

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Covers damaged/
Couverture endommagée

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Cover title missing/
Le titre de couverture manque

Coloured maps/
Cartes géographiques en couleur

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Bound with other material/
Relié avec d'autres documents

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Additional comments:/
Commentaires supplémentaires:

Coloured pages/
Pages de couleur

Pages damaged/
Pages endommagées

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Pages detached/
Pages détachées

Showthrough/
Transparence

Quality of print varies/
Qualité inégale de l'impression

Continuous pagination/
Pagination continue

Includes index(es)/
Comprend un (des) index

Title on header taken from: /
Le titre de l'en-tête provient:

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
							✓				



WHITE CRESTED BLACK POLISH COCKEREL, WINNER OF FIRST PRIZE AT THE RECENT SHOW HELD AT RICHMOND, VA., OWNED BY ZACHARIAS & PIGHT, 808 N. 6TH ST., RICHMOND, VA.—*From a photograph.*

THE CANADIAN POULTRY REVIEW

DEVOTED TO POULTRY, IN ALL ITS BRANCHES

PUBLISHED BY H. B. DONOVAN.

Vol. XIV.

58½ VICTORIA STREET, TORONTO, JUNE, 1891.

No. 6.

NOTES AND COMMENTS

MR. R. B. SMITH, BELLEVILLE,

WROTE us some time ago the following cheering words: "I am out of the fancy entirely at present, and may remain so perhaps the rest of the year. I sold some grand birds the past season, 1st black-red hen New York, (W. Barber & Co.) I sold to Mr. Doty a short time ago, and 1st and 2nd, 95 and 94½, hens at Victoria, B.C. also came from my yards. Now before I close I wish to say that I consider the REVIEW the very best advertising medium that any Canadian fancier can find, and I certainly owe what success I have had in the past to the advertising columns of REVIEW, the only trouble or I might say objection I had to REVIEW was that it invariably brought me twice as many buyers as I had birds for sale; oh, yes, a good objection say you, well I agree with you. The last ad I put in brought me answers from Victoria, B.C., Michigan, Quebec, Toronto, Port Hope, Strathroy, Watford, and I guess about half a dozen other places, but enough for the present and every success to REVIEW."

Such an enthusiast as Mr. Smith will not be long out of the fancy.



WHITE CRESTED BLACK POLANDS.

Owned by A. E. Meredith, West Indianapolis, Ind. 1st cock 96 and 1st hen 94½ at Indiana State Poultry Show, 1891. From Life.

MR. MORTIMER IS LIBERAL.

The following from Mr. E. W. Lamprey, of Guelph, shows the good nature of a man who is well known to our readers: "Last spring I bought some Langshan eggs for hatching from Mr. F. A. Mortimer, of Pottsville, Pa., U.S. Unfortunately I had a very poor hatch. I wrote Mr. Mortimer last fall advising him of this. In reply he stated that he would duplicate the order next (this) spring free and that he would send half

as many more to pay express charges. This he has done and I have much pleasure in reporting a very fair hatch. Mr. Mortimer has acted so very liberally that I think it only right that I should make the circumstances known to the readers of your journal. I cannot speak too highly of Mr. Mortimer's kindness." We receive so many complaints of unfair dealing that it is a pleasure to receive a letter of this nature.

GUELPH POULTRY AND PET STOCK
ASSOCIATION.

At the last regular meeting of the above Society, the Secretary, Mr. John Colson was made the recipient of the following address: To Mr. John Colson, Secretary of the Guelph Poultry and Pet Stock Association. We desire in a few words to express to you our appreciation of your worth as a member of our Association, your uniform kindness and unremitting attention to the work which has devolved upon you has been at the cost of considerable time and care. We have a deep sense of our obligation, and request your acceptance of this lamp, not as an equivalent for your services, but as a slight acknowledgment and an expression of the esteem in which you are held by us. Signed on behalf of the Guelph Poultry and Pet Stock Association, C. J. Eisele, Geo. Chamberlain, J. B. Collins, F. Webber, Geo. Wilson, Art. Tyson, J. Norris, Thos. Hewer, J. Hetherington, J. S. Moffat, J. D. Robertson, H. Sallows and W. Stuart. Mr. Colson made a suitable reply thanking the Association for their kind words and generous gift.

MR. GEO. H. HANSLER, TILSONBURG, recently received from the yards of the Hon. Lady Gwydyr, England, 7 buff Cochin eggs, 7 partridge, 7 black, and 7 dark Brahmans. We shall be interested in ascertaining how the hatch turned out. We have been fairly successful when importing eggs from England on some few occasions.

MR. C. J. DANIELS, TORONTO, from 40 golden Wyandotte eggs received from a U.S. breeder, hatched 33 strong healthy chicks, which, under the circumstances, is a remarkably good hatch.

MR. G. H. SHEERES, CLARKSBURG, has a black Spanish hen which, a few days ago layed an exceedingly large egg, it weighed $4\frac{1}{2}$ ounces and measured $8\frac{1}{2}$ inches round the long way, and 7 inches round the other way. Was it double yolked?

MR. T. COCKBURN, JR., HAMILTON, will, we are sure, receive the sympathy of the fraternity on the sudden death of his father Mr. Thos. Cockburn, which sad event occurred recently in Hamilton. Mr. Cockburn at the time of his decease was foreman for Greening & Co., Wire Workers, and was a Crimean veteran and wore the Sebastapol and Turkish medals. He was born in Newcastle, England and was 55 years of age.

PROFESSOR WM. SAUNDERS, of the Government Experimental Farms is in correspondence with chief Buchanan of the proposed World's Fair or Exposition at Chicago with a view to securing a large space for Canadian exhibits. What are the poultry breeders doing about it? We hope to see this branch well represented.

THE LONDON ASSOCIATION has decided to hold no monthly meetings during the summer. Its next meeting will be held in August.

THE TORONTO ASSOCIATION will also, after its June meeting, adjourn for several months.

MR. C. P. EARLE, GOUVERNEUR, N.Y. informs us that he has purchased Mr. A. F. Pierce's, Winchester. N. H., entire stock of Bantams. The transfer includes all the imported and prize-winning birds.

POULTRY

MORTIMER'S MONTHLY MORSELS.

BY F. A. MORTIMER, POTTSVILLE, PA.

THERE is nothing more profitable than the breeding of Turkeys on the farm. The birds can be raised very cheaply, as they are of a roaming character they will get a good part of their living from the grain and grass fields. The mother hen or turkey will go with her brood to the meadows or pasture land for insects, and when the grain is harvested and stacked they may be allowed to pick up all the loose grain, in this way they do little damage and the cost of raising is very little, and they will be of much benefit by ridding the place of worms and insects; and if given a place to roost, and taught where it is while young, they will come home every night, and the lost from noxious animals that are so fond of young turkeys will be a small percentage.

Don't condemn the incubator if it hatches out hundreds of little orphans and they die. The incubator is for hatching and not for raising chicks. A great many don't seem to understand this.

Nest boxes are often made too narrow, and so arranged that the hen is compelled after stepping on the nest to turn around in order to get her head towards the light, her usual way of sitting.

Gather the droppings around and under the roosts every two or three days if you would have your poultry free from the scourge of scaly legs.

The orchard is the place for fowls—not the garden. One old hen in a garden will in two hours destroy more than she is worth, while in the orchard she pays for her keep every day by destroying bugs and insects.

Some of the poultry journals especially in England are strongly urging the advantages to be derived from cross breeding, such as crossing Dorkings with Cochins, Leghorns, Brahmas, etc. Our advice is don't do it. We freely admit that some advantages are to be derived from the practice, but not many. It is throwing away good blood for mongrels. You cannot tell what you will get. You cannot at best estimate the product except by the pound, for the table, and you can get all this by breeding a desirable table variety. Breed but one variety—a good combined variety if you prefer it, and breed *up* each year by killing all males and poorest half or three-fourths of the females and mate the remaining females to a better male of your own chosen variety. You thus get chicks that will sell as well or better for broilers and your better specimens will in the fall and winter command at least double the ordinary market price. Do not cross breed. Do not throw away the very points you or others have been working for. Do not disgrace your farm by the presence of a lot of non-descripts.—*National Stockman and Farmer.*

The black African Bantams possess many good qualities. They are very hardy, easily raised, bear confinement well, and are not so difficult to breed to feather and other points as some Bantams. Bantam eggs can be set late in the fall. Some of the most successful fanciers set them in September and October, and claim that is the proper time.

