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BUFF CÔCHIN PULLET.

First at Crystal Palace and Birmingham, 1891. Sold for \$100.

THE CANADIAN POULTRY REVIEW

DEVOTED TO POULTRY, IN ALL ITS BRANCHES

PUBLISHED BY H. B. DONOVAN.

VOL. XV.

58½ VICTORIA STREET, TORONTO, AUGUST, 1892.

No. 8.

NOTES AND COMMENTS

A REVISED AND ENLARGED EDITION

OF that useful, little work, "Five Hundred Questions and Answers," has been issued by the *Fanciers' Review*, Chatham, N. Y. Much valuable matter has been added, and it has been revised right up to date.

DR. J. S. NIVEN, LONDON, asks us to thank Mr. Daniels for the way in which he treated him regarding the special he won on Red Caps at the Ontario. The special, a patent rocking-chair, pleases him greatly.

"HONOR TO WHOM HONOR IS DUE."

If the English *Fanciers' Gazette* will look at the portion of Mr. Bragg's article in June REVIEW, it will see it is marked "to be continued." In July issue due acknowledgement was given of the source from which we procured the article. Is an apology not in order?

FOR OUR ILLUSTRATION

in this issue, and also for the article on Cochins, we are indebted to our bright English contemporary, the *Feathered World*. Cochins, especially buffs, are now having such a "look in" in Canada that both portrait and letterpress fit in aptly.

MR. C. J. DANIELS, TORONTO, is to judge at the Central Canada Fair, Ottawa, in September next.

THE OWEN SOUND ASSOCIATION.

A report of the meeting of this Association will be found elsewhere. Mr. Butterfield will judge the next show, the expense of employing an American judge, as in the past, being considered too great.

THE MIDLAND CENTRAL FAIR, KINGSTON, is this year offering a list which should draw the biggest show of poultry ever seen in that city. The schedule is most complete, every variety being catered to and all in single birds, cock, hen, cockerel and pullet, 1st \$1.50, 2nd \$1. Entries close August 27th, the fee for which is 25c. per bird. Mr. Sharp Butterfield, the "one and only" "Sharp" is to judge all classes and Mr. G. S. Oldrieve, the well known breeder acts as Superintendent. Prizes on breeding pens are offered for a fee of \$1, 1st \$3, 2nd \$2.

THE WESTERN FAIR.

We are informed by Secretary Browne that entries are coming in already for the poultry exhibit at this exhibition, which will be held from Sept. 15th to 24th, and that a number of prominent poultry breeders, who have never before shown at London, have signified their intention to do so this year. As an

item of interest to the poultry breeders he also adds that the new building has been thoroughly fitted up with the latest designs of coops and fittings, and those who have seen it pronounce it the best arranged building for exhibition purposes in the Dominion. This, together with the fact that third prizes have been added in all sections, insures for the management a larger and better exhibit in this department than at any previous time. The Live Stock department is one of both personal and pecuniary interest to every farmer, owner and admirer of choice domestic animals. The Dairy exhibit of last year was the most successful ever seen in Canada, and Chairman Mr. J. S. Pearce has again secured the hearty co-operation of the manufacturers, which insures for the Western Fair even a better display of cheese than heretofore.

MR. GEO. G. MCCORMICK, LONDON,

has now one of the best poultry farms on the continent, having purchased Glendale Poultry Farm, consisting of forty acres, just three miles from Mr. McCormick's factory. It is one of the prettiest places in the County of Middlesex. A man and wife have been placed in charge, and Mr. McCormick intends residing on the place himself in summer, still keeping up his town establishment. It is being fitted up in fine style, and on our next visit to London we hope to fully describe it.

POULTRY

LONDON POULTRY AND PET STOCK ASSOCIATION.

REGULAR meeting of the London Poultry and Pet Stock Association was held in their room, Albion Block, on the evening of the 26th inst.

President McNeil in the chair, with a fair attendance of members.

Minutes of last meeting were read and confirmed; accounts from the room committee ordered to be paid.

Mr. McCormick brought up for inspection a sample of the ticket holder that is being adopted by the Western Fair Association for the coops in poultry building. They are to be secured to the sides of projection in front of the coops, so as not to obstruct the view.

Most of the members reported good success with their chickens this season, and are coming along nicely.

Game Fowls were to have been brought up for competition at this meeting, but the owners failed to connect, the warm evening getting in its work on the Game men.

The President promised to have them all dubbed if they so far forgot themselves in the future.

Mr. McLeod and his high station competitors will do well to make a note of this.

Receipts for the evening, \$2.

Adjourned.

R. OKE, Sec'y.

June 22nd, 1892.

Separate the cockerels and pullets now into two flocks, both will grow the better for it

CENTRAL EXPERIMENTAL FARM.

REPORT OF THE POULTRY MANAGER,
MR. A. G. GILBERT.

To WM. SAUNDERS, Esq.,
Director Dominion Experimental
Farms, Ottawa.

