

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:

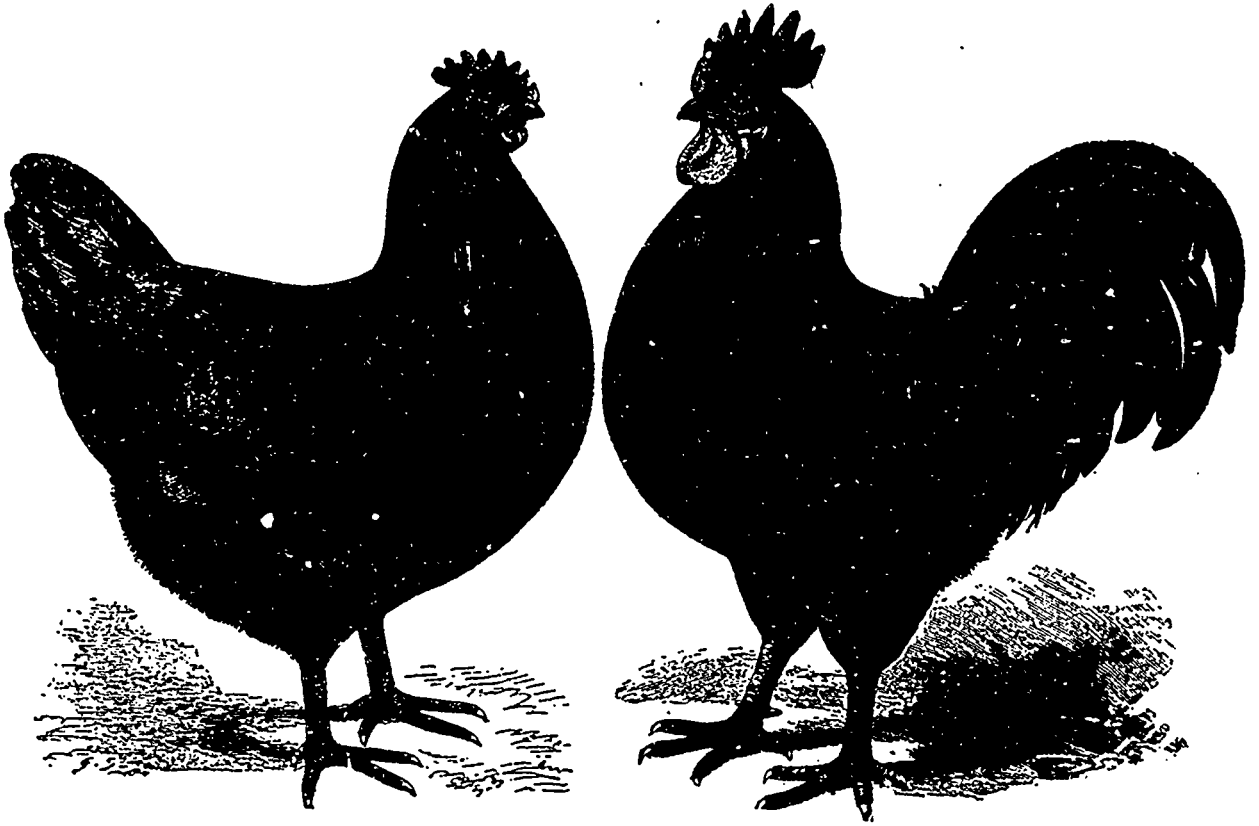
Title page of issue/
Page de titre de la livraison

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
							✓				



PAIR ORPINGTONS.

THE CANADIAN POULTRY REVIEW

DEVOTED TO POULTRY, IN ALL ITS BRANCHES

PUBLISHED BY H. B. DONOVAN.

Vol. xiv.

58½ VICTORIA STREET, TORONTO, SEPTEMBER, 1891.

No. 9.

DATES.

Western Fair Industrial and Art Exhibition, London, Ont., Sept. 17th to Sept. 26th. Thos. A. Brown, Secretary.

Canada's Great Industrial Exhibition, Toronto Ont., Sept 7th to 19th. H. J. Hill, Secretary.

Provincial Exhibition, Montreal, Que., Sept. 17th to Sept. 25th. S. C. Stevenson, Secretary.

Guelph Central Exhibition, Guelph, Ont., Sept. 22nd to Sept. 24th. Wm. Laidlaw, Secretary.

Central Canada Exhibition, Ottawa, Ont., Sept. 23rd to Oct. 2nd. E. McMahon, Secretary.

Canada's International Exhibition, St. John, N.B., Sept. 23rd to Oct. 3rd. Ira Cornwall, Secretary.

Great Northern Exhibition, Collingwood, Ont., Sept. 29th to Oct. 2nd. J. W. Archer, Secretary.

Barrie Agricultural Exhibition, Sept. 23rd to 25th. W. L. Mitchell, Secretary, for Poultry and Dogs, Painswick, Ont.

NOTES AND COMMENTS

MILTON ASSOCIATION

HAS already claimed dates for its winter Show which will be held on 30th and 31st December and January 1st, next.

DEATH OF A RESPECTED JUDGE.

We are sorry to learn of the death at the age of 60 of Mr. Charles H. Cros-

by, of Bridgeport, Conn. Mr. Crosby was a Vice-President of the American Poultry Association and his services as a poultry judge were in great acquisition, though of late years his health prevented his acceptance of many appointments.

MR. JAMES MAIN, BOYNE,

arrived from England, on Saturday, August 15th with a large importation of Cotswold sheep and 1 pair of black-red Game. The cock of the pair is the Crystal Palace cup winner of the present year.

NEW VARIETIES—GEESE.

Mr. J. H. Houser, Canboro, writes us: It affords me much pleasure to see what interest there is taken in pure bred poultry to what there was a few years ago. Also I am pleased to see that the majority of poultry breeders are still clinging to the old tried varieties of poultry which is right, while some are trying to boom up some new-fangled variety at a long price. I would say fellow-breeders go slow until they are tried. I am an ardent admirer of geese, and why is it that more don't keep geese, they are profitable for they pay their way every time. What is it that looks any nicer than a flock of geese in a pond of water splashing and diving, how comfortable it makes a person feel when his day's work is done to lay down and rest on a good feather

bed made from your own flock of geese. Now, Mr. Editor, I am afraid that I will weary you in reading these words that I have scribbled together. Wishing you every success.

