COMMON
SENSE
IN THE

LONDON
FANCY CANARY

CARE OF
The

BY
MRS M. E. FARWELL.

PET CANARY

GRASS CANARY.

NEW YORK
MURRAY HILL PUB. CO.
129 EAST 28th ST.

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COMMON SENSE

IN THE CARE OF

THE PET CANARY.

*HOW TO BUY, KEEP, FEED, TAME, MATE AND BREED CANARIES;
HOW TO NURSE THEM AND CURE THEIR AILS; HOW TO
TREAT THEIR MANY PECULIARITIES OF TEMPER,
HABITS, ETC., AND ALL ELSE APPERTAINING
TO THE PET CANARY'S LIFE.*

BY

MRS. M. E. C. FARWELL,

ASSISTED BY

MR. CANON RITTENHAUS AND MRS. HELEN FRANCES;

APPENDIX BY E. B. FOOTE, M.D.

"Joyous little songster
Singing all the day;
Gay little roisterer,
Tell me what you say!
Happy heart,—happy heart,
Tell me what you say!"

Beside the golden-breasted pet
Uprose a soft-eyed Fay,
Who gave his bill a playful whet,
And gently echoed, "Say,
Happy heart, happy heart,
Tell her what you say!"

Bright the eyes, upturned to mine,
And sweet the trilling bell,
That broke into a singing line
Of what he had to tell:—
"Life is sweet—Love is good!
That is what I say!
All the day,
Say, say, say!"

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CHAPTER I.

WHY THIS BOOK APPEARS.

HIS book is written with two aims: First, to enhance the beauties, health, and general comfort of the canary's life. Second, to enable our sister owners of these pets to better appreciate their quality and character, to better enjoy their sociality as pets, and especially to show how their little wants and ails should be treated.

A true affection for, and sympathy with, the dependent, helpless little lives has actuated our pen from beginning to end, impelling us to treat each subject with an exhaustive thoroughness, such as none—not the dullest, even—need misunderstand.

The canary is a universal pet. In nearly every home in the land one or more are domesticated, till no home seems to bear a real home beauty where the merry warbler is unheard—where the cleanly cage and animated bird are not seen.

Who would be without one of these social pets? If the day be gloomy, the heart sore, his sweet bursts of song and merry chatter are sure to woo brighter sentiments—

“To extinguish the blue flare
From the lamp of old care.”

Yet there are numerous owners of these pets who abuse them with neglect, affirming, “They’re an old story,” or, “I’ve not time to fuss with them!” Old story! Is it not a heartless expression? and on the kindly feeling of this cloyed heart the tiny prisoner depends for such joys, care, privileges, as compensate for the sunshine of liberty—the revels in the green wood—which wires and walls and human will

have torn from his enjoyment. Old story ! Then was the purchase of him but a fancy ; no *regard* or *love* for the helpless *life* actuated the wish to own. Is your child an "old story ?" Is your husband an "old story ?" Has the whim of *their* possession become a tedious fact ? and would you also neglect the obligations of their care if you could easily, as you can those appertaining to your uncomplaining caged pet ? Alas, we hope not : we hope you find real pleasure in *some* of the responsibilities you have drawn upon your life ; that you have too much of divinity in your heart to grow weary of duties so uniformly fashioned for the crucible of Love ! Did you ever test the beautiful enjoyment of making yourself beloved ? If not, begin this day and learn what holy revelations there are in life.

A certain divine said to his daughter, who begged him to teach her how to win love : "Child, Love is a heart-magnetism ; it is easily cultivated ; but those not in the mystery cannot deceive a true member. How woo Love ? Dear, there hangs thy neglected bird. First practise thy arts on him ; having won his heart, the initial step is taken : you have gained the key to *all* hearts. Child, why dost thou love thy mamma and me ?" She answered readily : "Because you are so thoughtful and good to me." His eyes were misty as he stooped to salute the youthful brow. "Bless thee, pet ! thy appreciation repays us indeed. Teach thy bird to feel in his small heart the beautiful words you have spoken, and the Love Art will soon so grow upon thee ; all hearts will become magnetized to thine ; all mouths will be saying, 'So thoughtful and so good is this girl, none can help loving her !'"

Was not the lesson a pretty one ?

"No time to fuss with a bird," says another. Yet you have time to visit your neighbors ; time to chat with callers ; time for almost any *personal gratification* ; if not, you will *make* time.

"No time ?" Then enroll the tiny pet among the latter catalogue ; make it one of your many "personal gratifications."

Here comes a lonely afternoon with the mending. Set the cage on the table beside the work-basket ; chat with the bird, sing with him, teach him a new note, as you ply the needle. The long hours are gone ere you know. Have you a lonely evening to pass, set the bird close by the light, make a companion of him, and he soon will be lively evenings as by day. No *extra* time need be lavished on him ; only remember you are never alone while he is in the house,

and he will soon make a most intelligent companion if you will permit him.

Among the author's collection is a little female bird who has been the companion of several years of her invalided life. She flies about the room ; her cage-door is never closed. She is a very child in love and astuteness. Her remarkable intelligence and pert ways have made her a marvel to half the town. Nothing is done in the room in which Bo-peep is not interested. After bathing she plumes herself before the bureau mirror, twisting about as coquettes do for a back view. When her mistress is resting she perches on the head-board to sing her to sleep ; when writing she sits on the desk to watch opportunities of catching at the pen, or of pulling the paper from the pen. So when sewing—a sudden dive and the thread is caught midway and drawn from the needle, the mischievous one calmly reviewing her work from a perch in the window ere one realizes what has occurred. She has ways of telling her wants, of expressing displeasure ; a dumb person is not so quickly understood. The many cunning and intelligent habits she has acquired would fill a volume if written. While her love for her mistress is a wonderful revelation, no other person shares it.

Did you ever free your canary in a furnished room ? Try it—not once, but for days and weeks, allowing perfect liberty. When familiar with the room a broader intelligence will develop, and scores of new habits be acquired, to please you with their novelty.

“ If hath been won e'en the love of a tiny bird,
Life hath not been all in vain. For the heart stirred
With Love's vibrations hath caught a ray from Heaven ! ”

CHAPTER II.

THE PET CANARY.

One should keep a bird, or any pet, merely for ornament. It is an inhuman practice, and yields no real satisfaction to the ungenerous owner. Canaries are social little creatures, and covet appreciation. Where due care is given his wants, and a tender appreciation bestowed on his bursts of song, his many pert and pretty habits, his whole nature expands and fits him to become one of the happiest of companions. His surroundings may be unbeautiful, but he cares not a whit for that so long as his song—of which he is inordinately vain—receives a loving commendation, his wants are regularly supplied, and he is made to feel like a veritable member of the family. Thus regarded, his cultivation, his refinement in points of habit, in the selection and combining of his notes, also the intelligent notice he shows of all he sees and hears, will surprise you into remarking him, “Truly a wonder !”

On the other hand, hang your bird in a gilded cage, notice him only sufficiently to keep him in singing ability—that is, treat him as you do your furniture—and you have merely a singing machine, combining only intelligence enough to evince great fright when approached, to eat, sing his one tune over and over, and go to sleep at sundown. He does not give you a glad welcome the moment you enter the room, or call out as you look up from your work, as does the bird you love to consider your pet ; ah, no, poor little heart ! he has learned to feel himself a nonentity, and heeds nothing that occurs, unless his cage, or self, be interfered with.

A canary is like a child in this respect ; *i.e.*, you can make him what you will. No one has business with either one or the other who will not study its nature and cultivate its best points—in short,

who is not willing to make it happy. Neglect is oftentimes criminal in results where it appertains to childhood, but when practised on a poor little bird, helpless in a cage-prison, it is simply—well, it is a revelation of character not to be mistaken. Beware, young man, if you seek a wife, of the lady who forgets to cherish her pets : she will be sure to scoff at the duties—those many loving attentions—that constitute a husband's happy comfort in his home ! And her children ! Don't expect to take pride in a child of *her* rearing, because she'll never rear one. *Her* children will come up much as Topsy did—they'll just *grow*.

Hence, I say, as the opening guide in the care of all pets, and especially of the joyous canary, care for them as for an intelligent creature with claims on your humanity. Do not own one if you have no fellow-feeling with it. Your pet cat leaps on your knee, you fall to caressing her sleek coat and talking gentle nothings to her. Up there in the window a canary hangs : he longs for but cannot get the dear attention puss basks in, for he is caged and cannot come to you. **DO NOT FORGET HIM !**

CHAPTER III.

HOW TO CARE FOR CANARY BIRDS.

HAVING purchased a bird, really pleased to own one, you mean to take the best care of it, and make its wire prison a happy abiding place, yourself the object of its fullest trust and adoration.

Then, with kindly gaze fixed on the wistful little stranger, you ask: "How shall I arrange the cage? where put it? What may I dare let him eat?" And you think, "I'd not like to injure the dear little fellow with ignorant experimenting. I'll be very careful! I'll just give him seed and water. That's sure not to hurt him; and I know of nothing else. The bird books give one no *practical* information at all!"

Hold, there, lady, and study *these* pages, for they are the product of years of close association with canaries and careful study of their needs. We promise you may rely on every detail between these covers.

The cage should be attended to at least every other day, as he needs his bath as often as that. To do this quickly is to do it neatly. Thus, if you set the bath in the cage, first empty all the litter off the bottom, as washing it into the basin makes dirty work. But if the bottom of the cage comes off, best set the bath on a fresh paper, on floor or on table, *in a sunny spot if possible*, and put the cage over it. The bird will soon enter the water, take a good cleansing, and then will lay his plumage as he sits in the sun on a perch. Birds delight in their bath. Never deny it. If you can do so conveniently, give it them *every* morning. In an aviary they wash several times a day, where water is free to them all hours of the day. Considering this, many keep the bath in the cage all the time; but it is a dirty practice, besides being useless, as, deprived of all heating exercise, the need of more than one ablution per day is not felt, consequently not in-

dulged. Remove the bath, after the wash, wipe the drops off the cage, and cleanse the perches, if dirty ; if not, dry them also.

While bathing, you have cleansed all filth off the cage-bottom and covered it with clean paper—two thicknesses—cut to fit it smoothly. Paper is preferable to sand, as you can then see the droppings, thereby judging of the bird's health ; otherwise they roll into the sand, and their condition is hid. Many birds die whose disease, taken in time, could have been easily cured. But its droppings were hidden in sand, and the first intimation of illness was given by loss of appetite and song, drooping, closed eyes, etc. Too late then. By this you perceive the advantage of a paper carpet. Sand is essential, though ; so set in a box or dish filled with clean sand, into which are tossed some bits of egg-shell. (Keep the shells for this purpose whenever an egg is broken. Raw eggs, you understand.) They love it even better than cuttle-fish for a digester. Cuttle-fish must not be dispensed with because of the shell. If they can have but one, give the fish preference.

The size of the sand-dish may vary according to size of cage. It must not occupy too much room, else the value of the paper is undone. A few hemp-seeds sprinkled on the sand is a good idea, as a waste of seed is thus prevented. Never mix the hemp with the other seed, as a bird will throw out all in the cup in a search for it. So it is best to put the allowance of hemp-seed on the sand with the egg-shell.

Now fill the cups, one with pure water (keep the cup clean and sweet), the other with canary, rape, millet seeds ; equal quantities of canary and rape, with a light sprinkle of millet. Millet is not so well liked, and will be wasted if mixed in to any amount—by wasting the other seed searching for it—unless the bird discover a liking for it, when it may be mixed in any quantity he pleases, as millet is never hurtful.

To this diet—we are arranging the cage, remember, for a standard every-day use, with essentials only—add half a Boston cracker, which may be fastened between the wires near a perch. Fasten in a cuttle-fish bone, also a lump of sugar, and either a slice of apple or other green food.

Now your bird is supplied with a diet that will not harm him, and on which he will thrive and be happy though there be no additions made ; yet variety pleases, and aids in producing a system of intel-

ligent observation, such as one wishes to cultivate in their pets. Hence, for the benefit of those incapable of discriminating between a wise and unwise variety, we append a list of prudent foods, with a few remarks.

But first, ere pampering our gay little pet, where shall we put him? Free him in the room, and he will show you at once that he best loves a sunny place. Always consult the natural desires of the bird, as far as you can, in your treatment of him, if you wish him to thrive in health and song. If long deprived of this life-infusing element—the sunshine—he will fall into a decline, loss of voice, and etc. Avoid this by giving him a sunny window. He may hang on a spiral wire before the window, or on a hook fastened to the casing.

Here, for the benefit of those who complain that a bird refuses to sing when put in a new location, I will say: Birds are, in a wide measure, creatures of habit. If you accustom them to one spot only, it is your own fault if they grow to object to a change. The wisest plan is to set up screws in several windows, or rooms, if you wish, and change him around every few days; or, if you enjoy watching his comfort, let him follow the sun from window to window. It is also a good plan not to accustom him to one bathing locality, as conditions may rise to sometimes prevent this one spot being available when he refuses to wash.

All birds are not obstinate in these matters. They are only occasional. Out of the sixty old canaries in the author's aviary, there is but one—a bright yellow singer—who has evinced this perplexing disposition. He is now two years of age, and sings and bathes wherever we may put him. The others have never discovered any especial prejudices, adapting themselves to our wishes with an aptitude a child might imitate to advantage.

The following foods may be given in their seasons; or, when some of the many dainties are by for your own feasting, remember the bird and divide with him. After a little he will not let you forget the division, but will chirp and caper about until your attention is attracted, and the usual amount handed over:

Seeds.—Canary, rape, hemp, millet. Yellow mustard-seed and pepper-grass seed is a delightful luxury, but must be given in very small quantities, and tossed in on the sand. A red pepper may occasionally be strung in the cage. The canary is partial to fiery food, and so must not be too constantly indulged, lest internal inju-

ries accrue. Eaten in moderation, they make an excellent relish in winter and during the moulting period.

Green Food.—Lettuce, chickweed, plantain-rods, pepper-grass, yellow mustard, tender asparagus, cabbage-leaf, tender, clover-tops, roses, and buds ; slices of apple, pear, peach, melons, banana, orange, plums, cherries, berries, and any other *ripe* fruit that is mellow and not poisonous.

Figs, dates, raisins, popped corn, stale bread, buns, sponge-cake, hard-boiled egg, rice, boiled or soaked ; Irish or sweet potatoes, either boiled or baked ; sweet corn, raw or cooked ; green peas, tender string-beans, young sugar-beet, and tender turnip.

THE WILD CANARY.

The meats of the shell-bark, beechnut, peanut, filbert, etc., may be chopped fine and allowed in minute quantities, as a special dainty, now and then. Oily nuts—the shag-bark, butternut, etc.—are harmful if much indulged, though a trifle may be given at discretion of the owner. A creamnut caught in the wires will be nibbled with relish, but must not be too often allowed. Cocoanut and cocoanut-cake the birds enjoy as dainties. The wisest dainty, however, is stale bread soaked in sweetened cream.

Ants' eggs are an especially healthful diet for all sorts of birds. Birds not too closely confined may partake of figs and hemp-seed quite

freely, but unless exercising they prove rather too fattening for constant diet. Figs are strengthening for the weak ones, and very healing for those with weakly bowels.

Many are prejudiced against giving birds varied foods, avowing loss of song and health the result. That is a mistake; variety in diet is natural to all bird-life. We would not, however, recommend *cramming any creature*, any more than we would advise a system of starvation; and birds kept on one or two kinds of seed are, in our opinion, undergoing a slow and torturous starvation. They become bony, cross, nervous, mopy; their blood is reduced in quality, strength goes; and the issue of such is sure to be weakly. Who wants such birds? Who knowingly will invest money in them? A trifling illness carries them off. If you fancy such diet proper, test it on yourself. Settle down to Graham and water, and see how merry and strong you feel in a few weeks' time. If you sing or dance, it will be for something to eat.

Greasy food, and that containing much salt, must be avoided. There are in market several sorts of "prepared food," which are so universally advertised that they *ought* to contain *some merit*, and may, for aught the author knows. She can speak of two kinds only, and not favorably of those. Seeing the birds evinced unquestionable disgust as they ate, absolutely refusing to taste a second time, she ventured to test the flavor herself. She spat out the costly morsel, rinsed her mouth, and exclaimed, "The creature that can swallow that has lost the sense of taste!"

It seemed a pity to destroy so costly a *bonne bouche*, so we concluded to utilize it on a cat that was troublesome about the aviary windows. Accordingly the cake was soaked thoroughly in a strong beef-tea, enclosed in a thin slice of steak, and laid under the window most favored. The bait took. Reader, we avouch, and with truth, that our long cherished hopes in regard to that cat were by this means fully realized. The cat didn't die. She was the dear pet of a good friend, so we wished not to bereave; but the dainty palate was so disgusted with the tid-bit found under the window that she never longed to beguile the time in that locality again.

Mr. Rittenhaus, who succeeded his father in the business of canary culture, and has thereby the experience of nearly half a century to deduct conclusions from, says: "Some of the 'prepared foods' are passable, but none of them will meet requirements in *all* cases. A

bird kept exclusively on seed will often be benefited if a good article of this kind is placed at his disposal, because the ants' eggs, bread, etc., comprising the food will strengthen the impoverished system ; and that is all the *curative* work it will do. The better way is to give pet birds a judicious variety of *fresh* foods every day. For a bird starved enough to *relish* these *stale* foods in a dry pressed cake, which has to be soaked so as to be eaten, is quite as pitiful an object as the miserable sinner in a dungeon, whose appetite, whetted by insufficient rations, gloats over the black bread and brackish water which an offended government doles out. To victimize pet birds in this way is a most inconsistent cruelty. The fact that life *can* be sustained on a very spare diet is no just reason for subjecting a creature to it. And as regards tonics, there may be a few fair to good recipes before the public that will meet the wants of certain indispositions ; we, however, never use a *general* tonic. We examine symptoms, and give remedies accordingly."

Remove all *stale* bits each time the cage is cleansed, or before, if such has become acid or rotten, when the fresh flavor disappears. Rotten or sour foods, if eaten, will create bowel complaints, sometimes even bringing about cholera. Better keep the dainties away than neglect to remove them in season.

A gluttonous bird must not be allowed *all* he can eat. Give him his dainties in very small quantities. Birds that have all they want from the start—in the nest—are not so liable to overfeed as those that have been stinted. They taste the dainty with an epicure's refined appreciation, and return to their song. Plumpness beautifies a bird, and, unless he gets lazy, there is no good reason for stinting his rations. Laziness is attributable to forced inactivity more than to diet. All pet birds should be allowed to fly about at least twice a week. But if this privilege cannot be permitted, caution must be used in pampering the bird. The author always liberated her caged family every other evening toward sunset. They had a riotous time till dark, when each returned to its cage and went to roost. They never mixed in this, each knowing its own cage. Most birds fall to this habit after being caught and shown their duty a few times. The cages must hang in pleasant places, though, to reconcile them to voluntary retirement. Left sitting on the floor the birds will rarely seek them. If you want a real rollicking, gay, and sprightly bird, see that he has exercise, and keep him in a fair-sized cage.

A tiny mirror attached to the wires inside gives a bird, a female especially, great enjoyment. A singer spends rather too much time at it, unless—as is often the case—he forms a habit of singing to his image. The female, when kept alone, should always be provided with one. She will treasure it, and, should another bird attempt to look in it, will fight for it with all her might. Also hang a bell where she can strike her bill against it. Tiny bells on each end of her swing delight her when she gets acquainted with them. The female has an inventive genius worth watching, if you privilege her so she can use it. In this way she is as entertaining as the singer, passing quickly from one object to another, intent on self-amusement. She appreciates attention with a reciprocity of love, and of comprehension, such as the more vain male bird seldom exhibits. She'll repay all you do for her. Try her, and see.

One more charge on the care of these praiseworthy pets, and we will close the chapter. Many have acquired the fallacious idea that a house-bird, because it is a *bird*, is able to *breast all atmospheres*. Disabuse your mind of that idea at once! Brought up in the artificial atmospheres of the house, they are susceptible to changes as much as children are—as yourself may be. You'd not think of sitting baby Carrie or Charlie in an open window with a strong breeze blowing through; nor would you let them sleep where a cold draft crossed the bed; nor would you let them play on the piazza on a chilly morning without extra warm wraps; neither must they stay there when a strong wind sweeps across it. True, the bird is warmly feathered, so are the children judiciously attired; yet common sense teaches you a severe cold will result if they have not on additional clothing, and it may settle in head, throat, lungs—perchance, eventuate in death. House-birds are also liable to colds in head, lungs, etc., if incautiously exposed to unusual temperatures. *They* have no extra *garments* to don. A temperature of about seventy degrees acts on a singing bird like a stimulant. He is perfectly happy in it. Of course, no one is expected to regulate the atmosphere to a bird's pleasure. We mention the fact merely to show you how much better warm temperatures are adapted to house-birds. If properly covered nights, they will weather severe winters without losing their voice; but if exposed to winds, draughts, cold, blame yourself for the sudden disappearance of his cheery song.

Notice how he stands on one foot while warming the other in his

feathers on a cold winter morning, his feathers all distended. If that fails to convince you he suffers from the cold, take him in your hands, see how like tiny icicles are the little feet, how he cuddles in your warm palm, how reluctant he is to leave it for the cold cage again; and you'll conclude house-pets do *not* have the hardihood of wild birds. How can they? They are artificially reared, live artificial lives in a pleasant prison, maybe; yet the inactivity and artificiality deplete the blood, render them fragile, and none but a f—l would expect them to compete with a free wild bird in endurance.

So many pet canaries have been brought to our notice afflicted with diseases contracted by injudicious exposure, we feel it a duty to speak on the subject thus warmly; for owners of canaries so rarely pause to consider the marked difference in their constitution and a wild bird's. "Birds need to be out doors," they say, and put them out in fierce gales oftentimes, with the kindest possible intention. Soon song ceases, a blood-vessel bursts, he is dying. "What *can* be the cause? I'll not buy another bird of *that* fancier!" So the fancier is disparaged; he has to suffer for the ignorant buyer's folly, who is so devoid of reasonable argument she won't see *why* a canary must be naturally less hardy than other birds—wild, free birds—of the same size.

None can be blamed because of ignorance, but when *truth* is advanced it is a foolish person indeed who'll not accept it and profit thereby. If, after perusing these pages, you still starve and expose your house-birds, blame only yourself for whatsoever results, and point no calumniating finger at the fancier who sold them to you. House-birds are better off, will live longer, to *never* be hung in the open air, than to be exposed thereto in a breezy or frosty or chilly hour. A lady of our acquaintance hung a cage containing three beautiful singers and two females on the piazza a few times in the chill of our September mornings. They soon evinced symptoms of illness. The females and a singer expired in great agony. She called on us with the others, lamenting to lose the whole of so lovely a brood. We examined them, and said: "They have had a hard chill." At first she pooh-poohed the idea. "The weather has been so mild all along," she said, "and I am very careful in caring for them." Fact convinced her, though, that the mornings of September were not mild enough for these delicate pets. The rattling in the little chest, the snuffling in the nostrils—these were unmistakable signs. They

might have been cured had no more alarming symptom appeared, but cold upon cold had at last destroyed the lung-tissue. They were beyond saving.

