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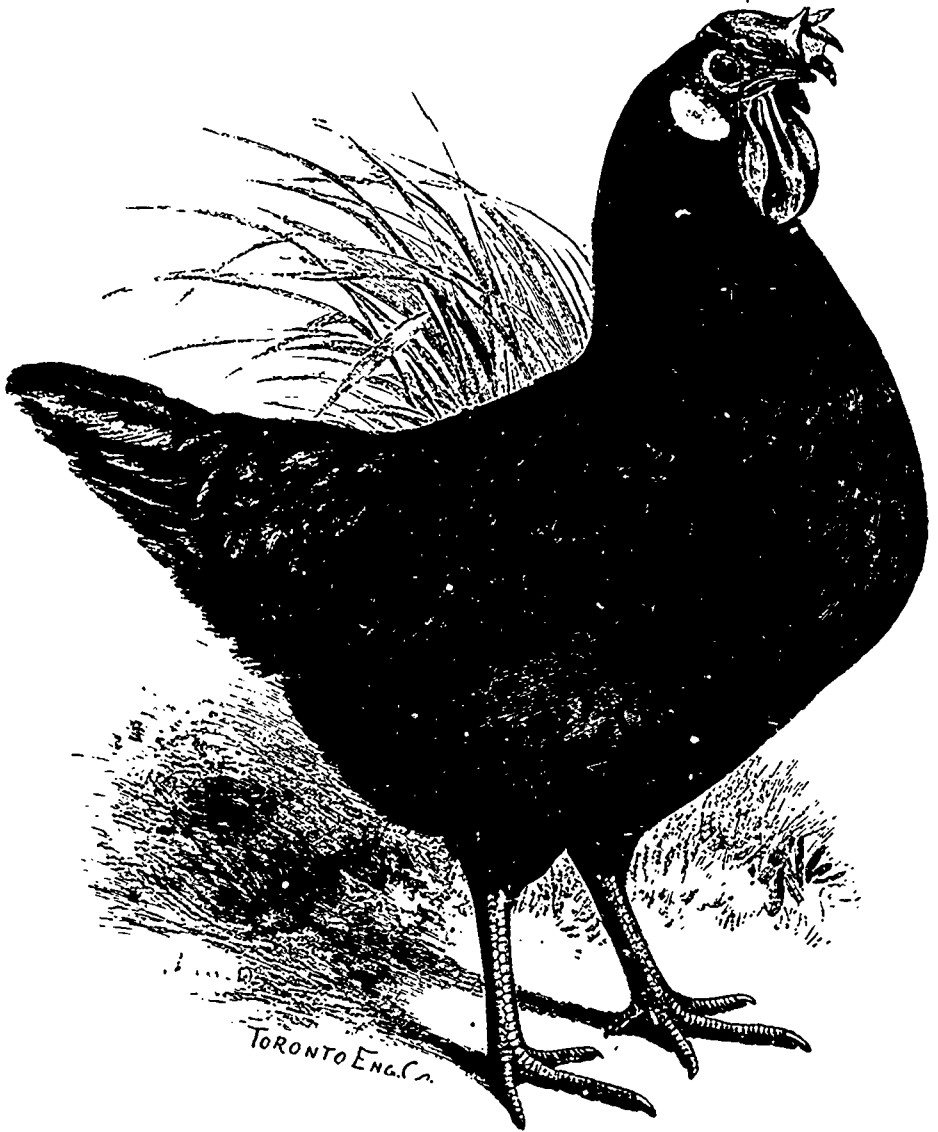
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Our English Portrait.

[CANADIAN POULTRY REVIEW.]
BLACK MINORCA PULLET.

A Winner of Numerous Prizes, Including First and Cup at Liverpool in a Class of S₄.

From the Feathered World.

THE CANADIAN POULTRY REVIEW

DEVOTED TO
POULTRY, IN ALL ITS BRANCHES

PUBLISHED BY H. B. DONOVAN.

VOL. XVI.

118 VICTORIA STREET, TORONTO, AUGUST, 1893.

No. 8.

NOTES AND COMMENTS

Fowls,

OUR English weekly contemporary reprints Mr. Babcock's article on the "Popularity of the light Brahma" which recently appeared in REVIEW, giving due acknowledgment of its source.

WORLD'S FAIR ENTRIES.

The Superintendent for Ontario, Mr. Bogue, writes us that the time for receiving of entries has been extended one month and entries will now be taken up to August 8th.

JUDGES NOT YET APPOINTED.

Mr. Buchanan the chief of the Live Stock Department writes us under date of June 29th that the judges for poultry and pigeons have not yet been appointed.

INDUSTRIAL EXHIBITION, TORONTO.

We would remind our readers that before the next issue of REVIEW is published the date for taking of entries will have expired. Entries must be in the Secretary's hands on or before August 26th. As Toronto has been selected as one of the points for the choosing of birds for the World's Fair we may expect a record breaker in the way of entries. The list of judges and changes in the schedule we have fully reported before. Send for a copy of the list to the Manager, Mr. H. J. Hill, and make your entries early.

MR. C. F. WAGNER, TORONTO,

has bought all Mr. Bennett's barred Plymouth Rocks, old and young, some seventy birds, which he intends to exhibit largely at the fall shows. A recent visit to his poultry farm, beautifully situated on the lake shore, displayed some five hundred chicks of various kinds in all stages of growth.

MR. H. R. WHITAKER, BRIGHTON, MASS.,

writes us that he has now over three hundred light Brahma chicks growing finely. A flock of this number of one variety must be a sight worth seeing.

PIGEON DEPARTMENT.

This department in REVIEW has lagged sadly for some time, are there no pigeon breeders left in Canada? Mr. Massie has agreed to help us in this and beginning with next issue we shall devote considerable space to pigeons and small pets. If supported well and good, if not, we must finally drop it entirely.

MR. J. H. PATON, TORONTO,

is now so much away from home that he is compelled to part with all his stock and is anxious to clean out the remainder even at a sacrifice.

MR. E. GURRY, OSHAWA,

writes as follows: "I see by the REVIEW and also by the Industrial Prize List, that Silver Medals are to be given for the largest and best collection made by one exhibitor in the several classes, thus shutting out the specialty breeder or compelling him to borrow birds to fill all the other sections of the class. Take the American class for example. If a barred Plymouth Rock breeder should win first, second and third on cock, hen, cockerel and pullet, totalling 24 points, another exhibitor might by winning only third prizes on white Rocks, black Javas, A.O.V. Javas, black, white, golden and silver Wyandottes and American Dominiques, totalling 32 points, carry off the medal without owning even a second prize bird. Had the medal been offered for the largest and best collection in any one variety in the several classes, there would be keener competition for them, and they would become the property of the man who owned the best birds." We feel the justice of Mr. Gurry's remarks and no doubt the committee will be glad to take the matter into consideration at the next meeting. Eventually we have no

doubt but that medals will be offered for collections of each breed (not varieties of each breed) and this would give every one satisfaction.

