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FOR THE FANCIER, THE FARMER AND THE SMALL BREEDER.

Vol. XXIII.

124 VICTORIA STREET, TORONTO, JULY, 1900.

No. 7

NOTES CHMENTS

N account of the "Ontario" date being set for December, the Peterboro' Association have now decided to hold their show on November 27th, 28th and 29th. Though these dates may be thought early, they will suit many breeders.

Mr. Collins still keeps "a pushin'," and is more than ever anxious to hold a meeting of the delegates from the various associations during the Industrial. It needs some one to take the initiative, and as Mr. Collins has so far done the work and is familiar with it, we can suggest no better name than his. Arrange a meeting by mail, and then get to work.

In a letter from Mr. Jarvis, he tells us that the well-known judges Messrs. Nevins, Brown and Warner, have been to see him since his arrival in Baltimore. We can understand what the topic of conversation would be.

Mr. Jarvis' son, who manages the large poultry plant at Uplands, the name of the farm, has had a splendid hatching season, and on May 14th had over 1,500 youngsters out and doing well. A great drawback to growth is the prevalence of gapes, and Jarvis pere says they are almost sure to have it. Though curable, it sets them back for a time.

Mr. L. H. Baldwin has undertaken a novel branch of poultry trade in the shipping of young chicks by express, and one that, if fairly successful, is bound to grow into large proportions. His first shipment consisted of eight white Wyandottes, which left Toronto on a Monday night, at o p.m., and were safely received at their destination, Iberville, Que., at 8 p.m. on Tuesday, practically twenty-four hours in transit. They were shipped the same night as hatched, securely and carefully packed in a flannel lined box, and arrived in the best of condition. As an experiment alone, it would be interesting, but was so far successful, that many will doubtless be encouraged to purchase in this way, the trouble and bother with the sitting hen being all done away with.

Pheasant raising has passed out of its infancy here as a fact impressed on us by the proprietor of the Canadian Pheasantry proves, and that is that Dr. Mc-Gillivray will soon have between 1,100 and 1,200 young pheasants for disposal.

Dr. McGillivray is intending to spend a year or more abroad, and so must relinquish his interest in the Canadian Pheasantry, which he desires to sell as a going concern. It is worth looking into.

The ever popular Western Fair, London, will be held from September 6th to 15th, this year. The management are actively engaged in preparing for the great influx of exhibitors and visitors to Canada's favorite Agricultural and Live Stock Exhibition. grounds, which have always been considered amongst the finest in Canada, are being much improved. The removal and alterations of a number of buildings, will add greatly to the beauty of this natural park, and also the comfort of the thousands of visitors during the Fair week. The poultry department, which is always well looked after here, and with which the Review is more particularly interested, has been improved, some new varieties and specials added. The condensed prize list, and complete entry forms of last year, which are so far in advance of the old style, will be used again this year. Do not fail to see London Fair.

Mr. A. P. Mutchmor, Ottawa, complains that with him, incubators have been the next thing to a failure. There are very few early chicks in the Ottawa district, and even the few early ones there are, have not made good progress. Now that the fine weather is assured, better results are looked for.

The prize lists of the Industrial Exhibition, Toronto, are now ready and the poultry department shows that this section is to be "bigger and grander than ever." Many new varieties have been added and other sections subdivided. A big show of pheasants is looked for, as the prize money has this year been doubled, with the object of bringing out a

TORONTO POULTRY AND GARDEN PRODUCE CO., LIMITED.

GLENAVY FARM - DAVISVILLE, ONT.

White Wyandottes, The general purpose fowl Large Brown Eggs \$1.50 per Setting; \$6.00 per Hundred.

S.C. White Leghorns. The greatest egg producers. Large White Eggs.

\$1.50 per Setting; \$6.00 per Hundred.

LIGHT BRAHMAS (Silberstein) \$2.00 per Setting.

We have on hand the best White Leghorns—the great money makers as egg producing birds.

White Wyandottes—the best general purpose fowl for table and eggs; good winter layers.

We have for sale a limited number of birds in first-class condition, also eggs for setting and in incubator lots.

We aim at the best for ourselves—you will want the same.

Write for full particulars to

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Davisville, Ont.

display worthy of the name. The list itself is particularly neat, with its white cover embossed in gold, the inside on fine tinted stock. The arrangement of the classes is new and should be a boon to both judges and the office staff. The sections now read right through each breed, cock, hen, cockerel and pullet, and pen, when it is given. For this Dr. Bell must be given the credit.



Black Spanish and Buff Cochin eggs; fresh carefullyshipped.' Satisfaction guaranteed. F. C. HARE, Whitby, Ont,

SOME EGG RECORDS.

WHAT SIX CROSS-BRED PULLETS DID IN ONE YEAR.

BY favor of Mr. S. M. Clemo, we have been handed the egg record of six pullets for the year 1899, owned by Mr. George A. Wilson, of Welland, Ont. These pullets are a cross of Andalusian and barred Plymouth Rock, and in the detailed paper sent us the record is given for each day.

The totals for the months are: January, 66; February, 95; March, 128; April, 122; May, 112; June, 103; July, 104; August, 91; September, 96; October, 45; November, 59; December, 26; grand total, 1,047, or 87 1-4 dozen.

The pullets began laying on the following dates: 1st, December 28, 1898; 2nd, January 11th; 3rd, January 16th; 4th, January 22nd; 5th, January 23rd; 6th, February 25th. One pullet was killed on October 7th, but was replaced by another, which began to lay on November 4th.

Mr. Willson sold 307-12 dozen eggs, for which he got \$5.19, the cost of keep for the six pullets for the year being \$5.03 or a balance of 16c. to the good, with two-thirds of their product used at home.

From these figures we find the average number laid per hen to be 174 1-2, and the average cost of keep per head, 84c, both good records.

36.36

A BROWN LEGHORN RECORD FOR EIGHTEEN DAYS.

A record for eighteen da,s from a brown Leghorn hen, from the 7th of May to the 24th, without a, miss. The record is eighteen in succession.

JAMES H. HOWSON.

Clinton, Ont.

MARK STOCK with Jacksons'
Always Bright, Can't come out. Bar Tags
JACKSON STOCK MARKER CO.
Samples sent free. 800 ST, LOUIS, MO.

INCUBATORS and BROODERS



We invite correspondence for this important department of commercial poultry raising, which is growing so rapidly in Canada.

NOTES ON THE MORTALITY OF INCUBATOR CHICKS.

RHODE ISLAND AGRICULTURAL EXPERI-MENT STATION BULLETIN.

BY GEORGE W. FIELD, WITH THE CO-OPERATION OF H. W. MARSHALL AND J. A. WARREN.

(Concluded.)

Much more important are the fatalities grouped under

c. due to imperfect sanitation. The veriest tyro at poultry raising knows that freedom from filth and vermin is a primary requisite, and no reference to diseases thus arising is here necessary. But particular attention should be directed to the fact that a brooder may be scrupulously clean and absolutely louseless, yet be the hiding place of disease germs far more to be feared, on account of the insidious nature of their attack and the difficulty of detecting and combating their inroads. Such a germ is that which causes tuberculosis. Tuberculosis is very prevalent among fowls. According to observations 15.1 per cent. of the chicks which died were considered to be more or less affected. Of these, 113 chicks had tubercles in the lungs; five on the walls of the heart; five on the walls of the gizzard; one on the intestine; and one in the testes. Tuberculosis is to be suspected when whitish, cheesy lumps are to be seen on any of the internal organs. Many dressers of poultry have remarked upon the frequency of its occurrence in both young and adult birds. It is of some comfort to know that authorities are inclined to regard the germs which cause tuberculosis in animals as different from those causing "consumption" in man. Yet from all points of view the tuberculosis germ is to be feared and fought. Special attention is called to the evidence given above of its infectious nature. Sunlight is the best and cheapest germicide for the tu-We found that bercle bacillus. the simple expedient of removing the "hovers" and setting them out of doors in the full sun all day reduced the evidence of tuberculosis in the post-mortem examinations from nearly 50 per cent. to only 3 per cent.

Our yards were singularly free from "gapes" and roup. Some mortality was due to sudden colds, exposure, etc., thirteen cases being diagnosed more or less correctly as pneumonia. The total number of post-mortems which disclosed congested lungs was 243, or 29.4 per cent, of the

By far the greatest number of cases showed symptoms resulting

D. improperly balanced ration or improper feeding. Six hundred and twenty-five, or 75.6 per cent., had trouble in the gall bladder, closure of the gall duct, leading to an often enormous accumulation of gall, and a peculiar paleness of the intestines. When this condition obtains, it can be readily recognized. The green gall stains the adjacent organs, even the abdominal wall, and a distinctly green area is conspicuous on the outside of the abdominal wall close to the hinder edge_of the breast-bone and to the right of the midline.

In order to ascertain the cause of the mortality a feeding experiment was instituted. Two hundred and nineteen chicks of several breeds hatched under similar conditions were placed in four pens of approximately fifty each, all conditions being identical, so

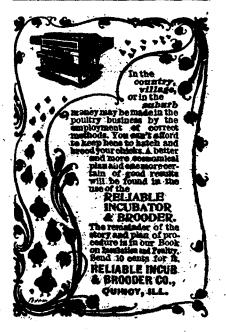
far as apparent, except in the single factor of food. All pens, for thirty days after hatching, were fed at the same time asmuch as they would eat. composition of the ration varied in each case.

To pen 10A (52 chicks) was fed a diet of equal parts of egg (those "tested out" from the incubators), liver, and grain (cracked corn, wheat, barley) boiled together and chopped fine. For green food, plenty of sliced onion, oat sprouts, etc. The mortality was 3.9 per cent., of which not one showed digestive trouble. The chicks grew very rapidly and at the end of two weeks were much larger and brighter than those in the companion yards.

Pen 8A (63 chicks) fed on grain and green stuff. All animal proteid omitted from ration. Mortality 9.5 per cent., of which *7*5 per cent. had digestive troubles.

Pen 12A. (58 chicks) fed on grain alone. All animal proteid and green stuff omitted. Mortality 32.7 per cent., of which 76.5 per cent. showed digestive troubles.

Pen 13A (46 chicks) fed on egg, liver, and green stuff. All



grain omitted. Mortality 63.7 per cent. of which 85.8 per cent. had digestive troubles, chiefly diarrhoea.

The results of this experiment indicate that if the dead chicks are found immediately after or even before death to show a green stain in the flesh of the right side of the abdomen, close to the posterior end of the breast-bone, the amount of animal proteid in the diet is insufficient and must be increased. Liver (beef, pig, sheep, goat), fresh fish, or refuse meat, boiled and chopped fine, skim milk, or commercial "animal meal," are recommended.

The same experiment also indicates that the increased amount of animal proteid in combination with the grain ration not only reduced the mortality, but

it caused a much more rapid growth of the survivors.

At the end of thirty days the surviving individuals in each pen were carefully weighed, with the results shown in the table given below:

It will be noticed by the following table that pen 10A, to which was fed the largest amount of animal proteid in addition to a certain quantity of carbohydrate food (starch etc.), showed the greatest average weight for all breeds, and the highest minimum weight. This advantage was maintained through the balance of the season and resulted in earlier maturity. Note further that this pen had the lowest rate of mortality, 3.9 per cent. (Losses by rats not counted.)

Pen 13A, fed on egg, liver, and

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SIXTEEN YEARS' EXPERIENCE IN "ARTIFICIAL POULTRY RAISI NG
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AND

"The Incubator and its Use."

Both books by James Rankin, the most successful man in commercial poultry business. Each book covers its own ground fully. Price 25c. each by mail.

H. B. DONOVAN, - TORO NTO

green stuff, shows the next best results in average weights of the survivors. The great mortality was plainly due to lack of starchy food.

It may be of interest to note in passing that the average weight of all the Leghorns (brown, white, and black) from the above four pens was 141.53 grams at thirty days old; of the R. I. Reds, 108.9 grams; and of all the other birds, 106.9 grams. Weight of the largest Leghorn was 257 grams, and of the smallest 55.5 grams; of the largest R. I. Red 210 grams, and the smallest 44.3 grams.

In conclusion special attention is called to the following facts, confirmed by the experiments:

- (1) Careful external and internal examination (such as any one can readily make) of the dead chick will generally disclose the cause of death. The necessary remedies are usually not difficult to find.
- (2) Death from overcrowding, suffocation, and trampling can be readily corrected. It is more frequent than is generally suspected.

(3) For guarding against tuberculosis, give the interior of the brooders all the sun and air possible on pleasant days.

(4) Trouble of the liver and gallbladder are usually easily recognizable from the green stain. For correcting this, feed more animal food. The use of the proper proportion of animal food will pay a handsome profit through decreased mortality and increased weight of the chicks. In feeding bear in mind that chicks in

```
Pen 10A. FOOD—EGG, LIVER, GRAIN, GREENS.

23 Rhode Island Reds,

5 White Wyandottes,

4 Barred Rocks,

24 White Rocks,

White Rocks,

25 Mongrel.
```

3 White Rocks, — Total 41 birds.

Maximum. 210.0 grams, 188.5 grams, Minimum. 113.5 grams, 137.0 grams,

23 R. I. Reds average 158.08 grams,
6 Leghorns average 167.8 grams,
13 Miscellaneous average 153.1 grams.

Pen 13A. FOOD-EGG, LIVER, AND GREENS.

3 Rhode Island Reds, I Mongrel. 8 Leghorns, Total 12 birds,

Max. 180.9 grams, 257.0 grams,

Min. 44.3 grams, 75.6 grams,

3 R. I. Reds average 99.2 grams, *8 Leghorns average 159.0 grams,

Pen 12A. FOOD-GRAIN ALONE.

16 Rhode Island Reds, 10 Leghorns.

10 Leghorns, 3 Barred Rocks. r White Rock,

I Black Langshan cross, I White Wyandotte,

3 Mongrels.

3 Mongrel.

Total 35 birds.

Max. 133.9 grams, 216.8 grams,

Min. 49.8 grams, 62.5 grams,

16 R. I. Reds average 87.03 grams, 10 Leghorns average 137.65 grams, 9 Miscellaneous average 104.7 grams.

Pen 8A. Food-Grain, and Greens.

