

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.

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

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

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

Cover title missing/
Le titre de couverture manque

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

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

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

Showthrough/
Transparence

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

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

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

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

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

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.

Title page of issue/
Page de titre de la livraison

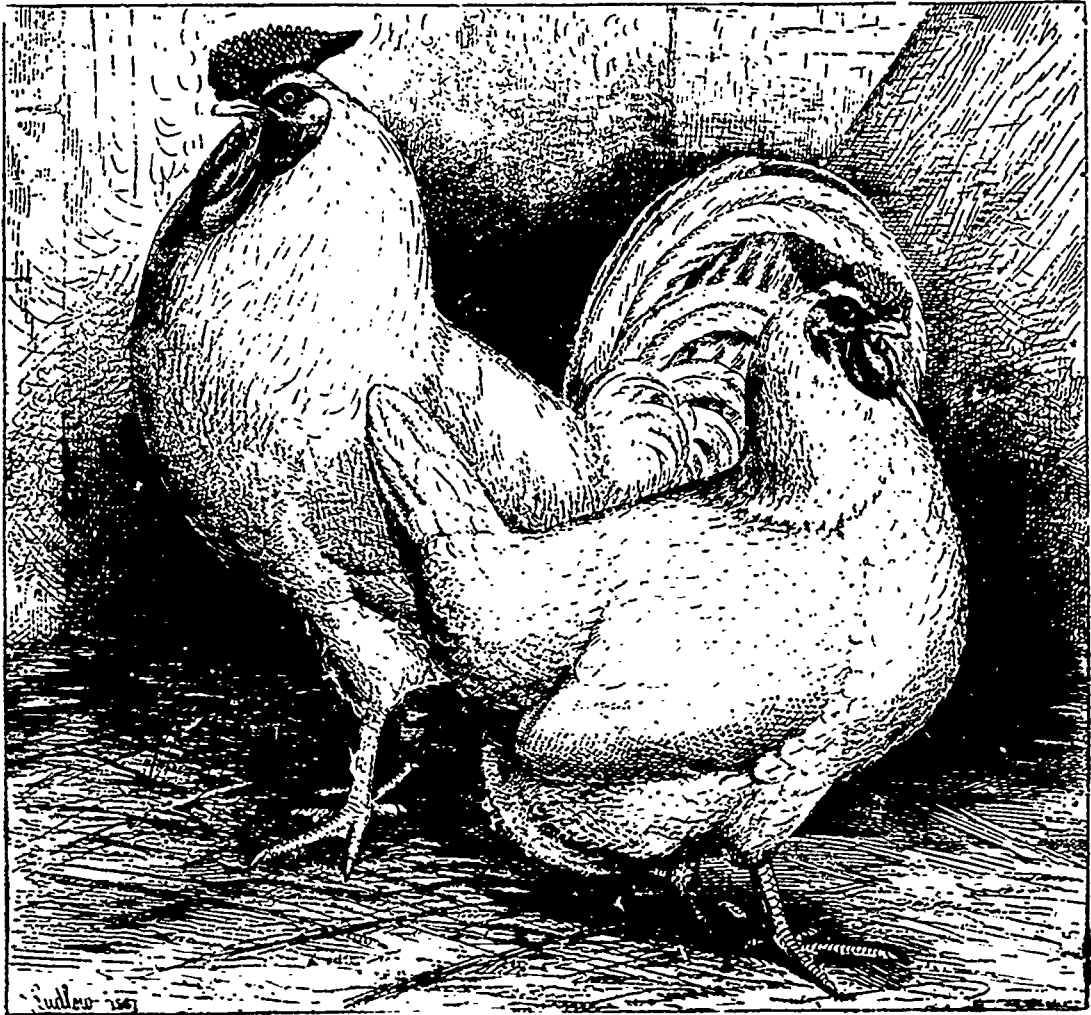
Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments:/
Commentaires supplémentaires:

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

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X



PAIR WHITE DORKINGS.
ENGLISH WINNERS.

From the *Stock-Keeper*.

THE CANADIAN POULTRY REVIEW

DEVOTED TO THE POULTRY, IN ALL ITS BRANCHES

VOL. XVIII.

124 VICTORIA STREET, TORONTO, AUG., 1895.

No. 8.

NOTES AND COMMENTS

SHOW DATES.

CANADA'S Great Fair and Industrial Exhibition, Toronto, Sept. 2nd to 14th, H. J. Hill, Secretary, Toronto.

Canada's Great Eastern Exhibition, Sherbrooke, Que., Sept. 2nd to 7th. H. R. Fraser, Secretary, Sherbrooke.

Western Fair, London, Sept. 12th to 21st, Thomas A. Browne, Secretary, London.

Central Canada Exhibition, Ottawa, Sept. 20th to 28th, E. McMahon, Secretary.

THE CENTRAL CANADA EXHIBITION, OTTAWA,

is advertised in this issue. In addition to the regular premiums the following specials are offered in the poultry department:—\$3 cash for the best exhibit of Plymouth Rocks; \$3 cash for the best exhibit of Wyandottes; \$3 cash for the best exhibit of Leghorns; \$3 cash for the best exhibit of Turkeys, Geese and Ducks.

THE FOLLOWING INFORMATION

afforded us by the Secretary will be of interest to visitors:—“The annual fair of the Central Canada Exhibition Association in September is now the great event of the autumn season in the Ottawa valley. In the past it has attracted thousands of people to the Capital, some of them journeyed hundreds of miles to see it. The verdict has ever been that the show was a grand one. Last year the directors achieved their greatest success, but judging from their work this year there is no doubt but that the fair will be better and more attractive than ever before.

This year the directors have enlarged and improved the ground and buildings, erected a permanent dairy building

which has 2,600 cubic feet of refrigerator room, and increased the prize list to \$14,000, in addition to offering 35 specials, which include 25 gold medals, silver medals and cups and cash prizes. They also have secured a choice list of attractions and arranged for a fine programme of races.

The improvements to the grounds have been made chiefly to please the exhibitors and visitors. They include besides the establishment of a permanent dairy building, the construction of a new roadway to the stables so that the race track will not be crossed in going to them, the improving of the grand stand, the levelling and beautifying of the island grounds and the re-arrangement of the machinery hall. The work on the machinery hall grounds will be especially pleasing to machinery men. By the improvements the avenues to the grounds have been made exceptionally attractive to spectators and the machinery building has been re-arranged so as to permit all exhibitors to show their wares to the very best possible advantage. In previous years there was only one front to the building owing to the water being close to one of the sides. This year there will be two. The island, as it is called, is sure to be even a more popular resort than before. Then, for the benefit of those who patronize the fair, a new and improved entrance, ticket offices, etc., on Bank street is now being made. The approaches to the ticket offices will be closely railed so that only one can call for a ticket at a time. This will prevent crowding. The plan worked very successfully at the Chicago World's Fair.

But in addition to all the above attractions will be a grand spectacular production and military spectacle representing the siege of Sebastopol and the taking of Forts Malakoff and Redan, which will be presented in the evening. Interspersed with the spectacle will be music, fire works and special attractions, and the presentation alone promises to be worth going miles to see. No doubt all who can will make it a point to attend the Fair.”

MR. T. A. DUFF

is in London "holidaying" as he styles it and writes that he has sent out a great many notices calling attention to the formation of the proposed Minorca Club. We hope a liberal response will be the result. He saw Mr. Butterfield prior to his departure to judge the poultry at Winnipeg. Mr. B., we understand, is to cross the briny some time this year.

CHICKS IN LONDON

are no larger than in other parts of the country, with the exception of a few that Mr. Oke has, who has been unusually favored.

PART OF MR. DUFF'S OLD MINORCAS

are stationed in London and he says are now looking grand especially three white cocks. Of this color he hopes to show better birds than ever before.

MR. RICHARD OKE

this year bred from a hen feathered silver pencilled Hamburg cock, a full brother to the first Crystal Palace pullet of 1894 and his stock appears of great promise.

MR. F. B. NICOLLE,

late of Oak Ridge Farm, Big Fork, Ont., is now living at Kellowna, B.C., and of course did not change his abode unaccompanied by his feathered friends.

HAVE TURKEYS GOT TO THIS?

"How did it happen," said the smart young turkey to the sedate old gobbler, "that you got through the winter without occupying the place of honor at some fashionable dinner table?"

"Because," responded the gobbler, with a far-away look in his voice, "because nobody axed me."—*Rockland Tribune.*

MR. R. E. KENT,

of Kent & Oldrieve, Kingston, informs us that they now have over eight hundred chicks of various kinds on their farm and all coming on nicely. The early hatches were not satisfactory but after May 1st, eggs hatched well, extra good results coming about the fifteenth of that month.

MR. BUTTERFIELD

paid a visit to Dr. A. W. Bell, of Toledo, Ohio, so well known to exhibitors at the Industrial Exhibition, Toronto, early in July. Dr. Bell encloses particulars of the Ohio Co-

chin Club, which we print elsewhere. He is a convert to the "buff craze" and swears by the buff Cochin.

