for early fall shows. Won 1-2 cock, 1-2-3 hen, 1-2 cockerels, 1-2-3-4 pullets here. Best cock in show and many specials.

A. S. UTTLEY.

BUY BIRDS OR EGGS AND DO LIKEWISE

Catalogue free. Eggs, exhibition \$5.00, Utility \$2.00.

MARSHALL & MARSHALL  
Box W. Niagara Falls, Canada.

## WHITE WYANDOTTES



For Greatest Satisfaction Use  
**DOUBLE SERVICE**  
**Automobile Tires**  
Guaranteed 7,000 Miles Service

**Absolutely Punctureproof**

Double Service Tires are made double the thickness of the best standard make tires.

This 100% greater wearing surface naturally gives that much more mileage and service. The average of 12 miles of tough fabric and one inch surface tread rubber makes these tires absolutely punctureproof.

These tires excel all others for use in the country over rough and rugged roads as well as on hard pavements. They are easy riding and resilient as any other pneumatic tire—the air space and pressure being the same.

They are the most economical and "care free" tires made and are used where tires must be depended on and tire troubles cannot be tolerated. Many Double Service style tires are in use in the U. S. government and European War service. Our output is limited to a certain amount, but for a short time we offer the following reduced special prices as an **Introductory Offer**:

#### PRICES

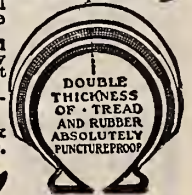
Tires Tubes		Tires Tubes	
30x3 in.	\$ 8.60 \$2.30	36x4 in.	\$17.45 \$4.65
30x3½ in.	10.85 3.10	36x4½ in.	21.20 5.60
32x3½ in.	12.75 3.20	36x5 in.	22.60 5.75
33x4 in.	15.75 4.20	37x4½ in.	23.60 6.20
34x4 in.	16.70 4.35	37x5 in.	26.30 6.60

All other sizes not included in above list also furnished. Non-skids at 10% additional.

Terms: Payment with order at above special prices, a 10% discount allowed on orders for two or more tires. All personal checks must be certified.

Try these tires now and be convinced of their very high qualities. Sold direct to the consumer only. Descriptive folder upon request. Write for it.

**Double Service Tire & Rubber Co., Akron, O.**  
Dept. PW



## THE RED VERSUS THE SPECKLED SUSSEX

A Well Known Ohio Breeder Who Has Had Two Years Experience With Sussex Draws Some Comparisons for the Benefit of A. P. W. Readers

By A. A. CARVER, Seville, Ohio

FOR the benefit of A. P. W. readers, many of whom are not familiar with the good qualities of the Sussex, I will endeavor to make some comparisons between the two great Sussex varieties, the Red and Speckled. Having bred both varieties of Sussex side by side and compared them from all points of view for two seasons, we perhaps can note something of interest to A. P. W. readers.

### Red Sussex Easier to Breed

First we find that the Red Sussex are going to be much easier for the amateur breeder to mate than the Speckled. The offspring will in very short time breed a large percent of true to color specimens possessing that rich dark mahogany surface color with plenty of brilliancy, showing no contrasty hackles. We have three matings of this quality and look forward to decided improvement in this season's progeny. Two of these pens are headed by cockerels produced from the

hen that won 1st at Forest City, Allentown and Ohio State Fairs. One of them we named "Wonder" and he is all his name implies for we have handled nothing to compare with him. An unshown bird that will be heard from next season.

According to our idea a Red Sussex should be one even shade of brilliant mahogany red, showing great lustre. Brilliancy of color is one of the outstanding features of a well bred Red Sussex male and I am frequently asked what I use on their feathers to make them glisten so. To this question I always reply that it is a matter of the proper mating and correct blood lines as little can be accomplished by haphazard matings. We must establish a line of breeding and stick to it.

We are after the dark undercolor almost black, showing no whitish mouse, or other foreign colors and we wish the primaries one solid slate color if possible, and no white feathers anywhere. A black tail, carried proper with the Sussex type as laid down by the club, makes one of the grandest show birds ever cooped in an American show room.

### Utility Features

Regarding the utility features of the Red Sussex I must say that never in all my life, have I seen such layers. It has taken me fifteen years to bring my Rhode Island Reds up to their present standard but these Red Sussex have given them a race for their very lives for winter layers the past winter. The pen headed by "Wonder" has simply outstepped everything on the farm and is the champion laying pen on Carver's Red Farm.

The Red Sussex are vertible giants in stature and vitality and lay a very large egg. We find them not so prone to set as Rhode Island Reds and they average about one pound heavier right through. They are very fast growers, consume a great amount of green feed and thrive on less grain than



FIRST COCKEREL, INTERNATIONAL CRYSTAL PALACE, LONDON, 1913.  
FIRST AS COCK, INTERNATIONAL CRYSTAL PALACE, LONDON, 1914.  
IMPORTED AND OWNED BY A. A. CARVER, SEVILLE, OHIO.

A. A. Carver, Seville, Ohio, who has achieved a very enviable reputation as a producer of Rhode Island Reds of quality has taken up the breeding of Sussex—Red and Speckled—and has already made rapid strides on the road to success. His importations have included some of the best produced in England. As an example of this we call attention to the Speckled Sussex illustrated above—a two times winner at the Crystal Palace, London, England's Premier show.

\*\*\* Send A. P. W. to a friend, on trial for four months. A dime will do it.

**WRITE Your Name on a Postal**

and get our 1916 Incubator Book FREE and postpaid. Shows why **Prairie State Incubators** "hatch most chicks that live." Contains chapter on Poultry Diseases, also on hatching and rearing. **PRAIRIE STATE INCUBATOR CO.** 202 Main Street, Homer City, Pa.

Leaders for 35 Years

**Grow your own Vegetables**  
Cutdown living expenses. Easy to save time, labor and money by using

**Planet Jr Garden Tools**

This No. 4 Planet Jr combined Hill and Drift Seeder, Wheel Hoe, Cultivator, and Flow includes practically every tool needed to plant and cultivate a large or small garden. Can be used by man, woman, or boy. Costs little. Lasts a lifetime. New 72-page Catalog (184 illustrations) free! Write postal for it.

**S. L. ALLEN & CO**  
Box 1202J Philadelphia



Will you spend a few cents to keep the chicks alive?

EVERY chick that dies cuts down profits. Is it any wonder that wise poultrymen insist on a feed which keeps the chicks alive, without fuss and without uncertainty?

That feed is H-O Steam-Cooked Chick Feed. Prepared from selected cut grains, it builds flesh and bone from the start. Being steam cooked, it is exceptionally digestible and nourishing. It is the ideal feed for chicks from 3 days till the chicks get their growth.

N. Y. State Bulletin No. 404 shows that

## H-O Steam-Cooked Chick Feed

is above our guarantee in protein and below the maximum allowed for fibre.

Try it on your next brood. H-O Steam-Cooked Chick Feed is put up in various sized sacks for convenience in use.

Write for free sample, prices and descriptive folder.

**THE H-O COMPANY** | **JOHN J. CAMPBELL**  
 Mills: | General Sales Agent  
**BUFFALO, N. Y.** | **HARTFORD, CONN.**

some varieties. Too much corn and heavy grain feeding seems to upset them and we have to be careful not to over feed too much solid grain. If properly fed they are a regular egg machine and when this fact is fully appreciated by American breeders, just keep your weather eye on the egg laying contests and see where the Red Sussex take them.

In conclusion we think Mr. F. L. Platt knew what he was saying when he told us under the big tree in Judge Gaults front yard several years ago that "The Red Sussex were the best thing he saw while abroad", and what he told us about them that day is what inspired us to take them on and we are mighty glad we did. Yes, indeed, we think Mr. Platt knew what he was doing when he took up the breeding of Red Sussex exclusively and the poultrymen of this country will find it out as the years roll by. Mr. Platt has taken a deep interest in the Sussex and our American Standard for them was prepared by him, and adopted by the American Poultry Association with but few changes. Another gentleman who has done much and is one of America's oldest and best friends to the Red Sussex is Judge Coburn who has imported some of England's best birds and is helping to popularize them in this country. The same is true also of Dr. Conrad of New Jersey.

**The Speckled Sussex**

The Speckled Sussex are hard to breed true to color but are the wonders of American show rooms. The most attractive fowl ever cooped, the fanciers fowl of all fowls. We dare say this fowl has caused more talk, greater interest and attracted more serious attention than any variety shown in years. We note in an English paper that the imports of this variety to America this year have exceeded all other varieties, and prices paid have been record breaking, the American importers paying enormous prices for quality. Thus the Speckled Sussex makes its debut into American show rooms with values exceeding anything ever before imported to America.

If there are those who doubt the above statements they should write Len Rawnsley and ask what he will take for "Tommy Atkins" or Mr. Williams what he will take for that great bird he bought just as winter set in, and some surprising figures will be forthcoming. To all those who wish one of the finest all around general purpose and fanciers fowl combined, and wish to get into the biggest fight in the show, also where the interest is going to be the greatest, the competition the hottest; where the eggs and stock are going to be in tremendous demand for years to come; in other words all who wish the center of the stage in the greatest poultry setting ever given the American people, take on the Speckled Sussex and they will not be disappointed. Its going to be interesting, with plenty of hard work and study, for the ideal show bird in Speckled Sussex will be hard to attain.

This is one of the strong features of the Speckled variety from a fanciers standpoint, for the good ones all bring fabulous prices, while with proper mating the Reds can be made to produce good saleable stock. We have not seen one person who has taken on Speckled Sussex but who is deeply interested with

them and pronounce them the best ever. We have heard wonderful reports of their laying qualities and while we have not tested them so thoroughly as the Reds we believe they are going to prove their equals as layers.

Such being the case we have a combination of the greatest meat and table fowl, eggs and exhibition fowl in all the world, and this is something the American poultryman has long been looking for. It has been hard heretofore to obtain a fowl strong in all qualities that go to make up an all around fowl. The Sussex solve the problem.

Here are the qualities the Sussex possess, as we have found them on Carver's Red Farm.

1. Wonderful layers (Especially so in winter when eggs are high in price.)
2. Eggs of large size bringing the highest market price.
3. Without a doubt the best table fowl in all the world, carrying meat of the finest flavor, and so considered by the best hotels in England. They have won the cup at Great Dairy Show, London, England, for the best dressed poultry for many years.
4. The quickest growing fowl we have ever had any experience with and best for early broilers.
5. Very hardy of an ironclad constitution and in cold winter weather they thrive and lay large brown eggs that bring high prices.
6. Have great size and still as active as a Leghorn and not leggy like so many large breeds. When a coop is shipped to market there is some weight to it and the check therefore is larger than for any other breed of chickens.
7. They are very easy keepers thrive



**A Good Night's Rest Be it East or West**

Whether your trip takes you East or West—break its monotony. Get one night of refreshing rest on a veritable floating hotel with every convenience for comfort and enjoyment. The great ship "Seandbee," the largest and most costly steamer on the inland waters of the world, and steamers "City of Erie" and "City of Buffalo."



LEAVE

**Fare \$3** Cleveland and Buffalo Daily: May 1st to Dec. 1st

Leave Cleveland—8:00 p. m. (Cen. Time)  
 Arrive Buffalo—7:30 a. m. (East. Time)  
 Leave Buffalo—9:00 p. m. (East. Time)  
 Arrive Cleveland—6:30 a. m. (Cen. Time)

Connections at Buffalo for Niagara Falls and all Eastern and Canadian points. At Cleveland for Put-in-Bay, Toledo, Detroit and all points West and Southwest. Railroad tickets reading between Cleveland and Buffalo accepted for transportation on all steamers. Ask your ticket agent for tickets via C. & B. Line.

Write for attractive booklet (free)

The Cleveland & Buffalo Transit Company  
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ARRIVE



Length, 500 ft.; breadth, 98 ft. 6 in. 510 staterooms and parlors accommodating 1500 persons. (In service June 20.)

\*\*\* What is your favorite breed? Just tell us all about it explaining why you believe them superior to others.

**DO YOU WANT WINTER EGGS?** Then secure some of Sands' Bred-to-lay S. C. White Leghorns. EGGS from Trap-nested Matings headed by males from high producing dams. Sands' Leghorns are the big, vigorous, bred-to-and-do-lay kind. They mean profit to their owners. Why not own a few? Write your wants today. Choice breeding cockerels \$3 to \$5. Baby Chicks, Baby Chicks.

LEROY E. SANDS, Box W, HAWLEY, PA.

**S. C. RHODE ISLAND REDS**

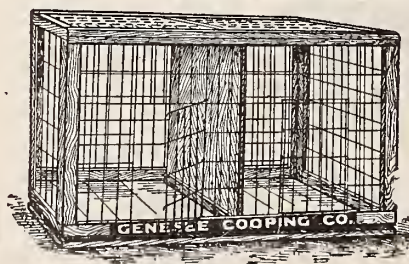
My matings are the result of twenty years of scientific breeding. The last five years I have produced and sold exhibition specimens that have won in nearly every large show room in the United States. Send for free mating list.

GEO. L. BUELL, Box W, LORAIN, OHIO

**Keller's Wyandottes** SILVER, GOLDEN AND WHITES. Line bred for 31 years. One of the oldest strains in America. Winners of thousands of premiums at Madison Square Garden, Buffalo, Chicago, St. Louis, Cleveland, Cincinnati and Columbus, during the past 29 years. They have the size, shape, color and narrow lacing that puts the Keller stamp on them. Choice stock to spare that are real bargains. If you wish to raise fine show stock and high class stock birds that are heavy layers try us. Eggs from the finest matings \$3.00 and \$5.00 per setting, also the finest Golden Sebright Bantams. Large circular.

IRA C. KELLER, Expert Judge, Brookside Stock Farms, Box 25, PROSPECT, OHIO

**Genesee Cooping Company**  
 THE ALL METAL SANITARY COOP.



Poultry Associations and the poultry press pronounce the Genesee system of cooping the most perfect in every detail. Write for photos showing the largest shows in the country in operation. Before contracting for next season's cooping get our estimate on shows ranging from a minimum 500 coops and upwards. Good second hand exhibition metal coops for sale as well as new ones.

GEO. W. WEBB, Mgr.

ROCHESTER, N. Y.



HEADS OF A NUMBER OF PRIZE WINNING LIGHT BRAHMAS BRED, OWNED AND EXHIBITED BY HARVEY C. WOOD BOUND BROOK, N. J.

Note the neat combs with their three rows of even serrations, broad skulls overhanging deep set eyes, and beautiful hackles coming around in front and well up under the throat. Mr. Wood has been a Light Brahma fancier and breeder for twenty years, having in that time exhibited at a number of large shows throughout the country, his first blue ribbon win at a national show having been at Chicago, Coliseum in 1899. At the Annual Meeting of the American Light Brahma Club at Chicago Coliseum, December, 1915, he won the National Championship Silver Cup offered by the Club for best display with 162 birds competing shown by 21 exhibitors from 11 states, ranging from Massachusetts to Minnesota. His winnings there included 1st Old and 1st Young Pens and numerous specials. He also won special for best display at the 1915 New York State Fair. At Madison Square Garden he was a heavy winner and at the last Boston Show made a good win including 1st and 3rd pullets and 2nd Pen in a class of fourteen.

on plenty of green feed with small rations of grain. The most beautiful of show birds and magnificent aristocrats on the lawn. We dare say one of the finest lawn fowls in all the world and those who wish a beautiful attractive bird about their premises that will be commented upon by all who see them should take on the Speckled Sussex the most beautiful fowl in all England today and destined so for America.

**HARVARD RHODE ISLAND REDS**

I. W. Bean, South Braintree, Mass., is sending out an attractive eight page illustrated folder describing his matings of Harvard Reds for the season of 1916. Mr. Bean is widely known for his grand productions in Rose Comb Reds but it should not be forgotten that he also breeds the S. C. variety having acquired the entire stock of the famous "Old Acres" farms two year's ago. Mr. Bean has made twelve matings of Rose Combs and twelve of Single Combs each one headed by a famous male of that superb color that has made the Bean productions famous. In his introduction he speaks very frankly or we might say characteristically as it is a characteristic of Mr. Bean to state facts plainly without any embellishment. He mentions the element of chance that enters into the results from the investment in a setting of eggs and states: "It has been my position for many years that buying and selling eggs for hatching is a question of possibilities only and is always strictly a game of chance". Then he goes on to point out that he is subject to the same disappointments as a customer and gives many reasons why too much should not be expected before hand. Readers of this publication desiring to obtain Reds—eggs or stock—should send for this list before placing their order. Kindly mention A. P. W. when writing.

**VON CULIN INCUBATOR**

The Von Culin Incubator was first made in 1873 by Clayton Von Culin, which Incubator had such success that even to this day we hear of many of them still in use and claimed to be as good as the day they were bought.

For some years past, Mr. Von Culin has been working to make an Incubator which would be the last word in incubator perfection, and has succeeded in making what he calls the Von Culin Improved Perfection Incubator.

This Incubator is made of galvanized iron, with double walls packed with mineral wool. It is light, compact and sanitary. It is equipped with the Von Culin Fireproof Lamp Attachment, which prevents overheating of the lamp, the wick from drawing up or the flame from flickering. It can readily be seen that with the construction and the fireproof lamp attachment, the Incubator is absolutely fireproof.

The thermometer is mounted upon a long rod, which slides through the door so that the temperature can be read by drawing out the rod a slight distance, it never being necessary to entirely remove the thermometer from the egg chamber, and as can easily be seen, the temperature can be read without looking into the dark egg chamber.

From the length of time that Mr. Von Culin has been manufacturing this article, he might be called the Pioneer Manufacturer of Incubators in America, as he has probably been longer connected with this line of work than anyone else in the country.

These Incubators are manufactured and sold by Geo. Watson Beach, 126 Liberty Street, New York City. See announcement elsewhere in this magazine.

**WEST MICHIGAN POULTRY ASSN.**

The annual meeting and election of officers of the above association was held March 10, 1916, and the following officers were elected. President S. W. Willoughby, Vice Pres., John Bowstrom, Secretary. Geo. McPherson, Treasurer, Wm. L. Krippis; Superintendent, Wm. Hofs. Plans are already under way for the next annual exhibition and the officers are looking forward to a larger and better show than ever. Some new and novel features are under advisement for the next annual event, which will be held January 16-19, 1917. The secretary will be pleased to hear from those who contemplate exhibiting at the next annual.

**URBAN FARMS, PINE RIDGE, BUFFALO, N. Y.**

Stock and eggs for sale from our prize winning strains of White Rocks, Black Langshans, Anconas and White La Bresse. Eggs only from Black Tailed White Japanese, Mille Fleur and Silkie Bantams and Tom Barrons best strain S. C. White Leghorns and White Wyandottes.  
1916 MATING LIST NOW READY.

**BLUE ANDALUSIANS**

Bred as a specialty and producing winners wherever shown. Fine lot of cockerels for sale. Pens and trios at reasonable prices, also single birds. Largest flock in the east. Heavy layers of large white eggs. Settings of eggs for sale. Mating list for 1916 upon request.

**E. D. BIRD, GREENWICH, CONN.**

**Harter's Imperial Golden Buff Rocks**

Harter's Buff Plymouth Rocks have a national reputation as winners at the leading shows of the country. Line bred for years they are equalled by few and surpassed by none.

This season I have not exhibited and I have the finest matings that I ever put together. Matings that will produce for you the quality that will put you among the winners at next season's shows. Eggs from these matings at \$5 and \$10 per setting. Send for mating list. I still have some choice stock for sale.

NESCOPECK POULTRY FARM

**S. H. HARTER, Prop. Box W. Nescopeck, Pa.**

**SUSSEX EGGS EGGS EGGS EGGS EGGS SUSSEX**

Two grand matings in three varieties—each pen headed by selected males used alternately.

**SPECKLED RED LIGHT**

**EGGS** Exhibition Matings, \$5 per 15  
Selected Matings, \$2 per 15

No Catalogue. No Mating List. Order direct from this "ad" and save valuable time.

**RED JACKET POULTRY FARM, W. M. Patteson, Owner, PENN YAN, N. Y.**

### FEEDING CHICKENS OF ALL AGES

For the benefit of those who may be making their first attempt at chicken raising or those who are not satisfied with present rations, we publish herewith a method of feeding from chickhood to maturity that has given good results at the Missouri State Poultry Experiment Station, Mountain Grove, Mo.

The first day after hatching no feed is given as the yolk in the body furnishes sufficient nourishment. Beginning the second day and continuing for the first week the menu is as follows:

Boiled egg cut fine, bread crumbs and oat meal, equal parts. Feed in the form of mash on a clean board all they will eat in 20 minutes, five times per day. Give sour milk each forenoon and water in the afternoon. Keep fine grit or sand before them.

#### One to Five Weeks

Equal parts wheat bran, shorts, oat meal and corn meal. Use as mash in hopper and give a good grade of commercial chick feed in litter. Two pounds of fine charcoal and one half pound of fine salt should be added to each hundred pounds of mash. Sour milk or water should be before the birds at all times.

#### Five Weeks to Maturity

- 1 part ground oats
- 1 part shorts
- 1 part wheat bran
- 1 part corn meal
- ½ part beef scraps
- ¼ part bone meal.

Use this as a mash in hoppers, and give equal parts cracked corn and wheat in the litter, all they will clean up in thirty minutes, twice each day. Fresh water and grit should be before them at all times. Free range should be provided.

#### Fattening Ration

- 2 parts corn meal
- 1 part shorts
- 1 part wheat bran.

Moisten with sour milk. Give cracked corn as grain, all they will eat. Clear water and grit should be provided at all times.

#### Balanced Egg Ration

- 100 lbs. corn
- 100 lbs. wheat
- 20 lbs. oats
- 20 lbs. bran.
- 20 lbs. shorts
- 20 lbs. corn meal
- 20 lbs. beef scraps.

2 lbs. charcoal and ½ to 1 lb. salt should be added to each 100 lbs. mash. Fresh water, grit and oyster shell should be provided at all times.

#### Moulting Ration

Give half ration for two weeks or till birds are poor, then build them up rapidly. Balanced egg ration is good.

#### Breeding Ration

Corn and wheat, equal parts, fed in litter night and morning, about a pint to ten hens. Mash given in Balanced Egg Ration given in afternoons. Free range, grit, oyster shell and fresh water should be provided at all times.

\*\*\* In writing advertisers kindly mention A. P. W. It guarantees you a square deal.

### CAPONIZE IN JUNE

The most profitable form of "swatting the rooster" is to make a capon of him. June is the best month for caponizing, as cockerels so treated this month will be ready for the market next February when the demand is strongest and prices at their highest tide.

Caponizing has not been generally practiced, perhaps because of the notion that the operation is very difficult. But after a little practice, if the bird is properly prepared, the operation is very simple and easily performed, and is unattended by pain or danger to the cockerel. The period of preparation should be not less than thirty-six hours, during which time the birds should be placed in a dark, well ventilated coop, without access to feed or water. This is to empty the intestines so they will be out of the way when the operation is performed. Full explanation of the method to be employed will be found accompanying the caponizing tools.

Cockerels intended for caponizing should weigh from one and a half to two pounds. When ready for market, they should weight eight to twelve pounds. The best breeds to caponize are the meat types, such as the Barred Rock, Wyandottes, Brahmans and Cochins. The Barred Rock is the breed preferred by many for this purpose.

Capons can be raised successfully by the city "back-lotter," as they do not require the exercise and range so essential to the best developed fancy stock. Capons can also be allowed to run with the hens without impairing the infertility desirable in eggs for marketing, as in

the case with young cockerels. But the argument that should appeal most strongly to the producer is that the capon, with practically the same amount of care and expense, will bring from 50 per cent to 100 per cent more on the market than the uncaponized cockerel.

### Crockford's Real White Runners

AMERICA'S GREATEST WINNERS.

On 60 entries 31 firsts, 19 seconds, 10 thirds, all specials.

Crockford, Box 231 W, Bristol, R. I.

### Harvard Reds

EGGS EGGS

One man's chance that materialized:

UNITED STATES POST OFFICE,  
LANARK, CARROLL CO., ILL.

"March, 7, 1916.

"Dear Mr. Beau:  
"Last season We bought one of your \$10 Single Comb settings and had good success. We raised two cockerels and three pullets. One of the cockerels was only fair. The other scored 94 and the pullets 96, 94½ and 93½ by Judge Chas. McClave at our recent show. I doubt if this 96 point pullet has an equal in the U. S.

"I am enclosing check, etc.

"[Signed], J. A. SHANER,  
"Asst. P. M."

Will You Take a Chance?  
Illustrated Particulars FREE.

I. W. BEAN,

324 Pond St., South Braintree, Mass.

### Partridge Plymouth Rocks

fall Judge Cleveland said 1st hen the best bird in class (168 birds in class). Stock for sale. Eggs in season. G. S. BUXTON, Box W. BELLOWS FALLS, VERMONT

### VINCENTS BUFF ROCKS WIN

My recent record at MADISON SQUARE GARDEN proves conclusively that my Buff Rocks are equal to the Country's best. These winners now in the best matings I ever owned.

STOCK OR EGGS. SEND FOR MATING LIST.

JAMES H. VINCENT,

Box W,

HAZLETON, PA.



### 1st NEW YORK COCKEREL

(Madison Square Garden) 1st cock and 1st pen male, 1st and second pen males and 2nd cock Boston, 1915, 1st cock, 1st cockerel, 1st pen male, Boston, 1914, will head some of our WHITE WYANDOTTE pens this season.

Eggs from ten pens EACH ONE HEADED BY A BOSTON OR NEW YORK WINNER. \$5 per 15.

At Detroit, 1916, on five entries out White Wyandottes won, 1st cock, 1st hen, 1st cockerel, 1st pullet, 1st pen and specials including best cockerel in American classes, while on four entries our LIGHT BRAHMANS won 1st cock, 1st hen, 1st cockerel, 1st pullet and all specials. Eggs \$5 per 15.

SAUNDERS & WILLIAMS,

Box B,

INGERSOLL, ONT., CANADA.

## MOUNT PLEASANT FARM

### AMERICAN S. C. W. LEGHORNS

\* Mount Pleasant Farm standard American bred Leghorns have been bred by us 14 years—Pullets raised from our chicks have a record of 215 eggs per year—For admirers of beauty and symmetry of the American Leghorn the Mount Pleasant Farm strain cannot be excelled.

Day Old Chicks

Eggs for Hatching

Selected Cockerels

### ENGLISH S. C. W. LEGHORNS

We have recently acquired a line of cockerels of the famous Tom Barron 283 egg strain English Leghorns—These we have mated with 500 Mount Pleasant Farm 2 year old hens—This mating combines the best laying strains of English and American S. C. White Leghorns.

Day Old Chicks

Eggs for Hatching

Send for Free Booklet

## MOUNT PLEASANT FARM

MOUNT POCONO,

PENNSYLVANIA

## MAKING RAT PROOF FLOORS FOR POULTRY HOUSE

Making the Poultry House Rat Proof by Constructing the Proper Foundation and Floors. How It Is Accomplished

**T**HE rat is one of the destructive pests with which the poultryman has to contend. It is a simple matter, however, to prevent rats from gaining access to poultry houses by building the proper type of foundation and floor. But there must be the proper combination of floor and foundation. For example, rats cannot gnaw through concrete. If, however, a concrete floor has no foundation there is nothing to prevent rats from burrowing under the concrete slab or floor. Thus they establish thoroughly protected breeding places. In course of time—usually a very brief time—they gain access to the poultry yard. From their harbor under the floor they can attack young chickens and also make way with eggs if that part of the house fronting the yard is not protected.

### To Make Rat Proof Floors

To remedy the situation and make the poultry house perfectly secure is an easy matter. This can be done by putting in a concrete foundation when the floor is constructed. A twelve-inch concrete wall or foundation carried below frost line will effectually bar the rodents. For a poultry house of ordinary size the foundation would not be expensive. A mixture of 1 part Portland cement, 2½ parts sand and 5 parts stone would make a dense, strong concrete. A barrel of cement will make about 22 cubic feet of concrete if used in the proportions given. Thus for a house 20 feet square with a foundation 12 inches wide and 3 feet deep, there would be required about 11 barrels of cement. A little in excess of the exact amount needed should be ordered.

This foundation serves as an effectual barrier and after it is built the concrete floor can be constructed in the usual manner

Briefly described, this would consist of putting down 4 inches of concrete. If the ground underneath the floor is dry and firm it will suffice after the surface has been carefully leveled and rolled. The concrete will be laid directly upon this natural foundation. If this is not the case, first lay a foundation of about 6 inches of gravel or hard cinders (not ashes) well tamped and thoroughly compact when in place. For a floor 20 feet square it will be best to construct the slab in four equal sections, the latter divided by joints down the middle of the floor and running in both directions. These joints should be cut through the entire depth of the floor so as to prevent cracking from expansion or contraction.

### Laying the Floor

If the facilities for mixing the concrete are limited, one section of the floor can be placed each day until completed. The concrete for the floor should be proportioned the same as for the foundation, namely 1:2½:5. In proportioning the concrete consider 1 bag of Portland cement as 1 cubic foot. In mixing the concrete care should be taken to have it of mushy consistency when placed, that is to say just sufficiently wet to be

able to work to the proper surface, but not wet enough to permit excess water to come to the surface.

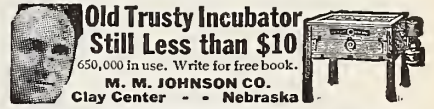
The crushed stone or pebbles used in the floor should not be larger in size than ¾ or 1 inch. After the fresh concrete is deposited to the required depth the top surface should be carefully struck off to a level surface by means of a straightedged board. This top surface is then floated or trowled to a smooth finish. It is sometimes the practice to make a slight slope in the floor surface so as to drain off wash water in the desired direction. Beginning the day after the floor is laid it should be sprinkled two or three times daily for about one week so as to prevent the concrete from drying out too rapidly.

The floor will require about 6 barrels of cement, thus bringing the total for both floor and foundation to 17 barrels.

The floor described is known as one-course work, which is the most simple type of floor to build, and which is perfectly satisfactory for a poultry house. If for any reason an unusually smooth finish is desired, it is the practice to construct two-course floors, in which the base is made of concrete in the proportions specified above and a 1-inch top

**White Houdans** **Buff Wyandottes**  
Young stock for sale after November 1st. Will satisfy my customers or refund money.  
**STUART A. HOWLAND, GRANVILLE, N. Y.**

**Old Trusty Incubator**  
**Still Less than \$10**  
650,000 in use. Write for free book.  
**M. M. JOHNSON CO.**  
Clay Center - - Nebraska




**COLORED LEG BANDS**  
Big Black Figures on White Background  
All colors, all sizes for all fowls and pigeons. Birds identified without handling. Baby chick bands, 18 colors, not numbered. The best band in the world today. Samples and catalogue FREE. **A. P. SPILLER, Dept. B, Beverly, Mass**

## While They Last

100 S. C. Buff Orpington cockerels \$3 to \$10 each. Fine breeders.

Write us today

**OLD FORGE POULTRY FARM**  
SPRING GROVE, PA.

**WHITE WYANDOTTES R. C. R. I. REDS**  
*Cocks and Cockerels*  
Cocks used in our breeding pens. Cockerels great big husky fellows from our Genesee strain of great layers. Reduced prices to move them quickly. Satisfaction always.  
**LONE OAK POULTRY YARDS**  
21 Chestnut Street, BATAVIA, N. Y.  
**ANCONAS S. C. BLACK ORPINGTONS**

## MOTTLED—JAVAS—BLACK

EGGS AND BABY CHICKS FOR SALE FROM 1916 WINNERS AT MADISON SQUARE GARDEN AND BOSTON.

**SETH W. MORTON** **BOX 124,** **ALBANY N. Y.**

**3 FIRSTS, 5 SECONDS, 3 THIRDS, 3 FOURTHS, 3 FIFTHS**

Our 1915-1916 Combined Winnings, Chicago and Madison Square Garden on home raised birds.

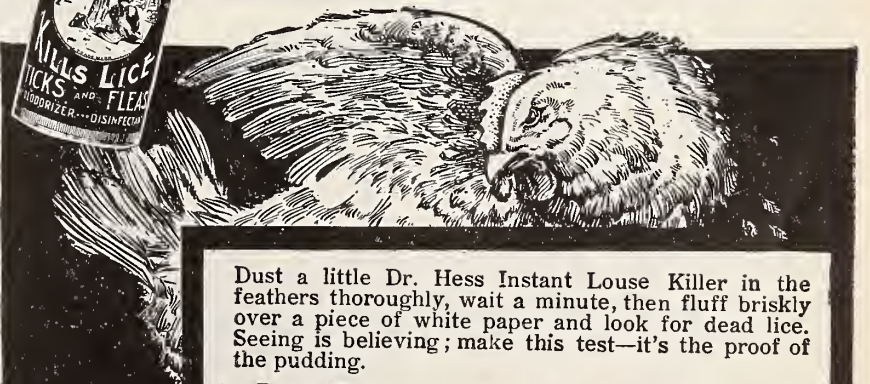
EGGS **BABY CHICKS** **BREEDING STOCK**

Write for the finest mating list of the year. Rankins Reds will help you.