FROM THE ENGLISH *Fanciers' Gazette*

we notice that Mr. William Calway, Sharpness, shipped per Royal Mail Steamer *Parisian* last month, a pen of Houdans from the Blanchworth Poultry Farm to Mr. Howard, Alberta, N.W.T.

MR. C. E. STOCKWELL.

liked the prize winning Plymouth Rock hen so well that he bought from Mr. Pennett, that he concluded to take also the hen, second at the last Ontario Show. This of course was previous to Mr. Bennett's sale to Mr. Wagner.

WORLD'S FAIR.

The following paragraphs are from the American *Stock-keeper*. It seems exceedingly hard to get authentic information from any one connected with the show. Mr. Buchanan's letter to us appears to refute the idea of the appointment of the two gentlemen named as judges.

"News re the Poultry Show at the World's Fair comes piece meal and if some one does not hustle pretty soon the show will prove a fizzle. We understand two judges have already been engaged, Messrs. S. Butterfield and A. F. Stevens."

"The very important office of Superintendent seems to be still vacant. We hope the delay in selecting the person for this position will not be so long as in the dog show, which caused a postponement."

"There seems no good reason for such dilly-dallying, and if the World's Fair desire a creditable poultry exhibit it behooves them to bestir themselves at once."

WESTERN FAIR LONDON.

The management of the Western Fair feels confident that the poultry exhibit this year will surpass all former exhibitions partly on account of the larger number of poultry breeders that reside in the west and also from the fact that the Western Fair is selected as one of the places for choosing birds for the Columbian Exposition. Everyone who witnessed the exhibits in their poultry department last year spoke only in the highest terms of the excellence of the specimens and the attractiveness of the building. Mr. Allan Bogue who is the chairman of this department, understands most thoroughly what is required and the Association let him have pretty much his own way in matters of arrangement and decorations.

We are always pleased to hear of the success which attends the Western Fair. The Committee have added this year, sections for rose-comb Leghorns old and young and

in the Ornamental class, Magpies. There are still some standard varieties which are not entered in their prize lists which we trust will find a place before long. "Little and often" is a very good motto.

NEW BOOK ON BANTAMS.

"Bantams, how to breed and rear" is the name of a neat paper covered book of some eighty pages, issued from the office of the English *Fancier's Gazette* and compiled and written by that good fancier, Mr. L. C. Verrey. Such a work has not before existed, which has often surprised us, taking into consideration the great number of persons who breed Bantams, and should find a ready sale at its published price of one shilling (25 cents). While containing little matter startlingly new its contents are well put together and written in a style which cannot fail to prove of use to the novice and also to the older breeder. It is divided into five parts, 1st. Bantams, the introduction; 2nd. game Bantams; 3rd Bantams not game; 4th. variety Bantams, feathered legged and, 5th. general management, hatching and rearing, preparing for exhibition, technical terms, diseases, etc.

"INCUBATION AND REARING OF CHICKENS, ARTIFICIAL AND NATURAL,"

is the name of a neat cloth covered volume by Mr. W. Hay, Corrie, Arran, Scotland. We have not read a book of this nature for a long time which gave us so much pleasure, being thoroughly practical and full of sound sense. It takes the reader through the whole process of rearing from the setting of the egg to the final disposition of the chick and not alone by the natural method but also by the use of artificial means, incubators and brooders. The work can be had direct from Mr. Hay for fifty cents postpaid.

EXPORTATION OF TURKEYS.

In last issue we noticed the fact of Messrs. Abbott Bros. importing turkeys from Canada. The birds arrived at their destination in excellent condition, and from a letter from Messrs. Abbott to their agent Mr. John Nunn, we learn that they are the best Messrs. Abbott ever owned, the hen being particularly grand. A few days after arrival they were exhibited at the Royal Show, and both won first in their respective classes, beating all the best exhibitors. Mr. Bell has now shipped another pair, the cock having won first at the Industrial and Ontario and the hen third at same shows.

POULTRY

EFFECTS OF CLIMATE AND SOIL.

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

TOO little attention is paid in selecting a breed to the possible effects of climate and soil upon the development of the fowl. While the data is not abundant, observation having largely neglected this important matter, such data as is available seems to prove that some breeds are better adapted to certain sections of the country than others.

During one of my Southern trips I observed that in South Carolina and Georgia, black fowls were particularly abundant and of exceptional excellence. Black Langshans, black Leghorns and black ducks—especially the Muscovy—were favorites, and better specimens it would be difficult to find in other parts of the community. In conversation with some very intelligent breeders I learned that fowls of this color did better than any other, even the hawks of that country being largely black. The intense heat of the sun seemed to bring out the rich lustre of the plumage. Brown Leghorns were another favorite fowl and the soil of the hills of Georgia seemed to be particularly well suited to develop the characteristic plumage of this breed. On the other hand fowls that were white, or largely so, seemed to be less successful, not only because the soil itself left a stain upon the plumage, but also because the intense heat caused a preponderance of the undesirable yellow tint upon the plumage. Such birds, also, were less hardy and vigorous than their darker-colored relatives.

In regions where there is an abundance of iron in the soil, the black-red type of plumage, such as is shown in the partridge Cochin, the brown Leghorn, and the black-breasted red Game, develop finely, the iron seeming to add to the strength of the color and preventing the presence of the common defect of white in wings and elsewhere. The avoidance of this defect is a matter of great importance, but this is not all the advantage, for the presence of the iron in the blood seems to bring out the richness of both the red and the black in the plumage, adding greatly to the beauty of this beautiful combination.

In the granite regions of New England, where the air is

clear and in some months of the year sharp and cold, the light Brahma seems to develop to its highest degree of perfection. The fowl gets the maximum of size and the minimum of objectionable yellow in feather on just such a soil and in just such a climate. New England has not a monopoly of the breeding of this fowl, but other sections, which possess a similar soil and climate share with New England the advantages in breeding this, the largest of our Standard breeds.