WHILE ON BUFF COLOR

we may mention that we see no reason to change our views on buff Leghorns expressed last year, that our judges will as yet be wise to give the birds of the best color the cards. Any one who has bred this variety will understand this, of this color of Leghorn probably not one in fifty hatched coming sound in color and in many cases not even that small proportion. When we have the correct color, sound on top and below we can gradually get the finishing touches of combs, lobes, etc.

DIED ON AN ERRAND OF MERCY.

Port Hope, July 12.—Mrs. James Miller, Peter street, died suddenly this morning. A neighbor's wife was taken ill about 11 o'clock last night, and the husband went to get Mrs. Miller to wait on the sick woman. She told him not to wait for her, that she would be along shortly. He returned and waited an hour and a half and then went to see the cause of the delay, and when within a hundred yards from her residence, he found Mrs. Miller lying by the side of the walk dead.

Many breeders probably who read the above paragraph in the daily papers of July 13 were unaware that the deceased lady was the mother of our good friend William Langdon of Port Hope. The funeral cortege was one of the largest ever seen in the town, Mrs. Miller being universally respected.

THE SUPERIOR BROODER,

a low price machine, highly recommended is now advertised in REVIEW.

MR. E. B. CALE'S BUSINESS

keeps him much away from home, last time we heard from him July 21st, was from Woodstock, New Brunswick.

MR. A. G. GILBERT

the well known Poultry Manager of the Dominion Experimental Farm, Ottawa, left for Regina a few days ago to judge the poultry at the North West Exhibition. Mr. Gilbert while there will deliver a series of lectures on "Poultry Management" and "the advantages of poultry from an agricultural standpoint."

A VISITOR TO GUELPH

a few days since informed us that Mr. Jarvis had over three hundred chicks under his care, the result of his first season's hatching, some of which are well grown and all healthy and in good condition.

SHERBROOKE EXHIBITION.

That veteran judge "Uncle" I. K. Felch, is to judge the poultry at the Eastern Townships Show, to be held in Sherbrooke, Que., Sept. 2nd to 7th.

MR. SHARP BUTTERFIELD,

we are informed, will judge at Ottawa, and with Mr. Jarvis as his *confere*, at London.

NAMES OF JUDGES.

We think it a lack of judgment for the various fall exhibitions not to announce the names of the judges who are to officiate at the different shows, in the prize lists. A loss of entries must be the result, as no breeder cares to show his stock under incompetent judges.

BREEDING EXPERIMENT.

Mr. W. P. Wheeler, New York State Experimental Station, writes: "The plan is given of a breeding experiment which has now been in progress for two years at the station, and a detailed statement of the cost of raising young fowls. About 130 Cochin and Leghorn chickens were hatched by the natural method, for the special purpose of obtaining pullets for use in a feeding experiment. Of the Cochin eggs set 46.1 per cent produced healthy chicks, and of the Leghorn eggs 75.2 per cent. Counting eggs at 24 cents per dozen, and the food eaten by the sitting hens at local prices, the cost of each chick when hatched was 4.65 cents for the Cochins and 2.82 cents for the Leghorns. The hens were kept with the chickens from five to six weeks. The food of the growing chickens was cracked wheat, skim milk, desiccated beef, finely cut fresh bone, and mixed grain, which was varied from time to time. The chickens remained entirely healthy, and only a few were lost from accidents. The sexes were separated when the Cochins averaged 109 days old and the Leghorns 84 days. At that time the Cochins averaged 4.05 lbs. and the Leghorns 1.83 lbs. The average total cost per chick (including hatching) amounted to 24.36 cents, or 6.01 cents per pound, for the Cochins, and 12.59 cents, or 6.88 cents per pound, for the Leghorns.

The pullets of both breeds were fed 11 weeks longer, at an average cost per fowl of 20.07 cents for the Cochins and 13.09 cents for the Leghorns, at which time the Cochin pullets averaged 5.53 lbs. and the Leghorns 2.81 lbs. Deducting from the total cost to date the local market value of the cockerels at the time the chickens were separated

gives the net cost of the Cochins at 13.24 cents each and of the Leghorns 16.78 cents.

The sexes were about equal with the Cochins, but there was an unusual excess in the number of pullets among the Leghorns hatched (37 per cent more pullets than cockerels), so that the poultry value of the cockerels represented a lesser proportion of the value of food consumed. Had the sexes been equal, at the same proportionate cost for growing, and considering the poultry value of the cockerels, the net cost of Leghorn pullets would have been 13.55 cents apiece, nearly the same as that of the Cochins."

RULES OF THE OHIO COCHIN CLUB.

1. That a poultry club be and is hereby established to be called and known by the name of "The Ohio Cochin Club."
2. That the object and purpose of this Club is in the honorable protection and extended cultivation of Cochins in Ohio; to protect the interests of the breeders and induce them to exhibit this most useful fowl.
3. That to promote above objects there shall be established a series of special prizes for the best cock, cockerel, hen, pullet and breeding pen mated for best results of each variety, to be offered for the competition of the members of the Club, at such leading shows as the members may determine; also four cups, one for each variety, to be competed for annually for some typical Cochin male or female bred in Ohio, and that a notification of such shows be sent to each member. A cup won three years in succession by any one member shall become the property of such member and a new one offered by the Club, said cups to be purchased by the Executive Committee and remain in charge of the Secretary until they become the property of the member.
4. The following officers shall be elected annually by ballot, viz., President, four Vice-Presidents, Sec.-Treasurer. These officers shall be, ex-officio, members of the Executive Committee, to which five other members shall be elected. Upon this Executive Committee shall devolve the management of the Club.
5. Members may be elected at any regular or special meeting. Proposals for membership may be made to the Secretary at any time during the year and all proposals shall be submitted to the Club one month before the annual meeting. On election of members three (3) adverse votes shall exclude a candidate from membership.
6. Only breeders living in the State of Ohio are eligible to membership.

7. The membership fee shall be one (\$1) dollar and the annual dues one (\$1) per year.

8. The annual dues shall be due and payable on the first day of January of each and every year, and upon failure to pay within three months thereafter, and after receiving due notice thereof, such member in arrear shall be dropped, and his or her name erased from the register of members which register shall be kept by the Secretary, and shall be a record of the membership of the Club.

9. All moneys received for dues and initiation fees, after defraying the expenses of the Club, shall be set apart for the purchase of cups and such other prizes as may be offered by the Executive Committee.

10. A certificate of membership, signed by the President and Secretary, shall be issued to each member.

11. That members in good standing only shall be eligible to compete for Club prizes.

12. That members wishing to compete for Club prizes do enter their names and pay their fees through the Secretary, who shall keep a record of all entries, scores of competing birds and prizes won.

13. That the Secretary shall issue to each member winning a Club prize a certificate to that effect.

14. That one meeting be held yearly at the Club show, for the election of officers, auditing of accounts, reading papers of interest to Cochin breeders, etc.

15. That the place of holding the Club show be determined by the votes of the entire membership of the Club.

16. That no alteration shall be made in any rule of the Club except at the annual meeting.

17. That a report of all the meetings and proceedings of the Club be prepared by the Secretary and sent to the poultry papers for publication.

BLACK MINORCAS.

Editor Review :

IT is most amusing to see how one's defence can be misconstrued.

Mr. Duff in your last issue of REVIEW has gone to a great deal of trouble in trying to prove that I am not a beginner in breeding black Minorca, but he has made a vain attempt as he acknowledges it with his own pen. I admitted my ignorance from the start, hence my reason for asking so many questions. His proof that I did exhibit Minorcas in 1891 only goes to show how little interest I took in them. I have forgotten and I cannot recollect what birds they were, at any rate I was not a breeder at that

date. Even if I had kept Minorcas for ten years I would only consider myself a beginner.

I will endeavor to explain to Mr. Duff that I did not infer that the comb of his ideal Minorca head hung too closely to the neck but just the reverse, it is too high up off the back of the neck, a point Mr. Duff claims to be of so great importance. Mr. Duff says "the English breeders have seen the folly of having such large combs on birds as were shown in 1888," one would not think so from Mr. Pitts' letter on page 107 in last issue.

As for the cut signed by C.F.W., del. Is it not generally understood that colored plates cannot be reproduced in black and white without being redrawn first? I don't think the artist of the original colored plate would thank me for putting his name to it. In my previous explanation I told your readers how those titles came to be underneath those illustrations of mine and Mr. Editor you are responsible for that part. As I have said before I do not pretend to have any ideal Minorca but I take the English standard for my guide and I think if a few more would do the same they would not have two ideals. Mr. Duff claims it was at my request he gave his views on the black Minorca type, perhaps it was, but it seemed to me to be sarcastic. What did it matter to him whether I was a beginner or not? That had nothing whatever to do with the discussion on the type of the black Minorca. His criticism of my illustration was in order but his sarcasm was quite out of place.

Thanking your readers and yourself Mr. Editor, for your patience.