**SCHENLEY HEIGHTS POULTRY FARM, Box 8, 1202 Commonwealth Bldg., Pittsburgh, Pa**



**This One Minute Test Will Prove Whether Your Hens Are Lousy or Not**



Dust a little Dr. Hess Instant Louse Killer in the feathers thoroughly, wait a minute, then fluff briskly over a piece of white paper and look for dead lice. Seeing is believing; make this test—it's the proof of the pudding.

## Dr. Hess Instant Louse Killer

kills lice on horses and cattle, for sheep ticks, certain bugs on cucumber, squash and melon vines, slugs on rose bushes, etc. Sold in sifting-top cans. Sold under a money-back guarantee by a reliable dealer in your town. If not at your dealer's, write

**DR. HESS & CLARK, Ashland, Ohio**

**1-lb. can**  
**25c**  
**3-lb. can**  
**60c**

(Except in Canada and the far West)



This little lady is one of the Rosemont Farm S. C. White Leghorns and she is of the blue blooded kind as she has several honors to her credit in the show room. If you are interested in Leghorns of the quality it would be well to write Rosemont Farms, Franklin, Pa.

coat of cement and sand is added. This top coat is mixed in the proportions of 1 part Portland cement to 2 parts sand, the top coat being deposited immediately after the first course is in place.

**TAINTED FOWL RUNS**

Whatever your floor space is for poultry keeping, it is wise to reserve a portion or corner as a spare pen in which to transfer the birds, and so allow the other pens to become fresh and sweet again. The top surface of the hard run or pen should be swept up occasionally, so as to prevent the droppings or waste food, litter or dead feathers from adhering to the soil.

A small open run is much more difficult to keep and retain clean than a covered run, or what is termed a scratching shed. Various materials can be used to absorb the moisture from the fowls' dirt or droppings, but it is a waste of money if the floor is at all exposed to the outside weather. Earth or soil can be turned over and over again to keep sweet, but eventually that which you turn up is as foul as that you bury. So it is best to remove the top as it gets tainted, and replace with dry, clean soil.

Dry ashes, small stones, brickends or cinders make a good foundation for a fowl run, as it tends to drain the top soil. Some people make a practice of putting the ashes from the fire-grate into the pen. My advice is "don't" because when a quantity have accumulated in a crowded run the ground is then of too dry a nature, and the fowls get what is known as scurvy or scaly legs.

Again, if put in large quantities in an open run the exposure to the weather, and often getting wet, throws off an objectionable fume. My advice is to put dry ashes into a small covered box, so that the fowls can go in and out at pleasure to bathe themselves in. If some sulphur is put in occasionally it will help the fowls to rid themselves of in-

sects. Moral, dry baths are essential for healthy fowls.—H. Grainger.

**CLOSE TO NATURE HOVERS**

Attention is directed to the advertising of the Close to Nature Co., 48 Front St., Colfax, Iowa, on another page. In addition to oat sprouters and portable houses of all description they also manufacture an open air hover that has met with grand success in all sections of the country. This brooder combines the fireless with the heated brooder idea and may be used either way. It supplies contact warmth, open air ventilation and is so constructed as to prevent crowding. This brooder may be said to be in a class by itself as there is no other brooder like it on the market today. It is fully described in the printed matter that will be sent free to



**Healthy, Lively, Sturdy Chicks**

are reared only in homes kept strictly clean and sanitary. Every baby chick in your yard represents an investment of time and money. White diarrhoea and other fatal diseases, when once started in a flock spread rapidly. Don't take chances with your investment. Prevent contagion, lice, mites, etc., from getting a foothold in your flock by using



to spread health and sunshine into every corner of your plant. A snow-white mineral paint with which is combined the most powerful, germ- and vermin-killing disinfectant known to science. Completely effective yet absolutely harmless to the birds. If you want your birds to have clean, wholesome, sanitary quarters

**Use it instead of whitewash**

Comes in powder form. Mix with water and it is ready to use—no straining or bother of any kind. Easily applied with brush or sprayer. Will never flake, peel or blister. Send 25 cents now for trial package—money refunded if results are not satisfactory. Your dealer carries it in stock or can get it for you at the following prices:

- 10 lbs. (10 gal.) for \$1 plus postage.
- 20 lbs. (20 " ) for \$2 delivered free.
- 50 lbs. (50 " ) for \$4

Do not accept a substitute. Write us if your dealer will not supply you. We'll rush shipment to you.

**Carbola Chemical Company**  
 Dept. D.  
 7 East 42nd St., New York



all A. P. W. readers on application. We are also advised that it is very low in price. It surely is worth investigating.

**\$2.50 for 25 to 50 CHICK HOVER**

Made of Galvanized Steel Can be used in any box. Safe and durable. Hot water heat. All complete. Incubator took free. We make 73 different articles.



WENDELL INCUBATOR CO., Holly, Mich.

**SINGLE COMB LEGHORNS AND WHITE PLYMOUTH ROCKS**

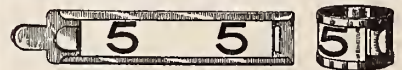
Bred for fancy and utility, excellent winter layers and sure winners. Write for prices. Eggs for hatching. Stock for sale. Edward J. Turner, Box E, Springvale, Maine.

**BUCKEYES**

World's Fair and Club Show Champions  
 Hatching eggs from the best of the breed.  
 Send for my free mating list.

ELTON C. MAHON

Buckeye Specialist, Norwood, Tenn  
**POULTRY BAND FREE**



PATENT APPLIED FOR  
 Send for sample and trial offer of the Bourne "Bignum" poultry band. All sizes. Numbers from 1 to 300 on seven colors of background. Price 3 cents each, \$2.50 per 100  
**BOURNE MANUFACTURING CO.,**  
 234 Howard St., Dept. W MELROSE, MASS.

IF YOU ARE THE LEAST BIT INTERESTED IN

**S. C. BUFF ORPINGTONS**

THAT ARE MATED FROM HIGH EGG RECORDS YOU SHOULD WRITE US FOR OUR 1916 MATING LIST.  
**CHERRY LANE FARM CO.**

O. Wilson, Mgr. Oak Hill, West Va.

To get rid of rats get

**RID OF RATS**



Non-Poisonous. Guaranteed to destroy the rat and mouse pest from corners, bins, poultry houses, stables, etc. No results, no pay. Box 10c; Doz. boxes \$1 east of Miss.; \$1.20 west of Miss. If your dealer can't supply you order direct. Write for catalogue, it tells the story. Berg & Beard Mfg. Co. 12 Steubens St. B'klyn, NY



## THE MOST VALUABLE LAYING HEN

By J. W. Parks, Altoona, Pa.

(Continued from page 534)

what all should strive for. Yet they do not refuse to take the "tainted dollars" produced by the fancy as their weekly stipend for their rantings. Some way or other these fellows remind one of the dog that bites the hand that feeds him. They are the yellow dogs of the poultry industry.

It has always been our contention, and we are not alone in this belief, as there are living examples in the poultry yards of thousands of earnest poultry raisers, that standard qualities and high egg production—both in the one fowl, are within the reach of all who are willing to make that combination their goal. True, it takes a little longer, and also more skillful breeding, but a thing worth doing at all is worth doing well. As an example of what can be done along this line we point to Mr. Park's productions in Barred Rocks. They have Standard qualities and yet there is not a strain of the breed that can surpass them in egg production. They will in fact compare favorably with any of the so-called laying strains, including those whose only resemblance to breed or variety is the name they parade under, although it is an imposition to the Standard-bred industry to permit breeders of such stock to use a time honored name for these nondescript productions.

The management of the egg laying contests are open to criticism, especially those under State or Government supervision, for permitting anything and everything that wears feathers to compete for the honors, particularly those entries that bear but little resemblance to the breeds or varieties whose names they bear.

These Stations or Agricultural Colleges never hesitate to enlist the aid of the real poultrymen—the ones noted for their Standard productions,—when in need of an appropriation to extend their work. Why should they not require that all entries in the contest meet a certain Standard or score a certain number of points? Why should breeders like Mr. Parks, J. S. Martin, or scores of others who have succeeded in combining the beautiful with the useful be forced to compete with such trash—for it is nothing less? Do you think that there is one, out of one hundred of these so-called laying strains, that resemble no breed in particular, that can be made to perpetuate this laying strait year after year and show the same degree of improvement that can be relied upon in a Parks Rock or a Martin Wyandotte? Decidedly NO! If you breed from scrubs you will get nothing but scrubs. Genuine improvement in a strain be it for eggs or Standard requirements must be based on blood lines and these are not established overnight, as so many promoters of the so-called utility strains try to lead us to believe. On the other hand it takes years of study and scientific breeding to produce results that will be dependable. Just look through the advertising columns, of the Agricultural press, especially and note the number of advertisers that are claiming laying strains, when the fact is, that many of



Single Comb White Leghorns are one of the specialties at Wilburtha Farms, C. J. Fiske, Owner, Trenton Junction, N. J., and they have repeatedly demonstrated their quality by winning in close competition at our leading shows. M. L. Chapman formerly of Ranococas Farms, one of the best informed and most successful producers of poultry of quality in the country is now in charge of the poultry at Wilburtha Farms. Mr. Chapman has been particularly successful in the production of exhibition S. C. White Leghorns and no doubt he will make the Wilburtha Leghorns one of the leading strains of today.

### WHITE PLYMOUTH ROCKS COCKERELS and PULLETS FOR SALE

Eggs after February 1, from six fine pens at \$1.50 to \$3.50 per setting. Winners at State Fair, Cleveland and others.

THEO. L. POOLE,

BOX F,

DEWITT, N. Y.

### Fellows' Famous Farm Raised Buff Wyandottes

Winning at Rochester, N. Y. December 1914 best exhibit, color and shape special on pullets, 11 ribbons on 12 entries. Batavia, N. Y. January 1915 1-2 cocks, 1-3 cockerels, 1st pen and 2 hen, 2 pullet. Cleveland, Ohio, January 1915. 1st hen, 2 pen, 3rd pullet, 10 cockerel, this was National Meet of the Buff Wyandotte Breeders Club. Send for mating list. Mention A. P. W.

E. B. FELLOWS,

R. F. D. 1,

SCOTTSVILLE, N. Y.

### 1896 AMERICA'S BEST BUFF WYANDOTTES 1916

For the past twenty years I have been winning the best prizes at the best shows. I have the best male line in the world today. My recent Boston winnings, January 1916, 1st and 5th cocks, 3rd and 6th hens, 1st cockerel, 3rd pen, shape and color and cup for championship male on 1st cockerel. Stock and eggs for sale. Satisfaction guaranteed.

ANDREW RIDDELL,

R. No. 6,

GREENWICH, N. Y.

TOLMAN FRESH AIR STRAIN

### WHITE PLYMOUTH ROCKS

Eggs for hatching. Now is the time to hatch your broilers. Order now.

JOSEPH TOLMAN,

R. F. D,

ROCKLAND, MASS.



FIRST COCK, L. GINGINNATI, O., 1913. BESUDEN BROS. GINGINNATI, OHIO

### Puritan Partridge Rocks

Prove their superior quality by winning at the great Cleveland Show, January 3-5, 1916- 1-2-3 cock, 1-2-3-5 hen, 1-2-3-4-5 cockerel, 1-4, 5 pullet, 1-2 pen. This grand winning on male birds proves conclusively where to purchase new males for either exhibition or breeding purposes.

*Hundreds of Grand Exhibition and Breeding Birds*

Cocks, hens, cockerels and pullets fit to put into any breeding pen. Birds of standard weight, grand type, excellent color and fine head points. In fact birds of that high quality that have made Puritians famous throughout all America. Satisfaction guaranteed. Write for free 1916 Sales List.

BESUDEN BROS.

Box 2-W,

Evanston Station,

CINCINNATI, OHIO

them have but recently taken up the breeding of poultry—or would keeping of poultry be better.

Mr. Parks characterises this utility scramble as "dangerous and contagious craze" and no doubt he is correct as many a well meaning breeder seems to have lost his bearings and has ruined his years of patient work by introducing the blood of some of these so-called laying strains into his flock. The day of his awakening is coming,—but what a jolt he is going to get!

The Standard as it stands today gives the utility breeder all that he desires in type—useful type—in the various breeds whose make up classes them as dual purpose fowls. The same is true of the egg producing varieties. Can any of the so-called utility breeders prepare a more fitting standard description, one that gives a more sensible type, than the present Standard does? I believe that if we take what we have and follow its dictates carefully that we are bound to produce better and more profitable birds from all points of view.

#### Still Another Point

We also believe that the managers of the laying contests would do the wise thing if they acted on Mr. Parkes sug-

gestion and in addition to publishing the records of the pens also show the value of the eggs produced at current prices from month to month. Then at the close of the contest show a comparison of the eggs laid with the value of the eggs laid and then we could ascertain if the hen laying the greatest number of eggs was really the most valuable hen.

Personally we prefer the one that lays the greatest value in dollars and cents. Such a hen must be naturally a winter layer as the greatest value comes with the production of the greatest number of eggs during the period of high prices. This period in this "neck of the woods", generally speaking, is from November first until February first, a period during which the Leghorns and lighter breeds do not produce very heavily, as will be seen by referring to the several contest records of years gone by.

No doubt Leghorns can be made to lay profitably during cold weather but this is more a matter of care and feed than anything else. Unfortunately every one does not possess the proper knowledge or know how, to influence these busy little bodies to lay during zero weather.

True there are those that are accomplishing the feat—and we wish to accord

them all due credit

—we do not desire

to detract from the

laying abilities of

the Leghorns, but

we do maintain that

it is natural for

them to do their

best in spring and

early summer when

prices in general

run low. Further-

more we believe

that it takes less

skill to procure win-

ter eggs from a well

bred Barred Rock,

Wyandotte, Rhode

Island Red or Or-

pington than from

these so-called

egg breeds. There-

fore the poultry

raiser of small ex-

perience stands a

better chance of suc-

ceeding in his efforts

toward egg produc-

tion with one of the

varieties, commonly

termed general pur-

pose breeds.

Another point

brought out my Mr.

Parks that is

worthy of considera-

tion is the weight

of the eggs produc-

ed. Why not learn

what these layers,

in their efforts to

to establish a re-

cord, are putting

into their eggs?

Are they blinding

us with numbers

and giving us short

weight? We believe

the general market

Standard calls for

twenty-five ounces

to the dozen. Why



FIRST COCKEREL & GRAND CENTRAL PALACE N.Y. 1915. BRED AND OWNED BY WILBURTHA FARMS, TRENTON, JUNCT. N.J.

We must concede some grand productions in the Columbian varieties to the Wilburtha Poultry Farms, Trenton Junction, N. J. Among the grand Columbian Rocks the cock shown above is a good example. During the past season Wilburtha Columbian Rocks met all comers in some of our most prominent shows and when the smoke of the battle cleared away they were the victors. Their past season's record includes such shows as the Grand Central Palace, Madison Square Garden and Buffalo. The winners at these shows are now in their breeding pens a full description of which may be obtained by sending for their special twenty page mating list devoted to the Columbian varieties, Rocks and Wyandottes.

**Evergold Buff Dottes** Elegant illustrated cat along giving our methods of feeding and breeding Buff Wyandottes, only 20 cents. Price list and mating list free.

**ROCKY RUN FARMS,** Box 40, NORTHFIELD, OHIO  
W. G. Marshall, Prop. Gerald Williams, Mgr. Poultry Dept.

### YANT'S BARRED ROCKS

Won the Diamond Special for Best display at the Chicago Coliseum, December, 1914. They are the kind you have long been looking for. Write me.

**JOHN W. YANT,** Route 24, CANTON, OHIO

### COLUMBIAN WYANDOTTES

Twelve firsts at three 1915 shows, also 1st pullet, cockerel, cock, pen and 4th hen at Brooklyn Show. Choice breeding stock for sale. Correspondence invited. Horseshoe Poultry Yards, Hicksville, L. I., N. Y.


### Silver Campines - Wyandottes

Winners at the leading shows.

Choice birds at \$1.50 and \$2.00 each.

**R. D. REIDER**

Route 2, MIDDLETOWN, PENNA.

 <p>America's Pioneer Dog Remedies</p>	<p>BOOK ON <b>DOG DISEASES</b> And How to Feed</p> <p>Mailed free to any address by the Author</p> <p><b>H. CLAY GLOVER, V. S.</b> 118 West 31st Street, New York</p>
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### Congdon's Barred Rocks

*Bred for Utility and Beauty*

Write your wants in Cocks, Cockerels, Hens, or Pullets. \$2,000 invested, 20 years' experience. **INCUBATOR EGGS, \$5.00 per 100, \$40.00 per 1,000.**

**NEW BOOKLET FREE**

**W. A. CONGDON,**

Box 404, WATERMAN, ILL.

### Mirimichi Quality

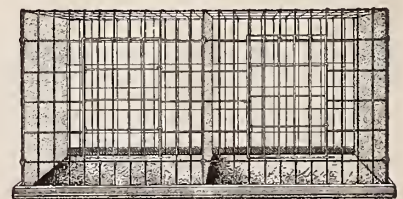
S. C. R. I. Reds, White Plymouth Rock<sup>s</sup> and White Wyandottes. Winners at New York, Boston, Brockton, Providence and Attleboro.

Cockerels, Pullets, Cocks and Hens that will win for you. Prices low. Satisfaction guaranteed. Catalogue free.

**MIRIMICHI POULTRY FARM**

W. H. Saart, Mgr., Foxboro, Mass.

### WARSAW COOPING CO.



Manufacturers of Exhibition Poultry and Pigeon Coops of latest improved design. We make a specialty of cooping Poultry Shows, at reasonable prices. Write for particulars.

**WARSAW COOPING CO., WARSAW, N. Y.**

not disqualify all entries producing eggs the average weight of which is less than twenty-five ounces to the dozen? If eggs on the general market weighing less than that amount are classed as seconds why not put the producers, of such eggs down as second raters and not eligible to a place in the final results? By our present method of selling eggs, especially in the outlying districts the small egg brings as much as the larger, but do we want to foster and encourage the development of a strain of poultry that lays undersized eggs even though they produce a few extra in the total output.

A situation of this kind would be a serious drawback for one producing eggs for a market like New York City. This fact becomes apparent in the fall of the year when the pullets are laying their first eggs, which always lack the quality of size. If such eggs are mixed with a crate of larger eggs produced by hens the price of the entire crate is effected and in place of the small egg bringing as much as the larger ones, the quotation for the crate is based upon the smaller eggs. In this instance the general rule is reversed.

If the laying contests were to show the weights of the eggs produced it would immediately result in much benefit to the industry and breeders would pay attention to the size of eggs produced as well as the numbers produced. If these contests are to be of real benefit to the poultry industry why not have them possess all the educational features they are capable of? This question of weight surely opens an opportunity for them to be of greater service to the poultry industry. Likewise the value in dollars and cents of the eggs produced. We hope that some one of them will be progressive enough to inaugurate this feature in their next annual contest. All that is needed is a leader, others will soon follow. Who will be first?—Wm. C. Denny, Assoe. Edit.

**A PROFITABLE ACCESSORY TO POUULTRY RAISING**

It is a comparatively easy matter for the poultryman of today not only to make sure of the success of his business, but to increase his profits as well, by doing a little gardening "on the side." This may not have been possible some years back, for successful gardening used to take all a man's time and energy, so slow and laborious were the methods employed. But now, since the use of modern cultivating tools is becoming general their time and labor-saving features have broadened the field of agricultural activity just as the introduction of the telephone tremendously enlarged the commercial dealings of the whole world.

Take the No. 4 Planet Jr. combined Hill and Drill Seeder, Wheel-hoe, Cultivator, and Plow. With this one implement alone one can do almost all the hoeing and general work in the garden. You can use it to open the furrows, sow the seed in drills and cover them, or to sow seed in hills at regular intervals. Then, presto! it becomes a regular single wheel Hoc, well adapted for weeding crops. Next you are using it as an effective cultivator to keep the crops in fine condition all through the season.

And with this as well as with other Planet Jr. implements the work (or rather the recreation, for such it becomes) is accomplished in one-third to one-sixth the time of the old-fashioned hand methods.

Moreover, this tool can be utilized in the chicken yard itself for plowing and freshening up the scratching-ground. Indeed it is light enough for women and boys to use quite readily.

Its time and labor-saving features enable the poultryman to work a good-sized garden and raise bigger, better crops that find a ready market. Thus he can make money on

a line that fits in easily and naturally with his poultry-business.

Not only can the poultryman and market-gardener profit by the use of such modern cultivating tools, but the suburbanite or the man with a few chickens and a kitchen garden merely for spare-time recreation, will find that such a handy tool as this Planet Jr. implement pays its cost in a single season, and will enable him to make his spare-time recreation most profitable from the standpoint of health.

This is only one of the many marvelous implements that have revolutionized the methods of farming and gardening. S. L. Allen & Co., Box 1202 J, Philadelphia, have issued a complete catalog which illustrates and describes scores of others that have increased crop yields and multiplied profits for many a progressive man.

**EFFICIENCY SHIPPING KOOPS AND EFFICIENCY EGG BOXES**

O. B. Andrews, Pres. of the O. B. Andrews Co., Box A. W. 303, Chattanooga, Tenn., manufacturers of Efficiency Shipping Koops efficiency Hatching egg boxes, Commercial Egg Carriers and any chic boxes, is very optimistic over the future of the poultry business and points to the fact that the poultry keeper may make larger profits today than in the past owing to the fact that light weight strong and durable packages are now available for shipping, greatly reducing the express charges, thus adding profit to each transaction. He further points to the fact that the first cost of these carriers is less than the first cost of the old style coops resulting in a further saving to the poultry raiser and still further adding to the profits. The Andrews Company make boxes of this class and will be glad to send full particulars and prices to all who mention this paper when writing.

\*\*\* If you like A. P. W. tell your friends about it. Let them share some of the good things.

\*\*\* Why not send A. P. W. to a friend 10c pays for a four months trial subscription.

**PHILLIPS PARTRIDGE ROCKS** Make a great record at Buffalo, 1915 by winning 1-5 cock, 1 hen, 1-4 cockerel 1-2 pullet, 1 pen old, 1-2 pen young and best display. They also won best display and several regular prizes, including 2 firsts at the New York State Fair, 1915. It takes quality to make a record like this. Don't you need some of this quality? Cocks, cockerels and pullets for sale. Now booking orders for eggs. A 10 per cent. discount allowed on all orders booked before March 25th.  
JAMES F. PHILLIPS, 140 Merrimac Street, BUFFALO, N. Y.

**SPECIAL SALE R. AND S. C. RHODE ISLAND REDS**  
600-YEARLING PULLETS, COCKERELS-600

I must reduce my stock of breeding birds and am going to sell at \$2.00, \$3.00, \$5.00 and \$10.00 birds worth three times the money. Just the right time to get breeders from which to get show birds for the winter shows. This is your opportunity—grab it while you can. Everything on approval and money back if you do not like it. Baby chicks and month old chicks also.  
ANNESLEY M. ANDERSON, Box W. MORTON, Pa.



**VICTORY AT CHICAGO**

**GENSCH'S WHITE ORPINGTONS**

Win first pen the coveted prize of all the S. C. White Orpington class, also second and seventh cockerels, third cock, sixth hen, third and seventh pullets. In addition to this GREAT CHICAGO WIN my White Orpingtons have won during 1914-1915, 8 firsts, 3 seconds, 5 thirds and 2 fourths.

White Orpington buyers of breeding stock or hatching eggs. Write me today for reasonable prices. Remember QUALITY. Better than ever.

F. M. GENSCH, Box G, OMRO, WISC.

**COBURN'S RED SUSSEX FARM**

Great Victories at Two Sussex Club Shows Within 10 Months  
In competition with England and America's Best Birds

MADISON SQUARE GARDEN, N. Y., FEBRUARY 1915

RED SUSSEX—Championship male and female, 1st pen, 1st cock, 1st cockerel, 1st hen, 5th pullet on five entries. SPECKLED SUSSEX—Championship female, 1st hen, 1st pullet, 2nd pen on three entries.

COLISEUM, CHICAGO, 1915

RED SUSSEX—\$25.00 silver cup, best display, \$15.00 silver cup, best colored male. 1st old pen, 3rd young pen, 1-4 cock, 3-5 hen, 2-4 cockerel. 2-3 pullet. SPECKLED SUSSEX—1st young pen, 3-4 old pen, 3rd hen (no cocks shown), 4 cockerel, one entry. All winners from our own pens. We raised them. Write for our special prices and values on exhibition, breeding and utility stock. Mating list February 1st,

ADDRESS CHANGED FROM MARYSVILLE TO

COBURN'S RED SUSSEX FARM, Route 33, ST. CLAIRE, MICH.

\*\*\* Patronize A. P. W. advertisers they are reliable Look up our guarantee on the first page. It protects you, you it will help them.

**USE DIAMOND EGG BOXES**

for shipping your fancy eggs. Cheapest because safest. Thousands of testimonials. Sample 25c, dozen \$1.50. Write me.

DIAMOND BOX MFG. CO., N. 2nd St., Minneapolis, Minn.

**Leon C. Bennet Breeder of BLUE ANDALUSIANS and S. C. REDS**

A few cocks and cockerels of each variety for sale at reasonable prices.

LEON C. BENNET, EUCLID, N. Y.

**Breeders of Partridge Rocks "Bird Bros. Strain"**

S. C. Buff and Brown Leghorns

Prize winners Buffalo and Rochester. Bronze Turkeys and Rooster Ducks. Mating list free.

A. G. BARLOW & SONS, "Maples" MEDINA, N. Y.

**Schneller's Partridge Rocks**

Eggs that will hatch, \$3 and \$5 per setting.

HERMAN J. SCHNELLER, R. D. 2, BETHLEHEM, PA.

**BRED-TO-LAY**

**S. C. White Leghorns**

Why not start right by securing hatching eggs and baby chicks from Heigl's bred to lay winter layers. By starting now you are assured of laying pullets next fall when eggs are high. January, February and March hatched pullets make the best fall and winter layers.

I can furnish any amount of strong fertile eggs at any time and guarantee them. Am also booking orders for baby chicks and have part of March and April booked up, so send your order now.

High class breeding stock at reasonable prices. Don't forget that winter laying is a habit with Heigl's bred to lay S. C. White Leghorns.

Chas. Heigl, Box W, Rocky River, Ohio

# THE SICILIAN BUTTERCUP

Some of the Strong Points That Should Recommend This Unique Variety To Those Who Wish a Novel and Profitable Breed

BY JESSIE EICHSTEDT

AS is probably well known by most of our readers, the Buttercup Fowl is a very old breed, of unknown origin in Sicily. The Sicilian Buttercups have been known and bred in this country for many years by a few who appreciated their distinctive merits.

In its native land the Sicilian Buttercup, although possessing great merit as a general purpose or utility fowl, was never bred to any uniform standard, either in size, shape or color, and either in this or its native country, for many years a great diversity in type and color was noticeable in all flocks.

It was not until after the American Buttercup Club was organized in March, 1912, that enough true fanciers were brought together in their interest to make possible the remarkable improvements which have so speedily resulted. Breeders everywhere now have the opportunity of knowing exactly what an improved Standard Buttercup should be, and this has given an impetus to their production which has speedily sent them into every corner of this and into many foreign countries.

For distinctiveness and individuality, both in appearance and general charac-

teristics, no other new breed of poultry known today is entitled to greater consideration than the modern Buttercups. Many a breed which at some time in the past has been very popular, is now seldom heard of, or to be seen in our best shows, while others hitherto almost unknown come to the front and take their places.

It is this popular and wide spread craze for something newer, better or at least in greater demand, that creates the interest in the business which holds up the industry and supports more than sixty exclusive poultry journals in this country today.

The first and most prominent characteristic mark of distinction in the Buttercup is its unique and novel cupshaped comb, differing in form and appearance from that of any other breed or variety known. On the cock bird it is a perfect crown, surmounted by a circle of red spikes. His standard weight is six and one-half pounds. His body color is a dark glossy red with black points.

The Buttercup hen is of a beautiful light buff feathering, quite evenly mottled on back and sides, as well as lower breast, with black spots, which are produced by parallel bars crossing the web of the feather. Her standard weight is five-pounds, she is a non-sitter and until two years or more of age, remarkably tame and gentle and has great motherly instinct whenever she does become broody. The chief aim and object of her existence, however, seems to be the production of large white eggs. In order to convert these into young Buttercups, most breeders either depend upon an incubator, or keep a few Rhode Island Red hens whose favorite occupation is sitting, and whose eggs are so dark red in color that there is no liability of mistaking them for hatching.

The Buttercup is distinctly and pre-eminently a Woman's breed, several of the earliest breeders of them in this country being very distinguished women who have clung to them for many years in preference

**"MADISON KING"**



**WHITE ORPINGTON**  
 FIRST MADISON SQUARE GARDEN DEC 1913  
 FIRST COCK MADISON SQUARE GARDEN FEB 1913  
*bred and owned by*  
**ALDRICH POULTRY FARM - COLUMBUS, OHIO**

Few breeders of any variety can lay claim to the honor of winning first prize two years in succession at Madison Square Garden with the same bird. Aldrich Poultry Farm, Columbus, Ohio, won this distinction with "Madison King" the grand White Orpington male illustrated above. This wonderful male is now in their breeding pens and will no doubt transmit his exceptional qualities to his progeny.

For High Quality **BARRED ROCKS** at Moderate Prices  
 Winners at Baltimore and Richmond  
 My birds will be mated January 1st and after January 10th I will have eggs for hatching.  
 Write C. H. BOSCHEN, ASHLAND, VA

## BRUNIG BUTTERCUPS ARE CHAMPIONS

My winnings at Chicago Coliseum Show, 1st cockerel, shape special, color special on male and 1st pen. Prove the superior quality of my stock. Write me for description. History and illustrations FREE.

Stock and Eggs For Sale.

W. C. BRUNIG, Box 403, ELKHART, IND.



## Every Fowl a Money Maker

Did you read about the man that gave some chickens away and led 25 cents on their legs and came out ahead?—Put 'em all to work—There should not be a chicken on the place that isn't earning money—Get my new Big Free

Book. Tells of Chickens, Turkeys, Geese and Ducks, Incubators, Brooders and poultry fixings of all kinds. Henry Steinmesch, Pres. 31 N. 4th St. St. Louis, Mo.



## Rowans Black Spanish

Blue ribbon winners at America's leading show Panama-Pacific, Boston and Madison Square Garden, Chicago. If you want stock that will win in any competition I can furnish your needs.

If you want eggs that will hatch prize winners I have the quality you want.

## Try Black Spanish

They are healthy, vigorous and prolific layers of large white eggs. Hatching eggs \$5.00 per thirteen. Each additional thirteen \$4.00.

R. A. ROWAN LOS ANGELES, CALIF.

## HERE IT IS FOR \$4.00



### A GREAT BIG HAND GRINDER

that will save its cost several times a year and will furnish one to two bushels per hour of fresh ground corn, oats, peas, dry bone, oyster shells, nut shells, dry stale bread, etc., for poultry feed, or will grind table meal for family use.

A child can operate it. Thousands sold annually. Shipping weight 40 lbs.

We also build a full line of Power Feed Mills, Sam-

son Wind Mills, Gasoline Engines, Hardware Specialties. Ask for Catalogs, stating line in which you are interested  
 Stover Mfg. Co., 321 Plymouth St., Freeport, Ill.

## A Winning Combination

American Poultry World

and

Everybody's Poultry Magazine

Both One Year for 75c.

Or better still we will send you the above two papers together with your own selection from any 50 cent Poultry Journal published in the United States.

The Three One Year for \$1.00

Don't delay. Send today, this great offer may not appear again.

(Canadian subscribers add 25c additional for each paper wanted.)

Address All Orders.

AMERICAN POULTRY WORLD

BUFFALO, N. Y.

to any other variety and for reasons other than the dollars which have been continuously produced.

Many breeders have found that the easiest money to be made in keeping and breeding poultry today is through the medium of a small select flock of something distinctive and novel, which is coming into popularity, so that the product is in demand at fancy prices, rather than in retaining old standard sorts which are so well known and plentiful everywhere that the product can only command competitive prices in market.