INDUSTRIAL EXHIBITION.

Some exhibitors in the past have been in the habit of changing an entry or two, or making a few extra entries on their arrival with their birds on the Monday of the show week. We are asked to positively assert that this practice will in no case be allowed this year, as it leads to great confusion in the lists of entries and for various other good reasons.

A GALT READER

writes us, "We have quite a prize list here for the fall show, all the members of the Association gave a special and the Agricultural Society raised their list to forty dollars, so we have quite a large list. We are trying to secure a winter show to be held here for poultry, alone, but I don't think we'll succeed.

FEATHERS.

England, according to *Fowls*, pays about \$575,000 yearly to her foreign neighbors for feathers suitable for making beds they are good enough to send her, and another \$4000,000 or so for ornamental feathers.

FROM ENGLAND TO MANITOBA.

Our English contemporary *Poultry* states in its issue of July 31st, that Mr. G. Bywater, of Louth, had shipped some golden Poland eggs to a breeder in Manitoba. If this should meet the eye of the latter we should be glad to know if any chicks were hatched.

POULTRY

AN ECHO FROM GALT.

PARDON kind reader the presumption of the vain-glorious rooster, and chide not the diffidence of the humble hen. It has in the past few months been revealed that among the many factors that make an enterprising city great the chicken interest in the town of Galt has much to crow over. A few months ago, and in our own little town, the organization of the Galt Poultry and Pet Stock Association was completed, and the following officers duly elected—President, R. Minto; Vice-President, A. McDonald; Secretary-Treasurer, C. Evans. Executive Committee, J. Cramer, Wm. Lovell, Wm. Gives, F. Wolf, and W. Thompson. You will hear of this Association later on at all the big winter poultry shows, for this town contains some of the finest birds in the Dominion. W.L.

A CANADIAN IN ENGLAND.

MR. Geo. G. McCormick writes us from Dungannon, Ireland, under date of August 8th.

I had intended writing to you long before this, giving a little of the poultry news of Great Britain, but circumstances of one kind and another have caused me to put it off.

Mrs. McCormick and myself will sail

D.V. for home, per S. S. Parisian, 14th inst. We have indeed had a grand time, and I have visited the yards of almost every buff Cochin and black Minorca breeder of note in England, from Proctors at Durham in the north clear down to Cornwall, near Lands End, and away to the east. Some of the most noted breeders of those on whom I called are Proctor, Kite-Powell, Scrivens, Mogridge & Lund, J. T. A. Smith, Mitchell, Riddell, Tomlinson, (oldest B. C. man in England), Bagshaw, Swindell, Wellington, Blanchworth Poultry Farm, Amesbury, Pitt's, Hopkins, Harris, Lady Gwyder, Hon. Lady Anson, Abbott Bros. and others, and I have bought from seven of them, every bird but one pullet having won at some of the leading shows in the country. I send you a copy of *Fowls* giving a description of one pair I bought off Kite Powell and their winnings up to date of issue. One hen I have from Harris, I suppose has done more winning than any other hen in England.

One of the Cochin breeders that is looked up to in America as one of the best, is I consider, one of the poorest, and knows as little about poultry as any man (who calls himself a poultry man) I ever met, and still they have sold poultry at immense prices in America. I would not have given \$100 for all the poultry in the yard and still they ask as high as that many pounds sterling for single specimens. Wonderful the prices paid over here, one cock of Harris' that I admired, was offered me at £30 and was afterward with two hens sold for £100.

Most of the breeders over here are men of means and position, consequently they do not care to sell good birds at small prices. For instance, one hen owned by Mr. Procter, that I wanted and the best hen I saw in England, or ever saw, I offered £20 for,

(\$100.) Mr. P. and I have become quite friendly and he has since told me that he would not sell her in England at any price, I have one of the best, out of say the three best hens in England for which I had to pay pretty well. You will likely see her if she does not play the same trick on me as the most noted hen I had did—died—on very short notice.

I thought of writing up a piece for your journal, but, on account of not being able to speak well of all the breeders and their stock, I decided not to write at all, but if you can pick anything of interest out of this scribble for the REVIEW you are most welcome to it. Of course I know that anything that is published will be of more benefit to me than to yourself.

I have attended some of the shows over here but do not care very much for the way things are done. The shows are often held under poor tents where, when the rain comes down pretty steady it comes through and then what slush there is, birds and people wet to the skin. And I have seen as much or more faulty judging in a show here as I ever saw in America. "There is none perfect, no not one." Birds are seldom handled in this country in the show pen, and undercolor is hardly ever mentioned. They look more to shape, style, uniformity of color, etc., etc. Another thing I have noticed at shows here is that you do not see as many poor specimens as at some of our shows. Some of our American breeds are poorly represented, such as P. Rocks, white and barred, Wyandottes very few of any kind, also very few Polands but they are well to the front in Hamburgs of all kinds, Dorkings, buff and partridge Cochins (not up to America in whites), Minorcas and Langshans. The much talked of Orpington I consider nothing more or less than an un-

dersized Java of poor quality. Not as many Bantams shown here as at our shows. Early chicks are not plentiful here this season, but I have seen a few very forward at some of the shows and in some of the yards I noticed in one of the most noted yards that the chicks had no water or drink of any kind and when I spoke of it the proprietor said that he never gave his chicks any water as he thought they were better without it. I would not advise any body in our country to try it, I can understand how they might live here where there is so much rain, but not so with us. Speaking of shows, I think they have far too many, I do not think there is one week in the whole year but what there is one or more, and the breeders often keep showing their birds from place to place until they are completely used up. Exhibitors do not usually accompany their birds or even attend the shows, unless a few who are very convenient to place of show. I have written these few lines hurriedly on my lap and I hope you will read them without much trouble. I hope to see you now before long.

THE BLACK JAVA.

BY J. E. MEYER, KOSSUTH.

THIS breed of fowls has received comparatively little notice through our Canadian poultry papers. Why a fowl of such undisputed excellence should not receive more notice, I cannot say, unless it is owing to the extreme modesty of their breeders.