Poultry houses should be white-washed, inside and out, two or three times a year. Into the whitewash for the inside of the house put a little glue or a teacupful of soft boiled rice to a pail of whitewash, and also add ten or twelve drops of crude carbolic acid, as a safeguard against vermin.

In buying birds or eggs go to some reliable breeder who has his reputation at stake. You may have to pay a little more for birds, but you can depend on what you get. Culls are not cheap at any price.

We still have great faith in curing roup by fumigating the premises and smoking the diseased birds with sulphur. A common bee-smoker with the sulphur rolled among cotton rags is the best way of getting the desired effect. With a smoker thus charged you can soon have all the birds on your premises sneezing as though they were "up to snuff."

"He prayeth well, who loveth well
Both man and bird and beast."—*Coleridge.*

MR. HAMILL EXPLAINS.

Editor Review:—

I NOTICED in May number an item from Wm. McCloud, pleading ignorance as to the amount of two dollars being charged to him by the Ontario. This amount is balance of entry fees, due from the first show held in St. Catharines, in '89. Mr. McCloud wrote me during the show. I received his letter Wednesday noon containing entries to the amount of seven dollars with cash five dollars, saying he would pay the balance when he arrived with his birds, and during the show and until after the premiums were paid, being busy, the amount was

never thought of by me, this is the reason he received the full amount of his premiums.

I didn't write him at the time, thinking that he would exhibit at the next show, and then I would deduct the amount from his premiums. But when the time for the next show arrived, friend McCloud was an exhibitor at Detroit. I then wrote him three times calling his attention to the item of two dollars due the Ontario, but he ignored me altogether, not deeming it advisable for some cause to favor me with a reply.

During my four years experience as Secretary of Poultry Exhibitions, I found the hardest job was to keep straight with the exhibitors and not let them run me short of any entry fees. Let any Association owe two dollars in premiums and I will guarantee that it will be advertised from one end of the Province to the other.

Friend McCloud wasn't satisfied by my taking his entries during the middle of the week, after the show was in operation, but had to keep back two dollars in fees. This ignorance dodge won't work. It was published in the Ontario's report for '89 in REVIEW, why didn't he enquire then as to the cause of his indebtedness? Come William, it is not much by itself, but every little counts when the Association is in debt.

Yours, etc.,
R. HAMILL,
Ex-Sec. P.A. of Ont.

THE COCHIN CLUB.

"BROADAXE" a correspondent of *Fancier's Journal* goes for the "Cochin Club" at a lively rate in a recent number of that journal. I agree with him that any effort to lower the standard requirements for a breed is damag-

ing to that breed, and if it is true as charged, that the Cochin Club is attempting to lower the standard to a degree that qualifies every chick hatched to compete in the show room, then the Club is damaging the breed it professes to champion. But the writer cannot help sympathizing with the evident leaning of the Cochin Club towards the English Cochin type. The club encourages very heavy leg and toe feathering, extra length of feathers and massive build from the ground up. These characteristics are the distinguishing marks between the Brahma and Cochin types, and my ideal Cochin type is very near the type of the Crystal Palace winners. The removal of the disqualification for vulture hocks is all right. Vulture hocks are a necessity in the breeding pen, if we expect to keep up the heavy leg and toe feathering. The tendency is towards thin feathering and must be counteracted occasionally by vulture hocked breeding birds.

The reduction of weights may be a mistake, but it allows late hatched birds to compete under a cut for weight while the old standard shuts out all but winter-hatched chicks from competing at the early shows.

On the whole, we should say the Club's work is meant honestly and if it makes mistakes it does what we have all done and do almost daily.

F. M. CLEMANS, Jr.

TORONTO POULTRY, PIGEON AND PET STOCK ASSOCIATION.

THE regular meeting of the above Association was held in Richmond Hall on Thursday, May 14th, the President, W. Barber, in the chair. The minutes of the previous meeting were read and adopted. Two new members, Mr. R. Atkins, and Mr.

W. Coulter, were proposed by Mr. Gray and accepted. Leghorns and Rabbits were on exhibition, and prizes awarded as follows: Leghorns, all prizes to D. G. Davies including silver cup for best pair. Rabbits, all prizes to W. Fox, who exhibited several pairs of very nice Lops, Dutch, Angoras and Himalayans. Judges, Messrs. Bennett on Leghorns and Messrs. Doty and Macdermot on Rabbits. It was decided to hold our next meeting first Thursday in June.

JOHN GRAY,
Secretary.

GETTING TURKEYS READY FOR MARKET

A FARMER'S DAUGHTER.

TURKEYS on the farm are rarely fattened in confinement. They are generally allowed free range, but at the same time are fed so liberally that they care to take but little exercise. The most approved fattening foods are—rice, potatoes, both sweet and Irish; maize in all its various preparations, the grain being given whole, chopped, fine-ground, scalded, boiled or fed raw; wheat, either cracked or left whole, cooked or given dry, with scalded barley or oats for a change. Of these grains, wheat, barley and oats are more properly called egg foods than heat-producing or fattening foods, especially when the whole grain is given; but to some extent they should be used, lest the fowl become unhealthy from eating too much corn. As an additional corrective for indigestion and bowel disorders powdered charcoal should be mixed with their soft or ground food twice a week. An abundance of milk, either sweet or sour, is also very useful in this direction—milk being fattening in its nature, and having a tendency to

keep the bird in good health as well as to render its flesh white, tender, juicy and delicate. When little exercise is allowed, some sort of gritty material, as sand or gravel, should be supplied to aid in digestion. Dust baths must also be provided for their use, and if powdered sulphur is generously sprinkled in the dust, the fowls will the more readily be enabled to rid themselves of vermin; otherwise the fattening process will be slow.

In our locality, the earlier broods of turkeys are generally made ready for Thanksgiving and the later ones for Christmas, much time being saved by marketing them in large lots; but of late years some poultry-keepers declare that the rush of dressed poultry at these special sales is so great as to cause depression in prices, and that the better plan is to sell either before or after the holidays. In fact, I have noticed during several seasons that the price of dressed turkeys per pound was higher at the beginning or very end of the season than it was at almost any time intermediate. So if one wishes to realize the highest market price, it is a good plan to get the older broods ready by the very first cool spell in the fall, and then to keep the later ones until after Christmas, when, the majority of the stock having been disposed of the supply is scarcely equal to the demand, and the price for that reason keeps good until the close of the season.

Wintering a flock of turkeys is not so expensive as one would at first imagine. During the very cold weather, when we expect them to be perfectly ravenous, they scarcely have any appetite at all, but stand about listless and stupid as though in a half torpid state. When the weather moderates then they get hungry again, but are never quite so insatiable as in the fall when they are making their most rapid growth. Still they are steadily

gaining in weight all the time, and a bird that was called half-grown at Christmas will, by the end of February, be found to have almost doubled its number of pounds. It is a good plan, however, especially if one can make special arrangements, to dispose of the older, heavier birds at Christmas or during midwinter, as the demand for them then is usually greater. At other times a dressed turkey that weighs from 10 to 15 lbs. net finds more ready sale. But whether the fowl be large or small the buyer wants its weight to consist mainly of flesh and fat, not of bones, skin, and the tough muscle that it has been obliged to make in its hard scramble for a living.

The majority of farmers demand more of their turkeys than of any other live-stock on the place; they expect them to forage their livelihood, and still be always fat and plump whenever they are dressed. Others, somewhat more generous, think they have done their whole duty when they allow corn to be fed for one or two weeks before killing; but this is not a sufficient length of time unless the bird has already some flesh to begin with. Poultry intended for market should be kept in good condition straight along from the time it is hatched. Then if it be somewhat confined and allowed double rations for two or three weeks before it is killed, the additional weight and price per pound will more than pay for the extra trouble and expense. The nearer a bird approaches maturity the more readily it will fatten, the smoother will be its skin, the more symmetrical its shape, and the more attractive will be its appearance in every respect.—*The Cultivator and Country Gentleman.*

In summer it is particularly necessary to see that water is given frequently and in clean vessels.



BLACK LEGHORNS.

Bred by A. W. Gardiner, Springfield, Mass.

(All Rights Reserved.)

POULTRY BREEDING.

BY S. H. BABCOCK, PROVIDENCE, R. I.

No. 6.

LINE-BREEDING.

The safest and best method of breeding is what I have denominated line-breeding. Shortly defined it is breeding within a strain of not closely related fowls. But what follows will perhaps be clearer than any definition would be.