If your bird-cage is in the window, throw, at night, some article or pin a paper over those sides nearest the casement. It is a moment's work only, and secures the bird from a chance draught and the consequent injury. He is such a rollicking little fellow when he feels *well* it pays to keep him so. On very cold nights remove from the window, set on a table, or any convenient place where the cage can be warmly covered and is safe from chance knocks. A small opening is left at the *base* for pure breathing air—not larger over than a silver dollar—and he is comfortable as need be.

CHAPTER IV.

MATING AND BREEDING.

THIS is a beautiful epoch in the life of the intelligent canary. The male "goes a wooing" with his most charming song; selects the most palatable combination of foods to regale his lady upon; and shows her, by every conceivable device, that his heart is warm to her, that she is precious in his regard, and will be eternally, *if* she will kindly reciprocate and become his faithful wife.

Watch her loving responses; the delight his adoration imparts; the soft chat and kissing in the cage corners; the earnest consultations over the nest; the silly sentiment generally. It is beautiful; it is *honest*. Once happily mated, they will continue together with unswerving fidelity throughout life, unless torn apart by an unsympathetic owner, as is too often done. Canaries, allowed to enact their true natures in this wedlock, are generally monogamic. The female is virtually so; and the male adheres to the principle with far greater universality than do the human lords—who bow to the monogamic law as a State law, as well as a moral law, yet will jump the traces.

In some instances the male birds will woo a second mate while the first, or *true*, wife is setting on her eggs; but the *true* wife is ever dearest, and his care will not desert her. Sometimes, in a happy aviary, the two wives will form an attachment, and help inaring for each other's nests fondly as two sisters; and when the breeding season is over will continue devoted friends, at night each preening either side their little husband. Of his own will, however the male rarely seeks a third consort; he seems to think two enough for any proper bird, and takes solid enjoyment in their society. The female is indifferent to all males except her elected mate. If he be taken from

her she will mourn, and receive no other during the season. Females, deprived of their first love, often mourn themselves to death. For this reason it is best to so place the birds, regarding quality, color, etc., as to make the first union a desirable one in your wishes, and never separate them after, unless certain uncontrollable exigencies arise and *compel* the act; for it is a heartless act, and spoils the true beauty of the two little lives forever.

There is a flawless moral principle in bird love, when allowed to develop in NATURAL ORDER; but human interference generally perverts it, and shapes the helpless little prisoners into lewd, unprincipled, and indifferent dispositions. This is effected by changing the female's mate each season, by caging the male with various mates each and every season, in the mercenary determination to raise a numerous progeny from the few males a fancier feels compelled to "keep over" for the purpose of replenishing the stock in trade. Also many private owners of mated pairs, in ignorance of the moral tie so beautiful in bird nature, lend them away from each other, or sell them from each other.

It is a pernicious act, unworthy our boasted humanity. Often have we wished a protective order might be created to prevent the numerous inhuman treatments these tiny feathered prisoners are forced to endure. This separation is also productive of bad results. Out of hosts of instances coming under our observation, we will mention a few:

A pair of happily-matched birds had been three years together, when the female was lent and another mate procured for the singer. Mark the result in both cases. The male, hitherto a most devoted husband and father, though he mated with his new wife, utterly refused to care for her while sitting on her eggs, and when the young brood came along took no delight in them. In vain the mother-bird called, coaxed, waited for his attentive pleasure. He sat, ate, sang, indifferent and unheeding. She soon took offence, and herself ignored the 'little ones' cry for food. When four days were gone by, all in the nest were dead of starvation.

A second and a third nest followed the same fate, when the sad little female was returned to her owner, and Dickie's true mate brought home. She, also, had made bad work. She, before most amiable in her domesticity, was cross, exacting, quarrelling all the days. She built a first nest and laid four infertile eggs, not having

permitted the male his prerogatives as an acknowledged mate. Finally a second nest was built, she leading her persistent companion a torturous time of it, as he by this time had succeeded in forcing her to a—very unwilling—concession. He wished to please; she could not wholly cast off the spirit of rebellion raging in her little breast, and would accost him with unexpected and undeserved abuses. A brood was hatched, of so weakly structure they scarcely lived to eat.

Before the third nest was ready, she was taken back to Dickie, her own true mate, and the meeting was an affair of serene satisfaction on both sides. The next morning they signified their wish for a nest, which was quickly given them; and then did Dickie and Mrs. Nettie go joyfully to work, devoted to each other in every item pertaining to their marital bliss and the production of their expected family. Nettie's third nest was a success, both parents sharing in its care.

"If this marital principle had not been proven to me right here in my own home," said to me the owner of these two birds, "I never would have believed the story of it!"

"You'll not attempt to separate them again?" we asked.

"No, indeed; I have a heart," was the reply. And we believe the Recording Angel pinned a blessing to that lady's name the moment she spoke the words.

Our limited space admits of but one more instance, though we would like to interest the reader with dozens, because they so clearly elucidate the real status of bird morals as subjected to the freaks of captivity.

A pair from the same nest were allowed to become mates. They raised several healthy broods the first year, greatly enjoying it. The owner fancied they were wrongly mated because of the near relation, and, not arguing to their favor the healthfulness and beauty of their offspring, concluded to exchange females with a friend the ensuing spring. Without being especially devoted, the male bird treated his new spouse very well, and raised a pretty fair family, though not so complete, according to the number hatched, as he raised the preceding year. His interest was markedly less in the new wife and her responsibilities, hence the small family were the straggling product of several nests.

The next year they raised more progeny, doing rather better than they did the preceding year. Shortly after they were sold to a Mrs.

G——, a lady of no experience in bird culture. She expressed herself disgusted with the quarrelsome creatures, after half a year's trial with them; could not see *why* they acted so different from other pairs she had seen in her neighbors' homes; finally sold off her birds to two different parties, retaining one singer—the only one she succeeded in raising from this pair through a whole season's bother.

The history of the female runs thus: Mrs. Y——, who bought her by exchanging a female in her place, was a fancier on a small scale. She reared birds for money, not for amusement, and her heart was callous to their quality. They were simply articles of merchandise to her. She fed them to keep them alive; and cared for them because they would die if not cared for, and she would lose their value in money. It was a hard home for poor little Emmy to go to with her sorrowful heart. She had two things to mourn for—her dear Jimmy, and her dear comfortable home. A full fortnight she drooped about inconsolable, rousing only to feed a little or scold her new companion. He was an old bird whose moral nature had been perverted to a confirmed libertinism. Emmy's sadness made him ugly. He was taken away, lest he kill the obstinate lady. She, while alone, laid two infertile eggs. A second mate now entered the cage, a young one in his first passion. He used her very tenderly, and by unwavering devotion succeeded in restoring her spirits to something of their old vivacity. She laid four eggs, and began setting. At that period Mrs. Y—— always removed the male, providing him with a new spouse, thus rearing as many nests from him as could be crowded into the season. Jack went; Emmy was alone with a responsibility she scarcely knew how to meet, as her true mate was always very attentive to her wants throughout the tedious days of incubation. Alone! Who knows the aches of that wee heart? Who shall gauge its misery? Thrice bereaved. Poor Emmy! Mrs. Y—— was very provoked at her, when at the expiration of seventeen days not an egg was hatched. Examination disclosed the fact that some injury befell them the third day after Jack's departure.

Mrs. Y—— tried her again. Her mate's reappearance made her radiant. Four eggs again. Jack gone. Dismal prospect! But she began to understand now the workings of this mercantile establishment. Other cages were ranged about the room containing other solitary sitters. She conformed to their habits; hatched and reared her brood as they did. Then Jack came again. All went well.

At the end of the season she, with other superfluous females, was put in a cage—too small for their number—hung on the kitchen wall, and kept alive there throughout fall and winter.

Jack was sold, also all the other singers the business dared spare. In the spring Emmy was given a strange mate. Mrs. Y—— had no more trouble with her. Sorrow, coercion, example had demoralized her. Now comes the singular part of the history :

Mrs. ——, the lady who first owned the two birds, was visiting at a friend's house. This friend—a sort of invalid—being fond of pets, kept up a small aviary. The month was May ; the birds were in the height of nidification, forming a pleasing spectacle. Mrs. —— was invited to inspect the scene. There were twenty canaries, besides a collection of siskins, Java sparrows, linnets, red birds, etc.

Presently Mrs. —— exclaimed, her finger directed to a pale colored female, with speckled wings, sitting on a nest near by : “ Where did you get that bird ? That *must* be my Emmy ! ”

“ Emmy is her name,” responded the hostess. “ I purchased her last January of Mrs. Y——. *Such* a dear little thing ! ”

“ It is my Emmy, then. Mrs. Y—— had her of me. Oh, my soul ! there is Jimmy, too ! Where did you get *him* ? ”

“ I bought him two years ago of Mrs. G——, on —— Street. Was he a bird of your's ? See how they love each other ! ”

Yes, there they were, the true mates so heedlessly separated three years before, again united, again truly happy. He had another mate in the aviary, but Emmy was prime favorite.

“ I separated them because they were brother and sister,” said the guest, after commenting upon the strange Providence which had restored the true mates to each other after three long years.

“ I did not know of their relationship,” smiled the hostess. “ What puzzled me was to see the two so persistent in their attachment. Jimmy had a mate already. I got her for another bird—that green singer over yonder—and she'd have nothing to say to him from the moment she was let in here with Jimmy. You see, I mate my birds in cages before setting them free in the aviary. It prevents confusion ; the wrong ones don't get together then. But”—with a sigh—“ it did no good in Emmy's case ; she deserted Harry at once. See how forlorn he acts ! Poor Harry ! ”

“ Had Harry mated with her in the cage ? ”

“ Oh, yes ; they agreed nicely. They scarcely speak now,” laughing.

"Have Jimmy and Emmy raised any progeny this year?"

"This is their third nest. Come up-stairs, where I keep the babies at present, and you'll see what they have done. They are first-class parents. I *did* fear he'd neglect his duties, having a double supply, but he *can't be beat* in his domestic avocations!"

"Wonderful!" the guest exclaimed, a suspicious mist in her eyes. "I do believe 'twas wrong to separate them so! Who'd suppose the little creatures would recognize each other after so long a time!"

"A bird has, according to its size, the finest brain of all the animal kingdom, always excepting the human animal," said the lady, a glow of pride in her eyes as they rested on her feathered family. "That they remembered each other does not astonish *me*. I have had scores of proofs that they have long memories, also deep attachments."

"It is *wonderful*!" The guest's face wore a thoughtful expression.

Reader, we make no comments. The story is *true* in every detail. You can draw your own inferences, and act accordingly in mating your pets.

RULES FOR MATING.

Then, as true mates are best off *always to be mates*, we must be careful in bringing the union about, lest it prove disappointing to us. They must be matched off very early in January—where you have more than one pair—and never allowed to mix promiscuously till a perfect agreement transpires, and a nest is called for. Once mated, the same pairs will come together each year of their own free will, no matter how many companions are around; therefore, the *unmatched* ones are the only ones that need be taken from the aviary and paired off in cages. It is also a good plan to remove the surplus males, as they worry the faithful wives with insistant wooing, exciting the husbands' jealousy, and challenging them to combat. This creates dire confusion, and often bloodshed and death, for the unmated male is fierce unto death in his efforts to win a consort, and will take another's wife if he can by any means get her. Therefore, if you wish the aviary to be a model of peaceful beauty, remove the superfluous males to another portion of the premises.

Handsomest progeny are obtained by uniting the dark with the light birds. A green singer with a female of pale colors, or of one

pale, self color, and *vice versa*—pale-colored singers with rich-colored females. In mating two high-colored, or two pale-colored birds, the progeny are apt to be weakly and sparse-feathered, sometimes bald. The jonquil canary—a bright yellow bird with dark wings and tail—mated with a pale female, will give you bright yellow young mostly. A bright yellow mated with greenish—not too bright—produces many pretty mottled birds, jonquil, and some plain or self colors. Orange color mated with bronze often yields the valuable cinnamon-colored birds, also other pretty colored birds.

Avoid mating two thinly feathered birds, as their young will never wear smooth feathers. If you wish to mate a thin-feathered bird, select for its mate a very smooth, full-feathered bird. If there be pretty marks on the female the young will also be prettily marked. If these marks are on the male bird, although the result is quite pretty, it is not of so varied a character.

A gray-crested buff male paired with a nicely-ticked and close-feathered female will give dark-crested young, very handsome.

A green-crested buff male and a close-feathered marked female with white lines on her head, gives often silver-crested buff young, or crests of mixed golden and green that are very beautiful. Or such a male paired with a bright orange-colored mate will produce the much prized buff birds with seal-brown crests.

A green male with a brown or bronze mate yields a hardy brood of dark shades verging from a deep green to pale bronze, and often a fine cinnamon color. Lovely mottled birds in high colors often spring from this union. The handsomest orange-colored bird we ever saw was produced by a pair of this selection.

Never mate two perfectly clear birds, the progeny of such are weak. The question is often asked, "How are we to procure a large percentage of singers?" the desire being generally in that direction.

George P. Burnham writes: "It is claimed by some fanciers that a young cock mated with an old hen will produce a majority of cock birds; while the reverse—an old male to a young hen—will give mostly females. But both sexes being of same age will give about the same proportion of cock and hen chicks."

While in some instances this theory proves to contain an element of truth, it cannot be accepted by those who have given it thorough test as an infallible rule. The author, and a few other possessors of

private aviaries, have given this subject a most efficient study, practising their theories with results such as the most grasping fancier would blush to scoff at. In fact the author's aviary, and also the aviaries owned by three other ladies, have been cared for during the past three years so as to turn out five to seven male birds to every female ; and this too by merely following a common and systematic course.

To the patrons of our little book we gladly give our theories, the way in which we practised them, and some figures of the result. Acting on the statement—"old hens paired with young cocks will produce a majority of cock birds"—we paired off many of our birds for that ultimatum, allowing the rest to match off as they pleased. At the close of the season we found the *special* pairs had thrown off no more male birds than the others ; that several of the old females raised mostly females, while some of the others raised mostly male younglings. Looking among the younger pairs, we found several year-old females had thrown off male progeny almost exclusively. Now, why was this ? There was an answer visible, *i.e.*, the quality of the mother-bird. Old or young, only those that were of strong build and perfect health had given superabundance of male progeny ; the weaker females, especially those bought of breeders who reared their stock on rather spare diet, gave a majority of females ; the frailer the sitting bird the more abundant the female nestlings.

From the above we theorized—"To raise a majority of singers, the sitting bird must be of strong texture and perfect health, the age or strength of the male bird being of minor significance as compared with *her* ; though to obtain young of good quality both parents must be perfect as to health, and, during the breeding season, stinted in no way. Acting up to this we selected the hardiest of our stock for breeders, and found the proportion of male younglings to far outnumber the females in *all these special nests* ; the age of the breeding birds proving of no weight in the matter of success.

CARE OF THE MOTHER-BIRD.

Our habit has ever been to give the feminine portion of our stock the same advantages of care, food, and exercise awarded the more marketable singer, beginning in the *nest* to foster a hardy constitution. This care was well repaid, we found, when the value of their issue was counted up and compared with the progeny thrown from

those pitiful little mother-birds which we had bought of other fanciers, some of them even being gifts. They were received by us more out of pity than because we wanted them, for their owners, regarding them as incumbrances, treated them as such; and simply because their monetary value was so little, and no one cared to keep them through the whole year, for the very Christian reason that, possessing no great efficiency in song, they failed to *repay* the trouble. But we think the time is coming when bird owners will recognize the policy of lavishing equal attention on the mother-bird. We find ourselves repaid more than trebly. This very season (1884) we have raised, from seven picked females of our own rearing, sixty-three younglings, only eleven females in the entire lot. Who shall say those females do not repay their care? One bird raised two nests of five to each nest, all singers but one. She and her mate are both the same age—two years. Her first nest contained two birds only, both singers. She is now (June 13th) laying a fourth nest. Several others have raised nests composed wholly of singers.

The following statistics are from the author's aviary of two years ago:

Bopeep, one year old, matched with Jimmie, three years old, raised nine birds, six being singers, three females.

Topsy, one year old, and Bobbie, three years old, were allowed three nests and raised all singers, with one exception.

Dot and Dick, each one year old, progeny all singers.

Brownie and Charlie, both one year old, raised one female and five singers.

And Bessie, two years old, and Robbie, one year old, raised six birds, two being females, the rest songsters.

Daisy, a bird reared on the canary-seed and water system by a small fancier, was presented to me. She is a handsome buff and white bird with a speckled head; was three years old. Of herself she elected Willie for a true mate (she had never been mated), and the selection being a good one, was not interfered with. Willie was one year old, perfect in health.

Here, then, was the proper union (as per quotation), according to age, to produce a preponderance of male progeny. She, however, was of weak structure, and sat on four nests without raising a bird. She was too frail to impart the life-principle to her eggs; and when she laid the last, fell into a disease common to such birds—the breed-

ing cholera. We will speak of this cholera at length in a chapter on diseases.

Yet another pair—both reared on the diet principle—Totty and Mack (not of my rearing), she four years old, he one year, raised five females and two singers.

Another pair of similar ages—she four years, he one year—raised an equal proportion of both sexes.

In the three other private aviaries of which mention has been made, the statistics run about the same. Age does not seem to signify, but a robust constitution does.

Fannie and Dickie, in Mrs. L——'s aviary, have been in her possession five years. She is a year Dickie's senior. They were purchased of a small fancier who raised all his stock on spare diet. Their progeny has been numerous, but the females predominate—four and five to every singer. It is an unusual instance, however, that there should be so great an excess, even with *such* a breed.

MALE LESSER RED POLE.

[From Appleton's American Cyclopaedia.]

A strange lady called a few days since to examine the author's aviary, and complained of *her* luck. She had started an aviary, had on hand nineteen

canaries; had lost a number while breeding. Said she: "My females sweat their feathers off while sitting; the males—many of them—moult the year round; I have two in asthmatic torment; one that faints every day with heart-disease. In fact, my birds seem not at all like yours."

Inquiry made, learned canary-seed and water was the sole diet she allowed, saving a little grated egg when the nestlings appeared. And her birds were *lousy when bought*; she knew not how to get rid of the vermin, but *tried* to keep their numbers down. Ugh! it is a marvel she kept her birds alive. Always lousy—horror!!

How are we to obtain these robust, male-rearing birds?

Raise them. Begin in the nest. A bird, like a chicken, if neglected, or injudiciously treated at the starting-point, will never amount to much. *There must be no lice to worry either parents or nestlings.* REMEMBER THAT; and there must ever be a *variety* of strengthening food to feed upon.

THE SELECTION AND CARE OF THE BREEDING-CAGE.

The customary breeding-cage has a board back. There exists a silly notion that no other style will answer. It is a gloomy affair, which no bird accustomed to all-wire cages enjoys. We, who watch to give our birds a happy life, have grown to dispense with these gloomy cages, finding the others easier to cleanse, and more to the birds' pleasure. But the method of breeding in these cages we will elucidate along with *our* proven method. The reader can follow which she or he pleases.

For brevity, we will again quote from Mr. Burnham, his words being materially the same as are found in most works on this subject. "For ordinary breeding the male and female should be mated in a roomy cage, in one corner of which a perforated or wire nest should be placed. This should be covered with soft woollen or flannel at the outset, and every portion of the interior of cage, nest, feeding vessels, perch, floor, and walls should be *thoroughly clean*."

FEMALE LESSER RED POLE.

[From Appleton's American Cyclopaedia.]

[May be mated with the Canary.]

"Let the front of the cage have a southerly aspect. And from this day forward, after it is placed in position, it should not be moved, unless this becomes absolutely necessary, for good reasons."

If to this were added—"And then you will find the parents and the little ones wild as hawks, fluttering about in a confusion nearly killing to themselves, and all at the unusual act of moving a cage, and the fearful proximity of a human face"—the natural result of this nonsensical isolation would be before you, and you would cast about for some other method in which your affectionate influence over your tame pets might not be lost.

A lady of our acquaintance followed this system last season: the cage hung high; no one went near it except to introduce fresh food and water. The number of eggs was a mystery from beginning to end; the birdlets were never seen until they came out of the nest. Then the filthy cage was taken down and cleansed amid a hot confusion of fluttering, squalling birds. A tiny dead bird was found decomposing in one corner; the nest was thick with filth. Phew-w! how charming to keep pets in that fashion!

The prettiest and happiest plan is this: A roomy cage, hung in the usual pleasant location—where it has always hung, we mean—where the birds can be watched and chatted to, the cage cleansed daily, or every other day; being carefully handled of course, as a jar is liable to kill the life-principle at work inside the eggs. They will ask for a nest by carrying about bits of thread, paper, or whatever they can find, searching for a place to build on; then fasten in a wire nest, previously lined with flannel, the *bottom warmly wadded* with batting under the lining. Give them batting, short threads, thrums, all they want, until the nest is complete to the female's taste. Some birds love to line their nests with a pretty color. The author has a female who is not satisfied until a sufficiency of pink batting is provided, wherewith she lines her nest with an exactness and smoothness beautiful to see.

Let nothing be done to the nest that seems uninteresting to you. Peep into it, praise the little builders; they soon will become very proud of it, and especially so of your commendation. The first egg is laid; they are proud, happy; *you are delighted!* Peep in at it. O, how pretty! See them hop on the edge of the nest and admire it the moment you step back. They have a thing pleasing to their mistress: the fact increases their self-importance tenfold. Another egg: you are more delighted yet. A third egg: a third ecstasy on your part.

During incubation catch opportunities to peep at the eggs when the sitter comes off for food or exercise. By this show of interest, not meddling with nest or eggs, the mates learn to enjoy your attention, and trust you freely in all you do for them. If you have habituated them to changes, the female will not leave her nest wherever she be put, but rather enjoys the change.

Take the cage carefully down each time it is cleansed, but do not be over ten minutes—five is long enough—and be sure to have the room warm. In a well-warmed room they may *both* take the usual bath, for no harm will accrue to the eggs if the sitter be not cold when she returns to them. Her feathers may be wet, but that will not matter so long as her little body is warm.

Thus our sitting birds enjoy their baths regularly, and there has never been an egg harmed through the indulgence. The bath is always fresh from the well. In a *cold* atmosphere such a bath is almost sure to chill the bather, and, through her, the eggs; there-

fore the rule is, a warm atmosphere (70 degrees at least), or no bath during incubation.