The origin of the Java is wrapped in mystery. They are generally supposed to have been originally introduced into the United States from the Island of Java at some unknown time. Let their past history be what it will, they are beyond question a distinct breed of

fowls, breeding remarkably true to type and color and showing no admixture of foreign blood.

In color, they are a beautiful metallic black, with a nice greenish tinge. The comb, wattles and earlobes are red, or should be red, although the earlobes often become partly white, which, however, is no disqualification. The head is small and neat; comb single, and of medium size; legs dark, and bare of feathers, and his carriage is majestic, making altogether a bird of great beauty.

As table fowls, they are hard to surpass. They have long, deep, compact bodies very full in the breast. The chickens grow rapidly, early becoming ready to kill. They always weigh heavier than you would expect, when looking at them. Their skin is a beautiful yellow, and meat fine and juicy. They are very active and need little feed when they can roam through fields. They bear confinement well, but require to be fed carefully when confined as they quickly become too fat. They lay fine, large, yellow eggs and plenty of them both summer and winter. They make capital mothers from whom cats and dogs soon learn to keep a safe distance. When you do not wish them to hatch, you should remove them from the nest as soon as they become broody, and shut them up for a few days. Putting the broody Java under water until nearly drowned, tying her up by the leg or kicking her, will do very little towards curing her. I trust no one in this age will do such unmanly things.

The Java I always found very easily handled. They like to be petted, in fact.

In conclusion, I must say that I feel certain that the black Java has a great future before it, because it is of such great beauty with so many good qualities, counterbalanced by so few bad ones, that no fancier who becomes acquainted with them can help but like

them. As a general purpose fowl, I am bound to say, after breeding them for five years besides many other varieties, that I am convinced that they have very few equals and fewer superiors.

(All Rights Reserved.)

POULTRY BREEDING.

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

No. 9.

EFFECTS OF ENVIRONMENT.

IT is a mooted question how far environment is responsible for variation. Most scientists are inclined to allow to it some effect, but they differ in respect to the amount. By environment is meant, of course, the surrounding influences, whether of climate, situation, soil or food, a term of very broad significance even if of somewhat indefinite definition. If environment causes, in any degree, variation, then environment is a factor in breeding not to be overlooked, I think it has some effect upon variation.

Climate, for example, has an effect upon size. In very cold climates there is a tendency to dwarf living things. Breeders make use of this tendency when they hatch Bantams late in the season that they may be dwarfed by the cold of winter. Of course, skill can overcome any such result by artificial means, such as early hatching, forcing the growth during the warm months of the year and providing a temperature that is tempered by artificial heat. In warm climates there is a tendency to increase the size of combs and it is suspected that nice combs of the Mediterranean breeds are a natural product of the mild climate of the countries

bordering on this sea. In various other ways climate probably affects the breeding of our fowls.

Situation, in like manner, may have something to do with variation. Certainly situation has much to do with climate, with heat and cold, with moisture and dryness, with the conditions which favor or retard the growth of fowls and their development. Again soil is a problem which enters materially into the production of color. A sandy or granite soil is best adapted to the production of white fowls or fowls whose main color is white, while soils impregnated with iron are more suited to the production of the rich red that adorns fowls of the black red type. Not only is this true of outward staining, but it seems to be taken into the blood, forming a pigment that colors the plumage, just as K. N. fed canaries are made of a richer color by the food which is given to them.

In like manner food affects growth, an abundance causing a large size, a scarcity decreasing the size. Abundance of food is also thought to cause feathering upon shanks and toes in varieties which are naturally clean limbed. It is certain that the clean limbed Game, the Leghorn and the Game Bantam are sometimes slightly feathered on shanks or between the toes where there is every reason to believe absolute purity of blood exists, and if abundance of food really does cause this appearance we have a reasonable explanation with which to disabuse our minds of a suspicion of a cross when we happen to have a bird with these undesirable markings. Food is also believed to cause considerable difference in coloring. Wheat, for example, is believed to be the very best food for the production of a rich buff in fowls, while other grains are thought to be better suited to fowls of other colors. One season I placed eggs from the same pen of fowls in the hands of dif-

ferent rearers. From one I received very large, well marked chickens in the fall; from another chickens a trifle smaller and about equal in markings; from the third, chickens scrawny in size and wretched in coloring; and from the fourth, a mere lad who reared a few that had the waste from the table and the run of a vegetable garden chickens exquisite in color and mark- and admirable in size. Environment, in its largest sense made the difference, a difference so marked between the poorest and the best that it seemed impossible that the chickens had the same parentage.

Environment, then, is a factor in breeding worthy of studying, for it will enable us to select the variety best adapted to our climate, position, soil and food, and will assist us in rearing the best specimens of the variety selected. While in all environments we can raise excellent specimens of any variety, in some environments we can more easily raise more excellent specimens of a given variety than in others. I believe the pea-combed breeds, the Brahmas, the pea-combed barred and white Plymouth Rocks, the buff Watchmoks and the Indian Games, for example, are well adapted for a climate like Canada and the more northern of the United States, while the high single combed varieties, such as Leghorns, Minorca and Spanish, are better adapted to the warm climate of the southern and Pacific Coast States. All varieties can be reared everywhere, but the varieties best adapted to the environment can be the most successfully bred with the least effort. In the latter case one is working with nature, is having the current and the breeze in his favor, while in the other he is working against nature and has to pull up stream with a head wind against him. This is a subject not sufficiently considered in the selection of a variety, but when competition becomes severe enough, when the margin of profit grows sufficiently small, it will be a fact that cannot be overlooked without loss.

THE BUFF LEGHORN CLUB.

SPRINGFIELD, MASS., Aug. 11, 1891.

Editor Review:—

AT the meeting of the buff Leghorn breeders at Oswego, N.Y., Aug. 7th, it was decided to form a club, to protect this variety from snide breeders that are sending out eggs from common barn-yard fowls, and selling them for the true buff Leghorns.

