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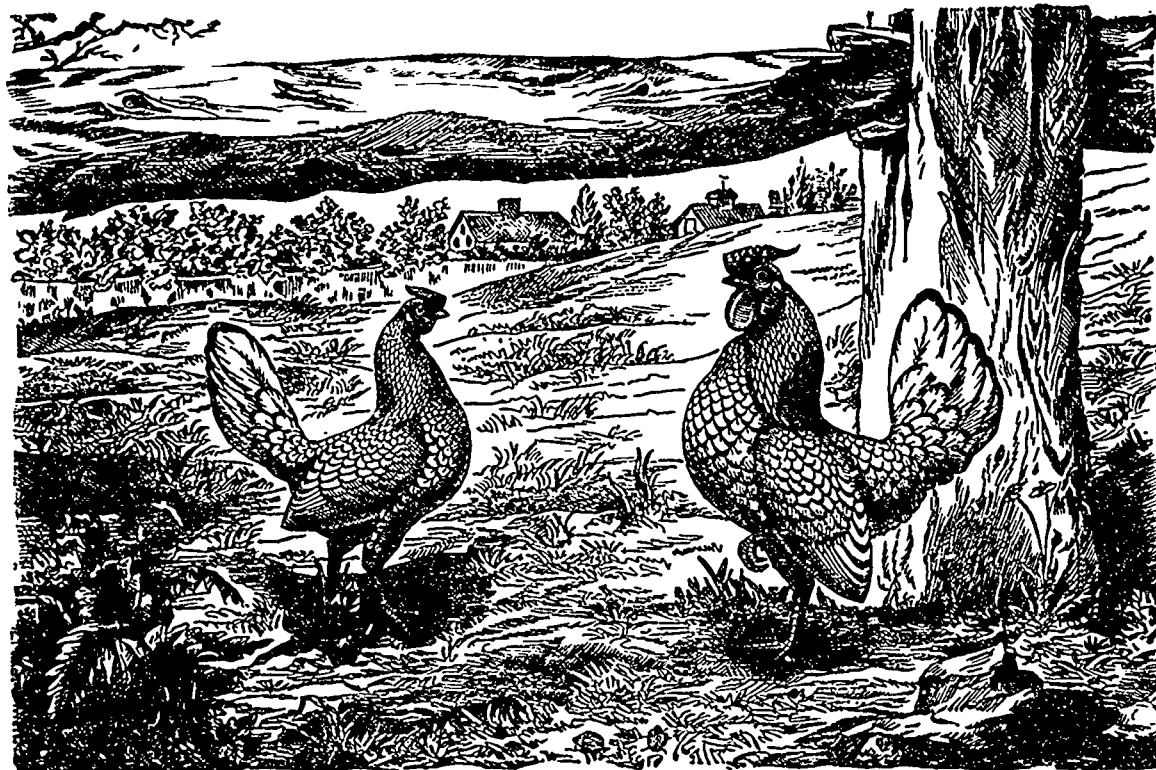
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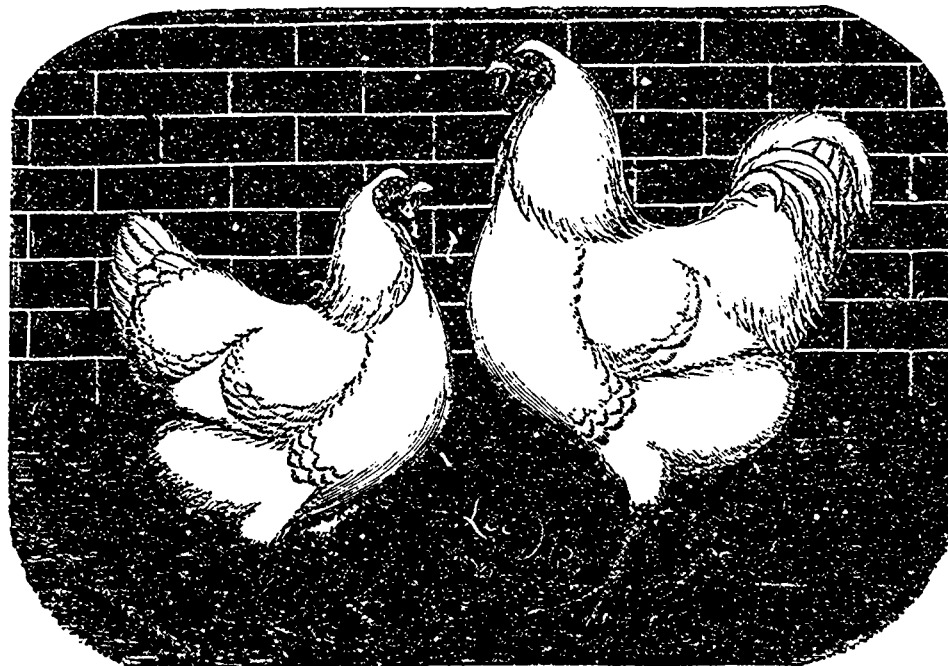
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SILVER SEBRIGHT BANTAMS.



WHITE WYANDOTES

THE CANADIAN POULTRY REVIEW

DEVOTED TO A
POULTRY, IN ALL ITS BRANCHES

PUBLISHED BY H. B. DONOVAN.

Vol. xvii.

118 VICTORIA STREET, TORONTO, JULY, 1894.

No. 7.

NOTES AND COMMENTS

THE BACHE FUND.

ELSEWHERE will be found a letter from Mr. C. J. Daniels referring to the death of the late Chas. R. Bache, whose family have been left unprovided for. We heartily coincide with the movement suggested by Mr. Daniels to raise a sum to relieve present and pressing necessities, and will be glad to acknowledge receipt of all sums subscribed either through Mr. Daniels or the writer.

MR. W. J. BELL, ANGUS,

on May 31st shipped the bronze Turkey hen, winner of first prize at the last Ontario Show to Messrs. Abbott Bros., England, and also sent a setting of eggs to Mr. D. C. Picken, Kircudbright, Scotland. We should be glad to learn what success attended the incubation of the latter.

DORKINGS.

In last issue we had a good word to say for this grand old variety which now we are able to augment by some further reliable information. It is not claimed for this breed that it is *par excellence* a layer, but the following record from the same two hens mentioned in last REVIEW would be hard to beat anywhere. Eggs laid from May 12th to June 16th—36 days—69 or an average for each hen of 34½. Change of climate evidently agreed with them as from 24 eggs set 21 healthy chicks were hatched.

ARE DORKING CHICKS HARD TO RAISE?

This question seems to be emphatically answered in the negative by Mr. E. D. Dickinson, of Barrie, a young fancier

of the breed. He says, "From that little adv. which I had in your valuable paper I received more answers than I ever expected, and strange to say more than half came from Quebec, P. Q. Out of the number of colored Dorking chicks which were hatched I had but five deaths, four were killed and the other stopped growing at about two weeks, although it could eat well its back-bone became crooked I suppose from being struck. If you believe that Dorking chicks are hard to raise, as I have read in some poultry books, I hope this will convince you. I have now 67 chicks all Dorkings and of all sizes with five more hens to hear from."

TORONTO EXHIBITION.

The prize lists for Toronto's great fair are now ready and may be had on application to the Manager, Mr. H. J. Hill. The list remains practically the same as last year, in fact it can now be little improved on.

WESTERN FAIR, LONDON.

A copy of the list has not yet reached us but doubtless they will be ready in a few days. This fair deserves and gets the hearty support of all breeders, its Manager Mr. T. A. Browne being also the Secretary of the Poultry Association of Ontario.

THE BUREAU OF INDUSTRIES

of the Ontario Department of Agriculture sends us the following tabulated information regarding the poultry industry of the Province for the year ending July 1st, 1893:—The following table gives the numbers of live stock with the values of each class as estimated by the farmers on July 1, 1893, with comparative totals for 1892:

Live Stock.	No.	Value.	Pr. head
Turkeys	638,527	439,613	'69

Geese	439,482	253,197	'58
Other fowls ..	6,036,427	1,494,348	'25
Total	1893. 7,114,436	2,187,158	'31
	1892. 7,078,973	2,091,450	'30

The aggregate total value in 1893 was \$116,072,902, while the figures a year previous totalled \$117,501,495. The next table compares the numbers and values of live stock sold or killed during the years ending June 30, 1892 and 1893:—Poultry, No. sold, 1893, 2,017,507, 1892, 1,966,409; value, 1893, \$753,695, 1892, \$778,308; per head 1893, '37, 1892, '40

INFORMATION NEEDED.