It is not pretended that all breeds and varieties can not be bred to a high Standard of excellence in each and every section of the country. The fact is that they can and are so bred. But it does seem to be clear that some sections possess a natural advantage over others in breeding certain varieties, and that outside of those sections the said varieties are bred to equal perfection only by the exercise of superior skill and better management. The obvious lesson, therefore, to be learned is that in selecting a breed a beginner should first of all study the conditions of soil and climate and select in reference thereto, in order that he may have nature, silently but powerfully working in his favor, instead of working with like stillness and force against his efforts. It is better to make a friend of nature than to have nature as a foe; it is easier to win success with her help than to wrest it from her reluctant hand. Success is difficult enough of attainment with all the help that soil and climate lend, and a gratuitous struggle against the force of earth and air is often as unwise as it is unnecessary. Still, if one has the sand in him, he can fight successfully against such odds as soil and climate bring, and possibly success will seem all the sweeter for the struggle.

ANÆMIC POULTRY.

BY PROFESSOR WOODROFFE HILL, IN *Poultry*, ENGLAND.

IN the numerous poultry specimens submitted to me for investigation as to the cause of death I have frequently had to mention anæmia. The term anæmia signifies poverty or deficiency of blood. In this disease a great diminution in the quantity of red globules or corpuscles takes place; from the normal condition of 130 per 1000 of blood they are in advanced cases of anæmia reduced as low as 50 per 1000. The *liquor sanguinis*, or fluid in which the corpuscles are suspended, is deficient in albumen, and has generally an excess of saline matter. It is important to recognise the gravity and results of anæmia, for I find amongst

poultry people it is a condition very frequently passed over, and when otherwise not very clearly understood; therefore I wish to make this article as plain as possible. It is necessary for the maintenance of health and strength that the food should not only be good and suitable, but properly assimilated after being partaken of—*i.e.*, converted into nutrition—and it will be easily seen that anything affecting the nutritive process must be injurious to the functional activity of the digestive and other organs. This is especially the case with anæmic or poor blood, which fluid under such conditions not only deteriorates the power of the gastric and intestinal glands, but weakens the muscular action of the stomach proper, and its important secondary agent, the gizzard. It will be, therefore, understood that anæmia plays a prominent part in the production of indigestion.

If the reader will pause for a moment to consider the important part in the maintenance of life the red corpuscles of the blood play, remembering they are the agents by which the chemical changes occur in the body, their emission of carbonic acid gas and absorption of oxygen in the lungs, their ceaseless circulatory rounds conveying oxygen to every part of the system, aiding in the removal of effete matter, and constantly building up the body with nutritive elements, he will recognise at once, or should do, the value of their mission, and the importance of maintaining their standard of strength. In anæmia the centre of circulation (the heart) is of necessity weakened, and it is almost needless to say this great force pump requires a full and free supply of *healthy blood* to enable it to maintain its strength and perform its work properly. The power of contraction and dilation which the heart must continually exercise is strengthened or lessened in accordance with the amount of material the organ is supplied with, and to which it owes its machine-like regularity and muscular energy, and the feeble heart-beat of a poor anæmic little chick very soon stops. Anorexia, or loss of appetite, as associated with anæmia is the result of the weakened state of the digestive organs, the tone of which being lost, the sense of hunger becomes blunted, and the bird has consequently little or no inclination to feed.

The causes of anæmia are numerous and not difficult to find. Overcrowding, defective ventilation, stinted light, bad drainage, innutritious and insufficient food, are severally conducive to anæmia, and if the subject be of a weakly constitution they are the more so. Anæmia also follows debilitating disease and hæmorrhage. Cellar-kept poultry or those in other dark habitations, soon become anæmic. Note the bleached and colorless shoots of a plant that has sprouted in a dark cellar and compare them with the shoots of a similar plant exposed to heaven's light and breath, or observe the pallid countenance and languid step of an

individual who is confined in a crowded ill-ventilated workshop throughout the day, as contrasted with one whose occupation gives him every chance of imbibing pure, or at any rate fresh air, and you have a true and daily illustration of the effect of these sanitary arrangements, which may be with equal force applied to poultry under similar conditions. Indeed, fresh air and light are as essential to birds of the gallinaceous tribe, for the formation of good blood, as to man. Air must, to maintain health, *be renewed not re-used*. It is the oxygen which gives color to the blood. Stint the supply of this necessary element and you withdraw the coloring matter and promote the pallid condition characteristic of anæmia. Again, good nutritious food is just as necessary for the production of pure blood and healthy muscle. We may as well try and build a strong substantial house out of bad and weak materials, as expect that blood derived from such a source, and under the circumstances enumerated, will make sound muscle.

SYMPTOMS.—Anæmic poultry generally exhibit considerable muscular prostration, with depression of spirits. The bird has a bloodless look, especially about the eyes. The comb is generally pallid, cold and inclined to lop over. The mouth is white, the tongue particularly so. The limbs are cold, and the thighs sometimes swollen. The skin is unnaturally white and clammy. The bird very often squats or walks languidly about, as though life wasn't worth living. A post-mortem examination reveals general pallor of the muscles and viscera. The tissues are flabby and watery looking, the liver bleached, and the lungs of a greyish-white color. Anæmic birds are usually emaciated. The eggs (but few) are thin in shell, and pale in yolk. The excretions and secretions are scanty, the plumage lustreless. Indigestion and loss of appetite have already been alluded to. Anæmic poultry is not nutritious food or readily digested, any more than anæmic veal—*i.e.*, where the calf has been frequently bled to produce white meat after slaughter.

TREATMENT.—To insure a successful issue the causes giving rise to anæmia must be promptly removed, and this should be followed by assisting Nature in restoring the deficiency in the color and quality of the blood by those agents which form the necessary constituents of healthy blood. For the former a nutritious diet, with a free allowance of fresh air, sunlight, and ample run should be ordered. Vegetable and mineral tonics, especially the preparations of iron, and, if there be much emaciation, cod liver oil should be prescribed for the latter. The phosphate of iron is extremely serviceable in anæmia, and when the latter is associated with indigestion I find the greatest benefit from steel and pepsine, which I prepare in gelatine capsuled pilules. In advanced cases the inhalation of oxygen may

be had recourse to. Large numbers of valuable poultry are lost yearly from anæmia, and yet I know of no condition so easily obviated and remedied.

MR. MAIN ON HIS "TRAVELS."