That the American Standard Buttercup as now bred in the best yards in this country, combines the necessary qualities which make it peculiarly adapted to fill this bill, is conceded by all who know them and there is not a doubt but that they will continue to prove money makers, as well as pleasure bringers, for many years to come, to all who breed them

### MITES CAUSE MIGHTY LOSSES IN OUR FLOCKS

Are your fowls dumpish? Do they peck and scratch their plumage? Is the egg record dwindling?

If so, there's a reason, and possibly it's lice or mites.

Eight or more distinct varieties of lice commonly affect the domestic fowl during the day time, and then at night they are "pestered" with "the bed bugs of the poultry world"—red mites. In addition to external discomfort, lice and mites are often the cause of serious losses.

It takes constant watchfulness and work to keep poultry houses free from these pests.

Here are a few hints on the subject by the head of the Poultry Department at the University of Wisconsin:

"To find out if mites are present, pour some kerosene into the crevices of the roosts. Fumigate at once if the insects are present. Remove all loose boards and litter from the house and tightly close the doors and windows. This should be done early in the day and the fowls kept out after fumigation until the premises are well aired.

"Spraying with whitewash, kerosene, coal tar disinfectant, or crude carbolic acid is more satisfactory. One part crude carbolic acid with fifteen parts of kerosene makes a splendid mite killer. Painting the roosts and nests with one of the commercial compounds takes a little longer, but is more effective.

"In mite extermination the important thing is to reach every crack and crevice with the spray mixture. The next important point is to repeat the application at frequent intervals in order to kill any pests that may have hatched in the meantime."

### DON'T SELL EGGS FROM INCUBATORS

Use Such Eggs at Home or for Chick Feed, as Putting Them on the Market Tends to Lower Prices Offered by Cold Storage Packers

The mixing of eggs taken from incubators with other eggs sent to market, as the practice has grown from year to year, has tended to lower the average prices offered for spring eggs by cold storage

packers, who are important buyers at this season. Spring shipments of eggs, free from incubator eggs, are of such good quality that packers do not have to go to the extra cost of candling each egg before storing it. Such eggs can be "clicked," three at a time, to detect cracks, and quality is determined by the fresh powdery look of the shell. These measures, however, will not detect eggs which have been incubated and failed to hatch and which are useless for storage purposes because even if not actually rotten when stored they soon become so.

When the egg packers are forced to candle, they quickly determine accurately the average number of incubator eggs to the case from the different collecting points and regulate their prices accordingly. In final analysis, therefore, the country shipper is paid on the average for just what he ships to the wholesale center, and he in turn bases his payment to the producer on his own returns.

The eggs removed from an incubator because they are infertile, while not fit after such heating for keeping, and not good for boiling or poaching, may, if used at once, be fried, and are good for cake and certain other baked foods. Such infertile eggs, moreover, make one of the

best feeds for early chicks and many poultrymen use all their infertile eggs from incubators for this purpose. The farmer, therefore, would be wise to use such eggs immediately at home and not to mix them with his spring eggs. He should send only fresh eggs to market and should try to sell to the country collector, or store, on a strict quality basis. Incubator eggs when they reach market are classified as "Low Grade No. 2", and the presence of any number of them in a case reacts unfavorably on the grading of the entire 30 dozen at the hands of the first wholesaler.

### IDEAL DARK CORNISH

The mating list of the Ideal Dark Cornish Yards, Dr. W. A. Low, Proprietor, Catonsville, Md., should prove of interest to every lover of this popular fowl. After the introduction a page is devoted to a partial list of winnings of the "Ideals". The list includes such shows as Chicago Coliseum, Madison Square Garden, Baltimore, Hagerstown, Pittsburgh, Grand Central Palace, etc., etc. After which follows a description of the six matings for the season of 1916. A few pages of testimonials are also given and they include customers from Canada to Texas, and from Delaware to Oklahoma, proving conclusively that the Ideal Dark Cornish have a large following. This list will be mailed free to any reader mentioning A. P. W. when writing. Kindly address as above.

## The Good Old Hen Watches Over Her Chicks DAY AND NIGHT?

So does the Dandy Colony Brooder—the Mechanical Mother. Mrs. Bidly may accidentally crush a promising chick now and then, but the Little Dandy never does. Costs but little more to keep than the hen and takes care of about forty times as many chicks.



Raises every chick that is fit to be raised.

Built of cast iron to last a lifetime.

Burns coal or gas.

Stops the brooder losses. Increase your profits.

The right temperature uniform at all times is what we guarantee. Besides controlling the fire in the brooder we control the surplus heat. The check valve is under the hover and when open draws the surplus heat up the stack. No chilling, no over heating, no crowding.

**\$15.00 IS A SMALL PRICE**

But the results you will get will be large. We are located so we can produce a brooder for this price and a good one too. Send for our folder and let us tell you why. Address Department 122.

We want hustling agents.

**NORTHEASTERN MFG. COMPANY.**

**The Home of Better Brooders,**

**Keeseville, N. Y.**

# POULTRY WORLD AFFAIRS

S. J. Hopper, Dallas, Texas, formerly editor of the Southern Poultry Journal, is now associated with Editor McReynolds of the Southern Poultryman.

According to an announcement made recently by the United States Department of Agriculture the country is now entirely free of the Hoof and Mouth disease and no quarantines exist in any section.

J. Howard Sledd, editor of the O. K. Poultry Journal, Mounds, Okla., has moved from Mounds to New Decatur, Ala., where he will be connected with the Forbes Poultry Yards. He will also continue his work with the above mentioned journal.

William Hoshor, Superintendent of the Nazareth Hall Farm, Nazareth, Pa., recently resigned his position to take charge of the poultry department at the Homeopathic State Hospital Farm, at Allentown, Pa.

Horace G. Murphy, Muncie, Ind., Chairman of the Publicity for the Blue Andalusian Club recently received the nomination for State Attorney. Mr. Murphy's election is reasonably certain for which his numerous friends and the poultry fraternity feel very happy over.

Through an error announcement was made in the March issue that W. P. Woodworth officiated as Judge at the Deland, Fla., Poultry Show, this honor should have been conferred upon J. H. Wendler of Quarkertown, Pa., who officiated at several Florida shows.

Morristown, Tenn., is fast coming into the limelight as a poultry center. During the past year more than \$2,250,000 worth of poultry and eggs have been shipped from this district. The greater portion of this went to eastern markets and consisted of 721 carloads as follows: 440 cars of eggs, 165 cars live poultry and 116 cars dressed poultry.

The Missouri State Poultry Board met in Mountain Grove on March 22-24 and accepted the resignation of T. E. Quisenberry who has held the position of director since the Station was established five years ago. C. T. Patterson was elected to fill the vacancy. Mr. Paterson has been connected with the Station for some time as Pathologist and is familiar with the work in hand.

The annual meeting and election of officers of the Greater Buffalo Poultry Show brought some new faces to the front among them a new Secretary W. H. Gaude who is already making preparations for next season's show and makes the announcement that the next annual event to held Thanksgiving Week will be the "best ever."

The United States Department of Agriculture has issued a ruling barring from interstate commerce eggs not 95% good. That is, shippers packing more

than 5% bad eggs, will be regarded as violating the food and drugs act by adulteration. Bad eggs used for tanning or other purposes must be removed from the shell and denatured before shipping.

The Edwards and Loomis Company, Chicago, Ill., manufacturers of the well known "Red Comb" line of poultry foods, recently consolidated with the Kasota Elevator Co., and the Hales Elevator Company, making what is believed to be the largest concern in the world manufacturing poultry feed. Hereafter the business of these firms will be carried on under the name of the Hales and Edwards Company.

We have read many reports of poultry raisers shipping sitting hens, eggs, nest and all, various distances with good results. Here is one from the west coast that seems to prove that distance is no obstacle: "Cotton Grove, Ore.—Bert Nokes set a hen and then decided to move to Spokane, 500 miles distant. He shipped biddy, her nest and all, by express and twelve of the fourteen eggs hatched."

## BUFF WYANDOTTES YOUNG STOCK FOR SALE UTILITY AND FANCY

We won A. P. A. Grand Prize Medal for Best in American classes at last New York, Palace Show. **MIDDLETOWN, N. Y.**

## BABY CHICKS—HATCHING EGGS—BREEDERS

White Wyandottes, R. I. Reds, both combs, Barred Rocks, Light and Dark Brahmans, S. C. W. and B. Leghorns. Utility and Show Quality. **ILLUSTRATED CATALOGUE FREE.**

## RIVERDALE POULTRY FARM, **RIVERDALE, N. J.**

## MOORE'S SINGLE COMB WHITE LEGHORNS

**WINNERS AT THE LEADING SHOWS**

*Cockerels, \$5 and \$10 each. Pullets, \$3 to \$10 each.*

**EGGS**—Selected matings, \$2.00 for 15; \$8 for 100. Special matings \$5 for 15. Winning and exhibition birds. Improve your female line by birds or eggs from our yards.

## MOORE BROS. **MOSCOW, N. Y.**

## SPECIAL EGGS AT REDUCED PRICES SPECIAL

Extraordinary success with early hatches, high fertility and heavy egg production are the factors, that make it possible to purchase hatching eggs from

## LISK'S WHITE WYANDOTTES

at the following reduced prices. Exhibition matings \$2.50 per 15, \$7.00 per 45, \$12.00 per 100. Heavy laying matings \$1.50 per 15, \$6.00 per 100. Just bear in mind that third cock at the last Madison Square Garden Show was hatched from eggs from my yards.

**FRED C. LISK Box W. **ROMULUS, N. Y.****

## "SUPERIOR DARK BRAHMAS"

**At America's Greatest Exhibition, Madison Square Garden, 1916**

In a keen class in competition with some of America's best breeders they made a most sensational winning (on seven entries).

*1st and 3rd Cockerel  
1st and 2nd Pullet*

*4th and 5th Hen  
2nd Pen*

My first pullet being the sensation of the class. At the late Louisville and Dayton shows I won 8 firsts, 8 seconds, 14 minor ribbons, 7 specials including special for best display of any one variety. If interested in this Grand Old Variety send for my 1916 Mating List.

**W. H. Besuden, Box 13-R, **Evanston Sta., Cincinnati, O.****

etc., is completely ignored: "Mrs. A. K. Waters, of Station Camp, kept a strict account of the eggs produced by her hens for the year 1915 with the following results: Total production, 928 dozen; number consumed, 54 dozen; number sold, 846 dozen, which netted \$126.90, at an average price of fifteen cents. Lowest price, eleven cents; highest price, thirty cents. The upkeep of the hens amounted to very little in actual cost."

A. P. Hensington, Butte, Montana, said to be the King of the Chinese egg industry on the coast, recently received a shipment of 10,000 cases by the S. S. Ide Maru. Upon the arrival of the eggs Mr. Hensington arranged a banquet at the Ranier Grand Hotel, Seattle, Washington. The invited guests consisted of the produce dealers of that section. The novel feature of the banquet was the fact that the principal dishes on the menu consisted of Chinese eggs served in various forms. It is said that each guest pronounced every dish simply delicious. This is one way of advertising this somewhat antiquated hen fruit that may in the future prove to be a serious competitor for our home product.

The following press dispatch in a prominent daily newspaper leads us to believe that the "moonshine" industry not only thrives in West Virginia but that the newsmen have free access to the output: "Bluefield, W. Va., March 9.—What is believed to be the first time on record of a hen laying an egg in mid-air was the unusual accomplishment of a Brown Leghorn hen in the express office at Graham. The hen was in a coop of chickens. After the coop had been placed on a truck the Brown Leghorn escaped and, while flying, dropped a snow-white egg into space. John Jones, a colored roustabout, who was pursuing the hen, caught the egg a la Ty Cobb as it dropped."

Harlo J. Fiske, well-known S. C. White Leghorn specialist, formerly of West Springfield, Mass., has accepted a position as manager of the Pabst Stock Farms at Oconomowoc, Wis., and has already taken up his duties there. Mr. Fiske will endeavor to make the poultry department a prominent feature of these well known farms and we understand that his famous flock of Leghorns will become a part of the foundation stock. This is not his first experience in an enterprise of this kind as he occupied a similar position for many years at Skylands Farm, one of the great estates for which New York is famous. Mr. Fisk's friends, and they are many, while they will regret his removal from the east, will join in extending their best wishes for success in his new position.

The New York Produce Review, in commenting on the poultry industry in Texas, records the rapid growth of the

industry in the "Lone Star" State, also the improvement in quality in the following manner:

"The rapid strides which Texas has been making in recent years in the development of the poultry industry is indicated by the increasing quantity and improved quality of shipments coming to the New York market. Of a recent week's total receipts of 113 cars of live poultry arriving in this market fully 30 cars, over a quarter of the stock unloaded, originated in the Lone Star State. And the quality of this poultry is averaging better each year. A number of the shipping points are now sending forward a far superior grade of fowls, compared to the average Texas fowl of the past, and it is evident that in certain sections of the state better blood is being introduced in the flocks and more care given to raising and fattening. Certain marks of Texas fowls, both live and dressed, received here this season, according to the receivers, compare favorably with fancy Indiana stock.

"In the opinion of a number of well posted New York dealers, in touch with the development of the poultry industry in Texas, it will not be many years before that state takes the lead in quantity of poultry products, and a steady improvement is looked for in size and quality of both poultry and eggs. Over a considerable part of Texas cost of pro-

duction is low and this is attracting the attention of shippers. Facilities for handling the stock from farm to market are being improved and railroads are doing much to provide better transportation facilities."

**IVES' LANGSHANS** "A GOOD STRAIN OF A GOOD BREED"

Consistent winners at the largest shows for many years. Elegant big COCKERELS NOW at very reasonable prices.

PAUL B. IVES, "Bonnycroft" GUILFORD, CONN

**48 Lessons In Poultry Culture**

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**CAMPINES BLUE ORPINGTONS SUSSEX**

Winners at Hagerstown, Frederick, Norfolk, Washington, Chicago and Madison Square Garden. If interested, please write me, mentioning breed. Eggs very reasonable.

Dr. J. H. Prudhomme, Desk W, Thurmont, Md.

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My farm is to be cut up for building purposes and I am forced to sell most of my

**WOODCREST PARTRIDGE WYANDOTTES**

at once. Prices cut in half. 20 Yearling Males \$10.00 each. 200 Yearling Hens \$2.50 each. Order from this ad. and get double value. My loss is your gain.

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**SILVER WYANDOTTES**

"THERE IS MONEY IN SILVERS"

I have a fine lot of Silvers and can furnish good ones for the Fall and Winter Shows. The open laced and double wing bar kind. All correspondence answered promptly, Shipments made subject to approval of buyer.

HENRY STEINMESCH, ST. LOUIS, MO.



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From winners at the largest shows and heavy layers for several generations. Ten times more fresh air goes through our incubators than any other system giving greatest vitality to chicks. S. C. R. C. White Leghorns and S. C. Brown Leghorns \$10.00 per 100; \$5.50 per 50; \$3.00 per 25. Barred Plymouth Rocks, White Plymouth Rocks, S. C. & R. C. Reds, S. C. & R. C. Minorcas, White Wyandottes, S C Anconas \$12.50 per 100; \$6.50 per 50; \$3.50 per 25. Our ninth season. Safe arrival and satisfaction guaranteed.

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Have been tried before the HIGHEST TRIBUNAL, and found guilty of carrying away the most coveted prizes from America's premier show, MADISON SQUARE GARDEN. They won in the strongest competition possible, first and third pen, first cockerel, second and fourth pullet, fourth hen, color special on male, best display with more than twice as many points as my nearest competitor and grand special for the champion S. C. Red of the show. Have fifteen of the best matings this season ever in my yards. Mating list ready February 10th. A copy is yours for the asking.

B. H. SCRANTON,

RISING SUN, IND.

### LINE BREEDING DEFINED

The problem of where to draw the line between line-breeding and in-breeding is a knotty one and one that poultry authorities are often asked to solve. On several occasions we have heard breeders attempt to describe the difference between the two. While the speaker undoubtedly was satisfied that he knew the difference and probably possessed sufficient knowledge of the question to properly practice line-breeding in his own flock, the definitions as given usually lack that definiteness that would establish in the minds of the average person any difference between the two.

There are, however, exceptions to the above and occasionally some one comes forward that appears to possess the faculty of giving a fairly simple and clear definition to such questions. A correspondent of the Rural New Yorker appears to possess the above faculty and has given a fairly clear definition of line-breeding. While there are some points in his statements that may be at variance with the views of some breeders it expresses the main points so clearly that we are going to take the liberty of repeating the same here, with due credit to the aforementioned paper.

"The term line-breeding is applied to the mating of stock less closely related than when inbreeding, that is, not closer than cousins. The distinction is often

confused, the line-breeder keeps within the limit of the strain often introducing new blood. The results of line-breeding, like inbreeding, are to fix and intensify the stock's various qualities, good and bad, the advantages are to make the flock more uniform and to bring out and maintain desired qualities in the flock. The chief danger is that some unnoticed fault or weakness in the breeding stock selected may be increased because of its presence in the blood of both sides, hence special care is needed in picking out the individuals, especially the males, paying the foremost attention to vigor, because this quality is the one most commonly lost sight of in close breeding. The boundary between line-breeding and inbreeding is not sharply drawn in practice many strains are so closely inbred at the start, that breeding within the strain necessarily means close breeding. Skilled mating of related stock has been at the foundation of most livestock improvement while unskilled careless breeding of the same kind has been responsible for the "run-out" condition of so many flocks.

"In improving your flock the point is not so much to avoid relationship as to avoid weakness or lack of vigor on either side, and the same faults on both sides. In practice it will be possible to follow the plan for a number of years if due care and skill are exercised."

No doubt there are among A. P. W. readers those who are qualified to make a still clearer exposition of this much mooted question. To all such we wish to state that the "Latch string" is always out and you have a standing invitation to come forward at any time. No matter is valued more highly than that contributed by A. P. W. readers.

### BROWN LEGHORN CLUB YEAR BOOK

We are just in receipt of the tenth annual year book of the American Single Comb Brown Leghorn Club. This courtesy being extended to us by H. V. Tormohlen, President, Portland, Ind., who has the honor of editing this edition.

No catalogue reaching our desk has pleased us more or shows more careful preparation. For a time it was thought the Brown Leghorns were a "dead one" but due to the untiring efforts of Mr. Tormohlen as president, enthusiasm among the members and interest in the variety has been aroused as never before and this variety can almost be said to enjoy a boom at the present time.

The club has recently had a new club emblem made which is attractive and striking and we are glad to be able to acquaint our readers with it. The Brown Leghorns were our earliest heavy layers and today this characteristic stands out as the varieties chief asset as it was 50 years ago.

The new catalogue, a 44 page edition is the largest and best ever gotten out by the club and alone is worth the price of membership, \$1 in the club. It contains valuable articles on mating, breeding and caring for this variety.

Further information can be obtained either from the president or the secretary, Noel M. Hall, Harrisonville, Mo.



"GOV. JOHNSON"

FIRST PRIZE COCKEREL CHICAGO DEC 1913

"SPARTAN CHIEF"

FIRST PRIZE COCK MADISON SQUARE GARDEN NEW YORK DEC 1913

BRED AND OWNED BY WILLIAMS BROS., FULLERTON CALIFORNIA, U.S.A.

Few breeders of S. C. Brown Leghorns have achieved greater success than Williams Bros., Fullerton, Calif. For several years the Messrs. Williams have exhibited regularly at Madison Square Garden and have never failed to capture their share of the coveted ribbons. The most remarkable part of their record at this great show is the fact that the birds must travel upwards of thirty-five hundred miles and then compete with those that are fresh from the yards of eastern breeders. That these birds have the vitality to stand such a long journey and then show at their best proves conclusively that they are being bred for constitutional vigor and great stamina.



# SINGLE COMB BUFF LEGHORNS

The Strong Points of this Beautiful Variety as Seen by One Who Selected Them After Trying Several Other Breeds

BY L. WAGNER

Proprietor, Orange Poultry Yards, Manhasset, L. I.

THE question is often asked me, which is the most profitable breed of poultry to raise, and my answer is "The S. C. Buff Leghorns". If I knew of any other breed more profitable I would start raising them. The writer has had experience with good strains of Barred Rocks, R. I. Reds, Black Minorcas, Buff Orpingtons and White Leghorns, but not until we tried the Buff Leghorns were we satisfied that at last we had the ideal fowl.

Their rapid growth is astounding and unlike the other varieties of Leghorns the young stock at ten to twelve weeks old are round and plump, making the choicest of broilers. It is a great sight to see the little cockerels eight to ten weeks old lined up on a perch and one after the other trying to crow like so many school children trying to read the new reader.

For early layers of large white eggs it is our firm belief they have no equal. We usually find our first pullet egg in July and that means get busy to stop the rush, because we aim to have them start laying in September and October, eggs are more valuable then, and they stay at it all winter if they start laying during these months.

For beauty, can you imagine anything more beautiful than the trim, neat appearance and erect, alert carriage of the Leghorn fowl, the color of gold, bright eyed, with red overlapping comb and yellow feet, with a background of nature's green? It's inspiring! People come from miles to see a flock of them, while passers-by stop to gaze and admire. Another point about their color is that it refuses to become soiled. A flock of white birds penned up in the rear of a yard for a few months is a very sorry sight to see. Put Buff Leghorns in the same pen and like a diamond in the rough they stay buff, while standing the confinement well and laying, and singing merrily. Buff being a delicate color it is difficult to breed true in some breeds. Not so in Buff Leghorns as their Buff color, seems to be a color peculiar only to the Buff Leghorns and breeds true.

No chicken is profitable unless it produces a sufficient quantity of eggs to sell at a price above its cost of maintenance, regardless of whether it is a show bird or a mongrel. A show bird's eggs are sold for hatching during the hatching season, and as the hatching season is short and every egg is not a good hatching egg, the bird must also be a good

layer to be profitable. So you see profitable poultry means eggs, and more eggs means more profit, the answer is, Buff Leghorns.

It is not so long ago that Buff Leghorns were rarely seen in ones travels but today you often see good sized flocks of them and upon inquiry get the same answer, "They are great layers". Why is this so? They have not been advertised and boomed as many other breeds have, only to fall back when the boom is over. It is so, because they are making good in the hands of their owners and are coming forward on their merits. Slow but sure, and like an irresistible glacier they can't be stopped. When they receive full recognition as to their wonderful prolificness and thousands of people suddenly wake up to their value and desire to breed them will you be one of the thousands paying big prices for a breeder of a good strain of S. C. Buff Leghorns with eggs and stock for sale?

### LAST CALL FOR BABY CHICKS

This month will practically close the day old chick season, therefore those who wish to avail themselves of the opportunity to raise a few chicks should lose no time in placing their orders. Among the leaders and most reliable in this line we take pleasure in directing attention to the Lord Farms, Box 240-G, Methuen, Mass., S. C. White Leghorns Specialists exclusively. This farm can deliver 60,000 day old chicks during this month, every one of which is hatched from eggs produced by the famous Everlay strain of S. C. White Leghorns right on the Lord Farms and the eggs are taken from the nests and placed in the Mammoth Hatchers.

Thousands of Lord Farm customers are now successful poultry raisers and they give full credit for their early success to the reliable stock supplied by this farm. For complete

description of the farm, readers of A. P. W. should send for a copy of the 104 page catalogue one of the most interesting and complete books issued by any specialty farm of the writers acquaintance. In fact, it contains much more valuable and reliable information for the prospective poultry raiser than many of the books for which a price is asked. Mention A. P. W. and get your copy free. Address the Lord Farms, Box 240-G, Methuen, Mass.

## White Cornish

MOUNTVILLE FARMS,  
Pine Road, Loudoun Co. MOUNTVILLE, VA  
POULTRY LESSONS FREE to buyers of Incubators, Brooders. Big 1915 Book sent FREE for a postal. Don't buy any incubator until you write to DES MOINES INCUBATOR CO., 627 Second St., Des Moines, Iowa

HEIST'S PARTRIDGE ROCKS Let me tell you quote you rock bottom prices on breeding or exhibition stock, cocks, hens, cockerels or pullets; also eggs for hatching.  
ARTHUR HEIST, CRITTENDEN, N. Y.

ILLINOIS PIGEON LOFTS  
My Jacobins, Pouters, Fantails and Record Homers have won at the leading shows in the West. Thirty-five varieties, several hundreds birds for sale. Write me your wants.  
CHARLES A. BARTLING  
108 E. Mason Street, Springfield, Ill.


## BUFF ROCKS VICTORIOUS OCEAN TO OCEAN

World's Fair, San Francisco, First cock and champion male, first pullet and champion female, national cup for America's best and more awards than all competitors combined.

Madison Square Garden, New York, First pullet, 4th cockerel, 5th hen on 4 different entries; the only Buff Rock exhibitor to show at both these America's greatest shows.

The best line of breeding in the U. S. with 15 years under it. Why waste time and money on inferior stuff. Catalogue free.

C. R. BAKER, Box W, ABILENE, KANSAS




**WOOD'S LIGHT BRAHMAS**  
WIN-WEIGH-LAY-PAY

My winnings this season include the National Championship cup for best display at annual meeting of American Light Brahma Club, Chicago Coliseum in competition with 162 birds shown by 21 exhibitors from 11 states. Won heavily also at Madison Square Garden, Boston and New York State Fair

EGGS From 12 choice matings at \$3.00 to \$8.00 per 13. Please mention A. P. W.

HARVEY C. WOOD, Box 75, BOUND BROOK, N. J.



## RESSEGUIE'S BARRED ROCKS

Make a wonderful record at the Greater Buffalo Show, Thanksgiving week as follows; 1-4 cockerel, 1 pullet, 2-4 cock, 2 hen, 2 pen old, Best display. If you are looking for Barred Rocks of quality, birds with both the winning and laying habit let me help you out. I have cocks, cockerels, hens or pullets of the same high quality as above winners that I will sell at reasonable prices. Tell me plainly what you want, I can help you.

L. B. RESSEGUIE, MILLERS, N. Y.

80,000 EXHIBITORS estimated at San Francisco Panama-Pacific Exposition, out of this vast number The Martling Hennery was awarded

**FIRST PRIZE and SECOND DISPLAY for**

## MARTLINGS SILVER AND GOLDEN CAMPINES

THIS SPLENDID TRIBUTE TO THE QUALITY of our stock, emphasizes the acknowledged fact that it is the best strain of Campines in the world. Last year's winnings included best display at Madison Square Garden, Palace, New York State Fair, New Jersey State Fair, and Brooklyn, a grand total of 300 prizes at America's leading shows.

If you are interested in this most PROFITABLE and ECONOMICAL breed of fowl, write at once. STOCK for sale at reasonable price, EGGS for hatching "MARTLING GUARANTEES A HATCH."

**THE MARTLING HENNERY**
**P. O. Box 186**
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## GOOSE RAISING

Profitable in Small Numbers and in Suitable Locations—Demand and Prices Good in Some Sections

**T**HE Toulouse and Embden are the most popular breeds of geese in this country. The Toulouse is the largest breed, the adult gander and goose weighing 25 and 20 pounds respectively, while the standard weights of the Embden are 20 and 18 pounds.

### Management

Geese can be raised in small numbers successfully and at a profit on many farms where there is low, rough, pasture land containing a natural supply of water. The market for geese is not so general as for chickens, but the demand and prices are especially good in sections where goose fattening is conducted.

Geese need only a house during cold or stormy weather, when an open shed should be provided. One gander is mated with from one to three geese, and the matings are not changed from year to year unless they prove unsatisfactory. When mated, they are allowed to run together in flocks. Toulouse and Embden geese will breed when about 2 years old. The females are usually kept until they are from 12 to 14 years old, or as long as they lay well. Sex is difficult to distinguish, especially in young geese. The gander is usually somewhat larger and coarser than the goose, and has a leaner,

longer neck, and a larger head. The sex is sometimes determined by a critical examination or by the action of the geese at mating time.

Large boxes, barrels, or shelters are provided as nests for geese, or they are allowed to make nests on the floor of the house. The eggs should be collected daily and kept in a cool place. The first eggs are usually set under hens, while the last ones which the goose lays may be hatched either under hens or under the goose if she "goes broody." If the eggs are not removed from the nest where the goose is laying, she will usually stop laying sooner than if they are taken away. The period of incubation of goose eggs varies from 28 to 30 days. Moisture may be added after the first week by sprinkling the eggs or the nests with warm water. Goose eggs hatch slowly, especially under hens, and the goslings are usually removed as soon as hatched and kept in a warm place until the hatching is completed.

### Feeding

Geese are generally raised where they have a good grass range or pasture, as they are good grazers and usually pick most of their living, except during the winter months and the breeding season.

Goslings should be fed a mash of two parts shorts and one part corn meal by weight, changing at the end of three weeks to equal parts shorts and corn meal with 5 per cent each of beef scrap and grit. A fattening ration may be made of a mash of one part shorts and two parts corn meal by weight with 5 per cent of beef scrap, fed in the morning, and a feed of corn at night.

Adult geese should be fed for eggs about February 1, or so that the goslings will be hatched by the time there is good grass pasture. In feeding for eggs give a mash of equal parts by weight of corn meal, bran, and middlings or low grade flour with 10 per cent of beef scrap, in the morning, and a feed of corn at night. A constant supply of drinking water should be provided. If geese need grain when not laying, the beef scrap should be left out and the corn meal increased in this ration to three parts.



SECOND PRIZE & SHAPE SPECIAL, R. C. R. I. RED COCKEREL  
NEW YORK STATE FAIR SEPT. 1914  
BRED & OWNED BY ROCK CREEK POULTRY FARM  
GENESEO, N. Y.

The Rock Creek Poultry Farm, Hugo Freeze, Mgr., Geneseo, N. Y., has long been known as the home of good Reds, both combs. Birds from this farm have won many prizes in leading shows but none of these winners are prized as highly as the bird shown in the above illustration. This bird captured high honors at the New York State Fair and he has proven to be a wonderful sire and many of the farms recent winners are the progeny of this individual.

**ALMENDINGER'S R. C. WHITE LEGHORNS**  
Have won at Buffalo, among other prizes 1st cockerel for the past four years in competition with the best birds in America. Enough said, if you want choice birds or eggs for hatching.

A. ALMENDINGER, 61 Inwood Place, Buffalo, N. Y.

**PAULDING'S S. C. BUFF ORPINGTONS**

My prices on exhibition, breeding birds or eggs for hatching will interest you. Write today.

Clayton Paulding, Greenville, Ill.

**Barker's Black Langshans**

An established strain that has won highest honors at Madison Square Garden, Chicago, etc., year after year.

M. S. BARKER, THORNTOWN, IND.

**Andrew's White Wyandottes**

Win great victory at Boston, 1916. Best Display. Eggs for hatching from matings headed by all these winners. Send for mating list.

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W. S. STUVER, Importer and Breeder of  
**SPECKLED SUSSEX**

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TAFT WHITE

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Win at Hagerstown and Greater Buffalo. Stock and Eggs for sale. Catalogue free.

Taft Orpington Farm, Collins, N. Y.

**S. C. WHITE LEGHORNS and S. C.**

**RHODE ISLAND REDS**

Baby chicks and hatching eggs from stock that has been bred for years for size, vigor, early maturity and winter laying. This is an opportunity to strengthen these qualities in your flock.

We will have a surplus of S. C. White Leghorn eggs in April and May and will make special prices on large orders. Our stock is all raised and kept on open range insuring eggs of high fertility and strong healthy chicks.

PETTIT BROS., WILSON, N. Y.

**4-in-1 Cornerless Poultry Houses**

Portable, durable, sanitary. Ideal for Brooders. No corners for chicks to crowd into and suffocate. Light and sunny. Open-air front; removable, adjustable floor. Convertible into Breeding Pen, Brooder, Colony or Laying House. Features double available floor space. Cheaper and better than home built houses. Same materials as our famous silos. Cash or easy payments. Special introductory offer to Agents. Literature and prices on request. Address Box 388. Unadilla Silo Co., Unadilla, N. Y.



