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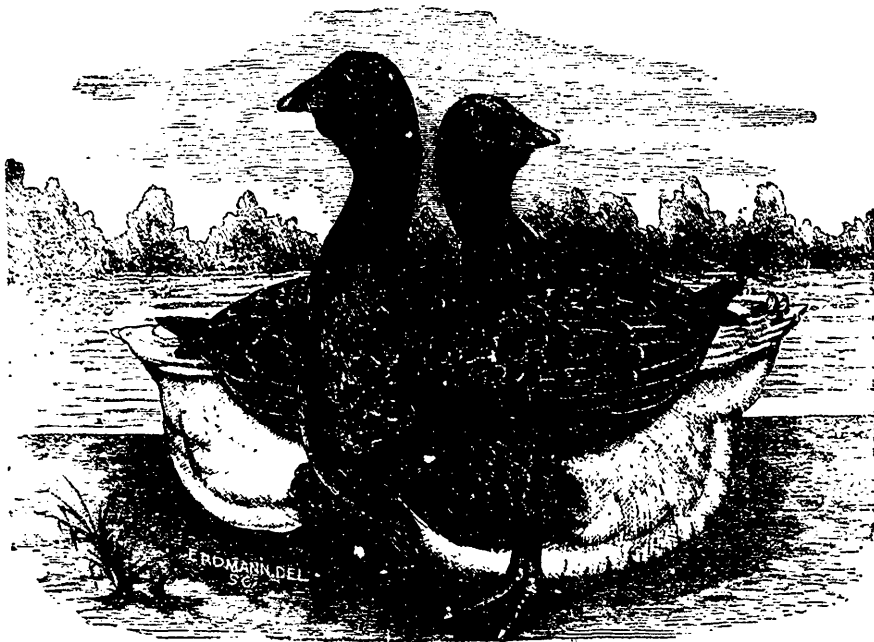
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PAIR TOULOUSE GEESE.

THE CANADIAN POULTRY REVIEW

DEVOTED TO A

POULTRY, PIGEONS & PET STOCK

VOL. XI.

TORONTO, ONTARIO, JULY, 1888.

No. 7.

DATES.

Canada's Great Industrial Fair, Toronto, Sept. 10th to 22nd. H. J. HILL.
 Eastern Townships Agricultural Association, Sherbrooke, Sept. 4th to 6th. E. WINN FARWELL.
 Brantford, Sept. 11th to 13th. R. M. WILLSON.
 Agricultural and Arts Association of Ontario, Kingston, Sept. 10th to 15th. H. WADE, Toronto.
 Guelph, Sept. 12th to 14th. R. MACKENZIE.
 St. Thomas, Sept. 17th to 20th. JOHN A. KAINS.
 Western Fair Association, London, Sept. 20th to 29th. GEO. MCBROOM.
 Great Central Fair, Hamilton, Sept. 24th to 28th. JONATHAN DAVIS.
 Almonte, Sept. 25th to 27th. WM. P. McEWEN.
 Wellesley, Sept. 25th and 26th. GEO. BELLINGER.
 Belleville, Sept. 25th to 28th. WM. SMEATON.
 Collingwood, Sept. 25th to 28th. T. H. CRAWFORD.
 St. Catharines, Sept. 24th to 26th. ALBERT PAR.
 Durham, Sept. 25th and 26th. ARCH. MACKENZIE.
 Central Exhibition Association, Ottawa, Sept. 24th to 29th. R. C. W. MACCWAIG.
 Belmont, Oct. 2nd. WM. BLACK.
 Chatham, Oct. 2nd to 5th. JOHN TISSIAN.
 Barrie, Oct. 1st to 4th. R. J. FLETCHER.
 Cayuga, Oct. 2nd and 3rd. THOS. BRIDGES.
 Paris, Oct. 2nd and 3rd. JAMES O'NEAL.
 Goderich, Oct. 2nd to 5th. H. HAYDEN.
 Walkerton, Oct. 2nd to 5th. JACOB SEEGMILLER.
 Lindsay, 2nd to 4th. JAS. KEITH.
 Picton, Oct. 2nd and 3rd. THOS. BOG.
 Wallace town, Oct. 2nd and 3rd. D. CAMPBELL.
 Smithville, Oct. 3rd and 4th. W. H. MORGAN.
 Markham, Oct. 3rd to 5th. JAS. J. BARKER.
 Stratford, Oct. 4th and 5th. JOHN BROWN.
 Elora, Oct. 4th and 5th. JOHN MAIR.
 Otterville, Oct. 5th and 6th. ALEX. MCFARLANE.
 Norwich, Oct. 12th and 14th. ALEX. MCFARLANE.
 Simcoe, Oct. 16th and 17th. J. THOS. MURPHY.

ENQUIRE WITHIN FOR

A practical journal.
 A newsy ditto.
 A spicy ditto.
 A progressive ditto.
 "The only Canadian" ditto.
 An independent ditto.
 A no deadhead "ad." ditto.
 A pay as you go ditto.
 An everything good ditto.
 A dollar a year ditto.
 A modest (?) editor of ditto.

WANTED.

Some one to invent a breed of fowls to lay 365 eggs per annum, And 366 in leap year.
 The fancier who won't then be satisfied.
 A gun To shoot him.
 Two inch combs
 That won't freeze.
 Yellow legs
 That won't fade.
 A medal
 To the man that overcomes the last two.
 More judges.
 Names off coops.

WHAT WE MAY EXPECT.

The gay and festive louse.
 Corpses,
 If the said G. and F. L. is not attended to.
 Dalmatian powder to fix his business.
 The new *Standard*
 Some time in the distant henceforth.
 The profile racket to prove a failure.
 Profile never to take the place of Symmetry.
 The "boom" for new breeds
 To take a quiet and much needed Rest.

NOTES AND COMMENTS

MR. T. H. SMELT has removed from Bowmanville to Guelph, where he assumes a more important position.

FANCIERS' GAZETTE.

The (English) *Fanciers' Gazette* is, under the new *regime*, making great strides ahead, the latest improvement being the issuing (free) of colored plates every week.

MR. J. Y. BICKNELL,

Buffalo, called on us on the 7th inst., as genial and pleasant as ever.

MR. GEO. LAMPREY,

Guelph, also paid us a visit one day last month.

EARLY LAYING.

We have received from MR. GEORGE McCORMICK, London, the first egg of a Wyandotte pullet hatched this year. Pretty early this, as at the time the year was only a little over five months gone.

NEVER DISPAIR.

As an experiment we removed the eggs of a pair of pigeons some two weeks gone in incubation, for ten hours then returning them to the nest, we were, we must confess, rather astonished when sharp on time two strong youngsters were safely hatched. This shows the vitality an embryo retains after being some days undergoing the process of incubation.

A LATE SEASON.

From all sides we hear of the unsatisfactory reports of early hatches, very few early chicks being out.

AN ACCIDENT TO A FANCIER.

We were sorry to see by our morning paper, some days ago, that MR. E. LAWSON, Toronto, had been thrown out of his rig and rather severely injured, but are pleased to say that at this writing, he is much better and able to attend to his usual duties.

POULTRY

POULTRY—REPLY TO J. H. CAYFORD.

P. T. H. ERMATINGER.

Individually speaking I am certain that each and every fancier, on no matter how small a scale he contributes to the above mentioned trade in the way of keeping a few fancy fowl, is somewhat ignorant of the importance of this industry.