In sending out blank forms to farmers and others in collecting this information Hon. Jno. Dryden, Minister of Agriculture writes:—

"The Bureau of Industries is one of the branches of my Department, and was organized to collect, among other things, statistics showing the amount of produce annually grown upon the farms of the Province. When these statistics are received from the farmers they are carefully tabulated in order that the most accurate information as to the quantity of each farm product may be published for their guidance. With this information the farmer is able to judge for himself of the probable supply and demand and is not dependent as formerly upon the statements of interested traders. It is to your interest to assist in this work. A prompt and accurate reply will aid us in giving this information at an early date. Your answers are always confidential, and are given to the public only in bulk form by counties."

List of Principal Fairs to be held in Canada, 1894.

ASSOCIATION.	PLACE OF FAIR.	DATES.	SECRETARY.	ADDRESS.
Canada's Great Fair and Industrial Exhibition	Toronto.	Sept. 3rd to 15th.	H. J. Hill ...	Toronto.
Winnipeg Industrial Exhibition	Winnipeg, Man..	July 23rd to 28th..	J. K. Strachan ..	Winnipeg, Man.
Stanstead Fair..	Stanstead, Que..	Aug. 22nd and 23rd..	H. E. Channell.	Stanstead, Que.
Eastern Exhibition Association.	Sherbrooke, Que.	Sept. 1st to 8th.	H. R. Fraser...	Sherbrooke, Que.
WESTERN FAIR	London	" 15th to 22nd..	Thos. A. Browne	London.
Midland Central Fair....	Kingston..	" 17th to 21st..	John P. Oram...	Kingston.
South Renfrew.....	Renfrew.....	" 18th and 19th..	Robt. McLaren.	Renfrew.
Wellesley and North Easthope	Wellesley.....	" 18th and 19th..	Geo. Bellinger..	Wellesley.
Ontario and Durham Exhibition Association.....	Whitby.....	" 18th to 20th..	W. R. Howse...	Whitby.
South Lanark Agricultural Society.....	Perth.....	" 18th to 20th..	J. G. Campbell..	Perth.
Central Exhibition.....	Guelph.....	" 18th to 20th..	Wm. Laidlaw..	Guelph.
Bay Quinte District Exhibition.....	Belleville.....	" 18th to 21st..	J. M. Hurley...	Belleville.
West Durham and Darlington Agricultural Society.....	Bowmanville ..	" 21st and 22nd..	R. Windatt.....	Bowmanville.
Central Canada Exhibition.....	Ottawa.....	" 21st to 29th..	E. McMahon...	Ottawa.
Central Exhibition.....	Peterboro'.....	" 24th to 26th..	W. J. Green....	Peterboro'.
Great Northwestern Exhibition.....	Goderich.....	" 25th and 26th..	James Mitchell..	Goderich.
Haldimand County Fair.....	Cayuga.....	" 25th and 26th..	J. W. Sheppard..	Cayuga.
North Riding of Oxford Agricultural Society.....	Woodstock.....	" 25th and 26th.	W. P. McClure..	Woodstock.
Centre Bruce Agricultural Society.....	Paisley.....	" 25th and 26th..	F. E. Sheppard..	Paisley.
Great Northern Exhibition.....	Collingwood ..	" 25th to 28th..	J. W. Archer... .	Collingwood.
Central Fair.....	Lindsay.....	" 26th to 28th..	James Keith....	Lindsay.
Southren Fair.....	Brantford.....	" 26th to 28th..	R. M. Wilson..	Brantford.
North Perth Exhibition	Stratford.....	" 27th and 28th..	John Brown....	Stratford.
County of Peel Agricultural Society.....	Brampton.....	" 27th and 28th..	H. Roberts....	Brampton.
Cannington Central Fair.....	Cannington.....	" 28th and 29th..	R. A. Sinclair..	Cannington.
Arthur Union Agricultural Society.....	Arthur.....	Oct. 2nd and 3rd..	Thos. J. Phillips	Arthur
North Simcoe Fair.....	Stayner.....	" 2nd to 4th..	Arch. Hill.....	Stayner.
North Lanark Fair.....	Almonte.....	" 2nd to 4th..	W. P. McEwen..	Almonte.
North Brant Fair.....	Paris.....	" 2nd and 3rd..	H. B. O'Neil..	Paris.
South Simcoe Agricultural Society.....	Cookstown.....	" 2nd and 3rd..	R. T. Banting..	Cookstown.
Peninsular Fair.....	Chatham.....	" 2nd to 4th..	W. G. Merritt .	Chatham.
Northern Exhibition	Walkerton.....	" 2nd to 4th..	Arch. Tolton....	Walkerton.
East Riding of York Agricultural Society.....	Markham.....	" 3rd to 5th..	John Jermain....	Markham.
Centre Wellington.....	Elora.....	" 4th and 5th..	John Mair.....	Elora.
North Renfrew Fair.....	Beachburg.....	" 4th and 5th..	John Brown....	Beachburg.
South Norwich Exhibition.....	Oterville.....	" 5th and 6th..	Alex. McFarlane	Oterville.
Howard Branch Agricultural Society.....	Ridgetown.....	" 8th to 10th..	D. Cochrané....	Ridgetown.
Dereham Agricultural Society.....	Tilsonburg.....	" 9th and 10th..	H. C. McFarlane	Tilsonburg.
Burford Agricultural Society.....	Burford.....	" 11th and 12th..	Albert Foster...	Burford.
West York and Vaughan.....	Woodbridge.....	" 16th and 17th..	F. F. Wallace..	Woodbridge.
Norfolk Union Fair.....	Simcoe.....	" 16th to 18th..	J. Thos. Murphy	Simcoe.

POULTRY

INBREEDING.

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

LET us first define what we mean by the term, for we wish to be clearly understood, and undefined terms are a fertile source of misunderstanding. In a broad sense, inbreeding includes any mating a person may make of fowls of the same breed. If I breed Argonauts, as I do, and never use fowls of other blood than Argonauts, I am inbreeding. But it is not in this sense that I shall use the term. I shall restrict it to much narrower limits, and have it include only the breeding together of near relations, such as brother and sister, father and daughter, son and mother, uncle and niece, nephew and aunt. I mean by it the starting with a pen of fowls and breeding from the progeny of that pen, not going outside of the pen for fresh blood. It will be seen, therefore, that I use the word in a narrow sense, not in the broader way that it is sometimes used.

Is it harmful? Concerning this question I once had my positive ideas and believed that it was necessarily injurious to the stock, that it reduced size, impaired constitution, injured prolificacy and imperiled the very existence of the fowls. But experience and study have led me to believe that, while such results may and sometimes do follow a prolonged course of inbreeding, they are not a necessary consequence of the practice. Inbreeding of itself I cannot see is necessarily injurious, yet it often does produce injury. And the way it does, it seems to me, is as follows, "Fowls may have some latent defect or tendency, we cannot see it; they seem to be all right. It may be, for example, a slight weakness of the lungs. This weakness runs in the family. Now, if we breed from a male and female each having this weakness the progeny will inherit the weakness from both parents, and what is a mystery to me, this weakness seems to be increased when both parents possess it. The young birds will have weaker lungs than either of their parents. If we breed again from these young birds their chickens will bear this weakness still more intensified, until, by continuing the practice, the chickens will eventually be produced with such weak lungs that consumption, or a strong predisposition to it, will result and the chickens will waste away. They will not have the vigor necessary to

withstand even a slight cold. They will become worthless for practical purposes, and the same results follow, the continued increase of the defect, whatever that defect may be. If both parents had been perfectly strong and healthy, if there had been no latent defect, we might have gone on inbreeding for generations and the progeny remain sound and vigorous."