A breeder determines to adopt a certain variety, white Leghorns for example, breed them to a definite ideal,

and be able to introduce fresh blood free from antagonistic tendencies. How shall he start, and how shall he follow up his start? Let him start with as many yards as possible, but we will say four for sake of illustration. Yard No. 1 is entirely of fowls of A's strain; No. 2 of B's; No. 3 of C's and No. 4 of D's. These fowls have been selected by the breeder as near the ideal type as possible, so that if they are not related, or if related, very distantly, they bear a strong resemblance to each other. These yards are bred from as they stand, but next season a male from No. 1 is mated to females from No. 2, and a male from No. 3 to females from No. 4; a male from No. 2 is mated to females from No. 1, and a male from No. 4 to females from No. 3. The next season

the chickens from yards Nos. 1 and 2 will be related, and those from No. 3 and No. 4 will be related, but those of the first group will be unrelated to those of the second, so new absolutely unrelated matings can be again made. A male from No. 1 is put with females from No. 3 and *vice versa*, and a male from No. 2 is put with females from No. 4 and *vice versa*. Here is absolutely out-breeding but of stock bred by one fancier to one ideal. The next season nearer relationship would begin, but by proper matings this can be kept so far removed that close inbreeding will be obviated, and with only four pens of fowls quite a number of years would elapse before anything like close inbreeding would be necessary. If the fowls numbered more pens, say six or eight, the day of close inbreeding would be indefinitely postponed. In all these years the breeder would be forming a strain by selection, and would be keeping within the original blood lines and be breeding fowls that were of one type with definite blood characteristics. There would be no going outside of his own blood for fresh blood and there would be no introduction of antagonistic tendencies. Many or most of the advantages of in breeding would be obtained without any of its hazards, and all or nearly all the benefits of out-breeding without its disadvantages of antagonistic characteristics. Line-breeding in a word, means the building and maintaining of a strain without resorting to union of very closely related specimens and without being compelled to go outside of the strain for fresh blood to build up the constitutions.

Of course this means that great care is to be taken in selecting the specimens for breeding, in keeping the progeny of each yard distinct, and of keeping a record of matings so as to avoid close inbreeding. But no man is fitted to become a breeder who is

unwilling to exercise such care. The essence of breeding is painstaking care. But the care can be diminished when a breeder is so situated that he can form out his different yards, letting one man take one and another man take another, and so on till all, or all but one are let out. But even here a record is necessary and the personal selection of stock for breeding. One cannot delegate the skill of a breeder to another, or transmit his ideal. The breeder must be the breeder. He can delegate the labor of feeding and caring for and rearing to another, but the selection and mating he must do himself. If a man, with natural aptitude for such work, will adopt line-breeding, he can obtain a strain, possessed of such characteristics as he desires within the possibilities of the breed, without the necessity of resorting to close and long continued inbreeding. Some inbreeding of the more distinct kind, such as scarcely deserves the name, may follow, but it will not be such as is necessarily or generally injurious.

MOTTLED LANGSHANS.

Editor Review:—

THE great popularity of the black Langshan has in no way been impaired by the advent of new varieties of the breed of Langshan, and yet the white variety has been warmly welcomed and has grown in favor wherever pure and straight stock has been found and bred.

No matter how great may be the merits of any fowl there is something else that must be satisfied in making a selection, and that is taste. The Langshan stands well up towards the top of the list for utility and beauty—who can say of any other breed that it stands higher? And yet taste called for something besides black, and presto!

the white and mottled varieties are here to satisfy the demand.

Of the white variety I may be permitted to say something in a future number of the REVIEW so will now confine myself to the mottles. At a glance many will say with Jacobs of Hammonton, that they are easily made by crossing the white and black varieties. Perhaps so, and if the conclusion thus hastily formed has merit, then these unique and strikingly handsome fowls may be produced rapidly wherever white and black Langshans are found. However, so far as I am concerned "they are not built that way," for my fancy runs more to the straight and pure than to the much mixed new breeds of the present day. Thus to my mind, the strongest point in the boom of the Indian Game that has yet appeared is, that they are an old breed having been bred in England for a generation or more.

In the latter part of the year 1888 a friend in China, who had greatly assisted me in getting fowls from the Langshan district, wrote me that he had secured "a spotted hen," and would try to find a mate for her, in which he was successful, and in February, 1889, a pair of mottled Langshans were turned loose in the alfalfa at "Live Oak Fruit Farm." The cock in the engraving, "Henry I," was one of the pair. He was and has continued to be very vigorous, and I well remember how he mounted the top of the wood-pile, crowing and flapping his wings, and all anxiety to get at the cocks in the poultry yards beyond. Such remarkable activity was unlooked for immediately on being released from the shipping coop that had been a prison for thirty days on a rough voyage across the Pacific. The hen, "Jessie," arrived in December last. She has laid almost constantly since two weeks after her arrival, and at this date, May 15th, has shown no desire

incubate. The engraving of this pair is a Mosstype made by the Moss Engraving Co., of N. Y., from a photograph. It retains the likeness and position, markings, etc., exactly as the photograph.

I still have the hen "Octavia" of the original pair that arrived here in February, 1889, but she is quite old. She laid but few eggs last year and has

laid none at all so far this year. Although a large finely marked hen, she did not produce chicks that were her equal.

Such then is the history of the mottled Langshans in the United States, or rather California, for as yet they are confined to my yards, and I have neither eggs nor stock to sell, but when you, Mr. Editor, and a goodly number

of your readers come to California next winter to attend the meeting of the A. P. A., at Los Angeles, the mottle will be there to meet you, and I will be pleased to show you, when you visit San Jose, the home of the white Langshans in the United States.

H. G. KEESLING.

San Jose, California.

**REPORT OF THE POULTRY MANAGER
CENTRAL EXPERIMENTAL FARM.**

A. G. GILBERT.

(Continued from last month.)

The table below will show the number of eggs given to hens and the chickens hatched:—

NUMBER OF CHICKENS HATCHED.

When Eggs were set.	Number of Eggs set	Description of Eggs.	Number of Chickens hatched	When Chicks were hatched
1890.				
Mar. 29...	6	Plymouth Rocks.....	3	... April 19
April 5...	9	4 White Leghorns, 5 Houdans.....	6	... do 26
do 5...	9	4 do 5 do	6	... do 23
do 16...	9	4 White P. R., 5 B. Minorcas.....	3	... May 7
do 22...	13	Plymouth Rocks.....	8	... do 13
do 23...	11	do	10	... do 14
do 25...	13	Langshans, purchased in Ottawa.....	12	... do 16
do 28...	13	do do	10	... do 18
May 1...	15	8 Buffs, 7 Wyandottes.....	10	... do 22
do 3...	11	Plymouth Rocks.....	8	... do 24
do 7...	13	Black Minorcas (From London, Ont.)	10	... do 28
do 7...	13	7 do 6 Brahmas do	10	... do 28
do 7...	11	7 do 4 do do	9	... do 28
do 7...	11	Brahmas do	8	... do 28
do 12...	11	7 do 4 Wyandottes.....	7	... June 2
do 16...	11	8 White Leghorns, 3 Plymouth Rocks.....	8	... do 6
do 30...	13	Plymouth Rocks.....	11	... do 20
June 13...	13	B. B. K. Game.....	9	... do 20
do 17...	13	Buff Cochins (Imported, Eggs shaken).....	5	... July 4
July 9...	13	Plymouth Rocks.....	12	... do 30
do 19...	13	7 White Leghorns, 6 Game Crosses.....	7	... Aug. 9
			172	

**HOW THE SITTING HENS WERE
MANAGED.**

As in previous years care was taken to rid the sitting hens of lice by dusting their bodies and the nests well with

carbolic powder. China eggs were placed in the nests and the broody hen allowed to sit on them for two days. The imitation eggs were then taken away and the genuine placed in their stead. It is of the utmost importance that the sitting hen should be rid of all vermin before the eggs to hatch, often of great value, are given her. When the sitter is not rid of lice she is apt to

eat of the *embryo* in the shell and the high temperature of the hen's body tend to make the parasites so active as to become unbearable. As before said, although against the natural instinct, some hens leave the nest and the hatch is lost. During last summer a visiting farmer said: "I have not got a chicken this year. What was the matter with my hens? They all left their nests." He was informed of the reason, and although surprised that the cause was so easy to find, remarked that it was worth the price of the journey to get the information. As a matter of fact, a great many of the so-called diseases of poultry may be traced to the presence of lice.

EARLY SITTERS.