I am of the opinion that the "boom" in poultry (fancy breeds) these last years has in no small way contributed to the rapid development of "poultry" as a trade. Fowls to-day are finer all round than they were 15 or 20 years ago. Take for instance the farmers in the back countries, their respective flocks have all got a dash of *pure blood* in their veins, some are a mixture of Brahma, Cochin, Plymouth Rock, etc., etc. This I attribute to the liking our amateur fanciers have taken to the large breeds and also through the sale of eggs by our American cousins as well as many Canadians. Therefore it will be seen that through the efforts of all fanciers and also the poultry journals, poultry has taken and is bound to take a leading part in our markets both at home and abroad, and I contend that this industry is even more lucrative than many others in proportion. The English poultry do not supply enough eggs to meet the home demand, this is partly due to the number used in manufactures, but the deficiency is made up by importations chiefly from France. The importations of eggs to the English market have largely increased within these few years back, we have for instance. In 1880 above 600,000,000 eggs were imported valued at over *eleven million dollars*, and no doubt since this date the importations have augmented considerably, the imported eggs however are seldom

equal in quality to those home produced, they are often packed in straw (damp) odor from which penetrates the shell and imparts an unpleasant flavor to the egg.

As regards the raising of poultry for the market with the intention of making it pay I must say here at once that amongst our many farmers the raising of poultry is only a secondary consideration with them, and I may even venture to add that the rearing of poultry is regarded by them as a very subordinate branch of rural economy, the skilful enterprising farmer generally entertaining the false idea that it is beneath his attention, or finding that he has no time to attend to it and often looking on the feathered inmates of his barn-yard almost as a nuisance because of their oft repeated invasions of his fields. This idea of course should not be entertained, for if he only took the trouble to consider seriously whether if the care given to his horses, cows and pigs was bestowed instead, of his feathered-cattle, would turn out as profitable in the end. I am certain he would alter his opinion on the pecuniary results derived from "chanticleer family."

The above mentioned figures any way show the prejudiced farmer that a henery on his farm should certainly meet with his serious consideration, and that if properly managed would certainly turn out most profitable. I believe the present Ottawa government are contemplating the idea of establishing an experimental farm in the North West or British Columbia and it is to be hoped that the poultry department of this great farm will not be overlooked, for now would be the time to give this branch of industry a fair and square trial by the purchasing of different breeds of poultry to be placed on this farm and with a thoroughly competent man at the head of this department to manage and cross-breed in a scientific manner, with the object of establishing what would make the best egg producers and also the best table

or market fowl. The American fanciers breed in a much more systematic way than we do. In many States I am certain it would not be hard to point out some of these fanciers who make the henery their sole business and make money out of their pets. But of course to make this branch pay, the farmer must give his fowls more care than heretofore for he cannot expect to derive any benefit from fowls that shift for themselves.

The May number of the REVIEW just to hand and I beg leave to thank MR. CAYFORD for all his "chestnuts" about my "criticism of the Montreal Association" in March number, notwithstanding all the *raps* over the knuckles he administers me for having (what many fanciers have not got) viz., enough back-bone to express my opinion and sign my name to it. I am really sorry I cannot take back even at the risk of displeasing the worthy secretary-treasurer of the Montreal Association.

As regards the advertising of the show I am sure that it does not speak in very flattering terms of the Association to say that in the "Metropolis of Canada" they could not find a suitable hall four weeks previous to the holding of their show, and therefore they could not advertise it. Now for the strange judges. I did not want to throw the slightest indelicate remark upon our local judges, for I myself have perfect confidence in their fairness and integrity. I mentioned the fact that strange judges would give more satisfaction to the exhibitors, especially when these judges (local) are exhibitors themselves and if I said so in March number and repeat it here again, it is simply because I have heard other fanciers express themselves in a like manner.

If, in the person of that *genius* (who MR. CAYFORD would like to find to show how to expend large sums of money with small receipts) the worthy secretary means me, this genius can be found at the Montreal post office, but

not for shipment up west just now. I must give MR. CAYFORD the credit of being a good satirist, and even think he would be a fair humorist judging from the article in May number.

Now allow me to dot MR. CAYFORD'S I's in this fashion :

1st. It does not require a genius to advertise a poultry show in time to get strange exhibitors to come here.

2nd. It does not require a genius to understand that when all snow blockades and unbearable cold weather is past, poultry shows have more success.

3rd. It does not require a genius to disqualify a *dung hill* entered as a pit game,—but here the fault is not Mr. Nicol's for according to the secretary the pit games were not judged, but they got a prize all the same, and I want a genius to explain me this.

4th. It does not require a genius to understand that cash prizes instead of the Rainbow colored cards would be more acceptable for exhibitors from afar off to help pay expressage etc, on fowls.

5th. It *does* require a genius though to explain to me why every year we have the same judges at our shows here and mostly all these judges are exhibitors themselves and local. Does MR. CAYFORD believe that Montreal has no more amateur fanciers beyond the 3 or 4 persons he knows—If so he is sadly mistaken. He will say, well let these amateurs come forward and help us, or join the Association, I would say *non merci*. When the Montreal Association will be possessed of a genius who will run things in such a shape as to have our fowls judged by outside men so as there will be no grumbling, then we will see.

To run a poultry show successfully, it does not require a genius to understand that to please three or four people does not mean success. All must be satisfied, and this satisfaction will be obtained when Montreal can afford to get such men as FELCH here to act as

judge, and it does not require a genius to understand this.

THE SETTING HEN AND OTHER SUBJECTS.

BY W. C. G. PETER.

I note with much interest the letter from friend ERMATINGER in May Number. No doubt if there was less fuss made over the highly valued eggs, there would be better results in hatching. One thing is quite certain, the chicks in the five dollar sittings are just as able to get out of walled prisons as the veriest scrub that ever picked itself free.

MR.ERMATINGER'S plan of setting the hen is good for one hen at a time. Now I will say a word about setting hens in large flocks of 25 or over. I provide a nest of 20 in. square, leaving the front open, across the bottom of front a narrow strip of 4 in. The rest of front a door of lath strips, for ventilation, (the top is ventilated too) the door hangs on and turns up, fastening at the bottom with a button; bottom of nest sand, then a layer of cut straw, this is better than long straw because it does not get entangled in the feet of the sitter. It is necessary for the attendant to remember or note down what hens were set first, and also which hens occupy each of the several nests. If they are all of one breed the easiest way is to sew a piece of colored cloth on the hens leg and tack a corresponding color on the coop; or notice some peculiar point in each bird and remember her nest, and see that she goes on that one, as some hens seem not to care where they go, and if they take another's nest, that puts the rightful owner in a tantrum, and nothing but "ber-lud," as the tragedienne says, will satisfy her wounded feelings; and that is the signal for general confusion in the brooding house. Friend E. says "leave the door open," but where there are a large number of sitters, that will

never answer. They must be shut up; I think too, that feeding a hen in the nest box, is a bad plan, the bird will soil the nest, and sit too close, besides not getting a chance to dust herself, or get any exercise. I can feed and care for twenty five sitters and have them back on the nest, in half an hour. With regular attention and quiet gentle treatment, your sitting hens need no fuss made over them, sometimes one hen will persist in quarreling, (I have one now) then set her by herself, or else let her go altogether for she will cause much waste of your time, and trouble to the other sitters. If you have fifty brooding hens, divide them if possible into two lots, when you are sure all will agree, the first half can be left feeding, while you let off the others, close the doors of the nests till you return to each house to let the hens on again, which will prevent any bird going on the wrong nest in your absence.