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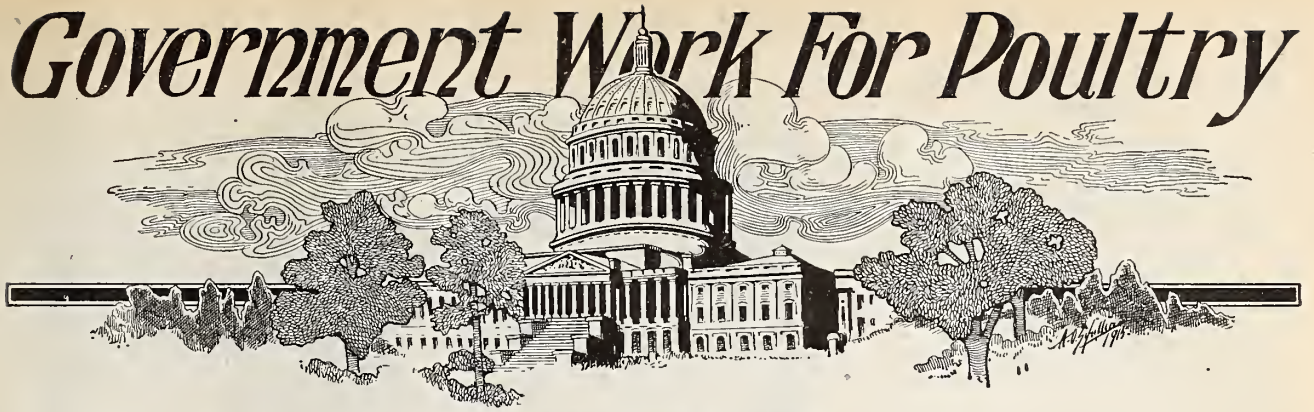
Complete set of reliable, practical, easy-to-use Capon Tools \$2.50

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Send for FREE Capon Book

# Government Work For Poultry



Conducted by Homer W. Jacksrm

## ARE INDEPENDENT POULTRY EXPERIMENT STATIONS DESIRABLE?—

A Discussion of the Advantage and Disadvantages of the Independent Poultry Experiment Station.

**I**N this issue of American Poultry World will be found an article descriptive of the Missouri State Poultry Experiment Station, an institution organized about five years ago, "in order to determine and demonstrate the importance of improved and better methods of feeding, housing, brooding, breeding and rearing poultry, etc."—to quote from the act of the Legislature which created it. I have reserved for this Department a brief discussion of the desirability of organizing such institutions and of their relation generally to State Agricultural Colleges and Experiment Stations.

Whether the Mountain Grove Station is judged by the experiments conducted, the educational work done or the popular interest aroused, it has met all reasonable expectations and its future possibilities certainly are great. When it comes to the question of organizing similar independent institutions in other states—that is quite another matter.

### The Regulation Poultry Department

The orthodox way in which to develop the poultry industry and to provide for investigation and education along this line, is to develop a poultry department at the State Agricultural College and Experiment Station; and those who feel that the industry is neglected, its development arrested or its interests unfairly set aside, are invited to take their complaints to the authorities who control the destinies of those institutions.

A poultry department in a state agricultural college and experiment station has certain advantages resulting from close co-operation with other departments, advantages that could not be realized in an independent organization except at greatly increased cost, if at all. In describing the work done along poultry lines at Wisconsin University, and similar institutions in preceding issues of this Journal, I have called particular attention to this fact, the importance of which should not be underestimated.

On the other hand, it is common knowledge that poultry departments in many state institutions are starved and sometimes completely suppressed in order to protect other departments already formed but inadequately supported. I think it generally is the case that, at such institutions, the deliberate position is taken that no matter how relatively un-

important other lines of work may be, no new line can be started until the older ones are adequately supported. If already established, the poultry department must develop more or less uniformly with other departments.

That may be a good, general policy, and an easy one for the executive officers, but if it results in permanently handicapping the poultry industry and making it practically impossible to advance its interests regardless of their importance, then that policy needs to be modified and made practical. An especially exasperating feature is the common demand that poultry growers must not ask for any special legislative appropriation for their industry. If they want an original appropriation for poultry or increased funds for the department, they must support the general budget and work for it as a whole.

For folks who have made a careful study of psychology, doesn't it seem to you that that is making amazingly little practical use of acquired knowledge?

### When to be Independent

I have been informed that the Missouri State Poultry Experiment Station was established only after the State University had refused the request of the poultry keepers of the State that a poultry department be established there. Whether true in this case or not, it is common knowledge that in a number of other states this unwilling attitude exists with reference to organizing new poultry departments or providing adequate support for such as are now established.

I believe it is true, however, that, in almost any agricultural state, poultry growers, acting in a body, can secure prompt recognition and liberal support. They can do this on behalf of a poultry department at their State Agricultural institution if permitted to do so. If not, they can work for independent recognition as was done in Missouri. Should they do it?

I doubt if a general answer can be given to this question. In the last analysis it must depend on circumstances. For example, what are poultrymen to do when the head of an agricultural institution in one of the leading poultry producing states of the country, after years of indifference, finally proposes to organize a feeble poultry department, stipulating that the man who takes charge of it shall be one who will be content to have his department remain indefinitely in an inferior position? In such a case is there anything at all to lose by following the example of independence set by Missouri? The fact that the organization of

the station at Mountain Grove was promptly followed by the organization of a Poultry Department at the State University is worth considering in this connection.

### The Power of Organization

Those who are familiar with the slow and reluctant recognition of poultry interests in some other states are liable to get the quite mistaken impression that money for poultry work comes very easily in Missouri. As a matter of fact, back of the Missouri State Poultry Experiment Station there has been much earnest and effective work. It is safe to say that the Station would not be in existence today if the poultrymen of Missouri had been as unorganized and unaggressive as in many other states.

The Missouri Poultry Association has been an important factor in pushing the interests of the poultry industry for years. It now has a membership of over six thousand and to the earnest work of this wide-awake body of poultrymen and women the Station owes its existence and continued support, in large measure. And when the poultry keepers of other states get together and take united action, they also will have similar influence and power.

Just what form this should take will depend mainly on the attitude of the different state college and station authorities. Speaking generally, it seems unfortunate that the poultrymen of any state should be forced to the relatively expensive step taken by Missouri, but if indifferent or obstructive college and station authorities persist in denying the poultry industry in their State its "place in the sun" they, at least, can have no cause for complaint if poultrymen take matters into their own hands. I can see a good many objections to independent poultry experiment stations and not a great deal in their favor. But neither can I see much chance for proper consideration in some states without the application of some such counter-irritant.

\*\*\*Tell us what you think of A. P. W. We appreciate good words from our readers.

**KEEP THEM IN CONDITION** To get a maximum egg yield next fall and winter your birds must be kept in the pink of condition from hatching to maturity. It has been proven that the feeding of Mustard to poultry promotes an increased egg production, and is also permanently beneficial to their health, vigor and stamina. **FRENCH'S POULTRY MUSTARD** is the original Poultry Mustard in America, pure and of great strength, hence only a small quantity is required for each fowl. The best results are obtained from its continuous use. Prepare your birds now for more eggs next winter. Booklet free.

THE R. T. FRENCH CO., DEPT. B., Rochester., N. Y.

## MEAT SCRAP IN THE LAYING RATION

Report on a Three-Year Experiment at the New Jersey Station. More Profitable Egg Production Secured When Meat Scrap is Fed

PROF. H. R. Lewis of the New Jersey Station gives the following interesting data on some experimental tests in the feeding of meat scrap to laying hens, in the April "Journal of the American Association of Instructors and Investigators in Poultry Husbandry":

With a view to testing the relative efficiencies of a low and medium percentage of meat scrap in the mash of laying hens, an experiment has been conducted for three full laying years, starting on November 1, 1912.

Single Comb White Leghorn pullets were used for this work, fifty being selected for each of two pens. The regular New Jersey State rations were used, with the exception of the meat scrap.

Pen No. 54 received 25 per cent. meat scrap in the mash and laid 6711 eggs during the first year, 4207 the second, and 3048 the third year. During the same period, Pen 55 receiving 10 per cent. meat scrap, laid 4639 eggs the first year, 4358 the second year, and 2674 the third year. These figures

are very interesting as they indicate the relative efficiency of the two rations.

It will be noticed upon a close study of these figures that the production of the flock receiving the 25 per cent. meat scrap was 6711 eggs during the pullet year as contrasted to 4639 produced by the flock receiving the lower percentage of meat scrap. During the second year of production the first pen dropped considerably in egg yield, whereas the others dropped only 300 eggs. During the third year the drop in production was less pronounced in the ten per cent. meat scrap pen. From these results it is seen that, evidently, high production during the pullet year resulted in a slightly decreased production in ensuing years.

The total profit derived from the egg production of these two pens for the three years was \$228.91 for the pen receiving 25 per cent. meat scrap, as against \$171.65 in the other pen.

As this experiment has been carefully carried on for three full laying years, it is deemed possible to draw the following conclusions. It is entirely possible that these results might be somewhat different, if larger flocks were used and other breeds, but as these flocks were operated under average normal conditions, the results obtained will undoubtedly hold in the great majority of cases.

1. The higher percentage of meat scrap in the dry mash was justified, at least dur-

ing the pullet year, as the profit above feed was \$127.88 as against \$75.60 in the pen receiving the low percentage of meat scrap.

2. The first year of egg production in the first mentioned pen was followed by a comparatively low production, whereas, the production in the pen which had not been forced during the pullet year was but slightly decreased. The same results seemed to show during the third year, so that the general conclusion is that high production during the pullet year is apt to be followed by decreased production in future years.

3. The mortality was practically uniform in each pen, the birds in both pens remaining in good condition in general throughout the period.

4. The hatchability of each pen was practically uniform.

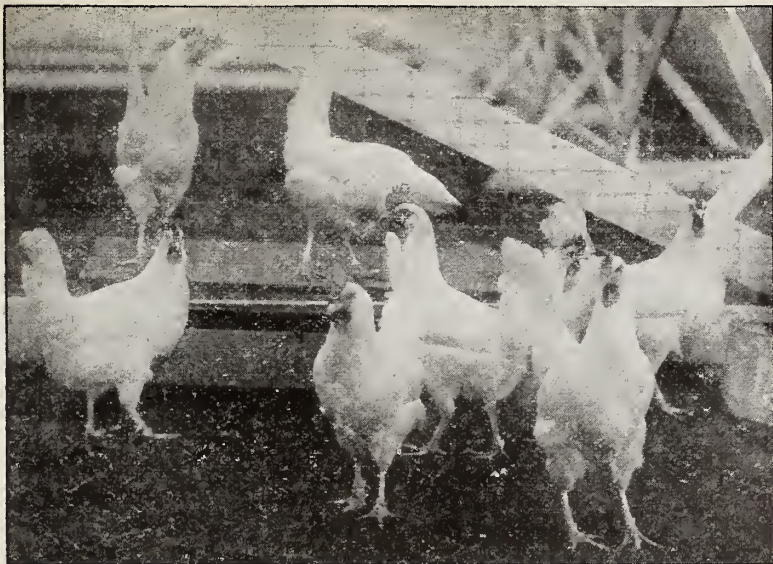
5. The size and weight of eggs in each pen were not noticeably different.

—o—  
This three-year experiment is a distinct addition to our knowledge of the feeding value of meat scrap. The conclusion that meat scrap, freely used, tends to promote heavy laying during the pullet year at the expense of the second certainly seems to be justified by the data, though I hope that Prof. Lewis will duplicate the test in order to corroborate this point.



FIRST PRIZE COCKEREL, BOSTON, JAN. 1912. FIRST PRIZE PULT. MADISON SQUARE GARDEN, DEC. 1911  
SPECIAL BEST FEMALE, SPECIAL BEST COLORED FEMALE, MADISON SQUARE GARDEN, DEC. 1911  
M. R. JACOBUS, RIDGEFIELD, N. J.

M. R. Jacobus, Ridgefield, N. J., was among the first to take up the breeding of Campines in America, and to him they owe much of their present popularity. Mr. Jacobus, has been a loyal friend of the little Belgians and has worked hard and consistently for their improvement. His long experience with the variety proved of great value in preparing the Standard description for both the Silver and Golden varieties. Birds of his production have long shown the marks of careful breeding and they have repeatedly won highest honors at our most prominent shows—Madison Square Garden especially. The above illustration shows a pair of his winners at this event in 1911. Today he is still showing improvement and feels that he is in better position to serve his customers than at any time in his career. Readers of A. P. W. will do well to ask for his printed mater and prices on both stock and eggs.



**THE WINNING PEN OF WHITE LEGHORNS AT PANAMA-PACIFIC EGG LAYING CONTEST**

The birds in this pen were from the Oregon Agricultural College and Experiment Station and have been bred for several years according to methods worked out by Professor Dryden, and in regard to which comparatively little has yet been made public. These Leghorns are all descendants of heavy laying stock for several generations back. Most of them are closely related to Leghorn Hen A27 of the Station flock with a record of 819 eggs in four years. Some of them are sisters of the hen that laid 302 eggs at that Station last year.

It is reasonable to conclude that any ration that stimulates or forces egg production must result in a reaction at some point in the fowl's productive life, but I am not quite satisfied that the relative drop in No. 54's second year was the result of such forcing.

The average production per hen in this pen which had 25% meat scrap in the mash, was 134 eggs, disregarding any deaths that may have occurred. In the pen getting 10% meat scrap the average production was 93 eggs.

These many years we have been industriously "breeding for egg production." Often our efforts have been more in the way of aspiration than of definite advance toward the goal, still we thought we were gaining a little. In addition, we certainly have learned much about housing, feeding and the general care of laying fowls. And now this experiment comes along and invites the conclusion that somewhere near the average of 93 eggs reached by No. 55 is the normal production of specially bred, carefully selected and scientifically handled pullets, beyond which limit we cannot go without injurious forcing.

Remember that the pullets in this experiment were New Jersey State White Leghorns with special advantages in breeding, care and feeding. Then compare the average of Pen No. 55 with the generally accepted average of 80 eggs per hen the country over, including haphazard hens of every age, breed and condition of servitude and tell me, what have all our efforts amounted to? Either increasing average egg production is a vastly slower job than we have been ac-

customed to considering it, or the relative drop in the production of No. 54 during the second year must be attributed to some other influence than the "forcing" effect of what most would consider only a moderate allowance of meat scrap.

As a matter of fact, we need a good deal more definite information than we now have on the normal limit in egg production. If "just hens" the country over

average to lay 80 eggs per year, how many eggs will well-bred and well-cared-for pullets lay *without forcing*?

**FEEDING YOUNG CHICKS**

**What to Avoid in Feeding Chicks. Choose Your Chick Food Carefully. Feed a Variety of Grains**

**T**HE following suggestions on feeding chicks are extracts from Bulletin No. 261 from the Wisconsin Station entitled, "Poultry Raising in Wisconsin":

When the chick is hatched it is supplied the first few days with sufficient food in the form of yolk sack. Under no circumstances should incubator hatched chicks be fed solid feed until they are at least forty-eight hours old. After the first few days a great deal of feed is necessary. The chick rapidly multiplies its body weight and must be liberally fed to do this. The best rule is to give a great variety of feed so that each chick will have a chance to eat feed of a number of kinds.

**Chick Feeds are of Several Sorts**

There are several different kinds of chick feeds. First there is the scratch feed or chick feed, as it is called when fed to small chicks. Under this heading, the commercial chick feed and all other feeds that are made up of small seeds and finely broken grain are included. In using feeds of this class one should be careful not to introduce weed seeds that may be poisonous or may prove to be pests.

Fresh feed entirely free from musty and moldy kernels should be secured. It is best to examine chick feeds carefully and then by chewing some of it to test the feed to see if it is sweet.

**A Variety in Feed is Needed**

Chick feeds may be made by mixing finely cracked corn, cracked wheat, steel-cut oats, and kafir corn. A very satisfactory feed can be made by mixing two parts of finely cracked corn, two parts of cracked wheat and one part of steel-cut oats. The principal thing in preparing chick feeds is to get as great a variety as possible. The person who raises only a few hundred chicks can usually buy ready-

**DON'T MISS THIS.** If you are in need of **CAMPINES**, either color, stock or eggs we can supply your wants and guarantee satisfaction. We now own the famous Manhattan Farms Flock of Silver and Golden Campines.

**WRITE YOUR WANTS TODAY.**

**McDONOUGH & BIDWELL, NEWARK, N. Y.**

<b>EGGS</b>	<b>ROSE COMB REDS</b>
	<p>Having hatched all the early chicks we can care for we are offering eggs at 1/2 our regular prices, right in the best of the season, when there is <b>PLENTY OF TIME TO HATCH WINNERS</b> for next season's shows. Write today for free mating list, describing the birds that win and produce winners. <b>Fertility Guaranteed 100 per cent.</b></p> <p><b>LONGFIELD POULTRY FARM, Box 339, BLUFFTON, IND.</b></p>



**THE FAMOUS VIGOROUS STRAIN HOMESTEAD SILVER CAMPINES.**

The following situation shows what we ship our customers. From a customer in R. I., dated July 25th, 1915: "I hatched eight fine sturdy chicks from the utility eggs which I bought of you over six weeks ago. I am so much pleased with them that I regret not buying the first quality. Hope to do so next spring. I should like to call and see your stock at some future time."

Sincerely yours,  
See our other ad. on page 555 in this issue. The fertility of our hatching eggs is running at present over 90 per cent. and we are hatching out almost every day many beautiful Vigorous chicks. May we be of service to you? Our aim is full **VALUE, QUALITY and SATISFACTION.**

**HOMESTEAD CAMPINE FARM, Box W, WAYLAND, MASS.**

**HENDRICKSON'S LIGHT BRAHMAS** **WORLD'S CHAMPIONS, 1914-1915.** First prize winners and specials for best males and females at both Boston and Madison Square Garden on different birds. Stock of same blood lines for sale.  
**W. A. HENDRICKSON, Houston Ave. MATTAPAN STATION, MILTON, MASS.**

mixed commercial feeds to better advantage than he can mix his own.

Chick feeds are especially advisable for feeding chicks that are kept in large lots in brooders, and for feeding any that are raised early in the season. The feed can be worked into a litter of chaff or chopped straw and the chicks are forced to exercise in hunting for it.

Bread crumbs as a part of the ration are valuable. Stale bread can often be purchased at a reasonable price and waste bread from the table can be used. Where bread crumbs are fed on a large scale, the loaves or crusts should be run through a bone-grinder or some other machine which will grind them sufficiently to be eaten. Bread crumbs are especially valuable as a part of the feed during the first three or four days the chicks are in the brooder.

Corn bread or Johnny-cake is used by many and has been found especially valuable for a part of the ration to help make rapid growth.

Mash feed or ground feed is more rapidly digested than the whole or cracked grains and on this account, a mash is usually fed where chicks are raised at all extensively. Some of the mash is usually fed moist in small troughs or pie tins and dry in small hoppers. The mash fed at the Station plant is made up of equal parts of bran, middlings, ground corn and rolled oats.

#### Chicks Like Tender Green Feed

Spring chicks, usually, are much easier to raise than those hatched at any other time of the year. This is due to the fact that vegetation of every kind is tender during the spring and the chicks eat it readily. Later chicks find vegetation much harder to eat and do not get enough unless special attention is paid to supplying it.\*\*\*\*\*For green feed, there are many things that can be used, such as lettuce and such other quick growing plants as green clover, green alfalfa, or peas. Any of these may be chopped and fed to the young flock. Sprouted oats are also very satisfactory.

Mangels and other root crops may be fed as a part of the green feed. This class of feed is usually fed by slicing the root once in two and then chopping the center a little with a knife so that the chicks learn to tear it and in this way are given a great deal of exercise. The Experiment Station has found onions the very best green feed of all, especially for the first few days.

When meat feed must be supplied, skim-milk, buttermilk, meat scrap and other commercial products can be fed either in a hopper or in a moist mash. Especially prepared dry bone, which should be fed in a hopper, is undoubtedly beneficial in supplying mineral elements that help the chicks to grow a good strong frame. Infertile eggs from the incubator are an important source of meat feed on some farms.

From the start, the chick should be given access to finely crushed rock, coarse sand, or fine gravel or specially prepared commercial grit. For this purpose the "chick-size" white limestone is especially valuable. Fine charcoal is also beneficial and should be supplied whenever possible.

#### Wisconsin Method of Feeding Little Chicks

At the University, chicks are given sour skimmilk in a small metal dish when they are twenty-four hours old. This is kept before them until they are about seventy-two hours old, when they are given good, sweet chick feed in a litter of chopped clover or alfalfa. This chick feed is scattered over the litter at least five times a day, pains being taken to have the chicks out from under the hover to see the feed when it falls. The following day, and the day after, they are given a very light feed of moist mash made up of equal parts of corn meal, rolled oats, bran and middlings. This is moistened with sour milk. Any mash that is not eaten after fifteen or twenty minutes is removed. This method of feeding is continued until the chicks are three weeks old, when the rolled oats are gradually dropped from the ration. At about this time whole wheat and medium cracked corn is added to the chick feed. The

amount of cracked corn and wheat is increased as rapidly as the chicks learn to eat it. As soon as the chicks show a willingness to eat the coarser feed the fine feed is omitted.

—o—

Formulas for home-mixed poultry foods are always in demand, but I am glad to have this Bulletin make the plain statement that commercial chick foods are cheaper than home mixtures for the average chick grower.

There is nothing mysterious about the composition of commercial chick foods and anyone who cares to do so can approximate the formulas on which they are made up: But it seldom is possible to buy the different grains in small lots and get them properly milled and mixed except at considerably higher cost.

The chief objection to making home mixtures, however, is that, on account of the difficulty of securing the right grains and the best grades, the feeder almost invariably compromise by using grades that are inferior and by entirely omitting those that are difficult to obtain. Their chicks, therefore, get little from incubation to maturity but corn, wheat when it is not too high, and oats when the chicks are large enough to negotiate the coarse lulls and sometimes a good deal sooner. I believe that two dollars are lost by the use of home-mixed chick

foods and chick mashes to every one dollar that is saved.

It is true, however, that a good deal of care must be exercised in the purchase of commercial poultry foods. Personally, I prefer to buy by sample. Even the best brands may have been exposed to dampness after leaving the factory, or carried too long in stock by local dealers. Get a sample, apply the test suggested in Bulletin No. 261, and when you find just what you want, buy enough to meet your needs for the season. But remember that the best chick food (or any poultry food, for that matter) may easily come to grief in your hands if it is stored in a damp place.

—o—

#### CARE OF BROODER CHICKS

Newly Hatched Chicks are Delicate Organisms. Little Danger of Keeping Them too Warm in Modern Brooders

BULLETIN No. 261 from the Wisconsin Station, entitled "Poultry Raising in Wisconsin," contains a number of excellent suggestions on the care of brooder chicks, some of which are given in the following paragraphs:

From the Incubator to Brooder.


In transferring chicks from incubator to brooder a person's hands should be warm

**MERHEW'S BUFF LEGHORNS** In the greatest Buff Leghorn classes of the year at Madison Square Garden and the Panama-Pacific my birds won 10 regular prizes and two specials. Still have some choice stock for sale. Eggs at \$3 to \$10 per setting from selected matings. Other matings \$8 per 100. L. E. MERHEW, MARATHON, N. Y.

#### RAVEN BLACK STRAIN S. C. BLACK MINORCAS

AGAIN WIN STATE CHAMPIONSHIP

At the South Bend Show, January 19th. Formerly Mishawaka, Ind. Some FINE COCKERELS For Sale. JAMES S. KEATING, McGRAW, N. Y.



**Kill the Lice and Stop that Roup**

LEE'S LICE KILLER and GERMOZONE are now obtainable at most towns. Where not, we can deliver Germozone by mail at 50 cts. (tablet form) and Lee's Lice Killer at \$1.25 per gallon can, express paid. Send for our new books, just out, "Care of Baby Chicks" and "Secrets of Success with Chickens." Best ever published. Condensed experience of twenty-five years in handy, readable, memorable form. Invaluable for reference all through the season. Free for stamp.

**GEO. H. LEE CO., 708 Lee Bldg., Omaha, Neb.**





#### CLOSE-TO-NATURE OPEN AIR HOVER

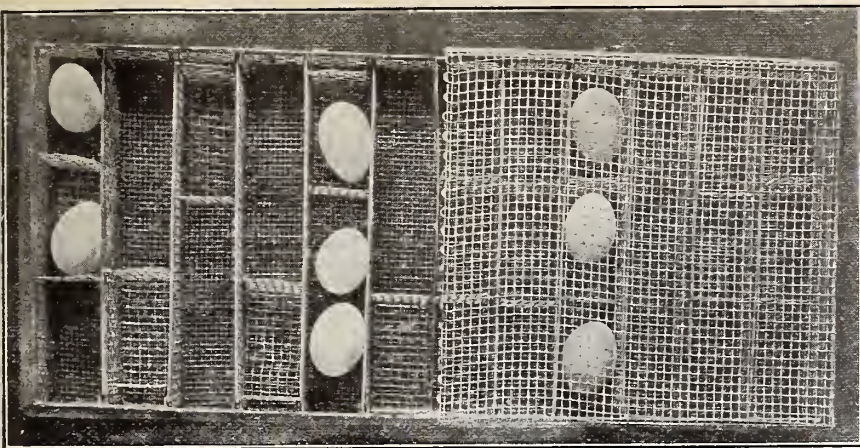
The Longest Portable Hover Now Advertised  
Five Feet Long, Warmed Evenly By Heater on Inductive Principle

Applies the three Close-To-Nature principles—Contact Warmth like hen; Open Air Ventilation, not hot air; Non-Piling or Overcrowding.

Combines the Fireless with the Lamp, use the lamp for very young chicks and discard it as they grow older; or use the lamp during the daytime but extinguish it at night when they cluster for the night.

Hinged for easy cleaning and airing. Roosting bed of earth or litter. Perfectly sanitary, brooders on the same principles. Nothing like these brooders and hovers now on the market. Don't buy till you have read the Close-To-Nature circular. It is free. Very low prices this season.

**CLOSE-TO-NATURE CO., 48 Front St., COLFAX, IOWA**



**A PEDIGREE EGG TRAY—PRACTICAL METHOD OF HANDLING INCUBATOR EGGS AT HATCHING TIME WHEN CHICKS ARE TO BE PEDIGREED**

All poultry keepers who are following systematic breeding methods find it necessary to adopt some method of separating eggs from different pens or individual hens at hatching time. A common way of doing this is to place the eggs in small bags made of mosquito bar, these usually being made to hold one to four eggs. The eggs are placed in the bag at the last turning. After the chicks hatch and are dried off, they are removed, toe-marked and placed in the nursery tray below. When permanent pedigree trays are desired, the one shown in the accompanying cut will be found very convenient. As will be seen, an ordinary tray may be used. Make sides of galvanized wire cloth, about four inches high and provide movable cross partitions wide enough apart to give sufficient room for a single row of eggs. These rows may be further divided by bending strips of galvanized wire cloth as shown. A wire cloth top covering the entire tray completes the contrivance and makes it impossible for the chicks to escape from their own compartment until released by the attendant. This photo is from the Missouri State Poultry Station, where these trays are in regular use, all chicks hatched there being pedigreed.

chicks are made tender by too high a temperature in the hover. Results, however, show that this is not the case if chickens are brooded in modern hovers that make it possible for them to get as far from the source of heat as they wish. One can better understand brooding chicks if he will remember that in extremely cold weather when he comes in from out-of-doors he likes to go up near a stove where the temperature is much higher than would be comfortable if he came in from a temperature of seventy-five or eighty degrees. In the same way, if a chick runs out into a cool room it will be anxious to get into a temperature that is higher than it would desire if it had been running in a room that was warmer. As soon as its body

**ROSE COMB REDS**

A few surplus pullets for sale. No eggs for sale this year.

C. E. RILEY, 747 Fillmore Ave., BUFFALO, N. Y.

**Engagements Booked Now For**

Fall Fairs and Winter Poultry Shows *all classes.*  
 Legalized Expert Poultry Judge.  
**LLOYD M. HALLENBECK,** GREENDALE, N. Y.  
 Originator of Buff Brahmas.

**130-Egg Incubator and Brooder**  
 Freight Paid East of Rockies Both for \$10  
 Hot water, double walls; copper tank—best construction. Write for Free Catalog.  
 Wisconsin Incubator Co. Box 60 Racine, Wis.

**GET MORE EGGS**  
 Twice as many by feeding green cut bone.  
**MANN'S BONE CUTTER** 10 Days Free Trial  
 No money in advance. Cat'g free, t  
 F. W. Mann Co., Box 355 Milford, Mass.

**FAIRMOUNT WHITE WYANDOTTES BRED FOR BEAUTY AND UTILITY**

Line bred since 1909 for standard requirements and utility values. They win, lay and pay. If you want stock of this kind I can supply your wants. Eight matings to select from. Eggs \$1.50 to \$5.00 per 15, depending upon the mating you select. Free mating list gives full description.

**HARRISON C. DAWES,**  
**FAIRMOUNT FARM, MARLBOROUGH, N.Y.**

**S. C. WHITE LEGHORNS**

Sunnyside S. C. White Leghorns are my hobby, have bred them for years on free farm range from carefully selected matings until today they stand second to none in standard quality, and egg production. Let me tell you about them or better still let me fit you out with a select pen. Some choice breeders both male and female at reasonable prices.

**ONCE You Try Sunnyside Leghorns, NO OTHERS SATISFY**  
**G. L. WHEELER, Box W., PENN YAN, N. Y.**

that have not been able to make a good start because they have not learned to eat. This is especially true where large numbers are brooded together. Where one has several lots of the same age, all of the backward chickens should be placed together so that special attention can be given to teaching them to eat. Help them by having scratch feed in shallow pans and by putting in with them a few chicks that are older and have learned to eat. The backward chicks should be forced to stay in the fresh air for four or five minutes at each feeding.

These chicks are very sensitive to the cold because they have lived so long without eating that their bodies have become emaciated. They will need extra heat and attention until they learn to eat. Give these backward chicks all the heat they want. It is probable that the hover is too cold and the chicks do not like to come out into a room that is still colder. Many persons believe that

and dry. The basket or other receptacle in which the chicks are placed should be lined with dry single-faced eiderdown or similar cloth, and kept warm.

In handling, avoid pinching or crushing the chicks. Run the hands under the chicks and scoop them out. One should always remember that a chick has not very much of a covering and if grasped by a hand that is damp and cold, its body is chilled. Take care not to drop a chick, especially a chick that is only a few hours old.

**Little Chicks Must Be Handled Carefully**

When the chicks are in the basket carry them to the brooder which has been heated and is in good working order. Place the chicks under the hover in a fenced yard so that they cannot get away. A piece of one-ply roofing paper about one foot wide and long enough to go around the hover will do for this purpose. At first this is so fastened that there are about four inches between the cloth on the hover and the roofing paper. This does away with corners entirely and the chicks soon learn to go in and out under the hover curtain. A baby chick cannot see far and it takes the chick several hours and sometimes several days to learn what the brooder is intended to do for him. Each day the size of the pen can be increased until the chicks have a good-sized runway. The brooder must be kept clean since the chicks do not thrive in dirty brooders.

**The Third Day in the Brooder**

On the third day, all the chicks should leave the hover. If some are inclined to remain, force them out unless they are found to be good strong chicks with feed in their crops. If such is the case let them return since they have undoubtedly been outside working until they have become cold and sleepy and should be allowed to go under the hover. Other chickens will often be found

**ORCHARD FARM REDS**

Look up our complete winnings at Pittsburgh and Madison Square Garden and write at once for mating list.

**ORCHARD FARM, NOROTON HEIGHTS, CONN.**

**RAWNSLEY-SHIELDS POULTRY FARM**

*Breeders of Sterling Strain S. C. Buff Orpingtons and Speckled Sussex*  
**DEPT. 6, STATION B, COLUMBUS, OHIO**

**IMPERIAL SINGLE COMB REDS**

	<b>STOCK</b>	<b>EGGS</b>	<b>CHICKS</b>
<b>HEAVY LAYERS</b>	Large, dark, rich, even colored birds, winners at Buffalo, Rochester, Syracuse, Auburn. Write for mating list.		

**IMPERIAL RHODE ISLAND RED FARM, IRONDEQUOIT, N. Y.**

**FERNBROOK WHITE WYANDOTTES**

Won at the Great National White Wyandotte Club meet at Buffalo, best display by more than double the points scored by our nearest competitor. Winners at Boston, 1915 and 1916. Also winners of all blue ribbons at six other prominent shows in the last two seasons. A few choice breeding cocks, hens, cockerels and pullets left for sale.

Eggs from the ten finest exhibition matings we ever put together \$5 per 15, \$9.00 per 30, \$13 per 45, \$25 per 100. Utility eggs \$8 per 100. It will pay you to send for our free 16 page 1916 mating list giving description of our 10 superb matings, winnings, illustrations, etc.

**FERNBROOK FARM, Arthur C. Bouck, Mgr., Box C, Menands Road, ALBANY, N. Y.**

comes to normal temperature, it will either go back to the exercising room or seek a place where the temperature is satisfactory and go to sleep. This is probably an ideal condition for brooding.

I think it is safe to say that millions of chicks are lost each season on account of chilling or insufficient heat under the hover, while the number lost from overheating is very small indeed. After the first three or four days chicks that have plenty of house room or outdoor runs are not going to spend any more time under the hover than is absolutely necessary to keep comfortable. It is poor economy to keep brooders overheated, but in all cases of doubt, turn on a little more heat. "A little too much is always just enough." There is good reason for believing that a large percentage of the mysterious epidemics of white diarrhea is due to insufficient heat and nothing else.