If the female has given her nest a rolling lining of batting, it is easily kept neat, after the little ones appear, by clipping with scissors all the filth off the edges. This aid in cleansing the rim of her nest greatly pleases the female. She loves everything neat and sweet around her babies, and will of herself keep them so as long as she can. A nest of this kind will trim clean till the babes are about ready to leave it; should it not, have no hesitation in taking the little ones out (take them and the lining all at once), and fitting a square of old muslin over it, after laying in a bit of batting in a shapely way. Draw the corners back with a basting thread in as simple a manner as possible, or fasten them with pins, taking care to hide the points, also the heads.

Renew this lining each day, if necessary, till a desertion of the nest renders it useless. In replacing the birds, lift one at a time, being careful not to squeeze them.

These muslin linings may be introduced, should cleanliness make it expedient, every day after the birds are a week old. Allowed to mature in their accumulating filth, disease is apt to generate. Wild birds have no such filth to contend with. Their nests are built of rootlets, moss, etc.; the atmosphere, winds, sun, dry the droppings in a few moments, and they then roll off, leaving the edges all clean again. Hence those careless breeders of birds who mock at this womanly fastidiousness by asking, "Who puts clean sheets on a robin's nest?" but unveil their ignorance of Mrs. Robin's neat-kept structure.

There is no mistake: canaries are healthier bred with this care.

It often occurs the mother-bird will lay again ere the nest is deserted, when another must be fastened in as far from the first as the limits of the cage permit, as the babes, if too near, will crawl from nest to nest, soiling the new one and perplexing their fond mamma by struggling in beside her. Sometimes she scolds them off, but generally endures the little plagues without a murmur, considering them too tender and precious to be harshly spoken to. "Oh, mother-love, how fond thou art!"

By this attentive interest you have won the perfect confidence of your nesting birds. Whatever you do about them, for them, with them, after the first nest, is regarded as all right; and the female

will not leave her eggs for your proximity. When this confidence is attained, haste in cleansing the cage will be needless, as the sitter will only quit the nest long enough to bathe, when she will return to it and wait your leisure, contented as when hanging in the accustomed window. It is really worth the trouble to have one's birds educated to these habits. The eggs are less liable to come to harm, through the sitter getting angry or afrightened ; and the little birds are sure to acquire the parental confidence in you, and be tame. The author has a habit of feeding her sitting birds on the nest ; they love to have her, will stretch forth their sleek heads and call the instant they see her approaching with the dish of food.

CARE OF THE YOUNG.

When the birdlets are come forth, these tame mother-birds rise to the edge of the nest and permit her to aid in feeding them. It is a privilege very pleasing to her. Who would find it otherwise ? Generally, the father-bird comes also to do his share, and it is—"Feed me and I'll feed this one while you feed that one." Thus are the old birds first fed ; then all three supply the little open mouths uplifted with the twittering cry of hunger.

The labor of love is quickly over ; the tiny heads fall surfeited for a good hour's repose ; the mother cants her head, surveying the sleepers with satisfaction, and glides over them with stealthy care. The father-bird hops away to sing a praiseful anthem upon the beautiful felicities a wedded bird realizes when educated and cared for by a good mistress.

Very often it is necessary, in rearing young birds, to take the entire responsibility of feeding them while yet in the nest. The mother may get ill, or die, or acquire a habit of picking them. In either of these cases they will die unless the mistress takes them in hand, pitifully supplying their little wants ; and it is a very easy thing to do when once you know how.

They must be kept in a warm nest and lightly and warmly covered until the feathers cover the body, when, except the weather be cold, nothing need be put over them. A good mother-bird will not object to receiving strange nestlings in with hers if they be near the age of her own, and the same breed. She will care for them impartially. It is not well, however, to have more than five in one nest, as suffocation is liable to ensue if they are crowded. Such mother-birds are

not always available, though, and the tiny birdlets appeal to our humanity. We give them a proper nest in a sunny location—not too glaring—and prepare a food of the following: One-half a Boston cracker pulverized, one hard-boiled egg rubbed through a colander, and about two-thirds of a teacupful of sweet milk. Mix together, and boil till thickened, being careful not to scorch it. When done, it should be of a creamy consistency, barely capable of dropping.

This feed, we have found, by years of use, to be efficient, next to the parent-birds' care; and that the body in its rapid development, its tissues and plumage, matures hardily and beautifully thereupon without accessories of any sort, save the always employed necessity, pure water.

In administering, a flat pine stick is needed, very thin, five to six inches long, and about one-third of an inch wide, each end tapering to a blunt point. This paddle must be perfectly smooth, of course.

A slight hissing noise, imitating the old bird's call to her young, will rouse the nestlings, and keep them attentive while, by means of the pine paddle, the egg-paste is transferred to the little crops. A little practice will enable one to do this with skill, dipping each time what a bird can swallow comfortably, and gently inserting it into the open throat, being guarded against *cramping* it in, as birds rarely recover from injuries sustained in the throat. Three to five good mouthfuls will generally suffice. The feeder will soon learn about the quantity to allow. These babes are real pigs, and will overfeed if not consistently gauged. Watch the crop, and feed when empty. Properly filled, it will take an hour and a half to two hours for the food to digest. *Very* young ones must be fed oftener. A chick fresh burst from the shell will, if the paddle be filled and inserted in his tiny bill, *suck* the *paste* all off, and flutter his feeble winglets for more, so palatable is it to birds.

Feed at early dawn, as the parent-birds do, prefacing the food with a drink of water (using the paddle to drop it into the throat) and keep it up as often as required till sundown. Then cover warmly and let them rest.

Birdlets under ten days old must have nothing *cold* fed them. Take the chill off everything at feeding time. A spirit-lamp is handy for this. Without such forethought you consign them to death by cramps, inflammation, or wind-colic. When older, their food can be taken hot or cold at the feeder's convenience.

The pulp of a well-soaked fig is a healthy and palatable food to give them two or three times a day. For this purpose a piece of fig may be used which the old birds have picked the seeds from, as no seed or shuck must mix with the pulp when prepared. Soak in cold water till soft, then scrape with a blunt edge the inner pulp off the skin, excluding all fibre or bunches. Feed it same as the egg-paste.

The egg-paste is loved by birds of all ages. If cooked thicker, it may be given the parent-birds freely, as they dearly love to feed their young upon it, preferring it to the clear egg.

A small dishful may be set in the cage two or three times a day, taking pains to have it always fresh and sweet. Being cooked in milk it sours in a warm temperature; hence must—in warm weather—be kept in a cool cellar between whiles. Thus cared for it will keep sweet two days, or longer if heated to a boil each day. Will be palatable a full week thus scalded in cold weather; but be careful to notice the first taint, lest the birds get sick trying to feast on it.

In addition to the above, hard-boiled egg, stale bread, and if you please, a split fig, along with the customary diet, will be found no too great variety during the nesting.

LOOK OUT FOR SHUCKS AND OVERFEEDING.

Observe always to *discard hemp-seed* from the cage so soon as the eggs begin to hatch, as this seed is *very* injurious to nestlings. The kernel we never knew, of itself, to harm a bird, but the shuck is the part which effects the bad result. The parent-birds frequently, in their haste to supply the hunger call of their young, will swallow a bit of the shell, mayhap half a shell, in picking up the kernels, and these are disgorged along with other food into the baby-craws, and are *sure* to create stoppage and inflammation. Only last season (May, of 1883), I opened two birdlings who had died this painful death. The first—ten days old—the stomach (not the craw) crowded to repletion, was in a highly inflamed state; an unshucked hemp-seed of medium size covered with chyme stopped the passage, preventing the stomach emptying into the duodenum. (I suppose we may use the same physiological terms in describing birds as in the dissection of other anatomies.) This seed had blocked the passage so long several rape and canary seeds, also swallowed whole, had put forth sprouts.

Bird No. 2—nine days old—stomach in same state of inflamma-

tion, but not crowded so full ; had passage blocked with bits of hemp-shucks crowded into a mass and glued, as it were, into a hard substance with the chyme, which, while it softened was not sufficiently acid to transform them into that homogeneous, pulpy matter requisite for the healthy action which nature, when not too harshly pampered, is sure to maintain.

Both birdlings were in good order, plump, healthy, and but for the injudicious use of hemp-seed, would have lived to become strong, noble songsters.

If taken in time, nestlings may be saved, when attacked thus, by the free use of sulphur-flour and elm-bark. We will mention the disease, however, in an appropriate place.

Sometimes the parent-birds are so assiduous as to overfeed their young, who will exhibit signs of surfeit by refusing to eat, and keeping up—sometimes constantly, sometimes at intervals—a distressful tasting which is easily heard by any one in passing by the cage ; and the only chance of saving their little lives is for the one in charge to dose them thoroughly with a mixture of powdered elm-bark and sulphur-flour, in equal quantities, administering plenty of water—as it is wanted—pure *cold* water ; and providing abundance of green foods for the old birds to tempt them with. The bark and sulphur must be given two or three times daily for a week, and *no rich* foods permitted in the cage at all.

It is frequently advisable to feed younglings, weak from some such misfortune, on finely minced raw beef ; that which is perfectly lean and tender being selected. Let the mistress mix it with sweet cream and feed one or two mouthfuls by means of the wooden stick or paddle earlier mentioned. Three such meals per diem is ample ; one may be sufficient.

Windy foods, such as cabbage, turnip, sweet corn, etc., should never be introduced into a breeding-cage ; but other green foods may be given in any quantity.

A piece of *old plaster* is a *desideratum*, as it helps to form the shell, and females are less apt to get egg-bound when freely supplied with it. If the female sweats in her nest, keep in the water-cup one drop each of mercurius and nux vomica, providing plenty of green foods and a strengthening diet, as the disease proceeds from an inactive spleen and liver.

Young parent-birds sometimes ignorantly let their young thirst to

death. The little ones persist in teasing though their crops are full. Tempt the former to supply the nest by often introducing fresh water ; or else water the younglings yourself—using the pine paddle—first taking the chill off the water. The old birds will notice the act and soon take the responsibility off you. It is also necessary, sometimes, to thus teach young parent-birds the need of *feeding* their newly hatched young. If when a few hours old no food shows in the crop, yourself must feed it on some warm egg-paste. The duty will be exacted a few times only.

The female that sits heavily on the nest will cripple her young unless they are taken from her *very early* and brought up by hand ; or they may frequently be given into the male bird's care in another cage, where the cages are safe with open doors, the birds given the liberty of the room. He, thus privileged, will care for them while the female fashions another nest, and will not desert them until fully weaned to self-care.

When the birdlets begin to peck, supply them with plenty of soft foods, such as stale bread soaked in either milk or water, bread and milk, boiled rice in sweetened cream, egg-paste, soaked rape-seed, and such other soft food as may be convenient. Canary, rape, and millet, may be set in in little dishes the while for the busy little ones to work upon ; but a sufficiency of soft foods *must* be provided until the babes are six or eight weeks old, as the little bills are quite soft up to that age, and shucking much seed is liable to injure the inside structure so as to destroy the clearness of the notes. To be a fine songster the inner bill must be perfect.

In caring for all ages and classes of cage-birds supply fresh water daily. Twice a day is none too often.

OTHER USEFUL HINTS.

Never push a sitting bird off her eggs. Many do this, and afterward wonder why all the eggs do not hatch. Pushing the sitter off is one great reason, some of them sustaining a jar as she angrily flies out. If desiring to look in the nest, either wait till she seeks exercise, or else take the cage carefully down, and leave it a few moments in a strange but safe location, when she will be attracted off, and you may gaze to your heart's content. But do not keep her off too long, and do not be *abrupt* in any action.

Young males sing most in separate cages. They will do finely in a general cage if not kept quarrelsome through lack of plenty to eat. Paucity of regimen creates dissension; yet there are birds who will keep a quarrel brewing continually if they have companions around them. Jealousy is commonly their fault, and they must either be made chief favorite (and that will rile up some other), or put by themselves. Sometimes a little bird will pick its mates—a young female is most apt to be the culprit—and it is *imperative* she be kept alone till the fault is forgotten, otherwise she is a spoiled bird for all time. She will pick her young to death.

Now that we have waded through the pretty amusement of breeding from pet-birds in a private and limited way, we will take a step further, and show you how to breed from a large stock in also a pleasant manner, and with profit and economy. In the first place, select a room with a southerly prospect, and have the cages built against the wall; one row or a double row, as you please; but let no one expect the couples in the lower row to do as well as those above. They will quarrel more, be uneasy almost constantly, for it is not in bird nature to enjoy the tap-tap of other birds over their heads. So, unless *obliged* to utilize the room in this way, put only one row of cages along through the central height, three to four feet tall to two feet wide and one and a half foot deep. Between each section there must be a long sliding panel for convenience in weaning the little birds. Wire bars must fill the space when the panel is removed, and a couple of long perches run through to aid in connecting the two sections. When the little ones begin to plague the mother-bird, or rather, when she gets tired of them and turns her attention to another nest, slip the babes into the next compartment, remove the panel, adjust the perches, and the father-bird will feed them through the wires until they are able to care for themselves. The base-strip between these sections must be low, and both supplied with soft foods in general dishes—that is, there must be openings left through which the dishes are pushed half way. The old birds will eat from one part, while the birdlets imitate their example on the other side. We have found this the easiest and most satisfactory way to wean younglings.

We recommend the couples be never separated after once mated; the nests are always a better success where they stay together. Some females so resent the removal of their mate as to leave their eggs; should they not do this they will be uneasy, take less interest in the

nest, and raise only half the eggs—if they do that. They are angry at approach, will fly about, claw-hole their eggs. In fact, the female has many ways of showing resentment for your unkind removal of her Dickie, when she longs so much for his care.

Mr. Rittenhaus says : “I used to pair my male breeders with two or three mates ; but I found, on trial, that the best nests—those that produced the largest broods—were from the female not thus bereaved. Left to herself, she never raises over three to a nest, not generally averaging so many, while the couple not interfered with are almost sure to hatch and raise every egg—four, five, and even six. Counting up the progeny raised by each method, I discovered that the happiest females supplied the stock more numerously, and I have striven, late years, to reserve as many males to breed from as I have females ; but am sorry to say I cannot always manage to do so, the call for first-class songsters being so great. I would, however, recommend that matched pairs be not separated while breeding so long as they do well and are contented together.”

There are in market nest-frames of various styles, some to hang to the wires, some to catch in by other methods. They can be bought by the dozen at reasonable prices. Provide two nest-frames to each pair of breeders, and fasten in one as soon as they come to terms. Provide batting, cow's hair, rabbit's hair, and any fine rootlets obtainable, short thrums of wool, the ripe cotton-pod, the silky milk-weed pod, etc. Should some of the male canaries show disposition to pull her work to pieces, you will have to deny her the happy gratification of building, and yourself fashion the nest. Do not disturb the nest after the female begins to deposit her eggs. Such of them as prove poor mothers need not sit after the first nest. Their eggs may be divided to other nests, where they will be adopted, and hatched in good shape. By this exchange the number of your stock will be materially augmented, and the bother of hand-feeding spared you. As we mentioned previously, most mother-birds will receive two or three young into the nest with her own, providing they are near the same age. They do not like to adopt them after the pin-quills begin to burst, though, should your stock of breeders be inclined to act wild and resent human proximity, it will be advisable, to secure safety to the nests, to disturb them as little as possible. If there be tame pairs among them, and their cages can be so adjusted that the wilder ones may observe their ways, confidence will be soon acquired. Where

the male sings to his neighbor's wife, thus creating jealousy, a screen of white muslin must be arranged between the cages.

Buy seed by the bushel. The best Sicily canary-seed ranges from \$3.25 to \$3.50. Rape is about the same price. Millet and hemp come about \$1 cheaper. Do not be *liberal* with hemp-seed if you wish to keep breeding birds in good health. A bit of raw beef, minced fine, is better for them, given some three times a week. Buy sea-biscuit or Boston crackers by the barrel or half-barrel, eggs in quantity, and cuttle-bone by the pound. River-sand can be procured by the cart-load for about \$1.25. And broken bricks—have we mentioned the value of uncolored brick for house birds? They love to whet their bills on it, peck it, eat it, and it is one of the best articles that can be introduced into a cage. Plenty of bits can be obtained for a few cents at any brick-yard.

When entering this business on a large scale be sure to select good stock; have a fine songster to teach the young, and our city fanciers will be glad to buy of you at a certain sum per dozen.

When from earth the song-bird dies,
The human soul—a-hungered—cries
Him back again. And Cupid sighs,
And folds his wings.
For Hope beside the warbler flies;
Love's sweet dreams with him uprise;
Gloomy bodings lose their guise
The while he sings.
Sad Cupid, sighing, plumes his wing:—
"No work for *me*, no birds to sing!
I'll hence, and let the earth go mad!
No birds! no birds! 'tis very sad!"

CHAPTER V.

THE AVIARY NIDIFICATION.

NIDIFICATION: "The act or operation of building a nest, and the hatching and feeding of young."—*Webster*.

Ever marvel that so few people have an aviary in their homes. What vision prettier than twelve to fifty gay little birds fluttering around the green boughs of a lifted tree, as one takes rest after weary labors? Their nervous flights, merry song, and interesting antics, quite charm all else from the harassed mind; and when, at last, you take reluctant leave, your heart is lighter, mind brighter; you feel like a new being; for you have been amused to really *forget* your troubles.

The birds are sure to do this for you every time you go to them. No amusement is so cheap; none more desirable. There are always variations—new and interesting to chain the eye and excite comment. A living kaleidoscope is that room of feathered pleasure-seekers! You never tire of its attractions; neither do the children; and your visitors are always gratified for the privilege of a glimpse.

Is there an invalid in the family? Then place her—or him—before the screen door of your little aviary. How soon pleasant emotions arise, and the mind is drawn from self! Aches, pains, are forgotten! Presently a healthful action surprises the long-sluggish blood, and a cheery laugh ripples across the pale lips. The invalid shows symptoms of returning health. The active magnetic current thrilling those tiny beings has struck away the steely bolts of that morbid mind and infused the whole system—earthly and spiritual—with a fresh and healthful tone; for they are creatures of joy, Cupids with cunning wings—no dreary influence about them!

A small home aviary is cheaply and easily constructed in the sitting-room. It is best in this room, because the family most affect it,

and a more uniform warmth is here throughout the winter. It is economy to warm the aviary from such room ; besides, the birds best enjoy being near the family.

One hesitates not to throw out a bow-window for the accommodation of flower-pots, that are really much greater care to the housewife than a goodly flock of birds would be. Make the bow-window a little deeper, enclose the space—squarely with the room—with wire-netting on several long frames, the central one hung with hinges for an entrance. There must also be screens to the windows, for summer use.

A green tree in the centre of this enclosed space, a few pots of tall asparagus or hardy rose-trees, a flock of gay little birds skimming about trilling merriest melody. Is it not a fairer vision than rows of potted geraniums, etc. ? Will not they yield you more solid enjoyment than the work-creating plants ? And you can make the scene a perfect fairy bower if you wish.

Rootlets that have been previously cleansed and dipped in a pretty dye—as grasses are dyed—may be bunched together in any shape and fastened to the walls. The birds love to light on them, and will build nests in them of the batting, thrums, etc., you may generously supply for the purpose. And one *must be generous* with the supply to encourage the builder, otherwise she will insist on the usual artificial style of nest, and it will have to be provided. There must be on the walls as many knots of roots, or fancy branches, or hanging nests, as there are females in the room.

Hang about two or three tin cages well supplied with foods, the doors securely fastened open. It is a better and less wasteful method of feeding than the customary habit of littering the floor. Besides filling the cups with seed, one or two seed-troughs should be hung by the windows, or set on brackets put up for the purpose. Crackers, sea-biscuit, stale bread, cuttle-bone, etc., confined between the cage-wires, will keep birds, loose in an aviary, so familiar with these common prisons that no great resentment is shown when shut up in one ; on the other hand, allowed to forget the use of cages, they will evince as wild terror in the confinement of one as any wildling fresh caught.

If the large central tree be one whose living roots have been lifted with it, carefully bury them in a large tub filled with earth. Occasionally watered it will last several months—or until the birds pull it to pieces, and they'll not rest much so long as a green leaf hangs. The

law of destruction is *very fully* developed in these little busybodies. That which pleases them best is the thing sure to be sooner demolished. A sheet of zinc should be laid beneath the tub to preserve the floor from rot.

Cover the floor with clean, dry sand to the depth of at least three inches, and it need not be renewed oftener than twice a year; running it through a sieve once a month, or less often, will remove all accumulations of filth, etc., leaving it clean and wholesome as when first entered.

A good-sized water-trough may be fastened to the window-seat in which to set the baths, or, better still, elevated on cross-legs, with a perch-rack above, and set in a sunny location. The trough and rack combined can be fashioned prettily, and painted in lively chromo style, and it forms a handsome ornament as well as an exceedingly convenient one. The water is protected by a light table-board crossing the second tier of perches. On this table-board a tall block is fastened perpendicularly, from the top of which extend many swinging arms with swings and bells attached—a charming little trapeze for the birds' enjoyment, you see, and they *do* enjoy it right heartily!

Something has been said before this about *matching* birds in cages ere freeing them in the aviary, if one is particular to raise handsome stock; being not particular for this result, merely remove the quarrelsome ones, and let natural order prevail. Old birds often begin laying in January, young ones not earlier than March—and all are very earnest in the work up to the middle of August.

Remove the little birds from the aviary as soon as they begin to fly about, as they tease the old birds when at liberty, and many times are seriously injured by some impatient singer in whose way they are. The females sometimes evince an irresistible longing for their plumage to line nests with, and will have a pretty youngling stripped ere the act is discovered. The avaricious little builder ever selects a rarely handsome bird for this purpose. The evil may occasionally be cured by introducing bright-hued fleeces for her gratification. The taste birds frequently exhibit for pretty things is really a marvellous study when combined with other traits, and a painstaking mistress will find pleasure in cultivating it.

These drawing-room aviaries are a speciality of ours. We would sooner dispense with any other portion of the house than the small aviary opening off our private apartment. It is built under the piazza

roof—a glass closet, seven feet long by five feet wide, perfectly warm and tight, and is easily heated by the register, which is situated near the entrance. In pleasant weather the window at the end of the aviary is thrown open—being made to be thus used—and the birds have larger circuit for exercise, as half the piazza, corner and front, is enclosed with wire netting, and fitted up with trees, etc., for open-air enjoyment. And you may be sure it is enjoyed!

Often the inquiry is made of us—How would we manage a more extensive aviary—say of several hundred birds? We reply: Exactly

A BATTEN NEST, MODELLED AFTER BOPEEP'S ARCHITECTURE.

[From an original sketch by the author.]

on the same principles governing this small one of one hundred and sixty odd, save that the room should be more commodious, the number of trees, troughs, and racks augmented; feeding racks fastened to the walls to obviate the accumulation of cages. No great ingenuity is required to manufacture these feed-racks, as they are fashioned on the same principle as the folding towel-rack, the central piece being three inches wide, same length as the perches, fitted with boxes for seed, and with cross-wires to confine the solid foods in their places.