The season here is very late quite two weeks behind, and very cold yet. Broody hens have been at a premium, very few to be had even now.

One of the hints in the article by "Pea Comb" viz the name of varieties on exhibition I hope will be acted on.

It is a pity too that the names are allowed on coops. This seems a sore point with so many people, though in reality it is just as easy for a judge to favor his friends if they are kept off, if he intends to do so. I must say my experience has been, that our judges have as much honor as any others; of course there are occasional mistakes, but I think the question of dishonesty can be dispensed with to advantage. Most of the judges work is done under press of time and other attendant disadvantages. "Pea Comb" rightly says that every man ought to have proper and respectful treatment when he exhibits, more especially, if he is a member of the large body of the working classes. In such a one the desire to exhibit and breed good stock should be encouraged by every lover of our feathered friends.

Far more to be commended is he, than the man who can pay a small fortune in cash for the birds which he exhibits, and most likely wins with.

I am sorry to see the change in the Industrial list, in the classes for Wyandottes. The silver-laced last year were a good class. The chances are that this year it will be doubled in numbers.

It is at least unfair to the breed to cause golden and silver laced to compete together, they are so totally dissimilar in color, that there cannot be any comparison made, and it will cause a feeling if judged so, that either one or the other is unjustly slighted. The golden are not known here, or in very few cases, and as the silvers are now a large class and a really good one, they should be allowed a class by themselves. Cochins, are a very small class by their varieties, yet how unfair it would be to make black and white, or the buff and black complete together. The association has given separate classes to R. C. B. and W. Leghorns, and that is their just due. I hope it will not allow the Wyandottes to occupy the only unfavorable place in the poultry list.

Angus, Ont., May 18th, 1888.

THE ADVANCES AND COMPLETION OF THE CHICK IN THE EGG.

BY E. W. HUBBELL, OTTAWA.

If you could find space in your much appreciated journal on poultry, it would, perhaps, be interesting and instructive to many of your readers, especially during this season of the year, to spare a few minutes in the perusal of the following subject:—"The advances and completion of the chick in the egg."

I will not take too much space and time in describing these parts of the egg which are familiar to nearly everyone dealing in poultry, but will merely describe its composition, &c.

Immediately under the shell lies that

common membrane which lines it on the inside, adhering closely to it everywhere except at the broad end, where a little cavity is left, that is filled with air, which increases as the animal within grows larger; under this membrane are contained two whites, though seeming to us to be only one, each wrapped up in a membrane of its own, one white within the other; in the midst of all is the yolk, wrapped up likewise in its own membrane; at each end of this are two ligaments, called chalafoe, which are, as it were, the poles of this microcosm, being white dense substances made from the membranes, and serving to keep the white and yolk in their places. The cicatricula, which is the part where the animal first begins to show signs of life, is not unlike a vetch, or a lentil lying on one side of the yolk, and within its membrane. All these contribute to the little animal's support, the outer membranes and ligaments preserve the fluids in their proper places; the whites serve as a nourishment, and the yolk with its membranes, after a time, become a part of the animal's body. This is a description of a hen's egg, and answers to that of all others.

Upon placing the egg in a proper warmth, either under the sun or in a stove, after six hours the vital speck begins to dilate like the pupil of the eye. The head of the chicken is distinctly seen, with the backbone, something resembling a tadpole, floating in its ambient fluid, but as yet seeming to assume none of the functions of animal life. About six hours more the little animal is seen more distinctly, the head becomes more plainly visible, and the vertebrae of the back more easily perceivable. Six hours more all the signs of preparation for life are increased, and at the end of twenty-four hours the ribs begin to take their places, the neck to lengthen and the head to turn to one side. At this time, also, the fluids in the egg seem to have changed places; the yolk, which was before in

the centre of the shell, approaches nearer to the broad end. The watery part of the white is in some measure evaporated through the shell, and the grosser part sinks to the small end. The little animal appears to turn towards the broad end, in which a cavity has been described, and with its yolk seems to adhere to the membrane. At the end of forty hours the great work of life seems fairly begun, and the animal plainly appears to move, the backbone, which is of a whitish color, thickens; the head is turned still more on one side, the first rudiments of the eye begin to appear, the heart beats, and the blood begins already to circulate. The parts, however, as yet are fluid, but by degrees become more and more tenacious, and harden into a kind of jelly. At the end of two days the liquid in which the chicken swims seems to increase; the head appears with two little bladders in the place of eyes; the heart beats in the manner of every embryo, where the blood does not circulate through the lungs. About fourteen hours after this the chicken has grown stronger, its head, however, is still bent downwards; the veins and arteries begin to branch, in order to form the brain, and the spinal marrow is seen stretching along the backbone. In three days the whole body of the chicken appears bent, the head with its two eye-balls, with their different humours, now distinctly appear, and five other vessels are seen, which soon unite to form the rudiments of the brain. The outlines also of the thighs and wings begin to be seen, and the body appears to gather flesh. At the end of the fourth day the vesicles, that go from the brain, approach each other, the wings and thighs appear more solid, the whole body is covered with a jelly-like flesh; the heart that was hitherto exposed is now covered up within the body, by a very thin transparent membrane, and at the same time the umbilical vessels, that unite the animal to the yolk, now appear to come forth

from the abdomen. After the fifth and sixth days, the vessels of the brain begin to be covered over, the wings and thighs lengthen, the belly is closed up and turned, the liver is seen within it very distinctly, and not yet grown red but of a very dusky white; both the ventricles of the heart are discerned, as if they were two separate hearts, beating distinctly; the whole body of the animal is covered over, and the traces of the incipient feathers are already to be seen. The seventh day the head appears very large, the brain is covered entirely over, the bill begins to appear between the eyes and the wings, the thighs and the legs have acquired their perfect figure. Hitherto, however, the animal appears as if it had two bodies, the yolk is joined to it by the umbilical vessels that come from the belly, and is furnished with its vessels, through which the blood circulates, as through the rest of the body of the chicken, making a bulk greater than that of the animal itself. But towards the end of incubation the umbilical vessels shorten the yolk, and, with it, the intestine are thrust up into the body of the chicken by the action of the muscles of the belly, and the two bodies are thus formed into one.

During this state all the organs are found to perform their secretions, the bile is found to be separated as in grown animals, but is fluid, transparent, and without bitterness, and the chicken then also appears to have lungs. On the tenth day the muscles of the wings appear, and the feathers begin to push out, on the eleventh day the heart, which hitherto appeared divided, begins to unite; the arteries which belong to it join into it, like the fingers into the palm of the hand. All these appearances only come more into view, because the fluids the vessels had hitherto secreted were more transparent, but as the colors of the fluids deepen, their operations and circulations are more distinctly seen, as the animal thus by the eleventh day completely formed,

begins to gather strength, it becomes more uneasy in its situation, and exerts its animal powers with increasing force. For some time before it is able to break the shell in which it is imprisoned, it is heard to chirrup, receiving a sufficient quantity of air for this purpose from that cavity which lies between the membrane and the shell, and which must contain air to resist the external pressure. At length upon the twentieth day, in some birds sooner, and later in others, the enclosed animal breaks the shell, within which it has been confined, with its beak, and by repeated efforts at last procures its liberty.