The following officers were elected: President, Dr. E. A. Sheldon, Oswego, N.Y.; Vice-Presidents, Aug. D. Arnold, Dillsburg, Pa., Dr. C. T. Wiant, Marion, O., W. P. Williams, Geneva, N.Y., M. C. Jackson, Denver, Col., G. W. Randolph, Palmyra, N.Y., C. J. Daniels, Toronto, Can.; Secretary and Treasurer, A. W. Gardiner, Springfield, Mass.; Executive Committee, Rev. A. J. Brown, Oswego, N.Y., Aug. D. Arnold, G. W. Randolph. The following Rules were adopted:

Rule 1. That this society be known as The American Buff Leghorn Club.

2. That the object of this society, shall be to promote the perfection of the buff Leghorn fowl. And the protection of both breeders and purchasers of this variety.

3. That to promote the above object, as many and as liberal prizes as the funds will permit, be offered for the competition of the members of the club, at such leading shows as the Executive Committee may determine, and that a notification of such shows be sent to each member.

4. That the Executive Committee shall be empowered to present to the Society, such rules and changes as to them may seem advisable, and that a majority of the members present have power to act upon their suggestions.

5. That the power of admitting members shall be vested with the Executive Committee and shall be by ballot; two adverse votes to exclude.

6. That the annual membership fee shall be one dollar, payable to the Secretary at the time of election, and one dollar thereafter shall be due and payable on the first day of January of each and every year, and upon the failure to pay for three months after the same shall become due and payable, and after receiving due notice, such members in arrears shall be considered suspended for non payment, and his or her name erased from the Register of Members, which said register shall be kept by the Secretary, and shall be the record of the membership of the Club.

7. That any member who, in the opinion of the Executive Committee, behaves dishonorably, may be expelled by a two-thirds vote of said committee, but not until said member has had an opportunity to defend himself.

8. Any person may become a life member, subject to Rule 5, upon the payment of the sum of five dollars at the time of joining the Club, or at any time after becoming a member, but such sum shall not include any previous amounts paid.

9. That cards of membership be signed by the President and Secretary and supplied to the members as vouchers of the same.

10. That members wishing to compete for the Club prizes do enter their names and pay their fees etc., through the Secretary.

11. That all members shall make a report to the Secretary of all prizes won, and also the score, date of show, and by whom judged. The Secretary to keep a correct account of the same.

12. That one meeting be held yearly, to be called the Annual Meeting, for election of officers, passing of accounts,

etc., the date and place to be fixed by the Executive Committee.

13. That the Secretary shall enter into a book, the minutes of all committee or other meetings, together with the names of the members attending the same.

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

15. That members of the Executive Committee be permitted to vote by proxy when necessary.

16. 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.

17. That the Executive Committee have power to call a Special meeting at any time, should emergencies require it. By the directions of the Society.

A. W. GARDINER, Secretary.

GOLDEN-SPANGLED HAMBURGHS.

BY DAVID KIDD, CARNOUSTIE,

In Scottish Fancier.

WE look upon the golden-spangled Hamburg as the most beautiful of all the varieties of the Hamburg tribe. Non-fanciers, seeing a good specimen for the first time, are struck with its extreme beauty of colour and gracefulness of carriage. Its beauty lies not in gaudy colouring, but mainly in the subtle contrast of only two colors—golden bay and glossy green. The sight of a dozen golden spangles disporting themselves upon a lawn on a summer day is one not soon to be forgotten. There is an indescribable charm in the iridescent lustre of the plumage of the birds, especially of the hens, as seen in the sunshine.

From almost every point of view, golden spangles have improved immensely during the last ten or twelve years. The cocks then were much coarser in their head points, and their

colour and markings were not so good. At the present time, one seldom sees a bird in the show pen with the heavy comb, stained earlobes, excessively dark neck hackle, or laced breast, which were common enough a decade back. The hens, too, were not so good then as now. Not so very many years ago many of the hens had the small crescentic spangling which is so much to be avoided, and which is now seldom seen. Nowadays the breeder aims at producing pullets with as large round moons as possible. Altogether we are firmly of opinion that no other variety of the Hamburg family can show such an improvement as has been effected in the golden spangles within recent years.

Our ideas with respect to some of the more prominent points of the golden-spangled cock are as follows:—The comb, to which, so far as the head points are concerned, the first and chief attention is given, should be wedge-shaped, not large, square at front, level above, and should taper into a long, upward-inclining spike or leader. It should be full of natural work or points, but it is only too apparent at many shows that many of these points are often cut off with the view of giving the comb a neater appearance. This is a practice which we are strongly of opinion our judges should sternly set their faces against, even though they should have to use the strong lever of disqualification. It is principally on the combs of the Hamburgs that the cruel ingenuity of the "faker" and "trimmer" are exercised; but if our judges would only put the seal of their disapproval of such devices by more frequently making use of the card bearing the dreaded word "disqualified," we should see less evidence of cut combs, &c., at our shows. May the good day speedily come! The face and wattles should be a bright red. The deaf ears or lobes should be mod-

erate in size (varying so as to correspond with the size of the birds), and as round as possible. The colour of the lobes should be a pure glossy white, and they should lie flat on the face without tuck or fold. Any trace of red in the earlobes is a serious blemish. The ground colour of the bird should be a deep, golden bay, very bright and rich, while the spangling, striping, and tail feathers should be a black glossy green. The plumage, especially that of the tail, should be full and flowing. The tail feathers should be as full and broad as possible. Of late we have been sorry to notice a tendency to exhibit cocks with rather sparsely furnished tails. Birds so exhibited look rather mean and bare. The hackles should be of as uniform a shade of dark orange colour as possible, and each feather should be finely marked with glossy black stripes; a light straw-coloured hackle is very objectionable. Many cocks are too heavily marked on the neck hackle, which causes a black ring to appear right round the neck. The spangling should be bold and regular. A great fault is a laced breast; the lighter marked birds mostly display a tendency this way. These birds show the ground colour very distinctly, and many of our judges put them in the prize list; but we prefer the darker birds—though they do not show the ground colour so well—for the reason that they are spangled. The bars and stepping should also be bold and regular. The legs, like all the other varieties, should be of a slatey blue colour. The carriage of a golden-spangled cock is at once graceful and dignified—not smart and sprightly like that of the pencils.