25 Rhode Island Reds, 6 Leghorns,

6 Leghorns, 10 Barred Rocks, 3 Barred Rock, cross,2 Black Langshan,2 Rhode Island Red, cross,

3 White Plymouth Rocks, 3 White Wyandottes,_

s. — Total 57 birds.

Max. 113 0 grams, 140.0 grams, Min. 48.2 grams, 55.5 grams,

25 R. I, Reds average 78.88 grams, 6 Leghorns average 98.45 grams, 26 Miscellaneous average 81.08.

^{*}The largest bird in entire lot was a black Leghorn cockerel of this pen: weight 257 grams.

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Large full page engravings of all varieties.

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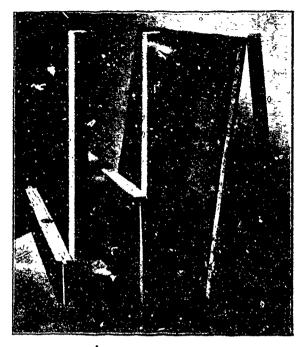
H. B. Donovan, Toronto.

a state of nature spend practically all their waking hours in search oi-food, and that they do not fill their crops in ten minutes every two hours. Feeding should be, as far as the time of the attendant renders profitable, a continuous process, but by no means a continuous gorge.

(5) Diarrhoea, etc., frequently esults from feeding a too large proportion of animal food, and is often brought on by cold, exposure, etc.

(6) If the yolk is present in considerable quantity in chicks a week old, or if more than I or 2 per cent. of deformed chicks appear, look to the better regulation of the incubators or to the health of the breeding pens.

The Rhode Island Agricultural Experiment Station recognizes the practical and scientific importance of a study of the early life of incubator chicks, and we hope to receive the co-operation and reports of careful observations by poultry raisers throughout the State, in our attempts to give aid in making poultry raising in Rhode Island pay both the producers and the consumers.



[From Photograph.]
Showing how the Top, Back and End Panels and the Doors of the Cyphera
Incubators are tenoned and mortised before they are firmly glued
and screwed together in the finished machine.

SOME POINTS IN THE BUILDING OF THE CYPHERS INCUBATOR.

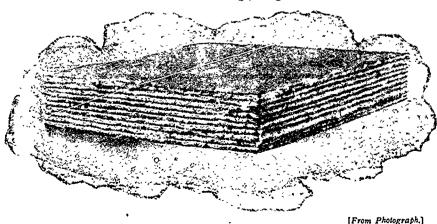
THE manufacturers employ a fine grade of cotton batting for packing, and it has given eminent satisfaction. It answers all the requirements of the best non-conductor, holds an exceedingly large amount of confined air,

while its own substance possesses a low degree of conductivity. Moreover, to render it more efficacious, they divide the thin layers of cotton with sheets of strawboard, so that the heat must pass through by conduction from the strawboard to the cotton, from the cotton to the strawboard, etc., etc., ten times over. No air can pass through the strawboard and carry the heat off by diffusion.

WHAT A NOVICE DID ON FIRST TRIAL.

MRS. WILLIAM McFADDIN of Pittsburgh, Ont., bought a Cyphers Incubator this season from Mr. Daniels, and the record of the hatches made has been remarkable, where so many others have failed. It speaks volumes, not alone for the machine, but for the lady's careful attention to detail.

The hatches were as follows: First, 230 eggs, 192 fertile, hatched, 162; second, 230 eggs, 196 fertile, hatched, 163; third, 236 eggs, 186 fertile, hatched 160.



Showing packing material used in the Cyphers Incubators—See accompanying description



The Best Exhibition in Eastern Canada is . THE CENTRAL CANADA EXHIBITION

At OTTAWA, Sept. 14th to 22nd, 1900.

The Poultry and Pigeon Departments of Prize List thoroughly revised

since last Exhibition; Good Prizes offered; Secure a list and be convinced. Entries positively close 12th September. Send in your entries early.

F. H. GISBORNE,

WM. HUTCHINSON, M.P.,

E. McMAHON.

CH. POULTRY DEPT.

PRESIDENT.

SECRETARY.

Mr. McFaddin thinks this is not so bad for a new beginner and we certainly agree with him.. This was the first incubator Mrs. McFaddin had ever seen, and had no experience or advice from others, other than what she had read.

MR. J. E. MEYER, the wellknown incubator and brooder manufacturer, of Kossuth, Ont., was in Toronto last month and spent a pleasant half hour in the Review office. Mr. Meyer reports a very greatly increased interest in the artificial hatching and rearing of poultry. He has had a good trade this season and for next year purposes branching out on a larger scale to be ready for the volume of trade, which he is confident is coming. It is his intention to publish a more elaborate catalogue, fully illustrated, than he has yet done.

Mr. Daniels tells us a feature of the incubator trade this season, is the number of sales that were made, even as late as the end of lune.

WHAT LUCK WITH EGGS?

Editor Review:

ENCLOSE you a post card from a customer 2,340 miles from Toronto. You will see what lie says. Such a letter is refreshing. Why I say refreshing is, I got an awful letter from a customer, not thirty miles from Toronto, stating he was glad he had found me out as a dishonest man. He accused me of tampering with or doctoring the eggs. Whatever he means by that you may know, I He also went as far as to say, he would see to it that none of his friends sent me an order from that vicinity.

This egg business sometimes disgusts me with the whole business. I never could see, because an egg does not hatch that the seller is to be dubbed as dishonest.

C. J. Daniels. Toronto, June 25, 1900.

The post card referred to by Mr. Daniels is from Mr. D. S. Long, Red Deer, Alta., dated June 16th, and reads as follows:

"I am pleased to tell you that I have ten fine chicks out of the eggs you sent me, one unfertile egg, one shaky, and three with dead birds in, one has a single comb. Very good, after carrying eggs 2,340 miles on cars."

The shipment consisted of fif-

teen Red Cap eggs.

From three settings of Bantam eggs received from a United States breeder, the editor of R view got two chicks. From thirty eggs received from England, he got three chicks. Who or what is to blame? The hens sat well.

S. C. White Leghorns Barred P. Rocks

Eggs from grand pens, winners and bred from winners. Either kind guaranteed. \$2 per 13. Fertile eggs from strong, healthy stock. Good birds for sale of both varieties.

JOHN CHAMBERS, Exhibition Park, Teronto.



EXPERIMENTS WITH GEESE.

(Continued.)

N table V. we have summarized the figures representing the eggs tested out, and the goslings latched, as compared with the number of eggs set for the females and males of each breed, and calculated the average per cents.

Africans gave the largest per

TABLE V.—Showing Average Per Cents. of Eggs Tested Out and Goslings hatched from Eggs Set in 1896.

Breed	:		Per cent. of eggs tested out from eggs set	- Average -	Per cent, of goalings hatched from eggs set	Average
African	{ {	Females Males Females Males	33·33 37 71	} 31.39 } 35.52	47.48 54.34 42.42 31.14	} 50.91 } 36.78
Toulouse	··{ ··{	Females Males Females Males	49.24 49.23	} 49.33 } 49.23	39.86 37.29 24.62 30.25	33·44 } 27·43
White China	{	Females	86.45 75.15	80.80	3.75 11.80	} 7.77

cent of fertile eggs for both males and females, and, of course, the highest average, 50.91 per cent. The other breeds ranked in the

TABLE IV .- Continued.

: ==								
Yard	MAT	Total No. of Eggs.			Per cent. of eggs tested out from	gos-	Percent. of goslings from eggs	
No.	No.			Set.	Tested out.	eggs set.	lings hatched	
	Toulouse							
3	Embden,	Toulouse	63	54	18	33.33	20	37.03
4	African,	** *****	41	39	15	38.46	21	53.84
14	Brown China,		1 80	79	24	30.38	38	48.10
21	White China,	**	41	34	28	82.35	3	8.82
	Toulouse Males.		225	206	85	41.26	82	39.80
1	Toulouse.	African	3¢	30	13	43.33	14	46.66
7	11	Embden	22	20	14	70.00	1 74	20.00
11	j "	Brown China	71	62	24	38.70	23	37.09
20	" -	White China	50	43	38	88.37	ř	2.32
	Brown Chi	ina Females.	173	155	89	57·4I	42	27.09
2	Embden,	Brown China	47	41	20	48.78	14	34.14
6	Brown China,		21	19	8	42.10	4	21.05
II.	Toulouse,	" "	71	62	24	38.70	23	37.09
12	African,	" "	85	76	14.	18.42	43	56.59
	Brown Ch	224	198	66	33-33	84	42.42	
5 6	Brown China,	African,	44	40	14	35.00	10	25.00
	" "	Brown China.	21	19	8	42.10	- 1	21.05
9 14	" "	Embden	94 80	90	40	44.45	19	21.11
14		Toulouse	-00	79	24	30.38	38	48.10
	White Chi	239	228	86	37-71	71	31.14	
10	Embden,	White China.	35	28	22	78.57	2	7.14
16	White China,	" "	73	62	55	80.70	2	3.22
20	Toulouse,		50	43	38	88.37	I	2.32
	White Ch	158	133	115	86.45	5	3-75	
13	White China,	Embden	17	17	6	35.29	ا و	52.93
16	41 11	White China	73	62	55	80.70	2	3.22
21		Toulouse	41	34	28	82.35	3	8.82
22	" "	Toulouse	52	48	32	66.66	. 5	10.41
	<u> </u>		183	161	121	75.13	19	11.80

following order: brown China. Toulouse, Embden and white China, the last having only 7.775 per cent. of fertile eggs. It is but fair to call attention to the fact that the Toulouse and Embden averages were cut down by the white China matings in each case, and in the case of the Embdens by the low per centage of the pure bred mating-yard No. 19. No white Chinas were mated with Africans or brown Chinas in 1896, and their percentages did not therefore suffer in the same proportion as in the case of the Toulouse and Embden breeds. Omitting the white China mating, yard No. 21, from the calculation and the Toulouse average per cent. of goslings to eggs set would have been.41.175 instead of 33.445, and would have given it a rank above brown China. Embden geese gave the best results when mated with an African gander (yard 8), while Embden ganders gave good satisfaction mated with either African, Toulouse or brown China geese.

MARKING THE GOSLINGS.

As each egg had upon the shell the stencilled number of the mating by which it was produced, and as each sitting hen had eggs of only one number under her at hatching time, there was no difficulty in determining the parentage of the goslings so long as they remained with the hen in the nest. But as they were to be taken from the hens and raised in artificial brooders, it became necessary to mark each gosling in some permanent manner so that

at any time the progeny of any one yard could be identified and separated from those of other yards. This was done by punching a hole in the web of the foot-the position of the hole or holes serving to distinguish the various matings, one from the others. Goslings a few weeks old, and geese, are aiways handled by grasping the hand about the neck of the bird just below the head, and as it is raised from the ground it is turned around so that its back is toward the person holding it. In this position it cannot scratch or strike with the wings; and the right foot of the bird is, of course, on the right hand side, and the feet can be easily examined for the marks. If the holes close up by growth, the web will be thicker at the point where a hole was punched, and the skin will be smooth and usually lighter colored. A sharp leather punch, with a piece of thick leather to place under the web while cutting the holes, was used in marking.

GENUINE AFRICAN GEESE

Are the surest breeders of any of the large kinds With Embdens, indispensible in the production of the largest number of most saleable early goslings. My Africans

WON FIRST AND SECOND

1800 at Boston, Brockton and New Bedford, Massand Rhode Island State Fair. We raise hundreds of them. Old show breeders \$10 afic \$15 each. Yearlings and full grown goslings delivered now, \$5 each. Good market breeders, lacking certain fancy points, large size \$10 pertrio, ganders \$3 each by the hundred; medium sized trio \$7. Also fine Emidden, Toulouse and common market geese for sale low right now. We make a specialty of stocking large goose raising plants and supervising them by correspondence or otherwise to insure success.

HALF OF THE RHODE ISLAND RED HENS

in our breeding pens now for sale at \$1 50, \$2.50 and \$5 each, according to quality. Price list and illustrated descriptive circular of Rhode Island Red breeding pens free.

Samuel Cushman, Pawtucket, R.I. Farm, West Mansfield, Mass. 700

The 4th edition of James Rankin's Book, NATURAL AND ABTIFICIAL DUCK CULTURE,

is just out. It has been enlarged, revised and illustrated. A question bureau has been added, designed to answer all questions concerning the diseases, cure, management and feeding of the duck from shell to market. Price 25 cents

Address H. B. DONOVAN, Toronto.

THE INDIAN RUNNER DUCK.

BY HENRY DIGBY, IN "FEATHERED WINGS," ENGLAND.

In an able and comprehensive treatise on "The Indian Runner," Mr. J. Donald, of Wigton, Cumberland, fixes the date of their introduction into this country as some fifty years back, and explains the circumstances surrounding it in the following sentence: "A drake and trio of ducks were originally brought from India by a sea captain to Whitehaven, and he presented them to some friends, who at that time followed the occupation of farming in West Cumberland." Mr. Donald also states that "another consignment was imported by the same gentleman some years later, and from these two importations it is probable that all the; present day 'Runner' ducks are either directly or indirectly descended."

During recent years Miss Wilson-Wilson, of Kendal, Mr. Jonas Swales, myself, and others, have made special efforts to trace the origin of this variety, and, if possible to import fresh birds of the original stock. All efforts in this direction proved futile until the end of the year 1898, when I succeeded in procuring and importing a trio from a fancier friend in Calcutta, which, I am pleased to say, has made a marked improvement in the quality of my stock.

Until very recent times, the variety had, for an unbroken period of upwards of fifteen years, been lying in a comparatively dormant state—that is to say, as a "fancy" or exhibition bird. "Runner" had up to then been obliged to compete in the "Any Other Variety" classes at all exhibitions where it entered the lists. No serious organized attempt was made to popularize the species until the end of the year Before that there had 1895. been attempts on the part of individuals to place the "Runner" as a definite species on a sounder and more popular basis, but all these endeavors had not served to give it that attractiveness and popularity which its more sanguine supporters believed it deserved.

Towards the close of the year mentioned, Miss Wilson-Wilson, at the Dairy Show, sought my opinion as to the advisability or otherwise of making a joint en-deavor to raise the "Runner" in the estimation of the "fancy." Needless to say, I advised my "Cosy Coop" friend to allow me to propose her as a member of the Waterfowl Club, in the belief that that influential and well-informed body might be able to assist in drawing up a "Standard of Perfection" for the "Runner" species, and also in precuring the much-desired classification for it at all exhibitions where water-fowl are shown.