There was a remarkable demand for sitters in the early hatching season, and it was noticed that the sitting varieties were unusually tardy in becoming broody. In the case of the farm fowls, the majority of the mixed breeds, kept for sitters, did not become broody at any period of the season, and the thorough bred buff Cochins had to be used as early sitters. The first hen to be put on eggs was a coloured Dorking, on the 29th of March, followed by two buff hens, on the 5th of April, and four others on the 16th, 22nd, 25th and 28th of the same month, consecutively. In the next month, four buff Cochins, with five Brahmas, six Plymouth Rocks, one black Russian, two Wyandottes and three mixed breeds were

used as sitters. It will be seen that of the total number of sitters, three only were not thoroughbreds. Apart from their fair laying qualities, the buff Cochins, in two successive seasons, have proved invaluable as early and reliable sitters. Had their services not been required for hatching out chickens they would have been broken up and made to lay again. For an early sitter, when it can be had, a light hen is to be preferred, for at that time egg shells are apt to be thinner than at a latter date.

BREAKING UP A HEN.

By breaking up a sitter, it is meant to get her rid of the incubating fever and laying again as quickly as possible. The best way to accomplish this is to put the broody hen into a coop, or compartment without a nest, where she cannot sit, feed her generously, and in a few days she will cease to be broody, and if the good feeding is kept on will soon be laying again. The practice of ducking the broody hens in water, tying them to a stake, swinging them by their legs, is simply cruel and unnecessary. Some hens, Wyandottes, for instance, are much more easily broken up than others. A broody member of the Spanish family should not be used as a sitter. Occasionally an exception may be found, but, as a general rule, although very fussy, they are not reliable.

EXPERIMENT I.—HATCHING RESULTS FROM EGGS SET ON DRY BOARDS AND ON DAMP GROUND.

In conformity with the intention expressed in last years report, an experiment was tried by setting a number of hens on eggs placed in nests on dry boards of the attic floor of the central portion of the poultry building, and others placed in nests, directly on the

damp earthen floor of the cellar. The eggs in all the nests were tested on the 7th day of incubation. The following will show that the eggs were fertile to a very satisfactory extent, and that there was very little difference in the result:—

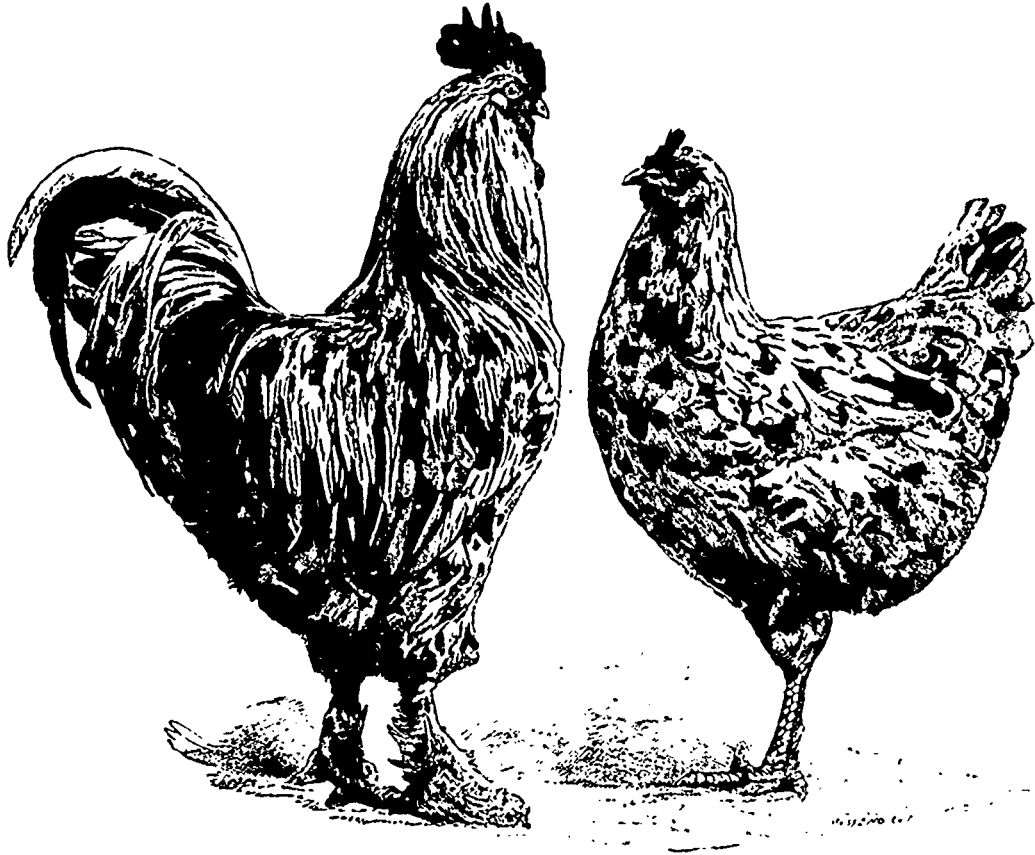
UPSTAIRS ON BOARD FLOOR OF ATTIC.

Date when set.	Number of Eggs set.	Kind of Sitters.	Result of Test.	Number of Chickens hatched
April 5..	22	2 Buff hens.....	7 unfertile, 2 added, 1 broken	12
do 22..	13	1 Buff hen.....	1 unfertile egg, 2 did not hatch out, 2 broken by hen	8
do 23..	11	1 P. Rock hen.....	1 egg did not hatch.....	10
do 25..	13	1 Buff hen.....	1 chicken died in hatching.....	12
May 1..	15	1 Brahma hen.....	2 eggs broken, 3 unfertile.....	10
do 7..	13	1 Buff hen.....	2 eggs broken, 1 did not hatch out.....	10
do 16..	11	1 Wyandotte hen.....	3 eggs unfertile.....	8
	98			70

IN NESTS ON DAMP FLOOR OF CELLAR.

Date when set	Number of eggs set	Kind of Sitters.	Result of Test.	Number of Chickens hatched
April 28.	13	Buff hen.....	3 eggs unfertile.....	10
May 3.	11	Russian hen.....	3 eggs unfertile.....	8
do 7.	13	Buff hen.....	2 unfertile eggs, 1 chick killed by hen.....	10
do 7.	11	P. Rock hen.....	1 added, 1 chick dead in shell.....	9
do 7.	11	Brahma hen.....	1 chick died in hatching, 2 unfertile eggs.....	8
do 12.	11	Wyandotte hen.....	4 unfertile eggs.....	7
do 30.	13	Brahma hen.....	1 chick died in shell, 1 unfertile egg.....	11
June 13.	13	P. Rock hen.....	1 chick killed by hen in nest, 3 added eggs.....	9
	96			72

Both of the above methods have their earnest advocates. The contention, on one side, is that the eggs to hatch out well should be placed on damp ground, or, on some substance calculated to retain moisture, and the



MOTTLED LANGSHANS HENRY I. AND JESSIE.

Imported from China and owned by H. G. KEESLING, San Jose, California.

opposite on the other side. It would appear from the above experiment that the fertility of the eggs had more to do with the result than the location of the sitter. As remarked in previous report, it is quite possible that early in the spring season, when the weather is yet cold, the dry floor may be the best because it is likely to be warmer. In the hot season of July, or August, no eggs are hatched out that can possibly be placed under hens at an earlier date. Should there be no alternative, the cool damp cellar would be preferable.

Mr. A. W. Morton, of Deloraine, Manitoba, gives his experience in hatching on the ground in a letter dated 10th of April, 1890, from which the following is an extract. He says:

"Last year ('89) I set four hens on the ground in the stable, having no proper hen house. The first hen hatched 14 chicks from 14 eggs; the second hen hatched 9 chicks from 14 eggs; the third 14 chicks from 14 eggs and the fourth 13 chicks from 14 eggs. Every time I found a sitter off her nest I sprinkled the eggs with water. I am going to try the experiment again. My experience in hatching eggs with the hens placed in comfortable boxes, in quiet places, was not nearly so good. I may say that it is my intention to construct and equip a suitable place for my poultry, following many suggestions given in the farm report, which seem to be excellent."

SHIPMENT OF EGGS AND STOCK.