I am yours truly,

CHAS. F. WAGNER.

Toronto, July 26, 1895.

AGE OF FERTILITY.

Editor Review :

WOULD you kindly let me know in the next issue of REVIEW to what age a prize hen's eggs are fertile. I have a hen about seven or eight years and I would like to get a strain from her. Some say the eggs will hatch, others not. Kindly oblige me with the correct information.

FROM A NEW BEGINNER AND

Toronto, July 27, '95.

READER OF REVIEW.

[There is no reason why eggs from this hen—if she can be got to lay—should not prove fertile, especially if mated to a young vigorous male. Ed.]

DOMINION EXPERIMENTAL FARM.

REPORT OF THE POULTRY MANAGER.

(Continued from last month.)

HOW BREEDING PENS WERE MADE UP.

ABOUT the first and second weeks of March the different breeds mentioned were mated as shown in the following table :

Breeds.	How Mated.	Remarks.
Brahmas	1 cock	Early eggs not very fertile.
Langshans	1 "	"
B. P. Rocks	1 "	Fairly fertile from first mating.
White "	1 "	Eggs remarkably fertile from first.
Black Minorcas	1 cockerel	Satisfactorily fertile. [hens ran out.
White Leghorns	1 cock	Hens old. Results satisfactory when
Andalusians	1 "	Satisfactory.
White Wyandottes	1 cockerel	Average.
Silver "	1 cock	Satisfactory.
Golden Poland's	1 "	"
<i>Crosses.</i>		
Indian Game—Brahma	1 "	Very good.
" —Dorking	1 "	"
P. Rock	1 "	"

It is worth noting that the eggs of the white Plymouth

Rocks were remarkably fertile from the beginning of the hatching season, notwithstanding the fact that they were pullets and had laid well all winter. This satisfactory result was no doubt owing to the male bird being kept in a separate pen all winter, and to the fowls coming out of the winter in vigorous health. There is an important lesson, in this experience, to all poultry breeders. The early eggs of the Brahmas and Langshans were not as fertile as could be desired, and were not so, doubtless, on account of the hens becoming a little too fat, and to the fact that some of the hens, used as breeding stock, had been good layers during the winter. The run outside soon made an improvement.

The demand for eggs for hatching was very great, and many orders received late, could not be filled. It was gratifying to note the increased inquiry for eggs from farmers, who preferred, in most cases, the Plymouth Rock varieties.

The following were the hatching results :

EGGS SET AND CHICKENS HATCHED.

When Set.	Description of Eggs.	When Hatched.	Number of Chicks.
April 3....	13 White P. Rock ...	April 24....	9
" 3....	13 Langshan	" 24....	6
" 3....	13 W. P. Rocks	" 24....	10
" 13....	13 B. P.	May 4....	7
" 26....	13 S. L. Wyandottes..	" 17....	8
" 26....	13 Andalusian	" 17....	13
" 26....	13 "	" 17....	7
" 26....	13 B. Minorcas	" 17....	12
" 26....	13 Brahmas	" 17....	6
May 2....	11 "	" 23....	3
" 2....	13 B. Minorcas	" 23....	12
" 7....	13 "	" 28....	8
" 7....	13 White Leghorns...	" 28....	10
" 12....	13 B. Minorcas	June 2 ...	9
" 12....	13 Crosses	" 2....	9
" 12....	13 "	" 2....	4
" 17....	13 B. Minorcas	" 7....	10
" 17....	13 White Wyandottes.	" 7....	5
" 17....	13 P. Rocks	" 7....	7
June 24....	13 Crosses	July 15....	7
" 30....	13 White Leghorns...	" 20....	5
Total			167

It will be seen from the above that the eggs from the pen of black Minorca hens hatched remarkably well. Two settings of 13 each gave 24 chicks, and out of 65 eggs 51 chicks were hatched. Their growth was most satisfactory.

GROWTH AND DEVELOPMENT OF CHICKS.

As soon as they were fit, the young chicks and their

mothers were placed in small coops, in the grass of the fields, the latter being surrounded by wire netting. New ground was used during the season, and the good effect was visible in the healthy and vigorous growth of the chicks. As in the past seven years, the first food of the newly hatched chickens was stale bread soaked in milk, squeezed dry, and so fed. No food has been found equal to this for putting the chicks on their feet. In a day or two granulated oatmeal was given with the former ration, and this was followed by a mash made of boiled skimmed or sweet milk, mixed into sufficient quantities of cornmeal, shorts, bran and crusts of bread. A little finely cut green bone was also fed. After fourteen days wheat was given in small quantities at first. The chicks were always sent to brood at night with their crops full. If rapid and satisfactory flesh development is aimed at, it is peremptory that the young birds be attended to early and late. It is to be borne in mind that a chicken neglected in the first five weeks of its existence will never make a large bird for market, nor an early layer, if a pullet. To make weighty birds for market, fine birds for the show pen or early laying females, the youngsters must be carefully and steadily pushed from time of hatching, whether by hen or artificial incubator. There can be no getting out of this.

The development of the chickens was much the same as in previous years, the white and barred Plymouth Rocks taking the lead with a development of one pound per month, without any forcing beyond regular feeding and care, but no more than every chicken should receive. The following table of progress may be interesting, viz :

Barred P. Rock cockerel, hatched 24th April ; on 24th August weighed 4 lbs. 11½ oz.

Langshan cockerel, hatched 24th April ; on 24th August, weighed 3 lbs. 11 oz.

White P. Rocks showed a gain of 13 to 16 oz. per month.

If the above birds had been caught, penned up and fattened previous to being weighed, they would, of course, have shown a greater gain.

THE CROSSES MADE AND HOW THEY TURNED OUT.

The following crosses were made : Indian Game, male ; light Brahma, female. Indian Game, male ; colored Dorking, female. Plymouth Rock, male ; colored Dorking, female. White Leghorn, male ; barred Plymouth Rock, female.

There was, unfortunately, only one cockerel of the Plymouth Rock—colored Dorking cross, and his progress was certainly very satisfactory, and if it can be taken as a criterion, shows the cross to be well adapted for the making

of heavy market chickens. Hatched on the 15th April, it weighed on 20th June, following, 2 lbs. 2 oz. ; on 15th July, 3 lbs. 7½ oz. ; on 17th August, 5 lbs. 5 oz. A gain of 5 lbs. 5 oz. in four months, without special feeding, is much above the development of the average market chicken. It is the intention to try more of this cross early next season, so as to give opportunity for good growth before the hot season.

The white Plymouth Rock—white Leghorn cross chickens turned out to be pullets, with one exception. Hatched on the 15th July, the cockerel weighed on the 26th December, 4 lbs. 11 oz. The pullets are well developed and vigorous, and promise to make fine fowls.

The Indian Game—colored Dorking cross made very handsome heavy pullets, tightly feathered, with compact body and shape of the Indian Game. One of the pullets which was hatched on the 2nd June, weighed on the 26th December, 5 lbs. 4 oz. A cockerel of the same cross hatched on the same day, weighed 5 lbs. 11 oz. on 26th December.

The Indian Game—light Brahma cross. A cockerel hatched on the 2nd June, weighed on 26th December, 5 lbs. 11 oz., the same weight as the cockerel of the previous cross, at the same age. The pullets are not so compact in shape or form as those of the Dorking cross.

The Langshan—black Minorca cross pullets, which were hatched last year (1893), have turned out magnificent—large, dark fowls, some showing more of the Langshan type, and others showing more of the black Minorca in shape and size. They lay a large, deeply colored (Langshan) egg, of most inviting appearance.

The cross of the white Leghorn—Brahma, which was also made last year, has produced fairly large fowls and prolific layers of eggs of medium size. Both males and females were slightly feathered on the legs. Some were more so than others.

STRAW VERSUS SAND ON THE FLOOR.

Careful observation leads to the conclusion that while the sand floor tends to make the conditions more natural, the layers dusting freely in it, that the straw-littered floor is a better incentive to exercise, the fowls searching longer for the grain scattered in it. Large dust baths were provided for the latter pens.

INCUBATOR TRIAL.

In the early part of March a hot water incubator of 100 egg capacity, with brooder, was purchased from Mr. Gagné, of Quebec. The machine was placed in one of the poultry houses, but the hatching results were not satisfactory, owing

to variations of temperature in the building. Another trial will be made in a more suitable location. From the number of letters received on the subject, from farmers and poultry dealers, there can be no doubt that greater interest is being taken, every year, in artificial incubation, and a great incentive to trial and investigation, in the eastern part of the country, has been an admirable work on the subject by Mr. Charles A. Cyphers, of Boston, U.S.A.

DISEASES OF POULTRY.

Numerous letters were received during the year, describing diseases which had affected poultry in different portions of the Dominion. The most important cases are noted as follows :

TURKEYS AFFECTED WITH ROUP.

"Moose Jaw, 24th October, 1894.

DEAR SIR,—I have some turkeys which are dying. Some have lost the use of their legs, while others have swollen heads.
(Sd.) ROBERT MOORE."