A really good golden-spangled hen is, we think, the most beautiful of all the Hamburgs. Her deep golden-bay ground colour, her big glossy green spangles, and her graceful, active carriage, arrest the attention of everyone

having the least eye for the beautiful. The comb should be small and firmly set on the head, the face and wattles bright red, and the earlobes white, round, and fine, and showing no trace of red. As, however, many of the hens only come into their full beauty of plumage as they advance in years, the neat, white earlobes of the pullet are often wanting in some of the very best specimens exhibited. The hackles should be of a deep orange colour, finely marked with glossy black stripes; as in the case of cocks, a light straw colour is to be avoided. The ground colour should be a deep golden bay, and the spangles, which should be round, large, and regular, should be of as glossy a black-green as possible. The tail feathers should be a glossy black colour. The small half-moon spangling, which was so often seen on golden-spangled hens not many years ago, is fast disappearing, and the large, round spangling taking its place. Nearly all golden-spangles, both cocks and hens, show white tips more or less on the points of their feathers. This is a serious blemish and efforts should be made to breed it out. A good many birds show these white tips after moulting, but it often gradually disappears. Another fault seen on otherwise good birds is a tendency to show bars of a bronze or purple colour running through the tail feathers and spangles.

We have not left ourselves space to say anything regarding breeding, further than that two breeding pens are almost indispensable—one for breeding cockerels, and another for breeding pullets. Inbreeding, if judiciously done, will not do a great deal of harm, but if it is persisted in, without introducing a change of blood now and again, much harm will be the result. For one thing, size will be lost. Of late we have noticed that a good many birds have been exhibited which lacked the size and

vigour which go far to command attention in the show pen, and this we attribute to excessive inbreeding. When introducing a change of blood, great care must be exercised in getting a really good bird of a reliable and well established strain, otherwise the result of years of patient and systematic breeding may be lost. We believe that nearly all breeders can testify to the truth of this by experience. The golden-spangled hens, we must confess, are not so good layers as some of the other varieties of Hamburgs, but we know some people—true fanciers they are—who keep them simply for the pleasure they derive from looking at them, and they seldom exhibit them.

STRATFORD FALL SHOW.

NOTICING in the REVIEW a report of what Montreal is doing in the poultry line, I thought I would let you know how things are going up this way.

The directors of our fall show have at last awoke and are giving poultry the place it should have in our show. They are putting up a poultry house 20 ft. by 40 ft., and are furnishing it with coops with wire fronts. Instead of a one day's show as before we are to have two days. The prize-list has been revised and is now as good as most of the lists in the winter shows with the exception that the birds are to be shown in pairs. The prizes which were formerly 60c for first and 30c for second prize are now \$1.00 and 50c, and an entrance fee of 10c. a pair is to be charged.

We are now ready for any breeders who may come along, and I can guarantee that both they and their birds will be well treated. I hope the breeders in the west will help us by bringing their birds and thus give us a good big show.

Yours truly, E. B. CALE.
Stratford, Aug. 12th, 1891.

ORPINGTONS.

TWO correspondents complain that, though these birds are receiving attention in other journals in America the REVIEW is silent on the subject. This is not the truth of the case, as a matter of fact the REVIEW was the first paper in America to illustrate the breed. The pair on our frontispiece were owned by the originator of the variety, Mr. W. Cook, and the engraving appeared originally in *Poultry*.

RANDOM NOTES.

BY BLACK WYANDOT

“WHITE Wonder Fowls” is the name of a new breed now being pushed by a Vermont breeder. From the published cut I would call them a white Wyandotte—white Cochin cross. The weight the originator claims—“males 10 to 12 pounds” strongly indicates the presence of Asiatic blood in goodly quantities. They seem to resemble white Cochins very much with exception of having rose combs and shanks only thinly feathered.

Corn and wheat promise to be so high that breeders should look around for some more economical feed to take the place of these staples. Oats ground with screenings, say two bushels oats to one bushel screenings, makes a good feed and is not too fattening too feed Asiatics. Also lay up plenty of short-cut clover for winter use. It would be splendid scalded and mixed with above meal and is a good egg producing food.

It is time to begin providing for winter trade. I am making up a sup-

ply of shipping coops, all sizes. It is no fun to make a shipping coop in zero weather unless one has a warm shop to work in—which is a luxury many cannot avail themselves of. It is a good idea to have coops ready made for winter, and an experienced breeder knows about what size he will need. He wants a good supply of coops suitable for one fowl and for that purpose I prefer the “cheese box coop” which has frequently been illustrated in the poultry papers, as it is light, neat, and being round is not likely to soil the fowl’s plumage. The berry crates used for shipping all sorts small fruits make good bottoms for coops of proper size for three fowls. They are made of light pine, about 18 inches by two feet. They can be purchased at low prices as grocery-men usually have a lot left from the season’s fruit trade. I usually buy a tier of five for twenty-five cents. It is a great object to make all coops a slight as possible consistent with strength, and also make them neat and business-like in appearance.

NEW HAMBURG ASSOCIATION.

A MEETING of the New Hamburg Poultry Association was held at the Queen’s hotel on Monday Aug. 10th, 1891. Present, L. G. Pequegnat, C. F. Ernst, F. Goebel, T. Sterling, A. Fraser, T. D. Allin, D. Ritz, and John Schuler. It was moved by F. Goebel, seconded by J. Schuler, that we hold our Poultry Exhibition on January 12th, 13th and 14th, 1892.—Moved by F. Goebel, seconded by T. Sterling, that L. G. Pequegnat be a delegate to the Toronto Exhibition and meet other poultry men there—Moved by F. Goebel seconded by J. Schuler, that Chas. F. Ernst represent the Association in

Montreal at the Fall Exhibition there. Owing to the satisfactory result of the great success the Association had with their show last year, the directors are putting forth energetic efforts to make this year’s a grander exhibition than the one last season, From \$800 to \$1,000 will be paid in prizes.

STRAY FEATHERS.

PLUCKED FROM REVIEW EXCHANGES.

THE question has been often asked why some hens lay pale colored yolks. This may be due to two causes. First, some hens naturally lay eggs with pale yolks, just as some cows’ milk makes pale cream and butter. Secondly, the absence of grass, green food, and other material deficient in rich coloring matter, have something to do with it. Observations of pullets from the same brood, raised in cities, showed the yolks of their eggs were much paler in color than those of their sisters raised on the run of a farm.—*Ohio Poultry Journal*.