**BREEDING FOR EGG PRODUCTION AT OREGON AGRICULTURAL COLLEGE**

Some Interesting Records Made by Oregon Birds in the Panama-Pacific Egg Laying Contest. First Official One Thousand Egg Hen

**D**URING the past few years the Poultry Department of Oregon Agricultural College has come in for a good deal of newspaper attention, chiefly as a result of the heretical views of its head, Professor James Dryden, who it appears is a long way from being an enthusiastic fancier.

Professor Dryden has been especially outspoken in regard to questions of breeding and while we may not all agree with him, he must be credited with having the courage to demonstrate his views by conducting elaborate breeding experiments at the College.

This is not the place to go into this, as I understand that he will have a bulletin on that subject at an early date and it will be interesting reading. I am only referring to the matter now by way of calling attention to the records made by the Oregon College birds at the Panama-Pacific Laying Contest, which began November 23, 1914 and ended November 22, 1915, and which constitute somewhat of a triumph for Professor Dryden. The following is from a news letter issued by the College and gives a final report on the contest:

There were 56 pens entered from various states of the Union and from Canada and England, 10 hens in a pen.

Ten Best Pens	Eggs.
Oregon Agricultural College, Corvallis, O., W. Leghorns	1616
Oregon Agricultural College, Corvallis, O., Oregons	1407
Oregon Agricultural College, Corvallis, O., Barred Rocks	1407
Geo. D. Adams, Victoria, B. C., W. Wyandottes	1392
Dean Bros., Airdale Poultry Farm, Keatings, Vancouver Island, B. C., W. Wyandottes	1280
Mrs. W. B. McCord, Hayward, California., R. I. Reds	1255
Bonne Brook Poultry Farm, Saratoga Springs, N. Y., W. Leghorns	1235
Tom Barron, Catforth, near Preston, England, W. Leghorns	1215
F. H. Sherman, Lebanon, Oregon, Barred Rocks	1214
Geo. R. Shoup, Lynden, Wash., W. Leghorns	1198
	13219
Average of all pens entered	985.35

The O. A. C. entered 3 pens and secured the first three pen premiums. The "Oregons" are a variety developed at the Oregon Station from an original cross of White Leghorns and Barred Plymouth Rocks.

The Oregon Leghorns won first prize for best pen record, the prizes being an exhibition trophy, \$75 in gold, a Zenoleum silver cup, \$5.00 in gold; a 504 egg Petaluma Incubator; 500 Keyes-Davis colored leg bands,



"OREGONA" THE FIRST TRAP-NESTED 1,000 EGG HEN

This is the hen referred to as A-27 in article on "Breeding for Egg Production at Oregon Agricultural College, in this Department. She is believed to be the first hen to make a record of over 1,000 eggs in trap-nests. Her record is as follows: 1st year, 240 eggs; 2nd year, 222 eggs; 3rd year, 202 eggs; 4th year, 155 eggs; 5th year, 168 eggs. Total 987. She is in her sixth year, has passed the 1,000 egg mark, and is still laying.

10 Metal Illinois trap-nests, 6 Petaluma trap-nests; 6 silver trophies, \$10 for variety prize; tied with Barron's 2nd and 3rd highest individual, Exposition trophy and \$7.50 in gold.

The "Oregons" and Barred Plymouth Rocks won Exposition trophy and \$75.00 in gold. The Barred Rocks \$10 variety prize.

The three College pens were produced at the Oregon Station as a result of breeding work continued over a period of 7 years. The records secured at the Station are very much higher than those made at the Exposition Contest. The lower records at the Exposition were due, no doubt, to the fact that the Contest house was open to visitors every day in the year.

The highest individual record of 226 eggs made by a Barred Plymouth Rock hen en-

tered by Sherman of Oregon. The second highest was 204 which was made by one of the O. A. C. Leghorns and also by one of Tom Barron's Leghorns.

In addition to the birds in the Panama-Pacific Contest, pens from the Oregon Station have been entered in other contests and have always made a good showing.

While the average production per hen for the Oregon pens in the Panama-Pacific Contest is not exceptional, running from 140.7 to 151.6 eggs, it certainly compared favorably with the records of other pens. It will be noted that Tom Barron was represented by one pen at this contest, which made the relatively low average of 121.5 eggs.

**SOME FACTS FROM A COUNTRY VILLAGE SURVEY**

The Following Extracts are From an Article Under the Above Heading, Published in The January Issue of the Journal of Instructors and Investigators in Poultry Husbandry

**T**HE survey which formed the basis of the interesting article from which the following extracts are taken, was made by R. S. Moseley of the New York College of Agriculture, Cornell University. It seems to me that this kind of work is distinctly "worth while."

A poultry survey was made in April, 1915, of the village of Trumansburg, N. Y., the population of which, according to the 1910 census, was 1188. The object of this survey was to study the flocks of poultry as to number, care, management, method of marketing eggs and poultry and the kind and amount of both used by the consumer.

Three hundred and twenty places were visited and 235 survey sheets were filled out representing 733 people who were old enough to consume eggs. No child under two years of age was considered in the survey. This gave an average of 3.1 persons per family able to consume eggs.

Table 1, (not given for lack of space.—Ed.) shows that 46.9% of the people obtained their eggs from the parties keeping poultry in the village, 18.6% from the stores, 13.9% from farmers outside the corporation, 9.1% from the stores and farms, 6.2% from the stores and people in the village, 2.7% from



**PEN OF OREGON STATION BARRED PLYMOUTH ROCKS**

This pen of Barred Plymouth Rocks, which tied for second place with the pen of Oregons, also from the Oregon Agricultural College, has been bred for egg production for seven years. These birds thus have a long line of heavy laying ancestry.



the farmers and people in the village, and 2.0% from various sources none definite. Not only the larger amount or 46.9% of the eggs consumed came from the poultry kept in the village, but it was found that practically all the eggs bought of the stores also were thus produced while only 18.6% were bought in the country. The average consumption of eggs purchased of neighbors in the village was 23.9 dozens per person and the average consumption of eggs purchased at the stores was 16.23 dozen per person.

Of the amount of poultry consumed 47.7% was purchased of people keeping poultry in the village, 17.7% was bought of the markets, 10.9% from farmers outside the village, and 17.8% from farmers and people in the village. The average consumption per person was 27.36 pounds or approximately 7 fowls each. On comparing the amount of poultry eaten with the number of eggs it will be found that one pound of poultry was consumed to every 3/4-dozen eggs.

**List of Varieties and Breeds Kept**

	No. fowls
White Leghorns	2657
B. P. Rocks	720
R. I. Reds	177
Buff Leghorns	167
White Wyandottes	94
White Orpingtons	55
Black Minorcas	48
Buff Orpingtons	30
Black Orpingtons	30
Mottled Anconas	30
Partridge Wyandottes	30
Brown Leghorns	28
S. L. Wyandottes	24
W. P. Rocks	20
White Minorcas	16
Columbian Wyandottes	5
Bantams	161
Ducks	21
Mongrels	744

There were altogether 4131 pure bred hens and 744 mongrels making a total of 4875 fowls kept. This would allow 4.1 hens to every man, woman and child living in the village.

Taking the average egg production at 80 eggs per hen, which would be a very low estimate, and the average egg consumption at 240 eggs per person, it will be seen that out of the surveys made representing 733 people, each person would have a surplus of 288 eggs. Using this proportion of the production it would seem that the poultry kept in Trumansburg could easily supply a town of at least 1700 inhabitants over two years of age with eggs, or a village of 2000 inhabitants counting the very small children.

**Feeding the Village Flock**

There seemed to be quite a difference of opinions as to the method of feeding, 71 flocks being fed dry mash, hard grain and table scraps, 51 flocks hard grain and table scraps, 9 hard grain, wet mash, and table scraps, and 3 flocks wet mash, dry mash, hard grain and table scraps. Where dry mash was used in connection with hard grain the best results were obtained. In practically every case where mongrels were kept, only hard grain and table scraps were given. It will be seen that table scraps composed a part of every ration and where only 4 or 5 hens were kept table scraps made up nearly the entire ration.

The importance of the amount of poultry kept in the villages, to my mind, has not been given enough thought heretofore. If all the villages in the United States produced as much poultry and eggs as Trumansburg, there would be a large surplus of eggs that could be credited to the American hen in view of the fact that, the census does not give any credit to small flocks of poultry within the incorporations.

This survey brings out some interesting facts in regard to village poultry-keeping and is worthy of special notice. I heartily concur in the author's statement that village poultry keeping has not received the attention that its importance demands.

The fact that this New York village actually produced at least 66% of the table fowls used and probably more, and that, at the low average of 80 eggs per hen, it produced enough eggs for its own use and, in addition, enough to supply another village almost as large, clearly shows that the village flock must be reckoned with. I do not suppose that the average American village will make so good a showing as this but the total number of eggs and fowls produced in this way must be very much greater than is generally realized.

No definite statement is given as to the proportion of families keeping fowls, but the statement is made that 235 survey sheets were made out representing, presumably, as many families. In the statement regarding methods of feeding, 134 flocks are accounted for. Assuming that this number includes all the fowls represented in the survey, this would indicate that 57% of the families visited keep fowls. Making allowance for homes visited but not reported, where no fowls were kept, it must be clear that close to half of the families in this village keep fowls.

The fact brought out, that the average consumption of eggs per person is practically 24 dozens when the eggs were bought in the village and a little over 16 dozens when bought at stores, is especially interesting and might be applied in two or three ways. To me it looks like a pretty strong argument for better quality. The average consumer certainly will buy more eggs when he can get them fresh and of good quality than he will when he must buy from the store,

with all the various uncertainties that this source of supply entails.

\*\*\* What is your favorite breed? Just tell us all about it explaining why you believe them superior to others.

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**Frank McGrann, Prop., Hiram Demmy, Jr., Mgr., Lancaster, Pa.**  
 P. O. BOX 417

**A REAL POULTRY PROBLEM**

Housing, feeding, disease, and numerous other phases of the poultry industry have, from time to time, taken up our attention and the importance of obtaining all possible knowledge on these subjects can not be overestimated. There is another problem which in many ways is just as important, that has not received its just share of attention. That is the subject of insect pests. Considerable is known and much has been written as to the nature of such vermin, as well as how to rid infested fowls of these "profit eaters", but very little has been said in the past as to the proper methods for preventing or avoiding them, which after all, is the sensible and more economical course of action.

For the purposes of this article we may roughly divide the vermin peculiar to poultry into three classes; first, Lice; second Mites; and thirdly, miscellaneous, such as the poultry fleas and ticks of the south. The average poultryman, with the exception of those living in California and the states bordering on Mexico or the Gulf of Mexico, will probably never come in contact with the pests of the third class, and we hasten to assure him he can congratulate himself on that fact.

In combatting these enemies of poultry, numerous weapons are at hand in the form of efficient insecticides and disinfectants. First and perhaps the most important, are the liquid lice killers and disinfectants. A few years ago it was necessary to secure these in the shape of two different articles but since the introduction of the powerful coal tar disinfectants it has been possible to secure both a powerful insecticide and efficient disinfectant in one article. A good reliable coal tar poultry disinfectant is economical, non-inflammable, non-poisonous, soothing and will not stain or irritate the birds. It may be sprayed or sprinkled in the poultry houses and about the crevices, or it may be used as a "lice paint" and applied directly and full strength to the roosts. It is an undoubted fact that there is no better class of insecticides on the market today than a good poultry disinfectant.

The second class of insecticides is comprised of the insect powders. Of all these, the best known and most efficient is pyrethrum or what is more commonly known as "Persian insect powder". It is impracticable to use this however, owing to its extremely high price and since the war the supply has so diminished and the price arisen so that its use is no more to be thought of than powdered gold. A good reliable powder, made on a tobacco, not lime base, will be found to be the safest and best of this class of goods.

The third class, is comprised of ointments designed to be applied directly to the fowl. These are particularly useful in the case of little chicks to which the application of a powdered insecticide is impractical. This class has the advantage over the powdered article of being more permanent in its effect. It should be remembered, however, in using any lice killer that is applied directly to the fowl, that while one application may kill every insect on the fowl, a second application will be necessary after an interval of five to seven days in order to kill the pests that may have hatched since that time.

Poultry lice, of which there are too many kinds to take up in this article, are true insects. Some, such as the head lice of chicks, live directly upon the juices and blood of the fowl and are very weakening to the bird, laying it open to the attacks of disease as well as decreasing egg production. These lice live on the body of the fowl at all times and are best eliminated by the application of a reliable powdered lice killer, dusted well into the fowl's feathers or by a good ointment applied lightly about the head, under the wings and about the vent. Other poultry lice live on the substance of the feathers or the scurf and excretions of the skin. Directly, these do not harm the bird, but indirectly, through the itching they produce and the annoyance they cause they will make the bird restless and cause it to lose in flesh. They do not live on the fowl at all times and may frequently be found in piles of feathers or other debris of the poultry buildings. To rid the fowls of the lice on their bodies, the same treatment is applied as was recommended for the other lice. This will be ineffective however, if the building is not thoroughly cleaned and sprayed with a good disinfectant to destroy other lice that were not on the birds at the time they were treated. If this is not done new lots of lice will quickly get on the birds as they scratch in the infested litter or sit in lousy nests.

Mites are not insects, but are related to the spiders. They generally infest the birds only at night, leaving them in the morning and hiding in cracks or under the roosts during the day time. Mites suck the blood of bird and for that reason are one of the worst pests. To rid a flock of this vermin, the house should be thoroughly cleaned during the day-time. All old litter and nesting materials should be removed and burnt. The interior of the building should then be thoroughly sprayed with a good strong solution of poultry disinfectant. The roosts should be scraped and then painted with a wide brush using the poultry disinfectant full strength. The mites cannot crawl along a roost so treated and still live to tell the tale. A good dusting of each bird with powdered lice killer will generally free it of any mites that may be on it at the time.

As for ticks and fleas, such as are found in the south, these are a big problem by themselves. It will perhaps suffice to say in this article that in a general way the best treatment so far seems to lie in the liberal application of ointment particularly to the head, and the maintenance of sanitary conditions and use of disinfectant in the poultry buildings.

There are a number of good insecticides on the market among them those manufactured by the Pratt Food Company of Philadelphia, Chicago, and Toronto. This concern has been engaged in the manufacture of the famous Pratts Poultry Remedies, Regulator and Baby Chick Food for nearly fifty years and their products are among the most reliable on the market today. Pratts Poultry Disinfectant and lice killer are dependable and have been in widespread use for a score of years. In Pratts Head Lice Ointment poultrymen are offered one of the best articles of its kind that skill or money can produce.

With such knowledge as we have at hand and such an array of inexpensive and efficient aids as the above there is no longer any excuse for lousy hens. The poultry men who believes about his chickens as David Harum did about his dog "that dog needs a few fleas to keep him from forgetting that he is a dog," is a back number and losing money

every minute he feeds his chickens in order to support thousands of devastating lice.

**WILBURTHA POULTRY FARMS**

It is not necessary for us to comment on the quality of Wilburtha Poultry Farms, S. C. White Leghorns, S. C. Buff Leghorns, Columbian Wyandottes, Columbian Rocks, White Rocks, and S. C. Rhode Island Reds as they have repeatedly demonstrated their quality in the leading shows of the country. What we desire to call attention to here is their announcement on page 549 wherein they record a reduction of fifty per cent in the price of hatching eggs during May and June. In addition to this big reduction in prices they guarantee ninety per cent fertility thus giving you exceptional value for the price. They will also be pleased to give you their summer quotations on baby chicks of either variety in case you prefer chicks to hatching eggs. This farm is owned by Chas. J. Fisk, and M. L. Chapman formerly of the Rancocas Poultry Farms as the general manager. Mr. Chapman's long experience with poultry insures you carefully selected matings and prompt and satisfactory service.

**\*\*\* Tell us what you think of A. P. W. We appreciate good words from our readers.**

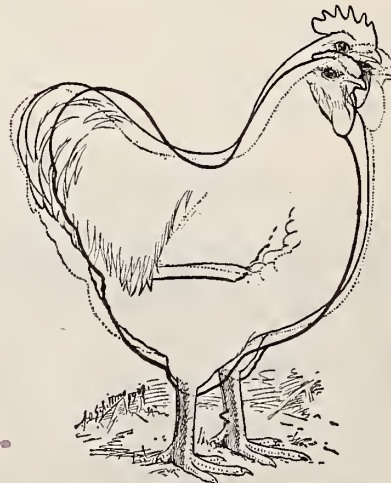
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## CARING FOR MALES BETWEEN BREEDING SEASONS

By W. A. Wolford

(Continued from page 539)

We have heard it said that to confine a male away from the females from one breeding season until the next would injure him as a breeder, that is, he would lack prepotency and would not be dependable. On the other hand another will claim that the breeding males require a rest and will waste their vitality if permitted to run with the females the year around; furthermore that a male will not be in good breeding condition when needed the following season if some special care is not given. Which is correct? Will we impair his vitality if we leave him with his harem or will his removal work an equal injury?

### Some Successful Methods

To answer this question we have asked several well known breeders to describe their methods believing that A. P. W. readers would receive the greatest assistance in this manner.

E. S. Aldrich of the Aldrich Poultry Farm, Columbus, Ohio, whose success in the production of White Orpingtons is well known to readers of A. P. W. says: "We always remove our males from the breeding pens at the end of the breeding season which with us is about June 15th. We put each male in a separate coop (meaning colony coops which are about 3 x 5 feet square) and feed them three times a day during the moulting season. These coops are placed in the orchard on the grass and are moved every other day. We find this method of handling the birds enables them to gain from one to two pounds by the time they have finished moulting, so they are in the best possible condition for the show season or for use in the breeding pens the following year. Injury to combs, wattles, etc., from fighting is also prevented."

This system of care entails much extra labor, but to the writer it seems to be the surest way of safely carrying the valuable males through the summer. That it supplies conditions that are favorable to the preservation of the good qualities of a specimen is proven in the case of "Madison King", the winner of two firsts at Madison Square Garden, viz., first as cockerel in February, 1915, and first as cock at the same show a year later. This bird is one of the productions of Aldrich Poultry Farm and his record stamps their method of caring for males as correct, at least in the case of White Orpingtons.

Speaking of the labor entailed by this method Mr. Aldrich says: "Of course, this system requires considerable labor and expense and for that reason we do not find it profitable to carry over any males of less value than fifteen dollars."

### Value of Males to be Kept Over

Now this is also a good thing to bear in mind and we are glad that Mr. Aldrich has raised this point. Fifteen dollars is a very conservative figure, that is, it can be considered as a moderate price as far as the values of good breeding males go. Therefore, it is a good basis for your own use in taking

inventory at the close of the breeding season. Just go over your holdings and see how many males valued at fifteen dollars or over you have on hand and keep only those that meet or pass that valuation. The remainder—well, stop and consider—look at it in this manner: can I afford to bestow labor and feed on these five and ten dollar birds all summer and sell them for five or ten dollars each next fall or will it be better for me to make a special price and try and close them out at three and five dollars each as quickly as possible?

Our advice would be to sell, but we are wandering a little from the line of our story. We started out to describe

the care and not to discuss the selling so we will return to our subject.

That a great many breeders follow methods similar to the one outlined in the foregoing develops upon inquiry. C. R. Baker, the well known and successful Buff Plymouth Rock Specialist of Abilene, Kansas, follows two plans one for exhibition males and the other for surplus breeders and sales stock.

Before taking up his methods attention is directed to the reasons given by him for the removal of the males from the breeding pens. Says Mr. Baker: "First the eggs must be disposed of after the hatching season at market price. If sterile they keep better, are better for

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Such a letter as the following tells its own story, as to my dealings, and I have hundreds more of them:

D. W. YOUNG, ESQ., St. MARYS, ONT. CAN., NOV. 5, 1915.  
Monroe, N. Y.

DEAR SIR:

The several settings of eggs I purchased from your Pens, Nos. 1 and 2, brought fine results. Both cockerels and pullets show their choice breeding, and I am fully satisfied with results. It is some eighteen years, since, as a boy, I first purchased Leghorns from you, and your straightforward and generous treatment of customers has always given entire satisfaction, in so far as it was in your power to do so. You have the goods, and you deliver the goods, both at the big shows and to purchasers of stock and eggs. Your splendid success serves you right. Thanking you for your generous treatment, I am,

(Signed)

J. GEORGE MILLER.

The show season is here. If you are going to exhibit, you must have the best to win. Why not come to headquarters and get the best? My stock has outclassed itself in quality this season. My birds have never been so superb or shown such perfect health and form. I am offering and selling the finest, most beautifully finished birds now, that it has ever been my pleasure to offer. Hundreds of yearling hens and grand cockerels for sale at reasonable prices.

WRITE ME for quotations and I can please you from the best the world produces. Mating list describing the most wonderful S. C. White Leghorn breeding pens ever put together free, if you mention A. P. W.

(The show specimens have always been chosen from the best layers, a point worth noting.)

**D. W. Young, Box E13, Monroe, N.Y.**



table use and cannot be hatched by some persons snooping around for a bargain. Second the hens for exhibition are better off if kept from the males thereby saving their new feathers from being ruined. Third, I am of the opinion that males recuperate better after the breeding season if separated. I also desire, that my exhibition females be sterile, thereby making their eggs useless to unscrupulous persons."

Regarding the males desired for exhibition Mr. Baker says: "These I desire to have each one by himself for he will not do his best if he is run over by any great number of other males. I have a house for handling forty males, each one by himself, with access one half of the time to an indoor run three by eight feet, with plenty of sunshine and fresh air, and one fourth of the time, weather permitting to a run three by ten feet, in the open. I give these birds an occasional service to the utility females and keep them as busy as possible all the time."

Particular attention is called to the last sentence in the above paragraph. Personally we believe this to be a most important question and one that is overlooked by many breeders. We do not believe in allowing valuable males to remain with the females during the interval between seasons, neither do we believe in isolating them entirely. In our opinion to pen a male away from

the females for several months greatly impairs his breeding value and makes him an uncertain breeder in the future. By permitting occasional service with the females his reproductive organs are kept in normal condition, and thus proper functioning is not stagnated by inactivity.

Continuing further Mr. Baker outlines his method of caring for the general flock of males which are all turned together and he introduces a unique plan for the prevention of fighting until the various members of the flock become acquainted and recognize one of their number as a leader. Using Mr. Baker's own words the plan is as follows:

"The breeders are all put together in one flock as so many females would be. This must be done in the proper manner, otherwise one courts disaster. All of them are hobbled to start with. These hobbles consist of a soft leather strap about sixteen inches long with a small buckle on one end. The strap is wrapped around one leg, above the spur, about three times in a systematic manner, then crossed over to the other leg and wrapped in a similar manner, leaving enough slack in the strap to permit the bird to stand up and walk around and at the same time being careful not to give him "too much rope" for he soon learns how to handle himself in his harness. The buckle enables one to adjust this strap properly and observa-

tion will soon teach one just how to handle it. All birds must be left hobbled several days and some of the more obstinate ones may require as much as a week of it. After they are thoroughly acquainted and accustomed to being together, one many start removing the hobbles from those that have given up to the ordeal, but this work will require constant attention of the one in charge for anywhere from a day to several days to see that no serious disputes arise. As a rule one bird will assume the leadership of the bunch and after he completes his mastery of the entire number in the flock, the greater part of the very difficult work has been accomplished. Lesser scraps

may start for a day or two but if the entire lot is kept in a rather limited quarters until they learn their place, the sooner the trick can be turned. Different males have different dispositions, the same as so many men, and one must be able to detect these little things. At times the leader may need a little help



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Eggs from our bred to lay utility matings cost only \$6.00 per 100 or \$50.00 per 1000 in May and only \$5.00 per 100 or \$45.00 per 1000 in June and July. Single settings \$1.25. Eggs from our 200 to 230 egg stock, \$2.00 per setting, \$10.00 per 100, \$85.00 per 1000 in May, \$1.75 per sitting, \$9.00 per 100, \$75.00 per 1000 in June and July.

Chicks from bred to lay utility matings \$12.00 per 100 or \$100.00 per 1000 during May, \$10.00 per 100 or \$90.00 per 1000 during June. We also sell in small lots of ten or more and you will find prices and full particulars in the catalogue.

Stock at reduced prices. Our annual summer sale of stock enables you to purchase birds that earlier in the season would have cost a great deal more and we offer some birds from our breeding pens that are good enough to win at the most important shows and that will breed equally good birds. Utility pullets and hens as low as \$1.25 each after June first. Splendid breeding birds direct from our trapped layers after June 1st.

See the catalogue for summer prices on all grades. We ship on approval and insure all birds for thirty days.

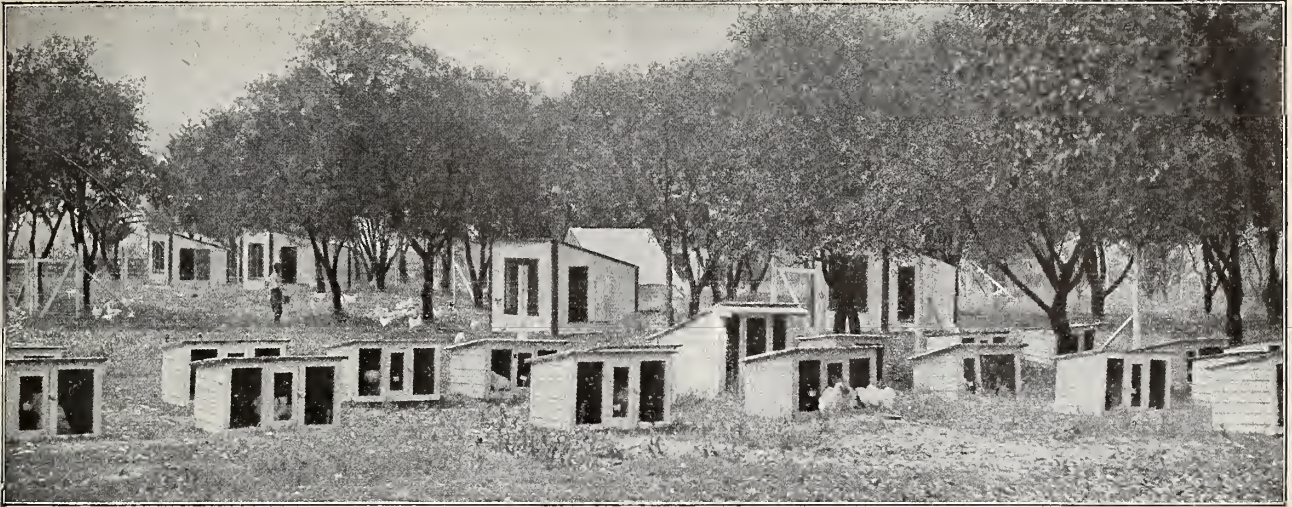
**EIGHT WEEKS** old pullets and cockerels now ready. Prices are very reasonable. We sell trios and pens properly mated. Special prices on lots of 100 or more.

**32 PAGE CATALOGUE FREE.** We will be glad to send you a copy of this book. It contains a lot of valuable information about White Leghorns, and explains the methods we have followed in perfecting the laying and exhibition qualities of Ferris White Leghorns. Send us a postal today.

**Geo. B. Ferris, Ferris Leghorn Farm**  
908 N. Union Ave., Grand Rapids, Mich.



This sturdy White Wyandotte female is a good representative of the quality of the birds produced at Fernbrook Farm, Arthur C. Bouck, Mgr., Menands Rd., Albany, N. Y., Fernbrook Farm Wyandottes have made an enviable show record and many of this season's matings are headed by noted winners. Full particulars regarding prices of eggs and baby chicks can be obtained from the mating list that will be sent free to A. P. W. readers.



The above illustration shows a summer view on the Aldrich Poultry Farm, Columbus, Ohio, and will give a fairly accurate idea of how the males are taken care of by the colony coop plan. In each one of the small coops is placed a male and in addition to being fed and watered regularly his location is changed every other day thus keeping him on fresh ground which is not only a sanitary measure but also serves to keep each one supplied with fresh green food at all times, a very important consideration in keeping the birds in good physical condition. This plan of summering males is followed very extensively by the large poultry farms but will work equally as well for the smaller breeder.—W. A. W.

from the person in charge that he may conquer an unruly male or two until he learns his place in the flock. After they have all settled down to a contented state, they may be given larger quarters and more range, but I prefer to have them where no females are around to get them excited. This may seem like a great deal of work to the inexperienced, but it is nothing compared to the individual attention required in caring for a great number of males. I have had as high as fifty in one flock in this manner, brought in from four different farms, demonstrating the possibility of this method. I have had persons remark at the sight of so many "bachelors" as I call them all in one bunch and getting along so peaceably. They did not drink grape juice either."

**The Method of an Eastern Breeder**

Down in Massachusetts where the Rhode Island Reds are prolific and the colony house plan finds much favor we find a slight reversal of the plans previously outlined. Harold Tompkins, Concord, Mass., whose productions in Rhode Island Reds has made his name familiar in all sections uses the colony house plan for his breeding pens and at the close of the breeding season removes the females to a large house where they are kept in one large flock or unit until the moulting season has passed and they are again required in the breeding pens. The males are allowed to remain alone in the colony houses and runs until time arrives to bring the cockerels in off the range, when each house is given its compliment of cockerels and the "old fellow" is then required to boss the flock and keep the youngsters from serapping which they are very liable to do when brought in off the range and put within the confines of a small yard.

The surplus males, that are carried over the summer are managed by the flock method, the above applying to the breeding males only. Of this general flock Mr. Tompkin's says:—"All males that I carry over summer that are not used as breeders I double up in one flock and allow them to run together in a large house for that purpose. When placing the birds together they naturally start fighting to some extent, but if a person stays with them an hour or so and douses their heads into a pail of water each time they start, they will soon get over the fever. A very warm day should be selected for putting them together as they do not last as long as on a cool day."

Now we imagine that the fellow with the pail of water is going to spend some busy moments if his flock of Red males

**BUFF WYANDOTTES**  
BOSTON WINNERS

Best Single Winter Egg Record at Storrs Egg Contest, 1914-15. Breeding or show stock.  
DR. N. W. SANBORN, 424 South Rd., HOLDEN, MASS.

**ABERNETHY'S HOUDANS**

"The strain that wins." Why not get among the winners by buying some of my stock at present very low prices.  
JAS. ABERNETHY, Box W, WEST PEMBROOKE, ME.

**ALDRICH WHITE ORPINGTONS**

After May 10, you can secure eggs from our pens at one-half the regular prices.  
We also offer our remaining male birds at 33 1-3% discount during May. If you wish the best White Orpingtons, write us.  
Aldrich Poultry Farm, 4045 No. High Street, COLUMBUS, OHIO.

**BREEDERS 10th-ANNUAL SALE-10th BREEDERS**

**OUR 1916 BREEDERS AT HALF PRICE.**  
This is your chance to get some of our choicest stock at extremely low prices. Our birds have won at such shows as N. Y. State Fair, Greater Buffalo, Rochester N. Y., etc. Orders taken now for July delivery.  
Ours are the Profitable Kind. **PALMER'S WHITE ROCKS** Strong and vigorous.  
Layers-Payers COCKS-HENS-COCKERELS Breeders-Winners  
Baby Chicks. Let us surprise you with our quotations. Hatching eggs.  
Satisfaction assured. Bank reference, Genesee Valley Trust Co., Rochester, N. Y.  
**THE GLEN POULTRY FARM, R. F. D., FAIRPORT, N. Y.**

**FOREST HILL POULTRY YARDS-QUALITY WHITE PLYMOUTH ROCKS**

**BARGAINS IN EGGS FOR MAY OR JUNE.** Now is the time to raise your prize winners, and next winter layers. The season has been backward and there is plenty of time to raise the best of chicks this season. We will sell you eggs from our extra good pens just as they run for the sum of \$3.00 per 15, \$5.00 per 30, \$7.00 per 50, and \$12.00 per 100—no reserve pens, you get eggs from the pens we shall raise our winners from.

**SEND YOUR ORDER NOW. DON'T DELAY.**  
Address: A. G. SPAHR, Box 1220, XENIA, OHIO.

**TOMPKINS RHODE ISLAND REDS**  
**SINGLE AND ROSE COMB**

**HAROLD TOMPKINS,**

150 high class breeding cockerels in both combs left to select from. Breeding pens and trios a specialty. Mating list describing 16 matings containing Boston, Madison Square and Buffalo winners. Strongest ever put together. Write you wants to

**Box W, CONCORD, MASS.**

are anything like those we have had experience with. We have always had a suspicion that there was considerable Game in the make up of a Rhode Island Red, at least his behavior when coming in contact with another male would indicate a considerable trace in his ancestry. Looks to me as if it would be a mighty hot job for a hot day.