SIR,—I have the honour of submitting to you the fourth annual report of the operations of the poultry department for the year ending 29th February, 1892. In the beginning of my report of last year a *formula* was given of a warm stimulating morning ration for winter, but varied so as to suit the Asiatic or Spanish families, for the reason stated "that the generous diet suited to the latter breed would tend to make the former too fat to lay well." The result of the treatment was considered satisfactory, so far as egg production was concerned, but it was thought that a ration just as effective, but a little more economical in its constituents, could be prepared. The importance of a cheap winter ration will be evident, for it is at this season when eggs are high in price—because they are scarce—that the margin of profit is greatest. Eggs are more difficult to obtain because the stock is confined to limited quarters, and they are more expensive to obtain because the layers require a more stimulating diet and more careful attention. Notwithstanding all that has been written on the subject of winter laying, correspondents write, visitors ask the questions: "What is the best method of feeding and caring for fowls in winter, so that I can obtain eggs?" From the North-West a correspondent writes: "Eggs are worth 60c per dozen here in winter. What kind of fowls are best, and how should I feed them to get eggs in paying quantities?" Again, a visitor says: "I can sell all my eggs at 40 cents per dozen in winter, but just as I

am getting them in liberal numbers my fowls begin to lay eggs with soft shells." Another exclaims: "I am very much troubled with my fowls eating their eggs and one another's feathers."

These questions open up the whole subject of the proper winter treatment of laying stock, and they embrace three of the greatest and most discouraging drawbacks to the beginners success in the shape of eggs laid with soft shells, and egg and feather eating. Answers can best be given by describing the rations fed this winter, and the reasons for so feeding, other than that already mentioned.

THE RATIONS OF THE PRESENT WINTER.

The hot morning ration fed during the winter was composed of—

	Lbs. ozs.
Bran	2 8
Shorts	2 8
Ground meat	1 8
Clover hay—steamed and mixed in liberal quantities.	

Salt—very small quantity.

Coarse sand and fine ground oyster shells mixed—about three handfuls.

The whole was mixed with boiling water. Boiled potatoes and turnips were occasionally substituted for the clover hay, for variety in diet is beneficial. The hens did not eat the scalded clover hay when exposed to them by itself, but readily did so when mixed in the soft feed.

The results aimed at in feeding this ration were:—

1. Greater economy by the omission of cornmeal.
2. By supplying lime regularly in soft feed to prevent the laying of eggs with soft shells.
3. By avoiding too generous a diet to prevent the hens from becoming so fat as to lay eggs with soft shells.
4. To avoid, by the omission of cayenne pepper or other condiments, a highly stimulating ration, often the cause of eggs being laid with soft shells or without any shells.

5. To prevent egg-eating, which follows the laying of eggs with soft shells.

6. By the regular feeding of meat and keeping the fowls in active exercise to prevent feather eating, generally caused by the omission of both.

7. To prevent the acquiring of the bad practices named, the cure being very difficult.

8. To furnish the hens, as nearly as possible, with what they can pick up for themselves when running at large outside, such as : insects, in the shape of ground meat ; grit (to aid digestion), in the shape of gravel and broken oyster shells ; lime, in the shape of ground oyster shells ; green stuff, in the shape of clover hay (steamed), cut short and mixed in soft feed, carrots, cabbage, turnips, &c.

At noon, when grain was given, oats were fed in small quantity.

For the afternoon ration wheat was given, with barley (occasionally), mixed in equal quantity. Vegetables, such as carrots, mangels and turnips, were kept always on the floor of the pens. Very little cabbage was fed during the winter.

The rations, as aforementioned, were fed to the following stock in the main building :—

	Pullets	Hens
Plymouth Rocks	11	12
Brahmas	—	10
Langshans	—	4
Buff Cochins	—	8
White Leghorns	10	9
Wyandottes	9	4
Andalusians	8	6

Among this stock will be noticed numerous hens, some of them old hens, so-called because they were over two years, and kept for breeders and sitters during the coming season. As there was no alternative, they were placed with the pullets, a practice to be avoided when possible, for the reason given in report of last year, "that the ration which would go to eggs in the pullets

would likely make the hens too fat to lay."

The effect in eggs of the rations on the pullets and hens is given as follows :—

	From 9th Dec.	Jan.	Feb.
11 Plymouth Rock pullets . .	74	105	50
5 " hens	25	18	15
9 White Leghorn pullets . . .	81	112	124
8 " hens	16	20	18
9 Wyandotte pullets	29	50	99
4 " hens	15	22	15
5 Buff Cochin hens	17	40	22
4 Langshan hens	7	21½	5
8 Brahma hens	4	13	11
9 Houdan Hens		2	10

It may be said that the showing is not a good one for the number of stock, but it must be borne in mind that the feeding was only experimental. The result, however, is striking proof of the great value of pullets over old hens as revenue producers, under the same conditions as to housing, care and feeding. The superiority of young stock over old has long been known to experienced poultry keepers, but the fact is appreciated by comparatively few farmers. The conclusions to be arrived at from the experiments are :—

1. That no hens should be kept over two years. Because, after that age they moult so late that the prospective profit is eaten up before they begin to lay.

2. No soft-shelled eggs were laid by the pullets, showing that they are not as likely to do so as the old stock ; that the daily mixing of coarse sand, fine gravel and sifted oyster shells in small quantities has a preventive tendency.

3. That no eggs nor feathers having been eaten, to date of writing, the regular supply of ground meat mixed in soft feed is to be recommended.

4. A small quantity of salt was mixed daily in the hot morning ration, but as it created looseness among the Brahmas, Cochins and several Plymouth Rock hens, its use was given up.