Trees should be placed through the *centre* of the room only; being set close to the walls, convenient depositories are formed for filth, which is concealed until bad odors arise; then, of course, it is found,

and there ensues a disagreeable labor in the removal. The bunches of roots, racks, etc., are neater ornaments for the walls, and the birds like the arrangement quite as well.

If warmed by steam-pipes, register, or stove, boxes of wire-netting must encase them, else the birds will meet with fatal accidents, attempting to light on them when hot.

Aviaries should be contrived with a view to small labor, wholesomeness, and solid happiness for the feathered occupants. Filth is *never* conducive to their enjoyment. They are creatures of cleanly habits, and appreciate the one who so keeps their domain with a deep and abiding affection.

Canaries will interbreed with the chaffinch, goldfinch, linnet, siskin, bullfinch, serin, lesser redpole, citrilfinch, and greenfinch. There are also other finches that will interbreed with the canary, such as the African cinder, the nutmeg, silverbeak, Brazilian, red throat, avadavat, and others, for the finch tribe is numerous, and, when rightly treated, plastic. To be successful in mule breeding, the canary hen, when paired with alien birds, must be out of sight and hearing of her own kind. If she has no memory of her own kind, she will do as well as when paired with the canary. When wishing to raise mules, always conform to these instructions.

The male progeny of the canary and goldfinch are brilliant songsters, but will be worthless for breeders, being mules. Select a canary of very bright colors—clear green and bright orange predominating—and the offspring will have brilliant plumage. Should there chance to be a blaze on the face, the breeder may expect to obtain a fabulous price for the specimen. The linnet matched with the canary produces excellent singers, but of not very handsome plumage.

It is generally remarked that the canary is a poor nest-builder. Such assertions are not fair, since fanciers have not taken pains to test their abilities in the natural direction. She will build in trees or tall bushes, and build nimbly if the proper materials are provided. Grasses, sticks, hairs, etc., are articles she scarce understands using; but produce the bursting cotton-pod, a few withered leaves of fair size, bunches of batting and other fleeces, and—if she has *enough* of them—she will prove herself anything but a “poor builder.” She will never tear her nest in pieces if sufficient building material is granted wherewith to fashion it exactly to her mind.

Birds accustomed to artificial nests may never get initiated in in-

dependent building. Young females, however, will show ability, if, as before remarked, they are provided with proper stuffs.

Canaries in the aviary are fed on the same regimen as the caged bird. Grated egg and cracker is especially adapted to the aviary. Set it in in dishes—several of them—as equal division prevents a tendency to quarrel; minced raw beef should be allowed once or twice a week, or oftener, as one judges best.

CHAPTER VI.

HOW TO TAME AND TRAIN CANARIES.

ANY consider a tame bird little less than a miracle, and the trainer thereof rather more than a common human. And he is a trifle *wiser* than the average human, since he has discovered, and acted upon, a fact appertaining to the feathered race which few take time to observe, viz. : *bird intelligence*.

Once accept the fact of this intelligence, use it as you use other intelligence, and most astounding results will follow. Canaries can be taught nearly anything ; some even have learned to repeat words and sentences.

The object of this chapter is to advance a few simple hints, by which those desirous to own tame pets can form a system of operation and achieve whatsoever lesson the mind has fastened on.

In the first place, study the *nature* of the bird you would teach. No two have the same disposition. They vary quite as distinctly as children in this respect, as comparison will affirm. One has a placid, sweet nature, and must receive the gentlest of manipulations, cooing words of earnest affection. A harsh act, a stormy word, and the quiet little creature shrinks from you in terror, and no future patience will quite restore the calm trust thus despoiled.

Another is a wilful, hot-headed rattler, nervous, gleeful. Use him with cheerful zeal, whistle, laugh, be pert in chatting to him, and never be impatient. A temper upsets his nerves. He will best take to funny tricks.

Yet another is gluttonous. Sympathize with the appetite, pamper it. Let him hunger for a special dainty, show him a trick, just how you wish him to do, and pay him with the dainty. Next time he'll hurry through the lesson as a means of showing what he wants. Be sure to let him have it.

Another is crazy to fly. Teach the trick and let him fly.

Another is inordinately vain. Praise him, grow ecstatic. Teach the trick and have a rapture over it. Feed him his best-loved dainty with such show of adoration as he can but comprehend. He will absorb it all as his *just* due.

Sometimes, not often, a bird is ugly ; coaxing, patience, love, feasting, are no inducement. He must be coerced, made to *fear* his master. Once fairly humbled, he is tractable, but always surly.

Here is a whimsical bird. Go to his cage, he rushes to the farther side. Put him in a new position, he'll neither eat nor sing. Give him a dainty bit, he takes pains to be frightened. "Whimsical, obstinate," you say, provoked at so persistent a disregard of your kind attention. He *won't* learn a trick ; yet he is not ugly. Now, *what* can be done with such a bird ?

Patience, friend—do not let it fail you. Your industry is not lost. Watch that bird from an outside point whence he cannot see you, and the reward is apparent. He practises in private all he is taught. Humor the oddity. Presently the tricks will get so familiar by private rehearsal he performs them at any time. *Then* congratulate your patience.

It is needless to occupy more space with these little characters ; any one can reach the "true metal" of a bird by watching and pampering it ; and can teach what they will if patient, gentle, and loving toward them.

HOW TO TEACH A BIRD TO KISS.

This is very simple. Hold the bird lightly, chatting in soothing tones to him till he is quiet, then kiss the little bill repeatedly, still soothing him with gentle talk. Kiss the bill again and again, till he ceases to struggle in fear of the salute ; then bestow a final one—a kiss of approbation ; release him to partake of an enjoyment. Repeat this next day, several times a day if you wish to teach him quickly, and he soon resorts to this performance as a method of coaxing, opening and closing his bill between your lips exactly as you have done by him—so nearly as bird imitation is possible. If he picks your lip, do not notice it before him. Never confuse him with more than one new trick at a time.

Never touch the cage of a nervous bird for any purpose without first calling the tenant's attention. "I can't go near my bird, not

even to give him food, without he's scared half to death," a lady said to us ; a real anger in her feelings toward the bird. We explained *why* she frightened him, since when she has adopted the above system of claiming his attention, and finds him always tractable.

Birds are always busy one way or another, and an abrupt action startles them. One may be picking industriously in the cage-bottom ; there comes a sudden grasp on the cage, a jerking of it off the hook ; his heart leaps, he flutters madly up ; a face looms up over him, he beats about more frightened yet. Reader, do sudden proximities never startle *you* ? Aye, you press against your palpitating heart, and angrily gasp, "Why didn't you speak?" Sure enough ; why ? Because the person was heedless, just as you are heedless in approaching your bird, and in thrusting bits into his cage.

A call, a whistle, and all this beating about is avoided.

If you remove the seed-cup, first call attention as you approach, let him see your hand, that you mean no harm, then take out the cup ; and be particular to show it to him ere putting it back. Likewise, show him the different foods ere touching the wires with them.

A few weeks of this care will win him to a perfect trust in human proximity, when, if you *do* chance to startle him, the moment he hears a sound of your voice, or catches glimpse of you, his fright subsides. He seems to think, "It is mistress ; she won't hurt a little bird !" and goes quietly about his business. Observe this habit of approach if you wish to tame your bird, as *he never will tame* so long as human proximity frightens him. Remember this, and gain his trust.

In holding a bird, do so lightly ; let him settle his feet comfortably, also his wings. If you wish to retain him some moments use both hands, the feet resting on one palm, while the other covers his body ; lightly, remember, they do not bear squeezing.

HOW TO TEACH HIM TO SIT ON YOUR FINGER.

Set the cage on a table near where you wish to sit. After a little conference with the bird, introduce a finger between the wires near the favorite perch, holding it there patiently, yourself occupied with book or paper the while. Presently, as it shows no disposition to harm him, he cautiously goes up to examine it. Then he picks to ascertain its quality, maybe he fights it. That is well ; he no longer fears it. Pay him ; put him away.

Next day, try him again. He may go farther and light on it, or

he may be several days getting thus familiar. Be patient. Once this step is attained, vary the programme by introducing the finger in other spots. He will soon light on it at any point or angle. Then try the door, at first thrusting the finger under it, next time fasten it open, blockading egress with the rest of the hand as one finger extends within. When he perches on it, draw him forth a little. Next time tempt him to the perch outside a little, and so on. In a short time you have but to open the cage-door, uplift a finger, and he is sure to fly for it ; and he may thus be called to any part of the room to rest on the familiar perch.

Most birds learn this familiarity in a few days, yet there are those who will be two to four weeks about it.

HOW TO EAT OFF ONE'S FINGERS.

Let him hunger several days for some favorite dainty, say a fig. Show him one ; he is elated, but do not let him have it. Spread a few of the seeds over the end of your finger, and offer them thus close by a perch. Give him time for speculation : he will in time snatch off a seed or two ; if he utterly refuses, put him sadly away, leaving the fig where he may see it. Next day, try again ; he'll take one or more. That will do. Do not plague him longer ; give him a piece of fig in his cage and let him alone till next day. He may feel independent, being surfeited, and refuse to pick. No matter, put him away without his fig ; the *next* day he is *sure* to pick off all on the finger. Praise the act ; pay him. After this it is plain sailing.

Do you wish him to eat off your finger when without the cage, conform to the rules by which he is taught to sit on the finger, etc.

OTHER CUNNING TRICKS.

To see a bird lay its feathers at a mirror after bathing is a cunning sight, and is easily taught. First accustom him to a mirror by keeping one in the cage ; he soon learns to value it ; then is the time to take it away. After a bath, set it in the cage for an hour, no longer. When he has thus been robbed several times, he will cleave to it the moment it is restored, which must be while he is dripping from the bath, and he will keep close by while pluming. To pay him, leave it in a little longer. A few days more of this formula, and he has acquired the habit of observing his reflection during his toilet. Never take it away again.

A certain lady, owning a pair of canaries, whips them with a little stick to make them sleep in the swing together. This is sheer pig-headedness! Any one may attain this pretty result by removing all the perches as night comes on, when both will take to the swing. After a few nights of this precaution, they get used to the swing, and will wish to sleep nowhere else; then the perches need not be removed at dark.

A doltish man cut off the tail of a fine singer because he would perch at a certain angle, twisting the feathers out of shape. To take out the perch was the proper way, as such a bird is best off in a swing. The bird never sang after this "curtailing" incident till a new tail grew, which it was some several months doing, as I understand.

TO TEACH A BIRD RARE NOTES.

But one at a time, remember, as he gets confused with *many*, and thus will catch none. A toy whistle, a flute, or a reed is best. The bird-organette and the bird-whistle recently patented are getting into favor with bird owners as assistants in teaching new notes. Play a few notes slowly, watching the bird. Some one will please him, you will see. Select that one; play it over and over. You are sick of the monotony, but don't give up. Next day play it again by spells throughout the day. Play no other till the bird sings it. Even then play no other for several days; he must have time to practise it with variations, or he'll forget it in his interest with the new selection. A young bird will acquire many fine notes in this way, beginning with him at the age of six months, or even five months, when the voice begins to change, and teaching till twenty months old. Birds rarely catch a new note after two years of age, certainly not with such readiness as a younger one.

Any bird will sing throughout the evening if encouraged to attain the habit. Merely give him a brilliant light, and keep him awake. Being used to retire at sundown, he will incline to ignore the light for a few evenings, when he must be kept active by attention. Chirp, whistle, toy with him. The third evening he will venture to sing; the fourth he will sing more. Now a bright light is sure to keep him roused, and in songful ecstasies that seem sweeter heard in the night. Where many birds are collected, only one requires this encouragement; his song will enliven the others, and each little throat will trill

forth its melody. This is all the secret of breeding "night-singing" birds. If you buy one of the so-called "imported night-singing canaries," do not get in a habit of leaving him to early slumbers in a dark room, or the imported (?) treasure will have to be taught this talent over again just as another canary would.

HOW TO EXPAND THE VOICE.

Mr. Rittenhaus gives the following: The greater the compass of the voice the wider the range of its training. Those laws which govern the possibilities of a prima-donna's vocal education are, in a way,

BLACK CAP CANARY—Female.

[From an original sketch by the author.]

applicable to the successful tuition of singing-birds. The prima-donna teaches herself to expand her chest by deep inspirations, etc., when the muscular system is freshened by repose, and in a consequent pliable condition.

We cannot reason a bird into a habit of long inspiration to promote this desired result, hence we must attack nature with that common-sense treatment which shall render the fibrous body flexible, and then, by constant practice on *long, trilling flute-notes*, test their expansive powers more and more each day.

To render the muscular body flexible, a *soft diet* is absolutely essential. Seed diet gives the muscular body *compactness* of strength ;

therefore seeds must not enter—unless we except rape-seed—largely into the selected foods which shall constitute the songster's regimen during the first eight months of his life.

He must have soft diet enough to keep the bowels lax from the moment he bursts the shell until eight months old, or till his teacher considers him perfect. Boiled eggs, grated with bread or cracker, and boiled in milk, soaked rape-seed, etc., are best for the nestling; when able to feed themselves, bread and cracker crumbed in milk will constitute his principal food. Some seeds must also be allowed; and a little lean beef (tender), chopped fine, may be given once a day. When egg is given, omit the beef. A little wing exercise aids in expanding the chest-tissues; but fanciers cannot often afford this luxury. When permitted, sunset is the hour for the indulgence, as the singing exercises are not then interfered with.

Lax bowels show the muscular system to be pliable, while tight bowels betray a flexible tension that cannot be used beyond a certain limit. But care must be taken to prevent too excessive laxness. The droppings should not be spattery. If they become so at any time, introduce a dryer diet till better, or consult the medical chapter as per symptoms.

A variety of other foods may be given, in a reasonable ratio, to increase the richness of the blood and health of tissue, as the first eight or ten months of a bird's life involves—and especially when educating any given capacity—great vital strain. It is the *growing* period, and if improperly nourished *then*, the mature bird will never amount to much—will not in fact live out half his natural days.

Eight months have brought the bird to maturity; the diet may now be changed more exclusively to seeds, unless the owner may wish to continue to test the capabilities of expansion of tissue, and further progress in musical culture; but we would recommend the diet be of a dryer character after eight months, in any case.

TO PREVENT CHOP-NOTES.

This is a discipline requiring the close attention and patience of the music teacher. But it pays. A bird cured of chop-notes, and faithfully taught with flute and triangle, is worth a generous price. The formula—which embraces the rules for developing and expanding tissue—is as follows: Soon as able to feed themselves, remove the young songsters out of hearing of all birds given to chop-notes, to

a sunny room, and range them along the walls in cages that have coverings of white muslin, so arranged as to admit plenty of air, yet prevent the tenant taking interest in external objects. He can see to eat, to hop about ; the sunny atmosphere invigorates his blood ; he is in a state to notice and enjoy sweet strains ; and all the more, as they are his *only* pleasure.

The morning should be given more closely to musical exercise than the afternoon, as the birds incline more to practise from dawn till noon, singing more carelessly as the day wanes. Mr. Rittenhaus says : “ While the baby-warble continues, we give them three hours’ exercise in the morning ; only one hour after meridian. But when the voice begins to change—some begin in the fifth month, most change at six months—then we spend more time teaching and perfecting the notes, often passing the entire day in the wearisome task.

“ A succession of twenty or less notes must first be thoroughly practised by the teacher, on flute and triangle, perhaps a harp or other instrument, till he, or she, is safe to play them in all sorts of combinations without introducing others. Six to a dozen of these notes must be hit upon for a basis—or common practice—and played over and over, bringing in the other notes now and then in judicious order, which will not confuse or sound rattling. When the voice changes, these extra notes must be played as often as the others, till each pupil has them pat ; which he is almost sure to do by the time he is eight months old. The teacher will ever be alert to catch the first break into chop-notes, and on the instant it is detected the sweet guiding strains must halt and drop into a harsh, discordant noise, sufficient to drown the chop and scare the birds.

“ Always let the same discord meet the chop.

“ When thus broken in upon a few times, the birds will avoid the cause. Should some of them persist, however—the discord not proving an efficient remedy—the teacher must strike on the cage holding the unruly pupil with a long stick, each time a chop issues therefrom. It must not be done in too harsh a manner, lest he become too scared to try to sing again.

“ Admonish lightly but promptly, and be *patient*. Time and patience are the requisites to achieve success ; for you *cannot drive* a bird, but you can kill one trying to.

“ The teacher must occupy a position which will enable him to strike any cage without rising or rustling. The birds must not see

him, or the instrument he is playing upon. There must be no sound of footsteps, or moving about, to distract the little pupils from the music ; not even a whisper.

“At sunset the covering can be taken off the cages, and the birds allowed to look and chatter to each other till bedtime, when the covers must be readjusted. If the birds are permitted to fly about during the sunset hour, it will be all the better for them.” Mr. R. further says : “We keep the fibre of licorice-root stripped up, tied in little bunches, fastened in the cages of our singers, for them to chew upon, and think it has a salutary effect on the vocal tissues. We put it in the water-cup sometimes, when the birds incline to play with it instead of eating.”—“If a bird that has been trained in the above manner can receive a couple of weeks of the same instruction when recovering voice after his second moult, his song may be said to be *perfect*, in the broadest sense of the word, as there is no period in his life when practice is so enjoyable to him as after those weeks of his first entire silence.”

FAMILIAR ASSOCIATION.

It is pleasant to have feathered pets fluttering about one with the joyous familiarity with which dogs greet their master, children embrace a parent ; and this familiar association can be accomplished by a few weeks' patient care. Clip the wings to a thinness that will make flying impossible ; then teach him not to fear you, by conducting in so gentle and affectionate a style as to win confidence. Being incompetent to fly, the matter of handling him is simplified, and you can teach him any trick, habit, pantomime you please. But in carrying out your plans, never omit to *repay* his docility.

Birds are most easily trained into pantomime tricks, if they be tamed in the nest. They should be taken from the parent-birds when about ten days old and reared by hand ; handled as they mature, and allowed all the privileges of hopping over your person, nestling in your neck, hair, etc., exactly as if they were spoiled favorites, they become tractable to almost any degree. But if a little too sportive on the wing to meet your wishes, there is a good remedy always available, *i.e.*, clipping the long pennons.

Birds are peculiarly devoid of hypocrisy. What they feel is at once disclosed. Where they love they fawn ; where they hate they fight vigorously. And their instincts are *never* incorrect. Let a

strange person approach their cage, and their conduct will give you a clue to that person's character, or rather, disposition, such as *your* dull faculties would be months in ascertaining. Let one with a harsh, unloving temperament creep up to them ever so blandly, and they beat about in an excess of terror ; while another, amiable hearted, a lover of birds, etc., will be greeted with calm composure.

CHAPTER VII.

HOW TO SELECT A BIRD WHEN BUYING.

HERE are several distinct varieties of the canary : the German, or short-bodied bird ; the French, or long-bodied bird ; the Belgian, which is the largest canary extant, and is also the most amiable of the species. Then there is the Norwich crest, the Lancashire crest, and other styles, which are derived from painstaking breeding, such as the London fancy, spangled, etc.

Almost everybody is acquainted with the historical origin of these home pets, and it is scarcely necessary to repeat it here ; yet as a book on canaries is never perfect without it, the duty is apparent.

It is stated that, some three hundred years ago, a vessel left the Canary Islands bearing a few score of the native birds. When off the coast of France a fierce gale struck her ; her fate seemed imminent. The humane captain bethought him of the little helpless prisoners, and caused them to be liberated. Bless him ! That humane act should canonize him in the hearts of past, present, and coming ages. Its product cheers four-fifths of the world's civilized homes. Yet no monument is erected to his memory !—at least we have never heard of one !

Freed from the plunging vessel, the birds flew to land, and set up a colony in a “merry green wood.” Soon their delicious melody attracted the people's attention, and straightway every home coveted one. In a short time none were left to enliven that wood ; all were again in captivity, the hunters of them realizing large sums for their sale. Germany, France, and Belgium took to rearing them on special patterns. Germany cultivated the song, France the form, and Belgium the size—each nation successful in its attempt ; eminently so !

The native color of the canary is said to be a greenish-gray or bronze.

The German unmixed breed is five to six inches in length ; the French unmixed, *perfect* breed is six to seven and a half inches long, with very high shoulders and straight legs ; the Belgian has humped shoulders, rough chest, long, straight legs, and attains seven to eight and a half inches in length.

In purchasing a bird, its *health* is the greatest perplexity. The color and song are evident the moment the one is seen and the other heard, but an inexperienced eye cannot judge the health so well.

Observe the feet : if perfectly smooth, the bird is not over one year old. Little ridgy circles at the joints indicate the age to *exceed* one year. Should the dealer avouch such an one much younger, do not invest, as there is scrofula in the blood ; it is liable to attacks of vertigo or epilepsy. Set the bird in the sunshine ; note the nails and mandible : if of a chalky pallor, the blood is impoverished (by scant diet), or it is sick. The bill—even of a snow-white bird—must have a rosy glow, as must the claws ; and the tiny line of blood extending down the nail, and around the bill, must be bright and clear in hue. A purple hue denotes the blood thick and sluggish, which indicates a tendency to apoplexy. If of a dim and bluish shade, the bird is sick—consumptive, maybe. If a very pale pink, poverty of blood, delicacy of constitution, short life. Therefore, see that bill and claws be rosy, the blood-lines in them vivid, lively, as bright as blood-red *can* be.

A bird should be eight months old ere taken from the proximity of the old singers. At that age he will have acquired all the notes of his teachers. To purchase a younger singer is to run the risk of purchasing a poor singer, as the natural song of the canary is not over-pleasing, and has few variations ; he is a wonderful mimic, though, and must be taught by an old bird. Fanciers, and breeders in general, should select the most ravishing of the singers to teach the young ones. Sometimes one hears a melodious singer in the home of a friend. “Where,” is asked, “can I get a songster like yours?” There is but one way, my friend ; purchase a bird of from four to six months old, and hire this friend to board and lodge him in the same room with this fine songster until the little pupil is taught. If he be six months old, he will “graduate” in four weeks ; if younger, he is not likely to get a “diploma” so soon, but he’ll *have it* in time.

A *pair* of young singers will acquire more notes than will one alone, when without a teacher, as they will each sing to excel the

other, racking their little brains, twisting their little tongues, to form a new note such as the other has not, and will astonish him. The solitary youngster, having no such incentive, develops scarcely a tolerable voice. Thin feathers tell of decline of race.

Very rough feathers (if not caused by moulting) also infer decline of race; likewise disease. If the disease be of the skin it may be cured. This is shown by the healthful tone of claws and mandible. But if these are pallid, a more serious complaint affects the bird.

Best select a smooth, thick-feathered bird, with rosy health; then no risk is run; and purchase before or after the moulting—after is wisest. Dark birds are much more hardy than the light-colored. Properly cared for, the dark singers pay no heed to the moulting term, but sing as freely and beautifully as at other seasons. A light singer may be cared for so as to sing the year through, but he will drop *some* of his notes for a few weeks. The seed-and-water diet imparts so little strength, the bird thus fed mopes, songless, rough-coated, from two to three months. Fanciers assure buyers that only six weeks is given to moulting; but all who own birds know *ten* weeks to be the briefest period for light birds, and eight weeks for the more hardy dark bird. We will speak of this season at large in the chapter on diseases.