The converse of this, outbreeding, results in this way. Both fowls may have latent defects, one with a weakness of the lungs, another with perfectly strong lungs but defective in some other way. When mated together the one with strong lungs overcomes the weakness in this respect of its mate, while the other defect is overcome by the vigor in the same direction of its mate. One might illustrate this matter in a crude way, by imagining two boys at the end of a rope. So long as they pull in opposite directions, each having the same strength, the rope is not moved out of its place; that is outbreeding; but when the boys both pull in the same direction the rope moves rapidly forward in the direction of the pull; that is inbreeding. The illustration is of course not perfect, but it does shed some light upon the way these two methods of breeding operate.

But it is often of advantage to have the rope move. A breeder for example is trying to perfect the comb of his fowls. He has good combs and wishes to keep them. By selecting his best birds and breeding them together he gets a pull from both parents in the direction of the point he is after. But if he introduces fowls of the same variety but of another strain, where the comb has been neglected for some other point, he will lose this pull of both parents in the same direction and introduce a pull in the opposite. The rope no longer moves but comes to a standstill. Improvement in combs stops and will remain stopped until he can get both parents to pull in the same direction. Combs are used simply as an illustration of a single point to make clear the idea under discussion, but breeding is not so simple as this, many points have to be considered at once, and the breeder is tempted to remain within his own strain and breed together birds of close relationship in order to prevent the havoc that the introduction of antagonistic qualities is likely to produce. I think it can be safely said that no breeder of fancy poultry ever succeeded in producing birds of great exhibition merit who constantly changed from strain to strain in order to introduce perfectly fresh blood.

And yet there is danger in inbreeding. Inasmuch as latent defects cannot always be detected, inasmuch as most fowls have latent defects, the time is pretty certain to come when inbreeding must be stopped and fresh blood intro-

duced to save the fowls from being "improved off from the face of the earth." The wise breeder will look with the closest scrutiny for the first appearance of weakness in his stock and the moment a latent defect becomes patent in-breeding will cease. The careless breeder cannot safely in-breed at all, to do so is dangerous for him. He will not note the first faint danger signals, and before he is really aroused to the peril, ruin will have overwhelmed his stock.

JUDGING FOWLS.

BY J. H. DAVIS, CALEDONIA, OHIO.

THE articles on judging fowls in late numbers of the REVIEW interest me. Mr. J. H. Paton, in the May issue says, "there have been mistakes in judging all breeds," but he does not say how or why those mistakes are made. He does not believe, he says, "that judging will ever be done entirely satisfactory to all."

There never was a show, never will be a show, where all are satisfied. It is human nature to kick, and to kick vigorously, when a breeder takes fowls to a show, which are just as good as any fowls in the show-room, and have them score second or third, if they are not disqualified for a trifle which the judge could well pass by, and often does pass by when favoritism is indulged in as it sometimes is.

The trouble in judging arises chiefly from allowing judges to pass upon birds they have never bred, and of which they know nothing outside of an arbitrary Standard, which, if followed to the letter, would disqualify a large majority of our fowls, because it demands perfection in points and feathering only arrived at approximately.

Class judging should be the rule altogether. All judges breed fowls, or ought to. If they do not, they are not competent to judge, and are imposing on breeders when they pretend to judge. Suppose Judge X, breeds Leghorns, Minorcas and dark Brahmas. He has made these birds specialties for years. He knows all about them; knows their characteristics, form, feather, etc., etc. He has studied these birds thoroughly, he breeds them, and ought to be competent to judge them. They are *his* peculiar strains, perhaps, and in judging he will try to make other birds of same breeds conform to *his* ideas of a standard fowl. And this sometimes causes trouble and dissatisfaction.

But is such a judge competent to pass on birds he does not breed, never has bred? I would like to have this ques-

tion answered. Certainly any judge who has been in the business a long time becomes more or less familiar with all the breeds, through handling them occasionally. But is the breeder of one or half a dozen breeds thoroughly competent to give just and proper decisions on fowls bred outside of his own yards—fowls he never has bred, and whose characteristics he is ignorant of experimentally?

I believe the whole trouble of dissatisfaction in judging lies in the absence of a rigid system of class-judging. And even this system may be open to abuses, because there is nothing perfect in any system. At the same time I believe that the breeders of the country ought to rule, and have some say in the matter of judging, and not allow the judges to have everything their own way.

I grant that class-judging would be more expensive than promiscuous judging. It might cost more to have a competent judge for each breed and its varieties, but it would be more satisfactory. To have a judge score fowls he never bred always did seem out of place to me. And to have a judge hurry through a show room of one or two thousand fowls, more or less, and mark his guess work on a card, or by comparison, is not calculated to please, because it is not the correct way of judging and always does more or less injustice to breeders.

There are good, honest, judges, who aim to do the fair thing, and who do it so far as they are able. These judges are not at fault, but the *system* is, which allows them to judge all breeds with an arbitrary decision from which there is no appeal.

Poultry Association can, and should regulate this matter of judging. And when a man takes fowls to a show he knows is to be judged by one man—all varieties and breeds judged by one man—he ought not to kick if his birds are disqualified or score lower than he thinks they ought to.

I never exhibit birds, for private reasons, yet I like to visit shows and esteem them of great benefit in encouraging the "hen fever."

BLACK SPANISH FOWLS.

BY J. C. BOWES, THORNTON DALE, YORKSHIRE.

(Continued.)

III.—THE HEN.

MAKING due allowance for difference in sex and functions, the shape and general characteristics of the Spanish hen do not differ widely from those of the cock. It is chiefly in the comb where

this difference is most strongly visible. While a perfectly upright comb is an essential in the male bird, in the hen it is equally imperative that comb shall fall over one side of the face—Nature or fashion not having decreed which side it should be. A good comb must be large, deeply serrated, broad at the base, and tapering away to a thin edge.

The "fall" should not, as is necessarily the case with narrow based and flappy combs, commence at the very base, thus forming an angle with the top of the head; but the comb should rise erect and firm for a short distance above the skull, and then fall over with a fine arch, the outer curve presenting a smooth, unwrinkled surface. During the moult, a faultless comb may wither up in an extraordinary degree, and assume an upright position. This however, need not alarm the Tyro, for when the bird regains its good condition the comb will resume its normal character. A hen with an upright comb, though condemned as an exhibition bird, is sometimes recommended for breeding cockerels with fine combs. This is one of the fallacies into which those who trust to "the light of Nature," rather than to scientific habits of observation, easily fall.

That such hens are useless for breeding pullets and worse than useless for breeding cockerels, repeated experiments made by myself, and independently by others, have amply demonstrated.

Of faces in Spanish hens there are two distinct varieties one long and relatively narrow, the other shorter, but wider and flatter. I am inclined to prefer the latter, for they certainly show to better advantage in the show-pen. In any case, however, the larger the face is the better, always provided it is without coarseness. The ear-lobe should lie within the area of the face. In order to enlarge the face it has been customary with some to cut it underneath the bottom of the lobes and stitch it back to the neck. This somewhat cruel, and certainly dishonest practice, is to be condemned; and, to reiterate an opinion expressed before, it would be well if judges carefully examined birds with a view of detecting all such attempts at deception. Unlike the cock, the hen should have small and thin wattles.

After the moult, it sometimes happens that Spanish fowls, especially the hens, even young ones, exhibit patches of white in their plumage, giving them quite a piebald appearance. Such hens are, as far as my experience goes, not a whit the worse for breeding purposes. This phenomenon may possibly be explained as being the result of same causes which produce greyness in the hair of man or woman—causes which are most active during old age and periods of debility. It is evidently in the moulting season that these causes have the most activity in Spanish fowls;

and for this reason, as well as for other obvious reasons, it is of great importance that they should be well prepared for the ordeal by judicious feeding.

To starve a fowl as a preparation for the moult is, in my opinion, as great a mistake as to allow it too put on too much fat. The object should be to lay up a store of stamina; and this object is best attained by feeding with flesh forming foods, carefully eschewing those which have a tendency to form fat. In other words, while avoiding maize, potato, and sparingly using soft food as a morning meal, feed mainly on wheat, oats, and barley, with the occasional addition of a little hempseed at the evening meal.