THE CARE OF HALF-GROWN TURKEYS.

Many busy housekeepers who give their young turkeys a great deal of care and attention when they are quite small, appear to think them fully able to take care of themselves after they are half-grown.

They stop feeding them entirely, saying that the flock picks up so much small grain and so many insects in the fields that they do not need any food at night. So the mother hens begin to feel very independent, having the whole care of their families on their shoulders, and pretty soon forget to come home at all, but stop in the fields or the woods, wherever night catches them, and either fly up into the trees to roost where the young ones became an easy prey to the owls, or perch upon the fences within the reach of passing thieves. And before very long half of the young turkeys have disappeared, and the poultry-raiser is loudly lamenting her "bad luck" to all the neighbors.

All this can be easily avoided by teaching them to come home every night, and the thought of a good supper awaiting them is a great inducement; even if their crops are full of grasshoppers a small quantity of broken bread is very much relished, and especially a

pan of buttermilk. Fowls are very fond of milk, either sweet or sour, and nothing is more wholesome.

Of course it is some trouble to go after them, so the best plan is not to let them begin staying out. If mine are not in the yard at sundown I begin to look for them, and occasionally have to drive them home by moonlight; they are very stupid after dark, and have to be pushed along.

After they are several months old small grain can be fed to them, very sparingly at first, else it is apt to give them cholera; broken bread, crusts and scraps from the table, softened with sweet milk or water, are to be preferred. Care should always be taken in regard to their food, as I have known a careless servant to kill dozens at once by spilling salt accidentally into their food, and in one case when the flock found some salt which was put out for the cattle, they ate of it, and many of them died.

When the young turkeys are about as large as a Brown Leghorn hen, I permit them to go to roost, which makes them supremely happy; then they will come home almost in the middle of the afternoon in order to have the pleasure of arranging themselves to their satisfaction on the low poles placed in the forks of trees. The proud mother sits in the centre with her wings outspread to their utmost extent, trying to hover as many of her brood as possible.

I have known people to put a few ducks with the turkeys in order to bring them home at night, because, they say, ducks always start toward home at night, and the rest of the flock will follow, but the poor little short leg-ducks cannot roost, and have to sit on the ground under the tree until morning.

Turkeys have so many enemies that it is a wonder so many of them are raised; the hawks are particularly fond of them, and swoop down and carry them off even after they are as large as half-grown chickens. The hogs, too, especi-

ally relish the flavor of their tender little bodies, which is specially unfortunate, as the old hens are very prone to frequent their feeding places in order to gather up the scattered corn. They are not so much worried by vermin, however, as chickens are, but if any should be noticed, a little pure lard rubbed under their wings and on their heads will soon free them these pests. The lard should be sparingly applied, though, for if a rain should come when their plumage is oily, death will be the consequence.

Mine have never been troubled with diseases. The stock is changed frequently, and only strong, healthy birds are kept to raise from. The medium-sized fowls are best, the hens weighing at one year old 16 pounds, and the males about 24. The dark bronze is my favorite; their plumage is beautiful, showing brilliant metallic hues in the sunlight. They are strong, robust fowls, easily kept in good order, and very docile.

In the spring the hens are driven into the turkey-house, where their nests have already been prepared, and they soon grow accustomed to the place, and in a short while go back to their nests of their own accord; so there is no trouble about "haunting" turkey nests all over the farm. When they are well cared for, the same hen will usually raise two broods every season; or, if they are not permitted to go with their little ones, will continue to lay and sit like chickens. But my neighbors say my fowls are particularly well trained.

I have never had a gobbler to sit, though one of my neighbors declares that her's do every year. They take a great interest in their progeny, however, and for several days after the little turkeys are put out will hang around the coops and strut with a very proud and consequential air. And once when a little fellow got his head pecked and became so disfigured that his mother disowned him, the two old gobblers

adopted him and escorted him around all day. It was a comical sight—those two immense birds with the little mite of a turkey between them. At night, though, they both deserted him and flew up in the tall locust tree, their usual roosting place, where the poor little orphan cried on the ground until I caught him and snuggled him under his mother; but when daylight came he raised his little wings and ran to the old gobblers.

A FARMER'S DAUGHTER.

—Country Gentleman.

GAPING AND THE GAPE WORM.

We hear so much about gapes, and what causes them, with a dozen or more cures, that a common man would lose a whole season's work, together with his entire broods—if pestered very much with gapes—experimenting with the different cures.

The best cure that I can give is carefulness. The old adage, "A stitch in time saves nine," will appropriately apply to the gapes. One man acknowledges that cleanliness may prevent them, and his theory is that "the gape worm will creep from the ground like other insects, and will become stiffened by the chilly atmosphere, and is picked up by the chick before it can get warm enough to get back to its quarters." Show me the man who ever saw a gape worm in or out of the ground, unless it was fished out of the chick's throat or windpipe. Suppose his theory is correct, where does the worm locate in the chick when picked up—in the crop? or does his lordship choose to stop at the halfway station and take up quarters in the windpipe? I should think when he takes a through ticket, he gets no stopover check, but is compelled to go *through* like any other passenger. He further says "that the old stock will feed upon the worm," and, I suppose, clean up the entire stock in trade "before the young chick will get them if kept up in the morning." And he

advises "floored coops"—a good idea.

Did it ever occur to the reader that chicks will not be affected with the gape worm when allowed to run in a plowed field and kept off the grass until it is 'dried from dew or night rains? And did you ever think that two-thirds or more of the gaping which chicks are sometimes subject to is not caused by the gape worm? What is it that causes them to gape if it is not a worm? Sometimes colds and sometimes the head louse. When your chick is sleeping and gaping its existence away, catch it and hold back its head, thereby stretching the neck; now take a small stick, the size of a fine wire or knitting needle, and move it up from the breast toward the beak on the center, and also on each side of the neck, and more than likely you will find head lice there. If you do you may be assured they cause the gaping. If you find no lice, then resort to some kind of medicine to allay inflammation in the throat. The chick may have taken cold, and the membranes of the throat become swollen and inflamed, thereby causing the gaping, similar to a person's. A good remedy is 1½ oz. glycerine, ½ oz. carbolic acid, 2 quarts rainwater; take a feather and dip into the mixture and swab the throat by running the feather down the throat once. This process may need to be repeated once or twice during the day. Remove the chick to a warm building well ventilated and one with a floor; keep it there two or three days; keep water away from it during this time if possible. If the chick is under three weeks of age, add more water to the above.

I have seen chicks that were gaping and sneezing, and the owner claimed it was caused by the gape worm. They were caught, a horchair doubled was run down their throats; a sudden jerk, and out would come a lot of *something* resembling little red worms together with blood. Now, my honest opinion is that this red something was nothing

more than the membranes of the throat that had become swollen by cold, and the doubled horsehair when pushed down their throats had cut them loose from their proper places by the sudden jerk.

During the twelve or fifteen years I have been breeding fancy poultry I have not had over two dozen cases of so-called gapes. This may sound like a fish story to some but I can bring forth the testimony, if necessary. I don't go much on the gape worm theory.

REK RAP.

GAPES.

FROM SEVERAL SOURCES.

We sent out circulars last month asking for an expression of opinion on this pest, but the returns have been so meagre, many fanciers writing us that their personal experience had been *nil*, that we came to the conclusion that "Gapes" in Canada is almost an unknown disease. This may possibly be accounted for by the severe cold of winter destroying all germs.