In response to the above, Mr. Moore was informed that his birds with the swollen heads had roup of a pronounced and fatal type. He was advised to at once remove the sick from the well, and to pour turpentine or coal oil—preference given to the former—over the heads and eyes, letting the liquid into the eyes of the sick birds. If roup pills were at hand, to give one night and morning. If not to give a hot mash of shorts and cornmeal, or stale bread soaked in milk with ginger or Cayenne pepper mixed. The house in which the sick birds were, would have to be thoroughly disinfected.

As roup is not unfrequent among turkeys, Mr. Moore's letter was sent to Mr. U. Bonneville, of Danville, P.Q., who has a long experience with turkeys, and who at once replied : "I think your advice to Mr. Moore as good as can be given. I would only add, that in similar cases I use a solution of vitriol—either white or blue—in the proportion of a teaspoonful to three pints of water, and with the mixture syringe the nostrils and slit in the roof of the mouth. Another remedy is sweet oil, 1 oz. ; camphor (pulverized), 1 drachm ; carbolic acid, 12 drops ; mix and inject in nostrils and roof of mouth, twice daily. When the swelling is large and advanced, I lance the part that is most prominent, generally in front of the eyes, in order to get rid of the accumulated matter. I then burn the cut with caustic, in order to prevent its healing too quickly, and inject into the

cut the vitriol twice daily. I have never had a case of weakness in legs.
(Sd.) U. BONNEVILLE."

FATAL RESULTS CAUSED BY FILTHY WATER.

In November, 1893, Mr. M. Cowley wrote that a disease was carrying off a large number of fowls. The fowls first went lame, their combs wilted, and after hobbling about—going from bad to worse—for a month or five weeks, they died. Upon examination, the livers in most cases were found ulcerated, while in others they looked as if covered with hayseed. All information possible was given. A description of the ailment was published in report of last year, and excited great interest, one gentleman writing from British Columbia, that his fowls were similarly affected. A fowl which had died from the disease, was sent to Prof. Wesley Mills, of McGill University, for examination, but no satisfactory results were obtained. Two sick fowls were later sent to the Experimental Farm poultry house, and were put in the hospital for observation, but got better. During the latter part of last summer, a letter was received from Mr. Cowley, saying that his fowls continued to die. He was advised to try camphor in some shape in the event of the ailment being acute dysentery or cholera. On the 10th (December) instant, a letter was received from Mr. Cowley, saying "that since the cold weather had set in, and by the use of considerable alum in the drinking water, the fowls had got better. He was positive that the trouble was caused by the fowls drinking manure water from the barn. He had built a new place, and at time of writing there was not the slightest sign of disease."

There can be no doubt that the filthy water was the cause of the trouble. The ailment ceased when the fowls were removed from the source of it.

VERY LIKE ACUTE INDIGESTION.

On 8th November last, the following letter was received :

"Vankleek Hill, 7th Nov., 1894.

DEAR SIR,—We have disease among our chickens. The combs of the sick turn black, and death is quick. The crops seem full of undigested grain. We lose five or six every day. I have a flock of eighty extra fine Bronze turkeys, and I would not like to lose any of them. The old fowls do not seem to take it. (Sd.) JOHN M. BARTON."

Mr. Barton was written to, and asked to give further particulars as to diet, how housed, etc., and told that the case from description seemed to be one of acute indigestion. A reply was received that the food had been wheat broken up,

boiled potatoes and provender, and a little corn. The house had four compartments. Some Leghorns away from the rest had got the disease. Mr. Barton inclosed a clipping from an agricultural paper on "Black Head," by H. S. Babcock, the well-known writer on poultry subjects. Mr. Babcock was immediately written to, and the clipping and Mr. Barton's letters inclosed to him. As the case was an important one, it may be advisable to give Mr. Babcock's letter, as follows :

"Providence, R.I., U.S.A., 16th Nov., 1894.

DEAR SIR,—From the incomplete statement of symptoms of disease affecting Mr. Barton's fowls, it is hard to state decisively what it is. I suspect from the rapid action of the ailment and the few symptoms given, that it is acute indigestion or cholera. If it were cholera, there would be likelihood of the old fowls taking it. The black head is a disease due to some micro-organism, which affects turkeys, but which so far has not affected fowls in this part of the country, though it is possible that its ravages are not confined to turkeys. This disease is now under investigation by the officials of the United States Government. The comb turning black is not the symptom of a single disease, but of many. It occurs in roup, cholera, indigestion, canker, strangulation, etc. The presence of undigested grain in the crops, indicates some disarrangement of the digestive organs.

Yours truly, (Sd.) H. S. BABCOCK."

Mr. Babcock's reply was immediately sent to Mr. Barton, and at the same time he was advised to give his chickens some reliable condition powder, as a tonic, in their soft feed.

On the 23rd Nov., a reply was received from Mr. Barton, saying that his chickens were better, since the cold weather had set in. He had lost none since the 12th inst. If the disease again broke out, he would report at once.

FILTHY DRINK WATER.

One or two cases were reported in which the trouble was, no doubt, caused by the poultry having none other but filthy water to drink. In most suspected cholera cases, the acute symptoms are produced by foul drink water or food, and not unfrequently both.

OTHER CASES.

There were numerous inquiries as to a cure for colds, catarrh and roup. The latter is often the result of a neglected cold. When taken at its first appearance, cold can be cured by the removal of the ailing fowl to dry quarters, and the use of a good condition powder—in a soft mash—which should be given once a day at any rate. It is better to kill a fowl with pronounced symptoms of roup, for

it is only a source of infection or contagion, and should be cured, is never fit to breed from. A poultry keeper with a flock of good layers cannot be too careful in the introduction of new birds, as disease is frequently so brought by sickly new comers. It is always best to quarantine new purchases for some days, or until assured of their sound condition.

A SIMPLE CURE FOR ROUP.

Mr. E. H. Sanders, of Watford, gives the following in a letter as a quick and sure remedy for roup or cold. and it certainly has the merit of simplicity. He says: "I bruise onions to a pulp, and then squeeze out the juice. With a syringe I force the juice into the nostrils and into the throat three times daily. I also make a pill of equal parts of the pulp and bread, and give to the sick fowl. Three or four days of this treatment will prove a sure cure."

MISCELLANEOUS.

AN INTERESTING EXPERIMENT.

At the request of Dr. Jenkins, of Charlottetown, P.E.I., an experiment was made to ascertain the difference, if any, in the weight of eggs at the time of setting under the hen, and at the period of hatching out. For this purpose a certain number of black Minorca eggs and Indian Game—Brahma cross eggs were selected and marked as below. The weights were taken at both periods by Mr. F. T. Shutt, M.A., Chemist to the Experimental Farms, who gives the result as follows :

LOSS IN WEIGHT OF EGGS DURING INCUBATION.

	Weight—time of setting.	Weight after 21 days.	Per centage of loss.
Black Minorca A	Grammes	Grammes	
" B	60.35	51.15	15.0
" C	67.50	56.75	15.9
" D	59.75	51.35	14.6
" E	66.70	54.90	17.7
" F	63.70	54.42	14.6
" G	55.80	.....	.....
" H	65.80	53.25	19.0
Average	57.80	50.30	13.0
Game—Brahma cross A	62.60	.....	15.7
" B	60.40	53.80	10.9
" C	65.50	58.30	11.0
" D	55.50	48.50	12.6
" E	56.75	50.70	10.6
" F	67.10	61.20	8.8
" G	55.61	49.20	11.6
" H	64.35	57.70	10.3
Average . . . . .	.....	.....	10.8

PEKIN AND AYLESBURY DUCKS.

During the early part of the month of March, a drake and four ducks of the Pekin breed, and a drake and a like number of the Aylesbury breed were purchased and arrived during the third week of the month. They were placed in pens in No. 3 house, and were allowed outside run as soon as the weather permitted. Subsequently they were removed to pens with tanks, to which water was supplied by means of pipes. Both breeds laid fairly well, when one of the Pekin ducks became lame, and was soon after followed by another of the same breed with similar lameness. Both recovered, but were subsequently attacked with the same symptoms and died. Death was apparently from paralysis of the limbs and certain parts of the body. The drake and another duck also died during the summer from apparently the same cause. The Aylesbury ducks in the next pen displayed vigorous health from beginning to end of the season, and are apparently in fine condition at the date of writing. The conditions as to feed, care and treatment were the same in both cases. In both runs were grass, gravel, sand and water tank. Mr. John White, of the Canada Atlantic Railway, Ottawa station ticket office, reported the death of 19 ducks from a disease with identically the same symptoms.

COMMENCEMENT OF WINTER LAYING.

Winter laying commenced at the end of November, by which time the hens were over their moult and in fine condition. The yearling hens of the black Minorcas and white Plymouth Rock breeds were first to begin to lay.

PURCHASE OF NEW STOCK.