Spanish pullets will, as a rule, begin to lay when they are about six months old, and will continue to do so during the winter. The hens about February, or sooner if the season be favorable, and continue until they begin to moult in the autumn.

IV.—MATING.

He who aspires to become a Spanish fancier in more than name will not long remain satisfied with doubtful laurels won for him by birds purchased from some successful breeder; but he will naturally be ambitious to create a strain of his own, and ultimately, by perseverance and increasing knowledge, to be able to produce his own prize-winners.

In the attempt to realize this praiseworthy intention, he may, and probably will, if left to his own resources, unaided except by what is called "common sense," be doomed to undergo a bitter and disheartening experience, involving much loss of time, loss of money, and, worst perhaps of all, loss of enthusiasm.

As a preliminary step he will, doubtless, seek to procure, probably from widely different sources, the most perfect birds his pecuniary resources will allow.

By good fortune his first effort may be tolerably successful. Or, at least equal probability, his first brood may not contain a single fine specimen, and, moreover, may be tainted throughout with the fatal pink in the face.

In his consequent despair he will most likely ask—"If comparatively faultless birds such as mine fail to produce anything but trash, how can I ever hope to breed a prize-winner?" The answer to this question may, if the beginner is fortunate in his adviser, bring him at the outset face to face with a fundamental law of breeding, which was, I believe, clearly enunciated for the first time by the great naturalist, Charles Darwin.

Mr. Darwin has incontestably established the fact that *the act of crossing two distinct strains gives an impulse towards reversion to long lost characters*, even when all traces of such characters are conspicuously absent in the birds mated.

Perhaps in no breed is the operation of this law more visibly manifested than in Spanish.

The lost character of the original progenitors of the present white-face Spanish was, as I have already hinted in my first paper, a *red face*; and the simple act of mating two birds, however individually perfect, will, if they belong to widely unrelated strains, give their progeny a powerful impulse to revert to the objectionable red face, and also to other characteristics which are condemned by the existing standard of perfection.

Here, then, we probably have an explanation of our tyro's perplexing failure; while carefully choosing the best birds he could buy, he made the fatal mistake of selecting them from entirely alien strains. He may, it is true, in time eradicate the mischief by crossing back to one of the original strains.

Of course, it is occasionally necessary to introduce new blood, even after a breeder has established a strain; but by good management this need only happen at very rare intervals. If four or five pens are made up each year, the resulting pullets and cockerels may the next year be so distributed that the *individual* relationship need not be too intimate, and so on for succeeding years.

Also, *for once*, I do not hesitate to mate a hen with her own chicken, or a cock with his immediate offspring; brothers and sisters, I do not consider it so wise to pair.

Again, I have sometimes lent a promising cockerel to a brother fancier for one or two years, and then, after his relationship had grown more personally remote, re-introduced him into my own yard.

When, however, new blood is absolutely necessary, it is advisable, if possible, to procure a cockerel or hens from a person to whom you have in years past sold some of your birds, so that the blood is not entirely alien. In any case, the introduction of pullets is preferable to that of cocks; and this for two reasons—the hen has the least influence on fancy points, and if her influence is for evil it ceases with herself.

To sum up. The beginner will wisely select his first breeding pen from birds of the same strains; the more experienced breeder will not capriciously import flesh blood, but only on rare occasions, when absolutely necessary.

Coming now to the proper time for mating, I am of opinion that if early chickens are required, the breeding pens should be made up as early in the year as possible, or, better still, at the beginning of December in the preceding year. But unless Spanish chickens are specially desired for exhibition in the summer shows, it is better to delay hatching until the beginning or middle of April, when, unchecked in their growth by untoward conditions of

weather, they speedily outstrip those hatched earlier, and ultimately develop into much finer birds.

Seven or eight hens is a good number to put with a cockerel; while four, or at most five, will, as a rule, be enough for a cock of two or three years.

A Spanish cock in his third or fourth year, especially if he has been much shown, is very rarely of use except in fine and warm weather, and is therefore not to be relied on for early chickens. In fact, I do not recommend the keeping of such birds, unless, of course, they can still hold their own in the show-pen.

The combination of cockerels and pullets is decidedly productive of the least satisfactory offspring, which are liable to weakness in the legs. A much better combination is made up of cocks and hens in their second year. But for the breeding of large and healthy chickens, I prefer to mate a cockerel with hens the age of which is less a consideration than their power of laying. Pullets mated with a cock will also breed well together.

It is worthy of note that if a cockerel be mated with two or three adult hens the result will almost certainly be a preponderating number of male birds. Also in the majority of instances, the cockerels are most influenced by the dominating characteristics of the father; and in the same manner the pullets by the mother.

Another important and interesting consideration for the breeder is that of the relative influences of the cock and hen upon their progeny. As a general rule, I am strongly inclined to think, the hen exerts a dominating influence in the matters of size and general constitutional qualities; while the cock possesses most influence over the "fancy" points—such as the quality, etc. But it must not be too rashly assumed that the hen has little or nothing to do with the latter points.

Acting in accordance with my belief in the general truth contained in the above statements, I have made it a practice, mostly with the best results, of putting a cockerel of very fine quality, even though he has been somewhat small in face and size generally, with large and coarse hens. With an exactly reverse plan I have been less successful.

That because a hen has an upright comb, like that of a cock, she must necessarily breed cockerels with extraordinary fine combs, is a mistaken notion which should be dispelled. To assume any such thing is analogous to the absurd assumption that an intensely masculine woman must needs be the mother of manly men. An upright comb in a hen is almost a *sexual* defect; and to suppose that because the female encroaches upon the attributes of the male, those attributes will be intensified in her male offspring, is hardly consistent with a belief in the harmonious working of Nature.

But laying theory aside, experience has definitely taught us that hens with conspicuously upright combs should be avoided for breeding purposes.

In making up a pen, the hens possessing the same weak points should be put together, in order that their common defect may as far as possible be compensated or remedied by corresponding excellencies in the cock mated with them. For instance, hens with inferior combs may be selected to form one pen, and a cock with a fine broad-based comb put to them.

Male and female birds exhibiting the same faults—more especially if such faults be hereditary in the strain and not accidental—must not be put together.

Many pages might be written, many vexed questions might be raised, upon the all important question of mating; but it would be utterly impossible to draw up a list of definite rules for the guidance of the beginner. He must use intelligent observation, and experience brought by experiment, to aid him in solving the varying problems as they arise.

POULTRY ON THE FARM.

BY MR. L. G. JARVIS, LONDON, ONT.

In Poultry Association of Ontario Report.

SELECTION OF STOCK.—Farmers fail to keep poultry profitably, because their stock is not adapted to their circumstances, or to the purpose intended. A great many breeds have been developed by the poultry fancier, differing in quality and appearance, and suited to special requirements. If the desired feature be in the shape of egg production, larger size of body, early maturity for the market, or anything else, there is at least some one of these breeds adopted for the purpose desired.

If only one breed is to be kept, and both eggs and meat are required, I would select the Plymouth Rock, either the barred or white. For market purposes and for the farmer and breeder who keeps fowls to supply the consumption of eggs and poultry, the Plymouth Rock has no equal. If constant laying is required, select the Leghorns, Wyandottes Minorcas, or Houdans. The former will produce the most eggs and of fair size and good quality, while the Wyandottes will lay more during the winter and will be found a good table fowl of good size.

They mature early, making them a good market fowl. Minorcas will furnish the largest eggs, but they are not

quite as hardy as the others, and having white skin is somewhat against them for the Canadian market. The Houdan is the only French fowl suitable for this climate, and is considered a good all round fowl of large size, an average layer, eggs a good size—next to Minorcas are Spanish; they are becoming more popular and will no doubt be one of the leading breeds for the farmer. Where dead poultry for the market is the main object the Dorking and Brahma are invaluable. They fatten easy and mature early, and have a fine appearance on the table. They may be crossed, when they will produce the largest fowls of any-cross bred known, and can hardly be distinguished from the pure Dorking, so much admired in England as a table fowl.

We have mentioned the varieties which as a rule will produce the best results, in the various circumstances referred to, and with proper care will prove profitable to the farmer, and add greatly to the requirements of the people. After selecting your stock you must proceed to study and care for them if you expect to have satisfactory results; for it left to breed indiscriminately, and only get what food they can pick and without suitable accommodation, the result will not be satisfactory.