The previous article and also the following three we copy from the *Ohio Poultry Journal* which has been giving this subject some attention.

HOW TO PREVENT GAPES.

W. R. POWELL.

Having received much profit from JOURNAL in regard to raising chickens and so forth, I will give you my experience in regard to gapes and the way to prevent them. I will tell you how I do not have the gapes, and, in fact, never had them—or rather the chickens never had them. As soon as the chicks are a day or two old place them in a nice clean coop on a grass plot, and feed on fine sifted corn meal stirred up with sour milk. Feed often, and only what they will eat up clean. Feed on clean boards, and keep fresh

water before them all the time. Move the coops at least every third day, and use plenty of sulphur and ground bone in their feed. Avoid all filthy places. I find this to be very good: Take two ounces of sulphuric acid, one pound of sulphate of iron, and dissolve in one gallon of water; give one teaspoonful in their drinking water two or three times a week.

FIFTY DOLLARS FOR A GAPE WORM ON CONDITION.

J. L. CAMPBELL, WEST ELIZABETH, PA.

I wish to have another little say in regard to the gape worm. We are constantly reading about gape worm larvæ, gape worms in earth worms, etc. The gape worm is viviparous. Can any person tell me of a single instance in natural history of a viviparous animal, reptile, or insect, producing larvæ? To produce larvæ takes eggs; a viviparous reptile or worm doesn't lay eggs.

Let any person take a full grown female gape worm and a good microscope and examine her and they will find her to be full of young and perfectly formed worms, as many as fifty in a single female sometimes. When the young are produced they are nearly one-fourth of an inch long. The longest full grown female I ever measured was one and a quarter inches long, and with a diameter in the thickest part of almost one-eighth of an inch, though they are seldom over half that thickness. This female had at least fifty young worms inside of her, all alive when taken out. Any one can see the same thing for themselves by procuring a full grown female.

The males are very small, never over three-eighths of an inch long and but little thicker than a horsehair, and are always found attached to the female by their sucker end.

Gape worms can not endure a particle of dryness. They can be kept for days in a damp place after removal from a chick, but die in a few moments

if left exposed to dry air. Chicks never pick them up except in damp weather or early in the morning.

Now, to my mind, the idea of such a creature as this harboring in the earth worm is simply ridiculous. The Apostle Paul says "faith without works is dead." To show my faith by my works I hereby offer fifty dollars in gold for a single earth worm containing the gape worm in any shape or form. I offer this to any person in the United States or out of it. Other papers interested please copy.

I believe the worm lies dormant in the ground through the cold weather, comes forth in the spring, and will remain in a place just as long as chicks are kept there. When none are kept it dies out for want of a proper place to breed.

BROODERS AND GAPES.

OLD HOMESTEAD POULTRY YARDS,
NORTH CAROLINA.

"For every evil under the sun
There is a remedy or there is none.
If there is one, try and find it;
If there is none—well never mind it."

After trying several years to raise chickens with hens in the old way, and losing about half of what I had hatched, with gapes, I determined to try brooders.

I have a house about twenty by eight feet, covered with three-ply tarred felt on top and two-ply on the sides, with plenty of windows for the sun and air. The floor is covered with brick, and fresh gravel kept on that. In one end of this house is a "Knowles Brooder" one yard square. I use an oil stove, four-inch burner, and have no trouble keeping a right even temperature.

I set my eggs under the hens until from the sixteenth to the twentieth day, then remove them to the incubator, which is kept in the brooder house. When the chicks are hatched, they, without any vermin, are put in a "Standard Brooder" in this same house for a

few days, with only a small run. Then after being marked, they are ready for the "Knowles Brooder," which we often call "the old reliable." This change is made at night, and the next morning they come out and go to work—some scratching in the oat chaff in one corner, others dusting themselves, and others amusing themselves as they feel disposed. For the first day or two I look after them, to be sure they have learned the way to their new mother, and there ends that trouble.

When about three or four weeks old they are again transferred to another brooder house, not so warm, and in which there is a "Campbell Brooder;" that is, a hot air brooder after Campbell's plan. This I found cheaper than the "Knowles," but in case the fire should go out, it would cool so rapidly that the little baby chicks might suffer. But here let me say that I've never yet lost a chick by cold in the brooders. Last spring I raised all my chicks this way—had over three hundred hatched and did not have a single case of gapes! And did not lose more than twenty-five from any cause, and the little ones grew and matured so rapidly they astonished the natives.

Our place is a very old settlement, and I believe the gape worms are all over it. I think we tried every remedy, from pulling out the gape worm with a feather, down to nothing; with more or less success—generally *less*. We have gotten as many as thirty-six of the gape worms from one chick, some of them an inch long. While this was a cure in almost every case, to catch two or three hundred little chicks and perform this operation on each one was a never-ending job, not to speak of the pain to the poor little chicks, or the disagreeable performance itself.

I do not believe vermin have anything to do with gapes, for a neighbor of mine always has plenty of vermin and to spare, while he never had a case of gapes. We always had gapes, although

we are rarely troubled with vermin. Our poultry houses are swept nicely every morning except Sunday, and kerosene, etc., used.

Nor do I believe cleanliness will prevent gapes, for I know when I had hens with broods of chicks I gave them whitewashed coops, on floors, and kept them clean; gave them fresh gravel often, used fountain jugs for water, and never left food to sour; and then had the gapes. But of course no vermin to bother, nice food and surroundings, and fresh water, all tended to promote a strong, vigorous growth, thereby in a measure outdoing the gapes.

Then, too, another thing in favor of brooders: I think it the cheapest way to raise chicks, by far less trouble, and a great deal more pleasure. It is cheaper because when you take the chicks from the hens, you can reset them, and defy the other hens that say they wont sit, or else turn them out to lay again. Then the food, prepared for the little ones, is not devoured by a greedy hen. I think the hens eat about as much as the oil costs to run the brooders. It is certainly less trouble to go to two or three brooder houses and feed than to run around to so many old hens in coops, especially in bad weather. Of course it takes much of ones time and attention to care for them properly, but work is divested of half its horrors when it is pleasant work.

"There is no rose without a thorn," nor can we expect to raise poultry without trouble; but as sure as some roses are prettier and sweeter than others, just so sure are there more convenient and pleasant ways for our work.

GAPES.

BY J. M. CARSON.

In reply to your circular of the 13th inst., in request to the causes of gapes in young chicks, and the cures, I must say it is a disease with which I have had very little experience, but when I

do have a case I generally extract the worms from the windpipe of the chicks with a horsehair doubled, inserting double end downwards. This operation must be performed very carefully and quickly, otherwise you will choke the bird. It is stated that a small piece of camphor, half size of a grain of wheat, will effect a permanent cure of this disease. Be very cautious not to give too much or it will also kill the chick in a few minutes time.

CAUSE OF DISEASE.—I believe the cause of this disease originates from the chicks drinking of impure and filthy water, such as may be often seen in little pools around the yard. I made a thorough examination once of such water and I found it to contain large numbers of these small worms which were identical with those found in the windpipe of the chick. They adhere in little groups on the inside of the windpipe, thus producing the trouble as indicated in this disease.

I cannot close without saying I gained considerable additional information from the many letters published in last REVIEW on the disease Roup. I read with great interest MR. SPILLITS and also MR. FLEMING's letters on the original cause of this disease, and I believe both of these writers to be on the right track as regards tracing the disease to its origin, but we are not speaking of roup this time so I must close.