5. The feeding of vegetables, viz., carrots, mangels, turnips, &c., &c., in generous quantity, had the effect of keeping the hens in excellent condition, and is necessary for the production of eggs.

6. Scattering the grain food among the straw and chaff always on the floors of pens, kept the fowls (particularly the young ones) active. This grain food should not be fed in too great quantities.

AS MUCH RANGE OR ROOM AS POSSIBLE.

While on the subject of winter laying it may be stated that the layers do better when they can enjoy as much freedom as possible. Many farmers have their poultry houses so situated that with very little trouble or expense they can so arrange as to allow their fowls, access to a barn, stable or enclosed shed, where gravel, sand, coal ashes or other substances may be found for the hens to scratch in. Fowls so situated are not likely to give trouble in the way of eating eggs or feathers or laying eggs with soft shells. But there are others, and perhaps the great majority, who can only allow their laying stock limited quarters from the time of shutting in until the warm spring sun makes bare the earth again. It is to such persons that the results of the experiments enumerated above and the experience gained as to the breeds which stand confinement best will be of most value.

BREEDS WHICH HAVE LAID BEST IN WINTER.

The experience of the past four winters proves that the breeds which are often stated to be the most unsuited to cold climates lay the best. It is often said by the inexperienced, or the prejudiced, that fowls with large combs are not suited for winter layers, because their combs will freeze. If anyone wishes to make revenue from his winter eggs he must not keep his lay-

ers where their combs will freeze.

There is reason and intelligence to be exercised in the treatment of winter layers as there is in the winter caring of other stock. Of the hens with the large combs, such as Leghorns, Minorcas and Andalusians, no better winter layers or hardier fowls can be had than the white Leghorns. The weight of the eggs laid by this variety will be found elsewhere. The Andalusians and Minorcas are also excellent winter layers, but require to be kept active, as do all the Spanish class. Plymouth Rocks and Wyandottes are well known winter layers. Members of the Asiatic family, viz., Brahmas, buff Cochins and Langshans require to be hatched out early in the season to make early layers. They require to be skilfully handled during their close confinement of winter to prevent them becoming too fat. A farmer will not make a mistake by choosing his winter layers from the Leghorns, Plymouth Rocks or Wyandottes. The Wyandottes, perhaps, come as nearly filling the bill as possible, having little or no comb, and are good layers. The Houdans did not seem to stand the confinement to winter quarters as well as other breeds. The following classification may serve as a guide in making a choice from the best known breeds:—

Breeds with large combs.—Leghorns, Minorcas, Andalusians, black Spanish.

Breeds with small combs.—Wyandottes, Brahmas, Cochins, Houdans.

Breeds with medium-sized combs.—Plymouth Rocks, Dorkings, black Javas, Langshans.

Breeds with rose-combs.—Leghorns, Hamburgs, Red-caps, white Dorkings, &c.

(To be Continued.)

Kill off the cull cockerels, those with twisted combs or crooked breasts, having feathers on legs when they should not be there, etc.

PRACTICAL POULTRY RAISING.

WRITTEN FOR THE RURAL PRESS.

(By a Staff Correspondent.)

DON'T be carried away by your own prejudices in the matter, recollect that you are catering to the public, and if you wish to win a reputation for your dressed poultry, you must supply what the public want, and the majority of those who represent the first-class buyers of any city in Canada or the United States, prefer a fowl with yellow skin and yellow beak, and clean yellow shanks, free from feathers; such fowls in this country rank as first-class table poultry, whilst birds with white skin and white, willow or black shanks are considered second class goods. In England the reverse is the case, white skin fowls ranking first, the Dorking being held in great esteem, but in America this fowl is not bred to any great extent; on the other hand Plymouth Rocks are coming rapidly into favour in England, large numbers of them being exhibited at every poultry show, the sterling merits of the breed have won for them the good opinions of English breeders. This preference for the white or yellow skin is doubtless all a matter of fancy, the probability is that not one person in fifty could tell after a fowl is roasted whether it originally possessed white skin or yellow, and as neither the shanks nor the beak appear on the table, it would seem a matter of indifference what colour they were; such, however, is not the case; the public have their whims, and if you wish to sell your poultry to the best advantage, you must humour those whims. You will find it much easier to do this than to change public opinion to your own way of thinking. If your fowls have white skins or white or blank shanks, the best thing you can do is to get rid

of them. You can never produce first class table fowls as long as you breed such stock; don't persuade yourself that they will do well enough at the present time; it is easier to change to the breed that possesses these qualifications now while your stock is small than it will be when you possess three or four hundred fowls. One of the largest market poulterers in the United States says he cannot afford to breed anything but what ranks highest in the estimation of the public, because a difference of one cent per lb. makes a difference of \$300 a year to him. Don't forget this, gentle reader, if you are cherishing visions of a mammoth poultry establishment in the near future; remember that your revenue will be very greatly affected by the class of fowls that you breed. There are over fifty different varieties and sub-varieties of thoroughbred fowls, and many of them would be about as useful to the market poulterer as Blue Jays or Robins. Many people keep such fowls for their ornamental appearance, in the same way that others keep white mice, guinea pigs, ring-tail monkeys and other lovely and charming creatures of that ilk.