The credit for the first class of any importance for "Indian Runner" ducks which has been provided at any leading shows for many, years belongs entireto the lady named, for was mainly through her instrumentality and generosity that twenty-one pairs of "Runners" were drawn together in November, 1896, at Kendal. This latter circumstance has undoubtedly been the chief factor towards introducing several recruits to the Waterfowl Club, and also the means of having caused to be framed an official "Standard of perfection" for the guidance of fanciers and judges. In the interest of the fancy I have deemed it advisable to reproduce at the end of this article a copy of "Standard of Perfection." the The circumstance of my having adopted it as an appendix renders it unnecessary for, me now to enter at ary length into the characteristics, etc., of the "Runner." A few words on the chief properties of the birds may not, however, be out of place. Not only do the "Runners" surpass all other species of ducks as egg producers, but they are highly esteemed as ornamental waterfowl. Perfect specimens are truly beautiful. but by no means plentiful or easy to breed. On this, if on no other account, they commend themselves to the fancier having a desire to make his hobby interesting as well as remunerative. Experience shows that their season of laying begins earlier and lasts longer than that of other ducks. They stand in this respect in the same relation to waterfowl as Hamburghs have done to poultry.

No claim is made for the species on the ground of their fitness for marketable purposes. I must, however, admit that, for those who can afford to breed them for their own use, they are a choice delicacy, their flesh being finer in texture and richer in flavor than that of most other ducks. The "Runners" are most active in their habits, capital foragers, and on a good run are able to find three-fourths of the r own sustenance.

It is only on rare occasions they evince a desire to sit, and when they do so it is not wise to trust them with eggs, for they cannot be relied upon for successful incubation.

When young they are in no sense tender birds to rear; in fact, the ordinary attention bestowed on ducklings of other breeds suffices to bring them to a sound maturity.

Reference to my illustration and the "Standard of Perfection" which follows, will, I hope, enable my readers to make proper selection either for breeding or exhibition purposes.

TANDARD FOR INDIAN RUNNER DUCKS.

(As approved by the Waterfowl Club.)

GENERAL CHARACTERISTICS.

Head, Shape of Eyes and Bill. -Fine and comparatively flat, with the eyes situate high up. Bill strong at the base, broad and long, coming as near as possible straight down from the skull, giving it the appearance of a long wedge. The color of the bill when young is yellow, but as the birds grow a green line begins to develop at the base of the beak, and this is frequently accompanied by green spots, which gradually increase in number and size, until by the time the birds are a year old the whole surface of the mandible is entirely green; a black bean on the tip is preferable; 15 points.

Head Markings.—The head should be adorned with a cap and cheek markings, as near the same color of the body as possible; a narrow white line should divide the cap from the cheek marks, and a line of white about 1-8 of an inch should divide the base of the bill from the head markings; 10 points.

Neck.—As long and thin as possible, perfectly white from the head to where the breast marking begins, which should be about 1 1-2 to 2 inches from the base of the neck; 10 points.

Body.—Long, narrow, and racy looking, without the slightest indication of keel; 10 points.

Legs.—The legs are a deep bright yellow color, set well back, compelling the bird to carry its body erect, something like the form of a penguin; 5 points.

form of a penguin; 5 points. Body Markings—Whatever color an Indian Runner may be, that color should be uniform throughout the whole of its surface plumage, except the tail of the drake, which is darker. The breast should be evenly cut about half-way between the point of the breast-bone and the legs. shoulders, top part of the wings, and tail should be of the same color as the breast, and should be the shape of a heart pressed flat on the back. Flights and fluff, white, except an indistinct line of color which runs from the base of the tail to the thighs; 25 points.

Symmetry. — General appearance, carriage, and condition, 25 points. Total number of points, 100.

Colors preferred, fawns and greys. Weights not to exceed 5 lbs. in either sex; a fair average weight for drakes is 4 1-2 to 4 3-4 lbs., and for ducks, 4 lbs.; 30 inches is considered a fair good length for a drake not exceeding 5 lbs., whilst 25 inches is considered a good length for a duck not exceeding 4 lbs. Any excess on these lengths in birds not exceeding the above weights should be allowed for as extraordinary 'merit.

It is the nature of the true Indian Runner duck to run without waddling, like most breeds of ducks, but, unfortunately, this

distinguishing characteristic cannot be seen in the show pen, for it is only observable when the ducks are at liberty.

Disqualifications.—Blue ribbon wing bars, claret breasts, horizontal shape or carriage, absence of feathers from the flights, secondary flights, or any other part of the body; slipped wings, wry tail, or any other defermity.



Single-comb Brown Leghorns, White and Buff Wyandottes, Houdans, Rose-comb White-and Buff Wyandottes, Houdans, Rose-comb White-and Brown Leghorns, and Buff Plymouth-Rocks. The Iergest stock of the above varieties owned in this country, and the records will substantiate the claim of SUPERIORITY AS TO QUALITY-not records made at the county fairs, but records made in the strongest compelition at the greatest American shows—New York, Boston and Washington—where, in the past five years, my stock has been awarded 186 first, 60 gold specials, 18 silver medals, and 6 silver cups. The line of bloods I am breeding and exhibiting has produced, and is to-day producing, prize winning specimens in every section of this country and immany parts of Europe. "Like begets like." Send for illustrated circular, giving full priserecord of the leading and most popular strains-of above varieties. Satisfaction is guaranteed.

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Golden Wyandottes = ECGS \$1.50 PER 13. BIRDS FOR SALE.

J R. KENNEDY, AGINCOURT, says:—I had a hen nearly dead with roup, which your Roup and Condition Powders completely cured. 15 cents package.

Frostine. For frosted combs and other sures. 15 cents box. Ask your dealer for them, or send 5c. addition for postage to

EXCELSIOR POULTRY YARDS, 12 Water St., Owen Sound, Ont.

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IS A CHEAP AND EFFECTIVE DISINFECTANT

and LICE DESTROYER also a SURE CURE FOR CHICKEN COLERA, Roup and Scabby Leg, etc.

Price 90c. per ½ gallon; \$1.50 per gallon.

WEST'S CARBOLISED BARK is good for sprinkling on setting hens.

MNFRS., THE WEST CHEMICAL CO., Toronto,

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Exposition, - Toronto.

Aug. 27th to Sept. 8th, 1900.

THE CREATEST POULTRY SHOW AND INTERNATIONAL DOC SHOW

of the year. The best Prize List in the Dominion, and every important breed provided for. Entries for Poultry close Wednesday, August 15th; for Dogs, Saturday, August 18th. The attractions of the Exhibition will be better than ever. Everything up-to-date, Novel and Interesting. Features from all parts of the world. For Prize Lists and Entry Forms, address

ANDREW SMITH, F.R.C.V.S., President,

H. J. HILL, Manager, Toronto.

POULTRY AT THE OT-TAWA EXHIBITION.

(COMMUNICATION.)

HE rapid and wonderful intprovements which have been made in the past few years along the lines of cold storage and preserving, as well as the great development of the rapid transit idea has exerted a most favorable influence over all portions of food producing businesses and none of these have been more benefitted Once a than poultry-raising. mere adjunct to the farm, this business has arisen until it has come to be recognized as one of the most profitable and important industries of the country. Canadian hen has reached an altitude which for usefulness and profit is far above that of the American eagle.

Recognizing this fact, the management of the Canada Central Exhibition at Ottawa have made the poultry show one of their specialities this year and are offering an unusually long list of prizes for all classes of poultry. Their extensive poultry house, which is situated in one of the most prominent parts of the grounds, has been completely overhauled and thoroughly renovated and the best of care will be taken of the fowls during the exhibition.

The ornamental class has also been given plenty of latitude, and prizes will be given for pigeous, peacocks and pheasants, as well as Guinea fowl.

The Massey-Harris Co., Limited, have also offered a large number of cash prizes for hens, ducks and also for the best dozen of several varieties of eggs. This special is known as the special Massey-Harris Competition, and is attracting a great deal of attention among poultry raisers.

The entries close on September 12th, but as entries are coming in very rapidly, intending exhibitors wili do well to send in their applications as early as possible to Mr. E. McMahon, the secretary of the Ganada Central Exhibition Association at Ottawa, who will be pleased to furnish prize lists, entry forms and information to all who may apply.

30,30 MR. JARVIS' LETTER OF THANKS.

Editor Review:

LLOW me through the Review to thank the Canadian poultry fanciers, who donated towards the testimonial which I ju t received. I can assure you, I feel very grateful for such a kind

mark of their esteem and generosity. I have received many kind considerations in the past from my brother fanciers, and only hope that they may never have cause to regret their action. Again allow me to thank you, and I assure you, that I receive this testimonial in the same spirit in which it was tendered.

L. G. JARVIS. Baltimore, Md. June 11, 1900.

Condon Poultry Yards.

W. McNEIL, Proprietor, 778 Waterloo St. - - London.

BREEDER OF HIGH CLASS POULTRY, INCLUDING.

White Cochins, all kinds of Polands and Hamburgs, Golden and Silver Sebrights, Black African, Pekin and Japanese Bants. Fowls for sale at all times, and eggs in sca-

Bellevue Poultry

Hy. Dunn, Proprietor, Outremont, Montreal.

Breeder of high class WHITE exhibition

PLYMOUTH ROCKS

At the late Montreal Exhibition my birds made almost a clean sweep, winning 1st, 2nd, 3rd and 4th pullets, 2nd, 3rd hens, 3rd cock. 2nd breeding pen. Stock for sale and eggs in season; \$2 per setting of 13, three settings \$5.



HAMBURGH BANTAMS.

N concluding the Variety Bantam articles with Hamburgh Bantams, I bethought myself that I could not do better (seeing I had never bred these beautiful varieties than write to Mr. J. W. Farnsworth, whom I knew had made a speciality of silver spangled Hamburgh Bantams for many years, not only breeding them, but also exhibiting them successfully at a few shows where the classification was at all suitable.

To my request for information for the readers of The Feathered World as to how he started and eventually perfected the silver spangled Hamburgh Bantam, Mr. Farnsworth wrote me a thorough Fancier-like reply, which I cannot do better than give in his own

words.

"The following I do not say is the right way to go about the work, but it is the line pursued

in producing my birds.

"My accommodation has always been limited, hence anything but Bantams in the fowl line was out of the question. Born with the hen-fever of a permanent character, a general liking for anything small, and a great admirer of the 'black and white' combination, the silver spangled Hamburgh Bantam, although only existing in my mind's eye, stamped itself at once to be the very thing. A really good but undersized silver spangled Hamburgh cockerel of notable descent, having been mated to a couple of rather large silver Sebright hens, resulted in my being, the following year, in possession of a fairly good Mooney cross cockerel, which was mated to a somewhat large blue-legged white rosecomb hen,. a black rosecomb hen and his sister, a Mooney cross pullet. Another similar pullet was bred to a pure white rosecomb cock.

"The remaining Mooney cross pullet, the smallest of the three, was put back to her sire, the Hamburgh cock, the services of the Sebright hens being at once and forever dispensed with.

"These three pens produced a number of odd-looking chickens, of various markings, but a very good selection was obtainable therefrom, some of which were bred together, others were mated with white rosecombs and black rosecombs to improve size and spangling. By continual perseverance I produced some grand little birds in every respect but tail, which I could not get satisfactory. Eventually I bought a silver spangled Hamburgh cock with a perfect tail and but three and a half pounds in weight (of the same strain as the original Hamburgh cock), which, mated to a couple of my largest spangled hens, gave me some chickens with the desired tail, but, of course, oversized.

"These, bred together, with care in selection, for a few seasons, enabled me to pen three birds at Basingstoke Show under Mr. W. M. Leach, a club judge of the Variety Bantam Club, which supported the show; and I was awarded first prize in the A.O.V. cock class, and second and third prizes, in the corresponding hen class, a, to me, very gratifying result. Since then I have but once missed the money when exhibiting them, and that at the Midland Counties Bantam Show, at West Bromwich, where in seventeen

entries I got h.c.

"I have, of course, had the usual amount of trouble, expense, and disappointment in bringing them into form, but I consider them without doubt one of the handsomest Variety Bantams out at present, and the Feathered World and other Fanciers' papers have all spoken most favorably of them."

Such Mr. Farnsworth's is producing method silver ર્ગ spangled Hamburgh Bantams, which are without doubt one of the prettiest of all Variety Bantams, and the production of which presents no difficulties whatever.

With ordinary luck and careful selection each year, by in-breeding after having obtained the desired color, and by breeding as late as June to reduce the size, there is no reason why exhibition specimens should not be produced! in about four years. The only difficulty I can see would be in keeping the length and flow of tail feather which to a certain extent. would be lost in breeding very

Color and length of feather should be your guide in mating up your breeding pens, rather than size, as size can always be remed'ed, and very materially so, by teeding and in-breeding.

Gold spangles could easily be bred in the same way by using a gold Sebright hen, but they are not nearly so beautiful as the silvers, and I don't think for one moment that these would ever become popular, or pay for the time

and labor.

I should think it would be quite possible to breed silver and gold pencilled Bantams by using small silver and gold pencilled Hamburgh cocks, preference being given to those birds which excel in length of tail feather, and mating these to rather large Sebrights. of their respective color. To get the proper and even pencilling would take four or five years, as it would be difficult to get rid of the lacing on flights, but the timewould be fully repaid in the longrun. Unless the young fancier isprepared to devote both time and patience, and to persevere for a few years a' an uphill game, hecannot possibly expect to perfect any rew breed, and more especia ly Hamburgh Bantams.—P. Proud, in Feathered World.

COOK'S BUFF WYANDOTTES

again cover themselves with laurels. When at the

Ontario Show, Peterboro'

in the hottest competition, they won Cock and, Hen and, Cockerel 1st, Pallet 1st (more prizes than any other exhibitor in class). Also, 6 firsts. 6 seconds, 1 third at

Toronto, "Industrial", Western London,
Southern, Brantford Fail Shows, 1899.

Eggs for sale in season.

Box324. HARVEY J: COOK, Woodstock, Ont.

POULTRY FROM A PRACTICAL STANDPOINT

Conducted by A. G. GILBERT, Manager Poultry Department, Dominion Experimental Farm, Ottawa.