Continuing his remarks in regard to feeding Mr. Thompkins states: "The feed for these birds consists of a box kept filled with dry mash at all times up to September first, when I take the mash away, until the feathers begin to drop rapidly, after which I allow a little mash each day until the regular ration is again restored. I have succeeded in this manner in successfully moulting out a large percentage of show birds from those I carry over."

A few seasons ago the writer while visiting Brackendale Farms, at Fonthill, Ontario, Canada, observed several colony coops with small runs attached scattered about the farm and orchard. Upon investigation it was found that each one contained a breeding male of that splendid quality for which this farm was famous. These coops as I recall them were about thirty inches square and thirty-six inches high with a yard about six feet square attached. The superintendent replying to questions stated


that long experience had demonstrated that this method gave the best results both as to conserving vitality and in bringing out high quality in plumage, thus putting the birds in first class exhibition shape. These coops as at the Aldrich Farm were frequently moved keeping them on fresh turf as much as possible.

Some farms are provided with so-called cockerel houses. The interior of these vary in arrangement some having narrow pens opening into a long aisle that runs the whole length of the house, while others are fitted with coops very much after the style of a poultry exhibition. These houses are designed for the special purpose of keeping surplus males and, of course, the latter with its small coops or cages permits of the smallest cost per capita for housing. There is, however, the ever present danger in this style of house of the birds going stale through lack of exercise from close confinement. The first with the pen system is preferable, but the capacity is limited as compared with the latter. Either house unless specially constructed is not suitable for the summer on account of the intense heat during the day, therefore must be regarded as a necessity, only, for the purpose of keeping surplus males through the sales and breeding season.

A very good plan for the summer management of males is in use by W. M. Patteson, Penn Yan, N. Y., who breeds Sussex all varieties. Mr. Patteson has a large yard, which in turn is subdivided into several smaller ones, all of which are connected by gates. In the corner of each yard he has a unique shelter consisting of a frame work of boards about four feet square. This is placed against one of the division fences so that it has a slope of about forty-five degrees, underneath a single perch or roost is placed. Into each of these yards is placed a male. They are fed and watered regularly, have plenty of room for exercise, shade and green food. The only bad feature of this method is the liability of fighting through the division fences which must be so constructed as to prevent any serious engagements. Whether this plan originated with Mr. Patteson we did not learn.

That the flock plan appears to find favor in most sec-

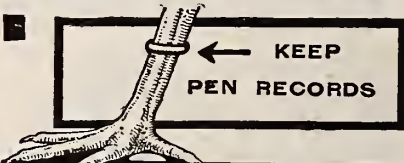
**PERRY'S ROSE COMB WHITE LEGHORNS—BUFF ROCKS AND BLACK WYANDOTTES** win 250 prizes State Fair, Cleve., land, Hagerstown, etc. breed for eggs and beauty—Stock and eggs at low prices. Free circular. **LOUIS H. PERRY, Route No. 7, CLAY, N. Y.**

**Crown Bone Cutter**  

 Hens fed cut green bone lay more eggs. Get a Crown Bone Cutter. Send today for catalogue. **Wilson Bros., Box 10, Easton, Pa.** **BEST MADE Lowest in Price**

**CHAMPION LEG BAND**  

 Aluminum, numbered to suit, with large raised figures. Postpaid 100-50c, 50-30c, 25-20c, 12-15c. Initials extra 10c per letter per 100; 5c or less 5c. More than one initial with cut figures. Circular free giving price on Small Chick, Superior, Riveted and Pigeon Bands. Sample for stamp. **T. CADWALLADER, Box 1605, Salem, Ohio**

**SOMETHING TO GROW ABOUT**  
**"HEN-E-TA"**  
 About 30% Tri-Calcium Phosphate Popularly Called **BONE ASH**  
**NO OTHER BONE NEEDED | NO OTHER GRIT NEEDED**  
**NO MORE BONE CUTTERS NEEDED**  
**NO MORE BEEF-SCRAPS NEEDED**  
**NO MORE CHARCOAL NEEDED**  
**NO MORE OYSTERSHELLS NEEDED**  
 VALUABLE BOOKLET FREE  
 100 lbs. - - \$ 2.25  
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**Balanced Ration Formulas Free**  
 If you will give us your dealers name and address.  
**HEN-E-TA BONE CO.**  
 NEWARK, N. J. DEPT. 17 FLEMINGTON, WVA.

**KEEP PEN RECORDS**  


**Mark your profitable chickens with**  


**Key-Ring-O Leg Bands**  
 Then you can easily discard your unproductive stock and secure maximum profits. **Key-Ring-O's** are simple, efficient, economical; very light, last a lifetime; put on like a key ring but easier, and stay on till removed. A trial will convince you of their superiority. Made in ten permanent colors: Black White, Dark Blue, Light Blue, Pink, Red, Green, Yellow, Purple and Garnet. Six sizes: No. 1, Pigeon; No. 3, Baby Chick; No. 2, Medium for Mediterranean Breeds; No. 4, Large, for American Breeds; No. 5, Bantam; No. 6, Extra Large, for Asiatic Breeds. **SENT POSTAGE FREE** Seven 2c stamps will bring you 15 bands, with our invaluable circular, "Increasing Poultry Profits." Write today, stating color and size bands desired.

**Newell & Gordinier, Makers,**  
 Dept. 18, TROY, N. Y.



To state that Sheffield Farms, Glendale, Ohio, breeders and originators of the Premier Strain Partridge Wyandottes are not only the largest breeders of this variety in America, but also that they annually produce more blue ribbon winners than any other breeder of Partridge Wyandottes, is not over stating the facts. The pullet illustrated above captured first prize at the great Boston Show in January, and is only one of their many winners during the past season. This farm exhibits annually at the leading shows and fall fairs and several pages in their catalogue are required to list their many winnings. The catalogue like their poultry productions is of the highest quality, a copy of which should be in the hands of every lover of this beautiful variety. It will be sent free to those mentioning A. P. W. when writing.—W. A. W.

tions is indicated by the large number of breeders who use it. With this plan there is little danger of damage from fighting after a day or so, as large flocks of males appear to be comparatively peaceful. There is one drawback, however, that we consider a very serious one and that is, there will always be a certain number of individuals that are leaders or bosses and the balance of the flock appears to be decidedly afraid of them and soon assume a cowed appearance. After two or three months under such conditions they rarely ever recover their old snap and vim and are generally lacking in the poise they displayed before being confined. At least, this was the writer's experience in summering several Leghorn males by this method and we have heard others express the same objections.

**HOW TO CARE FOR EGGS FOR HATCHING?**

No doubt a great many settings of eggs are ruined because the purchaser does not give them the proper care after their receipt from the shipper. There is no excuse for this as most breeders give explicit instructions in their circulars or catalogues for the proper handling of eggs before setting. Some even go farther and issue a special circular treating on the proper care of hatching eggs. Among the latter we wish to mention U. R. Fishel, Hope, Ind., one of, if one the largest

White Plymouth Rock Specialists in the world. These simple and easily followed instructions are reprinted here for the benefit of A. P. W. readers. Says Mr. Fishel:—  
 "On arrival of the shipment of eggs, do not unpack at once, but permit the package to set perfectly still for at least twenty-four hours. Unpack carefully, handling the eggs very carefully. Never shake eggs that have been shipped, for you can make any shipped egg rattle like a rotten egg if you shake it. The eggs remaining quiet permits the contents to regain their natural form and condition after their being "shook up" en route. After "twenty-four" hours rest the eggs can be unpacked and placed under the hen or in the incubator. Always test the eggs on the tenth day, removing the unfertile eggs and report your test at once. I am always interested in my customers's success or failure."  
 He also adds the following on the care of fowls upon arrival from the shippers.

"When your shipment of fowls arrives, uncoop carefully and give but little feed, a tablespoonful for each fowl is a plenty for the first feed. Give but little water. Do not permit the fowls to gorge themselves with water, for it will sure get them out of condition and make them sick. Just give them a little water, but give it to them quite often for the first day, until they are satisfied. A fowl drinks but little water at a time, and it not natural for them to "fill up" with water."

The circular together with other printed matter will be sent to any A. P. W. reader upon request. Just address, U. R. Fishel, Box B, Hope, Ind. and mention A. P. W.

**SPAHR DOES BIG BUSINESS**

Owing to an unusually large number of inquiries A. G. Spahr, Xenia, Ohio, breeder of White Plymouth Rocks advises that the first edition of his list has been exhausted and he has been forced to issue a duplicate list to take care of all inquiries. To save time and expense the latter list has been gotten up in folder form and while it does not go into detail like the original list it covers the matings in such a manner that the prospective customer will have no trouble in recognizing the quality in Mr. Spahr's 1916 matings.

Undoubtedly the high quality of the Spahr White Rocks is responsible for the heavy demand for mating lists this spring. While Mr. Spahr does not use as much advertising space or make the claims of some breeders he nevertheless produces the quality and that is what people are looking for now-a-days. Readers desiring to purchase White Rock eggs for hatching should not delay if they contemplate placing an order with Mr. Spahr as the heavy demand for eggs may force him to return orders. It is a case of first come first served. Orders are filled in rotation. No reserve pens. You get eggs from the same pens from which he hatches.

\*\*\*If you like A. P. W. tell your friends about it. Let them share some of the good things.

\*\*\*A dime pays for a four months trial subscription to A. P. W. Why not send it to a friend?



BLUE ANDALUSIAN HEN WINNER FIRST PRIZE BOSTON 1914, FIRST GREATER BUFFALO SHOW NOV. 1914. BRED & OWNED BY WM. ORLANDO JENNINGS BUFFALO, N. Y.

Blue Andalusians are coming into their own again in this country judging by the excellent classes of good quality one finds at most of the large shows this season. The female shown in above picture is one of the best of her kind, winning last season at Baltimore and later at Buffalo, Boston and Chicago. Wm. Orlando Jennings, Buffalo, N. Y., is an ardent admirer of the Blue Andalusians and is producing some wonderful specimens. Among his flocks are individuals of rare color and shape and he is producing them in goodly numbers. The Andalusian as one of the oldest breeds in existence and has always had a good reputation as an egg producer, in addition they are extremely beautiful, which accounts for their continued popularity as one of the best of the Mediterranean Breeds.—A. O. Schilling.

**Big Reduction**

in prices on

**Leghorn Chicks**

shipped from

**The Lord Farms**

(THE EVERLAY FARMS)

**June 1st Prices**

- 25 to 50 chicks, 13 cents.
- 50 to 100 chicks, 12 cents.
- 100 to 500 chicks, 11 cents.
- 500 to 1000 chicks, 10½ cents.
- 1000 to 2000 chicks, 10 cents.
- 2000 to 5000 chicks, 9½ cents.
- 5000 or more chicks 9 cents.

You are practically as early this year hatching chicks in June as any other year in May. On best advices all over the country, east of the Mississippi, we believe there is not more than one half to two thirds the chicks hatched as in former years. There was not 25 per cent. of the chicks hatched this year in February and March as in former years on account of the extreme cold weather. April hatched also were way behind. Chicks are bound to be in demand very late this season, and if you want winter layers by all means buy White Leghorns, the only breed that will mature before the cold weather. We shall hatch.

**12,000 Chicks a Week**

during the month of June. Order now at our big reduced prices. Send for our 104-page catalogue, the finest White Leghorn catalogue published this year.

**The Lord Farms**

(THE EVERLAY FARM)

**Box 240-G**

**Methuen, Mass.**

**SUMMER CARE OF CHICKS**

(Continued from page 535)

themselves and fed a ration heavy in corn and corn products which not only produces weight rapidly but also nice yellow flesh. They are kept on limited range and as soon as they reach one and one half pounds are marketed as broilers. The quicker this can be accomplished the better. Prices with me average about 30 cents per pound hence the necessity of disposing of them as quickly as possible.

"I find that it is just as necessary to give detailed care to the growing stock as it is at the earlier stages of chick life. In fact, care and careful management is required at all stages if you are to succeed. During warm weather the sanitary condition of the colony coops or houses is an important consideration. The droppings must be removed regularly and never allowed to accumulate. If they do the heat will cause them to ferment and the consequent odor arising will cause endless trouble. A constant watch must be kept for mites and lice. These can be prevented by frequently spraying the interiors with a good lice killer or disinfectant. Provide sunshine, shade and good ventilation. Give good clean food and fresh water and don't forget the green stuff if range is limited. If forced to confine them to runs see that the runs are put down to Essex rape as early in the spring as the ground can be worked. If this is given a good start it will furnish an abundance of greens and also provide desirable shade.

"After June first I permit the pullets to roost in the trees if they so desire. It prevents crowding and keeps them out of the way of night prowlers such as skunks, foxes, etc. The above methods fit the conditions at my place perfectly, undoubtedly they will have to be varied somewhat in other locations, therefore it is up to the 'man behind' to study the conditions and work accordingly."

We take it from what Mr. Sand's says that he feeds the growing stock about the same as he does his layers, that is, he supplies the same rations both mash and grain feeds which we understand are kept in automatic feeders where the birds help themselves at will.

The method outlined in the foregoing applies to Single White Leghorns, but we dare say will work equally well with other varieties, under similar conditions.

Harrison D. Dawes, Marlboro, N. Y., specialty breeder of White Wyandottes outlines his method of caring for growing White Wyandotte chicks in the following manner: "After the chicks are removed from the brooder they are put out on the range in colony houses. They are hopper fed a mash consisting of the following:

- "Wheat bran, three parts.
- "Corn meal, three parts.
- "Wheat middlings, three parts.
- "Meat serap, three parts.
- "Bone meal, one part.

"Just before going to roost they are given all they will eat of wheat and cracked corn equal parts. Sour milk and buttermilk are fed regularly and grit, shell and charcoal are kept before them at all times as also is fresh water. I separate the sexes at about three

months' of age and all cockerels showing weakness in any section are disposed of as roasters, the balance being kept to sell as breeders or exhibition specimens."

For those who are situated so that a small field of corn can be grown there



Horace G. Murphy, Muncie, Ind., a Blue Andalusian enthusiast who is chairman of the committee on Standard and publicity of the Blue Andalusian Club of America.

is no better plan than to place the colony coops along one side of the field. The east and south sides are preferable as they get the morning sun and are sufficiently shaded in the afternoon so that the houses cool off before roosting time. We object to the west side on account of the sun and the consequent overheating of the houses. The north side is lacking in sunshine, therefore, is the least to be desired.

The cornfield makes an ideal place for them to range as there is ample insect life to keep them supplied with animal

**S. C. WHITE LEGHORNS and S. C. RHODE ISLAND REDS**

Our birds are bred for heavy laying, quick maturity and exhibition purposes. Buffalo and Silver Creek winners, in fact winners wherever shown. 2000 birds to select from. Eggs, stock and chicks. Can book a few orders for eggs from our trapnested Tom Barron White Leghorns. **SEND FOR MATING LIST.**

POULTRY DEPT. EAGLE FARM. F. A. House, SILVER CREEK, N. Y.

**LLENROC REDS**

EGGS NOW HALF PRICE FROM ALL MATINGS. Half price sale of breeders starts June 1st. Send your orders at once and have stock reserved.

JOHN E. HOUCK  
Black Creek, Ont.

HOUCK & ALT  
Buffalo, N. Y.

HENRY ALT  
87 Fuller Street, Buffalo, N. Y.



**DICTOGRAPH WHITE FAVEROLLES**

The Sensation at Madison Square, Palace, Syracuse, Boston and Allentown. 32 Blue ribbons won with specials for Shape and Beef Type.

The Premier Meat and Winter Egg Fowl of the Poultry Consuming Nations, France and Switzerland. \$50 in gold to the customer that raises the largest bird from our eggs this season. "The Fowl you will eventually raise." Send stamp for the only White Faverolle book published.

DICTOGRAPH POULTRY FARM  
RFD 6 WEST NYACK, N. Y.

**Rex's S. C. Buff Leghorns**

New York Palace, Buffalo, Allentown and Hagerstown winners. Choice youngsters for sale. Prices and description on request. **GEO. W. REX, SLATEDALE, PA**

**"Slades" Imperial Pekin and Fawn and White Indian Runner Ducks**

Leading Winners, champion layers. Mating list with certified record of "Victoria", World's champion layer **JOHN SLADE, MALVERN, PA**

**COLORED LEG BANDS**



Red, Blue, Black, White, Amber, Pink, Green. 12-20c; 25-35c 50-60c; 100-\$100; 250-\$2.25.

Box 344 N. Third St. **CHAS. L. STILES COLUMBUS, OHIO**

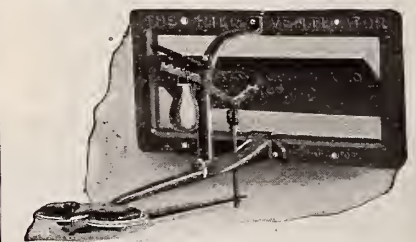


**Madison Square Winners**

Over 45 prizes and egg records 200 to 288. Rose and Single Comb Brown and White Leghorns, S. C. Reds 248 Eggs. White Wyandottes and Barred Rocks 270. Stock for sale. Catalogue.

W. W. Kulp, Box 12, Pottstown, Pa

**THE HILL VENTILATOR \$5.00 FOR COLONY HOUSES**



Solves the problem of the houses becoming too warm in the middle of the day and the chicks crowding in the corners at night. The Hill Ventilator works automatically, always opens and shuts at the right time, needs no attention. With plenty of fresh air in the house you can raise more chicks, stronger chicks, and make a better profit.

**SEND FOR DESCRIPTIVE CIRCULAR TELLING ALL ABOUT THE INVENTION. THE UNITED BROODER CO., TRENTON, N. J.**

\*\*\* A. P. W. stands back of its advertisers. Read our guarantee on the first page.



food, the frequent cultivation furnishes plenty of inducement for them to scratch and dig and last, but not least the corn supplies excellent shade and protection from the sun as well as to provide comparative safety from the depredations of hawks.

"Plenty of coop room, fresh air and no vermin are just as essential as food to the rapid growth and early development of growing stock" says L. A. Ayres, Granville, N. Y., specialist in the production of Columbian Wyandottes of quality. One of the truest statements ever made, as all the food in the country will not grow chicks in vermin infested, poorly ventilated crowded quarters and we wish we were able to impress this fact forcibly upon every person attempting to raise chicks. It is a crime to try and raise chicks under such conditions, yet it is tried repeatedly every season. With the same ultimate results in each instance—failure.

Just why people in this day and age will attempt such a crime we never could understand. Every poultry writer and the experts at every poultry experiment station are doing their best to teach the public that it cannot be done, yet if you were to start out today on a tour of inspection you would find numerous offenders before going very far. Each and every one would have a plaintive tale to tell. The same tale in each instance. It would run about like this, "I don't see what is the matter with my chicks they don't seem to grow as they should, I buy the best feed obtainable and supply grit, oyster shells, and keep clean water before them all of the time. They eat greedily, but just look at them they don't appear to grow." A look at the chicks is not necessary, the surroundings are sufficient. You point out the trouble as best you can, give some advise about cleaning up and pass on knowing well that no change can ever repair the damage, as such chicks never make anything but scrubs. To give them relief from such conditions is what you strive for.

Compare such methods with the following as outlined by Mr. Ayres in caring for his Columbian Wyandottes and note what he says about June chicks and early laying. Here is Mr. Ayres method:

"After the growing chicks are moved from the brooders to colony houses I give them free range, and in most cases they have unlimited range while in brooders. From now on they have the following ration. A dry mash composed as follows is always before them, 100 lbs. wheat bran, 25 lbs. ground oats, 20 lbs. corn meal, 20 lbs. gluten, 20 lbs. beef scrap, 15 lbs. ground bone and 10 lbs. of fine charcoal. In the morning they are fed whole wheat and at night cracked corn. Water, grit and sour milk are always before them. Plenty of coop room with roosts and fresh air and no vermin are just as essential as food to the rapid growth and early development of the growing stock.

"The above method of feeding and caring for my chicks in addition to having been bred for vitality and vigor produced June hatched pullets that weighed from six to eight pounds at New Year's and earlier pullets that commenced to lay in the summer at nineteen weeks' of age.

"As I obtain better results by keeping

young stock on free range I do not separate the sexes, until they are five or six months old. Then I separate and yard all except a few of the very best cockerels which I leave on range for a short time longer. I then select and condition the males that are best in size, type and color for exhibiting and for shipping to customers. The remaining cockerels are fattened and sent to market. On November 1st the pullets are brought in from the range and put into their winter laying quarters and the growing rations gradually changed to laying rations."

While it is not possible for all to give free range it is possible to grow good chicks in limited quarters, providing we do not try to raise too many, and see to it that the quarters are well ventilated and that sanitary conditions prevail. Just remember Mr. Ayres advice and try to live up to it and no doubt you will be surprised at your own success.

**EGGS HALF PRICE**

Readers interested in Leghorns will find welcome news in the announcement of Turtle Point Farm, Saratoga Springs, N. Y., breeders of S. C. and R. C. Brown and White, Silver and Black Leghorns.

After May first all eggs will be sold at one half the regular prices thus making the money you had planned on investing in Leghorns purchase just twice as much. This farm is known from coast to coast as the home of Leghorns and their productions have been consistent winners at leading shows including New York, Boston, Buffalo and elsewhere. They report a particularly heavy demand for the S. C. Blacks and regard it as an indication of the growing popularity of this variety which are said to be the equal of the Whites in egg production and hardness. For further particulars, address as above and mention A. F. W.

**RIDDELL'S WYANDOTTES**

Andrew Riddell, Greenwich, N. Y., Buff Wyandotte specialist reports a splendid in-

quiry and demand for hatching eggs. Mr. Riddell has never been in a better position to supply the trade than this year. His pens are made up of a selected collection of the best birds he ever produced including his winners at the Boston 1916 Show. Mr. Riddell will be pleased to hear from persons who are interested and those who intend purchasing Buff Wyandotte stock or eggs.

E G G S	<b>S. C. Buff Leghorns</b> Madison Square and Palace Winners <b>Orange Poultry Yards</b> MANHASSET, L. I.	S T O C K
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**S. C. RHODE ISLAND REDS**

We have the birds to help strengthen your flock.  
For prices and descriptions write

**GEO. W. WHITE, HAMILTON, MD**

**Laywell White Wyandottes**

Bred for vigor, laying ability and exhibition quality. Pens mated by Arthur G. Dutton. Made clean sweep at the Vermont State Fair 1915.

Eggs from pens 1-5, \$5.00 per 15.  
Eggs from pens 6-11, \$2.00 per 15.  
Utility matings \$1.00 per 15, \$5.00 per 100. Send for new circular and mating list.

**LAYWELL POULTRY FARM**

Box B, Lyndonville, Vermont, U. S. A.

**JACOBUS CAMPINES**  
GOLDEN & SILVER



At each of the last two Madison Square Garden, N. Y., Shows, I won more firsts than all my competitors combined.—February, 1915, seven firsts, January 1916, six firsts—that is, I won thirteen out of a possible twenty firsts.

At American Campine Club Show, Coliseum, Chicago, December 1915, my Silvers won first and fifth cocks, first and second hens, second pullet, first young pen. Specials, best pen, best colored male, best shaped male and best shaped female. On ten entries Golden won nine regular premiums. Let me start you right as I have others. Send for my handsome Book.

**M. R. JACOBUS, Box 3-W, RIDGEFIELD, N. J**

**SINGLE COMB RHODE ISLAND REDS**

The result of twenty years continuous breeding of this variety.

WRITE ME FOR PRICES ON STOCK AND EGGS.

**GEO. L. BUELL, LORAIN, OHIO.**



**S. C. BROWN LEGHORNS**

AMERICA'S CHAMPION WINNERS

Send for free handsomely illustrated catalogue and 1916 mating list of the World's finest exhibition and quality strain. Can ship eggs or stock safely any distance under absolute guarantee.

**WILLIAMS BROS., FULLERTON, CALIF.**

**"THE FEATHERED WORLD"**  
**YEAR BOOK 1916.**

An indispensable handbook of reference and comprehensive review of the year for Poultry Keepers and Pigeon Fanciers, fully illustrated with photographs of the winning birds at British shows. 45 cents in Paper Boards; 80 cents in Cloth Binding.

This book offers an exceptional medium for advertising stock, as it goes to fanciers the world over. The charges are very moderate, viz., \$6.00 for a full page advertisement and a copy of the work. Orders should be sent in as early as possible. Illustrations can be inserted in the text at the same charge.

Subscription rate to the Feathered World newspaper is \$2.75 a year. Specimen copy free upon application. Address

**9 Arundel Street, Strand, London, England**



The above illustration of S. C. White Leghorn males shows six cockerels belonging to Eugene Smith, 315 Galena Blvd., Aurora, Illinois, that won all five prizes in the cockerel class and first in the pen class at the Greater Chicago Show in January. This is truly a wonderful achievement, but when one gazes upon the above illustration and notes the fine modeling of each individual, that is truly characteristic of the modern White Leghorn, it at once becomes evident that these specimens were individuals of rare merit and that show the results of years of careful and systematic breeding by one who has made the production of high quality S. C. White Leghorns his study. Mr. Smith belongs to this class of breeders and the record illustrated by the above winners is a fitting climax to his many years of earnest effort in the production of S. C. White Leghorns of quality.—W. A. W.

# NATURAL AND ARTIFICIAL BROODING

Suggestions for Brooding and Feeding Young Chicks, Both by the Natural and Artificial Methods

**B**ROODING with hens is the simplest and easiest way to raise a few chickens and is the method which is used almost exclusively on the average farm. Artificial brooders are necessary where winter or very early chickens are raised, where only Leghorns or other nonsitting breeds of poultry are kept, or where large numbers of chickens are raised commercially. Sitting hens should be confined to slightly darkened nests at hatching time and not disturbed unless they step on or pick their chickens when hatching. The egg shells and any eggs which have not hatched should be removed as soon as the hatching is over. Hens should be fed as soon as possible after the eggs are hatched, as feeding tends to keep them quiet, otherwise many hens will leave the nest. In most cases it is best that the hen remain on the nest and brood the chicks for at least twenty-four hours after the hatching is over. All the chickens should be toe-punched or otherwise marked before they are transferred to the brooder or brood coop, so that their age and breeding can be readily determined after they are matured.

Hens will brood successfully ten to fifteen chicks early in the breeding season, and fifteen to twenty-five in warm weather, depending upon the size of the hen. Powder the hen with a good insect power before moving her with the chicks to the brood coop. The hen should be dusted every two weeks or as often as the coop until the chickens are weaned. If lice become thick on the chickens, or if they are troubled with "head lice" a very little grease, such as lard or vaseline, may be applied with the fingers on the head, neck, under wings and around the vent.

Brood coops should be made so that they can be closed at night, to keep out cats, rats and other animals, and enough ventilation should be allowed so that the hen and chicks will have plenty of fresh air. The hen should be confined in the coop until the chickens are weaned, while the chickens are allowed free range after they are a few days old.

The brood coop should be cleaned at least once a week and kept free from mites. If mites are found in the coop, it should be thoroughly cleaned and sprayed with kerosine or crude petroleum. From one to two inches of sand or dry dirt or a thin layer of straw or fine hay should be spread on the floor of the coop. Brood coops should be moved weekly to fresh ground, preferably where there is new grass. Shade is very essential in rearing chickens, especially during warm weather, therefore, the coops should be placed in the shade whenever possible.

Chicks are usually left in the incubator from twenty-four to thirty-six hours after hatching, without feeding, before they are removed to the brooder, which should have been in operation for a day or two at the proper temperature for receiving the chickens. A beginner should try his brooding system carefully before he uses it. After placing the chickens in the brooder they can be given feed and water. Subsequent loss in chickens is frequently due to chilling received while taking them from the incubator to the brooder. They should be moved in a covered basket or receptacle in cool or cold weather.

The capacity of brooders and hovers is often over-estimated, and one-half to two-thirds of the number of chickens commonly advised will do much better than a larger number. The danger from fire, due frequently to carelessness and lack of attention, is considerable in cheap brooders and hovers, while there is some risk in the best grades, although proper care will reduce this to a minimum. Individual hovers in colony houses or several in one large house are giving quite general satisfaction on small poultry farms, while the pipe system of brooding is commonly used in large commercial poultry plants and where extensive winter brooding is done. Gasoline brooders, brooder stoves burning engine-distillate oil, and a separate individual hover heated by a coal fire are coming into more general use, each with a capacity varying from 200 to 1,500 chickens. These large individual brooders are used in colony houses, and when the chickens are weaned the colony house is used as a growing coop, which requires a smaller investment than the long, piped brooder house and allows one to rear the chicks on range to good advantage.

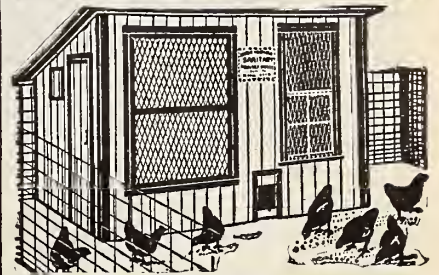
The best temperature at which to keep a brooder or hover depends upon the position of the thermometer, the style of the hover, the age of the chickens, and the weather conditions. Aim to keep the chickens comfortable. As the

## 5000 S. C. WHITE LEGHORNS

Bella Vista Strain, beautiful S. C. White Leghorns bred to lay. Many individuals with records of over 200 eggs. We will sell choice one and two year old hens at \$1.50 each and March and April hatched pullets in lots of 100 or more at 50 cents each for June delivery; 75 cents for July delivery and \$1.00 each for August and September delivery. Safe arrival and satisfaction guaranteed. Correspondence solicited. Catalogue free.

BELLA VISTA FARM CO., KIMMSWICK, MO.

## Don't Build-It's Cheaper to Buy Potter Redybilt Poultry Houses



### A \$36 House, Painted 2 Coats

You can buy Portable Houses, Sanitary Roosting and Nesting Fixtures, Coops, Hoppers, etc., cheaper than you can build. Houses, \$16 up. Complete henery outfits, \$3 up. Used over 10 years by thousands of successful poultry keepers. Start right.

Get the world's best poultry equipment at the lowest prices.

Makes it easy and inexpensive to start in the chicken business. Send 4c in stamps for large 100-page Poultry Equipment Book. POTTER & CO., 19 Forest Ave., Downers Grove, Ill.



**COLUMBIAN WYANDOTTES** Eggs from my National and State Club Meet winners at half price. Were \$5 and \$10 per 15. Now \$2.50 and \$5 per 15. Pens headed by my 10 different winning males at these two shows. As many as any three competitors combined. Also a few cockerels at \$5, \$8 and \$10 each. Females \$2, \$3 and \$5. For my latest winnings see page 503, April issue. Satisfaction guaranteed. LEVI A. AYRES, Box B, GRANVILLE, N. Y.

**"PREMIER"**

## PARTRIDGE WYANDOTTE BABIES

60 cents each in lots of 10 or more. May and June are the best months in which to obtain your start with these winners. All danger of chilling now over. Eggs for hatching \$5.00 for 15. Valuable catalogue free.

**SHEFFIELD FARM, H. B. Hark, Mgr., Poultry Dept., GLENDALE, OHIO**

## COLE'S QUALITY BUFF PLYMOUTH ROCKS

Champions of the Central West. Choice breeding and show birds for sale. Also Egg Basket Strain of S. C. Buff and S. C. White Leghorns. Book your egg orders now. Mating list free.

**FRANK C. COLE, Poultry Judge, VAN WERT, OHIO**

# Our Champion Sensation and Red Prince

STRAINS OF ROSE AND SINGLE COMB REDS won FOUR TIMES as many FIRST PRIZES at Madison Square Garden, Boston and Providence as any of their competitors. ALL these winners and many others are in our 1916 Pens. Stamp for mating and Price List.

**EGGS (except utility) half price after May 15th**

**RED FEATHER FARM, Box 22, TIVERTON 4 CORNERS, R. I.**

operator learns by the actions of the chickens the amount of heat they require, he can discard the thermometer if he desires. When too cold they will crowd together and try to get nearer the heat. It is impossible to state for each case at what temperature the brooders should be kept to raise young chickens; however, it will run from 90 up to 100 degrees in some cases, as some broods of chickens seem to require more heat than others, an average being 93 to 95 degrees for the first week or ten days, when the temperature is gradually reduced to 85 degrees for the following ten days, and then lowered to 70 degrees or 75 degrees for as long as the chickens need heat.