But few of the ornamental varieties possess any practical and useful qualities; many of them are extremely delicate, and for market purposes are utterly useless.

Having disposed of your common scrub hens, your best plan will be to purchase one or two breeding pens of fowls of the variety you have selected as best suited to your purpose. To select the right breed is of vital importance, but it is equally as important to select the right strain of that breed; a strain or family of fowls that possesses, in an eminent degree, the valuable characteristics that you are seeking, viz., early maturity and great proficiency.

(To be Continued.)

ONE, OR A DOZEN?

THIS being the season for big gooseberries and sea serpents, I will add my mite to the wonders of the age, by telling you a tale of an egg. It was laid by a Pekin duck last week, and weighed four and a half ounces. Supposing it to hold a double yolk, I broke it, and, to my surprise, out of it fell an egg, measuring one and a half inches long, and almost round, and stranger still, on opening the second egg, I found a third inside, with a strong shell, one side being partially flat.

So that I might not be taken for a second Baron Munchausen, I enclose you the eggs, the third still inside the second. Possibly, on breaking the third you may find a fourth inside, if so please let me know.

I have been a poultry fancier and breeder for over forty years, but it has never before, been my good fortune to own a duck or a hen that laid three eggs at a time.

Yours,

SANEX.

Ottawa, June 9th, 1892.

[Egg safely to hand in exact condition named.—ED.]

OYSTER SHELLS AS FOOD FOR LAYING HENS, &c., &c.

THE New York State Experimental Station Bulletin for January 1892, contains the following interesting reports:—

It is explained that the value of oyster shells as a source of material for egg shells has been questioned, it being claimed that its value for poultry lies solely in furnishing grit. To test this an experiment was made with six 1-year-old Leghorn hens, three of which were fed coarse ground oyster shells,

and three coarse broken glass instead. Both lots were kept confined in cleanly swept pens, having a floor of matched boards. In the first period, March 30 to April 19, wheat, fresh cabbage and a grain mixture composed of corn meal, wheat bran, wheat middlings and old-process linseed meal, were fed to both lots; and in the second period, lasting until May 3, boiled eggs [oats probably intended. ED. REVIEW] were added. The eggs were collected the last 10 or 12 days of each period. The percentages of water, ash and calcium carbonate contained in each kind of food and in the eggs laid each period, and the amount of food consumed are tabulated for each lot. The results for the lot receiving oyster shells were as follows:

During the first period the hens laid 12 eggs, 1 pound of eggs being produced from 3.95 pounds of water-free food. These eggs contained calcium equal to 48.43 grams of carbonate of lime, the shells alone containing 47.74 grams. The grain and cabbage consumed and the drinking water given them contained altogether calcium equal to 7.62 grams carbonate of lime. The oyster shells taken by them contained 93.80 grams carbonate of lime.

During the second period the hens laid 21 eggs, which were produced at the rate of 1 pound for every 2.59 pounds of water-free food. These eggs contained calcium equal to 87.88 grams carbonate of lime, the shells alone containing 86.6 grams. The food consumed and drinking water given them contained calcium equal to 10.08 grams carbonate of lime. The oyster shells taken by them contained 180.99 grams carbonate of lime. Of the carbonate of lime contained in the eggs during the first period, 40.81 grams (over 84 per cent.), and of that in the eggs during the second period, 77.80 grams (over 86 per cent.), are unaccounted for, except by the carbon-

ate of lime in the oyster shells, of which 99.2 grams were consumed during the first period, and 191.4 grams during the second.

The difference is so great that no other conclusion seems possible than that the egg shells were constructed from material supplied in large part by the oyster shells.

These hens lost in weight a total of 5 ounces during the first period, and a total of two ounces during the second, a change in weight of little consequence and one that might have occurred at any time within a few hours.

The lot receiving pounded glass did not lay as well as the other lot, and two of the hens became sick, but recovered after a few days. The sickness is believed to be due to the excessive amount of glass swallowed, which amounted to 31.3 per cent. of the total water-free food when given *ad libitum*, and to 26.1 per cent when the consumption was limited.

These hens gained in weight during the first period 11 ounces and lost during the second period 9 ounces. Although fewer eggs were laid by this lot, the shells were lighter, being in the first period 8.12 per cent of the total weight of the eggs, and in the second period 6.18 per cent, while the shells of eggs laid by the lot having oyster shells formed 9.67 per cent and 9.5 per cent of the total weight of the eggs.

The egg shells contained 92.42 per cent of carbonate of lime, and the ash of the eggs, exclusive of shell, 4.96 per cent of calcium, equal to 12.4 per cent of carbonate. The eggs for the first period contained 1.01 per cent, and those of the second 0.98 per cent of ash. * * *

The amount of lime calculated as carbonate found in the eggs exceeded that in the food and drinking water by 3.9 grams for one period and nearly

3 grams for the other. While the glass taken during one period contained lime, the equivalent of 116.63 grams of carbonate, and during the other of 38.56 grams, it does not appear probable that any of this was available as egg shell material, for it existed in combination with various insoluble silicates. Treatment of the finely-powdered glass with the ordinary acids failed to dissolve a trace of lime, and fusion with alkaline carbonates was necessary to its estimation. Upon examination of the excrement, of which during the first period over 72 per cent of the air-dried substance consisted of fragments of glass large enough to be easily removed by washing, a very few small rounded fragments of limestone were found which must have been swallowed by the hens previous to their close confinement and retained for from 10 to 20 days. These small pebbles of limestone had been subjected to conditions which are seen to have made oyster shells available material, and it is probable that enough lime was dissolved from them or from smaller fragments, no appreciable portions of which were left in the excrement, to have supplied the three or four grams of lime. * * *

In conclusion, the feeding of oyster shells during the laying season, where they can be cheaply obtained, is recommended. One pound will contain lime enough for the shells of about 7 dozen of eggs.