BY A. HOBBS.

Gapes.—The disease, so far as actual symptoms extend, is a small worm or worms which infest the windpipe. By attending to all chicks and giving them plenty of clean cold water several times each day, and plenty of green food, there will be no gapes; of course the coops must be kept very clean, and some coaloil sprinkled over the sides and bottom of coop, if it is wooden floor, will keep away gapes, also vermin will keep away. I am not troubled with gapes of late years, having followed the above plan. Formerly I found

electric oil, six drops in a little water in a teaspoon, given twice a day for three or four days, will cure the gapes with the above directions. Keep the chicks perfectly dry at all times, dirty water, dirty coops, and getting wet with rains and dews, and unwholesome food will bring on all kinds of diseases, also death and loss to the owners.

BY W. LUSCOMBE.

Most prevalent cause in my opinion is crowding and keeping in unclean places with inattention to wholesome food and pure water, it occurs mostly in very hot weather, and is most frequent in small chicks which have not the power and vigor to dislodge the small parasitic worms that fill the windpipe.

Treatment.—Strip a feather of all but the top, oil with sweet oil and then with kerosene oil, insert it in the windpipe and twist it around, and in so doing you will dislodge and chick will be all right. This is a nice pastime when you have two or three hundred chicks.

Another; take a box, say two feet square, lined with tar paper, have a door and small window. all tight, and you have something handy and useful for many things, I have one and find it very useful. Now you can place a number of chicks in this box and fumigate with carbolic acid, sulphur or turpentine, see that the chicks do not get suffocated as well as the worms.

Keep water, feed and yards clean and wholesome with an occasional dose of slack lime thrown in the small coops when you clean them, and you will have no gapes, or gap's either—in the broods.

(Ware "goak"!—ED.)

WM. LUSCOMBE.

A PARTING TESTIMONIAL.

The following address expresses the kindly sentiments entertained by many of the citizens towards MR. T. H.

SMELT, Bowmanville, who has removed to Guelph :—

Bowmanville, June 1st, 1888.

To THOS. H. SMELT, ESQ, Director of Bowmanville Poultry Association.

DEAR SIR AND FRIEND,—

On the eve of your departure from Bowmanville, your friends of the Poultry Association desire to convey to you their sincere regret for the loss sustained both by the Association and the poultry fraternity of Bowmanville generally. Taking advantage of the occasion we have met together to wish you farewell and God-speed. We feel assured that the Guelph Association will profit by our loss, and that they will number in their ranks no more energetic worker or enthusiastic lover of poultry than yourself. Your loss will be severely felt by this Association, but we rejoice to know that your removal will be a source of great benefit to yourself. Accept our congratulations on your being selected to fill the honorable and responsible position you are about to assume, and our best wishes for your future welfare and prosperity.

(Signed) { A. HOBBS, Pres.
J. M. HERN, Sec.

CURIOSITIES.

Editor Review :—

You will easily imagine from my card that I am always on the lookout for curiosities and lately I have met with two rare ones in the shape of eggs. Happening to go into the fowl house I noticed a bantam hen in apparant distress, on approaching her I found that she was endeavouring to expell a large soft-shelled egg. I waited until she had relieved herself and caught the egg before it fell to the ground. On examination I found it to be about the size of a Leghorn egg, but with a protuberance, about the size of a lead pencil, and 3/4 of an inch long at one end. In trying to preserve it I failed.

On the 2nd inst., when I reach-

ed the shop, Mr. J. W. RICHARDSON showed me a double egg which he had picked up that morning. It was composed of two eggs of the ordinary size, with soft shells, but connected together with a neck about 1 1/4 inches long, on one end of the other was a protuberance about three-fourths of an inch long, one egg contained the white and the other the yolk. This one was broken when found and couldn't be saved

Yours respectfully,

R. B. SCRIVEN.

North Bay, June 14th, 1886.

ROUP.

Editor Review :—

In your June number there are several opinions expressed by prominent poultry men, in this province, relative to roup in fowls. I am fully convinced however, that none of your correspondents have gone to the root of the matter. The so called roup, or swelled head, is an *effect* from another *cause*; and this cause has its seat in the respiratory organs of the fowl. In fact roup in fowls is analagous to *tuberculosis* in cattle and man, and is propagated by bacterial germs. If the lungs of a roupy fowl be examined the membranous covering will be found to be inflamed, and also the tissues along the thoraieduct. The respiration or breathing being impeded causes a slow action of the circulation furthest from the heart, and this is the head, and consequently the tissues do not receive the proper nourishment, and they commence to suffocate and cause swelling of the head and running of the eyes. Roup is nothing more than blood poisoning, which shows its effects in the tissues around the head.

The real seat of roup is in the lungs and liver of a bird, and, of course, as several of your correspondents have truly stated, that dirty houses and ill-ventilated coops are predisposing causes. Local applications have but little effect, unless the seat of the

troubles be removed. The best remedy that I have found is to rub the head with blue ointment, and give birds one-half a grain of blue mass in a pill every other night. Mix the blue mass with fresh bread for a pill, and force it down the throat. This, with pure air, will cure any case of roup. But you must have all your birds separate so as to prevent contagion by bacterial germs.

W. L. BROWN.

London West, Ont., June 6th, 1888.

Editor Review:—

I neglected to send my experience of roup, but will now send something which may do more good.

In the last issue of the REVIEW MR. WM. T. CAST, of Stratford, writes for information and a cure for sore eyes in his fowls. I have had some experience with the same disease, having imported it from Indiana. I lost about one-half dozen fowls before I got this cure. I would advise MR. CAST to kill all fowls blind from it, as it is very contagious. The following is a sure cure if applied immediately when the eye gets sore:— Give sulphate, 5 grains; Tincture Ope, 5 mins.; soft water, two oz. Put a drop or two in the eye three times a day. If the eye closes bathe with luke-warm water and apply medicine, squeeze any white matter which may form in the eye out, and *keep the eye open*, or the inflammation will soon destroy it. Repeat this for about a week, or until the eye gets better. I have not lost a case since using the above. Think the inflammation is caused by fowls scratching in horse manure very strong with ammonia.

Yours truly,

T. H. SCOTT.

St. Thomas, June 15th, 1888.

Keep the chicks growing by liberal feeding on good food, cull early and often and those remaining will do so much the better for it.

PIGEONS

ANTWERPS.

BY MR. J. J. BRADLEY.

The following paper on the Antwerp was read before the members of the Birmingham Columbarium Society:—

Any remarks upon the Antwerp in Birmingham, especially when addressed to members of our Columbarium Society, may appear to savour of presumption, but when the object of such a course is participation in an endeavour to strengthen the interests in our monthly meetings, and, if possible, cement into solid effort the scheme as to pigeon-breeding embodied in the rules of our society, a few words in this direction become admissible, for several reasons, not the least of which is the very important part Antwerps have played in the show-pen, and also as a source of profit to breeders and speculators alike. I shall confine myself to the short-faced section of the Antwerp, having no wish to monopolise the whole ground to be covered; and as the other sub-sections arose out of extended interest in them by so many practical breeders, who laid themselves out to correct all the errors of earlier days, the newer varieties are of sufficient interest and importance to be largely commented upon by more able hands than mine.