The demand for eggs, during the

hatching season of last year, was far greater than could be supplied. Numerous orders were received from Manitoba and the North-West Territories. Frequent enquiries were made as to the sort of fowls considered most suitable for those portions of the Dominion. Should poultry departments be established on the branch Experimental Farms, they would be valuable distributing centres for the districts in which they are situated. Eggs sent from them would have less distance to travel to surrounding country and be likely to give better hatching results. As an instance of the demand for eggs, it may be stated that in April, last, there were on the list for delivery in one week, 26 sittings of Plymouth Rock eggs and 21 of white

Leghorns. As there was only one pen of Plymouth Rocks, composed of one male and 9 females, and one pen of white Leghorns with one male and 11 females, it was not possible to comply with all demands. Of the Plymouth Rocks, some would get broody and some time would elapse before they could be broken up and laying again. All the hens did not lay every day, so that the percentage of eggs obtained per diem was not large. The same remarks will apply to Brahmas, Cochins and others of the sitting varieties. It will be evident that to supply a demand such as that mentioned, several breeding pens of the popular sorts would be required and a large establishment necessary to contain them. As long as there is a limited number of breeding pens, there will be a limited number of eggs to dispose of after those required for home experimental purposes are reserved. Stock was shipped to the branch experimental farms at Indian Head, North-West Territories, and Nappan, Nova Scotia.

HOW THE CHICKENS WERE CARED FOR.

While the chickens were hatching, care was taken that the sitters were not disturbed. This is most important, for if the sitters are disturbed after the eggs are "pipped," the young chicks just coming into the world are apt to be chilled; if the hen is irritated or frightened she is likely to become restless and crush the young ones to death. After the chicks were hatched the broken egg shells were removed to make the nest more comfortable. But this should not be attempted by any but an old hand. It is best to leave the hen alone if she is a reliable sitter. Occasionally it happens that a hen will become so nervous or excited at the "peeping" of the chicks in their efforts to break out of the shell, that she will trample them to death. Such

a hen should be marked and not set on eggs again, as she is not reliable. One case occurred, in which the hen was discovered eating the egg shells before the chicks were properly disengaged from them, the result being the loss of 4 chickens. A spare sitter was fortunately at hand and the remaining half-hatched eggs were at once placed under her and the lives of the chickens were saved. After being hatched out the chicks were allowed to remain under the hens for 18 or 24 hours, until thoroughly dried. With the mothers they were then placed in coops outside in the sunshine. If hatched before the grass had grown they were kept indoors the bottom of the coop being covered with sand. The dry broad floor would soon have used the little ones up, literally put them off their legs. Previous to being put into the coop with her brood, the hen was fed and allowed to drink apart from the chicks, otherwise she would have greedily eaten up the dainty food intended for the tender youngsters. It must be remembered that for two or three days or nights the careful mother has not left her nest, for had she done so while the chickens were hatching (except in very warm weather) there would have been no chicks, as a result she is so hungry and thirsty that she will voraciously eat and drink what is placed near her.

HOW THE CHICKS WERE FED.

As in previous years the bread and milk system of feeding was adopted and proved highly satisfactory. The bread was soaked in milk, squeezed dry and so fed. Dry bread crumbs were also given. As the chickens progressed, their bread and milk diet was gradually changed to the less expensive one of shorts, cornmeal, bran, table scraps, ground meat, with all the wheat or crushed corn they could eat for their last ration. When very young the

chicks were fed about once every hour, a little at a time, but often, so as not to allow them to get hungry. As they grew older, they were fed once every two hours, and as they increased in size the rations were gradually made more substantial, but reduced in number. It is important that the chickens should be sent to rest with their crops full. A critical part of the chicken's life is the first five weeks, while it is getting its feathers. At this period all the resources of the system are drawn upon to supply the growing feathers, besides flesh, bone, muscle, &c., &c., and it is necessary that the chickens should be generously fed on a variety of the most nourishing food. A chicken stunted of food, or allowed to hunt for its living, as is too frequently the case, at this period of its growth, will never make a large fowl, indeed, if allowed to become stunted from either of the causes named, no subsequent care will make amends for past neglect. To have poultry of large size for table use, it is imperative that they should be pushed from the earliest date of their existence. This is well understood in Great Britain and France, where raising choice poultry for market is made an important source of revenue to the farmers. If easily procured milk sweet, skimmed, or sour, given as a drink, or mixed in their food, or left in open dishes to take as they please, is one of the best incentives to vigorous growth that can be given. If not milk, then pure water should be regularly furnished and put into shallow pans. The water should not be allowed to get hot from exposure to the sun. The first chickens to be placed in the coops outside were Plymouth Rocks, white Leghorns and Houdans. They were exposed for the first two or three weeks of their existence to the bitterly cold north west winds which marked the last week of April and the first two weeks of May. Being well fed and

cared for, they not only stood the trying ordeal well, but made good growth. Had they not been generously and frequently fed they would have been "dwarfed," or if they had been left to shift for themselves, as the majority of early chicks are, they would have quickly succumbed. Where effort of any kind has been made to secure a brood, or broods of chickens, it will pay well to see to their future growth.

The progress of the chickens, although satisfactory, was not equal to that of the year previous. Three reasons may be assigned for this, the absence of the large quantities of sour milk supplied the year before, limited quarters and ground used the year before. Some of the weights, as compared with those of the previous season, are given as follows:—

Plymouth Rocks.—Again led the other breeds in making weight. A cockerel five months and two weeks, after being hatched, attained a weight of 6 lbs. 2 ozs. as compared with 5 lbs. 2 ozs. of a Houdan, hatched a week later but weighed on the same day. At the same age, as the one above, a Plymouth Rock cockerel, the season previous weighed 8 lbs. 4 ozs.

Brahmas.—Were hatched from imported eggs at the end of May. Rather late to give them a fair chance as they had to stand the brunt of mid-summer heat before attaining any size. They showed an average development of 12 ozs. per month as compared with 15 ozs. per month of the season previous.

Houdans.—Hatched at the end of April weighed, on 1st of October, 5 lbs. 2 ozs. averaging a development of 1 lb. per month.

Wyandottes.—At first made slow and almost discouraging progress. This was no doubt owing of their being crowded. The pullets, however, picked up in the fall, turned out to be

very fine ones and were laying by end of December.

Langshans.—This breed was tried for the first time. Two settings of eggs were purchased in Ottawa and 22 chickens were hatched. Of this number 18 grew up to maturity. They proved hardy chickens, grew well and the pullets began to lay by middle of December. In their growth they displayed the characteristics of the Asiatic family as to large frame and slowness to put on flesh, until maturity.

Black Minorcas.—Two sittings of eggs were purchased, from which 18 chickens were hatched. Their progress was very satisfactory, the chickens proving hardy and vigorous growers.

Crosses.—Chickens of a cross between a B. B. R. Game cock and white Plymouth Rock hens were hatched on the 9th August. Their progress was not satisfactory, probably owing to their late hatching. Many of them succumbed to the cold of the first winter month.

A good deal of space has been given to the care and management of chickens, for the reason that a frequent cause of complaint is the great mortality among the young stock. In the majority of cases, want of care and proper food have undoubtedly been the cause of death. In the case of many farmers, inbreeding has resulted in weak chicks, and weaklings as a rule seldom last long. Perhaps it is as well they do not, for they would never, in the event of their maturing, make stock fit to breed from. It may be added to the general instructions given above, that as the chickens grow large, they should be removed from the smaller ones. If they are not, they will not allow the little chicks to have the proper quantity of food they require to make rapid progress. In chicken life the weak have to go to the wall. Where chickens are raised in large numbers and are placed in small coops, the latter must be frequently cleaned, or sickness will surely result.

WHEN THE PULLETS LAID.

The first pullet to lay was a Plymouth Rock, on the 24th November, hatched 19th April; the second a white Leg-

horn, on the 28th November, hatched 26th April; the third, a black Minorca, on the 1st December, hatched 7th May; fourth, a Langshan, on the 12th December, hatched on the 16th May.

COMMENCEMENT OF WINTER LAYING.

The fowls were allowed full liberty to run in the fields, in rear of the poultry house, as soon as the grain was harvested. As the result of this freedom (which, owing to the fine open fall, they enjoyed until the 25th November) and nutritious feeding during moulting, they went into winter quarters in excellent health, and were in full lay for the winter season by the 10th December. The white Leghorns, black Minorcas, Andalusians and Plymouth Rocks, were the first to lay, a few days after going into winter quarters, followed soon after by the black Hamburgs, mixed breeds, Brahmas, buff Cochins, Houdans, Red Caps and Wyandottes, in the order named. Six days after being closed in, the winter commenced in earnest, the thermometer on the 1st December going down to zero, and the next day showing 14 degrees below that figure. The weather continued unusually cold during the month of December, the temperature in the poultry house several times going to 10 and 15 below freezing. Notwithstanding, the Leghorns, Andalusians and Minorcas laid steadily through the month, responding to the stimulating food with satisfactory results.