Referring to ducklings, several people say that ducks do not pay. Mostly where this complaint is made it is by those who keep a few for their own table use and do not commence killing them until they are about ten weeks old, so that those which are left till last have begun shedding their feathers; consequently they have to be kept till they are about 16 weeks old before they are fit to be killed. Ducklings for table should never be kept more than 11 or 12 weeks.

A person cannot make young ducks pay in confined runs when he has to buy all the food and keep them till they are from 16 to 18 weeks old. It

is not only a waste of time but the ducklings are no better at 18 weeks than at 10, and very often not as good, as they do not weigh as much. When they are not killed at the age mentioned they undergo a moult and therefore get quite out of condition.

When ducks are being reared expressly for the table the owner should begin to kill the best at about eight weeks old, gradually reducing his stock, taking care the last ones are dispatched before they are twelve weeks old.

Many hop growers are beginning to turn ducklings down in their hop gardens. This is wise, because the birds are able to get more than half their living.

Old birds are now commencing to drop into moult and every care should be taken of them, else the breeding season of next year may be affected by the production of weakly chickens.

Says one of our foreign exchanges, it is surprising how many breeders will keep on sending their birds from show to show during the summer, when the birds are getting into moult. Such as these never think for a moment that they are undermining the bird's constitution and diminishing the chance of successful stock-getting.

The love of gaining a few extra prizes or two thrusts aside all other considerations and the future is not anticipated. Should a purchaser come along with a well lined purse, the bird is sold on the merits of its performances, but, alas, the buyer next season has just cause to rue the day that he threw his money away on a speci-

men that is useless as a propagator of its race.

If the birds were allowed a rest when they first show signs of distress or going out of condition and instead of being nursed up and given tonics to keep them in form, nature were permitted to take its course, the fertility of the coming season's eggs would be very greatly increased.

And so it is with the poor birds—rest and quietude is absolutely requisite for them. Many may say "give us a short life and a merry one," but on consideration is not a long life with every chance of future success of the offspring more honorable.

These remarks may be thought by some to be uncalled for and too strong but if they had been in our place and visited show after show and seen the same beautiful specimens getting more and more worn out, they would hold the same opinion as ourselves.—*American Stock Keeper*.

A foreign correspondent of *Poultry* writes about what he calls Kaffir fowls. Though I can scarcely pose as a Poultry fancier, as my experience of them has been of a very limited character, I would like to mention two breeds which have lately come before my notice, and which I believe are purely local (South African) varieties. The first of these, which I will call the Basuto Fowl, is reported to be a very good layer, and in the hands of English fanciers could, I believe, be developed into a really first class "all round" fowl. Its greatest peculiarity is that, like the Guinea Pig and Manx Cat, it has no tail, or at any rate a very minute one. The first time I saw these birds I thought that their tails had been drawn,

but I soon found out that they were naturally a tailless breed. In size they are about as large as an Old English Game fowl, and have the same bold upright carriage and good broad chests, capable of carrying a considerable amount of flesh. They are, as a rule, either single or rose-combed, but whichever sort it happens to be it is ways small. In colour they are generally black, or black with a few red and yellow feathers on their shoulders and in their hackles, but I have seen several very fair black reds, brown reds, and one remarkably pretty wheaten pullet. Their deaf ears are fairly large, round and white, or white slightly tinged with red. They are a very active and sprightly variety, and in my opinion are just the sort of birds that would be taken up by English fanciers, and with a little careful breeding could be turned into an extremely useful fowl indeed.

The second breed is also very quaint and ugly, but is a remarkably good table fowl. I have not found out their name, but believe they are also a purely local breed. Their chief peculiarity is the extreme shortness of their legs. In make, they are a medium sized fowl, that is to say they look so, but when taken in the hands one finds out at once that in reality they are much larger than they appear to be, and carry a very fair amount of flesh. They are rather long in body, and their very short legs make them appear much longer than they really are. In color they are generally black, brown, buff, or mottled, though I have seen one or two marked like silver grey Dorkings. Their combs are of medium size, single and their face red. They are fairly good layers, excellent mothers, but their eggs, which are white, are generally rather small.

I have mentioned these two breeds as they are new to me, and I thought

that a description of them might interest some of your readers. Perhaps I have only found a "mare's nest," and these two breeds are already known in the poultry world, but if they are I trust that your readers will excuse my ignorance and let me down lightly.

The universal topic among the poultrymen at the present time seems to be whether or no green bone is profitable to feed. I am quite extensively engaged in the poultry business, and when the matter came under my consideration, I decided to give it a trial, and see for myself. I selected a pen of 100 Brahma hens, procured a bone-cutter, and went to work. The result was, my number of eggs was increased more than half, the 100 hens laying only a few short of 1800 eggs during the month of February 1891, thus proving that the bone as an egg producer alone was invaluable. But in order to find whether the only advantage was in the increase of eggs, I concluded to test the matter still further, and placed some of the eggs mentioned in an incubator, directly beside others where no bone had been fed. The result there was equally as favorable. Many of the eggs where no bone had been fed, proved infertile, while others started and died at all stages. But not so where the bone had done its work. Ninety per cent of the eggs brought out strong chicks. I have tried green bone to my entire satisfaction, and feel that I can recommend it to others.—F. R. York in *Farm Poultry*.

THE FEEDING OF FOWLS.

ALATE copy of *Science* contains the following interesting article on the above subject.

On July 2nd, 1889, ten Plymouth Rock hens, one year old, and as nearly as possible of uni-

form size, were selected from a flock of thirty-five. At the same time ten chickens, hatched from the same hens mated with a Plymouth Rock cock, were similarly chosen. The chickens were about six weeks old, healthy and vigorous, and of nearly the same size. Up to the time of purchase, both hens and chickens had full run of the farm. The hens forged for themselves, and were given no food. The chickens had been fed corn-meal dough, sour milk, and table-scrap.