As regards laying stock, nearly all all fowls, under ordinary circumstances will lay so long as eggs are cheap; but to produce eggs in winter means profit and the want of them as clearly means loss. Pullets hatched early, will moult early and have the advantage of the warm weather, and so get through the process quicker. They are then ready to commence laying in good time. No hen should be allowed to see more than her third autumn; after that age there is a great falling off in the egg production. We find that stock produced from two year old birds will grow larger and mature earlier than from young stock. If pullets are to be bred from they should be mated with mature males not having over ten or fifteen hens to each male.

FEEDING AND GENERAL TREATMENT OF FOWLS. Proper feeding, proper accommodation, pure air, cleanliness and exercise are the essentials to success in poultry-keeping, and when the amateur becomes interested in the care of his stock and sees them healthy and attractive in appearance, and the readiness to which they respond to good treatment by the merry cackle, the work that they once considered laborious becomes now pleasant and remunerative. No fowls require at the most more than three meals per day; the morning meal is the most important and the best relished, it should consist of soft or pulpy food of some kind, and be fed as early in the morning as possible. As for quantity no fixed scale can be given, but no more than they

can eat up clean.

Ground oats will make the cheapest and best soft food; to this may be added barley meal and boiled potatoes, well mashed, If skim-milk can be procured it should be used for mixing instead of water, especially with laying hens. The mixing of this food is important. It should be mixed as dry as possible, for if too wet and sloppy it may produce diarrhoea. It should be so mixed that while none of the meal be left dry, the whole should be so firm and short that a mass of it will break and crumble if thrown on the ground. Food so mixed is more wholesome and will be better enjoyed.

With regard to grain, use wheat, barley or buckwheat for a midday meal, and corn at night. When the fowls are confined they need exercise, and to secure it the floor of shed should be covered with cut straw or leaves on which all grain should be scattered so that the fowls will have to scratch for every kernel they get. It is a "do or die" policy, but it works admirably. I find that buckwheat is the cheapest and best of all grain for laying hens. Fowls become fond of it as soon as they get to recognize its strange color; by cooking it until it cracks open like rice you will find it will be eagerly sought after, and can be given once a day with good results. In France, where they produce such immense quantities of eggs for the English markets, they use this grain almost exclusively, both for fattening and for egg production. To keep fowls in health and good condition they do not require animal food but if a regular supply of eggs be desired it is quite necessary. A bullock's liver chopped fine after being boiled and seasoned with pepper and salt will be the cheapest mode of providing animal food, and given two or three times a week will make considerable difference in the quantity of eggs in the winter time. Another requisite in the shape of diet is a regular supply of green food to fowls that are penned up daily. If fowls cannot have a grass run during the summer months grass should be cut or pulled, and made fine with shears or machine and thrown into feeding trough or it may be mixed with soft food when the birds must eat their regular portion; the more given the better so long as it is given regularly. In the winter season, cabbage should be supplied them, and also beets cut in pieces will be relished, Fowls thus fed will not require so much water. All refuse should be regularly cleared away; as sanitary laws should be strictly observed with fowls as with human beings, if we expect to have them healthy and profitable. Water should be provided and kept

clean. If proper vessels or fountains are used they need only be changed every two days, excepting during very warm weather when they should be changed as often as possible and kept in the shade. Stale or sun-warmed water may lead to cholera and other diseases. Fowls should be kept supplied with gravel and lime; old mortar will answer if crushed fine.

THE POULTRY HOUSE.—Every poultry house should be provided with a dust bath, composed of sifted coal ashes and road dust, and some sulphur should be mixed with it to prevent vermin. If this is attended to, and the house kept clean, there will be little trouble from lice, which are a great annoyance to both attendant and fowl. Avoid all permanent or box-made nests as they become harbors for vermin, they should be kept clean; roosts should be made moveable and thoroughly cleaned several times in the year and saturated with coal oil to which may be added a little carbolic acid. By paying strict attention to cleanliness in your poultry houses you will not be troubled with red or spider lice, as is often found in the cracks of the wall or on the roosts. They sap the blood from the fowl which become sallow in face and head. Working at night they are not noticed, and many fowls have lost their lives by these night marauders, and fowls thus troubled will not be profitable.

In conclusion I would say that poultry kept judiciously and systematically looked after will yield a good return. we do not advise the laying out of whole farms in poultry runs, and building houses especially for that purpose, but do believe that poultry should have their proper place and be managed with the same care as other stock and by so doing this important branch of farm product will increase, and will not only supply home consumption but will also bring a large revenue to the country.

THE BACHE FUND.

OUR friend and brother fancier C. R. Bache, died on the 15th inst., aged 35 years. He was sick about eight months and underwent an operation at Grace Hospital for cancer. Most of the fanciers in Ontario knew him as he was one of the attendants in the Poultry Department at the Industrial Exhibition. He is gone and we shall miss him.

I wish to make an appeal on behalf of his wife and four little ones who are left totally unprovided for. The Toronto Poultry, Pigeon and Pet Stock Association very generously

took up a collection on behalf of Mr. Bache when alive, but that did not go far as he had to have every nourishment he could get. I would ask your friends to do what they can. All monies received will be acknowledged through the REVIEW and can be sent to Mr. H. B. Donovan, 118 Victoria Street or C. J. Daniel, 221 River St. I beg to subscribe my mite, \$5.

C. J. DANIELS.

HERE AND THERE.

CONGRATULATIONS to Mr. J. L. Haycock, of Haycock & Kent, Kingston, who has been returned as the Patron candidate for Frontenac. We know the poultry industry will receive many a good word from him in the local House.

A letter from the Manager apprises us of the fact that all intention of holding a fall exhibition in Montreal this year has been abandoned.

Single bird show at London this year. Good.

The *Canadian Dry Goods Review* for June contains the following editorial:

CANADIAN FEATHERS TO BE USED.

One of the changes of the new tariff which has been little noticed, but which, however, must influence to a large extent not only several factories, but also the farming community of the whole Dominion, is the duty on feathers and on feather and down goods.

Before the change the duty was 25 per cent. on raw feathers and 35 per cent. on manufactured articles, thus giving a 10 per cent. protection to manufacturers. The duty has been made 30 per cent. all round on feathers, whether in raw state, purified or manufactured.

The leading manufacturers in this branch—the Alaska Feather and Down Co., of Montreal (late McIntosh, Williams & Co.), say that they have met the change in the tariff by a complete change of policy. They now use exclusively Canadian feathers, and find that these are not only more downy (owing to our severe winter), but are available in such large quantities that they have given up importing altogether, and are able to give better value than before to their numerous customers.

This is a good thing for the farmers, who now are having a regular market for their goose, duck, hen and turkey feathers, whilst before they had to put them in an unpriced state into beds and pillows, simply because there was no market for them.

Goose and duck breeding is going to be a paying branch of agriculture much more than it has ever been.

It is pleasant to note that a better class of feathers is procurable in Canada than can be had in the United States. The inmates of the poultry yard now yield three easily marketed products, meat, eggs and feathers, and you don't have to wait three to five years for it either. Is poultry too

small a matter for you to trouble with Mr. Farmer? It should not be so.

We give in extenso the following papers read at the annual meeting of the Poultry Association.

POULTRY SHOWS, AND THEIR RELATIVE VALUE TO THE FARMER.

BY C. J. DANIELS, TORONTO.

SPEAKING on the above subject opens up a very wide field, and one I shall not attempt to cover in this short address. But I will take a few points of interest to every farmer. Of what interest are poultry shows to 'he farmer? I answer, much every way. First, go back, if you will, say fifteen or twenty years, and what to you find? On the majority of farms, fowl about the size of partridges. Here is a case in point. I was at Brampton some three winters ago, and called on a well-known poultry dealer there. He remarked, "I have something to show you," and he took me to his store window and there was a fine string of cockerels, dressed all ready for Toronto, not a bird weighing less than 6 lb., nice yellow flesh and good plump bodies. These birds had been picked up at a farm house, and were a cross from a barred Plymouth Rock cock on the common barn-yard fowl. Here we see where breeders and poultry shows are doing good work, and, for the benefit of our farmer friends, I would say I do not know of any one breed that is better adapted to improve poultry on the farm than the Plymouth Rock or Wyandotte. They fill a want between the large and small breeds, and besides good flesh they have additional qualities of hardiness, vigor, docility and productiveness. They make good foragers on the farm; they become self-reliant and will provide for themselves a good share of their living in good weather. They also stand the summer's heat and winter's frost, neglect and uncomfortable quarters, without showing signs of deterioration.