Norn:—Mr. Gilbert is nothing if not practical and experimental. He will from his rich store of information on the subject of "Practical Poultry" give Review readers each month the result of his experience for the past thirty years. He will be glad to answer questions or afford information on any particular subject.

HE old maxim says that "In many counsellors there is wisdom," so in the expression of different opinions on the same subject your in column, some good will surely follow. On the subjects of "Rations and proper quantity to feed," and "The proper housing and management of the laying stock in winter," much has already been aptly said and I hope much more will follow. On the subject of "Winter laying houses," Mr. E. C. Parker, a well-known breeder of Compton, Que., writes to me as follows:

Compton, Que. May 17, 1900.

Dear Sir,—I have been a subscriber to the Canadian Poultry Review for several years and take great interest in reading your monthly articles. There is just one thing on which we differ, and that is, in winter laying houses. I believe you advocate warm houses, but I like cold houses much better, for several reasons, one of which is, that I have never been able to get eggs from hens that were kept in warm houses during the winter. I find that hens will not go outside and take exercise, and get too fat, and some are sure to die from this cause.

I build my houses wind-proof, but make no attempt to have them warm. The hens feather out better, lay well all fall and winter, and are perfectly healthy. The very coldest weather never seems to affect their laying, whereas a very cold snap will always stop some of those that are in warm places, which are always more or less damp.

I have no ventilators, which only make the houses draughty, but open the windows every day, even if it is twenty-five below zero, and my houses are always dry.

The single comb Minorcas take it with the rose comb birds, and very few of them have their combs frozen. I got more eggs from hens kept in this way during November, December and January than any other months in the past

I think the chief cause of pullets and hens not laying in fall and winter is because they are too It is natural for all birds, and animals of many kinds in cold climates, to lay on a large amount of fat in the fall to keep them through the winter. Hens are no exception to the rule. My opinion is that they do not start to lay until the cold weather of December and January takes this fat off. In very cold weather, I give them snow instead of water, because the water freezes their wattles.

You would hardly believe the amount of cold, a good strong single comb Minorca hen will stand without freezing her comb. Twenty degrees below won't touch them, if they have not been baked in the fall.

You have probably read the articles in the R.P.J. proving corn superior to wheat as an egg food.

Now, I find wheat very much superior to corn, both as to eggs and also the health of the hens. If I feed my hens corn the way I feed wheat and other grains, they are sure to get indigestion and die, if I don't give a dose of oil and change of food. I lost several hens last winter from feeding corn.

Very truly yours, E. C. Parker. A general complaint, is that of poor results from February and March eggs, both by incubator and hens, as hatching mediums. Non-fertility of eggs does not seem to have been so much the cause, as weak germs. The following extracts from letters show how general was the experience. It will be noticed that no attempt is made at explaining the cause.

Mr. John McCaughan, of Carp, Ont., writes on April 25th, that he had a hot-water machine of sixtyegg capacity. His first hatch was in March. He tested the eggs on the seventh and fourteenth days, removing all clear and doubtful Six birds came out, five more died, fully formed, and the remainder at different stages of development. Second hatch, only four came out, five more died in shell, of full size, and twenty-five were partially formed. Remainder were removed clear, when tested. He wanted to know what was wrong.

Mr. E. C. Parker, of Compton, Que., a letter from whom is given elsewhere says, that the first hatch he made this year was the first of February and was a splendid one, all the eggs coming out and few chicks dying. "I sent the chickens, at the proper age, to the St. James' Club, Montreal, and their quality gave great satisfaction. Since this hatch I have not had a decent one, all the embryos ceasing to make progress apparently after the ninth day."

Similar letters were received from correspondents in London, Ont., and other points.

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From hens which have laid steadily all winter, we would not be surprised to find a certain per centage of the germs too weak to hatch a robust chicken, until the hens have had a run out. But men have written, making the same statement, whose hens did not lay in the winter. January eggs seemed to have done well, while February and March eggs gave unsatisfactory results. With us January was a comparatively mild month, but we had heavy snow-falls and cold weather in



CANADA'S GREAT EASTERN EXHIBITION Sherbrooke, Que.





The Poultry Department of this year's Fair will be second to none in the Dominion.

Improved Prize List. creased Accommodation.

Single Bird Pigeon class-Attractive List of Specials.





ENTRIES POSITIVELY CLOSE August 27th.

POULTRY JUDGE, SHARP BUTTERFIELD. London, Ont.

Reliable attendants.

An expert Pigeon Judge will also be engaged.

For Prize Lists and other information, apply to

Hon. John McIntosh, President.

W. M. Tomlinson, Sec'y-Treas.

February and greater part of March.

Mr. J. W. Newman, of Engleside Farm, near Brockville, is a progressive farmer, evidently. He writes on May 2nd, last: "I have about fifty February chicks now weighing over two pounds each and 700 others closely following. Could you give me the name of some reliable firm in Montreal or Ottawa to handle them?" This is good work for a farmer. They must have been incubator hatched and brooder reared chickens. We want more farmers like Mr. Newman in the poultry business. There is no fear of producing too much of the "superior quality." They are willing to take any quantity in England.

It will be interesting to begin incubation next season at the middle or end of December, and find whether the eggs, at that period, from mated pens, will do better than those in February and March following, when hens have laid so much longer. The subject is an important one, and demands careful investigation. Will your readers help?

Mr. A. G. Goodacre, of Grand Pre, Nova Scotia, sent me in the latter part of April, thirty white Wyandotte eggs of remarkable size and fine color. .I set twentysix and hatched twenty-two strong chickens, which are now of substantial size and making good proto a pound. Mr. Goodacre is an wrote me that he "had hatched out twenty-two chickens from twenty-six eggs, that went when weighed before setting them, six to a pound. Mr. Goodacre is an ardent admirer and skilled breeder of white Wyandottes, which he claims are the real general purpose fowl. Certainly such birds as he has, will take second place to

THAT EARLY FERTILE EGG WITH STRONG GERM AGAIN.

There can be no doubt that the leading and all-engrossing subject among the proprietors of large poultry plants, devoted to

the artificial hatching and rearing of "broilers" or "roasters," is how to secure a satisfactory per centage of early fertile eggs. Rather, let us say eggs; January February and March, with strong germs, which will hatch strong chicks. Nothing is more discouraging or exasperating thanto have a large number of chicks fully developed, dead in the shell. The subject, which has been discussed in your columns for some time past, is now being taken up by the leading poultry papers of the Eastern States of the Union, where broiler or roaster rearing is extensively carried on by numerous establishments. leading poultry paper we read that in a certain locality, hatching by incubators and rearing in brooding houses begins in September and October for "the reason, singular as it may seem, that it is easier to get fertile eggs then than later on." The paper goes on to remark, "that eggs laid in the fall are fairly fertile and the chicks strong, but as winter advances, eggs become less and less fertile, until, in January and Feb-

ruary, the fertility is so low that it is discouraging. Exactly the experience that we have been giving in your paper. Again, we read that eggs from hens pushed to lay large numbers of eggs, hatched very poorly. Again, we are told that the winter feeding and composition of the rations are all important factors in .producing fertility or otherwise. And, now that the subject is receiving the scientific investigation so necessary, it is likely that a remedy, or partial remedy may soon be found.

And it is to be borne in mind that, in the instances given, the hens were not forced to lay eggs for sale at high winter prices and were then mated up to lay fertile eggs for incubator use. The hens were mated, fed and managed to lay eggs for incubator use only! And this in the eastern portion of the United States, where the winters are mild as compared with, Manitoba, Ontario and Quebec winters. We hear people remark occasionally on the overdoing of the early broiler or roaster market. But the difficulties attending the production of the article are great and have to be overcome before the output will be so great as to affect the price. And when prices are lower, because more broilers are produced, more people will eat chicken. Meanwhile, he or she who is most successful in overcoming the obstacles in the way will make the most money.

THE REVIEW QUESTION BOX.

AM thinking of going into the chicken and egg business, not fancy, but for market.

From your experience would you suggest one strain only for both laying and broiling or one for each and which are the best?

Kindly send the May Review to start as there are some articles in it I would like to see.

Yours truly,
London. C. B. N.

The white Wyandotte is the favorite bird now for your purpose, especially for broilers. You might try, say, two or three breeds and then get down to one or two breeds as conditions advised.

For carcass, Wyandottes, Plymouth Rocks. For eggs, Leghorns, Minorcas, Andalusians.

Some friends and I have been discussing whether a sitting hen should be lifted from the nest every day, to give the eggs an airing, or should be quietly left to herself. I think the last method the best, as it looks the most natural one. The opinion of some of your practical readers would oblige,

Gus. A. Langelier. Quebec.

Our own practice is to close the hens 'on the nests and feed but once a day. This is a necessity where eight, ten or more are placed in one compartment, at one, time. The few that we have been able to allow to choose their own nests have hatched a larger .percentage of chicks, in two cases bringing out 100 per cent. of eggs These and other cases lead us to the conclusion that they do best when left alone, the trouble is that large numbers cannot be trusted to agree and each one seek its own nest again after feed-.4.4

r. Would it do to use my barred Rock cockerels another year on pullets of their own get? They are not related to the mothers of the chickens?

2. Would it be advisable to mix a small quantity of pea or oil meal with food for very young or older chicks, if so, how much?

3. Will it pay to make fattening coops for about twenty Rock hens one year old that I wish to prepare for market, having plenty of unused stable room for them?

4. Is there a demand for them in the summer for shipping to the English market, and to whom should I apply?

Yours truly, G. H. Evans.

Napanee, Ont.

I. Yes, if both males and females are strong and vigorous. We are presuming you are not breeding for feather points, as in

that case, other conditions would have to be considered.

2. Pea meal or the pea in any shape is not a desirable food for fowls. A very little oil meal may be used when the birds are growing their feathers.

3. We do not think so. Rock

hens fatten easily.

4. There is no demand in England for old fowls in any quantity, and it would not pay to ship them. Better fatten and sell in the local market in March, April and May, before the young chicks come in.

I thought that I would write you and see if you have heard of any trouble going around in the hens. We have some hens, that have lost all the power of their legs, they cannot walk at all. The trouble is in both of their legs. They cannot move, but they can cat all right; and one of them laid. They are all right in every other way, only that they cannot walk. We had a couple of others that hung around, their combs turning white, and one of them fell off the roost dead, and I killed the other one. If you have had any experience with such cases, I wish that you would please inform me what to do for them, and oblige. Yours truly,

JAMES, SHAW. Sherbrooke, Que.

We can only suggest that the ones referred to first, had rheumatism or are over-fat. For the former keep dry and warm, no trouble at this season. For the latter, reduce the feed. Look closely for insects on those whose combs turned white.

The Diseases of Poultry.

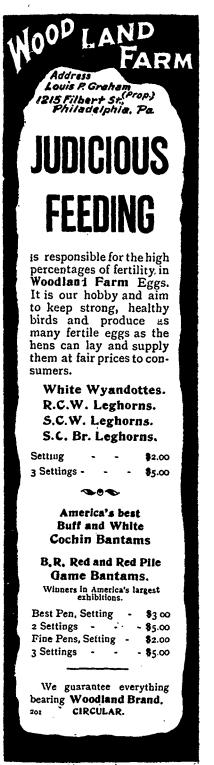
By D.E. SALMON, D.V.M.

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Now is the time to make preparations for fall trade. Advertise your goods and wants in the Review.

oil and two ounces of crude carbolic acid, put this on with a common whitewash brush. sure and get into every, nook and corner, then saturate the roosts with pure coal oil and take each bird every other night for three times and dust with pure insect powder, and in one week you will have a clean house, and my advice is, keep it clean. You clean out your stables and byres daily, and surely you can find time to clean the hen-house once or twice a week, and change the nests once a month. It will repay you for your trouble. Try it. Never on any account keep birds for winter layers that were hatched in August or September.

THE FANCY SIDE.

Up to the present, you will observe that I have been dwelling on the utility or financial side of the poultry question, which for you and me is of very great importance, but I must confess I am extremely fond of the beautiful side. When breeding poultry for plumage I always keep in sight the utility. A poultry fancier, as you know, has to import new blood now and again, for which he has to pay a good price. On one occasion I imported a trio of chicks and the express charges alone were \$14.80. On another occasion I imported some others which cost me \$60, laid down in Toronto, so that you should not wonder when fanciers have to charge two or three dollars a setting for eggs, and feel somewhat offended to be asked to exchange a setting of eggs for a setting of Poultry fanciers do a good work in improving quality

as well as beauty of plumage, but some of you may say, does beauty in poultry constitute any value? In answer to that it may be only necessary for me to go into your parlor or sitting-room, and I may say the kitchen, and look at that lovely nickel-plated stove, and ask you the question how much you paid for the beauty of that stove. Another example which might bring out the value of beauty more forcibly to some is this: Suppose you are in need of a good useful horse, and one true in every respect is offered to you, but lacking the beauty of color and proportion which attracts the eye, then let you be offered one just similar to the first in usefulness, but having style, color and every other good point to please the eye. In all probability you will pay \$25 more for him, than for the former. So you will have to admit that you will pay for the beautiful. Some people, however, do not see anything beautiful in fine poultry, still that is no proof that they are not beautiful.

In conclusion, I hope these remarks will stimulate farmers to more active work in the poultry and stock-raising industries. believe the time is not far distant when poultry products, dairy products and stock will be our principal export trade.

Mr. Dilworth has taken a lifelong interest in poultry and his business for many years has brought him into direct contact with farmers so that he knows just whereof he writes.

There is money in "poultry on the farm."-ED.

THOS. C. ALLEN, CLASSBORO, N.J.

J. D. NEVIÚS, BEVERLY, N.J.

LYNNHURST POULTRY YARDS. .COCHINS.

Cochin and Japanese Bantams continue to win the prizes and cups at the leading shows as they have for the past 31 years, winning this fall at the three great shows:

HAGERSTOWN, M.D. TRENTON, N.J. PHILADELPHIA, PA.

Forty 1sts, Thirty-four 2ds, Eight 3ds, Two Cups and Medal.

Very Choice Exhibition and Breeding Fowls and Chicks for Sale.

Yards at Glassboro and Beverly. Send two-cent stamp for illustrated catalogue.

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BEVERLY, N.J. J. D. NEVIUS.

A PROFIT OF TWO-EIGH-TEEN PER HEAD MADE BY A FARMER.