Editor Review.—

MR. JAMES MAIN, of Canada, is here in England and seems to be making good use of his time amongst the various breeders of Game Fowls and Ducks in this country. He is about the best judge of these varieties I have had the pleasure of meeting. Amongst the lot of birds he has purchased at very long figures I noticed that grand Game cock which secured first prize in his class at the Crystal Palace Show 1892, also Cup for best old Game cock in the show of any variety. Also the hen 3rd Birmingham 1892. Some of the young Game seem very likely at the present of lowering the colors of the old birds, whilst the pullets seem even now far and away in front of the Birmingham hen. His ducks and drakes are evidently the pick of the English fanciers' stock. I understand Mr. Main intends showing them at the World's Fair and I would not be surprised to see him come out a deck sweeper, anyhow whatever beats him must be "clinkers." I trust they will all arrive in America in good condition when I feel Old England's birds will not be disgraced.

Yours faithfully,

T. T. STONE.

Bath, July 3rd, 1893.

P.S.—Running away from "feather" Mr. Main has gone in very strongly for sheep, he having secured nearly all the winners of the different varieties at all our large shows.

[Mr. Stone is an old correspondent of ours and an extensive breeder of long-face Tumblers, indeed some of his stock is in our lofts now. We are glad to hear of "Grandpa" Main meeting with such a genuine fancier. It forms another link between the fanciers in Canada and those in the Mother-land.—ED.]

"ARE YOU READY FOR IT?"

Editor Review.—

WOULD you kindly insert the subjoined article from the *Fanciers Gazette*, edited by that veteran judge, B. N. Pierce, Esq., for the benefit of those fanciers who are doing all they can to try and discredit the system of score-card judging.

Wingham, July 22nd, '93.

R. ELLIOTT.

The ultimate aim of some men seems to be to tear down every effort at advancement without seeking to substitute something superior, to gratify a wilful disposition, or to immortalize themselves by proving their ability to overthrow the wishes and works of the many. All around us we see men of this sort assailing systems, institutions and principles, be they religious, political or scientific, with the manifest purpose of uprooting and ruining them.

In order that poultrymen may better understand what constitutes a thoroughbred fowl, a Standard has been compiled declaring what has been found, after years of careful and patient study and observation, to be the nearest approach to perfection, and it is evident that it is nearly correct. Still, there are those who would destroy or subvert its purpose by following no guide at all. They do not offer a reasonably good substitute, but simply demand some other plan, and what is more unreasonable, they ask that the quality of thoroughbred fowls shall be rated and fixed without a rule or guide. The result of such a course can at once be foreseen. The breeder places himself and all of his labors in the hands of others to be dealt with in the most despotic fashion, and without explanation or excuse he is forced to submit to such defeat and discouragement on the one hand, or victory and encouragement on the other, as may be meted out to him. This is the position that standard and comparison judging stands in to-day.

We advise all poultrymen to act conscientiously, henceforth, in this matter, and not to surrender their opinions and long established system of score-card judging without due consideration and thorough conviction. Let them bear in mind that several of the leading lights, who have thrust the comparison system of judging into the show room, have retired from the business already, and others have never been in the business only as hucksters or dealers, of course some of them are breeders, but as a lot they do not represent the one-hundredth part of the thoroughbred poultry interest of the country.

Agitation creates rebellion to constitutional laws, and where great numbers of exhibitions are continually being held, there are many dissatisfied competitors; these are worked upon, and it is from this element comparison leaders have gained their chief support. Are you ready to surrender? if not, stand by the Standard and its system, and be very thoroughly convinced before accepting material changes or alterations in the same. It is highly proper and right that changes should be made, wherever errors exist, but first let us all be sure that the errors actually do exist.

DOMINION EXPERIMENTAL FARM OTTAWA.

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

(Continued from last Month.)

CARE OF THE YOUNG CHICKS.

THE proper care of young chicks is most important and indispensable to their quick maturing, as market fowls or early layers. And yet few farmers push their young stock with the proper food and frequent feedings absolutely necessary to make plump chickens for market. It is poor economy to hatch out a number of chickens and allow them to die for want of care, proper housing

or food, and yet the money lost to the farmers of the country every year from all the causes mentioned is very great. It may be said that young chickens demand close and frequent attention. May not the same be said of nearly every department of the farm? With this difference that poultry will make a quicker return from date of hatching than any other live stock on the farm. With proper management the cockerels should be marketable in three to four months, and in five to five and a half months the early pullets should be layers at a time when eggs are high in price. And such results should be obtained in many cases with food, much of which would otherwise be wasted. The proper care and management of chickens from time of hatching to maturity has been gone into at length in 189c report, page 212. For the information of those who have not seen that report, the following brief recapitulation may be given:—

1. After hatching out, the chickens should remain undisturbed in the nest for 24 hours.

2. Their first feed should be stale bread soaked in milk and squeezed dry, and stale bread crumbs. This may be continued some days.

3. Weather permitting, the hen and brood should be placed in a dry coop, on the grass, where the chicks can get at and into the latter.

4. If kept indoors the chicks must be kept on earth, or on boards covered with earth. If not so kept, disaster will follow.

5. After being kept on the bread and milk diet for a week granulated oatmeal or small particles of cracked corn may be added. At the end of two weeks whole wheat may be fed, but not before.

6. Care should be taken that the chicks are in no way stinted during the first five weeks of their existence. They should be pushed at all times but require particular attention during the period named.

7. Young stock require frequent but light feeding, it must be remembered that a stinted chicken will never make a good market fowl.

8. The earlier hatched, the sooner will the pullet lay.

9. The aim should be to have the pullets laying while the hens are moulting. A supply of new laid eggs all the year round, will so be secured.

One of the obstacles in the way of obtaining early chickens is the difficulty of obtaining early sitters. This may be overcome by the use of a good incubator. As artificial incubation becomes simplified and results more certain, so will it become more generally adopted. Again, if the farmer's hens laid as well during the winter season, as they ought to do and will do, if properly managed, there would be more early sitters.

GROWTH OF THE CHICKENS.

The experience of the past five years shows that the Plymouth Rock cockerels make the most rapid growth of any breed so far tried. A cross of Brahma Dorking during the past season grew quickly and attained large size making 4 lbs. in 3 months and 15 days. The following weights show the progress made by the breeds mentioned.

PLYMOUTH ROCK.

Five cockerels hatched on the 10th of May weighed on the 2nd of August following:— 2 lbs 07 ; 2.05 ; 2.02 ; 2.01 , 1.10.

The same birds weighed on the 14th September, 5 lbs. ; 4.11 ; 4.06 ; 4.04 ; 3.07.

BUFF COCHINS.

Three cockerels hatched on the 10th May weighed 2 lbs 03 ozs. ; 1.15 ; 1.15 on 2nd August.

LANGSHANS.

Three cockerels hatched on the 20th June weighed on 17th September 3 lbs ; 2.07 lbs. and 2.12 lbs. On the 20th December the same birds weighed 6.03 lbs., 6.02 lbs. and 6 lbs.