A preliminary feeding-trial was continued for twenty-five days, during which time both hens and chickens were confined all together in a fairly well-lighted and ventilated room, and fed a great variety of food, in order that all should go into the feeding-trial as nearly as possible in the same condition. During this preliminary feeding, both hens and chickens increased in live weight,—the ten hens from a total of 44 pounds 12 ounces to 47 pounds 1.5 ounces, or 3.75 ounces each, laying 93 eggs; the chickens, from a total of 9 pounds 15 ounces to 18 pounds, or 12.9 ounces each.

Food, shells, and water were kept constantly before the fowls. Basins which contained the food and water were kept within a box constructed of lath, so arranged that the fowls could reach between the slats and procure food and drink without wasting or soiling.

July 26th, the hens and chickens were each separated into two lots of five each, as follows: hens, nitrogenous ration, weighed 23 pounds 8.5 ounces; hens, carbonaceous ration, weighed 23 pounds 9 ounces; chickens, nitrogenous ration, weighed 8 pounds 15 ounces; chickens, carbonaceous ration, weighed 9 pounds 1 ounce.

The four lots were placed in separate pens, where they remained during the entire experiment, which lasted one hundred and twenty-five days. They

were fed and watered once daily, and an account kept of the food eaten and water drunk. At each feeding the food and water remaining was weighed back, and deducted from the amount charged at the previous feeding.

The hens and chickens fed a nitrogenous ration were given daily all they would eat of the following mixture,—one-third part wheat-bran, one-third part wheat-sorts, one-third part cottonseed-meal, two parts skimmed milk,—and will be designated Lot I.

The hens and chickens fed a carbonaceous ration were given daily all they would eat of a ration of cracked maize and maize dough, and will be designated Lot II.

Both groups were given a small amount of green clover as long as it lasted, and afterward cabbage.

For convenience the experiment was divided into five periods of twenty-five days.

During the first period all the fowls seemed in good health except the carbonaceous fed chicks. They, during this as in all succeeding periods, were restless and peevish, always hopping or hunting for something to eat, though their trough was filled. When fed, they would greedily take a few mouthfuls, and then, with their hunger still unappeased, would leave the dish. They always ate ravenously the green food which was given them, as did the hens and chickens of Lot I. The hens of Lot II., seemed quite willing to squat about the pen and subsist on the maize diet, and, strangely enough, cared little for green food. The clear maize diet was accompanied by such ill effects, that the chickens of each lot, after the first period, were given daily each one-fourth ounce of wheat, and the hens each one ounce. The wheat was increased during the fourth and fifth periods, in the case of the chickens, to one ounce each. During the second period, one of the chickens fed nitrogenous food

and during the third period another of the same lot, were taken ill and removed from the experiment. Both seemed to be suffering from impacted crops, as the stomach and gizzard in each case were found to be empty.

The fact that the sick chickens disliked the nitrogenous ration, and that since the first period the amount of food eaten by the hens and chickens of Lot I. had continually decreased, led to the belief that their food might be too nitrogenous; and, as, during the last days of the third period, one of the hens in Lot I. was also ill, it was decided to discontinue the use of cottonseed meal, and to use linseed-meal instead. The hen recovered soon after the change in food.

At the beginning of the fifth period one-half of the linseed-meal in the ration of Lot I. was removed, and cottonseed-meal substituted. This combination was a happy one, for on this ration both hens and chickens made large gains.

At the end of the experiment little difference could be seen in the hens of the two groups; but the two lots of chickens were in striking contrast. While the chickens fed on nitrogenous food were large, plump, healthy, active and well feathered, the chickens fed on a carbonaceous ration were in general much smaller, sickly, and in several cases almost destitute of feathers. Two of them had perfectly bare backs, and so ravenous were they for flesh and blood that they began eating one another.

The inability of the chickens fed on a carbonaceous diet to throw out new feathers, and the ability of the chickens fed on a nitrogenous diet to grow an enormous coat of feathers, is a splendid illustration of the effect of the composition of the food in supplying certain requirements of animal growth. It was plain to see that maize, even when assisted by a small amount of wheat

and green clover, could not supply sufficient nitrogen for the growth of feathers.

While both lots of hens lost weight during the experiment, the loss was slightly greater with those fed nitrogenous food, but these produced by far the most eggs.

The chickens fed on nitrogenous food just about doubled in weight, while those fed on carbonaceous food only added about one-third to their weight.

During the first week the carbonaceous fed hens laid three eggs, while the others laid two. The two groups were therefore practically evenly divided at the start as to the condition of the laying stage. At the end of the first period the nitrogenous fed hens had laid forty-three eggs, and the carbonaceous fed hens had laid twenty. During the next twenty-five days the former laid thirty and the latter six. During the third period the former laid six, and the latter not any. From this time on, no eggs were received from either group. The decline in egg-production was probably due in large part to the fact that the hens began to moult during the second period, and continued to do so during the rest of the experiment.

The eggs laid by the nitrogenous fed hens were of small size, having a disagreeable flavor and smell, watery albumen, an especially small, dark coloured yolk with a tender vitelline membrane, which turned black after being kept several weeks; while the eggs of the carbonaceous fed hens were large, of fine flavour, of natural smell, large normal albumen, an especially large rich yellow yolk, with strong vitelline membrane, which was perfectly preserved after being kept for weeks in the same brine with the other eggs.

Samples of the eggs from each lot of fowls were privately marked, and sold to a boarding-house where the cook did not know that the eggs were undergoing a test. On meeting the cook several

days later, the following words were heard: "Do you expect me to cook such eggs as these? About every other one is spoiled."

On examination of the ovaries after slaughtering, it was found that in the case of one of the carbonaceous fed hens the ovules were in a more advanced stage, but, on the whole, the nitrogenous fed hens were much nearer the laying period. With this single exception, the cluster of ovules in the carbonaceous fed hens were uniformly small. Neither group would have laid under any probability for several weeks. It would seem from these facts, together with the fact that during the experiment the nitrogenous fed hens laid more than three times as many eggs, that a nitrogenous ration stimulates egg-production.

On Nov. 26th the fowls were slaughtered. Each fowl was weighed, wrapped in a bag to prevent floundering, and killed by severing an artery in the roof of the mouth. The blood was caught in a glass jar. The fowls were then picked and the feathers weighed, after which the body was laid open longitudinally by cutting alongside the sternum and through the back-bone. When all had been thus prepared, they were hung up in groups to be photographed, but the photographs were quite unsatisfactory so far as showing the relative proportions of fat and lean.