Fine gravel containing limestone will probably as well supply the deficiency of lime existing in most foods, but the use of some sharper grit with it may be of advantage.

Long or sharp splinters of glass or dry bone should be avoided. For hens, the size of particles of grit had better be larger than that of a kernel of wheat, and should be smaller than that of a kernel of corn.

An unlimited supply of pounded

glass has been attended with no bad result when the food and other grit available to the fowls contained an abundance of lime, but when the food was deficient in lime and no other grit was attainable, hens ate an injuriously large amount of glass.

SKIM MILK FOR GROWING CHICKENS.

Two broods of chickens, one containing 14 and the other 16, were kept in separate pens and fed on wheat, a mixture of corn meal, bran, middlings, and linseed meal, and skim milk. One pen received meat scraps also, and all received a little green clover towards the close of the trial. The chickens were from 1 to 3 days old at the beginning of the trial. A hen was kept with each pen until the chickens were well feathered (5½ to 7½ weeks). The skim milk was usually fed sweet. The chickens and hen are weighed weekly. The results are tabulated, showing gains, food consumed, cost, etc. In the estimates of cost the grain mixture was valued at \$20 per ton, the wheat at \$1 per bushel, the skim milk at 25 cents per hundred pounds, the clover at \$2 per ton, and the meat scraps at 2.5 cents per pound.

With one pen the average cost of food for every pound increase in weight during the whole time was 5.66 cents; for the other the cost of increase for all but the last two weeks was 5.36 cents, and during these two weeks 5.63 cents. In one pen the chickens averaging 2.4 pounds weight at 10½ weeks of age were grown at a cost for food of 5.31 cents per pound, or an average of 12.7 cents apiece; in the other pen the chickens averaging 2.4 pounds at 11¾ weeks of age cost for food 5.36 cents per pound or 12.9 cents apiece. This cost of production of course includes the cost of feeding the hen during the first few weeks. * * *

Under ordinary conditions chickens ought to be hatched, making a fair allowance for value of eggs and food

for sitting hens, at a cost of less than 5 cents apiece. The highest cost per pound gain during any week while growing chickens to 3.5 pounds average weight, was less than 7 cents, and the cost averaged much less than 6 cents. At the prices generally obtained for chickens of this and lesser weights the growth was certainly a profitable one. With chickens having the liberty of the fields it seems reasonable to expect a still cheaper production of meat, and it would appear that a profitable use for some of the skim milk of the farm would be in the growing the chickens for home or for the market.

To be Continued.

OWEN SOUND ASSOCIATION.

AT the last meeting of the Owen Sound Poultry Association, held at the Comley House, July 8th, it was decided to hold the winter show on the 29th, 30th November and 1st and 2nd December, 1892.

It was also moved and carried that we have one poultry judge instead of two, as was intended at previous meetings. The ballot being in favour of Mr. S. Butterfield, his services being secured for these dates as poultry judge, and we have also secured the services of Mr. J. B. Jones as pigeon judge.

The Association has received a grant from the Town Council of \$75.00, also from the County Council a grant of \$25.00, which will give a start in making this one of the most successful shows ever held here.

JAS MCLAREN,
Secretary.

Owen Sound, July 18th, 1892.

MR. D. A. RADCLIFFE, AURORA, expects to visit England this fall and in consequence is obliged to dispose of all his birds, at any rate for the present.

ARE WHITE FOWLS TENDER?

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

I HAVE asked this question, and if I put it to myself the answer must be, I don't know. I trust that each reader will ask himself this question and answer it as candidly as I purpose to in the columns of this publication.

There is a general impression that fowls with white plumage are not so hardy as those with colored feathers, and though general impressions are often not well founded they sometimes express the collective judgment of a community. I have bred and still breed white fowls and all I purpose to do is to give in a general way my experience with them.

The white Leghorn was the first white breed I kept, not counting the light Brahma which has dark markings. I think and have always thought that the white Leghorn, though less hardy than some of the more robustly built breeds, is as hardy as any other Leghorn, I used to lose some Leghorn chicks—who does not?—and occasionally had a fowl die, but the variety was tolerably hardy.