CROSSES.

The following will show the progress made with the crosses named:—

Brahma-Dorking cockerel—Hatched on 18th April ; weighed on 2nd August, 4 lbs ; on 6th September, 5 lbs. 14 oz ; on 18th October, 7 lbs., 12 oz. This has been the most satisfactory cross so far made.

White Leghorn-Brahma cross—Two cockerels hatched on 20th May, weighed on 15th September 3 lbs., 7 oz., 3 lbs. 6 oz. ; on 28th October, 5 lbs. ; 4 lbs., 15 oz. ; on 20th December, 6 lbs., 4oz ; 6 lbs.

The pullets of the last named cross promise to make large fowls and excellent layers. A pullet hatched on 20th May laid her first egg on 4th December. On the same day a pullet of the same age, but of the white Leghorn-Plymouth Rock cross, also laid her first egg. The females of the white Leghorn-Plymouth Rock cross have been found hardy fowls and good winter layers. The Brahma cross is being tried for the first time.

JULY CHICKENS.

Taken as a whole the progress of the chickens was very satisfactory. In no case did a Plymouth Rock ; Brahma, Langshan or white Leghorn chick die. All exhibited vigour and hardiness from their hatching. Careful note was taken of the progress of the chickens hatched in July. They were slower to get on their legs than the earlier ones, and despite care, good feeding and precaution against lice, several wilted away and died. In some cases it was a difficult

matter to rid the ailing chicks of lice, indeed the latter seemed to take to the weaklings. There can be no doubt that July chicks have a trying ordeal to undergo, for they have to withstand the intense heat of the midsummer months on one hand and the chill fall rains on the other. The early hatched chicks are the most profitable for the farmer. The hatching of late chicks should be avoided, but when possible to do otherwise the growing stock should be kept under trees in preference to any other kind of shade.

BEGINNING OF WINTER LAYING.

The hens went into winter quarters at the end of November. Most of them appeared to be over their moulting by that time. During their moulting the hens had a free run and were generously fed. An Andalusian pullet hatched on the 12th of May was the first to lay, on the 21st November. A Plymouth Rock pullet, hatched on the 10th May, was next to follow on the 24th of the same month. A pullet of the white Leghorn-Brahma cross, hatched 2nd of June, laid first egg on 14th December. A pullet of the white Leghorn-Plymouth Rock cross, hatched on the same day as last named, laid on the same day.

The first hens to lay after moulting were the white Leghorns, black Minorcas, Andalusians, Plymouth Rocks, Langshans Wyandottes and Red Caps, in the order named.

AN EXPERIENCE OF COLD WEATHER.

The day before last Christmas was remarkably for the weather becoming exceptionally cold. With few variations the low temperature has continued to date, 14th January. On one occasion the thermometer registered 30 below zero, and the cold was accompanied by a piercing north-west wind. In the farm poultry house the cold was severely felt, the lowest point marked by the thermometer on the 24th December was as follows:—

Main poultry building.....	20	below	freezing.
No. 2 do do	22	do	do
No. 3 do do	24	do	do

During the cold period mentioned the black Minorcas, Andalusians, Plymouth Rocks, Red Caps and the white Leghorn-Brahma crosses laid the most eggs. This goes to strengthen the statement made in report of last year "that the breeds which are often stated to be the most unsuitable to cold climates do really lay the best." But if eggs are wanted in winter the laying stock must be kept in a temperature where their combs will not freeze. Better still, if they can be kept where the water will not freeze. It may be said that few farmers have fowl houses where the water will not freeze. But the farmers, as a rule, do not give the attention required to make their poultry revenue makers, in winter. When they do so, they will find that the same reason and system is required to attain success in this branch,

as is demanded by every other. What would be said of the farmer who would give as an excuse for not having potatoes during the winter that he allowed them to stay out until frozen. And how many crops of eggs are lost from the hens standing out until injured by cold, An important point to remember is that, when the laying stock are kept in cold quarters, the food which should go into eggs, goes to keeping up the animal heat. Again, the vegetable food is frozen so that it cannot be eaten, and the droppings remain solid until mild weather permits of their removal. Space will not permit further remarks on the subject, but comfortable quarters for the laying stock are necessary if the farmer wishes to be successful in obtaining eggs at a time when they are highest in price.

RATIONS FOR LAYING STOCK.

The following are the rations for the laying stock :—

Morning Warm Ration.—5 lbs. shorts ; 2½ lbs. pea meal; 2 lbs corn meal ; 2 lbs. ground meat ; 2 lbs. oats ; with boiled vegetables occasionally mixed. At times fine ground oyster shells were added.

P. M. Ration.—20, 24 or 26 lbs of wheat.

Vegetables, such as mangels, turnips and carrots were regularly supplied.

This ration was fed to the following stock.

LIST OF POULTRY.

The poultry at present on hand numbers :—

Breeds	Cocks.	Cockerels.	Hens.	Pullets.
Brahmas.....	1	9	6	16
Red Caps	1	5	5	6
Langshans.....	1	11	3	8
Plymouth Rocks.....	1	3	11	9
White Leghorns.....	1	12	17	12
Wyandottes.....	1	2	9	6
Buff Cochins.....	—	2	3	1
Andalusians.....	2	3	11	7
Black Minorcas	1	13	4	13
Mixed.....	—	1	29	—
Coloured Dorkings.....	—	—	3	—
Golden Polands.....	1	2	3	4
Houdans.....	—	—	11	1
White Leghorn-Brahma Cross.	—	4	—	6
do P. Rock do	—	1	—	1
Black Hamburgs.....	—	—	4	—
	10	68	119	90
				119
				68
				10
				287
Wild Geese.....				6
Total.....				293

DISEASE OF POULTRY

• During the year numerous inquiries were made by letter, and in person, by those living in the neighborhood, as to numerous ailments from which their stock were suffering. In many cases the symptoms described were difficulty of breathing, clogging of the nostrils, swollen head, emaciation &c., &c., all of which are symptoms of roup. As has been emphasized in previous reports, in all cases of this disease, it is better to kill the ailing fowl and burn or bury its remains, or the others will surely be contaminated. Roup often follows cold but is sometimes inherited, and in such cases shows itself first in the weaklings. Often times before the symptoms of the disease are detected, several fowls are suffering from it, and the curing of them is at all times wearisome and in many cases impossible. It will rarely pay a farmer to attempt to cure a fowl sick with roup, for if he is successful such recovered fowls usually breed poor stock and it is not desirable to raise weakling chickens, or to breed from the same, should they struggle to mature growth.

SUMMARY.