AM asked by Mr. S. M. Clemo, of Welland, to contribute a short write-up of my experience in poultry culture from a purely practical stand-point, which I hereby consent to do. A request of this nature coming from Mr. Clemo is to be considered well nigh im-

perative.

Being myself a farmer, we had always kept poultry, but kept them under a famous slipshod manner of doing business, keeping no account of what they produced or consumed, but of course, knowing full well that they "ate their heads off," and that they belonged to that class of goods of which the more a man had the poorer he was. I now claim the humble, abused, garden-ripping hen to be the only kind of live stock for which a farmer can buy all food consumed, sell their products at current market prices, and have enough money left to pay his feed bills; which a hen will not only do, but leave her owner a small surplus, which is such a rare commodity on the average Canadian farm.

Having decided to mend our ways, we proceeded after the following manner: Subscribed for a number of the leading poultry journals, bought a bone cutter, erected a suitable hen-house, built as cheaply as was consistent with durability, warmth and convenience. This house was 12 x 24 ft., four feet sides, ridge roof, double boarded and double tar-papered throughout, double windows and doors; cost of same was \$33, notincluding labor of erection, which we did ourselves. In the fall of 1898, we placed in this building thirty-five pullets and two cockerels. During the year, three pullets died from unknown causes, making the average about thirtythree. In one year this flock had produced 396 dozen eggs, or an average of twelve dozen per hen. The eggs were sold on St. Catharines market at an average price of fifteen cents per dozen, making a total of \$59.40. Cost, \$17.16, or an average of one cent per week

per hen. Deduct cost of food from receipts from eggs, and you have \$42.24 profit, which divided by thirty-three gives a yearly profit of \$1.28 per hen from eggs alone. But having two strings to every bow, let us turn to the broiler department.

department.

We set 260 eggs, hatched 205 chicks, raised 191. Of these ninety-one were cockerels, which we also sold on the St. Catharines market, at an average of twentyseven cents each, making a total of \$24.57. Food for entire flock of chicks to November 1, 1899, cost just \$24.57, leaving us 100 handsome young pullets, which I place at the modest sum of \$30. Add this \$30 to \$42.24 egg money, and we have \$72.24, which divided by thirty-three gives a yearly profit of \$2.18 per hen, along strictly utility lines. Some may criticize my yearly feed bill and say it is underestimated, but this is not true. I charged all food consumed at the highest selling price that I could have obtained had it been marketed in the usual way. I do not see any necessity that it need be any higher unless in seasons of extremely high prices; and as we did not obtain any phenomenal egg yield, we consider we did nothing that others cannot do as well or better.

Since then we have increased our stock and enlarged our plant considerably, and if at any time readers of the Review care to know how we are making things go, we will be pleased to furnish facts and figures, be they favorable or otherwise.

or otherwise. Yours truly,

. Cock-Ado-Will-Do.

[Of course, we shall be very pleased to have our correspondent's further experience. Through Mr. Clemo, we learn that "Cockado-will-do" has over 400 chickens this year, so evidently he is making use of his previous experience.

—Ep.]

S. C. Brown Leghorns.

NEW YORK AND BOSTON IN 1900.

Eggs \$2 and \$5 for 13.

Catalogue Free. If GEO. H. BURGOTT,
Empire State Farm, Lawton's Station, N.Y.

THE FASCINATION OF POULTRY BREEDING.

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

HE first fact is, that there is a strong fascination in breeding poultry. Men of all classes pursue it with unbounded enthusiasm, sometimes even to the neglect of other and more important matters. Lawyers, doctors, clergymen, teachers, business men and mechanics-all are numbered in the ranks of poultry breeders. Many of them are unknown to the professional breeders, but they follow this pursuit for their own gratification. They do not exhibit, they do not sell fowls. They keep them for the pleasure they find in them. If there were not a fascination in breeding poultry, these men, the non-professional breeders, would not be poultry-keepers. There are, it is true, quite a number of persons who keep poultry for the fresh eggs they yield and for the chickens which are used upon their tables, but there are many others who do not have a thought about the profits of poultry keeping, through expensive who methods do not make any profit upon them, but they continue to keep them.

What is the secret of this fas-

cination?

One of the secrets, for I believe the fascination results from several causes, is undoubtedly the beauty of the fowls. Any breed, even the plainest, is beautiful. Where the fowls are healthy and in full plumage, showing by their actions that they enjoy life, beauty is not wanting. While certain breeds, among which are the Games, the Hamburghs and the Polish, are generally deemed to be especially ornamental, a wellbred specimen of any other breed is not to be excluded from this class. And as tastes differ, what is ornamental in the eyes of some, is far from ornamental in the eves A well-bred B. P. of others. Rock, for example, is to me a beautiful fowl, and yet I have known men who thought, and I have even seen it stated in print,

that by no stretch of imagination could this breed be deemed to possess any beauty. Cochin breeders are among the keenest of fanciers; to them, the beau ideal of fowls is the massive Cochin; and yet there are men. whose souls are so dead, that they can see in the Cochin only a clumsy mop of feathers, devoid of any semblance of beauty. I have heard even the exquisite Indian Game called an ugly thing, and the beautiful exhibition Game an ungainly crow, comparable to a pair of tongs. But every breed has its admirers and to them, that breed is the incarnation of beauty.

Another of the secrets of this fascination is to be found in the love for living things. A child loves its doll, but if it is given a kitten or a puppy, something that is alive, it quickly transfers its affection to the living creature. And men are after all but grownup children, and this feeling survives in the adult. We never outgrow it., We may change somewhat the object of our affection, but the love for living things abides. In the life of the poultryyard, from the little ball of down with beady eyes which emerges from the egg to the fully developed and furnished cock, pleasure found. The ways of these

feathered dependents, the courage and gallantry of the cocks, the motherly instincts of the hens, the imitative manners of the chickens, aping their elders as the boy apes the man, afford a pure and healthful pleasure. The varied language of the poultry-yard is a study in itself, and one can see how delightful an essay may be made of it by reading Gilbert White's Natural History of Selborne. And then, too, the growth of the chicken from the time it is hatching until it assumes the toga virilis, the varying changes in size, shape and coloration, afford a perennial charm. Out of a study of all these things the philosophic mind draws many a valuable lesson, and learns to apply it to the conduct of human life,

And still another of the secrets of this fascination, which has the stronger hold upon the more intellectual breeders, is the opportunity to study the laws of life. The great problems of biology are helped in their solution by the student who breeds poultry. The beginning and progress of life in the egg, the relation of growth to food and other elements, the laws of variation, and heredity, the effects of inbreeding and outbreeding, all find illustration in this pursuit. And the origin of

tire different breeds, whether derived from some common ancestor, or whether they are the descendants of several or many special creations, a study which has bearings upon some of the most profound scientific hypotheses, and which more or less determines the philosophy of the student, can be studied to great advantage in the poultry-yard. Indeed, it is not extravagant to say that there are few, if any, better fields for such investigations. and the more thoughtful and observant of breeders are almost necessarily led into the consideration of these great questions. And some of these questions intrude themselves upon the attention of every breeder, even the least thoughtful and observant, for his breeding operations cannot be carried on successfully without at least a superficial knowledge of some of them. And it so happens that every breeder must in some slight degree be a student of biology in some of its branches. and that in becoming such a student he finds an intellectual growth. Intellectual means necessarily pleasure, and this pleasure adds to the fascination of his pursuits. And the beauty of it all is that, unlike so much human knowledge, this knowledge comes by a royal and easy road, without the birth pangs of many of our attainments. There are no burnings of the midnight cil, no aches of the weary brain, but only the simple joy of out-door observation.

But the greatest of the secrets of this fascination consists in the power that man finds himself able to exercise over these lower lives in moulding them to his will. This one cause alone would be an ample explanation of the fascination of poultry breeding. Fowls possess a constitution of wonderful plast c'ty. As the variations appear from year to year in breeds, either through the natural tendency to vary or through that tendency multiplied by the matings made by man, the breeder seizes upon such as suit his purposes, and thus modifies, improves, changes and transforms the di-

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EGGS \$3.00 PER 15, \$5.00 PER 30.

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EVERGREEN POULTRY YARDS.

Again I met the enemy and WON A GREAT VICTORY AT DETROIT SHOW,

WONN A GREAT VICTORY AT DETROIT SHOW,

Winning, 47 regular and 21 special prizes, including Silver Cup for best Rock cockerel. \$5 for 10 highest scoring Rocks. Bone Cutter for best display. L. Brahmas, 1st hen, 1st pnllet, 3rd cock. 2nd pen, Buff Cochins, 1st and 2nd cocks, 3rd and 4th hens, 1st and 4th cockerels. 1st and 2nd pullets. 1st pen, golden Wyandottes, 2nd cock, best on weight, 2nd, 3rd hens, 1st cockerel, also winning on Buff and silver Wyandottes; all the prizes on Black African Bants, silver Sebrights, 1st cock, 1st and 3rd hens, 1st ckl, all on B. Cochin Bants. Black Tail Jap, 1st cockerel, 1st pullet for sale, \$7.00. I have mated up a pen of my best buff Cochins, headed by 1st cock, hens and pullets. Eggs from this pen \$5.00 per setting. Eggs in season from all varieties.

E. H. DONNELLY.

Sandwich, Ontario.

verse characteristics of his flocks, as his aim and purpose may be. Old breeds are improved, new breeds are created. Man is here exercising a power that seems to him to be somewhat akin, however far removed in degree, to the creative power of his Maker. And the exercise of this power gives him a sense of his greatness as compared with the lower orders of creation which produces a wonderful complacency in his

Such are some of the causes which help to explain the great fascination of poultry breeding, a fascination which seems never to lose its power over the man ,who has once fallen under its influence Circumstances may compei him to give up breeding fowls, but the contemplation of their charms, the study of the laws of life, and the admiration for the work of the most skilful breeders remain. These are a present possession that nothing can divest him of. In sickness or health, in poverty or wealth, amid the cares of a busy life, shut in by brick and stone walls, where fowls are never seen, he still can enjoy in remembrance, the fowls he has bred and the knowledge he has attained.

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Eggs For Hatching

from pens healed by large, vigorous, puro white cocks and cocker-els, and turnished with a grand laying strain of females all originating from America's most loted strains, viz., Hawking, Knapp and Duston. Years of experience, together with intelligent breeding, has enabled me to bring my birds to the highest point of excollence, by breeders are WELLUP IN ALL FANCY POINTS required by the STANDARD. By SQUARE DEALING methods and this little ad, in the Canadian Poultry Review, my list of orders for this season is running up very fast, but can supply a few more settings to those who are after the best to be had Write for circular and price list free. The T. V. P. Yds.

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W. M. REYNOLDS.

Box 316, Trenton, Ont.

Crushed Oyster Shells, Crushed Filmt, Calcite, Ground Brick, Ground Beef Scraps, Poultry Granulated Bone,
Bone Meal,
Send for samples and price-list Foods American Poultry Food Co., Box 942, York, Pa.

INTERNATIONAL FAN-CIERS' PROTECTIVE UNION.

NEW aspirant to the favor of those interested in poultry has appeared under the name of the International Fanciers' Protective Union. In common with many other associations, it has for its main object the fostering of the best interests of poultrydom, but it goes a step farther and undertakes to make good to its members any loss incurred through wrong dealing on the part of another member. For instance, say one member orders from another, birds or eggs and receives poor value. He forwards to secretary papers formulating charge. The secretary informs accused party of charge and he is given every opportunity to explain. If secretary decides it is a case of fraud, he' issues order on treasurer, returning to the buyer cash he is out on The seller is given ten deal. days to make the amount good to the I.F.P.U., and if he refuses to do so, is expelled from membership. I suppose this must be looked upon more or less as an experiment, but something of the sort has long been a crying need. Possibly this, if found unworkable, may help work out a practicable plan. The officers are: President, A. C. Hawkins, Lancaster, Mass.; vicepresidents, E. B. Thompson, Amenia, N.Y., G. J. Lovell, Carlton West, Ont, Can., W. C. Schuman, Denver, Col.; secretary, Chas. A. Penny, Barry, Ill.; treasurer, Mrs. B. G. Mackey, Clarksville, Mo. The fees are very light, being 25c. membership and 5oc. vearly dues.

There are a number of other points, but lack of space prevents dwelling upon them here. The secretary or the undersigned will he glad to send copy of constitution and By-Laws or give any information possible. It is hoped a large number of Canadians will see the value of this association and it should prove to be very helpful to them.

Yours truly,

Carlton West, Ont.

There is certainly need of some central, judiciary body, and in our humble opinion the American Poultry Association should have filled this "long felt want" years ago. Entire power is apparently given one man, the secretary, here, which can hardly be wise, no matter how learned he may be. In the constitution and by-laws of the association, we find the following:

CONSTITUTION.

Object.—The object of this organization shall be: 1st, to promote fraternity and fidelity among the fanciers; 2nd, to guarantee all stock and eggs sold by its memlers; 3rd, to prevent dishonest breeders from misrepresenting their stock, and to expose such breeders to the public; 4th, to educate the public to the value of thoroughbred poultry and pet stock, and 5th, to work in the interest of its members.

GUARANTEE CERTIFICATES. -Each member of this union shall send with each shipment of eggs or stock a guarantee certificate to

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Have you ever threatened to

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if he ever showed up on your place

There are hundreds of farmers all through this country that in the early days have planted trees which some unscrupulous tree jobber sold him for first--class winter fruit that after years of patient toil and care turn out to be worthless crabs or naturals. You have all seen those cases. There is now no necessity for such a thing. You can

TREES OF ALL DESCRIPTIONS

fruit and ornamental, that are guaranteed true to name and first-class in every respect. Write for catalogue.

Good opening for respectable men only, as agents.

ADDRESS E. D. SMITH, (Established 1882. 400 acres in extent.)

LDERLEICH FRUIT FARMS NURSERIES, WINONA, ONT

the effect that the stock or eggs are as represented.

The secretary and treasurer shall be re-imbursed for their services.

All officers connected with this organization shall receive such compensation for their services as the Executive Committee may decide.