Young chickens should be fed from three to five times daily, depending upon one's experience in feeding. The young chicks may be fed any time after they are thirty-six to forty-eight hours old, whether they are with a hen or in a brooder. The first feed may contain either hard-boiled eggs, johnnycake, stale bread, pinhead oatmeal, or rolled oats, which feeds or combinations may be used with good results. Feed the bread crumbs, rolled oats, or johnnycake mixtures, moistened with water, five times daily for the first week, then gradually substitute for one or two feeds of the mixture finely cracked grains of equal parts by weight of cracked wheat, finely cracked corn, and pinhead oatmeal or hulled oats, to which about five per cent. of cracked peas or broken rice and two per cent. of charcoal, millet, or rape seed may be added. A commercial chick feed may be substituted if desired. The above ration can be fed until the chicks are two weeks old, when they should be fed on grain and a dry or wet mash mixture.

After the chicks are ten days old a good growing mash, composed of two parts by weight of bran, two parts middlings, one part cornmeal, one part low-grade wheat flour or red-dog flour, and ten per cent. sifted beef scrap, may be placed in a hopper and left before them at all times. As soon as the chickens will eat the whole wheat, cracked corn, and other grains, the small-size chick feed can be eliminated.

Fine charcoal, grit, oyster shell, and clean water should be kept before the chickens at all times, and cracked or ground bone may be fed where the chickens are kept in small bare yards, but the latter feed is not necessary for chickens that have a good range.

#### PLENTY OF TIME TO HATCH WINNERS

Those desiring to obtain Rose Comb Reds of the first quality should not overlook the announcement of Longfield Poultry Farms, Bluffton, Ind., on another page. Having hatched all the chicks they require for their own use they are now offering hatching eggs at half price from all pens with no reservations. In addition they guarantee 100% fertility. Seldom is such an opportunity as this offered especially when such high quality obtains. The record made several years in succession at the Chicago Coliseum Show, by Longfield R. C. Reds is one seldom equalled by one breeder at any show thereby stamping the Longfield Strain of R. C. Reds one of the countries leaders. Eggs secured now will give June chicks and these are preferred by many who maintain that it is less care to attend to them, also that June hatched chicks develop better color and make better exhibition birds. All who wish to secure Reds of quality should write today addressing Longfield Poultry Farms, Box 339, Bluffton, Ind., and mention A. P. W.

# American Poultry Association

THE poultry industry of this country amounts to approximately one billion dollars per annum. The American Poultry Association is the largest international live stock organization in the world and its membership has doubled and tripled during the last five years. On its roll are the leading breeders and representative poultrymen of Canada and every State in the Union.

Every breeder, fancier, man and woman in the United States and Canada who is interested in poultry of any kind should join this great organization.

## American Standard of Perfection.

The Standard of Perfection is the official guide in this country and Canada for selecting, valuing and judging poultry. It gives a close and detailed description of every Standard breed and variety of chickens, ducks, geese and turkeys, with many illustrations from living models. This book is published by the American Poultry Association at great expense and is the accepted authority. You can not raise and sell Standard-bred poultry satisfactorily without this Standard of Perfection. Prices, postpaid, from the publishers of this paper: Cloth binding, \$2; leather binding, \$2.50. Send all orders to American Poultry Publishing Co., Buffalo, N. Y.

As a member your poultry interests will be promoted and safeguarded. You may compete for the association diplomas and gold and special medals at the shows, and be entitled to all the help that honest organized effort can give you.

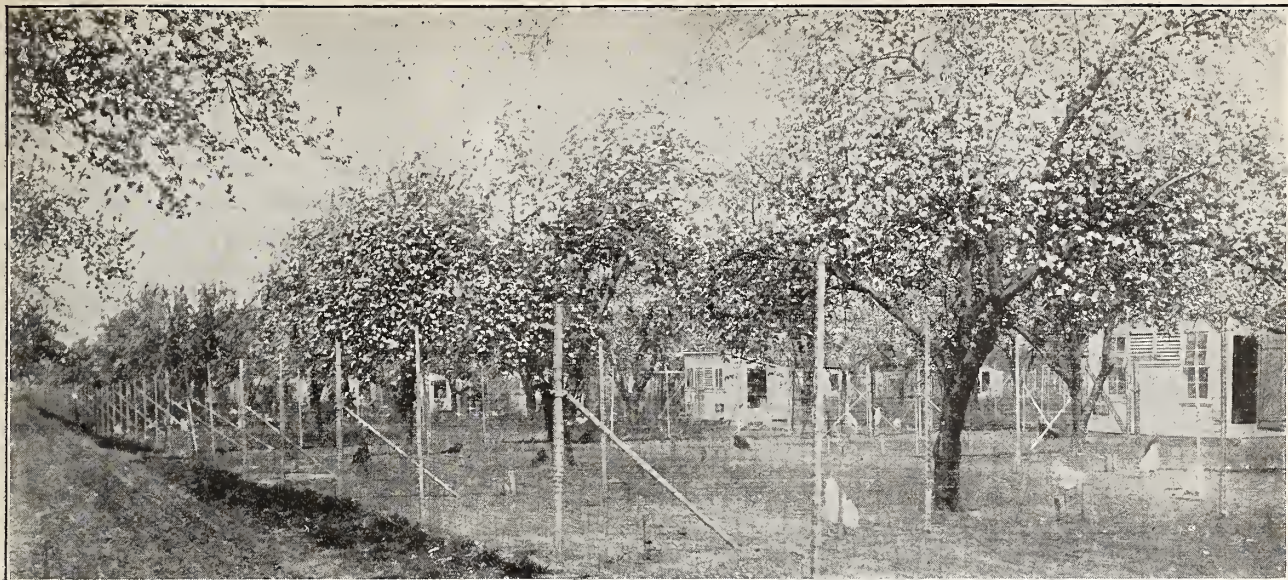
You will have a voice in shaping the course and policy of the association, making it recognized by nations and governments. Your name should be one of the thousands of the honored members of this organization. We urge you to write immediately for information and application blank. Address

E. E. RICHARDS, Pres.

S. T. CAMPBELL, Sec'y.

Cedar Rapids, Iowa.

Mansfield, Ohio.



HOME OF THE MISSOURI EGG LAYING CONTEST

Each of these buildings provides accommodations for two pens. There are about one hundred pens in the present Contest (the Fifth Annual), but this number is to be reduced to sixty in the Sixth Annual Contest which begins November 1st. The hens have almost ideal conditions in the large, well-shaded yards that are provided for them, and some excellent records have been made.

### MISSOURI'S POULTRY EXPERIMENT STATION

By H. W. Jackson

(Continued from page 538)

the Missouri Egg Laying Contest", summarizes, in a most interesting manner, the results so far secured.

I do not admit ever having been very enthusiastic about the actual instructional value of egg laying contests, wherever conducted, but there is no question about the fact that they have aroused great interest and enthusiasm, and have shown possibilities in egg production that were scarcely thought obtainable until brought before the public in this authentic way and on so large a scale.

#### Investigational Work

Many lines of investigation are followed at Mountain Grove, the results usually being reported from time to time along with the interesting monthly reports of the Egg Laying Contest. The American Poultry World has given much space to these reports as they have appeared and will continue to do so.

It will be remembered that announcement was made last fall of the appointment of Dr. G. B. Horton as investigator in poultry diseases and also of a plan for carrying out a state-wide campaign for the eradication of white diarrhea among chicks by detecting the fowls in the flock that are carriers of the disease, doing so by the agglutination test. This method has been given wide publicity, especially in the east where it appears to have given good results, but poultrymen in the west are awaiting with a good deal of interest a report from the Missouri Station that will show more clearly the prevalence of infection in this state.

I am trying to be properly appreciative of this method to eradicate bacillary white diarrhea, but I hope the Missouri Station will not fail to consider

## CHICKS 5 CENTS EACH

I raised 100% with "Oculum." I lost 80% without "Oculum" says—

H. S. WETZLER, Mgr. *Successful Poultry Journal*, Chicago, Ill.

Feed "Oculum", get more eggs, hatch more chicks at same cost. Thousands are doing it.

By using "Oculum" you can produce chicks that will live for 5 cents apiece.

Trial bottle (2400 doses) 10 cents.

Ten cents will neither make or break you, but it may enable you to make more money out of your poultry.

Booklet explains all—it's free.

H. I. CO., Inc.

Box Q.

SALEM, VA.



### Hatheway's Golden Campines

At the official Club Meet, Chicago Coliseum, the greatest of all Campine shows my birds win 1st and 2nd cockerel, 2nd pullet, 3rd cock, 3rd hen, shape special on male and color special on male.

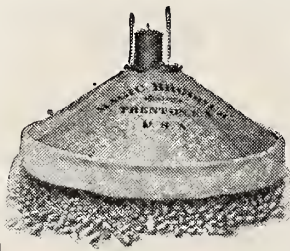
WIN AT CHICAGO COLISEUM, THREE YEARS, 1913-14-15

The Golden Campines I own and have in my breeding yards have won 8 firsts 3 seconds, 4 thirds, 2 fourths. A record unsurpassed in all Campine history the first prize pullet, Crystal Palace, London, England, 1913, and my importation of the seven best birds raised in England this year gives me without a doubt the greatest line of Golden Campines in all America.

EGGS—EGGS—EGGS—EGGS—EGGS

Hatching eggs from the finest matings in America. Write today for free mating list and prices.

E. P. HATHEWAY, M. D., P. W. Nertney Bldg., OTTAWA, ILL



Hill Colony Brooder, - \$30.00

Magic Brooder, - - 15.00

The highest grade and most efficient brooders on the market. It is impossible to succeed raising poultry without dependable brooders. Your success is hinged on the brooder, consequently it is to your advantage to buy the best. Our brooders will positively hold the fire, never leak gas and maintain an even temperature without looking after same in the middle of the night. We have brooders in stock and can ship on receipt of order. Send for booklet describing the World's Greatest Brooders.

THE UNITED BROODER CO., TRENTON, N. J.

the possibility that the great majority of epidemics of so-called white diarrhea may be due simply to errors in feeding, brooding or to general mistreatment.

If the Station will keep and publish records that will show the proportion of outbreaks of genuine bacillary white diarrhea as compared with the other numerous and, I believe, much more common causes of diarrhea in chicks, a great deal of good will be done. Such a report probably would prove more helpful to individual poultrymen than the actual treatment of affected flocks.

#### Extension Work

Extension Work has received special attention at the Station and educational literature has been prepared and circulated freely. The following bulletins have been issued to date and free copies of most of them may be secured on application:

deal of good is being accomplished in this manner.

#### The Men on the Job

From the beginning, the Station has been in charge of Director T. E. Quisenberry, who needs no introduction to poultrymen anywhere. His personality is unique and the institution is largely the work of his hands. Mr. Quisenberry resigned his position recently, on his return from a year's leave of absence during which time he had charge of the Poultry Department at the Panama-Pacific Exposition where he conducted an egg-laying contest and staged one of the greatest poultry shows that has ever been held in this Country. He now is giving his entire time to the American School of Poultry Husbandry, of which he is President, and to Poultry Culture, of which he is editor.

On the resignation of Mr. Quisenberry,

## Make Money With Poultry

Our 48 Complete Lessons pave the way to success in Poultry Raising, the Quisenberry Way. Special low price now. Our Free Book, "Dollars and Sense in the Poultry Business," tells how. American School of Poultry Husbandry, Box 56, Mountain Grove, Mo.

## FOR BARGAINS IN REDS

Stock or Eggs Either Comb, write

ROCK CREEK FARM, Route 2, GENESEO, N. Y.

## HIBBARD'S WHITE WYANDOTTES

My winnings at the Greater Buffalo Poultry Show, 1914, speaks for the quality of my stock. I showed four birds only, and all were winners; 2nd Pullet, 2nd and 5th Hens and 4th Cockerel. If you want something for exhibition or breeding purposes write me for information. Let me book your order for delivery at your convenience.

M. H. Hibbard, Ridgeway, Ont.

## RAT CURE

**TABLETS**  
ONLY RATS WILL EAT  
TRY BEFORE YOU PAY  
KILLS 4 RATS FOR 1 CENT

MORISRITE MFG. CO., Dept. 13 BLOOMFIELD, N. J., U. S. A.

#### PINE CREST

## S. C. White Orpingtons

Heavy laying strain with showroom record. Four grand pens headed by sons of Madison Square winners. Five and three dollars for 15 eggs. Baby chicks after March 1st. Catalogue.

MRS. W. HOUGH

Pine Crest Farm, Royal Oak, Michigan

## Cultivate Horse Radish

GARDEN, FIELD OR FARM

Increasing demand, large profits. 100 roots sets with full information \$1.00. Write for list of our \$1.00 friend makers, consisting of all kinds of fruit trees, berries and roses.

EGGS WANTED

In payment for nursery stock.

VALLEY FARM CO., NEWBURGH, N. Y.



### LATEST DEVELOPMENT IN POULTRY HOUSES AT THE MISSOURI STATE POULTRY EXPERIMENT STATION

This house has given excellent satisfaction and is highly endorsed by the Station. As built here, it is 14x28 feet and has a capacity of 100 hens, though more than this number may be kept in it if plenty of yard room is provided. Upper part is equipped with slatted ventilators and hinged windows. The lower story is of good height, making it easy to work in. The front of the lower part is left open the year around and a dirt floor is provided. The upper floor should be double-boarded with heavy sheathing felt between to prevent its being too cold in winter weather. Director Patterson states that fowls do well in this house even if confined to it the year round, which makes it especially desirable for town lots.

Poultrymen's Guide.

Baby Chick.

Fool Proof House.

Poultry Possibilities in Missouri (out of print).

A Day at the Missouri State Poultry Station (supply exhausted).

Production and Handling of Market Eggs (supply exhausted).

Swat the Rooster.

Poultry Clubs and Associations.

Lessons Learned from the Egg-Laying Contest.

One Man Poultry Farm.

Bulletin No. 10, Observations and Lessons Learned from the Missouri National Egg-Laying Contest.

Lectures are given throughout the State by the different men on the force and personal visits are paid to sections where the demand appears to warrant it or where there is special need. The Station assists in the organization of poultry associations and clubs and a great

Prof. C. T. Patterson, formerly pathologist at the Station, was elected Director and now is in full charge. Prof. Patterson is one of the most enthusiastic poultrymen that I have had the pleasure of meeting. He has had personal charge of the egg-laying contests and is continually engaged in investigational work, in addition to doing a great deal of extension work throughout the State.

Dr. G. B. Horton is bacteriologist and is in charge of disease investigation. A full statement regarding his work was given in this Journal in the Department of Government Work for Poultry for October, 1915. T. W. Noland, a practical poultryman of much experience, is superintendent of the plant.

\*\*\* A dime pays for a four months trial subscription to A. P. W. Why not send it to a friend? \*\*\*

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## Fowls Feed Themselves



Great saving of feed and labor. No waste. Fill it once in four days for fifty fowls. Fowls jump on top. Door swings in. 4 may feed at one time. Door locks automatically. Patent device prevents hooking out or wasting feed. Rat, rain and bird-proof. Saves work of everyday feeding. Saves feed. Made of galvanized

iron. Satisfaction or your money back. Ask your dealer, or write us for descriptive circular.

ROCKFORD POULTRY SUPPLY COMPANY  
Lock Box W-201, Rockford, Illinois.

## Minorcas of Every Comb and Color

A Book For The Minorca Breeder

Written by Geo. H. Northrup, conceded to be the greatest living authority on this breed. This well written, well illustrated book will prove valuable and instructive to all lovers of Minorcas.

It gives full information on all breeding, mating and feeding problems including the care and management of chicks, and preparation of birds for exhibition.

The origin and history of all varieties of Minorcas including S. C. Black, R. C. Black, S. C. White, R. C. White, Buff, Mottled and Barred Minorcas are fully discussed. If you are breeding Minorcas you need a copy of this book. We send it post paid for 50 cents. Address all orders

AMERICAN POULTRY WORLD

Book Dept.,

Buffalo, N. Y.

## LINE BREEDING AS PRACTISED BY J. V. McCONNELL

By Grant M. Curtis, Editor

(Continued from page 541)

the last five to eight years, we have produced the kind we want and that the public wants; therefore I have the courage to tell how we did it.

Continuing, Mr. McConnell said:—

"My best family was started from mating brother and sister—a cockerel and a pullet at that. I do not like to use two birds of the same generation and I prefer older birds, —a hen mated with a cockerel, or a cockerel with a hen. It is not good judgment, so they tell us, to mate brother and sister, but it has proved out with me and the public is welcome to the fact—to the truth. My advice is, do not pay too much attention to relationship. Preserve the blood lines and look very closely after the vigor of individuals.

"You will strike the danger point in the fourth, fifth and sixth generations. It now takes nerve to stay by it! Select the most vigorous birds you have, continue to mate in trios or pairs and during the next generation or two they will recuperate and come back; then the blood lines will hold as to color, also as to the desired and typical things. WE PROVED THIS, Mr. Curtis but the reasons why it is so, are too deep for me."

### A Letter From Mr. McConnell, Explaining the Matter in His Own Words

After we had left Los Angeles and returned to San Francisco, we looked over our "notes" as made at Mr. McConnell's plant, and decided that we would like to have, in the interests of our readers, a letter from him, explaining his breeding methods, especially as regards close inbreeding, hence we asked him for such a letter and we hereby thank him publicly for furnishing it. His letter is as follows, word for word:—

Garden Grove, Calif., December 14, 1915.

"My dear Curtis:—

"In reply to your inquiry regarding the effects of close line-breeding, I want to say, while this is a delicate subject for the inexperienced breeder to fool with, except on a small scale, I am very glad to give you my experience along this line.

"To begin with, I want to say, the very best family of my line of Minorcas originated from a mating of full brother and sister some eight or nine years ago. There was a steady decrease in vigor after the first year's mating until the fourth year. The fourth year, however, some ten per cent, of the stock showed fully as much vigor and stamina as the progeny from the first mating, with far more type and color than either the original pair had.

"From the fourth year there was a steady increase in vigor and stamina, and also in standard points to this date. The original sire was a 7½ lb. cockerel mated to a full sister that weighed 6¼ lbs. when they were mated. Both were selected as the most vigorous birds on my ranch at that time and their dam and sire were very prepotent birds.

"The superb results of this original mating you saw for yourself at my yards, also in the first and second cockerels at the World's Fair—the one weighed 9¼ lbs., the other 9¾ lbs. and both were hatched Feb. 18th, 1915. I also wish to say there has not been a single atom of

new blood put into my original line since the first mating. I also find in starting a new or original line that I have had far better results with the matings when a big majority of the blood of both male and female were the same.

"In starting to build up a new strain by out-crossing suitable birds of two different strains, it has been my experience that it takes two or three years longer for vitality to reach its lowest point, and the building up process to start in; also the building up of vigor and stamina, also of standard points are from one to two years slower in reaching the same stage of perfection which I can obtain from starting with more closely related parent stock. Each year I have from one to three or four new families of my original lines started, also I have several out-strain crosses which I experiment with.

"The results have always been the same—that is, the matings that were related from distant to very close have rounded into shape far quicker, meaning from one to three years before birds of different blood lines have done so.

"There is one thing anyone starting a strain of line-bred fowls under any system must bear in mind constantly and that is, the stamina and vigor of the parent stock, also the per cent, of loss in weak, undesirable chicks will be heavy for at least the first four years; then after this period, which is the most vital in building a strain, if good judgment has been used in the selection of the stock, from this point on there will be a constant increase in stamina and general vigor.

"In selecting foundation birds for a start in a bird like the Minorca, great care must be used in selecting the proper shade of color, or the result will be an excess of color which will result in strong purple or purple barring, also in red feathers, etc. Don't use birds with an excess of green sheen on either side. Use as black birds as you can get, with a soft green sheen. Don't use birds with very narrow feathers, or loose-feathered birds.

"Great care should be used in making sure your birds have no foreign blood. Minorcas that show any signs of yellow coloring in corners of mouth along edge of beak, or a creamy tinge to skin or bottoms of feet, should be avoided, as they all contain foreign blood, such as Langshan and Black Java crosses. These crosses have been made by unscrupulous breeders to increase the size of their stock and most all these birds show very broad, deep, bodies and, as a rule, light leg coloring and bad eye color. I am sorry to say these cross birds are well scattered in all parts of the United States, but are more prevalent in the middle-west and in Canada.

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 First pen Buffs and 6th pen White. Also at Wakefield, Mass., 1st cockerel, 2nd cock, 1st, 2nd and 3rd pullet, 1st pen Buff Rocks, 2nd and 3rd pullet, 1st pen. Silver cup and gold special on White Rocks.  
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In the two most remarkable classes of Columbian Wyandottes ever shown my birds practically made a clean sweep, viz: At New York State Fair and New York Palace Show. These winnings were:

Syracuse—2nd and 4th cock, 1st and 2nd cockerel, 1st, 2nd, 3rd, and 5th pullet, 1st and 2nd pen.

Palace—1st cockerel in a class of 23; 2nd, 3rd and 4th, pullet in a class of 25, 1st pen in a class of 8, 3rd hen in a class of 13.

I won the Wilburtha Championship Challenge Cup which represents the Championship for the year in this variety.

No such winnings were ever made by any other Columbian Wyandotte breeder.

My birds are beyond comparison and I have a large selection in young stock to sell. Yards are mated. Mating list ready January 20th.

Chas. D. Cleveland, Sunnybrook Farm, Box W, Eatontown, N. J.

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On wheels, easily moved, dimensions 10 x 10 feet, accomodates 18 fowls, easily cleaned, convenient, economizes space. Space 15 x 30 feet will provide clean runs all season. Ideal winter house, conserves animal heat.

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It solves the poultry keeping problems for the city or town dweller making back yard poultry keeping a pleasure and insuring success. Investigate this house. Reduce the high cost of living by starting with a pen of fowls and a UTILITY HOUSE at once.

Positively the best colony house on the market regardless of price. Shipped knocked down F. O. B. express or freight for \$8.50. Agents wanted.

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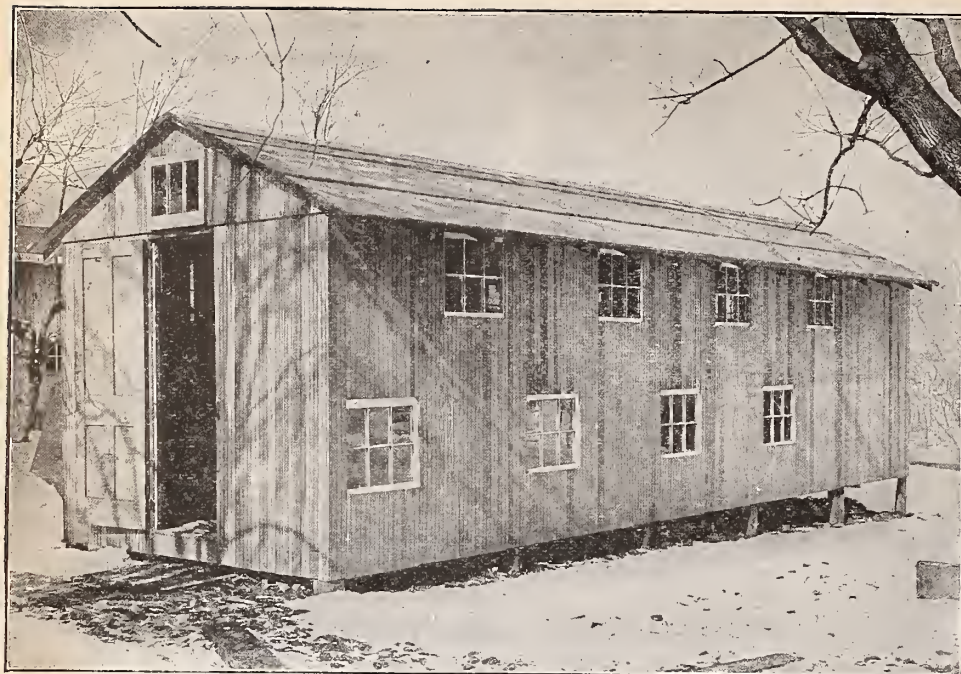
## PRINCESS REDS

RED W. FARM  
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We have something to interest every Red Breeder. Ask for our 1916 mating list. Our class A. eggs all pens headed by wonderful males. New York State Fair and Greater Buffalo winners. The price only \$5.00 for 15 eggs. Our class B eggs. Great value splendid pens. The price \$2.00 for 15 eggs.



The above illustration shows a two story conditioning house recently completed by Besuden Bros, Box 2-W, Evanston Sta., Cincinnati, Ohio, breeders of the Puritan strain Partridge Rocks. The success of this firm is too well known to need any explanation here. That they require a building, the size of the one above illustrated, for conditioning purposes, proves beyond a doubt that there is a heavy demand for Puritan Partridge Rocks. They issue a 1916 sales list that should prove of interest to all contemplating an investment in this variety. It will be sent free to all who mention A. P. W. when writing.—W. A. W.

blood thrown out so it can right itself for the building-up period.

“Use what you want of this and cut it to suit yourself, as long as you stay with the main system. This is an endless subject and one could write on it for a month, but think this will cover the main facts you want.

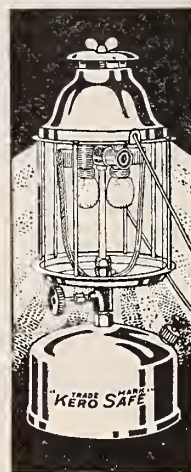
“With best regards to yourself and Mr. Sewell,

Sincerely yours,  
J. V. McConnell.”

\*\*\* What is your favorite breed? Just tell us all about it explaining why you believe them superior to others.

\*\*\* All readers are invited to write us their experiences in poultry raising. Tell us of your greatest difficulties and how you overcome them.

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F. E. DARRAGH

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BUFFALO, N. Y.

“In selecting your foundation stock, just remember the Minorea is a Mediterranean fowl and not a beefy bird, like the Asiatic and American classes.

“Trust this letter will answer your inquiry, Mr. Curtis, and I want to say I believe more of the successful breeders in the country use very close matings than they are willing for the public to know about. This comes partly from the fact they don't care to go into details of their breeding methods, also from the fact that the general poultry buying public is of the opinion that close-inbred stock has not vitality, vigor, etc., and therefore are birds to be avoided.

“I have been told lately by one of the best breeders on the Coast that I am very foolish to let you publish the fact I breed so close. I can't see it that way. My stock speaks for itself and continues to win out. We should look for the truth and not fear the proved facts. That will mean real progress. I had matings last year with the loss of only one cockerel from leg weakness—partially caused by careless feeding. Sixteen of these cockerels were sold for \$25 to \$200 each. I have eight of the others I am holding for my own use and they are not for sale. I consider that ‘some results’, with only one bird, we would call a cull out of the twenty-five, with the balance worth \$25 each and up. As long as I can come anywhere near this record, I can't see how publishing the fact that they are closely line-bred can hurt my business any, and it may be the means of starting some one else out on a basis that will win for him.

“I think, Mr. Curtis—and I have given the matter much study—that about 99 per cent. of this talk about line or in-breeding is by people who ‘get cold feet’ when the first signs appear of the birds beginning to go down in vitality, and who do not stay with it long enough to give the stock a chance to right itself,

which, as I told you, varies from four to six years on the decrease in vitality. This is governed by the general vigor of the original parent stock. The stranger (the more distantly related) the original stock, the longer it takes to deplete the vitality and the longer to get all or most all the impurities of the

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That's the title of a New Book, that is **ACTUALLY WORTH \$100.00** to every Poultryman, or woman, who **OWNS**, or **OPERATES** an Incubator. It tells you **WHY CHICKS DIE IN THE SHELLS**. It tells you **HOW** to stop the **LOSSES** that come from “Death in the Shell” chicks. It **SHOWS YOU**, clearly and plainly, just **HOW YOU CAN DOUBLE YOUR POULTRY PROFITS**. You don't have to buy anything, or **OBLIGATE** yourself to get it. **PLEASE** do **NOT** ask for it unless you own or operate an Incubator. Just clip the coupon and mail it **TODAY**. The book will come to you by first mail.

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# QUESTIONS AND ANSWERS

**EDITORIAL NOTE**—This department will be devoted to answers to questions of general interest on practical poultry topics asked by subscribers and addressed to Editorial Department, AMERICAN POULTRY PUBLISHING COMPANY, Stafford Bldg., Buffalo, N. Y. Answers in this department are free of charge. Where two or more persons ask substantially the same questions, only one answer will be given. In asking questions try to send full information. The subscriber's name and address must be given [not for publication]. If a reply by mail is desired, be sure to enclose stamped addressed envelope.

**Feeding Beef Blood**

**Q.** I am situated so that I could procure fresh beef blood from a slaughter house every day. Would it be good to feed to poultry, in mash or otherwise. I also procure beef lights and hang them up in the poultry house for the chickens to pick at. I have not been feeding any beef scraps. Have corn, oats and wheat for grain feed, bran and middlings for mash. The chickens seem very healthy. What I would like to know is, would that blood be any good as a food? D. S. J., Dayton, Ohio.

**A.** Personally we have never had any experience in feeding fresh beef blood to poultry, but were we situated where a regular supply was available we would not hesitate to use it as it offers rare opportunities to supply protein and that is the sole purpose in feeding animal foods. Dried blood which is procurable at poultry supply houses is highly recommended for its feeding value and roughly speaking, contains 65% protein, 5% carbohydrates and 16% fat. This is of course a concentrated food and cannot be used for comparison with fresh blood.

In feeding fresh blood we would advise that it be used to mix the mash. A small quantity should be used at first and the amount gradually increased. If it causes undue looseness of the bowels at any time reduce the quantity or discontinue for a few days.

The beef lights are also good especially during cold weather, but instead of hanging them up we would prefer to run them through a meat chopper and mix with the mash. With a regular supply it would not be necessary to feed beef scraps.

**Injury to Foot**

**Q.** I have a single comb White Orpington cock which won 2 first prizes and 1 shape special. Coming from one of the shows he got his middle toe hurt. I think it must have been broken. I tried to get the swelling down but did not manage. Will this be a disqualification if I send him to any shows. The Standard says nothing about broken toes only mentions crooked toes. W. L., New York.

**A.** This is not a disqualification but is regarded by the Standard as a defect and as such is subject to a cut of from 1/2 to 1 point depending upon the severity of the deformity.

**Several Questions**

**Q.** Please give a good description of best and most convenient brood coops for hens and chicks say 25 or 40, or all she can handle while they need her. Also (which do you consider best breed for profit on large farm, where we must take from 10 to 20 cents a lb. for chicks owing to season and from 9 to 13 cents for hens, and from 12 to 30 cents per dozen eggs. Sometimes we get 33 or 34 but not this season and at times we can only get 8 cents per lb. for Leghorn hens. I have Barred Rocks and have had White ones, also Black Orpingtons. I think of trying White Leghorns. Some claim they mature to lay so long before the Rocks that

they make good in eggs what they lack in flesh. What do you think about it? Do the White Leghorns lay as large an egg as the Barred Rocks. I think the Barred Rocks very hard to beat, if they can be kept from getting too fat, also like the White Rocks well, but it is more trouble to handle two or three than one breed. Any information that you think will help will be gladly received. What do you think of the "Pool Proof" Poultry House? I see many plans for houses, but only a few of coops. The question with me is, shall I coop them with hens in small coops and later in colony houses or brood from the first in colony houses. I. E. E., Ind.

**A.** A good brood coop is one that gives plenty of room for the hen and chicks, protection from the weather, good ventilation and is so constructed that the hen may be confined and the chicks liberated when desired. Such a coop is described by I. M. Ashjeld on page 496 and illustrated on page 498 of the April issue. It is hard to say which is the best breed for the large farm as so much depends upon conditions and the amount of attention that is given the poultry. Generally speaking one of the heavier breeds Rocks, Reds, Orpingtons or Wyandottes are to be favored for the average farmer.

In most instances we believe that they will prove more profitable than the Leghorns. If a good laying strain is secured there is no reason why they should not produce nearly as well as the Leghorns. You know laying is both a matter of breeding and the care given them. On most general farms the poultry receive less attention and care than any of the live stock and yet they can be made the most profitable if one sets about it.

The Missouri Fool Proof house is a good one but whether it is adaptable to all localities we are unable to say. Getting back again to the chick question it is not advisable to place 25 chicks with one hen if best results are sought. Would suggest that you set as many hens as possible at one time and when the hatch is complete give each hen from 15 to 20 chicks depending upon the hen, and confine them in small brood coops. When the chicks are old enough and the weather such that the hen is no longer requir-

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**LICIDE**—For lice on poultry. Used twice yearly. 50 cent tube enough for 200 hens.

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in your fowls' drinking water. A Government expert has proved it. Just the elements needed for eggs, without the harmful fibre of green food. Money back if you're not satisfied. 100 large tablets 50c by mail. Large can, 250 tablets, \$1.00 postpaid anywhere.

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*Endorsed by 50 Experiment Stations.*

### DISINFECT THE INCUBATOR

Prof. W. R. Graham, Poultry Expert for the Ontario Agricultural College at Guelph, reports:  
"We have succeeded in hatching 7 to 9% more chicks that grow and live well by washing the machine with a 10 per cent solution of Zenoleum before putting in the eggs. It proves of greatest value in maintaining the vitality of the chicks. I would use this substance in every machine set."