The white Java, though a reasonably hardy breed, had an unfortunate habit of dropping dead suddenly. This was particularly the case with the male birds, I believe I lost a greater percentage of white Java cocks and cockerels than of any other breed, white or colored, that I ever kept. The white Plymouth Rock with me has been nearly as hardy as the barred Plymouth Rock, but not quite, I lose more of the white than of the barred birds, though the death rate is not large in either case. In Bantams there does not seem to be very much difference between the white and colored varieties, and yet what difference there is, it is my impres-

sion, tells against the white birds. My experience, therefore, in both large fowls and small, is that, while the difference is not very marked, the colored varieties seem to be the hardier. But my experience may be exceptional. Others with equal opportunities may have arrived at a different conclusion. I confess I can see no good reason why a white fowl should not be as hardy as a colored one. The birds and animals of the Arctic regions, where exposure is the greatest, are clad in white. It would seem, if white were a certain indication of tenderness, that the coloring of Arctic creatures ought to be different. I know it can be said that their coloring is protective, and that it enables them to escape from their enemies, and this is true; but one of the greatest enemies to animal life is severe cold, and if white were necessarily an indication of tenderness then Arctic animals are exposed to their greatest enemy. Natural selection would make no such mistake as this, and so I am forced to believe that white is not a necessary indication of tenderness. I know, too, that white is a color which does not permit the heat to pass out as readily as some darker color does. Lay a black cloth on a bit of snow and the snow under it will melt faster than that around it, and as the retention of heat is of more importance than its absorption, for extremely cold climates white is the warmer clothing. But while this is so, what am I to do with my experience with white fowls, and what are we all to do with the general impression, the collective judgment of men that white fowls are tenderer than colored? This leaves us about where we began, and I am forced to answer this question with that most unsatisfactory answer, I don't know.

One thing I do know, and that is that a clean, pure white fowl, with its blood red comb and colored

shanks, is beautiful and if it be really tenderer than a colored fowl, it still will be bred by those who admire its beauty and to whom the satisfaction of their taste is of greater value than the money difference of hardiness between white and colored fowls.

A STRAY HOMER.

Editor Review:

IT may be of interest to some of your readers to know that a Homing pigeon, No. N. 12490, is with the flock of J. J. Phillip, of this village. Mr. Phillip would like to hear from the owner.

Yours truly,

H. J. HINDSON.

Preston, July 19th, 1892.

LONDON PIGEON AND PET STOCK ASSOCIATION.

REGULAR meeting of the London Pigeon and Pet Stock Association was held in their rooms, Sherwood Hall, Tuesday evening, June 21st, with the President, W. Boug in the chair.

The minutes of the previous meeting were read and accepted.

No particular business being brought forward, the work of judging the specimens up for competition was proceeded with. The classes for the evening were: white Pouters and any other variety, but as no Pouters were forthcoming, that class was left over until next meeting. The awards in the A. O. V. class were as follows:—1st A. I. Stockwell, Archangel cock; 2nd F. McMartin, blue-wing Turbit; 3rd C. E. Bernard, red-wing Turbit cock. The classes decided on for next meeting were Pouters, Jacobins, and any other variety.

The meeting then adjourned.

A. T. STOCKWELL, Sec'y.

INTERNATIONAL BRIDGE ASSOCIATION.

AT a meeting of the International Poultry and Pet Stock Association, held on July 13th, it was decided to hold the annual exhibition on November 22nd, 23rd and 24th, 1892, at International Bridge, Ontario. The following officers were duly elected:—

Honorary President, P. E. Millar, Amagari, Ontario; President, H. Field, Buffalo, N. Y.; Vice-President, Henry Emrick, International Bridge; Secretary-Treasurer, Charles Vahey, International Bridge; Asst-Sec., W. R. Hunter, International Bridge; Superintendent, C. S. Jackson. Directors: R. G. Martin, Buffalo, N. Y.; A. H. Hayes, Buffalo, N. Y.; C. Hammerschmidt, Buffalo, N. Y.; J. Squires, Black Rock, N. Y.; H. Bender, Niagara Falls, Ontario; V. W. Galer, International Bridge, Ontario; J. McIntosh, International Bridge, Ontario; W. T. House, International Bridge, Ontario.

W. R. HUNTER,
Sec'y pro tem.

COCHINS.

Paper read by Mr. T. Bagshaw before the Birmingham and Mid-England Poultry Society.

WHEN I was asked to give a paper on Cochins, I rather hesitated, because there are members connected with this society who have bred these birds for a much longer period than I have, and who, I am sure, would be able to interest you on this subject better than I can. However, as I am down to say some thing to-night about Cochins, I will do my best, and if there are any here who are not real fanciers, I will ask them to have patience with me, as I am sure

the subject will be very dry to them. The remarks I shall make will be chiefly on buff Cochins, as it is the variety I have been chiefly interested in for the last twelve years; still, a great many of the points I shall refer to will be applicable to the other varieties of the Cochin. I think it will be better if I confine myself principally to the breeding and management of buff Cochins.

We are told that the first Cochins that came to this country were sent as a present to her Majesty, and that Fleet street was lined with carriages conveying people to see the birds (but I believe they were whites), and her Majesty presented a pair to the late Bishop of Worcester. As to who received the first buffs I am unable to say, but I should think they were introduced into this country between thirty and forty years ago. Through the kindness of Mr. Henry Tomlinson, who we know is one of the oldest breeders of these birds, I was able to show a painting of some birds—the first he ever had—over thirty years old, and the difference in the type of the birds in those days was very marked to the birds of the present day. Mr. Tomlinson was very proud of those birds, and consequently had them painted, and it took the artist a fortnight to paint them. They were shown at Shrewsbury, and took first prize and the cup. The cock and one of the hens did a lot of winning after that. At that time Shrewsbury show was one of the foremost in the country, and occupied a position something like the Palace and Birmingham do now. These birds had no hock and very little leg and foot-feather; in fact, there seems to me to be an absence of everything they ought to have, and if such birds were offered me now, I should be very sorry to give 2s. 6d. each for them, unless it was to kill. Mr. Tomlinson sold these birds for a

large sum of money. Some time after, this style of bird went out altogether, and the hocked birds came, and I am told that the late Mr. Cattell, who was a very old fancier, and two other gentlemen whose names I do not just remember, joined together and gave £200 or guineas for a buff cock from a gentleman named Sturges.