I will not quote particulars of the standard set up some years ago, and which are so familiar to all who care for Antwerps, but ask your forbearance if I go back to the birds of my first acquaintance more than thirty years ago. At that time good birds were occasionally met with, although I do not recollect one of the type of the present time. Appearances went for less than performances, and in dealing the leading question was "What has he done?" rather

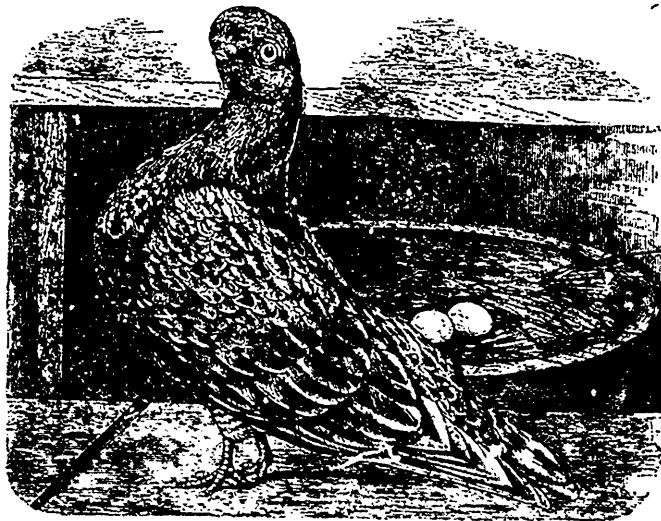
than "How was he bred?" And I have had birds of various types bred between English and Belgian stock, dissimilar in most respects, but able to travel, and consequently thought equally well of; the most admired, perhaps were birds of moderate size, broad set, rather short in length of wings and tail, having little wattle and eyecere, and if blue or blue-checked in color so so much the better.

Besides these we have larger birds with heads of even larger relative proportions, and possessing an abundance of beak and eye wattle, which gave a fine, handsome appearance; and, although frequently having too much length of wing and tail feather, yet contributed very largely to the production of the grand specimens which caused so much flutter in the days of their great doings, so much remembered by all lovers of Antwerps, especially by Mr. Camon, of Chester, who became the happy possessor of the first great winner, the champion red checker cock, a bird having all the good qualities of the two kinds I have named—*i.e.*, a round head, uniformly wide over, thick beak, with large crinkled wattles, moderate eyelash, perfect in color and symmetry—but which would be considered rather too small as a champion to-day. Notwithstanding this defect he was the nearest to perfection of any short-faced Antwerp I have known. His achievements were made easy by coming so soon after Antwerps were admitted into the schedules of public shows, about twenty-five years ago; and I refer to him so as to induce Antwerp fanciers to compare a bird answering my description of him with subsequent winners, which, generally speaking, have gained in bulk, while some other of his good points have not been retained.

The impetus given to the Antwerp by placing him on show for honours was well timed, and when it became evident that there was something to



FERRET.



SHORT-FACE ALMOND TUMBLER.



breed for worth having, there were not wanting those who united patience with skill, and supplied specimens worthy of the promotion their birds had been favoured with, and the advance in quality and marketable values were only equalled by the numbers bred. Indeed, show pens were so crowded with them that subdivision of classes providing for the four colours of old and young became necessary, and, occasionally, sex also led to further class extension. As to values, I may mention Mr. Thompson's celebrated Southport cock, claimed by Mr. Wright for £50, and immediately resold at a handsome profit, and followed by many sales at similar prices.

With this spread of interest, it became the correct thing for most pigeon fanciers to breed Antwerps, and their locality was no longer a monopoly to our town, although, for better or worse Birmingham birds were used as the basis of operations as far as was possible; and here came in a very important change of affairs all round, for, with the removal of the best stock birds, went not only their faults, but that which was a serious hindrance to perpetuation of the supply of certain winners to the former extent. Perhaps the most curious fact worth record in connection with the extended area of breeding was the gradual decline in cocks, which concurrently saw the highest standard of quality in hens, because the efforts of breeders out of Birmingham who aimed highest, and achieved most was to eliminate the tendency to superabundance of eye-wattle, a defect in many birds which regularly occupied high places in the prize list, and were systematically trimmed to such an extent that they became nearly blind before the show pen saw the last of them. Objection was also taken to the fulness of throat, or gullet, then very prevalent, and vigorous action was taken to breed birds free from these defects. It would be egotism for me to say which was the

most correct, the best bird of twenty years ago or the best of to-day; both have merits, as well as faults, but with the standard and the birds at hand, it is easy for breeders to find whether they are on the up or the down grade.

"Ask and ye shall receive" applies to many matters, pigeon-breeding not excepted, and as fanciers asked for changes, and had them, so far as is well; and if the best use is made of all the excellences still retained, there is no reason why the future may not supply even a larger measure of perfection than has been known in the past.

I am as much adverse to blinding eye-wattles and owly throats as anyone, but cling to their associates, wide mouth and plentiful beak wattles; but moderate rather than wholesale removal of the defects would have been the correct course. The loss of the wide face has brought the flat and sometimes sunken cheeks, made more conspicuous by the absence of wattle in general, and a lean appearance, instead of the "Bull-dog" heads of yore. We look at the degeneracy in the short-faced variety because the other sections came in for the larger share of benefits arising from the infusion. Mr. A. T. May's young silver dun, long face, now the redoubtable champion, was the first in point of merits to put in a claim for distinction, and he took the wind out of the sails of most Antwerp breeders, and as well justified his first award as any following being all through his career the most perfect long-faced Antwerp known.

My opinion is, and I think it will be admitted, that the short-faces have largely assisted in the perfection of head properties of the other sections, but it is equally true that they also have derived some favorable appearance from their somewhat runty relatives, especially as to arched heads and size of body, and in a modified degree the cross has been helpful in the production of some of the present winners, most observable in the *hens* now frequently

met with at our best shows, none more distinguished than Mr. Currier's cup winner at the late Crystal Palace Show. I call to mind several jems of neatness and beauty throughout, so different to the heavy-eyed, short-legged hens of my early acquaintance; but after looking at these splendid birds, and asking for the cocks, we find alas! that they are not being bred to take the places of the few old ones left. There is evidence of too much response to the cravings for uniformity, the set type so much sought after has become too rigid and the persistent breeding away of beak and eye wattles has so affected the young birds that the cocks fail to develop the distinctive adornments once so common, while less of them are needed in the hens; consequently they excel, and I contend it to be a mistake in breeding to insist in the elimination of any points of cardinal value in the make-up of any bird, and that this has been so with Antwerps is proved by the fact that there was a larger proportion of good birds to be met with when there were vastly fewer of the breed than are living to-day. This condition of things may be altered, now that the craze for the newer type has had a fairly good run; and I respectfully invite inspection of another specimen I have here, by favour of Mr. Edmund Thompson, and ask my Antwerp friends present to look after birds of his stamp, especially as to size of head and its developments, and do not doubt that, with less trouble than resulted in the loss of much which we regret has gone, we may be able to retrieve the reputation of having in Birmingham a fair share of perfect short-faced Antwerps.

Of what use are all the grand hens we now have about the country if much of their beauty is the result of in-breeding, and but little care is used in mating? Nothing is harder to retain than that got by artificial means (which I hold in-breeding to be), and while I cannot venture to advise the correct

course of pairing—the first essential being an accurate knowledge of their pedigree, best known to their owners—I can and do urge breeders to be careful in retaining birds with massive beaks, and heads round and wide all over, for stock purposes, all other points desirable being made easy of attainment by reason of the vast number to select from, and the cheap rates now ruling, never before so favorable to the purchaser.