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"Each year we use more Zenoleum in incubation. We dip our eggs and wash the incubators. After several years of thorough trial we are convinced it is very much worth while. We now use 185,000 eggs at a setting and Zenoleum is used on every hatch, just as it used to be when we set only 6,000 at a time."

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**The Zenner Disinfectant Co., 370 Lafayette Ave., Detroit, Mich.**  
Zenoleum Lice Powder, 25c; postpaid 35c.

ed, transfer them to colony houses putting from 40 to 50 in each house. If the colony houses are placed at first where the brood coops were and gradually moved away to larger range little trouble should be experienced in making the change.

To obtain the greatest profits from your poultry you should use the incubator and hatch your chicks early. With a few portable hovers or a coal burning brooder stove or two to place in your colony houses you could raise twice the number of chicks, with less attention than with the hens. By hatching any of the heavier breeds early they should reach maturity, if proper care is given, and be laying in October. In addition the surplus cockerels should bring good money if marketed as early as possible.

#### Can Somebody Answer This

Q. I would like to get some information on incubators. We have a flowing artisan well 2100 ft. deep with a gauge pressure of 60 lbs. and a temperature of 106 degrees at all times. Is this hot enough for an incubator? If so what make of incubator would be considered best? C. P. D., Texas.

A. This is surely an interesting question and one worthy of investigation. No doubt the water from this well can be made use of but we believe a special machine or one with a hot water heating system constructed for the purpose would have to be used. Perhaps some of our readers have tried the experiment, if so we will be pleased to hear from them with full particulars.

#### Cure for Egg Eating Hens

In a recent issue a subscriber asked for a cure or prevention of the habit acquired by some hens of eating eggs. A New York State subscriber who has experienced this trouble in his flock claims to have found a sure and safe cure that relegates the hatchet to the scrap heap. The cure follows. Place one egg in a cup and cover with spirits of turpentine then place the cup and contents on the floor of the pen. Care should be taken not to allow too many fowls at the cup at once otherwise the egg may be broken and the hens will secure too much turpentine. He then adds they will pick at it one or twice, shake their heads and leave the egg alone thereafter. No need to kill any of the hens.

This is surely a simple and inexpensive remedy and worthy of a trial by those who are annoyed by this detestable habit in their flocks. We wish other readers would tell us of their experiences along this and other lines. You know we help ourselves by helping others.

#### Early Crowing—Large Eggs

Q. Would you be kind enough to inform me what the earliest known time for young W. Leghorn cockerels to begin to crow is. I have had some that began to crow when seven weeks old. Is this considered early? I have a hen that occasionally lays a large egg, sometimes weighing four ounces. Is this an unusual weight? F. B. O., Penna.

A. When large numbers of Leghorns are raised there are always a few precocious little cockerels that appear to develop more rapidly than their mates and they often attempt to crow at the early age of six weeks. Your cockerel must belong to this class. These little fellows mature rapidly and become staggy at an early age and do not grow as large as some of their slower developing brothers. The product of the hen in question is undoubtedly a double yolked

egg. Eggs of this size usually are. This is not an unusual weight for a double egg.

#### Wants Definitions

Q. Kindly answer the following question in the Questions and Answers Department of your April issue. Define the following words namely: Homozygous, Homozygote, Heterozygous, Heterozygote. L. L., Penn.

A. We do not believe that we can give any clearer definition of the above terms than is given by Punnett on page 28 of his book "Mendelism" and published verbatim, herewith:

"Shortly after the discovery of Mendel's paper a need was felt for terms of a general nature to express the constitution of individuals in respect of inherited characters, and Bateson accordingly proposed the words Homozygote and Heterozygote. An individual is said to be homozygous for a given character when it has been formed by two gametes each bearing the character and all the gametes of a homozygote bear the character in respect of which is homozygous. When, however, the zygote is formed by two gametes of which one bears the given character and the other does not, it is said to be heterozygous for the character in question, and only half the gametes produced by such a heterozygote bear the character. An individual may be homozygous for one or more characters, and at the same time may be heterozygous for others."

#### RAT CURE ON TRIAL

Do you think that you should permit the rats to eat your grain, kill your chicks and perform other acts of destruction when the Morisrite Mfg. Co., Dept. 13, Bloomfield, N. J., will send you their Rat Cure to try before you pay one cent? Do you think that they could afford to make such an offer if they were not sure that "Rat Cure" would do the work effectively and thoroughly?

Just consider these questions carefully and decide for yourself if you wish to continue to suffer the losses and annoyance caused by this wily pest. If you decide that you cannot afford to continue in the old rut then set down and write the above mentioned company and tell them that you have decided to give their cure a fair trial. They will promptly come to your rescue and help you to eradicate this annoying and destructive pest.

#### NEW BANTAM YEAR BOOK

The National Bantam Association Year Book is now ready for distribution and copies will be sent to any fancier of Bantams

enclosing ten cents in stamps to the Secretary Geo. L. Young, 349 Eleventh St., Brooklyn, N. Y. The book is a most interesting one in that it gives the winners of all club specials at the principal events held last season. It also contains much that will prove of interest to the average Bantam fancier and should be in the hands of each and every one interested in these attractive and profitable midgets.

**McLean's S. C. Rhode Island Reds**  
NONPAREIL STRAIN. STOCK FOR SALE.  
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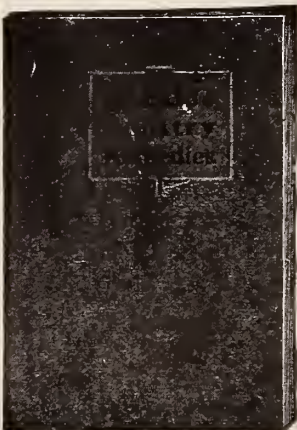


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It is necessary to produce uniform colored eggs and to produce eggs of large size. To do this it is necessary to keep one breed and that breed pure. Do not cross the breeds as it does not produce a uniform product and is disastrous.

Do not send eggs to market that are dirty, too small, thin shelled, from stolen nests or that have been set on. Keep your broody and sitting hens away from layers. If you do not want to set the hen when she becomes broody make a coop 2 feet by 3 feet of slats or scrap lumber and put her in this coop till she no longer wants to set. If you want to set her move her to a vacant room or a combination sitting and brooding coop.

Remember saying a product is good does not make it so. If you send to market only eggs known to be absolutely fresh, your eggs will soon be called for. On the other hand, if you place among these eggs those from stolen nests, that have been under broody hens, eggs that are dirty and eggs kept on hand for a long time, your eggs will not command the highest prices, consequently your returns will not be what they should be.

Eggs should be gathered once a day in the fall and winter and twice a day in

in the warmer part of the year. The eggs should be kept in a cool, dry room away from bad odors and dust.

Eggs too small, checks and weak shell, dirty eggs or eggs from stolen nests or that have been set on should be rejected. These eggs should be used on the farm as they are sure to injure the trade. You cannot build up a first class trade and accept this grade of eggs.

Eggs strictly fresh, that is, collected and cared for properly and weighing above 26 ounces to the dozen, sell as extra first near hennery. The next grade as extra firsts, next extras and next firsts. Those eggs weighing less than 26 ounces to the dozen sell as seconds.

For practical purposes a gauge may be made from a piece of wood, two inches wide, four inches long and three-fourths inches thick. In the side of this saw a square notch 1 12-16 inches in diameter. Any egg small enough in diameter to enter this notch is a number two egg. One larger is number one.

**NEW POULTRY BOOK.**

We have just received an unusually complete poultry book from the Ralston Purina Company, St. Louis. It contains plans of houses, cures of diseases, breeding charts, feeding charts, space for daily egg records, timely poultry pointers and the most complete collection of recipes for cooking eggs

and poultry that has ever been compiled. This book has a beautiful lithographed cover, well printed on good paper and is of a size that is handy to keep and use.

The Ralston Purina Company has offered to mail a copy of this sixty-four page poultry book free to any reader of the American Poultry World. Write direct to Ralston Purina Company, 817 Gratiot St., St. Louis, Mo., for your copy of this interesting book. It contains especially valuable suggestions concerning scientific breeding and the care of baby chicks.

**GROVE HILL POULTRY YARDS**

The above poultry yards were established in 1876, therefore they have been in successful operation for forty years. It must be indeed satisfying to look back over such a span of years, especially when each and every year marks the advancement that has been made at Grove Hill. Grove Hill Barred Rocks and S. C. Brown Leghorns represent years and years of study and scientific breeding and were it not for this fact they would not today be recognized among the leaders in these varieties. They have time and again demonstrated their class in the close competition of our leading shows and today stand ready to test their merits with the product of any other breeder. To obtain a better understanding of the quality of these birds we suggest that every breeder interested in either variety send today for the twenty-four page booklet that will be sent free to all who mention A. P. W. and address, Grove Hill Poultry Yards, Box 804, Waltham, Mass.

**\*\*Tell us what you think of A. P. W. We appreciate good words from our readers.**



The productions of E. M. Dutton, Newfane, N. Y., in R. O. Rhode Island Reds have won repeatedly at such shows as the Palace New York, Buffalo and Rochester, in fact Mr. Dutton won first pullet at the Palace three years in succession, an achievement that clearly demonstrates the quality of his Reds in both shape and color. The specimen photographed above won first honors at the Rochester, N. Y., show in January, 1916. In addition to her remarkable shape she was a well developed specimen possessing that deep rich red color so much desired by breeders and judges in recent years. She is truly a "chip of the old block" proving that the Dutton Reds not only reproduce but also improve their good qualities year after year.—A. O. Schilling.

S. C. Rhode Island Reds at the Palace Show contained 155 specimens in the different classes, and among them some of the choicest ever shown. The cock shown above headed the list with first prize in his class and stood well out as a bird of exceptional quality. He is large and massive, of exceptionally good type and body. His color is of wonderful brilliancy and evenness from head to tail. E. M. Dutton, Newfane, N. Y., owner and exhibitor of this fine specimen, values him almost priceless as a breeder, having produced many winners from him during the past two seasons. He will lead a very choice pen of females for the coming season, and judging from his past records his progeny are expected to be above the average in exhibition qualities.—A. O. Schilling.

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#### STATEMENT OF OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF AUGUST 24, 1912.

of American Poultry World, published monthly, at Buffalo, N. Y. for April 1st, 1916.

Name of Post-office Address. Editor, Grant M. Curtis, Buffalo, N. Y. Managing Editor, Grant M. Curtis, Buffalo, N. Y. Business Manager, W. C. Denny, Buffalo, N. Y.

Publisher, American Poultry Publishing Co.

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Sworn to and subscribed before me this 31st day of March, 1916.

W. R. COWEN,

(Seal) Notary Public. My commission expires March 31st, 1918.

pressions of the Cornish and their champion as follows:—

"Including my general education from infancy, occasional visits to the country and watching fowls hurrying across the road ahead of a friend's automobile, I believed that I had acquired a fair general knowledge of how a chicken ought to look and at one time I believed that all breeds conformed in a general appearance to my conceived notions". Said a man the other day, and then he added, but now I no longer labor under such impression for only this week I took a trip to Pennington to see a flock of Ward's Champion Dark Cornish, many of which had just arrived from England, the home of the Cornish family.

"These Cornish are about the most unique and individual fowls that breeders have to offer. They have an appearance that is all their own being something of a cross between a giraffe, a bull dog, and a guinea hen. The tail doesn't stand up as a chickens tail should according to the notions of some but slopes off toward the ground, giving the neck an appearance of altitude which it really doesn't deserve. The legs are set wide apart, which adds to the unusual appearance of the bird.

"The feathers seem to be so closely fitted that they display the prominent body lines. The coloring is dark, rich and very beautiful. The Cornish is said to be an exceptionally fine table fowl and a good layer.

"John W. Ward, Jr., of Pennington, knows more about this breed of fowls than any man in three states. He is prominent as a breeder and exhibitor and is the national secretary-treasurer of the American Cornish Club. A long row of cups at "Windercrest" his Pennington home bears testimony to the number of times his birds have been given honors at the big poultry shows.

"Mr. Ward has made several importations of Cornish from England and has visited England, to get first hand information about the birds in their native land. The last importation of 28 birds, is the third largest which he has ever received. The birds were cabled for from Trenton. Because of the war, a lot of red tape had to be gone through to get the birds over, but they all arrived safely and are a beautiful flock. Nearly all of these birds are still at "Windercrest" and are well worth seeing by those who are interested in thoroughbred poultry.

"Mr. Ward is president of the Trenton Pigeon and Poultry Association, Inc. He is a son of Dr. John W. Ward, formerly medical director at the New Jersey State Hospital. He is one of the best known Cornish breeders in the United States."

## STANDARD REQUIREMENTS OF SPECKLED SUSSEX

(Continued from page 557)

experience in the mating of his favorites. It is careful efficient study regarding the mating of fowls for Standard requirements that breeders are hungry for and some sort of plan should be adopted whereby the entire poultry industry would be benefited. Let us hope that the coming season will bring forth a greater number of high quality specimens, and let us exchange notes by some form or proposed plan in the future.

\*\*\* What do like best about this issue of A. P. W.? Sit down today and write about it.

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A recent communication from the Schenley Heights Poultry Farm, Box 1202 Commonwealth Bldg., Pittsburgh, Pa., advises that the price of eggs from all matings will be cut to half price after May 15. This should be welcome news to buyers of Red eggs as the Schenley Heights Rhode Island Reds are known as one of the leading exhibition strains. Their record during the past season is indisputable evidence of this. The Schenley Heights Poultry Farm is one of the most modern in the Keystone State and thousands of Reds are produced there annually. It is located a few miles from Pittsburgh and is particularly well suited for the production of poultry of quality, being well supplied with grass and clover ranges and an abundance of natural shade. C. F. Rankin, the owner is an enthusiastic Red Crank and takes great pride in his productions. He is an earnest worker for the poultry industry and is one who always leaves a favorable impression.

**CARE OF CHICKS**

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After the chicks attain the age of three weeks, they can be fed some cracked wheat, toasted bread, etc., with safety, but feed it sparingly if you want your chicks to live.

Drinking water is another item to be watched in chick rearing. Water from some wells will kill chicks faster than you can hatch them. Use rain water is possible.

Are you going to raise chicks or just start them and let them perish because of improper feed? If you will just give them the right start they will give you a profitable

finish. Blatchford's milk mash is a dry milk equal—just the thing for their tender digestive organs, because its made expressly for them. It is an unsurpassed growing food for chicks, after they are two months old, if mixed with corn meal. For fattening, add as high as fifty per cent corn meal.

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**GENSCH SELLS EGGS AT HALF PRICE**

I have put forth my best efforts to produce a flock of healthy, vigorous breeders, that will produce strong fertile eggs says F. M. Gensch, Omro, Wisc., breeder of White Orpington in his mating list. Then he goes on

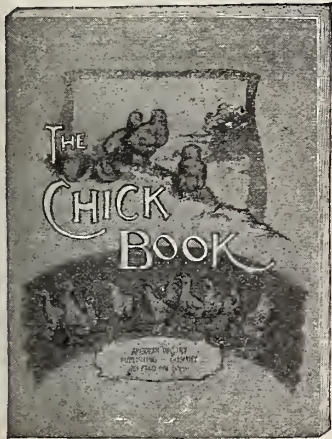
to say that to give further protection to his customers he will guarantee nine healthy chicks from every setting of fifteen eggs. Now that is about all any one could possibly do to serve his patrons satisfactorily and it goes to show that Mr. Gensch endeavors to give each and every customer full value for the money expended for hatching eggs. According to his mating list his egg prices run from \$3 to \$15 per setting of 15 eggs, therefore with the reduction of 50 per cent announced elsewhere in these columns it reduces the prices to a point where A. P. W. readers who are desirous of purchasing hatching eggs can hardly afford to overlook the opportunity. The Gensch Whites are bred to win and lay and appear to be good strain to tie up to. Bred in the vigorous Wisconsin climate they are rugged and healthy and should prove their value in the hands of customers.

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# INDEX TO ADVERTISERS

Abernethy, Jas.....	587	Ideal Dark Cornish Yards.....	Cover 2	Sheppard, H. Cecil.....	Cover 3
Aldrich Poultry Farm.....	587	Imperial R. I. Red Farm.....	581	Sheffield Poultry Farm.....	593
Almy, F. W. C.....	593	Ives, Paul B.....	573	Sigler Automatic Trap Nest Co.....	583
Allen Milling Company.....	554	Jacobus, M. R.....	591	Slade, H. W.....	556
Allen & Co.....	561	Johnson, M. M.....	565	Slade, John.....	590
Almendinger, A.....	576	Keating, J. S.....	580	Smith, Eugene.....	544
American School of Poul. Husb.....	573	Keller, Ira C.....	582	Smith Specialty Company.....	556
American Poultry Association.....	594	Keeler, Chas. V.....	546	Smith Standard Co.....	573
Anderson, A. M.....	569	Keystone Poultry Farm.....	555	Spahr, A. G.....	587
Andrews, J. W.....	576	Klein-Lambert Company.....	600	Soule, H. P.....	597
Ashjeld, I. M.....	543	Kulp, W. W.....	590	Spiller, A. P.....	565
Axford Incubator Co.....	560	Laywell Poultry Farm.....	591	Stiles, Charles.....	590
Ayres, Levi A.....	593	Lee, Geo. E.....	580	Stover Mfg. Co.....	570
Baker, C. R.....	575	Lisk, F. C.....	571	Stuver, W. S.....	576
Barlow, A. G.....	569	Licide Supply Co.....	599	Steinmesch, Henry.....	570-573
Barker, M. S.....	576	Low, Dr.....	Cover 2	Sunnybrook Poultry Farm.....	590
Bartling, C. A.....	575	Longfield Poultry Farm.....	579	Succulenta Co.....	599
Beach, Geo. W.....	559	Lone Oak Poultry Farm.....	565	Taft Orpington Farm.....	576
Bean, I. W.....	564	Lord Farms, The.....	589	Taylor, Jas. H.....	546
Belle City Incubator Co.....	586	Mahon, E. C.....	566	Thompson, E. B.....	Cover 4
Bennett, Leon O.....	569	Majestic Squab Co.....	583	Tolman, Jos.....	567
Berg & Beard.....	566	Mann, F. W. Co.....	581	Tompkins, Lester.....	529
Besuden Bros.....	567	Marshall & Marshall.....	560	Tompkins, Harold.....	587
Besuden, W. H.....	571	Martin, J. S.....	547	Turtle Point Farm.....	543
Bird, E. D.....	563	Martin, Mrs. E. B.....	Cover 3	Turner, Edw. J.....	566
Bird Bros.....	559	Martling Hennerly, The.....	575	Tywaana Poultry Farm.....	598
Bella Vista Farm.....	593	Martz, A. E.....	558	United Brooder Co.....	590-595
Boschen, C. H.....	570	McDonough & Bidwell.....	579	Urban Farms.....	563
Bourne Mfg. Co.....	566	McLean, S. G.....	600	Universal Heat Check.....	560
Brunig, W. G.....	570	McConnell, J. V.....	546	United Sales Co.....	584
Buckeye Incubator Company.....	554	McGrann, Frank.....	546	Unadilla Silo Co.....	576
Buena Vista Farm.....	583	Merihew, L. E.....	580	Underhill Farms.....	591
Buxton, G. S.....	564	Mirimichi Poultry Farm.....	568	Valley Farms Co.....	596
Buell, Geo. L.....	562-591	Moore Bros.....	571	Vierheller Bros.....	583
Byers, C. S.....	544	Model Incubator Co.....	583	Vincent, J. H.....	564
Cadwallar, T.....	588	Morton, Seth W.....	565	Wadsworth & Caster.....	597
Carver, A. A.....	543	Morrisite Mfg. Co.....	596	Ward, John W.....	Cover 2
Carbola Mfg. Co.....	566	Mount Pleasant Farm.....	564	Warsaw Cooping Co.....	568
Cherry Lane Farm Co.....	566	Mountsville Farm.....	575	Webb, Geo. W.....	562
Cleveland Hatchery.....	600	National Poultry Institute.....	596	Wellcome, F. O.....	573-586
Cleveland & Buffalo Transit Co.....	562	Nescopeck Poultry Farm.....	563	Wendell Incubator Co.....	566
Cleveland, Chas. D.....	597	Newell & Gordinier.....	588	Wheeler, G. L.....	581
Close to Nature Co.....	580	Northeastern Mfg. Co.....	572	White, George W.....	591
Coburns Red Sussex Farm.....	569	Oculum.....	595	Whyland, A. A.....	576
Cole, Frank C.....	593	Old Forge Poultry Farm.....	565	Wilson Bros.....	588
Cole, G. N.....	600	Orchard Farm.....	581	Wisconsin Incubator Co.....	581
Congdon, W. A.....	568	Orange Poultry Yards.....	591	Williams Bros.....	591
Conkey, G. E.....	555	Owen Farms.....	557	Wilburtha Poultry Farm.....	549
Consolidated Products Company.....	548	Parks, J. W.....	Cover 3	Wood, Chas.....	573
Crockford.....	564	Pastuer Laboratories.....	599	Wood, Harvey C.....	575
Cyphers Incubator Co.....	531	Paulding, Clayton.....	576	Willetts, Samuel.....	559
Cycle Hatcher Company.....	566	Patteson, W. M.....	563	Yant, John W.....	568
Daily, Guy.....	583	Perry, L. H.....	588	Young, D. W.....	585
Darragh, F. E.....	598	Pettit Bros.....	576	Zenner Disinfectant Co.....	599
Dawes, Harrison.....	581	Pilling, G. P. & Son.....	576		
Deer, F. L.....	600	Phillips, Jas.....	569		
Des Moines Incubator Co.....	575	Pine Crest Farm.....	596		
Delano, Maurice F.....	557	Pittsfield Poultry Farm.....	559		
Diamond Box Mfg. Co.....	569	Platt, Frank.....	543		
Diotograph Poultry Farm.....	590	Potter & Co.....	593		
Double Service Tire Co.....	560	Poole, Theo. L.....	567		
Eagle Bay Farm.....	590	Poultry Exchange, The.....	597		
Enger, Geo. W.....	600	Prairie State Incubator Co.....	561		
Everlay Farm.....	589	Pratt Food Company.....	548		
Fairmount Farm.....	581	Progressive Incubator Co.....	584		
Fellows, E. B.....	567	Prudhomme, J. H.....	573		
Fernbrook, Farm.....	581	Putnam, I.....	599		
Ferris, Geo. B.....	586	Ralston-Purina Mills Co.....	586		
Fishel, U. R.....	545	Rancho Del Martino.....	Cover 3		
French, R. T.....	577	Ranocacs Poultry Farm.....	554		
Genesee Cooping Co.....	562	Rawnsley-Shields Poultry Farm.....	581		
Gensch, F. M.....	569	Red Feather Farm.....	593		
Gensemmer Bros.....	Cover 3	Red Jacket Poultry Farm.....	563		
Glover, H. Clay.....	568	Red Poultry Yards.....	600		
Glen Poultry Farm.....	587	Reider, R. D.....	568		
Grove Hill Poultry Yards.....	544	Reliable Poultry Specialty Co.....	598		
Halbach, H. W.....	543	Resseguie, L. D.....	575		
Hallenbach, L. M.....	581	Rex, Geo.....	590		
Hanchett, China.....	560	Richardson, H. G.....	583		
Harter, S. H.....	563	Riley, C. E.....	581		
Hatheway, E. P.....	595	Riddell, Andrew.....	567		
Hawkins, A. C.....	554	Riverdale Poultry Farm.....	571		
Heigl's Poultry Farm.....	569	Rockford Poultry Supply Co.....	596		
Heist, Arthur.....	575	Rocky Run Farms.....	568		
Hendrickson, W. A.....	579	Rock Creek Poultry Yards.....	596		
Hering, Frank.....	Cover 2	Rogers, E. B.....	Cover 2		
Hess & Clark, Dr.....	565	Rogers, T. W.....	597		
Hewke, Theo. S.....	571	Roesmont.....	Cover 3		
Heneta Bone Co.....	588	Rowan, R. A.....	570		
Hibbard, M. H.....	596	Sanborn, Dr. N. W.....	587		
H. O. Co.....	561	Sands, Leroy.....	562		
H. I. Co.....	595	Saunders and Williams.....	564		
Holterman, W. D.....	Cover 2	Schenley Heights Poultry Farm.....	565		
Homestead Campine Farm.....	555-579	Schneller, H.....	569		
Horseshoe Poultry Yards.....	568	Scranton, B. H.....	573-Cover 2		
Houck & Alt.....	590				
Howland, S. A.....	565				
Hough, Mrs. W.....	596				
Indiana Specialty Co.....	583				

## SOME LEGHORNS

H. Casselman, Jamestown, N. Y. in writing the H. I. Co., Salem, Va., to compliment them on the value of their product "Oculum" says "I used Oculum all last summer. I have 24 White Leghorn hens that average 4 pounds each and a White Leghorn rooster that weighs 9 pounds. They laid 1378 eggs from October 3 to March 8th. A Leghorn male weighing nine pounds is indeed some chicken. Just compare the ordinary Leghorn with a full grown Plymouth Rock male and you can easily picture the size of this Leghorn male. The manufacturers of Oculum claim that if one drop of Oculum to each hen is given in the feed daily that it will keep them well and increase egg production. You can try it to your own satisfaction for only 10 cents, as they send a liberal sized trial bottle at that price. Just refer to their ad in another column for full particulars.

## FORCED TO SELL?

A recent communication from Chas. Wood, 340 Main St., Worcester, Mass., advises that he is forced to close out his beautiful flock of Partridge Wyandottes as his farm is being cut up for building purposes. A big building boom has struck the city of Worcester, and as Mr. Wood's property was located in one of the most desirable building sections he has found it necessary to convert it into lots for building purposes. He did not do this without many regrets as he realized that it would mean the disposal of his flock of Woodcrest Partridge Wyandottes upon which he has spent many years of careful study and breeding to bring them up to their present high state of perfection. His loss will be your gain as he is offering them at astonishingly low prices. Look up his announcement on another page and order direct thereby getting an early selection. Just say you saw the announcement in A. P. W.

White Wyandottes,  
Barred Rocks, Brown and  
White Leghorns, Silkies  
WIN AT CLEVELAND, 1916.

# ROESMONT

EVER BETTER FANCY FOWLS, 1916.

Pekin, Runner and  
Muscovy Ducks  
ILLUSTRATED CATALOGUE  
ROESMONT, FRANKLIN, PA.

## SUSSEX

## WORLD'S CHAMPIONS

## CAMPINES

At the Greatest Poultry Show Ever Held—Panama Pacific International Poultry Show in competition with the worlds best we won 9 firsts out of a possible 18. 7 seconds, 6 thirds, 6 fourths and 2 fifths. Each one of our 44 birds entered won a ribbon. A most remarkable and enviable record.

At the Cleveland Poultry Breeders Association Show January 3 to 8, 1916. We won 12 firsts out of a possible 16. 7 seconds, 6 thirds, 6 fourths and 2 fifths. A few choice pens, trios, and single birds for sale at reasonable prices. We have our pens mated for the egg trade. Write us for mating list.

GENSEMER BROS.

Box W,

CRESTON, OHIO.

WINNER OF EVERY FIRST PRIZE, CHAMPION MALE, CHAMPION FEMALE,  
PANAMA-PACIFIC INTERNATIONAL EXPOSITION, SAN FRANCISCO, 1915.

## SINGLE COMB WHITE LEGHORNS

Exhibition, Breeding and Foundation Stock. Hatching Eggs at Half Price from June 1st to July 1st. Write for Free Catalog and Mating List.

DOWNEY,

RANCHO DEL MARTINO

CALIFORNIA.

MRS. E. B. MARTIN.



### You don't need to have a hundred or a thousand of Park's Bred-to-and-do-Lay Barred Plymouth Rocks

To get a few great layers. Mrs. Lloyd of Kirkwood, Mo., writes: My pen No. 69 holding third place) of Rocks are bred from the two settings of eggs from you in 1914, etc. (100 pens in contest).

Don't forget that it was a Park's strain pen that outlayed all other breeds entered in last Missouri contest, averaging more eggs than the Famous English strain did in either the Missouri or Storrs Contests. The year previous a pen of my strain finished second place and four years ago Miss Adams pen of my strain made laying history and above all my strain holds nearly all the winter laying records and that's where breeding tells, and laying counts, when eggs are 50 and 60 cents a dozen.

They are the oldest and greatest laying strain today. With individual records up to 290 eggs, continuous laying up to 148 eggs. Small flock averages up to 242 eggs, and best of all large flock averages up to 208 eggs for 126 birds.

They are bred everywhere. Commented on by Curtis, Woods, Denny, Schwab, Platt, Prof. Morrison and others. Show winners in five states.

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J. W. PARKS

Box W

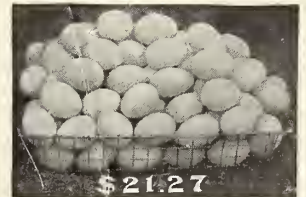
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Increasing Demand for  
My Anconas



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Have won first at the world's greatest shows, including London, England, Cleveland and Madison Square Garden, N. Y. For eight consecutive years my birds have won three times as many first and second prizes at the Nation's greatest shows, including late shows, as all my competitors together, so have earned the distinction of being

### THE WORLD'S BEST

They are famous egg machines and the greatest winter layers, with the wonderful egg record of 256 average for a flock.

If you want to win at your show or increase your egg production, write for catalogue. Eggs, Baby Chicks for sale.

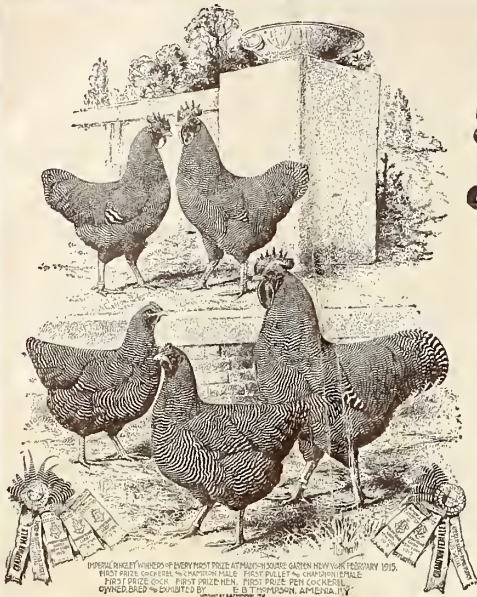
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PRESIDENT INTERNATIONAL ANCONA CLUB.

# E. B. Thompson's Imperial Ringlet Barred Plymouth Rocks



Win at the Imperial Show of all the World, Madison Square Garden, New York, December 31st, 1915-January 5th, 1916, the following matchless record:

**All Prizes and Ribbons offered on Cocks, Cockerels, Pullets and Exhibition Pens, viz.**

- COCKS, 1st, 2nd, 3rd, 4th and 5th.
- COCKERELS, 1st, 2nd, 3rd, 4th and 5th.
- EXHIBITION PENS, 1st, 2nd, 3rd, 4th and 5th.
- PULLETS, 1st, 2nd, 3rd, 4th and 5th.
- HENS, 2nd, 3rd and 4th.

THE PRESIDENT'S SILVER CUP FOR BEST DISPLAY.  
SWEEPSTAKES SPECIAL FOR CHAMPION MALE.  
SWEEPSTAKES SPECIAL FOR CHAMPION FEMALE.

Winners of every first prize offered at Madison Square Garden, New York, February, 1915—first cock, first Cockerel, first pullet, first hen and first pen cockerel.

SPECIAL FOR BEST SHAPED MALE.  
SPECIAL FOR BEST SHAPED FEMALE.

SPECIAL FOR BEST COLORED MALE.  
SPECIAL FOR BEST COLORED FEMALE.

Diploma presented by the American Poultry Association for Best Cockerel, Special for Best Cockerel and Pullet, Best Cock and Hen, Three Best Cockerels. More first and special prizes than any exhibitor of any breed.

Madison Square Garden is the recognized quality show of all America—It is the center of a system around which all other shows revolve. My exhibit of 100 birds of supreme quality is the accomplishment of a feat unknown in the annals of poultry shows—unequaled in the annals of Barred Rock history.

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Dozens of my first prize winners were hatched in May and June. Three of my First Prize Males at the last two Madison Square Garden shows and the five pullets winning **EVERY PRIZE OFFERED**, viz: 1st, 2nd, 3rd, 4th and 5th—at the 1916 shows were all hatched in June.

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Imperial "Ringlet" Eggs

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GRAND BIRDS FOR SALE IN COCKS, COCKERELS, HENS, PULLETS AND PENS.

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