Make the seller guarantee the bird you buy to be *not lousy*.

Fanciers sometimes, ignorantly hoping to create a paying sensation, advertise a stock of *very slim* birds, expatiating on the graceful beauties of such a bird as compared with the chunky German breed. None but an inexperienced eye acknowledges these beauties, or buys one.

Notice how large the bill looks beside the slender body; it has a *distinct* seeming from the rest of the head, as if it were an artificial bill bunglingly set on, besides being bunglingly made. This feature, independent of the pallor, shows at once a system of starvation has reduced the body to its slim proportions. Take the pitiful little creature in your hand. How frail! how poor! every tiny bone projects!

That fancier deserves ten years' imprisonment for presuming to practise his "brilliant idea" on those helpless victims; none of them have constitution enough left to live half the years of a bird's natural life. No fancier has a right to injure a bird's health experimenting with it. Why do not the humane societies look to this?

CHAPTER VIII.

DISEASES OF CANARIES.

BIRDS, when domesticated, like all other creatures, are more subject to ails and ills than when in the free exercise and invigorating atmosphere of the wild wood. Somewhat of the human decline is, through association, imparted to household pets.

Yet, with prudent care for their comfort, pure air, nourishing food, fresh water daily, generous baths, and exercise enough to keep the circulation lively, there is no reason why a bird should not live to old age without the need of doctoring. Efficient care is better than remedies. As the old adage observes, "An ounce of prevention is worth a pound of cure." Then give the tiny prisoner all *natural* benefits possible.

Pet birds have become the subjects of a large variety of diseases; the original cause lying with inexpert fanciers, who rear them on diet so void of vitalizing elements that the system is too weakly to be of a positive character, and is, in consequence, susceptible to any unfavorable condition, or disease which may invade the family in which the frail little pet is located. The germs of disease are absorbed into the system of a frail bird exactly as they are absorbed into the system of a frail human being. When contagious disease enters the town, none dispute the liability of its *frail* members to quickest fall a prey thereto, and if you have such a one in your family your first care is to surround *that one* with every preventive.

Says Mrs. Helen Francis: "Having studied the nature of these birds very attentively for many years, also having studied somewhat into the science of simples, I resolved to make myself a capable bird-doctor. I feel that I may safely call myself one, since among the quantities of sick birds that have been brought me either to nurse or

prescribe for, very few have died, and those few were too far gone when advice was sought.

"Numerous as have been the diseases coming under my attention, I cannot, like some fanciers, declare, 'There is nothing about the canary I do not know!' for I am constantly learning something new of them; and I do verily believe there is no ill which the human suffers that I shall not sometimes meet in the canary.

"In examining symptoms, I have been surprised again and again into exclaiming: 'A *child* with such symptoms, I should say, was afflicted with —, but *how can* a little bird have it?' Again would I go over the symptoms. No mistake. Remedies were selected accordingly; the little patient improved. The prescriptions were continued until health returned. Some of the cures effected seem almost miraculous, the poor little sufferer being too far gone to sit on a perch, and would lie quietly in any place where put.

"I have grown to love my wee patients and the duties of their care, and do not err in saying they love me for my care, with a gratitude and a trust in my abilities that is beautiful to see; likewise beautiful to deserve. And I find that the owners of pet birds, after once nursing them through a hazardous illness, feel for them a loving attachment such as was never before realized. Sympathy for the suffering pet has, like pity, proven 'akin to love.' In some way, peculiar to the patient's disposition, a real gratitude will be evinced."

To show the gratitude and sagacity of these pets, the author will relate an incident in her own experience:

"Bopeep, a pet female belonging to me, committed the unusual act of loitering without her cage till the twilight gloaming became so dense she could not see well. She attempted to find the cage, however, flew too high, struck the wall, and went tumbling down over bracket, basket, chair-back, striking the carpet in a terribly frightened state, as I entered with a light. She flew for me, settling in my bosom, as in a haven of rest. She appeared weak—faint, I should say; I, attributing it to fright, soothed and put her in the cage. Presently she fell off the perch, again showing symptoms of faintness. I was now alarmed; an accident must have befallen her; what? She showed me by drawing one foot tight up in her feathers. She had sprained the ankle-joint. It was all red and swollen, paining her terribly. Well, the ankle was rubbed, bathed in warm water, held in warm water, etc., all done for it I could think of. Three times

during the night I rose and repeated the ministrations, each time finding her in torture ; the last time took her to bed with me, cosily snuggled in my warm palm. She was five days recovering of this bad sprain ; was so babyish, all she ate must come from my fingers.

“The last time this attention was exacted she undertook to thank me, and in a most singular manner. I had shucked a few hemp-seeds to feed her with, and had beside a piece of fig, and of sponge-cake—the only food she would touch while ill—and had fed her all she would take. Then, as she sat in my hand, eyes wistfully scanning my sympathetic face, a sudden thought came in the little busy brain. Perhaps the nurse had better be babied now ! She thrust her bill between my lips and gave me a good kiss. Bopeep is a great case to kiss. Then to my surprise she insisted on *feeding* me. She picked off a fig-seed and crowded it between my lips, punching it through with a determined will. Several more seeds followed, I sitting passive, curious to see how far she would carry the idea. Three hemp-seeds went after the fig-seed, and then—*then*—Reader, she filled her crop with sponge-cake and manifested a desire to regurgitate the dainty into my mouth. Though so loving in her gratitude, *that* was a feat I felt unequal to. I told her I was full to satiety with hemp- and fig-seed, and could not, by any means, take the cake. The refusal hurt her feelings for a little while, till coaxed with the first pepper-grass of the season. She has never offered *mashed* food to me since, but is always gentle and loving in various other ways.”

To be successful in nursing *any* bird through an illness, unremitting gentleness, affection, and sympathy are *absolutely* essential. A sick bird is as utterly helpless as a baby ; courage is all gone ; and pain so terrifies them that death will surely ensue unless there be speedy relief, or the nurse is capable of interesting them to forget the pangs they have suffered and expect to suffer again.

Our best medical successes with these despairing patients has been in deadening the pains with morphia. Without the aid of some drug, there is no need to try to save a bird who is *hard sick* ; but it must be used with great caution. To give an over-dose is very easy.

They recover faster when nursed in one's hands, the magnetic heat of the palm tending to sweat the tiny body, and thereby hold the pains in abeyance. They are loath to quit their warm nest after learning its comforts, as will be seen in putting them away. Very sick birds, if nursed in the hands, must be laid in a warm nest and

covered, when obliged to be put aside in the pursuance of other duties.

Men-fanciers laugh at the folly of "such nursing for a bird!" the life of "a bird" being of little account in their esteem. Ladies, however, who own these pets, learn to treasure them, and feel concerned if they begin to droop; will weep bitter tears when they die. With these amiable-hearted ladies we have a deep sympathy, and it is for *their* advantage the list of diseases and cures is appended.

There is sometimes great difficulty in making a sick bird eat, particularly one that has never learned to feed from the fingers. Then they may feel so ill as to refuse food from any source. In these cases, take the bird in the left hand, in a careful clasp in which it may settle feet and wings comfortably, yet not escape, and by holding a knitting- or tape-needle close to the bill, the matter of forcing the bill open is quite easy. The bird picks at the needle in anger, catching it in the bill. Now is the time to catch the jaw in firm fingers, and thus prevent its closing. Held in this position, food in small pellets may be forced down the craw, or medicine dropped in. Let the patient see what you are doing, else a choking will ensue to make matters worse. It is rarely this operation has to be resorted to, as most birds will swallow medicine (prepared in water), if dropped on the bill, and will pick egg-paste off a stick, when they will touch nothing else. They will also eat of figs when *very* ill indeed, if they have in health acquired a love for them; and figs are good diet for almost all illnesses, as are *fresh* egg-shells. For this reason it is well to teach them the love for figs, by *occasionally* treating them to one. Figs should be split and stuck to the cage-wires, so the *seed* can be picked off, as the bird shucks and eats them as rape and millet are eaten.

Floury medicines, such as sulphur-flour, etc., are easily administered by rubbing the wings with it. The bird plumes himself directly he is released, and in so doing swallows a good portion of what adheres to the feathers. When one can do no better, wings and tail—the long feathers—may be dipped in medicated water, and the bird set in the sunshine to plume itself, or by the fire.

Never dip a sick bird's body in *cold* water. When he feels equal to such a bath, he will not need *putting* in. Should the feathers become soiled, however, they may be lightly washed off with a soft sponge or thin bit of muslin dipped in tepid water. Do not *soak*

the feathers, lest the little invalid receive a chill ere they dry. Be sure to keep him warm while drying, as a slight dampness is liable to carry a chill. When bent on this duty, wet the bill before you do the feathers.

A sick bird, whatever the disease, will first make his condition manifest by distending the body feathers. He will do this in the midst of his song, when hopping about, or when sitting still. A bad feeling comes, he draws in a hard breath and distends the body-feathers ; only once, maybe, or several times in succession.

No well bird ever does this, except in shaking its plumage into smoothness ; hence the moment the act is noticed, the condition of the bird must be examined into. Do not wait and let the disease grow worse, as, taken at once, the illness may be removed in a day, or even a few hours. When he droops about on the perch, feathers all bristled out, he is feeling *very* badly.

Look on the cage-bottom—if a bowel complaint has attacked the bird the droppings will be of a slimy character, or watery.

Take the bird from the cage, hold the body (after he is quiet) to your ear. A rattling in the chest, labored breathing, denotes a tendency to asthma ; if emaciated also, asthma has really set in.

A rattling-like rapid swallowing, uneven heart-throbs, and pale tongue (no emaciation) denotes a bilious disease in its early stages.

Note these rules : Examine droppings ; examine color of bill and claws, the tongue, the expression of the eye ; listen at the chest ; feel of the bowel ; note if the body have a hard bloated feeling, or if it be but skin and bones ; note if the bird shivers.

These simple signs aid greatly in determining the disease. Here is a list of ailments, in alphabetical order, such as have come within range of our experience.

ASTHMA.

This disease is quite too common, and is generally the result of carelessness on the part of the owner, though not always so. Colds, also illy ventilated atmospheres, bring it on. Long-continued indigestion will cause it ; old age sometimes will. But the period when it is most liable to set in is when a young bird is about six months old, and is entering the mature state. A severe cold at this time is almost sure to bring on asthma or consumption, and a little cayenne-pepper is of no avail.

(The homœopathic remedies are best in doctoring birds. In a few instances we employ the allopathic, as will be seen. And we will here state, all who own bird pets should also own one of Boericke & Tafel's small medicine cases. They contain eighteen vials of medicated pellets, and cost but \$1.50 ; or, if one prefers, bottles may be bought separately for twenty to fifty cents, according to size ; or the liquids for fifteen or twenty cents per ounce, and for birds must be no stronger than in the third dilution.)

When well seated, asthma is difficult to cure, but the remedies and directions below have *cured* several hard cases.

Symptoms.—Distending of body feathers, difficult breathing, rattling of mucus in the lungs, straining, gasping, dilated eyes, song broken or bubbling, or both ; frequently loss of song ; paroxysms brought on by fright and by changes in the weather, the entire body shaking and quivering in an effort for breath ; the head drawn in at times, or lopping with fatigue. Often, in hard attacks, the bird settles on the cage floor, with chest pressed hard against it. In this position do not disturb him, as excitement increases the pangs to such an extent that a convulsive death is likely to ensue—and *such* a death is terrible.

BULLFINCH.

[May be mated with the canary.]

When panting on the cage floor, the only way to relieve is through inhalation. A pastille, or portion of one, burned near the cage—that is first covered with a cloth so that the smoke mostly enters the cage—will usually give immediate relief. (The pastilles are put up in small boxes, and sold by all druggists at thirty-five cents per box. The powders which are commonly used by asthmatics are too harsh for birds, as is the common saltpetre paper. One box—to use only in bad paroxysms—will serve until the patient is cured, if cure be possible.)

A handkerchief thrown over the cage, on which a few drops of ether, or chloroform (two drops), have been dropped, gives quick relief, but he must be constantly watched while inhaling it, lest he become unconscious. Watch the chest : its heavings grow gradually less, he

is quiet, shows symptoms of drowsiness ; remove the towel or cloth fuming the cage, and let him rest. If he begins to eat in five minutes he is in comfort ; if not, try the experiment again. Try it a third time if suffering continue.

Relieving these spasms aids the curative work, as great physical weakness is thus prevented. A bird will swallow no medicine while in this gasping torment ; it is wicked to attempt to force it. When relieved is the time to commence the curative work.

Keep the cage in the sun ; keep always in warm, pure temperature. Empty the seed cup ; he must have no seed but rape, yellow mustard, and a little hemp—and these soaked twelve hours, or until the kernel bursts the shuck, when they must be set on the cage floor in a shallow dish. For one bird, put in soak one tablespoonful of rape, one teaspoonful of mustard, one teaspoonful of hemp, in a teacupful of pure water in which has been dropped two drops of tincture of iron. (Wash the hemp ere mixing it in with the other, or else soak it alone.) Give half at a time, morning and noon, straining the water off, of course, till dripping ceases.

The box of gravel in the cage must be omitted a few days, lest he stir up the dust, and breathe it to his injury. Egg-shell and cuttle-bone will fill its requirement. Fig, cracker, pulverized white sugar, stale bread soaked in cayenne-pepper water (a good pinch of pepper in half a cupful of hot water, or *cold* water if hot water is not handy), hard-boiled egg, and the egg-paste, are the general foods—allowing plenty of sweet apple, or chickweed, or lettuce. Slices of orange will do the invalid great benefit, the acid carrying impurities from crop and liver.

(Banana soaked in milk is recommended by some fanciers as a sort of *curative* ; but we have never dared offer it to such a patient, for, being ourself afflicted with this complaint, we have suffered several severe paroxysms by simply eating one banana. If too heavy a food for us, we argue the effect cannot be much better on a frail bird. Yet, for such as may like to test it we will copy the recipe. “Remove all foods, and give slices of ripe banana soaked in milk for the entire diet for a few days, say three or four. Make into pellets, and *force* down the gullet if the patient refuses to eat.” We treat apoplexy in the above way.)

After relief is obtained, and the bird has rested a little, it will naturally want food and drink, if the spasm occur in daytime, when

the soft foods, soaked seeds, etc., must be ready in the cage for selection ; also these remedies : In one cup (the one hitherto devoted to seed) let a drop of tincture of iron, a bit of cayenne pepper, and a pinch of saffron buds be put, after filling with pure cold water. Keep this cup thus supplied until well.

In the other—which is oftenest drunk from—morphia and either iodide of potassium or bromide of potassium, the former is preferred by us, should be alternated with sulphur and arsenicum (arsenious acid) in these quantities : lift a tiny bit of morphia on the point of a penknife, dropping it in a glass ; add water enough so the bitter taste is barely perceptible (about two tablespoonfuls may be required). Of the potassium a small lump, half the size of a small pea, dissolved in the morphia water. Fill the cage cup from this (set the remainder in a cool place for future use), and leave in the cage about two hours. Two or three drinks will be all the bird must take. Then empty this medicine back in the glass with the rest. Re-fill cup with fresh water, into which drop a tiny dip of sulphur-flour (dip with point of penknife), leaving in cage one or two hours, or till partaken of three times. Remove ; throw out. Now, of arsenicum (homœopathic, third dilution) two drops (or five pellets) are introduced into the cup—fresh-filled again—and allowed to remain in cage till evening, when it is thrown out, and the morphia and potassium—sweetened—returned. See that the bird drinks of it ere going to sleep. Leave this over-night, to be two or three times partaken of in the morning. Empty ; fill with sulphur-water—a few drinks. Empty ; fill with arsenious water, etc., following the preceding day's directions, always keeping cup cleansed and medicines fresh.

Two or three days of this formula will restore strength and spirits. Then discontinue the remedies in this cup, all but the potassium and sulphur. One drink of the sulphur each morning (fix over-night) is enough. Keep potassium in the cup the rest of the day, and follow it up several weeks, each week (after the first) allowing the medicines to grow gradually weaker till at last clear water results.

Should paroxysms recur, begin as at the start ; first relieving by inhalation, then restoring the exhausted system with morphia, etc. The potassium is curative, assisted by the sulphur. Arsenicum revives the muscles and ligaments, etc., of the weakened internal organs, and should always be given while the morphia is used, to prevent sudden relaxations.

This formula has cured many severe cases among the feathered tribe.

Give the patient none but washed (or soaked) seed for two or three months, or longer, if illness continues. Unwashed seeds, remember, are too dusty for an asthmatic to take in the mandible.

Whatever of food is craved, bestow it. Cure cannot be effected without also restoring physical ruggedness with natural nourishments. Figs, rape, hemp, and ripe peppers (the little cayenne is best) are most relished. Supply them along with the general foods until able to fly, eat, sing, breathe as a *well* bird should do. Give plenty of green foods. A little Virginia tar kept in the water-cup will frequently *cure* asthma when all else fails. If the case hangs on two months, hepar sulphur, two to three drops in drinking-cup for a week or two, will act almost miraculously toward the cure.

Observe the bird when changes in the weather approach; particularly if storms—rain or snow or wind—be imminent; and, as soon as the tiny chest begins to heave unnaturally, put morphia and potassium in the drinking-cup. If this be partaken of the spasm will break up, and the storm go by without seemingly affecting it. Thus taken in season, the exhausting pangs are prevented, the inhalation of ether, chloroform, or pastille avoided—unnecessary.

It pays to watch for these changes, as the bird gets well quicker when spared the exhaustion of recurring spasms. The more thoughtful the nursing bestowed the first week, the less the obligations coming after.

A drop of syrup of squills added every other day will expedite the cure, but the bird must not bathe the same day he takes it.

In closing this prescription, we wish to relate a singular instance of this disease which transpired in the robin family, as told the writer by one knowing it to be *true*.

In Windsor, Vt., a beautiful town of farming thrift, on the outskirts is situated a certain tasteful villa, with a broad green lawn sloping from the front; it is broken by a few big maples, and a monster oak that stands not far from the sitting-room windows. These trees are ever peopled with birds throughout the summer. A pair of robin redbreasts had built nests in the great oak for many consecutive seasons. The family grew to watch their coming as the rigorous winter gave way to genial spring, and the robins grew into acquaint-

ance (a distant one) with every member, from the master down to the plowman.

One thing that made the pair conspicuous was the slow and rather cumbrous motions of the male bird. No one supposed this a presage of malady until one morning late in the August of 1861. There had been three days of drizzling, foggy rain, which cleared off toward the fourth dawning. Glad for the sun's appearance, the mistress of the house rose early for a before-breakfast constitutional on the piazza.

The queer antics of Mrs. Robin, fluttering around under the oak, claimed the lady's attention. "Poor thing, some one has destroyed her nest!" thought she, and picked her way over the wet grass to see if the demolished nest were in sight. Mrs. Robin fled into the tree, uttering a wild cry of terror.

At the foot of the tree, where he had evidently fallen from the branch by the nest, lay Mr. Robin, gasping, kicking, plunging—apparently in the last agonies of approaching dissolution.

Very pitifully the lady lifted him, laying him in the warm folds of the shawl she wore—for his glossy coat was all draggled and wet—and took him into the house to the sitting-room, where his condition was examined into. The eyes were closed, the mandible wide open, breath came in anguishing throes; the heavings of the chest seemed as if they must burst it.

"At least I can relieve your sufferings, poor robin!" said the sympathising lady. She crossed the room for a bottle of morphine pellets which the family doctor, a few days previous, left for her use to ward off hysteria with, and, in doing so, passed the open windows. Mrs. Robin's keen eye was alert for a glimpse of her sick husband. She saw him lying in that kind hand; the next instant she gave a shrill call, and came dashing in through the casement, alighting on the back of a chair near by where the lady herself sat.

The invalid roused a little, answering the wifely anxiety with a hoarse accent, then fell back again, more exhausted for the effort. Mrs. Robin fluttered over him with whimpering cries of fear. At length, reassured by the soothing tones addressed to her, she went back to the chair, from thence watching in nervous tremor all that was done to her helpless lord.

To thrust a morphine pellet down the exposed gullet was easy. He choked a bit, but offered no resistance. A few drops of water

followed. "O, I can't endure this!" sighed the good nurse, after a few minutes, the bird's agonies seeming to increase.

Concluding he could no more than die, she ventured to administer another pellet, and held to the nostrils the unstopped neck of a bottle of chloric ether. Presto—change! he became easier; he opened his eyes, sat up between her two palms, gazed about oddly. The watchful wife called: he gave a cheerful response. Elysium! Was ever a bird happier than Mrs. Robin! She came nearer, even to the mantel-shelf, just above her restored lord, and there waited for his strength to return. And he was in no hurry to quit his cosy resting-place, his nurse was so gentle, sat so still, looked so kind, he was not afraid in the least; only his restoration seemed to surprise him, but certainly no more than it surprised the gentle nurse, who had only hoped to ease a pangful death.

As he opposed the ether, it was set aside; but two pellets, each containing one-fourth of a grain of morphia, were doing a lively work. She began to think, "I do hope I've not given an overdose!"—worrying much. It would be cruel to widow that loving little wife. Great indeed was her love, since it scouted all dangers to keep the dear one in sight, coming to share his peril with unflinching loyalty, rather than desert him in a trying hour.

Presently Mr. Robin chirped a loud, clear note, bursting from the easy prison of hands to light on the table, and glad Mrs. Robin was there quick as he. The sun streamed in through the open windows; they sought the sill, and basked in the warm rays, both very joyous, loath to depart from the hospitable presence of their benefactress.

The entrance of the lady's husband into the room caused a general flight to the oak's sheltering branches, where the half-built nest was waiting. "What birds were those?" exclaimed Mr. —, springing to the window. And his wife told the strange story to him, adding in conclusion, "I do hope that half-grain of morphia won't kill him!" "No fear," said her husband, "if he suffered as you say."

Nevertheless she kept watch of the pair throughout the day, not satisfied till evening, when he still lived, and contentedly went to bed in the thickest of the big oak's foliage.

From this date those robins evinced unremitting interest in their benefactress, often chirping to her from the window-sill when she was alone, or had only her husband with her. And several times, during

the two years following, Mr. Robin was glad to swallow the morphia pellet she deemed advisable to toss him, for he was sure to betray distressing symptoms when a rainy spell set in.

And after two years he came no more. Where he died was unknown. A pair of strangers took the oak tenement.

This is the only instance we have ever heard of asthma among the wildlings. Consumption, though, is quite common.

BILIOUSNESS.

This is caused by overfeeding on rich foods, or by the blood stagnating for want of exercise ; sometimes caused by a slight cold.