ART. VIII.—Any party buying stock or eggs from a member that were misfepresented, shall, within five (5) days forward the guarantee certificate and his complaint to the secretary, who shall then fully investigate the charges, and if after doing so he finds that the stock or eggs were misrepresented, he shall draw an order on the treasurer in favor of the purchaser for the amount paid for stock or eggs in question and charge same to account of seller, who shall remit same within ten (10) days after being notified; upon failing to do so he shall be expelled from the union,

This organization shall educate the public to the value of thoroughbred stock by circulating poultry and pet stock literactive, encouraging poultry exhilitions, and by such other means as the Executive Committee may

provide.

The objects of the association are laudable, but it strikes us a large contract has been undertaken to "re-imburse" the secretary and treasurer for their services, to circulate poultry and pet stock literature, to encourage poultry exhibitions, "etr.," at an annual fee of half a dollar.—ED.

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HAMILTON DATES.

DOULTRY exhibitors are requested to bear in mind that Hamilton has definitely decided on their next show dates as December 11th to 15th, 1900 (same as last year). Show days, Wednesday morning to Saturday right of second week.

Hamilton fanciers say not even the first contingent could make

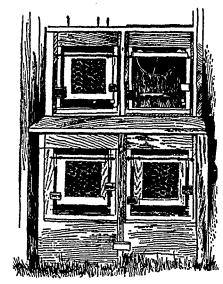
them budge.
W. D. McPhie,

Acting Sec.-Treas.

A NEST BOX FOR KEEPING 'INDIVIDUAL EGG RECORDS.

T is often desirable to record exactly the egg production of individual fowls. Numerous appliances and patented devices for this purpose are on the market—some practically worthless, others of varying degrees of usefulness. The Maine Station has recently published a description of a nest box which is claimed to be simple, inexpensive, easy to attend to, and certain in its action.

It is a box-like structure, without front end or cover. It istwenty-eight inches long, thirteen inches wide, and thirteen inches



deep-inside measurements. division board with a circular opening seven and a half inches in diameter is placed across the box twelve inches from the back end and fifteen inches from the front end. The back section is the nest proper. Instead of a close door at the entrance, a light frame of inch by inch and a half stuff is covered with wire netting of one inch mesh. The door is ten and a half inches wide and ten inches high and does not fill the entire entrance, a space of two and a half inches being left at the boftom and one and a half inches at the top, with a good margin at each side to avoid friction.

filled the entire space it would be clumsy in its action. It is hinged at the top and opens up into the box. The hinges are placed on the front of the door rather than at the center or back, the better to secure complete closing action.

The trip consists of one piece of stiff wire about three sixteenths of an inch in diameter and eighteen and a half inches long, bent as shown in the drawing. piece of board six inches wide and just long enough to reach across the box inside is nailed flatwise in front of the partition and one inch below the top of the box, a space of one-fourth of an inch being left between the edge of the board and the partition. The purpose of this board is only to support the trip-wire in place. The six-inch section of the trip-wire is placed across the board and the long part of the wire slipped through the quarterinch slot, and passed down close to and in front of the center of the seven-and-a-half-inch circular opening. Small wire staples are driven nearly down over the six-inch section of the trip-wire into the board so as to hold it in its place and yet let it roll sidewise easily.

When the door is set, the halfinch section of the wire marked A comes under a hard-wood peg or a tack with a large round head, which is driven into the lower edge of the door frame. The hen passes in through the circular opening, and in doing so presses the wire to one side, and the trip slips from its connection with the door. The door promptly swings down and fastens itself in place by its lower edge striking the light end of a wooden latch or lever, pressing it down and slipping over it, the lever immediately coming back into place and locking the The latch is five inches long, one inch wide, and a half inch thick, and is fastened loosely one inch from its center to the side of the box, so that the outer end is just inside of the door when it is closed. The latch acts quickly enough to catch the door before it rebounds. Ιt was feared that the noise arising from the closing of the door might startle the hens, so instead of wooden stops, pieces of old rubber belting were nailed at the outside entrances for the door to strike against.

The double box with nest in the rear end is necessary, as when a bird has laid and desires to leave the nest, she steps to the front and rengins there until released. With one section only, she would be very likely to crush her egg

by standing upon it.

The boxes, which have no tops, are arranged in cases in groups of four and slide in and out like drawers (see fig. 4). They may, of course, be used singly by simply providing a cover for each box. When a hen has laid, the nest is pulled part way out or the cover lifted, as the case may be, and the hen removed. Each hen has a band bearing a number attached to her leg and the eggs may be numbered to correspond.

The Maine Station has made use of these nests in experiments undertaken to establish families of hens that shall excel as egg producers. The laying stock is to be bred from the eggs of hens showing a large egg production. The breeds employed in the experiments undertaken thus far are barred Plymouth Rocks, white Wyandottes, and light Brahmas.

The same method might be employed with advantage in practice to weed out unproductive hens from a flock and to select for breeding only those which are good egg producers.-C. F. Langworthy.

THE LAMBTON ASSOCIA-TION.

ANNUAL MEETING.

HE annual meeting of the Lambton Poultry and Pet Stock Association was held at the Hotel Ircquois, Petrolea, Friday evening, June 8th, Mr. H. Mann in the chair.

The treasurer's financial statement was read and approved. It showed the association to be in debt to the extent of \$20.30, but assets of \$89.92 offset this and make a favorable showing for an

organization just entering upon its fourth year.

Mr. Mann, the president, reviewed the work of the past year in a lucid manner, and Messrs. A. Hill and R. Laing referred in glowing terms to the immense growth of the poultry industry during the past few years, and also to the possibilities of the future.

It was decided to hold the next show in Petrolea, and the following officers were elected for the

ensuing year:

Honorary president, J. L. Engleheart; president, A. Duncan; 1st vice-president, H. Mann; and vice-president, A. Hill, Wyoming; 3rd vice-president, C. B. Latta, Alvinston; secretary-treasurer, J. W.'Kedwell; auditor, J. A. Jackson. Directors-T. Hartigan, D. Fraser, C. Richmond, F. W. Reynolds. R. Laing, A. Edward's, J. Green, F. A. Mann, A. Drake, Pe'rolea; A. G. Brown, A. E. Doan, Watford; T. Drope, H. H. Mann, Copleston; D. Hartley, Wyoming.

Moved by Mr. Albert Edwards, that a hearty vote of thanks be tendered "The Breeders' Advocate" for the liberality shown the association by the publishers of that

paper.-Carried.

The president, 1st vice-president, 2nd vice-president and F. W. Reynolds, were appointto interview the county council, the town council and the various township councils relative to grants in aid of the association.

It was unanimously agreed to adopt the scoring system at the next show, which will be held during the third week of January, 1901.

BUFF COCHINS

Exclusively

My birds during the past winter have won prizes at Toronto, Eastern Ontario, Detroit and Stratford.

A few cockerels still left for sale. Eggs \$3 00 per setting.

A. W. Bell,

536 Ontario St., Toronto, Ont.

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FARM POULTRY.

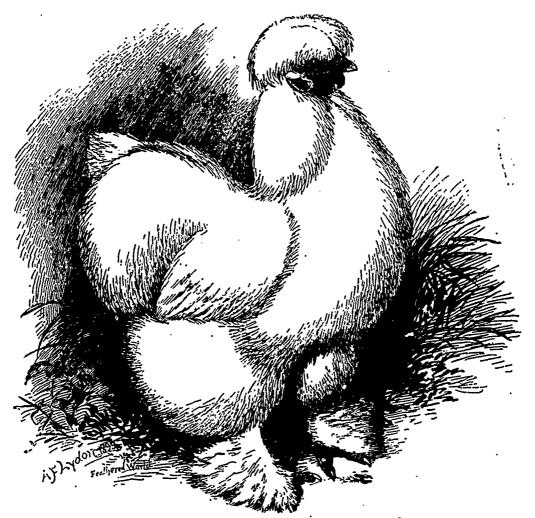
BY JAMES LONG.

T is gradually dawning upon the poultry-keeping community that the old system, if system it can be called, is as useless as it is stupid, and that unless birds are kept upon a rational principle,

ignorance as exemplified in the management. If, however, we add to the cost of the food the sum spent in the form of labor, the interest of the money invested in the birds and their houses, the rent of the land and the losses which occur from deaths, even then there should be a substantial profit gauged from the

have suggested, return an ample profit.

It is the object of this article to show upon which basis such profit can be most surely obtained. We have nothing to do here with what is termed "fancy poultry;" pure breeds are recognized, and from among those breeds we select the most useful of their kind. The



A TYPICAL SILKY PULLET—WINNER OF FIRST AT DAIRY SHOW, ENGLAND, 1899. REPRODUCED FROM THE "FEATHERED WORLD." NOTE THE SIZE AND SHAPE OF CREST AND EXTENT OF FOOT FEATHER.

profit is practically impossible. If we assume that an average laying hen costs a penny a week for food, or 4s. 2d. per annum, it follows that, putting out of sight for the moment the question of labor and other expenses which follow where hens are kept in large numbers, profit is absolutely certain unless there is some very gross

point of view of the sum of money invested. We are not among those who believe that poultry-keeping as an industry is adapted to maintain an individual or a family. It should be combined with some other form of work, and it can be so combined. But poultry keeping in the hands of the average individual should, in the way we

most profitable fowls are those which are the produce of a cross between two first-rate breeds. The milk producer does not breed the pedigree Shorthorn; his preference is very decided, and in favor of an animal, which, if largely of Shorthorn blood, is yet of distinct character as a milker. The breeders of sheep and swine



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WANT

so are compelled to dispose of a number of trios of our best stock. These birds have all done their share of winning and can do the same trick again. Space will not allow of our stating what they have won, but we will be pleased to give full information and descriptions on application. As we require the room at once, the first enquirers will get the

Lowest Price,

which is less than half their value, for with the warm weather we can run them in our summer houses and would not need to dispose of them at a sacrifice perice. Do not think they are only surplus stock. They are the birds we kept last fall for our breeders and are our best. We will ship to reliable parties on approval, or if anyone purchases any and are not satisfied with them they may return them. Read this list over and write us for a description of what you want.

COChins—I trio Partridge; I trio Buff; I trio black; I trio white. Langshans—trio black Minorcas—I trio black; I pair white. Polands—I trio W. C. black; I pen W. C. white. Andaluslans—I trio. Game—I trio brown red; I trio Silver Duckwing; I pen Pile. Bantams—I trio black Rose Comb; I white Cochin hen; I black Cochin hen. Game Bantams—I pen black reds; I pen brown reds; I pen Piles; I trio Duckwings.

You will never get as good a chance again to secure as good stock at the prices we are asking. We have got to get the space these birds are using at any cost. You can more than make the price of them during the coming breeding season. Write us at once.

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OTTAWA POULTRY YARDS. 162 Sparks St., Ottawa. similarly employ pure breeds for crossing, and wisely so, inasmuch as they obtain prolificacy and constitutional vigor, which by no means attaches to the pure races, in general. No man in his senses would keep the Dorking for the production of eggs, or the Leghorn for the production of meat: nor indeed would he be so well advised to breed either of these varieties for the special purpose which they really represent. Let us first endeavor to class the chief table and egg-producing breeds.

Table Breeds-Dorking, Indian Game, Game, Fleche, Langshan,

Houdan, Scotch Grey.

Egg Producers—Minorca, Audaiusian, Leghorn, Black Hamburg, Ancona.

FOR THE TABLE.

There are other breeds which individuals who breed them for sale insist possess both characters, but in reality we do not believe they possess either in a marked degree. Such breeds are the Plymouth Rock, the Wyandotte, and the mongrel which has been dignified by the name of Orpington. These fowls are entirely manufactured varieties, the last, named in consequence of its being wholecolored, needing little or no skill in fixing its type, but the more recent the manufacture: the hardier the constitution. [Mr. Long looks on our grand breeds the Plymouth Rock and Wyandotte with insular prejudice. So many both are now bred England that we need no more than that we do not agree with him.—Ed. Review.] Now supposing the poultry breeder's desire is to produce chickens for the market, his first object should be to secure birds of the right type and quality; he must next learn how to feed them, and lastly how to pack and market them. A case or basket of the poultry should be made to present an attractive appearance, and like a barrel of Canadian apples they should be all alike in color, and in size and quality. One inferior

bird will spoil the consignment.

There is no question about the fact that the finest cross is still the Indian Game Dorking, largeframed colored Dorking hens being selected with a cockerel of the Indian Game breed, adult, vigorous, with a deep breast, and of good size. The birds, the produce of this cross are hardy and easily reared, growing rapidly, and soon becoming fit for the two or three week's cramming, which under the new system they should undergo, a system which rapidly adds to their weight, and enormously adds to their value. The Game Dorking is almost equally fine, but the birds are slightly smaller. Dorking hen crosses almost as well as the Fleche, which is a bird of excellent size, of very white skin, and abundant and tende ilesh, and the Fleche Dorking can be strongly recommended. If it is desired that the birds should be uniform in color and in part kept for laying, we can recommend the Langshan Fleche cross, the plumage of both birds being black, the size large, the produce hardy, vigorous, and precocious, and layers of large eggs, while they are most presentable, and delicious on the table. Now if it is possible, by the adoption of a plan of this kind. breeding by selection and expert feeding, to obtain chickens which in the best season of the year will realise 5s., apiece instead of 2s. and 28. 6d. under the old system, it follows that the industry is worthy of attention. In view of the proposed increase in the shipment of dressed fowls to England it will be wise for our local breeders to experiment with these crosses. Perhaps Mr. Gilhert and Mr. Graham would take them up, though we know both like the "pure bred." Still it is policy to give the consumer what he wants, not try to force on him what we think he wants, and Mr. long should be authoritative on this subject.—Ed. Review.]

EGG PRODUCTION.