One half of each fowl was tested by cooking for flavor, succulence and tenderness, the other half was carefully prepared for chemical analysis by separating the meat from the bones. The flesh was thoroughly mixed and run through a sausage-cutter, mixed again, and the process repeated three times. From different parts of this mixture a large sample was taken, from which the chemist took his samples for analysis. The right tibia of each fowl was tested for strength by placing it across two parallel bars and suspending a wire on

its centre on which were placed small weights until the bone gave way.

Dressed Weight, Internal Organs, etc.

CHICKENS		HENS	
Lot I. Nitrogenous	Lot II. Carbonaceous	Lot I. Nitrogenous	Lot II. Carbonaceous
21.31	22.00	17.80	12.63
14.86	15.09	12.01	8.63
69.70	68.60	67.10	70.50
		.75	.66
		1.41	1.28
		.59	1.98
		3.70	3.02
		3.47	3.63
		11.39	11.47
		8.93	6.20

The breaking strain of the right tibia was as follows for the hens and chickens of the various lots:—

Average, hens, nitrogenous.....	48.16
Average, hens, carbonaceous ...	51.74
Average, chickens, nitrogenous.	46.64
Average, chickens, carbonaceous.	31.18

There was little difference in the strength of the bones of the hens, undoubtedly because the bones were mature before the feeding began, and were little affected by the feeding. We find, however, that the bones of the chickens fed on nitrogenous food were almost fifty per cent (49.6) stronger than those fed carbonaceous food.

The flesh of each group was submitted to a number of persons for a cooking test, and the almost unanimous verdict was that the flesh of the fowls

fed a nitrogenous ration was darker colored, more succulent, more tender and better flavored, though on this last there was some difference of opinion.

So far as it is warrantable to draw any conclusions from a single experiment of this kind, it would seem that chickens fed on an exclusive corn diet will not make a satisfactory development, particularly of feathers; that the bones of chickens fed upon a nitrogenous ration are fifty per cent stronger than those fed upon a carbonaceous ration; that hens fed on a nitrogenous ration lay many more eggs, but of smaller size and poorer quality, than those fed exclusively on corn; that hens fed on corn, while not suffering in general health, become sluggish, deposit large masses of fat on the internal organs, and lay a few eggs of large size and excellent quality; and that the flesh of nitrogenous fed fowls contains more albuminoids and less fat than those fed on a carbonaceous ration, and is darker coloured, juicier, and tenderer.

BARRIE POULTRY ASSOCIATION.

THE regular meeting of the Barrie Poultry, Pigeon and Pet Stock Association was held at the residence of Mr. Love on Monday, Aug. 3rd.

The President, Mr. Love, called the meeting to order, and the minutes of the last meeting were read and confirmed.

There was a good attendance of members present. No business of special importance was transacted.

The meeting then adjourned till the first Monday in Sept.

W. L. MITCHELL,
Sec'y.

P.S.—Look for Barrie poultry department in this issue of REVIEW.

MONTREAL EXHIBITION.

BY the time this is in print the entries will have closed for the fall exhibition, and we trust the Exposition Company will be rewarded for their liberality in the prize list, as well as their endeavors to have everything complete and satisfactory, by having a very large number of entries of poultry and pigeons. We trust that the entries will be more than local, and that both east and west will be largely represented by the leading fanciers. It is to be hoped that the competition will be keen in all classes. The poultry house has been enlarged and will provide ample accommodation for every exhibit, and the light has been so arranged that in all parts of the building the birds will be able to be seen by visitors. We trust that in the next number of the REVIEW we shall be able to report that it has been the largest fall exhibition ever seen in Montreal. We would again remind our readers that all communications in regard to the care of the birds should be addressed to the Superintendent, G. C. Philpott, at the Exhibition Grounds, or 303 S. Charles Barronee Street. MONTREAL.

EASTERN ONTARIO POULTRY ASSOCIATION.

A GENERAL meeting of this Association was held in the office of the Central Canada Fair, on Monday evening, August 24th.

The date of the annual show was fixed for the 3rd week in January.

Thos. H. Smelt of Woodstock, was appointed judge on poultry.

It was decided to hold the annual meeting for the election of officers on Wednesday, Sept. 30th at 8 o'clock, in

the City Hall, as the Central Canada Fair will be going on at that time, it is expected that a large number will be present.

ALFRED GEDDES,
Secretary.

COLLINGWOOD FAIR

Editor Review,—

IT is with much pleasure that I have to inform you that the poultry committee have been granted a sum of money to furnish coops and arrange for the exhibit of poultry in the machinery hall of the Great Northwestern Exhibition. This building is 110 feet long and 35 feet wide, with two wings attached and plenty of good light and ventilation. Every effort will be made to make this year's the grandest exhibition ever held. Mr. Sharp Butterfield is expected to officiate as judge.

We are using the sizes for coops you sent me some time ago. Many thanks for your kind assistance. Hoping to have the pleasure of a visit from you at our coming exhibition.

HY. FOREMAN.

Collingwood.

(We congratulate our northern friends on their enterprise.—ED.)



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.

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.

THE PEOPLE'S HORSE, CATTLE, SHEEP AND SWINE DOCTOR.—Containing in four parts clear and concise descriptions of the diseases of the representative animals, with the exact doses of medicine for each. Edited by WILLIAM H. CLARKE. Illustrated. Extra cloth binding. Price \$1. M. T. RICHARDSON, Publisher, New York.

A book on diseases of domestic animals, which should present a description of each disease and name, the proper medicines for treatment in such condensed form as to be within the means of everybody, has long been recognized as a desideratum. The work before us appears to cover the work completely. The information is arranged so as to be easily accessible—an important consideration. Each disease is first described, then follows the symptoms by which it may be recognized, and lastly is given the proper remedies. The different medicines employed in all diseases are described and the doses required are given. The book is copiously illustrated, including engravings showing the shapes of horses' teeth at different ages. An elaborate index is a valuable feature.

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., 131 King St. W., Toronto, Ont



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.

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 Mos.	6 Mos.	12 Mos.
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.....	7 00	10 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, \$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 per 26.

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