Symptoms.—Dull, sleepy eyes, white and swollen tongue, languid motions, blackish or slimy droppings, and refusal to eat any food but dainties.

Remove dainties—if the bird has any—and put a pinch of sulphur-flour in drinking-cup, leaving it to be drunk from several hours. Then two drops chamomilla in its place the rest of the day. Next morning, two drops bryony and a tiny pinch of saffron buds ; keep in all day. Most birds take to saffron readily, yet now and then one objects to it, in which case leave it out.

Before the second night the bird will relish his proper food ; but should he not, give a little more sulphur next morning, following with bryony. If bowels get very lax, stop the sulphur and bryony, giving chamomilla instead. If prostration ensue (which is unusual), give arsenicum with chamomilla. Soak bread in black-pepper water as an addition to usual food when doctoring for laxness.

A few days according to the above will set all right ; then be more careful to not expose the pet to a like ailment.

A little extra green food often remedies a slight attack, but is not so thoroughly cleansing to the blood as the prescription is.

BREEDING CHOLERA.

This disease belongs more distinctly to the female than to the male bird, and is caused by excessive weakness in ovaries and other procreative organs. None but *very* frail birds are liable to have it, and it is generally considered incurable. Fanciers say a bird with this cholera has got its death-warrant, and there's no use trying to doctor it. We did not think so when a little pet suffering with the disease was brought to our notice, but we resolved to *try* what could be done at

least. Our pains were rewarded ; the bird got well, and is alive and well to-day. The cure was looked on as a wonder. We have had the happiness since of saving other valuable and cherished pets with the same prescription. That people may no more have reason to say, "Our little bird laid herself to death!" we give it to the general public, sincerely hoping they will use it with faithful care as to directions, whenever these symptoms follow after the laying of the last nest, or should they arise at any time during the breeding season.

Symptoms.—Great weakness and emaciation, pallid bill and claws, drooping and squatting about, with closing eyes, frequent shudders, thirstiness, slimy and watery discharges that soon become unceasing and of an intensely inflammatory character, keeping the tail feathers wet with their dripping. These inflammatory drippings seem to cause no pain, only an unconquerable languor and prostration. The bowels have a collapsed appearance. Verily it is a fearful illness! all the vital forces of the little body being sapped away.

Consumed with an almost unquenchable thirst, the invalid is glad to swallow whatever liquids are dropped on her bill. Should she refuse to take the medicines, there is no hope for her ; but the nurse must devise means of *making* her.

There are three prescriptions, which must be given alternately, as often as twenty to thirty minutes, until the bowels regain self-control, when the patient will be able to help herself to them, as per directions.

First Prescription.—A syrup of five drops of spirits of camphor, two teaspoonfuls of pulverized white sugar, in one tablespoonful of fresh water.

Second Prescription.—Aconite, two drops ; phosphorus, two drops ; arsenicum, two drops ; tincture of iron, one drop ; half a tumbler of fresh water.

A tiny bit of morphia, in water sufficient to tone the bitter taste to acceptable agreeability, is given a few times with the second.

Third Prescription.—Half a teaspoonful of table-salt, dissolved in two tablespoonfuls of fresh water, half a teaspoonful of wheat flour stirred in.

The invalid must be kept very warm, *sweating* ; this is best effected by holding in the nurse's hands. A warm flannel-nest should be prepared to receive her when obliged to put her out of the hands. Covered lightly and warmly, the nest being in a quiet spot, she

will not move until disturbed by her nurse so long as the disease is raging.

Prescription No. 1 must be first given by dropping on the bill until several drops have been swallowed. Keep sweating, if possible.

In fifteen minutes give several drops of the morphia water, following with some of Prescription No. 2. Keep up the perspiration.

In fifteen minutes, give Prescriptions No. 3 and No. 1.

In twenty minutes, No. 2 again, beginning with the morphia as before.

In twenty minutes, No. 1, following with No. 3 in twenty minutes more.

In thirty minutes, No. 2 and the morphia. Continue each in thirty minutes, as per order, keeping up perspiration all the while, watching symptoms to regulate by.

Offer food every time medicine is given ; as soon as she can she will partake. The egg-paste, sweetened and salted a little (not to hurt the flavor), will be most acceptable in her prostrate state. A split fig and some sponge-cake may also be used to tempt her with. Let her eat of them all she can.

If green blackberry leaves can be obtained, let her eat of them as freely as she will. As soon as she is able to plume herself a little, keep dry wheat flour on the wings, a little salt having been mixed with it. At this period No. 3 may be omitted, the flour and salt taking its place, and the drizzling from the bowels will have stopped. But do not look for this improvement under twenty-four hours, if *very* ill.

The morphia may also be dropped at this stage, or given only at night and dawn, or as symptoms call for it. If, in her cage, she inclines to cuddle on the floor, and the discharges are watery again, give the morphia and the three prescriptions over again. They will not recur more than once or twice after the first decided improvement.

Prepare the cage for this invalid with varieties to tempt an appetite in this way : Stale bread, soaked in black-pepper water, and set between the wires ; a dry cracker, some raisins, sponge-cake, some pulverized white sugar, some dry flour, a strip of salt fish tied to the wires (if not objectionable to her, as it is to some birds), but blackberry-leaf, if it can be obtained, is better than fish ; the egg-paste a matter of course. The usual seeds, etc. ; Prescription No. 2 in the drinking-cup.

Of these she will select what is most palatable to her. That she

eat is essential, otherwise the disease will sap her life in a short time. Being very weak, she will find seed-shucking an exhaustive labor; they will prove more acceptable soaked to bursting, especially the hemp, of which seed allow all she wants, as of other foods. (No laxative green foods.)

It will be necessary to keep Prescription No. 2 in drinking-cup from six to eight weeks (omitting the arsenicum after the second week); also to pamper the appetite with varieties of food. In two months the droppings will have assumed the natural appearance and the bird seem sprightly as ever; but it is a risk to let her mate the next season. Best not. The system has received a severe strain, and should have a full year's recuperation ere taxed in any way again. And a bird that is worth nursing through so hard an illness is worth careful consideration afterward.

CATARRH AND COLDS.

Catarrh results from taking cold.

Symptoms. — Slight snorting or snuffing, as if the nostrils were plugged up, or there may be a perceptible running from the nostrils. Loss of voice at times.

In the first case, pass a quill (one pulled from the wing will do) up the nostrils to open the passage, then occasionally hold a bottle of hartshorn at proper distance (not close enough to stupefy) so that the pungent odors are taken into the nostril. A few sniffs at a time will suffice. (One knows when a sniff is taken by the bird jerking its head about, etc. Two to three sniffs only.) In drinking-cup, one drop bryony, one drop nux vomica (third dilution). A bit of sulphur previously will make the medicines quicker in effect. Then the drops kept in cup till the nostrils are clear; after which—to restore voice—one drop phosphorus and a little rock candy.

For the second case (the running is caused by an inflammation on the glands or mucous membrane), a drink of sulphur water. A drop of arsenicum, two drops of aconite, two drops of ignatia, in half a tumbler of water. Fill drinking-cup. Add candy and one drop of

CHAFFINCH.

[May be mated with the canary.]

phosphorus if voice is gone. (Of pellets—one each of arsenicum and phosphorus, two of aconite, two of ignatia, dissolved in the drinking-cup, where preferred to the liquids.)

Bread, soaked in red-pepper water, added to usual food. A ripe red pepper hung in the cage will warm the craw and bowels of birds afflicted with distemper occasioned by colds, and ought to be kept in reserve for such purposes, being very rarely allowed as a delicacy at other times.

Colds—distended body-feathers and shivers—may be relieved by a little hoarhound candy and a drop or two of aconite in drinking-cup, a red pepper (cayenne), will generally cure a light cold. Colds should never be neglected ; if they are, mischief is sure to result.

CONSTIPATION.

Constipation is noticed when the bird strains to eject the excrement ; the droppings are sticky, hard, or crumbly. To remedy, put a pinch of sulphur in drinking-cup for half a day. Remove for clear water. Next day, a pinch of saffron in the cup ; keep the saffron in until well. Frequently a little green food will remove the difficulty without resorting to medicines. *Nux vomica* will cure bad cases of constipation—a drop in water-cup for a few days.

CONSUMPTION OR DECLINE.

Feathers are rough and stick out, droops about, eyes heavy, hiccoughs as if something stuck in the throat, eats voraciously, especially dumpish in cold or damp atmosphere, when the little head seeks a wing and the chest heaves ; shudders ; emaciation.

Let all the seed be washed ; hemp and rape soaked to bursting. Stale bread soaked, pressed dry, and mixed with fresh cream. All green foods in their season. Tender lean beef minced fine, giving the bird all its appetite craves each day, is a great agent in the cure of this disease. Figs, pulverized white sugar, yolk of hard boiled egg (the white part rubbed through a colander with soaked cracker and boiled in sweet milk, to make a paste), and all sorts of good nourishing food. Stint in nothing the patient enjoys.

A daily bath, water fresh from the well, a pinch of cayenne pepper in it. (Give all the pepper the bird likes.)

Keep in the sunshine ; when there's no sun, keep by the fire ; cover warmly at night.

In one cup—seed-cup—a drop of tincture of iron and pinch of saffron in fresh water. A small dish of Virginia tar-water should be set in the cage daily for a few hours.

Aconite, belladonna, phosphorus, of each one drop. (No. 1.)

Bromide of potassium, morphia sulphate. (As for asthma.) (No. 2.)

First a drink of sulphur water. Then No. 1 (during the day) in the drinking-cup. About dusk change No. 1 for No. 2, leaving it—No. 2—over night and an hour or two in the morning, when No. 1 must be freshly prepared again.

Keep up this formula till symptoms are much improved, then begin to gradually weaken No. 2. When No. 2 is discontinued (patient on the continuous gain) drop the aconite from No. 1, and form the remedy as follows—belladonna, phosphorus, ignatia, each one drop, adding one-half a drop of tincture of iron, the opposite cup being now used for seeds that have been washed and dried. The soaked seeds and other foods must be permitted as long as relished, or until health is restored.

Should appetite decline through physical weakness, give arsenicum and china, one drop of each, in the drinking-cup. But if it be caused by indigestion, overfeeding, etc., give sulphur instead.

If the disease be of too long standing to be *cured*, be merciful and keep the tiny sufferer as easy and comfortable as can be with medicine No. 2, keeping the bowels open with saffron or sulphur, if the green foods fail to do it. It is never too late—if there is life—to *try* what the whole prescription will do.

Internal injuries sometimes occur by the accidental swallowing of a half shucked canary seed, the sharp ends of which pierce the intestine till a sort of rupture follows. The bird eats well, seems to have no pronounced symptoms, yet droops much, stops singing, often covers its head to sleep. Presently, however, there are unmistakable signs of a bad feeling in the bowels; one or two tiny clots of blood will be evacuated when it is reasonable to believe the hurt sustained cannot easily be healed.

If, at the outset, a diet of *soft foods* be given, in which powdered elm bark has been freely mixed, the seed will be removed ere rupture takes place. A drop of aconite kept in water-cup will help allay the inflammation. Elm is an excellent remedy in nearly all internal irritations, and can effect no harm.

CONSUMPTION OF THE BOWELS.

In this affection may be observed emaciation, frequent droppings, often of a watery character, and attended with violent straining, as if the ejection were not complete ; the bowels pale and sunken, while the vent, by reason of the straining, will often become swollen and inflamed for a day or two at a time. There is great craving for food, fruits and green food being all that will be eaten with relish, and these abruptly left as if suddenly satiated. Fresh foods placed in the cage will be voraciously examined, tasted mayhap, and then left with noticeable disappointment. The disease is rarely curable, as it generally approaches with the moulting, at which period nearly all illnesses are fatal.

The following directions have proven salutary, however : A dish of coffee—Java—well sweetened with crushed sugar and made palatable with cream, should be kept in the cage. After getting a taste of this, canaries drink of it readily. Keep a piece of raw beef (fresh) in drinking-water. A paste made of the yolk of a hard-boiled egg, half a fig, two large raisins, a few cracker crumbs, all chopped fine and boiled in sweet milk, will be eaten with relish, and is preferable to seed, though soaked hemp and rape may be allowed. Banana may be given liberally, all other green foods but sparingly. A little sulphur or mercurius in water dropped on the bill occasionally to keep liver active. Allow all the pulverized crushed sugar, sponge-cake, and figs desired ; at most it will be little enough. If the bird refuse all foods, it must be *made* to eat at least every one or two hours, according to amount each time taken. The vent, when inflamed, may be touched with cosmoline. Iron, phosphorus, chamomilla, a drop of each in half tumbler of water, the standard medicine to be given five or six times daily, and salt kept in cage to be partaken of as the patient may like.

CHOLERA.

This malady sometimes attacks birds during the sultry season of summer, from the injudicious indulgence of green foods, or by eating some unwholesome matter which has been left too long in the cage. It comes with sudden virulence ; appetite and song cease together ; there is a violent shiver ; feathers all distended ; bill and claws purplish ; wings drooping ; eyes dull and half closed ; soon a painful discharge of rice-water appearance ; a trembling fit follows, shivering,

gasping, and the bird generally drops off the perch to shiver and shake on cage floor, and involuntary discharges begin to run.

Rapid and thorough must be the nursing, and begun in time, too. In fifteen to twenty minutes after the first shiver the disease has progressed beyond cure ; in one hour—sometimes less—the bird will be dead.

Remedy No. 1.—Spirits of camphor, ten drops ; crust sugar (white), three lumps ; water, two teaspoonfuls. This forms a cold syrup.

Remedy No. 2.—Black pepper, table salt, of each a good pinch ; common white wheat flour, one teaspoonful. Mix in a tablespoonful of water.

Remedy No. 3.—Veratrum album, chamomilla, colocynth, two drops (or four pellets), of each, in small wineglassful of water.

Give first two alternately every three to five minutes (beginning with No. 1), till each has been given three times ; then give No. 3 twice, five minutes between each dose.

Should symptoms indicate improvement, and the bird eat, wait five to ten minutes ere beginning again. If unable to eat, keep up a rapid administering of Nos. 1 and 2—only three to five minutes between—three times each, as before, then No. 3 twice as before, and so on ; decreasing the frequency as strength returns, offering food often.

There will ensue great prostration for several days. Tincture iron, arsenicum, phosphorus, one drop each in drinking-cup, a few days. Foods allowed as in breeding-cholera. In a short time the bird is as well as ever.

DIARRHŒA.

This is a common complaint, easily observed by the spattery and frequent droppings, the bird often sitting about with eyes closed, head dropped forward, as if in a stupor.

A little black pepper and dry flour, or a blackberry leaf, will set all right generally. If of long standing, song gone, etc., phosphorus, arsenicum, chamomilla, tincture iron, one drop each kept in water-cup in addition to the above, with plenty of strengthening foods, will be effectual.

DROPSY.

This is mostly a disease of age, yet sometimes attacks a young bird. The body is round and hard ; the feet are transparent, and

rather larger than is natural ; moves about clumsily, leaping from perch to perch instead of hopping lightly, airily, as birds naturally do in health. Short, quick breathing ; song faint and broken or lost altogether. Eats well, but not very relishingly. If the droppings are mixed with water, the disease is readily cured by a few days' attentive nursing ; if they be not watery, the case is rather more difficult to doctor, but may generally be cured by an almost similar prescription to that given for diarrhoea, only given more time.

The seed must be cleansed of all dust, as asthma is often brought to a chronic form with this disease when dusty or musty seed is eaten. In addition to hemp-, rape-, and canary-seed, set in a dish of *pearl millet*. They love this millet and it is good for them. Rape-seed and white mustard-seed—one teaspoonful of the mustard to two of the rape—must be soaked several hours ; and set in the cage each day. A pinch of sulphur and of cayenne-pepper in the water-cup ; a pinch of saffron and a drop of iron in another cup filled with water. The general food continued, a fig allowed with it, etc.

The discharges under this treatment become more frequent and watery. Watch the bird ; it will begin to droop more, and close the eyes as if troubled with nausea, which is the case. No alarm need be felt for the excess of water in the droppings, as the object is to drain the system. But the instant the bird begins to shiver the medicine and mustard-seed must be removed.

Do not let the bird get too prostrated ere removing them. Most birds will bear these remedies one to two days ere they shiver, but some are so frailly constituted a few hours will bring on the chill, and if not then attended to, they will not long be able to sit on a perch. The patient must not be weakened to this pass ; it is unnecessary. Keep the cage located where the symptoms can be watched, even if it has to stand on the kitchen table.

The shiver indicates a decided change in the system—toward weakness, as well as toward eradication of disease, hence there must be a toning up ere the work can go on.

Let chamomilla, arsenicum, ignatia, aconite, one drop of each, be put in the drinking-cup. A pinch of black pepper and a drop of iron in another cup of water ; a tiny bit of morphia must be put in, unless the bird will eat poppy seed (this to prevent scouring), in which case about one-half teaspoonful may be mixed with rape and set in. They may make the eater act dozy, but that will not signify,

if the bowels continue active. Watch the discharges ; when they assume a fairly solid form, no more opiate or poppy is needed for the present. Save for these the two remedies are to be continued a day or two, plenty of tempting foods kept in the cage. The appetite will increase with the increase of strength, and the bird show sprightliness, such as has not been seen in several days, mayhap weeks. Yet the dropsy is not vanquished. The third day the white mustard-seed must be again mixed with the rape ; and saffron and cayenne, a pinch of each, in a water-cup ; a drop each of *apis mellifica*, *ignatia*, *aconite* in drinking-cup ; and keep them in cage till the bowels loosen enough to disturb the bird somewhat when the medicines must be changed as before to restore a modicum of health. As soon as there's natural action to bowels, put away all opiate as before, and keep in drinking-cup a drop each of phosphorus, *ignatia*, and tincture iron ; tempting appetite with those foods most acceptable to the tiny patient. Every few days set in a cup of water in which is two drops *apis mellifica* and a pinch of saffron ; and the patient will soon be rid of the disease, and singing joyously as ever. If the symptoms should recur, go over the formula again ; but a recurrence is unlikely.

A piece of old lime (plaster) should always be kept on the floor of the cage, and pure chalk, reduced to powder, at times sprinkled over the paper carpet with the lime (also powdered) as the nails of a dropsical bird will, without them, become lifeless and twist about, break or scale up.

Old plaster is *never* out of place in a bird-cage.

"Invigorator" No. 1 should be given several weeks after the dropsy disappears.

DYSPEPSIA.

A trouble caused by over-eating or by being kept inactive in a too small cage. Symptoms—mopes, distends feathers, refuses to eat unless a nice dainty is offered, which is eaten with avidity—a little of it—when low spirits or nausea returns, and a fit of moping with half-shut eyes recurs. At times there comes a sudden burst of gayety, brief as sudden. Tongue pale, bill and claws pale, droppings unnatural.

Remedy.—Pinch of sulphur and cayenne in water-cup for one hour—or a few drinks. Throw out ; refill, and medicate with *nux vomica*, *chamomilla*, each one drop. Set in another cup of water, a

pinch of saffron and a drop of iron in it. Allow exercise, good plain diet ; no dainties.

Saffron in the water once or twice a week will keep dyspepsia off.

DYSENTERY.

If caused by the system being sapped by lice, do not hope to cure ; if by eating improper green foods—as unripe apple, cherry, berry, or other fruits—taken in time, a cure is possible, though the evacuations are bloody.

If the tongue be all white, a purple line across the roots, a cure is impossible.

As for all bowel complaints, the work must not be delayed nor the nurse inattentive. The bird must be kept sweating.

GREENFINCH.

[May be mated with the canary.]

Remedy No. 1.—A bit of morphia in small wineglass of water, camphor spirits ten drops, added to it.

Remedy No. 2.—Pulverized alum, a half teaspoonful dissolved in a half tumbler of water, heaping tablespoonful of white wheat flour stirred in.

Remedy No. 3.—Mercurius, veratrum album, colocynth, of each two drops (four pellets) in one-third tumbler of water.

Give No. 1 till several drops are swallowed. In three minutes, No. 2, stirring it up. In three minutes, No. 1 again. No. 2 in three minutes. In five minutes, No. 3. Give again in five minutes, offering food between. In five minutes, commence with No. 1 and proceed every three minutes as before. Watch symptoms to know when to increase the intervals. Soon as bloody evacuations cease, weaken Nos. 1 and 2 one-half ; make a thick cream of flour and water, making the bird swallow of it often. When able to feed itself, keep No. 3 in drinking-cup ; keep flour on wings if there is disinclination to eat of it in a dish. Fill cage to tempt appetite as in the cholera cases. In three days, if song is lost and the bird shows continuous prostration, a drop of iron and of phosphorus in a second cup of water will help along wondrously.

Omit Nos 1 and 2 in half an hour after bloody discharges stop, having given it very weak, weakening each time it is administered in the half hour.

Owners of these pets should be particular in giving fruits to them to see that they are *ripe*. It is to me a puzzling mystery that people use so little judgment in this matter. With some, an idea prevails that nothing can harm a *bird* unless it be rank poison, and think a house-bird should be able to discriminate between the eatable and uneatable viands placed at its disposal, as wild birds do. To such I will say—There is a marked difference in the rearing of wildlings and cage pets; the former are taught by the parent birds how to forage a living, what is good and what must be shunned; while the latter relies on its owner for all it has of foods or comforts, trusting the hand that feeds to give only what is to be eaten. Discrimination of viands is not inherent, but is a lesson transmitted from old to young by parental teaching. Even if it were not, one should *know better* than to give unripe fruits to a pet.

The above formula may sometimes cure where the dysentery is caused by an army of lice, keeping the cage scalded clean each day. Wheat flour well salted rubbed into the feathers, taking pains to rub in well under the wings and thighs and around the neck. None but extremely careless or ignorant people will let a home pet get thus lousy, as there is no *difficulty* in keeping clear of them. But this subject will be treated at large in another place.

EGG-BOUND.

Female birds not infrequently die through being unable to fully throw off an egg. It comes in sight and refuses ejection, the bird in misery slowly nearing a death by mortification. Who can stand in idleness and let the helpless sufferer die? Yet few are blessed with ingenuity enough to relieve her.

A piece of old plaster kept in a breeding cage for the female to pick from will commonly prevent this misfortune; but if not, take the bird in the left hand and with a soft sponge or muslin rag lave the body with water hot as can be borne by the hand, till perspiration starts well, then rub a little sweet oil over the parts and return to nest—which must be where the sun strikes it, or a generous heat from the stove will keep her in gentle perspiration. If, after this, the egg is not laid in five minutes she must drink of sulphur and nux vomica. A

pinch of sulphur, two drops of nux vomica in water-cup ; best prepare this soon as the difficulty is observed, so that she may be drinking of it to her benefit, as it is a great agent in such a case. Repeat the hot ablutions and the oil, rubbing the fingers downward with gentle pressure toward the egg.