The Experimental Farm at Ottawa is doing a good work in supplying farmers with pure bred cockerels and eggs for improvement of their stock. Mr. A. G. Gilbert, of the Central Experimental Farm, in his report for 1891, says: "As a general rule, the farmers of the country inbreed from one year to another with a loss of vitality and size to their stock. Another advantage to the farmer using pure bred males is in the increase in number of eggs. A poor, run-down hen or pullet will not lay more than 75 eggs per year; by getting new blood infused, you will double that number or more." All this goes to show that the fancier and poultry shows are of sterling value.

A word to the farmer. Outside of poultry shows there is a part you will have to attend to yourselves, viz., proper care and proper quarters. The most proper and most sensible way for a farmer to keep poultry is to provide not expensive, but comfortable quarters for them to live in. My experience with many farmers' hen-houses has been that I have been glad to get out and look for an itching post. The houses should be thoroughly cleaned once every week, as the cause of insects is not to be laid at the door of the fowls, as you do not find on the body of the fowl the kind of louse that infests the roosts. They are entirely of a different character, color and form. Of the body louse the hen will free herself if her quarters are kept clean, and the house will never be infested with the grey louse or red nit if the house is so kept, and the poultry will always go there to roost and to lay. A large percentage of eggs laid about a number of farms are lost, because the fowl will not venture inside the poultry house to lay for fear she may be consumed by the vermin that infest it. Outside this care and attention, they should receive in summer sufficient food to keep them in fair condition, not fat, as an over fat hen will not lay in winter. They should be fed sufficient to keep them from being hungry.

In conclusion, I will say, brother fanciers, it is the duty of every breeder of fine fowls to exhibit his birds and add his share in the education of the farmer and others by convincing them of the advantages to be derived from the improved breeds. The enterprising and wide-awake members of this class are not slow to see the advantages of fine fowls over scrubs, just as they see the merits of other fine stock over the common blood.

THE CARE AND MANAGEMENT OF POULTRY ON THE FARM.

BY J. E. MEYER, KOSSUTH, ONT.

IN these times of depressed prices in all farm products, the farmers of our province will do well to study most carefully the different sources by which their incomes may be increased. It is conceded by all parties and on all hands that the days when a large majority of our farmers depend chiefly upon their wheat crop to pay their rents and mortgages are gone, never to return, and that other things than grain-raising must in future engage the attention of those in this province who are going to make farming pay. The raising of live stock and their products, for which our

magnificent province is so well adapted, and for which, I must add, judging from the glorious victories we won at Chicago, the farmers of Ontario are so admirably adapted, must in future form a large percentage of our incomes. How much more pleasant will farming become as we drift from the monotony of grain raising to live stock, which yields its harvest not only at harvest time, but at all seasons of the year, to him who is painstaking and industrious.

There is no live stock that will pay, when properly managed, a larger percentage of profit than poultry. Yet how many farmers entirely neglect their fowls. They forget that they require suitable shelter and food, as do their horses, cattle and pigs. Many of our farmers have barns facing south, with more or less shed attached, in which manure is placed. Now, the very best place for a farmer so situated to build his poultry house is in as sheltered a place as possible, so near the barnyard that the fowls can have access to it at all times. There is no place that the fowls will enjoy more during the sunny days of winter than scratching in the manure, and even in rather cold, stormy days they will venture out. The building itself should face south, and have plenty of glass towards the south. Nothing is better for the health of fowls than sunlight, nothing is worse for their health than damp. Be sure your building is in a dry place. Frame is better material to use than stone or gravel. You cannot build it too warm. Any extra money you spend to make the building warm will return to you tenfold. I shall now describe to you the interior of the poultry house and the fowls of a farmer I visited not long since. I do so because I believe that there are far too many no better, and by pointing out the improvements that should be made, I may assist some who wish to make their poultry pay. The perches were placed on a level at one end of the room, for there was but one room, without a drop-board underneath. The droppings under the perches had been accumulating for months; the rest of the floor was slimy with filth. In the centre of the place was a beautiful device called a self feeder, to which the fowls could go at all times and find, or, rather, not find, plenty of grain. It would hold several bushels, and is a capital thing for lazy people. The water was all but filled with ice, and there were enough nest-boxes along one side for five times the number of hens he had. The building was fairly warm and well enough built. His flock of fowls, largely pure bred, was not too large, but it contained birds from a few months to six or seven years of age. Did the owner get any eggs? Did he deserve to get any, I ask? He pointed with pride to his cattle and horses, and thought his pigs quite the best in the

neighborhood. Where they in filth? Did he use self-feeding devices for them? No, indeed, he knew well that such treatment would soon ruin his fine stock. Of course his hens don't lay. What should he do?

First the perches? A great deal more depends upon them than most farmers suppose. In this case they were not high up being about three feet from the floor, so the fowls ran no great risk of breaking their necks when descending every morning. Look at that hot-bed of filth and disease through which the fowls are constantly walking underneath the perches. Just think of the countless millions of lice such a place would breed in warm weather, and all the scaly-legs and like filth that would go with them. While speaking of perches, allow me to use several other examples I saw in one place perches at least ten feet high. The owner was complaining of lice, and well he might. Just think of the millions of them day after day sitting up there smiling at him in security, awaiting the return of the birds at night for the feast they never earned. Then there is the perch with the high seat, and the low seat, and the seats between, on which all the birds quarrel for the high seat. The simplest and in every way the handiest way to build perches, is first build a tight platform about three feet high, and about a foot above this place your perches, which should be moveable. Coal oil, when used regularly on and about the perches, is the simplest way to keep down lice. You can easily get at perches arranged in this way. It will be quite easy to clean off the drop board twice a week. You clean your horse and cow stables at least once a day, and consider it a necessity. You must attend to your poultry in the same regular manner if they are to pay. Do not forget that filth causes lice, and that you cannot raise lice and eggs together. That self-feeder should be taken out and destroyed. The floor should be littered six inches deep with straw, and grain, just enough at a time, should be thrown amongst it. The hens will scratch for it, and plenty of exercise means more eggs. Lazy hens rarely lay. Hens need a variety of food. Wheat is the best grain, but corn, buckwheat, and barley are good. Oats are best crushed, as otherwise they will leave the light grain. Pulped turnips, cabbage and apples are necessary, as well as meat occasionally. But clover hay, or better, second crop clover, cut fine, mixed with crushed grain, and steamed by placing in a wooden pail and pouring boiling water over it, and then covering with a cloth for a time, makes a most excellent and cheap egg food. It should be fed in the morning. Give your fowls warm water to drink at least twice a day during cold winter weather. It will more than repay you in increased egg production.

The last mistake is one that is far too common amongst our farmers, and one for which they pay dearly, namely, the rearing of chicks as late as July, and keeping the pullets amongst the larger fowls during winter where they cannot thrive, besides, it takes far more food to bring them to maturity during cold weather. Now, chickens of no variety should be hatched after June 1st. It will do very well to hatch the small breeds during the last of May, but the large and medium sized breeds should be hatched not later than the middle of May, so that the pullets may be ready to begin laying before the cold weather sets in, when, with proper care, they will lay throughout the whole winter, while eggs bring the highest price. You cannot expect success with birds of all sizes and ages. Twenty pullets hatched in April are worth more than double the number hatched in June. On the other hand, no hen should be kept the third winter unless she is an extra good one.