What we miss most in birds used in stock is the width of gape and full cheeks, without which I fear we shall look only too long for the production of cocks fit to win.—*Stock-Keeper.*

THE SEX OF PIGEONS.

The prevailing idea that the sex of pigeons can be told by the distance apart of the bones of the ossacrum or vent is an erroneous one. There is no certain way of telling male from female, except in watching their movements; and the man does not live, who can select with certainty, from a promiscuous lot of pigeons he is unacquainted with, the males and females. A man of experience can guess pretty closely, but the best of them make frequent failures. A sign we have found to be a good one is to seize the bill of the pigeon with the fingers of the left hand, and the feet with those of the right, stretch the bird held in this way from left to right, and the tail will invariably either be thrown up over the back, or else hugged tightly towards the feet. As a rule those throwing the tail up will be found to be females, and those throwing it down to be males. But even this test fails at times in determining the sex. Experienced fanciers or breeders can tell by the expression of the eye and a certain unexplainable action of the birds, which seems to be an intuition only gained by long experience. In many varieties the characteristics of the male are so prominent that it is easy to select

him from the females. But take a lot of Fantails, Swallows, Trumpeters, Magpies, and that class of birds, and we will defy anyone to select at a first attempt all the males from the females.

Fanciers Gazette.

RABBITS & PETS

RABBITS AND PETS.

The fondness of boys for rabbits is proverbial, and this is a feeling which ought to be encouraged rather than repressed. There can be no question that lads often cause great annoyance to those around them by either their care for or neglect of the pets they keep, and frequently a not unnatural feeling on the part of parents is to sweep away the whole lot and have done with them. A better plan is to take an interest in the pursuit, and by a word of advice here and a hint as to better methods there the objectionable features can generally be removed, and the pride in the pets thus engendered is an almost certain cure. The advantages of giving boys and girls an interest in pets must be apparent to everyone who thinks about the matter. It teaches them to care for and regard animals with affection, it provides that recreation which is essential to every life under the right conditions, and it frequently is the means of keeping them at home when they might be wandering off no one knows whither. Parents will be doing a kindness to their children and themselves if they encourage a love for pets, and rabbits, especially in the case of boys, seem naturally to be the first kind kept. They are cheaply bought, easily housed, and readily disposed of. But whilst it is desirable to give encouragement to the lads in this way, the proper feeding of and care for the animals ought to be insisted upon as a condition of their being permitted upon the premises.

BROWN TABBY CATS.

As a rule, the short-haired varieties of cats are preferred for ordinary purposes as they do not take the same amount of attention as do the long-haired kinds, nor are they likely to become matted in the hair; to prevent which a constant combing and brushing is necessary in Persians and other long-haired cats. Of course when the owner is willing to take the necessary trouble, the long-haired varieties are very handsome, and when exhibition is regarded other considerations come in. Of the short-haired cats the tabbies are the most popular, though in this respect the tortoiseshell would compete for the first position were they as numerous as are the tabbies. There are three distinct varieties of the tabby, namely, the brown, the blue or silver, and the red. All are, if well fed and cared for, large, handsome animals, most intelligent and affectionate, and, as a rule, very gentle. The rich brown-grey ground color, marked with stripings of black, are very pleasing, though these markings are not so distinct as in the case of some other varieties. The face is, perhaps best marked of all, which gives the countenance a very happy expression. The under parts are usually a paler color than the rest of the body, but there should be no actual white about a tabby cat.

DISEASES OF THE EAR IN RABBITS.

Domestication generally results in the development of some form of trouble, to which the animal then becomes more or less subject, unless it can be remedied by the natural powers adapting themselves to the changed conditions. In the case of rabbits there seems to be a special liability to ear affections, and as the point attacked is usually that which is weakest, we assume that for some reason or another the ear of the rabbit is the most tender part of its body. Perhaps the breeding for ear points, which has been so much

resorted to in a few of the breeds, is the cause of this weakness. The commonest form of ear disease is when there is a hardening of the wax of the ear. This usually results from improper food, which either causes an undue amount of the humours being secreted in this direction, or from the wax being harder and drier. Unless attended to, there is every probability of a cankerous sore resulting from the accumulation of the wax. When a rabbit is seen to be continually scratching the ear it should be examined, and if there is an accumulation of wax the ear should first be washed out with warm milk and water, a spoonful of olive oil being afterwards poured in, the object of which is to soften the secretion. When soft, as much of the wax as can be should be removed by the means of a stiff feather or a pair of tweezers, the ear being then dressed daily with some sweet oil in which is mixed flowers of sulphur. A more serious form of ear trouble is when there is canker or an offensive discharge from the ear. This is very difficult, indeed, of cure, but fortunately, there are not so many cases to be met with. The ear should first be cleaned out by means of a soft piece of rag or sponge soaked in warm water, and when dry a lotion applied of one part of Goulard's extract of lead to five parts of olive oil, to be repeated twice a day. After washing out the head should be held on one side and the lotion gently dropped in. A syringe is sometimes useful to clean out the ear. Food must be good and nutritious to maintain the strength. — *Fanciers' Gazette.*



FEATHER-EATING BY PARROTS AND CAGE-BIRDS.

The bird-keeper of every denomination is more or less troubled by his birds eating the feathers off their mates,

or, when alone, off themselves. Parrots especially are given to this sort of thing, especially that of pulling their own feathers, for usually one bird plucks the other. The cause is very difficult to discover, but it seems to be undoubted that it is due to the want of something which the birds obtain for themselves when at liberty, and which is not obtained when in confinement. Whether the feathers supply this lack, or merely temporarily satisfy an unnatural craving, it is impossible at present to determine. It may be that in a few cases pure mischief or the want of something better to do will account for this disgusting habit; but we regard these as the exceptions rather than the rule. How to cure feather-eating has puzzled the minds of many who have studied bird management, but we have not yet heard of a certain cure. One that is permanent and complete. Of course, in the case of pairs a stop can be put to the business by removing the culprit. But that is prevention, not cure, and in this case cannot be deemed the better of the two. It is desirable to note that in a few cases insects amongst the feathers is an exciting cause, for the irritation set up by these pests makes the victim glad to be plucked. If that be so, of course the insects must be got rid of. As a rule we believe the best cure is to put a bird given to feather-eating into an outdoor aviary, and keep it there for a few weeks, supplying all that can be needed in the way of green food, &c., and placing branches of trees, so that the bird can exercise its beak thereon. We believe parrots are often induced to commence feather-eating by being fed upon meat, as this stimulates an unnatural appetite. The food should, therefore, be cooling, and not of a stimulating nature.

When young Canaries are six weeks old take them from the old ones and place in large, roomy "flight" cages, in lots of 10 or 12.



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

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Harmonious interiors, the art of decorating a home at small expense, so as to transform the crude baseness of angularity and formality into tasteful adornment, is the subject of an exceedingly able essay in the June number of WOMAN, written by Ella Rodman Church. Practical education of this kind, available to persons of all circumstances, is the bases of the mission, which WOMAN is so admirably fulfilling in behalf of the wives, and mothers, and sisters of America. The teachings of this one article in the June issue are worth to every reader the cost of 1.50 years' subscription to the magazine. \$2.75 a year. WOMAN Publishing Co., New York.

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—BY—

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