During the latter part of November, the following new stock was purchased—in most cases—to replace old stock, the object being to have as many pullets for laying stock as circumstances would permit. The fowls arrived during the first week in December, and were as follows :

Eleven coloured Dorking pullets, 11 white Leghorn pullets, 7 barred Plymouth Rock pullets, 7 Langshan pullets, 11 white Minorca pullets, 4 silver Laced Wyandotte pullets, 4 white Java pullets and 1 cockerel.

Pullets of our own hatching made up the number to eleven in the case of the breeds designated, making the laying stock in No. 1 house as follows :

North wing—Pen No. 1, 11 silver laced Wyandotte pullets ; pen No. 2, 11 barred Plymouth Rock pullets ; pen No. 3, 11 white Plymouth Rock yearling hens ; pen No. 4, 11 Langshan pullets ; 11 light Brahma hens, three years old. South wing—Pen No. 1, 11 white Leghorn pullets ; pen No. 2, 11 black Minorca yearling hens ; pen No. 3, 11 white

Minorca pullets ; pen No. 4, 11 Andalusians, 7 yearling hens, 4 pullets ; pen No. 5, 11 colored Dorking pullets.

The above are all birds of the first quality, and already some of the white Leghorn, white Minorca and Langshan pullets are laying, and others will soon follow.

The white Javas, with other stock, are in No. 3 house, and began to lay a few days after arrival.

In the south wing of No. 1 house, the laying stock are in pens, on the floors of which sand to the depth of four inches has been placed. On the floors of the pens in the north wing of the same house, straw has been put. Observations as to which is the most suitable will be continued. With the exception of the difference in the material on the floors of the pens, the conditions as to temperature, food, and care are the same, and the results to be learned from so many of the different popular breeds side by side cannot fail to be valuable, as they will be interesting.

The material is on hand for a new poultry house, which it is expected will be built this winter, when the chickens will have better protection. With the present imperfect accommodations they have been exposed to depredations by hawks, skunks, minks and rats, which have caused the loss of quite a number of them. In spring several settings of eggs of different breeds were received from the Central Experimental Farm, but owing to delays or careless handling on the way, none of them hatched out.

The poultry house on the Experimental Farm is a frame building 16 x 32 feet, the spaces between the studs are filled with broken bricks laid in mortar ; although sufficiently warm to keep the combs from freezing, it is not warm enough to make fowls tender.

The runs in connection with the poultry house being finished, on March 15th, pens of the following breeds of fowls were made up, barred Plymouth Rocks, white Leghorns and light Brahmas.

The following table shows the average number of eggs laid per bird of each breed of fowls from 1st April to 31st October :

Breed.	April.	May.	June.	July.	August.	September.	October.	Total.
	Eggs	Eggs	Eggs	Eggs	Eggs	Eggs	Eggs	Eggs
Barred P. Rock..	10½	16½	10¾	17	11½	15	5	86
White Leghorn..	10½	11½	20	20	12	..	..	74
Light Brahma...	10	11	9	..	1	5	2	38

NOTE—Brahmas were found to have been kept too fat

for the best results, and in future will be kept on shorter allowance.

Some of the cross-bred hens began eating their eggs in February. The habit was acquired through the breaking of their thin-shelled eggs. A cure was effected by using nest boxes with false bottoms, the egg as soon as laid falling through a hole in the bottom of the nest on a slanting piece of canvas. This proved a perfect remedy and there has been no further loss from this cause.

Considerable difficulty was experienced with soft-shelled eggs. This we believe has been remedied during the present season by feeding ground bone, and by giving the hens plenty of exercise in every possible way.

Owing to the difficulty in getting brooding hens, settings were not made until May; others were also made during June and July. June hatchings gave rather the best results.

The following are the live weights reached by the fowls of the different breeds:

Variety.	Age.	Weight.	
B. P. Rock, cock	18 months.	9 lbs.	10 oz.
" cockerel	3½ "	5 "	8 "
" hen	18 "	8 "	"
" pullet	4 "	4 "	5 "
White Leghorn, cock . . .	18 "	4 "	4 "
" cockerel	4 "	3 "	8 "
" pullet	4 "	3 "	4 "
Black Minorca, cockerel . .	4 "	6 "	"
" pullet	4 "	3 "	10 "
Light Brahma, cock	2 years.	11 "	"
" hen		8 "	8 "

Insects were destroyed by removing the fowls, and setting fire to a pound of sulphur in an iron receptacle and closing the building tightly for four or five hours.

Grit and water was kept at all times before the fowls when in confinement and any dry grain fed them was mixed with the straw chaff which always covered the floor of their house, the search for this gave the fowls exercise.

Hens purchased from a neighbouring farmer were found to be infested with scaly leg, this was cured by brushing the legs with coal oil, two applications; a week apart being found sufficient.

REPORT FROM THE INDIAN HEAD N.W.T. FARM.

The poultry on the farm has not been very successful during the past year. After a long winter of confinement, none of the birds came out in very good shape for laying and very few of the early laid eggs were fertile.

The Plymouth Rocks commenced, early, to pull their

feathers and continued to do so in spite of all remedies tried.

The white Leghorns did the best of any of the four breeds on hand, both in regard to number of eggs laid, and chickens hatched.

Four settings of eggs, one each of black Minorca, light Brahma, white Leghorn and Plymouth Rock, were received from the Central Experimental Farm, Ottawa, last May. From these eight black Minorca, six light Brahma, six white Leghorn and five Plymouth Rock, chickens were raised.

There are on the farm, at present, the following breeds black Minorca, light Brahma, white Leghorn, Plymouth Rock, Houdan and white Wyandotte.

REPORT FROM THE BRITISH COLUMBIA FARM.

The material is on hand for a new poultry house, which it is expected will be built this winter, when the chickens will have better protection. With the present imperfect accommodations they have been exposed to depredations by hawks, skunks, minks and rats, which have caused the loss of quite a number of them. In spring several settings of eggs of different breeds were received from the Central Experimental Farm, but owing to delays or careless handling on the way, none of them hatched out.

PROPOSED MINORCA CLUB.

Editor Review:

WITH pleasure I noticed in the CANADIAN POULTRY REVIEW the article by Mr. Duff, with your endorsement, on the necessity of forming a Minorca club. I have for some time tried to bring this matter before the United States' breeders, but for some reason or other there is no interest manifested, so far at least.

I am not in favor of being in a hurry only in one thing, that is, forming a Minorca club. The ideal Minorca must be selected after great deliberation. I, for one, want our ideal Minorca placed on such a high standard that the breeding of ideals will not be a thing of the present or near future. Let us place the ideal "high up." I would much rather see an ideal that would place my entire flock below 90 than to see the ideal that would cause them to score above 95. Hasten the time when we have a Minorca club with a grand ideal.

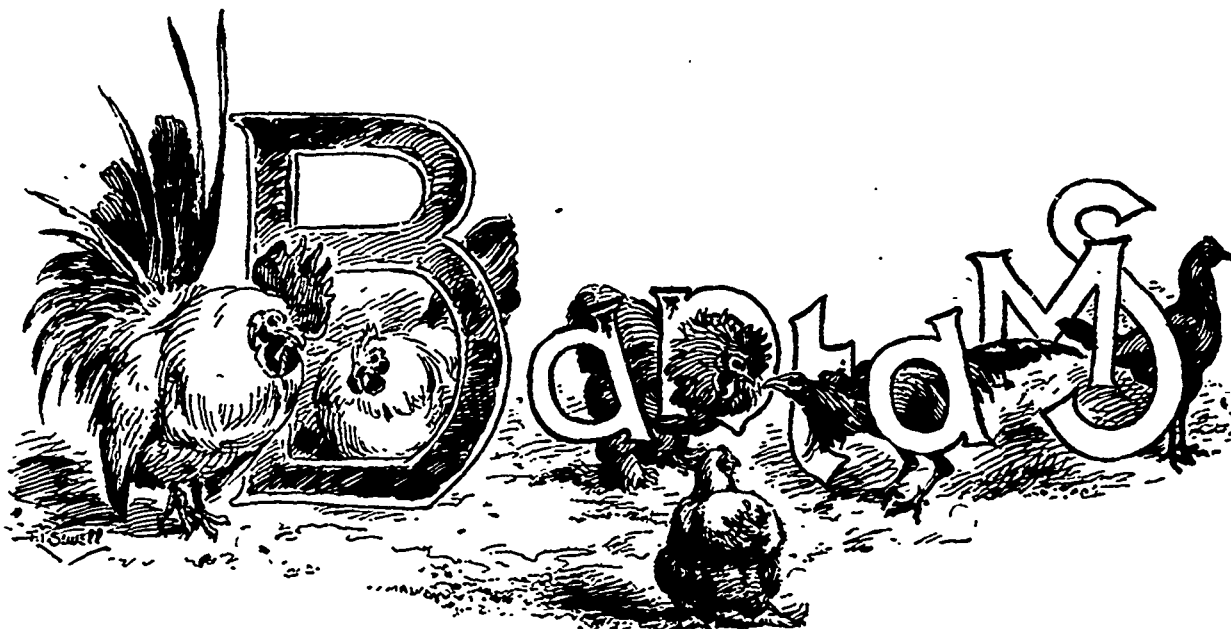
I enclose \$2, place me on the list as subscriber and also a "will-be" member of any first-class Minorca club.