Another great mistake is keeping too large flocks together. There is no profit in keeping 100 hens in a place hardly large enough for 50. In fact, I doubt very much if 100 hens should ever be kept in one flock. I consider 50 an outside number. They will lay more eggs during winter in the same place than 100. To illustrate. For several winters I kept from 25 to 30 birds in a pen 14 x 10 feet, and got very few eggs. Of late winters I keep only half the number, and get more than twice as many eggs. If you are keeping 50 hens, you should raise 25 early pullets each year to replace the 25 two year-old hens which should be killed in the fall, as soon as they begin to moult. They will be in good condition then. In this way you will always have birds that, with proper care, must prove profitable. Remember that besides small flocks, your birds must have plenty of room. They cannot have too much.

Another very costly and very general mistake is the keeping of half a dozen male birds. The 175,000 farmers of Ontario are feeding at least 700,000 male birds, and to what purpose? I have reason to believe that a vast majority of our farmers would answer, "For the purpose of increasing the egg production," for I have had farmers tell me that they always thought that, without males, the hens would not lay, whereas the truth is that they will lay just as many eggs, but with this difference. The eggs will keep far better and longer when the male is removed. Remember that if you feed a hen the proper material to make eggs, and put her in the proper place to make them, she must lay, for she is nothing but a machine to manufacture eggs. One male bird, then, is sufficient for each farmer. We find, then, that the farmers of Ontario are feeding at least 500,000 male birds that are unnecessary, and that annually cost

them \$500,000 to feed, and bring them absolutely nothing. Replace these males with as many young hens, and they will, if properly handled, pay for their feed and bring in a profit each. Here, then, is half a million dollars for the farmers where now they lose annually that amount, or, in other words, the farmers of Ontario are out of pocket at least one million dollars annually through keeping too many male birds. You should always select a pure-bred male. When it is time to mate up your breeding-pen, select 10 or 12 of your choicest females, and put them in a pen for the purpose with the male. It will pay you to have an outside run to this pen. Take your eggs for hatching from this pen. If it is the second season for the male, get rid of him just as soon as you have saved enough eggs. Be very careful not to in-breed. It destroys the egg production of your hens, and it destroys their vitality and size. By selecting your breeding birds in this way, you can choose not only the largest and finest, but the best layers, especially if you choose yearlings, from which you are likely to obtain the strongest chicks. By breeding thus, you will add materially to the value of your fowls year by year. The number of eggs your hens will lay will greatly increase, and instead of the miserable dressed poultry we too often see on our markets, and that weigh not more than four or five pounds per pair, we will see fine, plump birds that dress five and six pounds each, and sell for twice as much, while they cost the farmer very little more to raise. The demand for perfectly fresh eggs and for plump, tender fowls will never cease. They will always command good prices.

On Christmas day a farmer visited my yards, who has built an excellent poultry house, intending to raise fowls and eggs for the market in large numbers. He said that it does not pay him to sell wheat at the present prices, and thinks he can make more out of it by feeding it to fowls. I have no doubt that, with careful management, it will pay him well, but see how he begins. He has bought birds of six or seven varieties. Is it to be expected that a farmer without any experience can pay out money for so many varieties and make it pay? Is it not nonsense for a man who wishes to keep hens for eggs only to buy Minorcas, Leghorns and Red Caps to begin with? Where is the man who will say which of these great laying varieties will lay most eggs? Who will say which is the best general purpose fowl? It is not necessary, then, for one who wishes a general purpose bird to begin with four or five varieties. No! Visit poultry shows and choose one variety of either great layers, or general purpose birds, or one of each. Choose the variety you like best. If you don't know which you like best, wait until you do know. It would never have done if you had

liked three or four girls best when you made up your mind to get married, neither will it do here.

In conclusion, I would recommend that lectures on poultry be given at Farmers' Institutes. It is largely owing to the lectures in dairying at these meetings that the value of the cheese product of Ontario has increased from \$5,500,000 in 1883 to \$9,000,000 in 1892, or almost double, to say nothing of increase in value and quality of butter produced. I am convinced that suitable lectures on poultry would be of at least as much benefit to our farmers. I know that a chicken is considered by a great many as of no consequence, and that to be a chicken-breeder is thought a very low calling, but I tell you, gentlemen, that the time has come when the farmers of Ontario must look for their incomes to every available source if they are going to thrive. Raise the poultry on your farms to the same standard of excellence as your other stock; give them the same attention and intelligent care you do your butter and cheese-making and your fine stock, and you will add millions to the wealth of this province, and thousands of dollars annually to the incomes of our farmers.

THE CANADIAN POULTRY INDUSTRY.

BY W. R. PLUM, NEW HAMBURG.

I THANK the Association for the honor conferred in asking me to address this meeting, though I cannot say anything on the practical side of the subject that would be of any value to you or that any of the gentlemen here present do not already know. I am not directly interested in the poultry industry, but as a Canadian to the manor born I can speak with pride and satisfaction of its importance and value to the people of Canada and of its rapid development during the past twenty years. In those twenty years it has increased beyond our most sanguine expectations, and become an important factor in the trade and commerce of this country, and notwithstanding its extension it is capable, we believe, of reaching proportions tenfold greater than its present volume. The Provincial Government, fully alive to the value of the trade to this Province has wisely, we think, materially assisted in promoting its expansion by an annual grant of \$900 a year to this Association. This action on the part of the Government, I know, will be commended by all present, as they are assisting in fostering and building up an industry, the surplus of which realizes to the people of Canada no less than between one and two millions of dollars annually.

In looking over the public records I find that in 1868, just 25 years ago, the total value of eggs exported was only \$206,000, but the trade increased by strides and bounds each and every year until in 1894 it reached the prodigious sum of \$1,960,000 and remained about stationary at that sum until the year 1888, when the eggs sent out of Canada brought back into the pockets of our people \$2,122,000 and \$2,159,000 in the year 1889. Since the year 1889 there has been a falling off in the value of the export, which is partly due to the falling off in quantity shipped as well as in price realized. I find that the average price realized in 1883 was 16 8-10 cents, while this year the average has been 14 cents. Since the year 1889 the value of the egg export has been between one and two millions; in 1892 it is set down at \$1,089,000, the number of eggs exported being 7,931,000 dozens. I have not the figures for 1893, but I find that the British Board of Trade returns show that in January, 1891, they imported from Canada only 450 dozens and in January, 1892, only 11,600, while in January, 1893, they took from us no less than 43,000 dozens.

In speaking of our possibilities in this industry, let me say that while we now export about 8,000,000 dozens annually, that Great Britain imports 100,000,000 dozens at a cost to her people of about \$15,000,000 a year. In other words, if we could supply Britain with her eggs we would instead of realizing \$1,089,000 receive an annual return of \$15,000,000. It is this thought I know that has prompted the Provincial Government to lend with their presence and their grant so much valuable aid in assisting us to secure the greatest amount of that trade.

I find that up to the year 1891 our surplus eggs went to the United States. In that year Britain took only 83,000 dozens, but in 1892 our trade with Britain increased by 3,338,000 dozens, amounting to half a million dollars, and our trade with the States fell in the same year from nearly \$2,000,000 to \$494,000, the result, as you are aware of the almost prohibitive McKinley tariff.

But as the tariff is likely to be removed in the near future those engaged in the industry can look forward hopefully to two great markets were all they can produce may be sold at profitable prices.

In speaking of the enterprise of our poultrymen, I need only tell you that the public records I show that they have searched the whole earth for breeds wherewith to improve the stock—they have imported from Hong Kong, from Japan, the United States, Britain, British West Indies, and from China, and the splendid exhibit here to-day shows us that their labors have not been in vain. It is an exhibition that any of the old nations might well be proud of. In conclusion let me thank you for your kindly hearing. As a

citizen of this place I bid you all a kindly welcome here to-day. I congratulate you on having brought together so many representative men from different parts of the Dominion. I congratulate you on having in your midst so distinguished a person as the Hon. John Dryden, Minister of Agriculture. I trust that your visit to our town will prove both pleasant and profitable, and that you will carry away with you a good impression of our people, as I know you will their best wishes for your future prosperity. And I further trust that your impression is such that you will decide to bring back the Provincial show to us at no distant day.

DERBYSHIRE RED CAPS.

BY F. H. BROWN, PORT HOPE.