I will give you a few ideas of what I consider are the points required in a Cochin now, to give them anything like a chance of winning in the show-pen, and then confine myself to the breeding and management of the birds, in order to get them fit to show. Commencing with the male bird, the head should be small, rather short, and well rounded (I do not like to see a snaky-headed Cochin); the beak short, slightly curved, strong and yellow; the comb should be single, thick at the base, in order to prevent it from falling over—which a thin comb is very likely to do, if the bird is subjected to heat or excitement. It should be evenly serrated, not too deep, and with about four or five serrations, and should be well back on the head. I have seen birds with six or seven serrations, and not even. I do not like them. I think four or five quite enough. Comb not sprouted. The ear-lobes and wattles should be a bright red, as also the comb. We often see birds with tinged lobes, I should never breed from such a bird, this fault I consider a bad one, as it is almost sure to show in the chickens. The neck hackle should be a bright golden colour, coming well down on the shoulders and free from any twisted feathers. The saddle of the bird should be broad and well raised, not flat like a Brahma, but with a nice round cushion. The saddle feathers should be the same colour as the neck hackle. The tail should be chestnut or bronze, the former I prefer, and as neat as possible. I very much object to see a Cochin

with a great big tail, especially if it is a fantail. I remember some years ago giving £15 for a buff cock without a tail; when it grew it was like a fan; this is a nasty fault, in my opinion, either in a cock or hen. The breast should be broad and full, with great depth, and carried well forward. Wings should be free from black or white flight feathers, a most difficult thing to get in a cock. One of our most noted Cochin breeders told me that he scarcely ever got a buff cock absolutely pure in the flights. The wings should be free from twisted feathers, and well tucked underneath the saddle feathers. Thighs should be powerful and well covered with fluff. The lower part of the breast should cover the thighs in front. The fluff should be as profuse as possible, and standing out well behind the thighs, and the same colour as the breast. Now as regards the hock:—I think in a great measure the vulture hock has gone out, although some of our judges don't seem to object to it, providing there is abundance of leg and foot feather, which should come down to the extremity of all the toes, and be pure in colour. For my own part, I must say I do not like to see a stiff hock. I like the soft rounded hock free from quill feathers, providing the bird has an abundance of leg feather, which should be full down the shank. Many people have an idea that it is impossible to breed Cochins as heavy in foot feather without this vulture hock, but it is a mistake, as it can be done. I do not like to see the legs of a Cochin too short—it often makes a bird look smaller than it really is—and the legs should be wide apart, and yellow. The toes should be straight, and spreading out well. Just a word as to colour. There are several colours in the buff Cochin. There is the dark cinnamon, very much admired by some of

our breeders. Then there is the medium shade and the lemon buff. The latter, I must say, I prefer. I have many times been very successful in breeding this colour. I find fanciers like them, but they are more difficult to breed (in my opinion) than any other shade of buff. You invariably get them mealy in the wings, tail and feet, especially the cock. An adult cock will weigh 12 lb., or more.

Now as to the buff hen. Many of the points I have referred to in the cock are applicable to the hen also. I am not an advocate for such immense birds if they lack colour; of course, if you can get the two combined so much the better. Some of our judges seem to me to go in more for size than anything else. They seem to ignore the beautiful golden buff, which seems to me so essential in a buff hen or pullet. I could show you a pullet perfectly even in colour from head to tail, without showing the white shaft in the feather, and a beautiful golden buff. Of course, this is difficult to get in a hen after she has moulted. They sometimes come out patchy and show white shaft, a fault I should not despise a bird for, for the breeding pen. The hen should have an abundance of fluff, the more the better, with the soft-rounded hock, and the leg-feathering pure in colour, and coming right down to the extremity of the toes, as in the male bird. You will notice this hen fails a little on the shank, and I think this is her worst fault. I might say that the wings should be as tightly tucked as possible underneath the cushion feathers; the chest broad and deep, covering the front of the thighs, as in the cock; legs are rather short in proportion to the size of the bird. A good hen will weigh ten pounds.

As regards their laying qualities, opinions differ. Many people have an idea that they lay very few eggs,

and are always wanting to sit. My answer is: "I do not find them such bad layers. I have had an abundance of eggs this year until recently, and from about two dozen stock hens, not one was broody; and if I had not gone to the trouble of procuring cross-bred hens for sitting purposes, I don't know where I should have been for chickens, not having an incubator." When they do go broody, they will sit for weeks without eggs, and it is a good plan to let them sit, if you want them to moult before the cold weather comes on. Some people say they are bad mothers. I don't think so, if properly managed; they are certainly clumsy, but if handled quietly, they are very careful with their chickens, and it depends a good deal as to what sort of a coop you put the hen in as to whether she kills her chickens or not. I will say more about the coop presently.