The following summary of information given in previous reports will be useful to those who have not read them:—

Select the best layers for the winter pens.

Supply the layers with bones, oyster shells and vegetables.

Kill the drones for they eat the profit made by the good layers.

Get out as many chickens as possible in time for the early grass.

When properly managed poultry and small fruits are said to be a paying combination.

Keep the layers, if possible in a temperature where the drinking water will not freeze.

With proper care the cockerels should be fit for market in three or four months; and the pullets become layers in five or six months.

The laying stock should be supplied in winter with all the material necessary for making the eggs.

The best layers will generally be found to be the most active ones.

The black Minorcas are rapidly coming to the fore as winter layers.

Where the water is kept from freezing, it is of special advantage to the hens with large combs.

In cold poultry houses the food instead of going into eggs goes to keep up the animal heat.

Fowls divided into small colonies lay more eggs than when crowded together.

Keep no layer over two years, for it then moults so late

that all future profit is eaten up before it commences to lay.

Intelligent and systematic management is as necessary in the poultry department as it is in every other line of business.

EGGS DIFFERENT IN COLOUR AND WEIGHT

As large eggs are in demand for shipment it is well to know the difference in the eggs laid by the breeds as named and some of which are among the best known to farmers.

BLACK MINORCAS—Large white eggs—Hen's eggs weighing $2\frac{3}{4}$ to $2\frac{1}{4}$ ozs. each; per dozen 1 lb. 11 ozs; pullet's eggs each 2 ozs.; per doz. 1 lb 7 ozs.

ANDALUSIANS—Large white eggs—Hen's eggs each weighing $2\frac{1}{2}$ to $2\frac{1}{4}$; per doz. 1 lb. 11 oz.

WHITE LEGHORNS—Large white eggs—Hen's eggs each $2\frac{1}{4}$; per dozen 1 lb. 10 ozs. to 1 lb 11 ozs.; pullets egg each $1\frac{9}{10}$ oz.; per dozen 1 lb. 7 ozs.

HOUDANS—Large white eggs—Hen's eggs each $2\frac{1}{4}$; per dozen 1 lb. 11 ozs. to 1 lb. 13.

BRAHMAS—Large dark coloured eggs—Hen's eggs $2\frac{1}{4}$ to $2\frac{1}{2}$ ozs. each; per dozen 1 lb. $9\frac{1}{2}$ ozs. to 1 lb. 13 ozs.

BUFF COCHINS—Large dark colored eggs—Hen's eggs vary in size, some going as high as $2\frac{1}{4}$ ozs., others $1\frac{2}{3}$ each.

WYANDOTTES—Medium sized dark colored eggs—Hen's eggs weighing 1 lb. 9 ozs., per dozen; pullet's eggs each 2 ozs.; per dozen 1 lb. 7 ozs.

PLYMOUTH ROCKS—Eggs of large or medium size according to strain—Hen's eggs each $2\frac{3}{8}$ ozs.; per dozen 1 lb. 9 ozs. to 1 lb. 11 ozs.; pullet's eggs each 2 ozs.; per dozen, 1 lb. $6\frac{1}{8}$ ozs.

RED CAPS—White or lightly coloured eggs of medium size. Single egg, 2 ozs.; per dozen 1 lb. $7\frac{1}{2}$ ozs. to 1 lb. 8 ozs.

Visitors were more numerous during the past than in any previous year. The letters received and the questions asked in them by farmers, have greatly increased in number and indicate growing interest in the poultry department as a means of revenue.

I have the honor to be, sir,

Your obedient servant,

A. G. GILBERT,

Central Experimental Farm,

Ottawa, 15th January, 1893.

Manager Poultry Dept.

ENTRIES CLOSE

World's Fair, (Ontario Department), August 8th; Industrial, Toronto, August 26th; Western Fair, London, Sept. 14th.

THE GUINEA FOWL.

BY W. WILLIS HARRIS.

THERE are several varieties of this bird, which is a native of the Dark Continent. The two most generally bred under domestication are the speckled or pearl, and the white; the speckled being the much more common variety of the two. The unpopularity of the Guinea Fowl is chiefly due to its wandering habits, the difficulty of finding its eggs, which are laid in very secluded places, and the unpleasant noise it gives vent to, very much resembling the grating of a cartwheel; but the latter has its advantages, making a flock as valuable at night as a first-class watch-dog. As game it has proved a failure, for when turned down in the coverts it drives away the pheasants, and will not rise to the gun, but will run before the dogs at a marvellously rapid speed. In the poultry-yard it is very spiteful (especially the cock) to young chicks, and is, generally speaking, of a very pugnacious disposition. But in spite of these disadvantages as a semi domesticated bird, it is very profitable upon a farm or anywhere where it can have free range and plenty of liberty, clearing the ground of myriads of insect life, and being a small feeder in comparison with ordinary poultry. From March to October the female lays a great number of eggs of a speckled cream color, with very hard shells, averaging during the season about 150. Their nests are very secluded, and are generally made in the centre of a thick hedge in the midst of a shrubbery, or in the depth of a copse. As they are very cunning in the selection of their nesting places, their eggs are somewhat difficult to find, but can best be discovered by watching any suspected spot, when the cock will be seen keeping guard whilst his mate is laying. The nest discovered, the eggs should be removed daily, two or three being left, or dummies substituted in their place, otherwise the hen will desert the nest and make another in a still more secluded place. Several hens deposit their eggs in one nest, and it is therefore no uncommon thing to find twenty to fifty in a batch.

It is advisable to start keeping Guinea Fowls by either purchasing eggs and hatching them under ordinary hens, or procuring them when young, when they are more likely to localise themselves to their owner's wish than if purchased as older birds. If adult birds be purchased, they will require boxing up for three weeks or a month, and feeding carefully to tame them, otherwise they are liable to wander off at their own sweet will, possibly never to return.