THE Derbyshire Red Caps are natives of Derbyshire, England, and are especially noted for their great egg-producing qualities, as they are claimed to excel the Leghorns and all other non-setting varieties in the production of eggs. In fact, they are regular egg machines in themselves, and are decidedly the fowl for the raisers of eggs for market. The eggs are above the average size, and are of a superior quality and flavor. The color of egg is white or slightly tinted. The birds possess a plumage that will stand exposure to dirt, dust and weather and still look well the year round. The distinguishing feature of the Red Caps as suggested is the rose comb, which should be of good medium size, full of fancy work or spikes standing perfectly straight on the head, with long, straight spike behind. Of course the comb of the cock should be much larger than that of the hen. The neck hackle of the cock should be rich dark red, or golden red, striped with bluish black, the back should be black and red; breast and tail solid black: saddle rich deep slate color and of good length ear-lobes and face, rich red. The standard weight of a cock is seven and a half pounds. The ground color of a hen is a rich, nut brown, each feather spangled with a bluish black half moon or crescent shaped spangle; tail, back; ear-lobes and face, red; neck hackle, laced with red; standard weight of hen six and half pounds. A Red Cap cockerel at six months will weigh six pounds and a pullet of same age will go five pounds. The Red Caps are a fair table fowl, much better than the Leghorns or Minorcas, being of a nice rich, juicy meat. The size and weight place them in the front rank as a general purpose fowl, they are a happy and contented family and good foragers. They bear confinement well, and the chicks are very easily raised and

mature rapidly; at first sight their creed catches the eye of the majority. They are troubled less with the different diseases than most any other breed of poultry, and stand cold weather well, owing to the large amount of blood constantly in circulation through the comb which gives them a great advantage over single comb fowl. The Red Caps are finding great favor in America, and the demand for them is constantly increasing as their valuable qualities become more generally known, and records point to the fact that there are as good Red Caps in Canada at present as to be had in America. Persons desiring this beautiful feathered fowl, with its proud and erect carriage can find advertisements of the different breeders in the poultry journals. We have heard of a Red Cap breeder in Canada who had a Red Cap cockerel and four pullets, and in the months of February, March, April, and May, (a total of one hundred and twenty days) he received 373 eggs, being over three eggs every day from the four pullets. This record beats anything we have heard of from any other variety of fowls. As grain is at such a low price we feel satisfied that if our farmers would take up a flock of good poultry, such as the Red Caps, and feed their grain or at least a portion of it, they would make a great profit in this way. Farmers and others feed stock to perfection, and take care of it. Why not do the same with your poultry, in which there is more money than in horses or cattle or any other farm production?

POULTRY FOR PROFIT ON THE FARM.

BY MR. JOHN GRAY, TODMORDEN.

IN dealing with the above subject I feel that I should forget for the time being that I am a breeder of fancy poultry and give only a true, straight opinion as to what I consider the most profitable fowl for farm purposes, consequently I will endeavor to evade as much as possible the common error most poultrymen make when writing up poultry articles, of seeing only the acme of perfection for any use in one particular breed. In the first place I do not consider that any variety of thoroughbred fowls kept straight are the best for the farmer. There is a great difference between the average farmer and the poultry-fancier. The latter must of necessity keep pure bred stock, and exhibit the same to win an measure of success; besides this, as a rule the fancier has very little room to raise stock on, and consequently must endeavor to raise quality from a feather point of view in order to obtain any reasonable benefit from keeping fowls. The farmer, on the other hand, has unlimit-

ed space and can afford to raise large numbers of fowls for market purposes, a branch of his farming which, if properly managed, is bound to give him as good or better returns than any other on the farm. The question that presents itself is, what are the most profitable classes of poultry for the farmer to keep, hens, geese or turkeys?

Before going farther I will give my reasons for saying that I do not believe any variety of fancy poultry, so bred, best for the farmer. The farmer's fowls must necessarily be of a hardy constitution, as in nine cases out of ten they are not given the comfortable quarters or careful attention given by the poultry fancier to his flock. Again, in-breeding certainly deteriorates utility and all varieties of fancy fowls are more or less in-bred. Besides this the farmer is not so likely to be as careful as a fancier in his selection of male birds for out-breeding, so that his variety of fancy fowls would in all probability in a few years dwindle into a flock of miniature culls, and be of no use whatever as a fancy fowl and very little good for any other purpose. Living as I do in the midst of farmers I can assure you that very few farmers are imbued with the spirit of the fancier and could not be convinced that there is any money in going to all the care and trouble which most poultry fanciers must necessarily go to, to win any measure of success. A hardy, quick-maturing fowl is the most suitable for the farm, therefore I would recommend as a start a Wyandotte cock on Plymouth Rock hens or pullets as a foundation of a flock of fowls for that purpose. Each year I would suggest a strong vigorous cock, Plymouth Rock and Wyandotte alternately to keep up the quality. About every fourth year I would use Leghorn cocks to these cross bred hens to aid the egg product. I will venture to say no flock of pure bred fowls will give the same satisfaction as birds bred in this manner, for besides keeping up in size and hardness they will show none of the weaknesses high bred fowls are subject to.

It will be seen by this that while I do not advocate fancy fowls for the farmer I believe in the use of thoroughbred males to keep up table and other qualities. Why? Because on the American continent a yellow-legged, yellow-skinned fowl is the most marketable and that is why I favor the varieties named. Besides having these qualities the Wyandotte and Rock are great winter layers, and the Leghorns would help to check a little their tendency to incubate and help considerably the egg product in summer. Moreover should a mongrel male be used or even a thoroughbred male with dark legs the flock would at once become inferior for table purposes.

Having given what I consider the most useful varieties for the the farm, and my reasons, I would advise the farmer to watch the market to dispose of his stock to the best advantage. Very little work can be done on the farm during February, March and even April, so that the farmer could devote some of his spare time to raising spring chickens which could be marketed at ten weeks old at extra good prices, and form a very profitable business while the crops are growing. It is a great mistake to raise late chickens for market purposes, during April, May and June. Spring chickens ten weeks old will sell readily at 75 and 80 cents a pair; whereas chickens hatched as they usually are on

farms in June and July, and sold in November and December five and six months old, sell at from 25 cents to 50 cents per pair. Therefore it behooves the farmer to raise early chicks, for early pullets makes the best winter layers, and winter eggs are decidedly the most desirable, being three times the value of summer eggs. I do not expect every one present to side with me on this subject, nevertheless the farmer will do well to follow them out. Eggs and meat are the returns he looks for from his fowls and not fancy prices.

There are many farms upon which geese may be profitably reared. Water beyond enough for drinking purposes is not required. The chief necessity is the possession of an abundance of grazing. This need not be valuable, but such as is met with upon hundreds of farms in this country. Rough, rocky hillsides will afford geese excellent pasturage and, as these birds are close feeders, cropping most plants close to the ground, noxious weeds and other undesirable vegetation will be kept down and eventually choked out. In this way geese form a good second to sheep in the reclamations of wild waste land. The great inducement to the rearing of geese in the fact that they can be produced so cheaply upon the many wastes of the farm. The main growth can be made on grass alone, only a small quantity of corn being required for finishing or fattening off. Spring goslings should dress at least at 10 pounds a piece by the holidays when roast goose forms a dish for many of our people. The Toulouse and Embden are probably the best, as they grow to a large size and are decidedly handsome in appearance. Farmers with waste land on their farms should not overlook the fact that there is money in geese.

Turkeys also form a very profitable branch of poultry-raising on the farm, and always find a ready market at a good price. There are thousands of acres of waste land on farms in this province that could be utilized for poultry-raising and on which turkeys and geese would find a living without being any expense whatever to the owners unless just for a few weeks before marketing.

I have attempted to the best of my ability to give what I consider the best poultry for profit on the farm, I would

advise the farmer to be more careful in the matter of housing fowls in winter, and in collecting and storing away the droppings, which can be used to great advantage as a fertilizer. I would also advise every farmer to subscribe to a good poultry paper, as many valuable hints are continually to be found in its columns to those keeping poultry. Also endeavor by good management to obtain the best results by doing which, we shall doubtless hear more reports that poultry are a profit on the farm.



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RULES—1. All purchases must be sent on approval, buyer to pay charges each way unless otherwise arranged.

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