As a last resort break the egg on the end, and carefully abstract the pieces with a pair of small nippers ; a medium-sized crochet-hook is of advantage in removing bits which the nippers cannot reach.

This is a very delicate operation. To injure the passage is easy. The body must be kept laved in oil ; a little blown into the passage through a quill aids in easy ejection, the bird being thus enabled to throw out all the tiny bits, which otherwise would remain to irritate, perhaps kill her. When returned to the cage—after breaking the egg—wipe from the body all the oil possible with a bit of dry muslin. Do not *wash* if off.

A breeding female should have plenty of soft foods, lime, and saffron-water, to keep the bowels lax. A bird inclined to get bound with her eggs must have sulphur and nux vomica to drink of while she is laying her eggs. When laid out, the medicines will not be needed more until about ready to lay again.

EGG-STOPPAGE.

Another difficulty which the breeding female is sometimes subject to is the stoppage of an egg, internally, several hours, or a day, previous to the natural ejection, and is more dangerous than the foregoing. Her suffering is intense for a space, when she stumbles about, beating her wings, gasping, eyes dull and closing, yet striving to cast off the sensation of stupor slowly creeping over her. It comes presently ; the little head falls limp, as is all the tiny body ; the eyes close. She is out of the suffering, but not dead, though the limp body lying so still looks like death, for breath comes faintly, but at regular intervals—as is natural.

She must be kept warm—sweating—the head laid high, the body in a horizontal position, held in the left hand, while the forefingers of the right hand—dipped in sweet-oil—are gently pressed (after rubbing) on the body just beneath the small ribs, and held thus as long as time will permit ; an hour at least, though action *may* take place sooner. The author once held a favorite bird in this way for three hours, the little unconscious head resting on her cheek, as she

held her upright, fairly sweating herself to keep up a lively perspiration on the sick pet. And it *was* lively. Great beads of it rolled off the bird's body on her palm, and thence fell on the kerchief spread on her chest. After three hours came the first indications of returning consciousness; her mate had called repeatedly; hartshorn had been held to her nostrils many times, but without success till the third hour, when the pungent odor pierced to the little brain and set it active once more. The eyes opened, dazed and reluctant, closing again when the action of the odor was gone, head falling limp as before. Ten to fifteen minutes' perseverance with the hartshorn restored her to feel hunger. Offered several foods; a bit of egg-shell was her first selection; after that a few fig-seed were picked off the fig held to her. She was weak and faint, inclining to fall back into the stupor after a seed or two was eaten. She was allowed momentary rests each time, because of her exhaustion, but the hartshorn prevented relapses to unconsciousness. Patience and gentleness and hartshorn were the essentials; no other medicine but sweating required. She was ten minutes eating a dozen seed and a bit of shell. That she should eat was absolutely necessary, therefore, patience did not diminish, and was rewarded to see her fly to the cage to roost with her mate.

But she was not right yet. In half an hour the distressful symptoms reappeared, the staggering, shivering, gasping, beating of wings, etc., and again was begun the sweating and hartshorn operations; rousing her to partake of water, the white of a raw egg, shell, fig-seed, etc., as often as her exhausted state warranted, for *rest* was a *desideratum*. At length, being obliged to retire, a towel was wrapped about the hand she lay in, and patient and nurse went to bed together. At midnight—nine hours after the first symptoms—she began a rustling that awakened her nurse. She rose to examine her patient. Lo! “Chirp! chirp!” the bright eyes wistful, no sign of stupor left. She was weak, though, and had to rest often throughout the night. Supper fed to her; and she made a very fair meal of it; wished to enter her cage then, which she did, and sought her nest. Then the nurse sought hers again.

There was no more trouble. The egg was laid at dawn, and she was sprightly, happy, hearty as ever. That was two years ago; she is living now; has laid numerous eggs, raised many young birds, yet has never since been ill a moment.

This experience is related because we have found it the best and safest method of treatment. Medicines may be used to *prevent* such a catastrophe, but a bird in a stupor cannot *take* them. A pinch of saffron and cayenne in water is one preventive. Sulphur and cayenne in water, a more certain preventive, but is too loosening to leave in the cage so generally as the first may be. A drop of nux vomica in drinking-cup a few days previous to laying, is the general preventive most favored by us. The third day after she commences to build her nest is early enough for either medicine.

EPILEPSY.

Excessive heat, gormandizing too rich food, great fright, will cause these fits. The bird suddenly falls off the perch to lie rigid, or it may kick, gasp, choke.

Dip the bird in cold water at once, and bleed it by cutting the hind claw far enough to draw blood, then hold the foot in lukewarm water till it stops bleeding.

Put a little sulphur in drinking-water for a few hours. Throw out ; fill, and put in one drop arnica montana. Two mornings sulphur one hour, following with the arnica montana during the day. It will restore perfect health. Avoid the causes in the future, as these fits are dangerous.

EXCESSIVE FECUNDITY.

Some females, especially those very dark and full-feathered, are so prolific as to lay the entire year. It is trying to the owner of the bird, besides being hard for the poor creature herself, as she begins the spring in a worn and exhausted condition. To remove the male from the cage is generally said to be efficacious in breaking up the business, but it is not always so, as we have thoroughly proven.

The ovary of the female produces a certain number of eggs, or germs of eggs, according to the strength, health, and quality of the system ; and these eggs must all be thrown off, whether there be a mate or not.

Diminishing the quality of the blood is the only method of "breaking up" we have been able to discover. Sometimes separating the mates effects the desired result, by creating a nervous illness in the system of the female (melancholia, properly speaking), which is depleting to the blood. But it does not always have such effect.

A female of the French breed—one of the author's—laid nineteen nests from March of 1880 to March of 1881, and did not stop there, but continued up to August 13th of 1882, when her first thorough moulting attacked her, and suspended the multitudinous work, the number of eggs summing up 137 ; number of nests, twenty-seven.

She raises very large, fine birds, averaging four males to every female ; is living at present date, a perfectly healthy bird, as handsome and graceful as any of the young ones around her. Her progeny, as may be imagined, is numerous, for a better or more careful mother-bird never existed.

After the seventh nest, her mate was removed, and eggs taken as fast as lain, in hopes to suspend her labors a period, and give her a chance to recuperate. No use. The eggs came in quicker succession when deprived of the privilege of sitting on them, frequently but five days between the last of one nest and first of the next ; and this was even harder for her than maternal duties. Her mate was rendered impotent by his annual moulting, yet we deemed her better off to sit from six to twelve days, although the eggs were not fertile. She was benefited, inasmuch as the length of time between the nests was increased to a reasonable term.

In January of 1883 she began laying again, as prolific as ever, and has not ceased up to date—October 10th—having laid in the interval fifteen nests ; number of eggs, sixty-three.

Has any one a bird to beat her ? If so, let us hear from you. She is clearly worth her weight in gold, estimating her value in ratio with the market valuation of the numerous extra songsters she has bred.

This is *the most remarkable* case of fecundity of the author's experience, though most of the females in her aviary lay, on an average, twenty to forty-five eggs during the season ; those who throw off less than twenty are far in the minority.

There is no remedy to prevent this excessive laying (that we have discovered) which will not result in injury to the layer. The blood may be depleted by scant food, or some withering, nauseating herb or mineral, but ten to one the bird subjected to such treatment will not survive the moulting. The best course is to give them clean nests, and *PLENTY of good wholesome food* to keep the strength up. A drop of iron tincture in the water-cup twice a week will prove beneficial. Provide her all the *green food* craved, and let Nature follow its course.

Let those wishing to raise strong birds and a superior number of singers care for the females with extra attention; especially give them all possible exercise to keep the blood in lively circulation. The quality of the female is a more essential point than that of the male where healthful reproduction is desired, yet is the poor little female least considered by the general public, whose extreme selfishness manifests itself in this direction with a universality not very flattering to our boasted humane principles. Birds must *pay* for their care with extra song, or suffer neglect. Ah, well, we have seen husbands who had to pay for toleration in their family by handing out every nickel of their hard-won earnings to the most thankless of help-meets; and even that grudgingly accorded toleration withdrawn the moment they became—through some unavoidable misfortune—disabled and a pensioner. The LAW seems to read, PAY YOUR WAY, OR DIE THE DEATH! Nobody—except old-fashioned folk—believes these days that “Love ye one another,” and “Do ye to each other as ye would should be done by you,” was ever uttered except for applause as an exquisite bit of sentiment. That one’s hairs are numbered, that no sparrow falls without our Father’s presence, must be other bits of “bosh” with most people, else stronger fellow-sympathy would so abound that not even a little bird (of no special use) would experience neglect because created—by God, the Maker—to confer no particular amusement. But the breeding-birds, if their owners did but know it, *will* repay their care; if not in music, in the quality of their offspring.

Her intelligence and culture reappear in her progeny in peculiar modifications, as traits of character that are very interesting to study. The old saying, “Like mother, like child,” is applicable here as to the human race; and the rules governing maternity in the human family may be adjusted to them with favorable results.

The transmittal of traits in character, form, feature, expression, etc., also the philosophy of accidental child-marking among the human family, is much discussed, and the theories thereof quite perfectly comprehended; but that the same laws govern and act on these feathered pygmies is seldom considered. Were they more generally studied and practised on the susceptible female bird, plain-looking birds would soon be rarer than peculiar and beautiful birds. The shock on the female’s system acts with the best result when the strange marks are placed on her mate. She will pause in her work (nest-building) to assist in restoring his natural appearance, by which

show of interest you may believe the desired effect has been produced.

A pair of dark canaries will raise a handsome brood if a strip of white muslin be wound round the male bird's wings, and he be returned to his mate in this surprising dress, she not allowed to watch the operation, or know of it, till he is in the cage again.

Other simple devices might be mentioned, but the above inference is enough for intelligent genius to work upon.

That breeding-birds raise a large percentage of light birds when kept on soft or loosening foods, is with us an established fact. Even a very dark pair of birds will produce light and mottled young mostly if given varied and relaxing diet, such as egg-paste, hard-boiled eggs, soft bread, figs, bread or cracker and milk, soaked rape-seed, and plenty of green foods, being always careful not to invite bowel-complaints with the selection.

SWEATING ON THE NEST.

This is only peculiar to the female when incubating; the belly-feathers and eggs being saturated with perspiration. An inactive liver and spleen is the cause. Give plenty of green food. Sulphur (homœopathic), one drop in drinking-cup twice a week; one drop mercurius in cup each day when sulphur is omitted. Nux vomica, one drop, may also be added to the mercurius should the case prove obstinate. If belly becomes bare and sore, anoint with cosmoline.

SISKIN.

[May be mated with the Canary.]

HEART DISEASE.

There is little doctoring allowed when afflicted with this complaint. Care is the requisite. No frightening, no plaguing; plenty of sunshine and strengthening *soft* foods; bowels not permitted to get costive; exercise daily; cold bath daily; a little iron or belladonna now and then in water-cup. If the disease belong to a young bird it will, if cared for, improve in health at, or soon after, maturing; but, should a chill touch it in the interval, the bird will probably die at that climax.

An old bird may also be cured by this same attention, no clogging, rich foods, such as raisins, cake, nuts, etc., allowed it.

Symptoms are : palpitating chest, gasping, half-closed eyes, the bird sitting very still in the spasms with head thrown back, appearing to sink as the gasping continues. It must be let alone when these spells are on ; they soon pass off ; but if they assume the character of a real faint, the bird falling off the perch, hartshorn must be held to the nostrils and a little camphor-water dropped down the gullet. Cut a claw if necessary.

STOPPAGE.

A very distressing illness, liable to attack all ages and classes of birds. The shuck of the hemp-seed will create it ; so will too close a seed diet, too continuous a diet of starchy or dry food.

Symptoms.—Agonizing breathing or gasping, refusal to eat, eyes dilated, droppings either of a crumbly character or like diluted cream, and not frequent. As the disease progresses the agonies of the patient increase to a spasmodic or convulsive character, the beak thrown wide open in the effort to obtain air. A nest bird throws itself about in the nest, unable to keep quiet in its torment ; an old bird falls from the perch to grovel on the floor.

The moment the gasping commences administer a good dose of sulphur-flour and elm-bark (powdered) in equal quantities, mixed thin so as to drop into the gullet easily. Give several drops at a time, every ten minutes, until relieved. The thirst of such a patient is intense. Five drops mercurius in half a goblet of water will constitute the drinking-water, and must be administered often, or between the other doses. Keep the patient sweating. Offer no food till relieved and rested ; then let the diet consist of egg-paste and elm-powder—one-third elm to two-thirds paste ; a little bread and milk, and all the chickweed and water-cress craved. This diet for two days, when apple, banana, pear, and other mellow fruits, also soft foods, may be offered. Minced raw beef (lean), a little each day, will help rebuild the shattered strength. Allow no dry foods for at least two months, unless a bowel complaint sets in—which is unlikely—when the most laxative of the foods must be discontinued ; dry cracker, stale bread, etc., taking their place till recovered. Administer elm with foods a few times daily, mercurius or aconite being kept in water-cup until perfectly well.

PIP.

Pip is caused by a cold and excessive bile, a hard substance—originally a bilious fur—collecting on the tongue.

First give a good dose of sulphur ; follow with bryonia and mercurius, two drops of each in one-third of a tumbler of water. Cause the bird to drink of this several times, when the hardened fur will begin to loosen at the base of the tongue and may be scraped off with a blunt penknife or other fine point.

We have never met this disease in the canary, but are informed it *has* appeared among them ; hence insert the remedy as used in curing the mocker, thrush, and other wildlings.

HICCOUGH.

Caused by wind in the crop. If the bird will eat well of sugar it will stop the cough, otherwise nux vomica, one drop ; carbo vegetabilis, two drops, cocculus, one drop ; all in drinking-cup, is sure to remove the spasms. Either one of the medicines *may* reach it independent of the others ; the three combined never fail.

Sometimes little birds in the nest suffer from this, the crop distended, the body shaken with the spasm. Carbo vegetabilis, two drops in one tablespoonful of warm water, one heaping teaspoonful of white sugar dissolved in it, a few drops twice or thrice given, will in most cases relieve. If this fails, add the other two remedies and give.

HOARSENESS.

A little rock candy pulverized and dissolved in the drinking-cup will generally be efficient ; if not, add one drop of phosphorus ; if still obstinate, add to these one drop hepar sulphur.

Should the case not succumb to these there is something ailing the bird more than a common hoarseness, which over-singing or a slight cold may create, and symptoms must at once be studied.

HUMORS.

Birds now and then betray symptoms of skin humors, the feathers falling off nearly the whole year round ; or they may fall off in spots, causing the bird to bear a rough and unhandsome appearance.

A little sulphur in water each morning, being thrown out after a few drinks, the cup thoroughly cleansed, fresh water put in, and one

or two drops of sepia, this being left for the day. A daily bath—cold—in which a little rose-water has been dropped, will soothe the skin and thus prevent its further irritation from picking.

Should the bowels get too lax, omit the medicines a few days, introducing chamomilla, arsenicum, one drop of each in cup, till strengthened ; then use sulphur and sepia again, etc. Touch ulcers with a red-hot needle.

Birds having a skin-disease must have no sweets except an occasional fig.

INFLAMMATION OF BOWELS.

This may be recognized by the bird sitting in a squatting position on the perch ; straining to emit its droppings, which are of a glairy, watery character. Some birds send out a loud belling cry of distress with each emission. Bill and claws pale and cold, or pink and hot by turns ; bowels hard and sore, covered with pink veins ; pressing a finger on them will cause the sufferer to cry out and draw up both legs hard against the body.

Rub a little sulphur on the wings. In drinking-cup aconite, one drop, phosphorus, one drop, chamomilla, one drop, and a little iron.

Bread soaked in hot water in which is a pinch of black pepper and of salt, must be added to usual food. Allow all the white sugar and rock candy the bird may like until quite restored.

Keep the bird warm and sweating : *warm it must be kept.*

INFLUENZA.

Caused by a cold.

Symptoms.—Sneezing, shivering, palpitating, suffocative breathing, and acts as if something stuck in the throat. Tartar emetic, two drops, and a tiny bit of morphia in the drinking-cup until the symptoms are quieted, then throw out and refill : tartar emetic, one drop ; aconite, two drops ; belladonna, one drop. If the illness be but slight, tartar emetic, one drop, and aconite, one drop, will be the only medicines needed. Red pepper may also be put in cup, and bread soaked in red-pepper water kept in cage. Red (cayenne) pepper must always be given in cases resulting from colds. Frequently a little warming up with it, and a drop of iron in water-cup, will be all required to break up the cold ; but a *hard* cold must have prompt attention and more effectual remedies.

IMPOTENCE, OR SEMINAL WEAKNESS.

In speaking of this disease, the class of birds known as “mules” are not referred to, but the canary that is, through weakness of the seminal organs, unable to propagate. It is a clear case of weakness—debility—and not uncommon among birds reared too exclusively on sparse diet, *i.e.*, kept on one kind of seed and water, deprived of needed exercise, and insufficiently protected against cold.

It may also be brought on by the hanging of its cage near a pair of breeding-birds, whereby the passions are continuously wrought upon; food neglected; nothing considered but the desire to woo a mate. Each night the eyes are closed with hunger and exhaustion preying on the vital system; soon ensues great emaciation, physical weakness, etc., and constant excitation of the propagative organs draws an inflammation to locate there. Of course, *all* birds are not thus affected by such proximity, at least not to their injury, but many are, and it is a risk to keep unmatched birds caged in the same apartment with those that are breeding.

Not long since, a beautiful singer afflicted with this disease was brought us to cure. It was a *crazy* case: he was raving mad for a mate; would kill half a dozen in one season with his mad desire, had he been permitted to “work out his own salvation” in his own way. Yet mating was no benefit to him: he was powerless to impregnate; his mate lay infertile eggs. It seemed a hopeless case, yet perseverance, proper remedies, proper food and exercise, restored health in two months, so that he was able to become the father of two nice little birds. He was then returned to his overjoyed mistress, with injunctions to keep up his system with nourishing foods, etc., such as had been used in his cure. Alas! prejudice is too often a powerful adversary in the fight with reason and custom, favoring the old customs with acknowledged contempt for the new. Poor little Merry was put on canary seed and water, as before, and one month of it completely undid all the twelve weeks’ care bestowed by us.

Symptoms.—Neglect of food, eating barely enough to maintain existence; emaciation; insatiate desire for a mate, evinced by almost unceasing song and calling, and nervous activity; or by sitting about in glum discontent, singing in spasmodic snatches, or not singing at all; constant excitation and redness of the private member, which often appears below the body feathers in a very inflamed condition;

the discharges frequent, watery, and small as to quantity, drying much as water does, leaving scarcely a sign of sediment. Given a mate he woos in quick order, worrying her with his never-satisfied desire in fierce paroxysms that refuse denial; and she is sure to dislike and avoid him, and thereby excites him to a fury in which she is whipped to concession. Thus the miserable pair live in continuous quarrel—she forced to submit; he meekly accepting punishment directly after; no satisfaction on either side, and both conscious of the fault belonging to him. To imprison a mate with a bird afflicted with this disease is an act of cruelty!

When, after cohabitation, the female turns furiously on her mate, the fact of his impotence is evident, and they should be separated at once.

The impotence of the female can be determined only by the infertileness of her eggs—unless she utterly refuses a mate, fighting him off, screeching in dismay when he gains a vantage, and throwing herself down like a bird in a fit.

To Cure.—The first item is to prepare the system for a good operation of the requisite remedies; to do this a dose of sulphur must be given two consecutive mornings; ignatia, aconite, pulsatilla, iron, one drop of each in the water-cup, as a general medicine to be kept up till the debility is cured. A small camel's-hair brush must be obtained, with which, dipped in sweet-oil, the private member must be touched each time the excessive inflammation attacks it, for the pain renders him wild and keeps the nervous system in a shattered state. A few poppy leaves, or some rose-water, should be put in the bath, and set where he may enter it a dozen times a day if he wishes. Birds dip themselves often when in this state of inflammation, and the ablution many times obviates the use of the oil. Health returns quickest when exercise is free and the mistress or nurse companions and amuses him, as the attention thus won causes him to forget the cravings of his disease.

The most nourishing diet is required. Soaked or broken hemp-seed, all he can eat; the meats of the shell-bark chopped in bits; figs, fresh bread, milk, boiled egg, sponge-cake, pulverized sugar, banana, apple, lettuce, chick-weed, etc.; any good wholesome foods may be offered that are strengthening, fattening, and *not stimulating*. Peppers, peppergrass, mustard, plantain, and that class of foods must be avoided.

One to three months, according to the severity of the disease, of this treatment will restore natural vigor to the system ; then the foods need not necessarily be so varied, but a good, nourishing diet should always be provided ; and, if the *causes* which lead to the debilitation be religiously guarded against, there is no reason why he should not acquire old age without another day's illness.

LOSS OF VOICE.

Taking cold, or over-singing, sometimes causes the best singer to become silent. If by taking cold, treat the same as for hoarseness ; if by over-singing, a drop or two of phosphorus in the drinking-cup a few days will restore it. If not, some *disease* has attacked either throat or lungs, which must be ascertained by examination, and promptly attended to.

Should the cause be from melancholy, homesickness, etc., the bird must be pampered and toyed with a few days, and a drop of ignatia kept in the drinking-cup ; and he'll come out all right.

Frequently birds refuse to sing—sometimes refuse to eat—when separated from their mates, in which case the one mourned for must be brought in sight of his cage for a few days.

MOULTING.

This is a sort of periodical fever, and, though a natural consequence with all feathered creatures, often goes hard, amounting to real sickness. Canaries should be carefully protected from draughts and excessive frights while moulting, as colds at this time are hard to cure, usually developing consumption or asthma. A hard fright generates heart disease.

Birds are nervous things always, but during the moulting season the nerves seem at highest tension, and their whims attain a sensitiveness which none should disregard or plague. Never stare at a moulting bird who does not like to be looked at ; the roughness of its coat shames and humiliates it with a real pain ; and such a bird is ever a fine, proud nature, worthy of consideration.

Again, other birds are indifferent to their appearance ; but we never yet have seen one that failed to cringe when laughed at.

Aconite and iron, one drop of each kept in the drinking-cup, is a good specific throughout this illness. A very sensitive bird will get along better if a drop of ignatia be added to the above.

A more varied and nourishing food should be given at this time ; daily baths ; the cage hung in a warmer place ; and on chilly nights it must be warmly covered.

Should the moulting extend over a period of ten weeks, a clove in the drinking-cup, or rose-water in the bath, will tighten the feathers and promote the smoothing off. If a skin disease has been developed, proceed as in humors.

MITES.

These infinitesimal creatures are a pest which all owners of birds should carefully, scrupulously guard their pets against. Bird-lice propagate with incredible rapidity. Half a dozen will, in one month, produce an army sufficient to kill a bird. Think of it, you who indifferently affirm, "Lice are nothing ; all birds have them ; *can't* be got rid of," etc., hundreds of them sapping the helpless victim of blood, of life, and only leaving when the tiny carcass is cold in death.