EGGS LAID BY DIFFERENT BREEDS.

Owing to the fowls running at large, promiscuously, for so many weeks in the fall, it is impossible to give a table of the eggs laid during the whole year; but the following figures will show what has been done by a certain number of the different breeds, since going into winter quarters. It is to be remembered that the laying and breeding stock were kept together, and some old hens, although past their prime as layers were kept for their superior points as breeders. Thus in a pen of 20 Plymouth Rocks, several may be old hens for breeders, others may be late hatched pullets. It is only fair in such a case to give the number of actual layers. When there is room, the aim will be to keep a certain number of fowls of the same age for layers.

EGGS LAID IN DECEMBER AND JANUARY.

Date.	10 White Leghorns	10 Plymouth Rocks	5 Black Minorcas	8 Langshans	3 Andalusians.	5 Brahmas	6 Black Hamburgs	16 Mixed Hens	5 Buff Cochins	9 Houdans	2 Redcaps	4 Wyandottes	Remarks.
1890.													
Dec. 1		2	2		1								
do 2		2				1							
do 3	1	1	1		1			1					
do 4	1	2	1			1							
do 5	1	1	2					2					
do 6	2	1	1		1								
do 7		2	2					2					
do 8	2	1	2					1					
do 9	2		1					1					
do 10	1	2	2					2					
do 11	3	2	2			1							
do 12	1	2		1				3					
do 13	3	1	2	1				1					
do 14	1	2	2			1							
do 15	4	2	1	1		1		2					
do 16	2	2	2	1	2		1	1					
do 17	4	1	1										
do 18	2	2	1	2	2		3						
do 19	1	1	2	1		1	1	1					
do 20	3	2	1	2	2	1	2	1	1	1			
do 21	4	3	2	2	1	2	2						
do 22	2	3	1	2	2		2		1				
do 23	5	1	2	1		2			1				
do 24	3	2	2	3	2	1	2			1	1		
do 25	3	5	2	2	1	1	1		1		1		
do 26	5	2	2	2	1		2	1	2			1	
do 27	5	3	2	2	1	1		3		1	1	1	
do 28	4	3	2		1	1	1		2	1	1		
do 29	4	3	2	2	1	1	2	1	1			1	
do 30	4	2	2	4	1	1	1	2		1	1	1	
do 31	4	3	2	1	1	2	1	3	1			1	
1891.													
Jan. 1	5	3	2	4	1		1		1	1	1	1	
do 2	2	1				1	1	3				1	
do 3	5	4	2	2	2	1	1	1	1		1	1	
do 4	5	2	2	3		1	1	1	1			2	One Andalusian sick.
do 5	4	2			2	1		1	2				
do 6	4	3	2	2	1	1	2		1		1	2	
do 7	7	3	2	2		1	1	1	1			1	
do 8	2	3	1		2	1	1	1	3		1	2	
do 9	7	3	1	1		1	1		3		1	2	
do 10	2	3		3	2				2		1	1	
do 11	6	4	2	1	2	1	1		2		1	3	
do 12	1	1	1	2	1	1	1	2	3			1	
do 13	9	2	2	4	2				2	1	1	1	
do 14	2	5	3	2	3	1		2	2			2	
do 15	2	2	3	4	3		1	1	4			2	
do 16	3	2	1	2		1	1	3	3	1	1	1	One Buff hen broody.
do 17	2	3	1	3	2		1	1	2			1	3
do 18	4	1	2	2		1		2	4	2	1	1	One Buff hen died.
do 19	4	3	3	3	1	1			4	1	2	1	One Wyandotte broody.
do 20	2	1	3	1			2	1	2	1		2	
do 21	5	2	1	3		1	2	2	2	2	2	1	Two Langshans removed.
do 22	1	2	3	3	1	2		2	2	1		3	
do 23	1	2	1	2		1		2	2	1	2	3	
do 24	2	2	3	2		1	2			2		2	
do 25		3	4	1	1	1					2	1	
do 26		2	2	2	1	1	2	2	1	2	1	2	
do 27		5	4	1		2	3	3	1	1	2	3	
do 28	1		3	2	2	1	1	2			1	1	
do 29		5	3	2		1	1	5	1	2	2	2	
do 30	1		3	1	1	1	2	3			1	1	
do 31	2	4	3	1	1	2	3	2	1		2	1	
	186	143	114	91	52	47	55	74	63	23	33	56	

DISEASES OF POULTRY.

The Epidemic of last year. Efforts to find out what it was.

The description given in last report of the disease which was general in the district, with such fatal effect, attracted wide attention. Many letters were received giving various opinions as to its nature, and every effort was made to arrive at a correct conclusion. With this object in view, the remains of one of the farm fowls, which had died from the disease was sent to Professor Wesley Mills, of the Physiological Laboratory of McGill University, Montreal, a gentleman well known not only as a skilled physician and lecturer, but as an authority on the diseases of animals and the philanthropic interest he takes in the same. Dr. Mills was given a full description of the disease, and was requested to give his opinion as to its nature. In the kindest manner possible he at once expressed his interest in the matter and expressed his intention, with Dr. Johnston, Demonstrator of Pathology of McGill, to have a *post mortem* made of the body of the fowl sent and to report on the same. At the same time he asked to have any live fowls which were suffering from the disease sent to him. Fortunately no other of the farm stock was sick at the time, nor did others become so afterwards from the same ailment. The following will show that the examination by Dr. Mills had a negative result:—

“PHYSIOLOGICAL LABORATORY,
MCGILL UNIVERSITY,

“MONTREAL, 29th Dec., 1890.

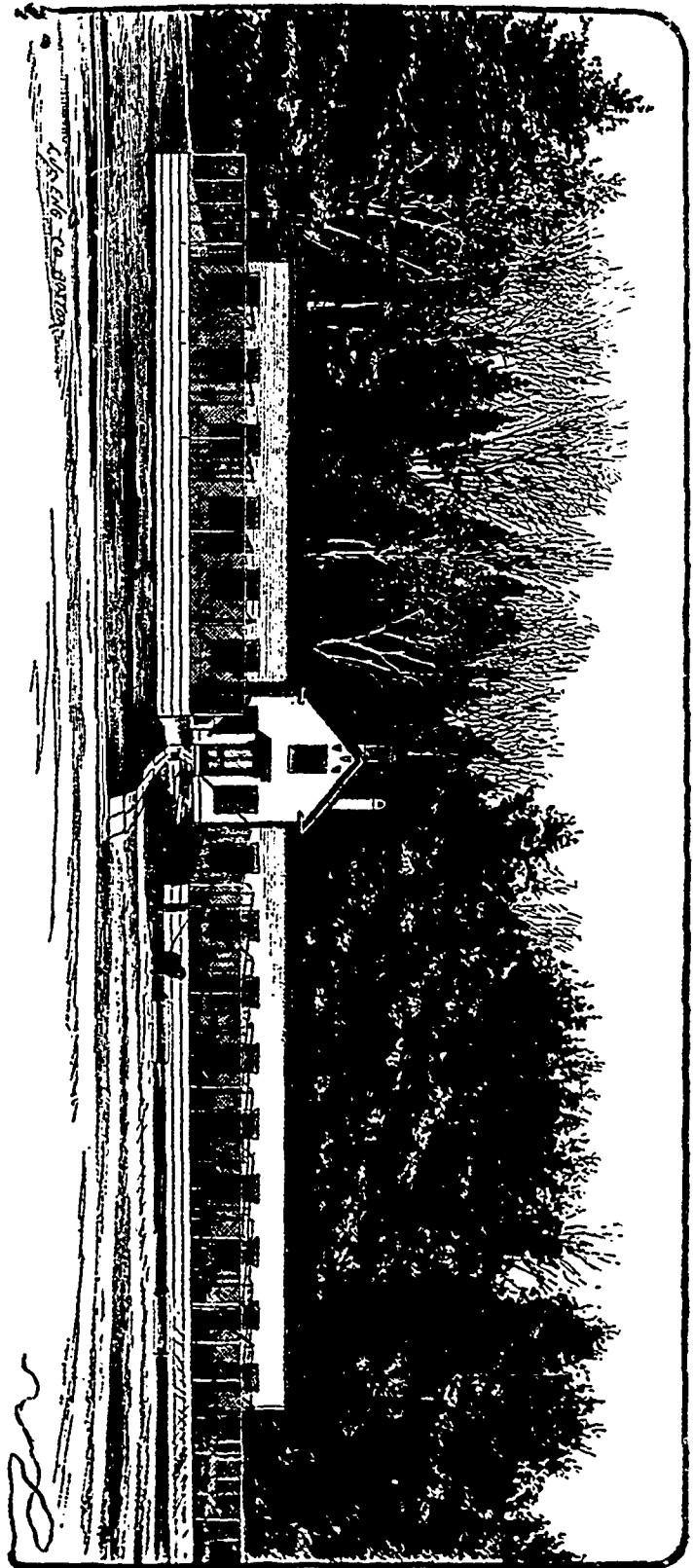
“Manager of the Poultry Department,
“Experimental Farm, Ottawa.