They lay a fair number of eggs, not large, generally brown. I have had some remarkable specimens in eggs at different times; I have had them no larger than pigeons', I have had them as large as a goose's—double-yolked, of course—I have had them flat-sided, and also as round as a ball; but these are not the most remarkable. I remember, some years ago, having a very good pullet, and she appeared to be unwell; I took her away from the other birds, put her in a pen by herself. The next day I went to look at her, and found in the pen a large substance, very much larger than an ordinary tumbler I examined it, and found it was an enormous egg, enveloped in a very thick skin almost as thick as wash leather. After removing the outside covering I found a perfect egg, which I broke, and found that contained another broken egg and a small perfect one. Of course she died soon after, without laying another.

I have also had some queer freaks of nature in the birds themselves. I remember having a chicken hatched with four legs, which died, and I once had a bird with a perfect hen's body and a cock's head. This bird used to crow, but never laid.

Some fanciers may probably attribute these strange specimens to "inbreeding," upon which a great deal has been written. It is a great mistake to introduce fresh blood into your yard unless you have a very good idea as to how a bird is bred. If you have a first-rate strain of birds you can "inbreed" for a number of years, and the result, I believe, will be satisfactory. One of the best, if not the best buff pullet I ever bred, was bred from brother and sister. I reared two pullets from this pen, one was first at Birmingham, and was claimed at ten guineas. The other was h.c., and fetched a good price, four or five guineas.

In mating buff Cochins, I select the hens as large and as good in shape as possible, and get them as near the colour of the cock's breast as I can. As I said before, it is sometimes difficult to get old hens quite even in color, but I do not think this of so much importance in breeding as size and shape. The cock or cockerel which I should put with hens, must have all the good qualities of a Cochin, as we are told he is half the breeding pen, and I think, as a rule, you will find the majority of chickens follow him in style. In my opinion it is better to breed from a moderate sized male bird than one too large. You will find you will have a greater number of fertile eggs. You will of course put a cockerel with hens, and a cock with pullets. I should say about half a dozen hens or pullets in each pen. I have been told by an experienced breeder that the majority of chicks bred from a cockerel and hens will be pullets, and the majority from an old cock and pullets will be cockerels. Whether this is so, or not, I cannot say. I have never given special atten-

tion to this.

Before I say anything about the chickens I will give you my idea of what I think a Cochin house should be. Of course most of you know that one of the peculiarities of a Cochin is that they do not perch, but roost on the ground. Care must, therefore, be taken they have a dry roosting place, free from draughts. The house should be air-tight round the bottom if possible, with plenty of ventilation at the top of it, as we all know that any foul smell ascends, and if the ventilation is too low down the foul cannot get away, which is, of course, very injurious to the birds.

(To be Continued.)

MR. H. B. DONOVAN, Toronto, has imported during the past month fourteen cavies and two lop-ear rabbits. Three of the latter were shipped, but one doe failed to arrive, died on the way, presumably. The rest all came in excellent health and condition. The cavies are described by Mr. Wilcox, Farnham, the shipper, as follows:

PEN No. 1.—Peruvian Boar and two sows. The one with hind part of body black, is in kindle to a different boar, the other being in kindle to the boar sent you.

PEN No. 2.—Black, white and little cream, Abyssinian boar, a real good pig, won 1st Tunbridge Wells, England, Club Show, also 3rd Notts. Sow, black and white, in kindle to above boar, breeds some good Tortoiseshell pigs. Sow, agouti and cream, in kindle to a well rossetted tortoise and white boar.

PEN No. 3.—English boar, red and white, he has bred me some good pigs, just lately I have had two reds got by him, and out of sow I send you, viz., the red and agouti, with little white between ears, she is now in kindle to a red boar; so is the red and white sow, Dutch marked head. The red and agouti sow is in kindle to the red and white boar, so

that you will have youngsters unrelated.

PEN No. 4.—English boar, black. This pig you will be pleased with, and he is worth a deal more, as you will admit. He has bred me some good pigs, and as none of the sows sent you with him are in kindle to him, you can safely make them with him, and the result will be good. Sow, large splash behind left ear, bred from dark parents by myself, and in kindle to a black boar, by whom she had a black last litter. Sow, dark color, with red on rump and between eyes and on tip of nose, in kindle to a dark tortoise boar, he being bred from blacks. Sow, red face, in kindle to a boar, sire of "Black Brunswick." The pig I showed at Ealing, England, where he won special for best pig in show, beating all roughs, and doing the like at Bath, after I sold him to a lady fancier, in fact he won first and four specials. I hope the sow will produce another "Toronto Brunswick."

You will see by the above that I have sorted you up a stock that I know something about, and which, as stock pigs, are sure to do all you wish of of them. Pen No. 4, you can mate any of the youngsters from these sows as they are all different blood. I have this day got two good blacks born."

The Lops are from Mr. Booth, of Herne Bay, and are: yellow and white buck, 16 weeks old, 22¾ inch ears, sooty fawn doe, 14 weeks old, 23¼ inches.

BRAVO! LONDON.

AT the last regular meeting of the London Poultry Association a grant was made from the Association funds of \$31 to the St. John Relief Fund. There was no other business of importance transacted.

R. OKE,
Secretary.