We now pass to egg production. A hen consumes sufficient food to enable her to produce an infinitely larger number of eggs than is her average. The average cow of the country yields from 400 to 436 gallons of milk, but cows are bred to yield 1,000 gallons, and many produce 1,200 gallons and more. Similarly, instead of eighty eggs, which is probably in excess of the average produce per hen in this country, hens can be induced to lay 200 eggs by the process of selection and by feeding of an advanced character. In the American competitions extending over a year, the winning lots of hens averaged some 230 eggs per head, and there is no doubt that even this figure will be exceeded as breeders pay more attention to selecting their breeding stock from the best layers only, and as they grasp still more clearly the principles upon which the system of feeding is based. If, however, the average poultry keeper could obtain 150 eggs per hen per annum he would do very well indeed, but this is altogether out of the question, simply because people will not devote that study to the subject which it really demands. we say that the Minorca, the Andalusian, and the Leghorn are the best laying breeds we do not forget that the exhibition system does a great deal to destroy their laying power, and a person buying hens for economical purposes should be guarded against making any selection from the poultry yards of individuals who are constantly exhibiting their birds. Before the Minorca became an exhibition fowl it was unquestionably a very much more useful bird than it is at the present moment, larger, hardier and more prolific. laying purposes the Minorca may be crossed with the black Hamor with the Langburgh, shan, all, by the by, being birds of black plumage. A similar cross may be made between the Andalusian and the same three varieties. Not only would the result be the production of large and strong pullets, but pullets which would lay eggs of excellent size. On the other hand the Leghorn

and the black Hamburgh, both most prolific layers, are small, and produce eggs of small size. If, however, we desire to make a cross between the white Leghorn and some other breed, especially if we would retain the white plumage of the fowl, we should select the white Dorking, picking out hens require more of that class them with the largest Leghorn cockerel to be obtained. In this case we should expect not only prolific and rapidly growing chickens, but pullets which would become first class layers, and cockerels which would fatten well for the table.

- HOUSING.

The next question relates to the housing of poultry., Birds do not need warmth so much as air. Healthy hens will maintain better health when roosting in the treesin the most severe weather of winter than in faulty houses. It has been sometimes stated that the heat of the hen-house in winter isfollowed by the production of a larger number of eggs; if such hasbeen the case we are quite satisfied that in the main the hens suffer in health, indeed hens do not respond to these artificial conditions. The hen-house should be built against a south wall and so arranged that it catches the morning, mid-day and evening sun, and tothis end should be lighted by glazed windows, although light appears to be contrary to the ideas. of the old-fashioned poultry keeper, whereas it is the enemy of disease, and especially of deadly microscopic life. A perfect poultry house should have no wooden floor, but a floor of earth laid upon at least eight to twelve inches of drainage rubble, such as cinders, broken bricks and gravel, and covered with a layer of sand which will facilitate the daily removal of the manure with the rake. Cleanliness should be the first consid-The house should bewell ventilated, care being taken to prevent the roost being in a draught. It may be well tarred,. or painted without, and well limed within, lime-wash being used at:

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least four times yearly, chiefly for the destruction of parasitic life. The best roof is thatch, for it is warm in winter and cool in summer; whereas iron makes the worst form of roof; but a useful roof may be made of wood, lapped feather edged board or match board, covered with felt and well tarred. [These remarks apply to England of course.—Ed. Review.]

FEEDING.

We now come to the question of feeding. Whether we intend to provide meat or eggs we are bound to consider one fact, that both materials are composed of substances containing lime, fat or oil and albuminous matter, or matter containing nitrogen. Unless, therefore, these materials are supplied in the food in sufficient abundance neither meat nor eggs can be manufactured to the fullest extent. In addition to these materials the food of the hen contains starch, or its equivalent, sugar, gum, or cellulose, these being the carbonaceous constituents of food and chiefly employed in combustion, and the maintenance of the heat of the body. Now it is possible to feed a hen on grain which provides her with more starch than she requires, and less meat or egg-making material, than is necessary. If this is done, as it may be, by maize feeding, there must be waste of one constituent

because there is not sufficient of another to carry the process further. There is no doubt the hens require more of that class of food which is rich in nitrogen than they obtain, and for this reason we strongly recommend that in addition to grain, meat and skimmed milk should be liberally provided. The best form of meat is that which is the least stimulating, such as the white meat of the intestines, and the paunches of. animals. It is more digestible than the average coarse muscle, more nourishing, and less costly and stimulating. The chief difficulty is in the process of cleaning and cooking, and this becomes the stumbling block in the average poultry yard, for it may be claimed by some at least, that if all this labor is necessary the game is not worth the candle; but the same remark applies to all other industries if they are to be carried out properly. The cheapest grain foods are not those which cost the least per bushel, unless the weight of a cereal varies, for while wheat varies sixty-three pounds, oats commonly weigh thirty-eight to forty pounds; but when we have reduced each cereal to equality of weight we have still further to ascertain the proportion of feeding matter each cereal contains. Maize, for example, contains, more nutritious and digestible feeding matter per cent. than oats, so that at equal prices per pound,

or per 100 pounds, maize is much the cheaper of the two; and yet maize is not so typical a food as the oat because of its larger proportion of starch. If, however, maize is used in conjunction with meat or skim milk, we can make the greatest use of it, and the remark applies equally to wheat, which may be used almost in the same way. In 100 pounds of wheat there are about seventyseven pounds of digestible food as against fifty-six pounds in oats, and in estimating what food to use we are bound to take this fact into consideration. We must not forget that all fowls require green food, material for making the shell of eggs, and exercise.

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THE REARING OF PEA-COCKS IN FRANCE.

BY EDWARD CONNER, PARIS, . FRANCE.

HERE is a strong and general desire in France lately for rearing peacocks; this is not at all surprising, considering how much such birds are admired by the French; and as no difficulty is experienced in their breeding, the new "fad" is almost certain to meet with every success. Though numerous facilities exist for obtaining the several more or less interesting varieties of peacocks, breeders are cautioned to exercise judgment in the careful selection of birds, and last but not least, to conform to such rules and methods, as will secure profitable rearing. Almost the same methods hold good alike for peacocks as for poultry. Within thirty years, quite as many different kinds of peacocks could be bred as are produced varieties of fowls. However, this is not the principal object to keep in view; the new departure in poultry-farming in France is solely intended to popularize peacocks more than heretofore. At best, they can only be reared as an ornamental bird; that implies grounds, sufficient room, or wire cages of a large capacity, to secure them liberty. In India and the Dutch colonies of the East-in Sumatra and Java 11 wit-peacocks are there bred for their feathers, which are exported to China in order to make sercens and fans for the Mandarins, or to ornament the hats of the Moujiks in Russia. Superstitious persons allege that the said feathers symbolize misfortune. the latter only arrived to the dealers in Paris, who laid in stocks to tail during the Carnival; the fathers were drawn by merry folks across the face or neck of the fair sex especially, when it prodiced a certain amount of irritation, and very little fun. The same objectionable pastime takes place in London on festive occasions. However, the so-called innovation did not last long in Paris, as the Prefect of Police ordered the aunoying practice to be at once discontinued-Scotland Yard might do worse than to act similarly as regards Londoners. At some very important dinner parties, the peacock is served up in all its full glory, and with all its gaudy feathers; so realistic is the dressing up of the bird when cooked that it looks the same as when it was alive, and forms an imposing addition to a banquet board. It may be at present remarked, that the flesh of the peacock is not delicate, but tough and stringy. In no very remote days it was consumed in a much more dainty manner. Vitellus and Heliogabalus, it will be remembered, served their guests with dishes of peacock's brains and tongues. peacock was called "Juno's bird," on account of its being reared on the island of Samos, and which was dedicated to the goddess, whom legend says decorated its tail with the eyes of Argus.

The peacock belongs to the pheasant family; it does not afford good sport to the gunner, being slow and heavy. In Southern British India, the peacock is not at all uncommon; the birds seek the Hindu temples for shelter, and often enter the huts of the inhabitants and perch there. In our countries, we have only the ordinary breed-Paro Cristatusbut the more gaudy variety, called Paro Muticas, is peculiar to India and the Malay Peninsula. It posseses more bronzed feathers too. Peacocks take two years to become adult birds; the cock then commences to expand his tail to the admiration of his associates, and which can ensure him at the same time, the choice of the best female companions. The male bird is about four feet in length from the tip of the tail to the bill, but the female is much smaller in size: she lays in March or April, in a rough nest, made on the ground, from eight to ten eggs-occasionally as many as twenty-five, and which are not unlike those of a goose in volume, as well as in point of color, that is, white, with perhaps darker spots. But she is a bad hatcher, strays away from nest. which necessitates an ordinary hen being generally employed to replace her. The incubator, too, has been successfully utilized. The hatching period varies from twenty-five to thirty days. Grain constitutes the principal food of peacocks, but exacts careful attention; let the diet resemble that given to turkeys as

much as possible.

The plumage of peacocks, which is shed annually, is much more brilliant in the case of the wild, than in that of domestic birds. But the young of both sexes are feathered alike during the first two years; it is in the third year that the hen begins to lay, and that the male bird commences to acquire the lustre and variety in its tail. Isolate the young from their mother, otherwise the male will beat and ill-treat the young ones most cruelly. Some female birds-like others-have the peculiarity, when past their laying period, to acquire the same proverbial brilliant colors of the The peacock is furthermore remarkable, for its longevity. Some authorities accord to it the honors of centenarianism; but from fifteen to thirty years is the average length of its existence. Really speaking, the peacock Itas two tails, both of which can be raised, and expanded at will; however, the under layer of feathers is the true tail. But the difference in the distribution and in the variety of colors is due to several changes, climate particularly, and which affect the generating of the pigments. In Dutch East India. gunners report that they have met with excellent sport with flocks of hen peacocks; they keep low down, however, and so fail to rise like a cock pheasant. The country people are firm believers that the cry of the peacock is an indication of rain. But as they scream a good deal, the wet weather should be always with us-like the poor.

Every encouragement is to be given by the government to propagate the rearing of peacocks throughout France; that the new hobby is destined in time to be come a remunerative pastime is accepted by many leading breeders. Of course, the best birds would be imported direct from their place of origin, namely India; where they are to be encountered in forests and jungles; some of the birds prefer a Western and mountainous district, others have a tendency for woodlands and river-banks. In the morning and in the evening, the peacocks retire in the interior of the land, as well as roam about in fields in search of food. During the hottest part of the day, they penetrate further and further into the jungle in order to escape the heat. In some parts of India, in the Neilgherryet, and other mountainous districts situated in Southern India, peacocks are to be encountered at heights of 6,000 feet; in the Himalaya mountains, they seek less elevated spots.

May the new French venture prove successful ultimately, and so lead to encouraging others to embark in the speculation. Time will prove whether or not the play is worth the candle. Being new. peacock-rearing will be successful for a time, but it is not at all certain that the new "toy" will last always, despite that a "thing of beauty is a joy for ever."

SHOULD EGGS FOR HATCH-ING BE TURNED.

BY GUS. A. LANGELIER, QUEBEC, QUE.

HIS is one of the very points on which experts differ in opinion.

Some pretend that eggs for hatching, before they are put under the hen or in the incubator, should be turned twice every day. This keeps the volk in the centre, otherwise it always tends to get near the shell, because it is not as heavy as the albumen. If eggs are not turned, the yolk gradually gets on top of the albumen, till at last it adheres to the membrane which covers the inside of the shell. Thus situated, the embryo, away from its normal place, cannot receive in a uniform manmer the heat necessary for incubation, or else sticks to the side of the shell, where its movements are paralyzed. Hence, laborious or irregular births, deformed and weak chicks, and even deaths in the shell. It is also stated, always by those who claim the turning of eggs necessary, that a hen left to herself, will turn every day the eggs she has laid and on which she is going to set; mother nature should be copied, they say, in this as in most of other things, if success is to be obtained.

Others (and they have at their head a well-known expert in such matters, Mr. Cyphers), claim that the eggs for hatching need not be turned at all.

Now, it is a fact that the general advice given is to turn the eggs twice a day before incuba-

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tion commences; and it is also a fact that the general rule in practice is not to turn them at

From a theoretical point of view, and from the scientific aspect of the matter, it seems better to turn the eggs for hatching purposes; on the other hand, general practice shows that good results can be had without going to this trouble. Can we, and will we have better results by turning the eggs?

Perhaps, somebody, who has made a series of continued experiments on this subject, may bring forth actual figures to show the superiority of our way over the other.

Pending this, some of your readers might give their opin m about the matter, which is certainly a very interesting one,

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What the New Ads. say this Month.

In this column we note from month to month new display advertisements, changes for same and the advent of yearly "For Sale" ads.

Askin Poultry Yards, to make room for young stock, will sell a fot of good barred Rock hens at low prices.

J. W. Kedwell, for the same reason, has a not of ine breeding stock in his specialties—Rocks all colors—at prices that are tempting for quality.

C. J. Daniels reminds breeders that this is the time that Lee's Lice Killer gets in its work and the result is dead lice. It is efficacious. He is still selling Cypher's Incubators, atthough the season is well advanced. Some are doubtless preparing for next fall. He sells all kinds of supplies.

* * * Samuel Cushman, the expert in geese, is clearing out some grand breeding stock at half price to make room for young stock. He has besides geese a lot of Rhode Island Reds of good type, for sale cheap. * * *

H. H. Bradfield, who breeds Buff Plymouth Rocks exclusively, has 50 good hens for sale at \$1 etch, and four fine cocks at \$2.00 each. Any number sold at this price. These are the birds he used for breeding from this season.

Mrs. J. H. Shales has a lot of fine stock that must go now after the breeding season. She is offering white and buff Dats from \$1 each up. Guarantees to please or refund money.

R. H. Essex who for so long has been identified with buff Rocks will sell old and young stock fit to win, and will, if desired, get them in shape for the show pen. He gives a list of his wins for past years that shows what his stock has done and can do. Ad, in usual position on back cover.

L. H. Baldwin, has a lot of early hatched chicks n white Wyandottes and S. C. White Leghorns, "early, vigorous and healthy." He invites inspection. He also will sell a number of yearling hens at reasonable rates.

George Elliott, breeder of "sky blue" Andalusians, has stock for sale at reasonable rates and guarantees to give customers satisfaction. . .

Excelsior Poultry Yards have Golden Wyandottes and eggs for sale, also a sure roup cure and other medicines.



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All communications and advertisements must be in our hands by the 15th to insure insertion in issue of same month. Address,

H. B. DONOVAN,

124 Victoria Street, Toronto, Ont.

FOR SALE OR EXCHANGE.

Advertisements of 27 words, including address, received for the above objects, at 25 cents for each and every insertion, and 1 cent for each additional word. Payment strictly in advance. No advertisement will be inserted unless fully prepaid.

Twelve Adv. \$2.50.

An advertisement of 30 words will be inserted EACH MONTH for one year in this column for \$2.50, paid in advance. Advertisements may be changed every month if desired.

* * *

This coupon is good for one advertisement of 30 words in the "For Sale and Exchange"

THE CANADIAN POULTRY REVIEW.