“DEAR SIR,—A *post mortem* examination of the P. Rock fowl you were good enough to forward, showed extreme emaciation, and pronounced pal-

WM. ELLERY BRIGHT, PROPRIETOR,

GROVE HILL POULTRY YARDS.

WALTHAM, MASS.



lor of parts generally. There were no evidences of any organic or zymotic disease. Dr. Johnston, Demonstrator of Pathology, inoculated some animals, including fowls, with the blood of this bird, but with negative results.

"Taking everything into account, I am inclined to think that the symptoms, &c., of the affected birds are indicative of a profound alteration in nutrition, to be explained by something in the conditions under which the bird lived.

"Truly yours,

"WESLEY MILLS, M.D."

In connection with the foregoing and as instance of the interest taken in the subject, the following extract from a letter received from Dr. J. Fitz Mathew, of Dauphin, Dauphin Co., Pa., author of the "British Colonist in America," is given. He says: "I am interested in your report of the chicken disease in the Ottawa district. I should suspect tuberculosis from the symptoms. Numbers of fowls die of it. In France, on one occasion, forty died (about) of tuberculosis from eating the *sputa* of a consumptive man, the attendant. I would advise an examination of the lungs and stomach." Dr. Mathew was informed of the result of the investigation by Professor Wesley Mills and in return wrote:—"I only made the suggestion of a diagnosis of the fowls, for the case is most interesting, especially at a time when tuberculous affections are occupying the attention of the medical faculty throughout the world. I enclose a few remarks on tuberculosis in fowls, which may be thought of service. I would suggest that the next case of this disease—which I believe to be tuberculous—you can get hold of, you submit to the McGill University experts for examination for the 'bacilli of tuberculosis,' slender bodies from 1-17000 to 1-7000 of an inch long.

"REMARKS ON 'TUBERCULOSIS' IN DOMESTIC FOWLS.

"'Johne'—Deutsche Zeitschrift fuer Thiermedizin, ('84), 155—describes the appearance of tuberculosis among fowls fed by a consumptive woman. Her sputum was thrown upon the manure pile, where the fowls had access to it. The symptoms were 'great emaciation' and debility.

"Nocard—Recueil de Méd. Vet (1885) annexe, 93—reports that ten fowls of a yard attended by a consumptive man died of tuberculosis of the abdominal organs. The fowls were seen eating the sputum.

"Nocard (Compt. Rend. Soc. Biologie (1885), 601), subsequently found the disease among the fowls of a slaughter-house, 'which were being fed on the diseased organs of cattle which could not be sold in the market.'

"Zürn, in an examination of six hundred hens found sixty-two affected with tuberculosis—turkeys, pheasants and partridges, etc. are subject to tuberculosis.

"The tubercular lesions are limited to the intestines and the liver; or they may involve the 'ganglia' and the ovary.

(To be Continued.)

A NEW IDEA IN NESTS.

WE were recently shown a rough draft of a new idea in nests for sitting hens, the invention of Mr. F. Green of Innerkip, Ont. The novelty consists in the fact of a shallow metal vessel being placed in the bottom of the nest box, partly filled with water and with a perforated lid. This lid may be flat and

the sod placed on top hollowed out to form the correct shape for the nest, or it may be formed in the shape of the nest. The idea is a good one though at present in a crude state, and quite untested, but, we learn that the Agricultural College at Guelph will, in all likelihood, take the matter up, and ascertain its utility.

GROVE HILL POULTRY YARDS.

WALTHAM, MASS.

(See Engraving)

THE cut gives a good idea of the houses and yards, but cannot picture the excellence of the location, at the foot of the southerly slope of "Grove Hill" (from which the name is derived) the woods of which completely protect it from north and west winds, making it unusually sheltered and warm. The house is lathed and plastered, the walks are concreted and no expense spared to make it a perfect home for the feathered favorites.

After a considerable flirting with various breeds, Mr. Bright has settled upon light Brahams, barred Plymouth Rocks, white Wyandottes, and S. C. brown and white Leghorns as the best varieties, and in selection he is probably correct, those five (or four of them at least), being probably the most widely known and bred of all the many varieties in the Standard, and of these varieties he certainly has some birds which it is good for a poultryman to see. The light Brahams are a widely known and popular breed. Mr. Bright is a member of the N. E. Light Brah-

ma Club, and exhibited a few of his birds at the show in Faneuil Hall last month, winning 6th on hen (93 $\frac{3}{4}$) and 6th on collection of fowls, the hen being the admiration of every visitor (and the other exhibitors) for her remarkably fine (typical) shape.

In breeding barred Plymouth Rocks, Mr. Bright is a "radical," a careful study of conditions having convinced him that for specially fine markings in pullets, the males used should be extremely light, and two of his pens are headed by the lightest males we remember ever to have seen. The elder of these, a handsomely shaped old boy, was used last year with most excellent results, as some beautifully marked progeny of his attest. S. C. brown Leghorns are a favorite variety, and three well mated pens prove their popularity with the public. One of the males is a most excellent specimen, who would score high in the show room, and heads his harem with the peculiarly lordly air for which this variety is noted. The white Leghorns and white Wyandottes are equally excellent, fine in shape, clean and brilliant in plumage, just the birds to gladden the fancier's heart; and the perfect condition and high health of all attest the painstaking care of the true breeder, the love of his birds. Want of space will not permit a full description of all we saw, and the pleasure of the visit, and, indeed, 'twere better not, so that something (much) be left for readers who may enjoy the privilege. It is both a privilege and a pleasure to inspect such well appointed yards and well mated flocks, and next best to visiting is securing eggs for hatching, or stock, from such a breeder; who solves the problems of mating, and gives his patrons the results of his investigations and studies. *Farm. Poultry.*

NOTES.

MR. A. J. GEORGE,

HAS left London to reside in Victoria, B.C. He took 8 settings of eggs with him and intends keeping several varieties of fancy fowls.

THE GREAT NORTHERN EXHIBITION, Collingwood, have under consideration the fitting up of the machinery hall as a poultry building. Mr. Henry Foreman has been asked to look into the matter and estimate the cost.

ANSWERS TO CORRESPONDENTS ON DISEASES, BREEDING, MANAGEMENT, ETC.

Correspondents are requested to make full use of this column. The answers to enquiries as to diseases will be answered by a well-known medical man and breeder. Please read the following rules carefully.

1. Give a concise, clear and exact statement of case, always giving age, sex, and breed.
2. Enclose 3 cent stamp for reply.
3. Report result, not necessarily for publication. *This is absolute.*
4. Acute cases requiring immediate treatment to be answered by mail in the first instance, later through POULTRY REVIEW for the benefit of our readers.
5. Write legibly and on one side of the paper only.
6. Answers to be to name in full, initials or *nom de plume*, the second preferred.

QUE.—I send you per this mail a sort of tumor that I found behind the collar bone above the lungs of a year old cock that I killed, which had been troubled with gargling in the throat, which is called roup. I had checked the gargling but the bird seemed dull since being checked. Please analyse this tumor and let me know the nature of this disease as I have two others that are attacked in the same way. In answering this at once you will greatly oblige

J. R. R.

ANS.—The symptoms were probably due to the pressure of this tumor on the wind pipe. Microscopic examination showed it to be of the nature of Thyroid gland—possibly the development of a supplementary gland. The others may have similar tumors or simply bronchitis. Feed on soft feed only for a time; give one Compound Cathartic pill and follow with a Compound Rhubarb pill daily for three days. It might do good to burn a little tar where the birds are and let them inhale the fumes.

QUE.—Three of my fowls became sick and showed symptoms that I had never seen before. They staggered about like a drunken man, and when roosting kept moving their heads from side to side. Appetite remained all right and an examination revealed nothing wrong with the head. Gave them a mild physic. Two died and the other appears to have recovered. Can you specify disease and treatment? If not, kindly place before readers of REVIEW so as to elicit information.

ENQUIRER.