It is seldom the eggs are infertile, and they should be set in rather a damp nest, the eggs requiring more moisture than

that of the common fowl. It is better to sit clutches of fifteen to eighteen eggs under ordinary hens (half-breed Game preferred), as the Guinea hen seldom sits until the later end of August, which is too late in the season for the young birds to thrive as they have not the stamina to withstand the early frost and autumnal wet. The period of incubation is twenty-six days, and if the eggs be fresh the chicks hatch out strong, and are of a brown colour, striped more than spotted, with bright red legs. For the first three or four weeks it is *absolutely necessary* to fix a wire run in front of the coop in which the hen and her chicks are penned, until the young ones have become used to the call of the mother, or they will quickly ramble away, which they do far from slowly and the major portion of the brood will be lost. They are somewhat delicate when young, but not so difficult to rear as turkeys or pheasants, requiring to be similarly treated and fed: the grass on which they are fed should be kept closely mown; insects and animal food or its substitute "crissel," or bullocks' liver chopped fine, is *absolutely essential* to successfully rearing the Guinea Fowl. The chicks should be fed for the first few weeks regularly five or six times a day; biscuit meal makes an excellent staple food, varied with oatmeal and small corn at night. At five to six weeks old they commence to put on their adult plumage, and may be allowed full liberty with the hen. At the age of three months they develop the wattles and horny crests on the top of their heads. The sexes are somewhat difficult to distinguish but the male is the larger bird of the two, and the wattles and horn of the cock are larger than those of the hen. I only the female that cries "come back, come back;" the cocks when running after the hens arch their backs, and run in a mincing way as if on tiptoe.

The Guinea fowl in a wild state is monogamous; but under domestication some state they have run one cock with three or four hens successfully, but I think it would be safer to run them in pairs. They are gregarious, and a flock reared together will always continue to run in company and roost in the same tree. It is seldom they can be induced to roost in ordinary poultry-houses or to lay in nests provided for them, preferring the semi-wild state, wandering with sweet liberty through copse and meadow; and though natives of a hot arid climate, braving the roughest of weather, and not being poisoned with the close atmosphere of artificial housing, they are, when mature, practically free from disease.

The adult birds should be fed similarly to ordinary poultry, but require more insect and animal food, which, if at liberty, they will find for themselves. It is also advisable to feed at regular hours, particularly at night-time, so as to

induce them to remain at home. They come in season for the table from Christmas to March, the poulterers have little difficulty in disposing of them to their customers. Like game, they do not require fattening, but, similar to pheasants, they should be well hung previously to cooking.

There are but few shows in the country that provide classes for Guinea fowls; they are generally exhibited in pairs. To prepare them for exhibition, they simply require to be penned for a fortnight or three weeks, to tame them, and their heads and legs washed, and rubbed over with a tiny piece of vaseline.

The following is thrown out as a suggested *Standard for Judging* :—

THE SPECKLED, OR PEARL VARIETY.

Head—Broad, surmounted with a horny crest; wattles, a thick red, the freer from white patches the better.

Beak—Strong, curved; well-set in head; in colour, pinkish horn.

Eyes—Bright, clear, colour, steel gray.

(To be Continued.)

THE BLACK HAMBURGH FOWL.

BY E. HUTTON IN THE ENGLISH *Fanciers' Gazette*.

TWENTY years ago the black Spanish fowl was at the zenith of its fame, and the prices realised for the best specimens ran very high, which induced so high and excessive a cultivation of its fancy points that its more practical virtues were to a great degree lost, while up to that time no variety had done so much to add to the size and laying qualities of the ordinary poultry, of the North of England especially; but its decadence as a productive bird caused an opening for a bird fit especially for urban purposes, that was quickly fixed upon by the breeders of black Hamburgs, that they may now be fairly considered as the leading black fowl of the country, and no bird of the family has attained to so great a degree of popularity, and that for the obvious reason that in it a strong, hardy black fowl was found combining beauty of plumage with utility, and it is at once the most hardy of all Hamburgs—if, perhaps, we except the silver spangle—it is most easily reared, and is the most profitable in a productive point of view, laying eggs in immense numbers, which are pure white, and weigh eight to the pound in the case of hens, and nine in the case of pullets,

while it is, at the same time, an excellent plump table fowl, with a good proportion of breast meat, two points seldom attained in one variety of poultry, and it makes a most excellent cross with many other varieties, the crosses from the Asiatic breeds, as the Cochin and Brahma, being unsurpassed as winter layers. As a rule, they are non-sitters, though as is the case with most Hamburgs, a bird here and there harks back to the original nature, takes to the nest, when it may be trusted for faithfulness to its duties, and makes the most assiduous of nurses; in fact, I never yet knew a case of desertion of a brood by a black Hamburg hen.

The cause of the extraordinary hardiness and productiveness of this variety of fowl is not far to seek, as the bird is the most recently manufactured of all Hamburgs, being the result of crosses of other varieties, and no one will dispute the fact that in addition to its usefulness it is one of the most beautiful of fowls, its brilliancy of plumage, pretty red face, the opaqueness and purity of white of its ear-lobes, standing out in striking contrast to the body colour of the bird, and no one will dispute the fact that it is the greatest achievement of the progress of the Fancy within the last twenty-five years. The murkiness of the atmosphere does not seem to dim the splendour of its plumage, so that it is the fowl of all others for use in or near towns.

When the Fancy was young, say forty years ago, we had no black Hamburgs like those seen at the present day.

There were certainly plenty of black fowls at that time, and these were known as black pheasants, but a yard of these possessed every variety of comb, varying from the chubby rose to the cup or single comb, and many were also lark-breasted, the color of the plumage ruling as the most important point, and there were not wanting those who took to their cultivation, and it is yet a pleasure to recall the enthusiasm of some who possessed yards of these at that time, and their pride in showing their yard of "black 'uns." The eggs were eagerly purchased at one penny each for sitting, so that in Yorkshire, at least, they became the common fowl, and yet it will be seen that the practical was the leading point at that time, though the first black Hamburgs seen in the show-pen were the choice specimens of these yards, and they formed the basis of the grand fowl that is now known as the black Hamburg.

At the time to which I refer, or thirty years ago, the price of black Hamburgs was a little different from what it is now, and I recollect winning about that time on three different occasions, at three shows—at Devizes, the Palace and some Scottish show, the name of which I have

forgotten; and in each case there were three birds in the pen, priced and sold in all cases at 30s. the trio; nor was this looked upon as a bad result at that time.

Mr James Dixon was my only opponent then, and selling as I did, I was ultimately taken down by that gentleman.

COLOUR.

At the time named no such thing as beetle-green was seen or thought of, with the exception of a solitary bird here and there. All were of a metallic or purplish raven black, of an iridescent or changing shade, in accordance with the light that fell on them; but so intense in the colour now as almost to vie with that of the black East Indian duck, and it is my opinion that the brilliancy of colour is improving every season, and so precisely has the variety been cultivated that they may be considered equally pure with any of the Hamburg family, reproducing quite as true to feather as any others; or in other words; the stamp of bird is well fixed.