To meet the wants of advertisers who are continually using this column, and who find it a great trouble to be constantly remitting small amounts, we have adopted the plan of issuing Coupons (as above) good for 30 words each, 4 for \$1. Anyone buying these Coupons can use them at any time in lieu of money when sending in an advertisement. Not less than four coupons sold.

THESE RULES must be followed:
1. Payment MUST be made in advance, the amounts are too small to permit of book-keep-

ling.

2. Write copy for ad. on a separate sheet from any other matter, and on one side of the paper only. 3. See that ads, are fully prepaid as per rate

above. 4. Say plainly how many times ad. is to be

inserted.

5. Give heading under which it is to appear.

6. Changes must reach us not later that the

20th of each month.
Unless above rules are followed we cannot guarantee correctness.

BANTAMS.

Bantanns Egga-England's best Bantams, St pens, mated up on largegrass runs several Cry-stal Palace winners. List on application to Frank Rice, Staustead, Suffolk, England.

W. C. W Polish Bantamis-\$3 per pair, oggs, & por 13, eggs from Buff Cochin Bantams and White Guineas, & per 13. Dayton Murphy, Weilington, 700

Bantams, Bantams, — Blk. Rose Combs, White Black and Buff Cochin Bants. A few Grand Birds for Sale at reasonable prices. Eggs \$2.50 per 13. If you want winners write me. Brantford Bantam Yards, 7 Niagara St., Brantford.

I am through Breeding and have a few birds of the following varieties to sell: Golden and Silver Sebright, White and Buff Cochins, B T. Japanese, Black Africans. Bert Hicks, Woodstock, Out.

BELGIAN HARES.

Reiginn Hares-Fine imported stock for sale—Two to six months old from \$2 to \$4 per pair—Breeding Does, \$2.50 to \$5 each. J. N. Kendall, Brussels, Oct.

Reiginn Hares.—Fine Young Stock bred from imported Hares, two to four months old, good color, well marked, also one Lop buck ten months old, 23 inches solid fawn. John A. Barnard, Wrox-

Belgian Hares.—Old Docs \$2 00, 6 mo old pairs \$2.50, Bucks \$1.00, 3 mo. old pairs \$2.00, Bucks 75c, from Al. Stock. Write for wants. W. H. Grout, Grimsby, Out.

CAGE BIRDS, ETC.

English Birds-Imported, Coldfinches, Linnets, Skylarks, Thrushes, Jays, Starlings, etc. Mocking Birds, Cardinals, Fancy Finches, etc., at Hope's Bird Store, 109 Queen Street West, Toronto.

For Imported Birds-Try Hope's Bird Store, 109 Queen Street West, Toronto. Fine young Mocking Birds, warranted cocks, \$4.00

Cages Japanned—From 35c. Cages, brass, from 65c.; Cages, breeding, from 75c.; Cage appliances, nest and nesting, seed, etc.; everything in the bird line at Hope's Bird Store, 109 Queen St. West, Toronto.

DOGS.

Scotch Collie Puppies—A number of very grand ones, sired by imported Otterburn Conqueror ex my best imported bitches, that will be sold to bor a fide poultry men and farmers at from \$10.00 to \$20.00, about a quarter their actual value; also a number of older one. Apply at once to C. Y. Ford, Kingston, Ont. N.B.—This strain can be easily trained to take care of poultry, eatile and sheep. to take care of poultry, cattle and sheep.

Do You Keep a Dog?-The Canadian Kennel G zette will tell just how to care for him, and will also give you all the news of the month, portraits from life of the best dogs living, and many other good features. Sla year, 10c, a copy. Address H. B. Donovan, Publisher, Toronto.

GAME.

Pit Games—My special breed. Yamaska pit Games are guaranteed to win or die. Write for prices. Eggs, \$1.50 per 13. J. A. A. Seguin, Box 156, St. Hyacinthe, P. Que. 1200

Exhibition Games and Game Bantanna—Black Reds and Pyles. My matings this season are all high class birds; in fact, the best I ever had. Eggs and birds for sale. Satisfaction guaranteed. A. J. Grigg, Jeweller, Clinton, Ont.

C. W. Trendgold, importer and breeder of exhibition Games, Game Bantams and fancy pigeons, has for sale a few high class birds at reasonable prices. Satisfaction guaranteed.

Cornish Indian Game.—Offer 2 pair \$5 per pair, also 1 Cockerel \$3. These birds scored \$21.2 to \$41.2 by Jarvis. G. W. Kinder, Strathroy.

HAMBURGS.

Eggs, \$1.50-From S.S. Hamburgs, black Hamburgs, barred Rocks and black Leghorns; from same pens we use ourselves. Address W. Davidson & Sons, Lambton Mills, Ont.

LANGSHANS.

Ten Black Laugehan Hens-One ook and one cockerel for sale-these I bred from this season and will now sell at half price. J. F Rill, Welland, Ont. 700

Black Languhans,—One cook and one hen, both winners ist prize last show here. Splendid birds Uniy ten dollars. Will send on approval Gus. A. Langelier, No. 1 Lee Street, Quebco.

MINORCAS.

Northup's 1900 Minorea Catalogue, the most complete ever published in descriptions, prices, 1000 winnings, new pictures of buildings and fowls, contains much information, fully indexed under 60 headings. Rose and single comb black Minorea cocks, hens. cockerels and puliets. Bargains. Geo. H. Northup, Box 478, Raceville, N.Y.

Trio of Black Minorcas—Cock and two fine heavy lens, hens were imported from Abbotts, England, three years ago, for sale at a bargain. C. A. Mayhew, Thameaville, Ont.

ORPINGTONS.

Vass' Buff Orpingtons are from England's best. Twenty-nine entries; 17 firsts, 7 seconds, 1 third, 2 fifths, 2 gold specials Eggs for sale. Circular free. C. E. Vass. Washington, N.J.

PET STOCK.

For Sale—Mocking birds, \$1 each; Red birds, \$1 each; Louisiana Blue Jay, \$1 each; Prairle Dogs, \$2 each, live Alligators, 12 inches long, \$2 each; live Squirrels, \$1.75 per pair. common Rabbits, \$1.50 per pair; Ring Doves, \$2 per pair. Order from this ad. We will do our part promptly. Address W. B. Caraway, Alma, Arkansas.

PLYMOUTH ROCKS.

Two fine pens white Rocks for sale cheap. One headed by lat c'k'! Quebec, the other by Ionson c'k'!. Stallp for prices. W. H. Kirby, Oshawa, Ont.

Miller's Barred Rocks.—Several extra fine Breeding Females for Sale cheap, if taken at once. They are bred from Winners and are No. 1 Breedcrs. Askin Poultry Yards, London.

PIGEONS.

Bargains in Pigeons—Swallows, Pouters, Owls, Turbits, Blondinettes, Turblers, Carriers, Fantalls, Antwerps, etc., etc. Write for what you want. We can please you. Hope's Bird Store, 109 Queen Street West, Toronto.

Magpies, 100 Birds-Many prize-winners; cheap to clear; obliged to sell. Five-pair lots at \$2 per pair. All colors except blue. P. G. Keyes, Ottawa, Ont. 700

White Fantalls—Only a few grand pairs left for disposal, and several odd hens, at half price to clear, one pair each, Black, Yellow and White Jacobins. Two Red Cooks, two Splash Cooks one Red Cook and yellow hen. Pair Strawberry's one yellow Pouter Hen. Winners, at low prices Charles Massie, Box 202, Port Pope, Ontario.

White Fantalis,—lat and 3rd at Guelph, lat and 2nd at Stratford, fine young stock for sale, also a few odd Birds for sale cheap. J. B Woodhall, Thedford Ont.

POULTRY APPLIANCES.

Shipping Labels printed on red express paper, "Eggs for Hatching," 25 for 10c. "Live Fowls," double the size of the others, 15 for 10c., free by mall. Use these and have your eggs and stock handled with care. Stamp for samples. H. B. Donovan, Toronto.

Poultry Food.

I am effering Grit, oyster shells and meat meat very low at present, goods are first class, send for prices stating how much you wish. The Ellint Farm, D. Lincoin Orr. Prop., Box 14, Orr's Mill's, New York, U.S.A.

Sale or Exchange.

For Sale or Exchange.—Will exchange 6 S. C. Black Minorcas and one cockerel for Light Brahmas or offers. Write for prices. H. Brown, Box 36 Cananoque. For Sale or Exchange.—Boysi here is a bargain in Houlans—one Cook, three hene, nice dark color, big crest and muft jit to win at the coming fall shows, \$6.00. Pen Pit Games—Black Red, one oock, a dandy and 8 hens, and one slow Game hen, nice and reachy bird, \$6.50 or offers. These birds ere in laying condition. Send stamp. Chas. Frank, Waterloo.

For Sale or Exchange,—Buff Leghorns, lat Cookerel Pullet and Hen at Stratford, 3rd Pullet at Guelph, and 1st Hen at Brantford, White Wyandotte cock lat at Ingersoli, and a few first-class hens: White Rock cock and 5 hens, Golden Wyandotte cock and 6 hens, all first-class, will exchange for Ross Comb Brown or White Leghorn, must be first-class stock. J. B. Woodhall, Thedford, Ont.

VARIOUS.

For Sule:—To close out Best pen Partridge Cochin, best pen Houdans, best trio Dark Brahmas, best pair Light Brahmas, best pen R. C. Brown Leghorns, best trio S. S. Hamburgs, first class exhibition stock. Reasonable price. Write, U. Bonneville Danville, Que.

Eggs for Hatching, from standard bred fowls. Light and dark Brahmas, Plymouth Rocks, Leghorns, Pollsh, Pekin ducks, exhibition stock, Grit machines, improved fountain, roost brackets cheap. William Bond. Ross Bay, Victoria, B.C.

If you want to raise some exhibition birds this season, send and get my circular of 40 varieties. Birds for sale at all times. W. W. Reid, Ayr. Ont.

12 fine Buff Cochin Hens and 2 Cocks-20 the lot. 2 Barred Rock Cocks, \$2 each. Money returned if not perfectly satisfied. Delhi Poultry Yards, N. Pemberton.

J. H. Parsons, Osaca, Ont.—Breeder of Cornish and white Indian Games, buff Rocks and buff Leghorns. Exhibition birds a speciality. Birds for sale and eggs in season, Indian Game, \$3.00, others \$1.50.

Porter's Har Tar Camphor is sure death to all kinds of vermin that infest pout-try houses, stables, pig pens or other places where lice or other vermin gather. Also a sure preventative for hog cholera. Price, 25 cents per package, postpald. Circular free. C. A. Porter, Box 570. Flat Rock, Ind. 700

Wanted.—Peacock and Hev. good. Look here. See May Review cuts of this poultry plant. We offer for Sais. 3 pens Light Brahmas, 2 pens white, 2 pens brown, 1 pen Buff Leghorns, 1 pen Andalusiana, 4 pens Barrel P. Rocks, 1 pen Black Javas, 1 pen W. C. B. Polands, 5 pens white Langshana, 3 pens Pekin Ducks, 2 pair Embleen Geese. All above atook one year old, at Destonia Park Fario, Poultry Dept.—F. R. Webber, Manager.

1100 Cofeman, Ont.

Eggs for Hatching.—Sliver Wyandottes, cock, prize winner, New York. White Wyandottes, cockerel, first prize, Montreal Barred Plymouth Rocks, cock and hens, "Leffel stock." Wm. H. Ulley, Royal Poultry Farm, Montreal.

English Red Caps.—Eggs and Stock for sale at greatly reduced prices, also Eggs for hatching from first-class Black Minorcas and Open-laced Silver Wyandottes. G. W. Kinder, Strathrey.

Bargain Sale.—Trio W. Wyandottes, St. Pair R. C. White Leghorn, \$2.50; 6 S. O. White Leghorn hons, \$4.00. Best strains. J. H. Bronsdon, 3: Pearson Ave., Toronto.

For Saie:—One L. Brahma cock, one S. G. Dorking cock, one Golden Bearled Poland cock, one Brown Leghorn cock at \$3.00 cach. Geo. Colwell, Paris Station, Ont.

For Sale:—To close out Best pen Partridge Cochin, hest pen Houdans, best trio Dark Brahmas, vest pair Light Brahmas, best pen R. C. Brown Leghorns, best trio S. S. Hamburgs, first class exhibition stock. Reasonable price. Write, U. Bonneville, Danville, Que.

WANTED.

Agents Wanted to solicit subscriptions to Review. Liberal terms. Good money for sharp canvassers. All take it who see it. Write us in time for fall shows and fairs. Samples sent. Send for circulars and terms. Address H. B. Donovan, Toronto, Ont.

WYANDOTTES.

A combination of Duston, Andrews, Knapp and Hunter, white Wyandotte pullets, mated to a fine Massic cock; also a pen of fine, large hens (Gordon), mated to a pure white cockerel from the above strains. Eggs for balance of season, \$1 per 13. J. W. D. Cooper, Pickering, Ont.

Jas. Arthur, breeder of high-class silver Wyandottes, winners at Canada's greatest shows. First-class stock for sale at all times. Eggs from my best matings, 33 per 13. Address 731 Lorne Ave., London, Ont.

White Wyandottes—Winners of \$50.00 Silver Cup at Toronto for best Cook. Hen, Cookerel and Pullet, and lat pen, also lat Cook, lat Hen, 3rd Pullet, Special best pair at last "Ontario." One very fine shaped pure white Cockerel, (from its ontario Cook.) and six Pullets, all laying. This pen for sale at a bargain. Charles Massie, Fort Hope, Ont.

For Male: (One cock, 4 hens, White Wyandottes, 35); Silver Wyandotte hens \$1 each, five for \$4, noted strains. W. E. Gibson, Wheatley, Ont.

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The largest and most successful prize poultry breeders in the world. Almost all varieties of Poultry, Ducks, Geese, Turkeys and Bantams are kept, and have taken more cups, medals, diplomas and prizes than any other breeding establishment in England. Also

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Stallions and Marcs of all ages and several prize-winners for sale, all registered in the Hackney Stud Book

PURE BRED DAIRY SHORTHORNS AND RED POLLED CATTLE THE OLD FASHIONED BOB-TAILED SHEEP DOGS.

Prize winners and first class specimens always on hand.

This is the largest and oldest established Poultry Farm in England. Illustrated Descriptive Catalogue, containing list of prises and testimonials from customers in all parts of the world free on application.