ANS.—The symptoms you mention point to some derangement of the nervous system. Many would not hesitate to call it "Apoplexy" At all events the brain was affected and it would be well to consider whether you are not feeding too much for the amount of exercise your fowls get. It might be well to act on this assumption, feed on oats and wheat rather than much corn, and scatter it in the straw to oblige the birds to exercise. During the attack we would give a good dose of Epsom Salts, and every two hours 3 grains of Bromide of Potassium till 6 doses had been taken, then less frequently. Soft food, only a little of it for those actually sick.


PUBLISHER'S NOTES

Mr. J. H. Cayford, Box 1,168, Montreal is our Agent and Correspondent for the Province of Quebec. Any correspondence relating to subscriptions or advertising may be addressed to him.

U. S. OFFICE.

We have established a branch office at Boston, Mass. U. S. Readers will receive prompt attention to their enquiries when addressed to P.O. Box 1379 Boston.

AN EASY WAY TO GET FELCH'S GREAT BOOK.

To any one sending us five new subscribers with \$5 we will send a copy of "Poultry Culture" by I. K. Felch, value \$1.50, a book no fancier should be without. We have lots of these, books so don't be afraid the supply will run out.

Among the many articles useful in the raising of poultry nothing equals "Mortimer's Prepared Chick Feed." The following unsolicited testimonial should convince the most skeptical of the efficacy of the feed.

Roxborough, Phil., Pa., March 2, '91.
MR. F. A. MORTIMER,

We have given your "Chick Feed" a careful and thorough trial, and find it to be a most excellent feed. Sorry we did not have such an article in use in our breeding houses during the past five years. It would have saved us lots of work and trouble, and our profit per year would have been considerably more.

We have just tested your feed with a brooder full of chicks, and are perfectly satisfied with the results. Indeed I wish everyone raising chicks would use it and your plan of feeding, they would save much work and loss. With this feed in use there are no droopy or ailing chicks in our flocks. They feather up promptly and well, are as chipper as can be, and the work of feeding and caring for them is reduced to a minimum. Yours truly,

MRS. H. R. CASSELL.

Send 2c. stamp to F. A. Mortimer, Pottsville, Pa., for a catalogue giving full particulars.

ON 40 DAYS' TRIAL
The Great Truss for
RUPTURE



This Pad closes Hernia as if your extended hand was drawn together, closing the aperture. Truss is held positively without friction day and night, and healed like a broken leg. **There is no duty to pay,** which many Canadians found more expensive than the truss. The easiest, most durable, and

cheap Truss. Sent by mail. made natural in five months without cutting. (Appliances for above patented).

SPINAL INSTRUMENTS half the weight of other makes, and more effective. Send stamp for illustrated book. Valuable information. Address,

CHARLES CLUTHE
Patentee and Manfr., 134 King St. W., Toronto. Ont



The Canadian Poultry Review

-- Is Published at --

TORONTO, ONTARIO, CANADA,

BY H. B. DONOVAN

TERMS:—\$1.00 per year, payable in advance.

ADVERTISING RATES.

Advertisements will be inserted at the rate of 10 cents per line each insertion, 1 inch being about 10 lines.

Advertisements for longer periods as follows, payable quarterly in advance:—

	3 Mons.	6 Mons.	12 Mons.
One page.....	\$30 00	\$50 00	\$75 00
Two columns.....	20 00	35 00	60 00
Half page.....	15 00	25 00	40 00
One column.....	12 00	20 00	35 00
Half column.....	8 00	15 00	25 00
Quarter column.....	6 00	10 00	15 00
One inch.....	3 00	5 00	8 00

Advertisements contracted for at yearly or half yearly rates, if withdrawn before the expiration of the time contracted for, will be charged full rates for time inserted.

Back and front cover pages a matter of special correspondence.

Breeders' Illustrated Directory, 1-5 col card, 1 year, \$8; half year \$5.

These are our only rates for advertising, and will be strictly adhered to. Payments must be made invariable in advance. Yearly advertisements, paid quarterly in advance, changed every three months without extra charge.

All communications and advertisements must be in our hands by the 10th to insure insertion in issue of same month. Address,

H. B. DONOVAN,

58½ Victoria Street,

Toronto, Ontario.

BREEDERS' ADDRESS CARDS.

W. M. SMITH, FAIRFIELD PLAINS, ONT.
Breeder of all varieties of Land and Water Fowls.

JOHN HORD, PARKHILL, ONT.
Breeder of 15 different varieties of Land and Water Fowls. Toulouse Geese, Rouen Ducks.

H. GODDARD, LISTOWEL, ONT.
Breeder of W. & B. Leghorns, B Javas and S. S. Bants. Eggs \$2.00 per sitting or \$3.00 for 26.

R. E. BINGHAM, STAYNER, ONT.
Breeder of Plymouth Rocks, Light Brahmas, and Houdans. Eggs, \$3.00 per 13.

W. S. ODELL, OTTAWA, ONT.
S. S. Hamburgs and Pekin Ducks.

FOR SALE OR EXCHANGE.

Advertisements of 27 words, including address, received for the above objects, at 25 cents for each and every insertion, and 1 cent for each additional word. Payment strictly in advance. No advertisement will be inserted unless fully prepaid.

Buff and Partridge Cochins and brown Leghorns in pairs, trios, \$3 to \$10, all first-class stock in good condition. Bartlett & George, 52 Clarence St., London, Ont.

High-class Poultry for sale, 3 L. Brahma cocks \$3 each, 10 L. B. hens, 1 year old, \$1 and \$2 each, 1 S. Wyandotte cock, 1 year old, \$4. Eggs from same at \$1 and \$1.50 per 13. Score about 90 points on the average. Breeding pens at \$8. Also Angora Rabbits \$1 a pair, fur from 3 to 5 inches in length, pure white, very prolific. Spaniels very well bred, well spotted, from very intelligent parents, sired by Morow dam True Bell, the finest bitch in the Eastern Townships. Puppies at \$4 and \$2 each. Morow the 2nd, 18 months, finely marked in every respect, very long ears, \$8, and for watching they are as good as any dogs. Correspondence is solicited. La Francaise Poultry Yards, J. R. Roy, Prop., Coaticook, P. Que.

Black Hamburg Eggs from winners of 1st prizes at Brampton, cock score 95, hens average 95½ points, \$2 per 13. B. Selby, 688 Gerrard E., Toronto.

June is the Right Month to hatch Bantams. Eggs from my celebrated Golden laced Sebrights, one dollar dozen. Fair hatch guaranteed. H. Freeman, Milton, Ontario.

For Sale—Wilson patent bone, meat or oyster shell grinder, will exchange for lop-ear rabbits or guinea pigs. James Hull, 74 Monro Street, Toronto, Ont.

Guinea Pigs—Several pairs for sale at \$1.00 per pair, some breeders and with young, at the Guinea Pig Ranch, Jas. McLaren, Stephen Street, Owen Sound.

For Sale—My entire stock of pure bred fowl, gathered at considerable expense, and containing some of the choicest in America. Persons wanting Partridge, white or black Cochins, light Brahmas, black Hamburgs or white Minorcas, will do well to give me a call. Correspondence promptly answered. Address, T. Cockburn, 64 Canada Street, Hamilton, Ont.

For Sale—I must dispose of all my Houdans and P. Cochins inside ten days, moving away. J. H. Richards, Carlow, Ont.

C. E. Rokenstyro, Albany, N. Y.—breeder of exhibition Light Brahmas, yard 1 cock 1st at Buffalo, N.Y., 1889; yard 2, cock 1st at New York, 1890; yard 3, cock 1st at Charleston, S.C., 1891; yard 4, cock 1st at Syracuse and Albany, N.Y., 1890. Also breeds Rumpless, Frizzles, Creepers and Silkies, a few fowls and eggs for sale. Send for circular. 3-4-5-6.

Eggs—from black Hamburgs, buff Pekin Bants and Rose Comb white Leghorns at \$2.00 per 13 or \$5.00 per 39. See September and November REVIEWS for prizes won. Walter Patterson Jr., Barrie, Ont.

White Wonders—Hens weigh 7 to 9 lbs., cocks 9 to 11 lbs., send for circulars containing full particulars with testimonials P. H. Jacobs and commission merchants. Eggs for sale. Wm. N. French, New Haven, Vermont. 5-6-7-8.

Eggs For Sale—From high-scoring white P. Rocks, black Langshans and black Minorcas, \$1.50 per 14, \$2.50 per 26. Black Minorca fowls for sale; Guinea pigs \$1.00 per pair. Chas. Jones, Milton West, Ont. 4-5-6.