With best wishes to you and thanks to Mr. Duff,

I am fraternally yours,

GEO. O. MORRIS.

Malden, Ill., July 5, 1895.

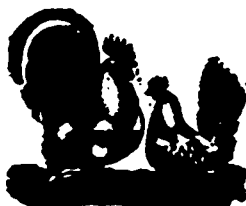


TWELVE BANTAMS.

VIII.

BLACK-TAILED JAPANESE.

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



Black-Tailed Japanese.

NEARLY all Bantams are dwarfed forms of some larger fowl. The larger fowl we have and we make our standard for the Bantam the same as for the larger fowl, size alone excepted. But in the Japanese Bantam we have a dwarf, without possessing the larger fowl. Whether there is in Japan a large fowl like the Bantam in shape and general characteristics I do not know, but if there is such no mention of it has reached me and I am on the alert for all such bits of information.

The Japanese Bantam has a very distinctive type. It has the shortest leg, the tallest comb, the highest and most erect tail, of any breed we possess. The sickle feathers of the cock are but little curved and often extend several inches above the top of the high single comb. The legs are, in the best specimens, so very short that the bird seems when standing up almost to be sitting down.

The black-tailed white is the original variety and is the best in points as a rule. From it have been produced the black, the white and the gray, but the original gives the very best type of what the enterprising Japanese fanciers can do in bantamizing.

For years I had these fowls and I have never wholly lost my interest in them. The hens were so docile, so prolific and so odd, and the cocks had such remarkable combs and tails that they were an unfailing source of pleasure to me. The eggs hatched remarkably nice, but the chickens were difficult to rear. The little ones were delicate, though they proved reasonably hardy when grown.

It seems to me that we have retrograded in this variety, that better birds were produced a few years ago than now, that in fact we are beginning to lose the real Japanese type. The birds which I see at the exhibitions have neater combs, longer legs and as good color, but we seem to be forgetting that shortness of leg and great size of comb are characteristics of the variety, and to refine the comb and lengthen the leg is to get away from the true type. Our modern specimens are growing graceful at the expense of the old and true type. Let us remember that the comb cannot be too large and the shanks cannot be too short, and the tail should be exactly perpendicular. Let us keep to the model the Japanese have given us in order to keep as great a variety as possible in our Bantams.

GAPES—HOW TO AVOID, AND HOW TO CURE.

BY T. GASCOIGNE.

THIS troublesome disease is confined to young chickens, and its cause is pretty well-known to be due to worms in the windpipe, which obstruct the air-passage, causing the little sufferers to be continually gaping to obtain breath—hence the name of the disease. Gapes is said to be most troublesome in very wet seasons, and on low-lying ground; although not altogether unknown in very dry seasons, and where the yards are high and dry. One would have thought in such a dry season as this, gapes would be almost unknown, yet only very recently, I have had several cases of gapes on ground where no chickens have been running for twelve months previous, but this really points more to what I have already said was chiefly, if not entirely, the cause of gapes in chickens. But, as your subject is one for the best means of avoiding chickens having the gapes, I must not depart from it by describing how those worms find their way into the chicken's windpipe, which causes them to have gapes; but I will describe the best means I have always found to avoid chickens from having the gapes. After twenty years' experience in rearing chickens, both artificially and under hens, I have come to the conclusion that chickens hatched under hens are far more liable to gapes than those hatched and reared artificially—in fact, I have never yet known chickens to suffer with gapes that had been hatched and reared altogether artificially. Some of your readers may say, "What has the hen that sits upon the eggs, got to do with those youngsters which hatch out having the gapes?" Well, perhaps it does seem a little from the subject; but to point out how, in my opinion, chickens can be avoided having the gapes, I must commence where the evil does, and that is with the hen, for, unless these are free from insect pests whilst sitting, depend upon it gapes amongst your chickens will be far more numerous than they would be, if such little matters as dusting the hens to free them from vermin, were attended to. Why is it that very early-hatched chickens seldom suffer with the gapes? Why, because insect life is not so numerous during the winter months, and the hens which are being used then for sitting are freer from insects pests. Some of your readers may have noticed large ticks upon the heads of some chickens almost as soon as they are hatched. (I do not mean lice, but large black-ticks, very much like the sheep louse.) Chickens infested with these pests, if left to take their chance, will, nine out of every ten, suffer with

the gapes. I have tried the plan of dusting one hen two or three times whilst sitting, with insect powder, leaving another one which I knew to be infested with vermin like the first, to take her chance, the consequence was, every chicken hatched under the latter had their heads covered with large ticks almost as soon as hatched, which must, of course, come off the hen, whilst not one of those hatched under the hen which had been dusted freely with insect powder had a single one upon them. The whole nine of those infested had gapes before they were three weeks' old; whilst not one of those hatched under the other hen showed signs of gapes.

Such cases must really lead one to believe that gapes can, to a great extent, be avoided by seeing that all hens which are intended to bring up chickens are quite free from vermin; when once gapes appear in a yard, immediate steps must be taken to prevent its spread; and nothing acts better for this than camphor, a lump of which should be constantly kept in their drinking-dish, which, of course, should always be kept quite clean—do not forget that cleanliness is the heart of success in chicken-rearing.

One other excellent thing to prevent the spread of almost any disease, is chopped, raw onions, mixed in their meal—only those who have used onions in rearing chickens know the great value of them. Now, as to the best method of curing those youngsters which have the gapes. I have not yet been able to find a medicine that could cure them. Medicines, in my opinion, have very little effect in destroying the worms—to know you get the worms out of their windpipes, is to see them, and the best way is to get a stiff feather, strip the down off to very near the point, dip it in Jeyes' fluid or turpentine; afterwards place it down the chicken's windpipe, and be sure it goes down the windpipe; after giving it two or three twists round, pull it up, and you will be almost sure to have brought out with the feather some, if not all, the worms; perhaps you may require a second feather. I have seen chickens that have been so treated, in a very short time afterwards, which could not even be noticed that they had had gapes at all. No time should be lost in this operation; it requires a little care or else the chicken will become choked; but if done properly it is a very effective cure. It is a much better plan than holding the heads of the chickens over the fumes of carbolic acid, to make them cough up the worms. Ground where chickens are constantly reared should be well covered with lime once or twice a year; and immediately a case of gapes has appeared, the chicken-coop or house should be well dusted with fresh lime.

BY J. H. LONGMAN.

The subject you have chosen for this essay is one in which I am particularly interested, "How to avoid and cure gapes."

Gapes are caused, as is well known, by worms in the windpipe of the chick. Many theories are put forward as to how it gets there. I think it either comes from a cold, or else this assists to put the chick in a state more favorable to the development of the gapeworm.

Our duty is, therefore, to place the chick in a position that, when it is attacked by gapes, it is able to dislodge the worm from its position.

This, I think, can be greatly helped by good feeding. Give them the best food you can procure for the first month, such as eggs, fresh meat, chopped fine, groats and biscuit meal, and I would advise giving them a little sulphur two or three times a week, in their soft food. This will help them to feather faster, as we find that most of the damage done by this disease is before the chick gets feathered. And, at the same time, it will have the effect of getting the chick in a good healthy condition, and considering that the weakest are mostly the victims, this is what we should aim at.

We find that gapes frequently effect a farm or district, while the next may be entirely free from it. Those who are unfortunate enough to live in these affected districts, should make it a rule not to put their young stock on the grass before they are at least a month old, and I prefer to keep them indoors for the first fortnight (on an earth floor, if possible), except in a dry season, when it is not necessary to keep them in as long. And, on shifting them to the open, put them in a fruit garden, or on freshly-turned ground, and in case the same ground has to be used for several seasons, there should be a good coating of lime put on it before being turned. It should also be fenced round from the grass, as nothing brings on gapes faster than allowing them to run in long grass with heavy dew or rain on it.

Fresh water should be given them every morning, and their drinkers cleansed from any dirt that may be found on them. A small piece of camphor may be put in it, or slightly-colored with Condy's fluid. On no account should they be allowed to drink stagnant water. And when confined in coops, they should be moved at least once a day.

It will be found, if the chicks are treated as I have written, that gapes will be nothing to be feared, as the cases will diminish almost to vanishing point, and it is far better to prevent than to have to cure, as, even if cured successfully, there always remains its blighting effects—the chicks are stunted in their growth, and it takes them a long time to start again.

I have tried to make the prevention clear, and also show that I lay far greater stress on it than on leaving it get to be a case to be remedied. But as that is part of my task, and there are certain to be a few cases crop up even if we try our best to prevent them, I will endeavor also to give what I have proved to be the best remedy.