To attain this intense colour, as may be conjectured, extraordinary methods had to be resorted to, and little is now left of the original of the breed but shape, size, and carriage, the two main factors in the improvement of the bird being the white-faced black Spanish and the golden mooney Hamburg, and it is within the knowledge of the writer that a dash of Langshan blood runs in the veins of some strains; this, to some extent, explaining the defect in length of leg and want of depth of keel on the one part, a tendency to white in face and scantiness of feather from the Spanish cross, and of a coarseness of comb in the largest specimens; some of which defects require a great amount of care to extirpate them, and so far they have taken a lot of breeding out, and as a drastic corrective all birds with such defects should be passed over by the judge or relegated to the cross-breed classes.

As a matter of course, the admixture of the mooney blood produced an uncertainty of colour in the offspring, most of the cockerels coming with red golden-streaked hackles, and in some cases with true Furniss colored backs, whilst the pullets of these were in many cases peppered brown on the triangle of the wing and under ears and throat, all those of both sexes showing the defects being of the most brilliant color in body and tail, and only by determined selection and the discarding of all such birds has the breed settled down to anything like fixity, though there are breeders who still use the golden-hackled cock as pullet breeders, and the dullest of hens of the new and improved varieties as the cock breeders, and the defect now referred to will always be found in greater profusion in those birds that carry the greatest likeness to the true Hamburg in shape, so that these

remarks may act to some extent as a guide in the selection of stock.

While on the subject of color, it may be as well to say that the method of selecting chickens in the rosecomb black Bantam also holds good in the case of the black Hamburg; and no bird that is pure black on hatching, or has the upper part of the throat or on the nostrils of a brown, or ochrey, colour, can be expected to produce solid black fowls, as these comes with objectionable red or golden hackle; but these birds, being as valuable as any for all practical purposes, should not be destroyed, but should be used and reared for laying or killing. Those chickens that are white under the throat, breast, and belly to the vent, with two or three white primaries, and a tick of white on the cheek at the base of the upper mandible, and under the eye, are the ones most likely to produce the birds desired.

EAR LOBE.

No Hamburg carries as much ear lobe as does the black, but in this case the quantity of lobe coming from the Spanish cross does not indicate a tendency to a deterioration of constitution, for birds with these immense ornaments are just as hardy as red-faced birds, or birds with smaller ears. Some of the birds seen of late in the show-pens have ears so excessive in size as to be out of all proportion to the size of the bird, and this, coming as it does from the admixture of Spanish blood, as might be expected, entails a tendency to paleness of face—even to whiteness. Some birds show this defect at a very early age, even in the hens and pullets, and it scarcely needs saying that no fault is greater than this in the show-pen, and it must be guarded against if success is to be attained, as no true judge of the breed will admit such birds in competition, so that it fairly amounts to a disqualification pure and simple.

It is a great disappointment, after rearing a good yard of these birds, to find some of the best specimens possessing these defects, and in consequence, many devices have been resorted to for the purpose of rendering them fit for the show-pen, the first of which is the skinning of the white portion of the face; but a bird so operated on is easily picked out, as the surface of the flesh is devoid of the cutaneous roughness natural to the bird, and has a smooth and shiny appearance, but the worst of all is that many of the very large lobes so often seen are cut or rounded out of long and pendant lobes of Spanish likeness.

It may appear strange to the novice, but this is one of the most easy ways of trimming, and is most difficult to detect unless the back of the lobe is turned up, and thoroughly examined. A neatness of lobe, and in full keeping with true Hamburg character, is the thing to be desired.

That these birds can be produced, however, with as good and permanent red-faces as those of any other Hamburg needs no further proof than that of the slashing bird which Mr. Fox, the president of the Hamburg Club, exhibited at the recent Wharfedale show, which, though over three years old, has still the most perfect red face, with a large and pure white lobe.

THE COMB.

Another unsightly fault, to my mind, is the inordinate length of comb to be seen on many of the best birds in the show-pen, and for which there has been a strange craze of late years—a thing that is quite opposite to true Hamburg character—the length to which I refer being what is known as the spike or leader, and to such an extent has this craze for an excessively long leader been carried, that when the birds are at repose at home in the store-pens, resort has been had to artificial means of keeping it in position, and this is done by side stays, placed along the comb from front to back, and the whole bound up and swaddled in broad tape, and often these supports are left on the combs until within a short time of the birds being judged, when they are removed, with the result that, though they hold in position for some time, yet they are often seen dangling down the neck of the bird. The only reason for reference to this kind of practice is to draw the attention of breeders of Hamburgs to the fact, and to try also to induce both breeders and judges to go in for a more natural comb—small, neat, close to the head, and full of fine work on the surface, with a proportionate leader as a finishing touch, to be in perfect harmony with the Hamburg character, for nothing has done more to stem the rise of the Hamburg in public estimation than such excesses as I refer to in

both lobe and comb, for whenever such excesses are indulged in both scissors and knife have to play their part in the preparation of the bird for show purposes, a thing that will never be followed by the true fancier; and the amateur, as is often the case, seeing the culls of his yard sold for market purposes after "going through the mill," running over the heads of his more honestly shown birds, gets disheartened, and quietly retires from the Fancy.

That the true Hamburg of this colour can be produced with a perfect neatness of comb is a point beyond contention, as instanced in the case of specimens that are from time to time shown.

SHAPE.

The shape of the bird is one peculiar to the Hamburg only, and is of a most pleasing style. The head is neat, short, and broad, and prominent working down to a deep, well-furnished keel, legs of medium length, which are black in the first year and blue afterwards, the wings neatly, but not too tightly tucked up, the back broad, full, dipping from the bulge of the neck to the rise of the tail, with no sign of squirrel or jerkiness of carriage.

Feather full, broad and flowing, the neck sides of the tail and tail hackles well furnished, soft and flowing, with very broad first and second sickles, the former of which project with a graceful curve beyond the end of the broad feathers of the tail.

CARRIAGE.

The carriage is jaunty, and the step rather delicate, and when in form the birds lose nothing of their style in the show pen.

VALUES.

Touching the practical value of the bird as an egg-producer especially, it is

about unsurpassed, for though some objections is taken to the eggs being small, yet this idea is more chimerical than real, and I have no hesitation in saying that, taking weight of food consumed against weight of eggs produced, there is no variety of pure-bred poultry that can produce a greater weight of as good quality than this variety of Hamburg can do.



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Pigeons, Rabbits and Cavies.

I. B. Johnson, QUEEN ST. EAST, TORONTO, ONT. All varieties.

J. B. Jones, SIMCOE ST. TORONTO.

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

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I have over 300 L. B. chicks, hatched from my best matings, and growing finely and will have both exhibition and breeding birds for sale next fall and those who wish can engage stock now. L. R. Whitaker, Brighton, Mass.