Some lay great faith in the feather cure. A wing feather (of a pheasant for preference), is stripped to within an inch of the point, dipped in whisky, is put down the bird's windpipe, twisted round, and then withdrawn, when, in some cases, the worms will be found adhering to it.

The best way to accomplish this is to hold the chick in the left hand, with the thumb and forefinger each side of its mouth, the mouth should be opened, and the finger placed well back in the side of its mouth to keep it open, the tongue should be drawn out slightly, when the entrance to the windpipe will be easily seen. Great care must be taken not to put the feather down too far, so as to touch the lungs, or death is certain to issue. But, for my own part, I lay no faith in this, as I believe as many die after the operation as would if left entirely alone. In fact, I do not remember ever having any that recovered after being thus treated. In this case, I think, the most simple remedy is the best, and the following will be found to be easy to carry out, and one which I have proved to effect a cure in almost every case. Get a box about a foot square, and of the same depth; make a hole about the size of a penny close to the bottom. Cover the bottom with powdered or slaked lime, put the chick in this, and place over the top a piece of coarse bag, and with a pair of bellows give a strong blow in the hole at the bottom, and the powdered lime will be found to diffuse throughout the box, and the chick will inhale it. This will have the effect of making the chick sneeze, and at the same time being drawn in the windpipe will dislodge the worm, which is then thrown off. The chicks should be kept in about two minutes, when they can be again returned to their coops, and in about three hours after they will be found to have almost ceased their sneezing, for in very few cases do they need to be treated the second time.

If several of the brood are showing signs of gapes (and it is best to attend to them when the disease is in its infancy), a saucer filled with the lime should be placed in the coop, and blown with the bellows three or four times, waiting a minute between each, and the coop closed for about an hour. Chickens should always be treated when opening the coop in the morning, as their feathers will not hold the lime, which they do if allowed to get them damp. I feel quite certain if these directions are followed, there need be

scarcely a chick lost, from what is, in some districts, the worst of all chicken plagues. It has been my method for several years past, and I usually hatch about four hundred a year, chiefly Rocks, giving me entire satisfaction since I adopted it.—*Fanciers' Gazette*.

WORM PITS FOR FOWLS.

REPRINTED FROM *Poultry*.

YOU can easily convince yourself of the avidity of hens for worms and insects, which they prefer to the best wheat. Authors who have studied the question of hens' food have only spoken very vaguely of the employment of insects and worms. Worm pits for feeding fowls seem to have been employed long ago. Olivier de Serres, who wrote during the reign of Henry IV. of France, mentions artificial worm pits, but he does not seem to have employed them. He merely says that they can feed a large number of fowls, and keep them in good condition. Rosier states that he employed them with great success, adding that if an unlimited supply is given to the fowls they become too fat, which injures their laying qualities. Too much of anything is bad. Fowl keepers now know, or ought to know, that to derive profit from animals they must have distinct food for fattening and for laying.

Artificial Worm Pits.—The construction of artificial worm pits for feeding fowls is very beneficial. The grub of the meat fly is very palatable to fowls, and when exclusively fed with it the hens are fertile, strong, and very healthy-looking. The larva of the meat fly seems to contain a principle or fixed oil which possesses in the highest degree nutritious, tonic, and stimulating properties. Chickens from the age of four to five days can be fed exclusively with this grub. Those which receive this food grow strong and rapidly develop; they are free from languid diseases which destroy a large number the first twenty days after birth.

In 500 pullets reared by this system not one died of weakness or debility. For those who rear chicken on a large scale, the employment of larvæ has the double advantage of being an economic food capable of insuring success.

Young Turkeys, so difficult to rear until a certain age, thrive wonderfully when fed on fly larvæ, chopped onions, and some entire grains of pepper. Pheasants and Guinea Fowls also thrive well on fly larvæ, which can be employed instead of ants' larvæ.

Construction of Pit.—The pit intended for worms should be dug in a dry place, exposed to the sun and away from

the wind. As fermentation takes place unpleasant exhalations escape, consequently these pits should be at some distance from the dwelling house, on the one hand, in order to avoid the influence of putrid miasma, and on the other to prevent the complaints of neighbours, who would have a right to complain to the sanitary authorities.

The capacity of the worm pit may vary *ad infinitum*; however, the conditions of success and the speedy development of the larvæ demand certain geometrical proportions. Failures we heard of were generally due to the excessive depth of the pits. When casks are employed success is only partial on account of the great depth comparatively with the surface.

Geometrical Proportions of Pit.—The best dimensions for rapid development of larvæ and their multiplication is 3 feet 3.371 inches deep, and 6 feet 6.742 wide. The length is of no consequence, and may vary according to the number of hens to be fed. For a flock of 3000 fowls it may be 10.936 to 16.404 yards in length. The bottom of the pit should be hard enough to imprison the larvæ, which on reaching the period of metamorphosis into chrysalides endeavour to bury themselves in the ground. This bottom then can be made of flat stones, united with lime mortar. Clay kneaded and beaten also prevents the larvæ from passing. There must be an enclosure wall, which can be built of stones or bricks, united with lime mortar. This single wall, with one row stones should be 3.937 inches to 5.906 inches above the ground. The last row of stones should project 2 to 2½ inches over the pit to prevent the larvæ from escaping. Small galleries should be made the thickness of the enclosure wall to provide refuge for a certain number of larvæ, which for want of a better place enter them to be metamorphosed into chrysalides and flies. By this simple, easy method the materials which compose succeeding pits are more rapidly charged with flies capable of reproducing worms.

The heat of fermentation hatches flies at all seasons, which multiply larvæ by their laying. Shelters are necessary to protect the pits against wind and rain; rain or water is very injurious. A straw shelter is quite sufficient. A door must be made in the enclosure wall to collect the crop of larvæ; this door consists of a sliding board, which runs in two grooved posts fixed in the wall. The following are the materials requisite for 3000 fowls:—

I. Rye straw chopped rather fine, 3¾ inches thick on the bottom of the pit, 3 qrs. 4.185 lbs.

II. Fresh horse dung, 1½ inches thick, spread on the top of the straw without pressing.

III. *Vegetable Mould*, 1½ inch thick. Hotbed mould is preferable on account of the large amount of humus it contains.

IV. The substances above mentioned are sprinkled with 22 lbs. of blood from slaughtered animals, or entrails or remnants of meat from such animals are placed on the top.

V. A second layer formed of all the above substances.

VI. A third similar layer.

Maize straw can be employed instead of rye, but wheat is not so good.

All these materials should not be pressed too much, as the larvæ require air and freedom to develop.

PLANNING A POULTRY HOUSE.

THIS is the season to plan for winter. One of the main points is to have the poultry house heated in winter at the least cost, and with a view of having the hens placed under summer conditions. An excellent suggestion comes from Mr. Geo. M. Gandy, Ypsilanti, Mich., which we present below, and also take occasion to express our own views of the matter. He says :

"In planning for a poultry house, say 100 feet long, divided into pens, would it be practical to have at our end of the building a cellar or cook room, say about five or six feet lower than the poultry house floor, and have a good sized boiling stove in the cook room, with a smoke pipe run into tile, the tile to run under the poultry-house floor to the extreme end of the building, and then up and out of the building? My idea would be that it would have a strong tendency to keep the floor of the building dry and more summerlike. One great mistake most of us make in planning and building a poultry-house is that we plan for our convenience, and forget that the fowls are very close to the ground. All arrangements made that would help to keep the ground dry and slightly warm would be a great benefit towards health and egg production in the winter season. I would prefer that the cooking room be attached to the main building, and not use one end of the same, as I am not favorable to stoves or artificial heat in our poultry buildings, for the purpose of giving heat overhead, as in a great many cases the floor is damp and cold. I think that with cemented joints, and the tile laid on a small incline, a good draft could be depended upon, and in all well-conducted poultry plants it is almost a necessity to have a good cooking outfit. The fuel used for cooking would help to keep the entire building in fine condition at no extra cost except the tile and the expense of laying the same. I was talking with a

friend of mine, who is in the poultry business for eggs, and he informed me that this plan has been in use extensively in the East, but has been discarded on account of extra expense in running it. Would like to hear from you and any others who have tried the plan."

It would certainly be economical to use the heat of a cook room for warming a poultry house. The tile method is excellent, and it works well. The reason that heating has not always given satisfaction is because of keeping the house *too warm*. All that is required is to keep the house above the freezing point—say 40 degrees—and it should not be warmer than 70 degrees.

There is another point which is more important than the warmth—it is *dryness*. Fowls can endure almost any degree of dry cold. It is the cold *dampness* that does the most harm. A cold, raw, damp day in March or April will cause more roup than a month's cold (but dry) weather in midwinter.

The heat of the poultry house should be simply to get rid of the dampness, any method that will accomplish it will keep the hens in good laying condition. If the house is too warm the hens will be liable to take cold when they go outside, and are exposed to colds and storms.

We approve of warming the poultry house in winter, and as but little warmth is required, it will not cost much. Even a stable lantern hung up in the poultry house will be of advantage. This is summer, but it is not out of place to look ahead.—*Poultry Keeper*.



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.

SEND A STAMP FOR REPLY.

We receive annually some hundreds of postal cards asking for information *not of a business nature*. Each reply costs us a three cent stamp not to mention the trouble. The latter we don't mind but don't you think the enquirer should bear the former expense? We do and no enquiries not relating strictly to business will in future be answered unless such is attended to.

AN EASY WAY TO GET FELCH'S GREAT BOOK.

To any one sending us four new subscribers with \$4 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. Send four new Subscribers with \$4 and get a NEW STANDARD *free*.

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 30 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' Directory, 1-5 col. card, 1 year \$3; 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 20th to insure insertion in issue of same month. Address,

H. B. DONOVAN,
124 Victoria Street, Toronto, Ont.

BREEDERS' ADDRESS CARDS.

JOHN HORD & SON, PARKHILL, ONT.
Breeders of 15 different varieties of Land and Water Fowl, Toulouse Geese, Rouen Ducks.

196

DIRECTORY OF BREEDS.

These cards will not be continued on expiration of present contracts.

- | | |
|--|------|
| DARK BRAHMAS
C. S. Jackson, International Bridge, Canada. | 995 |
| LIGHT BRAHMAS
C. S. Jackson, International Bridge, Canada. | 995 |
| BLACK AFRICAN BANTAMS
F. B. Wilson, Sherbrooke, P. Que. | 995 |
| BLACK COCHINS
C. S. Jackson, International Bridge, Canada. | 995 |
| BUFF COCHINS
C. S. Jackson, International Bridge, Canada. | 995 |
| PARTRIDGE COCHINS
C. S. Jackson, International Bridge, Canada. | 995 |
| BLACK LANGSHANS
C. S. Jackson, International Bridge, Canada. | 995 |
| F. B. Wilson, Sherbrooke, P. Que. | 995 |
| WHITE LANGSHANS
C. S. Jackson, International Bridge, Canada. | 995 |
| BUFF LEGHORNS
C. S. Jackson, International Bridge, Canada. | 995 |
| BARRED P. ROCKS
C. S. Jackson, International Bridge, Canada. | 995 |
| Allin Bros., Newcastle, Ont., Box 20. | 1095 |
| BUFF P. ROCKS
C. S. Jackson, International Bridge, Canada. | 995 |
| BLACK SPANISH
C. S. Jackson, International Bridge, Canada. | 995 |
| BUFF WYANDOTTES
C. S. Jackson, International Bridge, Canada. | 995 |
| S. L. WYANDOTTES
Jacob Dorst, 565 Logan Ave., Toronto. | |

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.

This Coupon is good for one advertisement of 30 words in the "For Sale and Exchange" or "Stock Transfers" columns.

Canadian Poultry Review, Toronto, Ont.

To meet the wants of advertisers who are continually using this column, and who find it a great trouble to be constantly remitting small amounts, we have adopted the plan of issuing Coupons (as above) good for 30 words each, 4 for 1. Any one buying these Coupons use them at any time in lieu of money when sending in an advertisement. No less than four Coupons sold.

For Sale or Exchange.

TWELVE ADVS. FOR \$2.50

An advertisement of 30 words will be inserted EACH MONTH for one year in this column for \$2.50, PAID IN ADVANCE. Advertisement may be CHANGED EVERY MONTH if desired.

For Sale or Exchange—White and Golden Polands, Houdans. Want Buff Cochins Bantam chicks, W C B and Buff S Poland pullets, Houdan cockerel. Victor Fortier, Montreal Poultry Yards, Montreal.

For Sale—One Silver Wyandotte cock \$10; ten hens 75c each; 1 trio of Golden Sebright Bantam \$6; three pair young Sebrights full feathered, \$3 per pair. R. H. Marshall, Galt, Ont.

A Parrot for \$5—Cuban, young and healthy, never so cheap before. Geo Hope & Son, 109 Queen St. West, Toronto.

For Sale or Exchange—Some choice fancy pigeons in Dragons, Almond and Kite Tumblers, Owls, Archangels, Trumpeters and Fantails; for Barbs, Pouters, Nuns, Carriers or Bantams, must be good. W. H. Reid, 35 Union St., Kingston, Ont.

White Rocks, Exclusively—I have lots of early hatched birds for sale now, that will make sure winners at Fall Shows. R. I. Taylor, Box 702, Brantford.

For Sale at a bargain, to close out Poultry Business, 40 S White Leghorn pullets, grand breeders; 3 cockerels (Wyckoff strain), one imported Indian Game cock, Green Bone Cutter, 2 Rankin Brooders, Incubators and Clover Cutter. Address E J Berry, Bromo, Que.

A Bargain—Trio Golden Wyandottes and six Red Cap hens for cash or will exchange for Buff Wyandottes or Black Minorcas. A A Whiteker, Morrisburg, Ont.

Steel Gray Dark Brahmas—4 fine breeding hens, 1 grand Golden Bearded Polish cock, will dispose of them cheap to make room. J W Potter, Walsh, Ont.

2000 Ferrets—We are now booking orders and training Ferrets for Rats, Rabbits, etc., for August shipment. Book on breeding and working Ferrets 10 cts., muzzles 20 cts., Ferrets 43 pair. S & L Farmsworth, New London, Ohio. 1095.

Young Stock and some choice old stock for sale, Red Caps, Golden Wyandottes, Buff Leghorns, Wyandottes, will sell cheap after Sept 15th, 95. F H Brown, Box 40 Port Hope, Ont. 975

For Sale—One pen of A1 White Crested Black Polands, will be sold cheap if taken at once. Joseph T Cooper, Box 597, Galt, Ont.

To Those Wanting A breeding stock from Brown Black or Buff Leghorns, B Minorcas, Andalusians, B P Rocks, Brahmas. Prices away down. Write R. H. Kemp, Box 304, Gainsby, Ont.

Boy Wanted—12 to 18 years of age, to learn fancy poultry business, must have fair education and a liking for poultry; boy who understands care of horse and cow preferred. Address "D." CANADIAN POULTRY REVIEW Office, Toronto.

Exhibition Birds For Sale—(On trial) from several varieties, at \$1.50 each, satisfaction guaranteed, order quickly for exhibitions. Stamp for particulars. Address Climax Co., Springfield, Ont.

Good Quality and Low Prices—Eggs from twenty varieties of high classed land and water fowl, eggs \$1 per setting, send for circular. W W Reid, Ayr, Ont. 196

I. G. Pequegnat, New Hamburg, Ont., breeder of Partridge Cochins, Barred and White Rocks, Houdans, Black Leghorns, B Minorcas, Pekin Bantams. Stock at all times, eggs in season. Send stamp for reply and mention REVIEW. 11

Jacobins—One red and one yellow cock \$4 each, pair grand whites \$15, pair extra reds \$15, red cock and black hen \$8, pair white Pouters \$8, sure value. Chas Massie, Port Hope, Ont. 796

White Wyandottes For Sale—2nd prize cockerel at our last show and several good one and two year old hens, a grand breeding pen or will sell separately, early chicks for the fall shows will be ready for shipping in August. Chas Massie, Box 202, Port Hope, Ont. 995

C. J. Daniels, 221 River St, Toronto, breeder of 14 varieties Standard Fowls. Dealer in all kinds of poultry supplies, if you are in want of anything in poultry line drop me a card. 11

New Standard—Now ready, send one dollar and get one. Address, Canadian Poultry Review, Toronto.

Meyers' Royal Poultry Spice, 25c per two lb. package. H. B. Donovan, Toronto.

Dr. Mallory, breeder of single-combed Brown Leghorns; score, cockerel 95, hens 91 to 94; White Wyandottes, score 93 to 95, all prize winners. Eggs from the above \$2 to \$3 per sitting. Colborne, Ont. 895

Rose Comb Brown Leghorns—Black Red and Pit Game eggs, \$1.50 for 13. 12 Pit Game cockerels, swift and gritty, \$2 each. H. McCallan, West Lorne, Ont. 895

Hints to Beginners (Pigeons) by F. M. Gilbert, new edition, 1894, revised with additional chapters. A most practical, timely and comprehensive work. Indispensable to the amateur. Price paper 50c. Address, H. B. Donovan, Toronto.

A. Samuels, 82 Bennet St, Buffalo, N.Y., breeder and importer of Jacobins, Wing Turbits, blu. Wing Turbits with white bars, Barbs, Owls, Fantails, Helms, Mooreheads, Trumpeters, Magpies, Swallows, Dragons, Starlings, Baldhead Tumblers, Solid Tumblers, Frillback, Banded Homing Pigeons. Prices reasonable, satisfaction guaranteed. Inclose stamp for price list. 1095

THE SUPERIOR BROODER.

THE MOST PERFECT YET.

Send for Circulars and Testimonials. Stamp accepted.

F. J. WIRGAND,

Lock Box 17, Warren, Mich., U.S.A.