All birds have them, do they ? We say, no ! a thousand times, no !! *No bird* will generate lice, if *ordinary cleanliness* is observed in caring for it ; but they may be brought to the bird whose care is choicest, if the owner is not resolute in provisioning against the evil, forbidding all association of strange birds with the cleanly ones so wholesomely kept.

To hear of lousy birds in New England is a rare circumstance. During the seventeen years in which we kept them there, we never saw a louse, scarcely heard of such a thing ; but here, in the Middle States, our experience for a while was most trying. Our birds were thrifty, noble birds, on whom no louse had ever set its devastating jaws ; and friends wishing to obtain a songster often brought in their pets, pleading with us to mate them with our stock for that purpose. To obtain unrelated blood is a necessity, where one desires to breed birds successfully and keep healthful stock ; hence these tiny strangers were gladly welcomed, and unsuspectingly housed with a mate of our fine stock. To enter into details of how the lice were discovered, etc., would occupy too much space ; suffice it, the strange birds were very lousy. They were the sole pets of cleanly families, who were astonished when informed of our discovery. Couldn't imagine how the bird got them—"Oh, yes, Mrs. So-and-so had that cage a few days ; she must have put a lousy bird in it ; but *how* did *her* birds get lousy ?" or, "I had Mrs. Blank's bird in with mine a short time ; that's the

only way I can think of ; but she's so nice I don't see how her birds get lice !" And so the excuses went ; lousy birds were plenty, yet cleanliness had been practised. Like measles and mumps, the lice were *caught* by carelessly associating strange birds, and by loaning or borrowing cages.

We exterminated every louse on our premises with persistent warfare, and since, though we keep a host of birds, lice and they are perfect strangers. No strange bird is allowed to come in contact with them until there has been several days' trial for the discovery of a louse. We make this investigation a principle. It gives offence at times, but we can endure that far more complacently than our pets can endure an army of these voracious mites. It is no small task to exterminate them from *one* bird ; but to rid from fifty to one hundred birds of them is a vexatious work, which no conventional politeness will force us to risk. Our best and nearest friends must submit to this rule if they fetch their pets to us. And we strongly advise *all* owners of birds to follow this practice, and *trust no one's word* for it that their birds are not lousy, as the person making the statement may do so honestly, believing it to be true, while the pet is literally infested through being exposed to the contact of a friend's pet, or through an exchange of cages. *One can't be too cautious in this avoidance.*

GOLDFINCH.

[May be mated with the canary.]

If your birds are free from lice, keep them so ; if they *have* lice, get rid of them *at once*, and don't rest until it is *thoroughly* done. The best time for this is in summer, when the nits hatch quickly, as they may then be exterminated in two weeks. In cold weather the task is more tedious—the nits hatch slowly, the bugs are sluggish ; hence the job must not be discontinued much under four weeks. We have a special and *sure* way of fighting insects off birds, using sulphur and wheat-flour to effect the victory.

The Persian powder so universally advertised for this purpose we are afraid to recommend, having lost over thirty dollars' worth of

birds at a stroke while trying to cleanse our aviary of the lice which an obliging (?) neighbor succeeded in introducing among our birds, despite the precautions experience leads us to exact. It was in August—in the height of the moulting season—when the voracious intruders were discovered. Forty birds had been exposed. Persian powder was rubbed in among their feathers at night, and next morning the sight of those forty little birds, drooping on their perches, with heads beneath their wings, was a pitiful vision indeed! and we were in dire perplexity, being ignorant of the nature of the poison.

The apothecary declared the powder not adulterated, and was as astonished as ourselves at the effects following its use, himself also ignorant of the required antidote.

Toward noon several of the birds began discharging a matter strongly resembling blood, while others took to gasping in terrible torments. Then we saw that the poison was irritant, and immediately went the rounds with doses of olive-oil—the only oil in the house at all suitable for such a purpose. By this means—also forcing the sufferers to drink a little arabic and elm water, or to eat soft food containing the mixture—we managed to save those not already in convulsions, or suffering rupture. These latter all died ere the night set in. After restoring the survivors, sulphur and flour were used, and successfully, in eradicating the mites.

Persian powder *we* cannot but shun as a deadly agent to use about birds, though many inform us that they have used it without injury to their pets; but we have met *no person* able to say that they succeeded in wholly exterminating the insects with it.

One lady said to us, after giving it several *thorough trials* (so she claims): “Lice do not accumulate so fast where the powder is used, but they manage to propagate *some*, so as to keep the race from extinction. I don’t know *why* it is, but they *will continue to nit* on the bird *in spite of the powder*. I bothered with it two whole seasons, and at last got rid of the lice by using the prescription of sulphur and flour which you gave me.”

She lost no birds while using it, though some of them were quite sick, she informed me; and *none* of her birds were *moulting*.

Our loss becoming generally known, many called to give their experience in using the powder. Some declared that their birds had never been well since its use; others that no harm had resulted; and yet others had met the same experience as we had, losing the only

bird they owned, or the several belonging to them, the symptoms being similar to those appearing in our brood.

By close questioning we found that the symptoms were most violent among the moulting and breeding birds ; while those on whom it had proven not harmful were in full feather and vigorous health.

In mentioning this subject, we have no desire to depreciate the merit of this universally advertised powder. We may have got hold of an adulterated lot, as may those other persons who used it with such pernicious results. That the birds were poisoned by it is an indisputable fact ; and we cannot conscientiously advise its use, since our aim in writing these pages is for the *exclusive benefit* of the *canary world ; that, and no other.*

Some have the false idea that vermin will die off as winter approaches, and so take no trouble to destroy them.

Said one to us—a lady, not a louse—“I have birds that have been lousy these three years. They were so when purchased. The fancier said to keep them down in summer by putting a cloth over the cage nights, and winter was *sure* to take them off!”

“And you have kept them down in that way?” we asked.

“Yes ; I scald off hosts from them each season.”

“And the birds are free of them in cold weather?”

“Perfectly. But as soon as the breeding business begins, in March, the mites are generated again. Isn’t it odd? I can’t see what there is about birds that they should generate insects so easily ; and when kept so cleanly, too! If I did not enjoy their song so much, I’d not try to keep one at all!”

“Are you *sure* the fancier said it was natural for canaries to be lousy?” said we, with an incredulous intonation, at which she fired.

“Sure? of course I am. He said he had none but were lousy!”

“Then he is unfit for his business. It is *not* natural to bird-life to have them, any more than it is natural for people to have body-lice. We’ll pay a dollar a piece for all you can find among *our* birds!”

“Faugh! who expects to find bird-vermin in December?” laughed she, pointedly, deeming us caught in a word-trap. But when we said, “We’ll get dozens off *your* birds in forty-eight hours,” she looked odd. She did not believe it could be done ; did not credit our veracity in asserting that our birds *never* had generated lice ; finally invited us to attend her home to examine her birds. We went.

“Now, we’ll show you how it is the birds come out lousy when

they begin to nest," said we, after taking a little bony bird in hand. "See here!" Two feathers had loosened into our hand from the bird's struggling; she bent to examine them with us.

"Well, I see no lice," said she, triumphant.

"No; but *there's something* only waiting for sufficient warmth to develop a few mites."

There they were. She was dumb with astonishment.

Around the quills, close up to the body, several nits were glued so tightly that no shaking would move them. She *scraped* them off with her finger-nail. Even then she said, "It *can't* be! Nits, indeed! It's only a sort of dandruff from the body that has dried on." Nevertheless, she, at our suggestion, viewed them through a microscope, and she said no more about dandruff. There was no difficulty now in teaching her the philosophy of lice generation.

The nits are closely glued to the quills tight up to the body, where the warmth therefrom may hatch, and their proximity to the body afford the newly hatched a quick and easy breakfast; after which they begin to crawl, and practise the ways of their primogenitors. Hence, it is seen, the body of the bird is a sort of lying-in hospital, until each quill becomes too loaded to further accommodate, when the cuttle-fish bone is chosen and covered; then the secretive spots in the cage, and so on, till dozens develop hundreds and thousands; and thousands are the result in one season where permitted to flourish unmolested. And what is the life of a tiny bird worth when thus infested?

At first he struggles against the invasion—picking, scratching, jumping at himself, singing nervous, fitful protests, with eyes wild and strained. Another bird will droop about, head drawn in, feathers distended, refusing to eat, to sing, or bathe; acting as if a fatal illness had attacked him. Still other birds are crazy for a bath, staying in it for long periods, and entering it often, if permitted.

To calmly leave a caged bird helpless in such misery is cruelty, deserving not only censure but *punishment*. When the societies for preventing cruelties make it a business to visit all bird establishments, *compelling* the extermination of mites, they will be performing a humane act which all the good angels of heaven will applaud, and the public in general will appreciate, for *there is no need for birds to be lousy!*

Lousy birds, being in an over-nervous strain constantly, rear young of so weak and nervous a temperament that it is risky to buy

one of them ; and they *never* develop that lovable *nobility* of conduct so common among the robust birds. They may make pretty pets—if the vermin is cleared off—and their irritability will seem cunning perhaps, in a *pet*, but most provoking when practised on a mate, or on birdlets in the nest. They often kill their nestlings, being irritated by the call for food, etc. To an experienced eye a batch of lousy birds are at once detected. Place them in contiguity with a lot that have never known a lousy experience, and note the wide difference in looks, character, health, and song. Pitiful ! pitiful ! Our patience is ever sorely tried with people who keep birds in this plight ; and we often are tempted to set the prevention of cruelty agents upon them.

We are writing this item at large, in the hope that these societies may notice and take steps upon it to prevent the future misuse of our feathered home pets. Why have they been so long overlooked ? If a dog or a pig goes hungry, or is improperly housed, a stir is made, and the cruel owner made to suffer for his carelessness of a brute's comfort ; but a caged bird may be neglected till death relieves its misery, and nothing is said, nothing done. Our Saviour saith : " A sparrow falleth not to the ground without our Father ! " It is possible that He pities these little home pets also, and values the vesper prayers of their fair owners for all they are worth.

Not long since a bird thirsted to death, by the careless owner placing the water-cup where the bird could not get its head through to obtain a drink—that the only water given for three days, the habit being to provide him twice a week. Think of it, humane ones, fresh water only twice a week for a pet bird ! and they have such an appreciation for water ! Poor Dickie !

We once presented a pair of beautiful birds to a lady who importuned us for them. Two months later she went off on a protracted visit, utterly forgetful of the little lives. They were left alone to die of starvation. And she *begged* for the present, because she " so loved dear little birds ! "

A certain lady let a friend take her singer for the breeding season. The morning after receiving him he sang a few soft notes, fell off his perch, gasped a few times, and died. The cage-floor was covered with bloody droppings ; the body of the bird was like meal, the bones of the wings bare and dry ; and an *army of lice* were trooping off the corpse of their victim. His body was sent home ; details told.

"Poor darling," sighed the lady, "he died of homesickness ; he was never from home before !" He had been from home just ten hours. He was generally attended to when she happened to think of him—about once a week. *She* loved birds !

A pair of lovely female birds once died on *our* hands in this same way, some thirty hours after we brought them home. They were literally eaten up by lice, and bloody evacuations had set in.

Were there space for them, dozens of such instances that have come within the writer's knowledge might be related.

Does any one think these ladies who "so love birds" need—some of them—a little incentive, by way of lawful investigation, to induce the bestowal of *care* as well as "love?"

"Oh, Love is but a name," he said.

"I want it not. Give me thy heart!"

TO EXTERMINATE LICE.

Mix one teaspoonful of sulphur-flour with two tablespoonfuls of white wheat-flour. At night rub this into the feathers thoroughly, taking pains to rub the under side of wings and thighs, and about the neck, as the vermin centre in these snug places mostly. Put the bird in a tin cage set over a plate of water, and lay a white cloth over the cage. At dawn, ere the bird has an opportunity to plume itself, carefully remove the cloth and water, both of which will show more or less of the vermin ; those in the water drowned, but those on the cloth alive. Scald the cloth. Baste the feathers thoroughly with pure wheat-flour, in which a little salt has been mixed, and put in a clean cage—or free—while the cage slept in is being scalded in boiling-water. Scald cuttle-bone also.

The object of the morning basting is to prevent the bird from eating the sulphur put on the night before. Well covered with flour—which is binding to the bowels—he swallows most of it in pluming, thus saving himself from bowel disorder ; but a very strong bird may get on very well without this attention. His symptoms must be watched very closely, though.

Hang in a warm place, where the nits will hatch freely, keeping a piece of bread in the cage that has been soaked in black-pepper water, also sugar, and other binding foods, as protectives to the bowels, and—with bath—he will go till night, when the mixture of sulphur and flour must be again rubbed into the feathers ; water, and

cloth, as before ; a basting at dawn again, as before ; cloth and cage scalded. Follow up this programme till no lice appear on either cloth or water ; then skip one night. Next night use the sulphur again. If none are found, skip two nights, and test again on the third. But if some—even one—are found, put on sulphur next night also.

Always use the sulphur at night, pure flour at dawn, so long as a louse shows itself ; skipping a night when not one is found. The second time none appears, two nights may be skipped. Finding none the third time, skip three nights ; but let no night go by without using the plate of water and white cloth, as some may be thus caught when the sulphur is not used.

Keep up the programme, using sulphur at least every third night, until a week goes by without a louse being seen, when it may be reasonably concluded that the extermination is complete.

In cold weather the task is of longer duration ; a week may elapse without finding a louse either on the cloth or in the water ; yet on the eighth or tenth day one or two will appear. There have been a few warm, sunny days and mild nights, in which the last of the mites have burst from the nits ; and, finding the sulphur odor unpleasant, take a trip after eating, to rest in a more congenial atmosphere, going straightway to discovery and death.

Remember to keep the bird in summer warmth, if you wish to get through the business quickly. If *all* the nits fail to hatch, they will cling to the quills and hatch in the breeding season, and the nest-birds will be covered with them ere one is aware of their existence. Nestlings are never hardy when obliged to begin life in this torturous way.

Should the bird be very frail and badly reduced previous to discovery of the mites, the sulphur may prove too harsh a dressing, and a combination of one teaspoonful of table-salt, one tablespoonful of fine starch, and one tablespoonful of wheat-flour will be found effectual, using only at night ; but it is not quite so quick an agent with which to exterminate as the sulphur.

Some very nervous birds, when infested with mites, pick and tear their flesh into shreds. We have seen the bones of the wings laid bare, scabs so stiffening them that the wings could not close to the body ; and under the thighs shreds of flesh and scabs so thick that an effort to move a limb would cause the bird to topple over.

Never dust any sort of powder on birds in this condition, but baste them thoroughly beneath wings and thighs with cosmoline, and touch all raw places with it. Follow up this method of anointing every other day till the sores are healed. If the ointment has extended well over the entire body and quills, the lice and nits will be good for nothing as lice or nits by the time the bird is well, providing the cage has been several times scalded clean of them during the meantime. It is unsafe to thus anoint a bird that is not too sore to relish picking at itself, as the grease will sicken the one that eats it.

Wash the ointment off the feathers—when the bird is recovered—with warm castile suds, rinsing in clean tepid water; dry off in a towel, and then leave the bird in the sunshine to plume itself. This bath must be given in a very warm atmosphere, and no chill allowed to affect the bird until perfectly dry.

By these formulas every louse may be exterminated, if the owner of the bird goes to work determined *to* exterminate, and that is just what she or he *should do*; for this bothering several days every few weeks to “keep the numbers down” is a *slack* and foolish business—a waste of time likewise. Go at it with zeal, and have done with it; then you can rest with an easy spirit ever after. To cleanse frame cages of lice, use kerosene-oil on all secretive places, joints, etc.

OVERGROWTH OF BILL AND CLAWS.

Birds kept in small cages, insufficiently supplied with gravel, denied exercise, etc., are apt to develop an ungainly bill, and the claws to lengthen and curl about.

The claws may be cut down to the proper length, being careful in the act not to draw blood. Some fanciers use a file on the bills, but it is a tedious and cruel practice. A better way is to provide sandstone perches to whet the mandible on, and with exercise and strengthening foods and medicines restore the half-paralyzed system to healthful vigor.

Many keep singers imprisoned in tiny cages, because they can find no amusement except in song. This continuous song is gained at the expense of health and life, as such birds live short lives, and their song is as unvigorous as their lives. They are pitiful little creatures, whom no humane person experienced in bird culture, and accustomed to the hearty notes of health, can regard with aught but commiseration.

When will these heathenish customs be ended? When will Christian people learn to consider a creature's *needful* comforts before their own selfish fancies? Should not every note strike remorse to the heart of a lady who denies the songster in her boudoir even a tiny bit of exercise in its wire prison, so confining him that he can but eat and sing, the cage so small that to hop about in it affords not the least gratification?

Humane friends, humane societies, *do* take this matter in hand, and *forbid* the manufacture of these incommodious prisons. Birds will sing more constantly and joyously in large cages, if made content and happy by the kindness of the family, than they will stagnated in a half-foot cage. No single cage should be less than one foot in diameter, and for two birds, larger by six inches; and these should be the smallest sizes manufactured. A friend of the author recently purchased two birds which had been kept by the fancier in tiny willow transportation boxes until nearly paralyzed.

It was a week before either of them could keep their perch over five minutes at a time. Only the closest nursing enabled them to recover at all.

BROWN LINNET.

[From Appleton's American Cyclopædia.]

[May be mated with the canary.]

PUTRID EGG.

Nesting birds sometimes get poisoned by eating the shell off a dead birdling which has putrefied ere the shell bursts, some early accident having chanced to kill the egg without the knowledge of the person having charge of the birds.

So soon as it is known that the birds have eaten of such an egg, sulphur should be put in the drinking-cup, and the birds given a good scouring out with it. For several weeks sulphur must be given them two successive mornings each week, saffron being commonly kept in the drink. If the blood be not quite cleansed of the poison, the moulting season will go hard, and will, if they live through it, leave

them with some disorder—dropsy, consumption, asthma. Hence it will be seen, to eat the poison of putrid egg is about as bad a thing as can happen to birds.

Should bad symptoms arise ere the fact is discovered—appetite gone, front all bloated and hard, slimy discharges, great pain—it will be necessary, after the sulphur has well operated, to give a little morphia, aconite, and chamomilla—two drops each of the latter, and just enough of the morphia to impart perceptible taste, in one-third tumbler of water, giving often till the pain is deadened; then let the bird rest thirty minutes in sweating warmth, and give a bit more of sulphur, unless chick-weed, lettuce, or other green food will tempt the appetite. Some egg-paste must be prepared to feed with, and allowed in any quantity, which will be little enough, the appetite being gone. Yet food must be taken to keep up the strength. Two days' attentive nursing may be required where the bird is hard sick, in which sulphur must be given four or five times a day, the other prescription every fifteen to thirty minutes, according to pain and the nurse's judgment of symptoms. Severity of disease over, keep saffron-water in cage, plenty of green foods, etc., and give sulphur twice a week as above.

RUMP GLAND.

Accident or illness may render birds unable at times to relieve the rump or oil-gland of its secretion, when it will become inflamed, swollen, painful. Pulling a few feathers out of the tail will sometimes be efficient. Pull all out if necessary. The new growth will draw the secretion, and usually prevent further difficulty. Yet, again, the inflammation will be excessive, and blood-quills will form. Then the gland must be relieved by pressing out the oil with thumb and forefinger. Be gentle in the act, as it is very sore. Cut off the blood-quills close to body, and wash in tepid water till blood stops running. Do not *pull* them out, as it will make the new tail grow in a distorted shape. When the end of the cut quill is dry, then pull it out. Many times these blood-quills may form again, and the operation have to be repeated; do not despair, time will fetch all right, especially if the gland be each day gently squeezed, and a drop of aconite kept in drinking-water; bowels kept loose. Never prick the oil-gland except when withered, then prick, press, and anoint with cosmoline.

RUPTURE.

Frequently people are too careless in exposing house-birds to inclement weather, wind, cold, etc., and a rupture of the lungs or stomach will result. The bird sits drooping about, with body-feathers distended, shivering occasionally, eating but little, song weak and broken, bill and claws pallid, eyes dull. Presently, in addition to these symptoms, the mouth will be seen at times full of blood, which the bird keeps swallowing down, with a weakness assuming prostration on each recurring rupture.

If the rupture be of the lungs, there will be froth mixed with the blood, or, more properly speaking, a bloody froth will fill the bill, and prostration be instantaneous. If from the stomach, craw, and liver, the blood is clear and more plentiful, the exhaustion less, and the chances, of a cure ninety per cent. better. But rupture is a state of the primary disease which pronounces the case well-nigh hopeless.

We once cured rupture of the stomach with this prescription : Pulverized alum and morphia in water, sufficient quantity of each to be perceptible to taste ; two teaspoonfuls of crust-sugar dissolved in it ; there being about a third of a tumblerful.

This was given four or five times, every ten to fifteen minutes, till the bird was well under the influence of it (only a drop given at a time), then a rest was allowed for sleep. On waking some *warm* egg-paste was fed to him, and a little sweetened camphor-water given as a drink. Another rest, from which he roused in better strength, ate more of the paste, and drank from his cup—two drops of aconite and two drops of opium (homœopathic) in the water.

In half an hour the first prescription was again partaken, followed presently by some more of the camphor-water ; the aconite and opium left in cup to be drunk from any time. Some soaked bread dipped in cream, some of the yolk of a hard-boiled egg, banana soaked in milk, the soft foods allowed besides the egg-paste ; all seed and other dry foods removed from the cage.

After the first day the alum remedy was given but once or twice, according to symptoms—that is, while the *swallowing* spells lasted. (While there remains irritation in the rupture's vicinity, the bird will have times of swallowing, occasioned by an uneasy feeling within. Holding the bird to the ear will aid in determining this condition, the action in the throat being plainly heard. So long as it continues, the styptic remedy must be occasionally used with the others.)

A little powdered slippery elm mixed with the egg-paste at times will help keep the bowels active ; if not enough, add a drop of sulphur (homœopathic) to the medicines in the water-cup.

When the styptic is dropped, drop the camphor-water also. But keep up that in the cup, also the soft foods, until strong and well. Care must be taken not to give irritating foods, nor aught that is very bracing, while the work of recuperation is in progress. Keep the bird warm. For a lung rupture we should use the same prescriptions.

SNAPPING OF THE BILL.

This habit renders a nervous person half distracted when obliged to occupy the same room with a bird thus diseased, for a bird that continuously snaps its bill is afflicted much as people are who grind the teeth in sleep, or complain of the teeth having an elongated sensation, etc.

This grating of the bill is a sort of neuralgia settled on the nerves of the bill. Generally, a drop of belladonna in the water-cup a few days will set all right. Should it not, a drop of hyoseyamus niger in its place will do the work. Once cured, do not expose the bird to cold again. Prevention is always better than medicine. In fact, a bird ought to be so carefully kept as to *never* need medicine !

SPRAINS.

When claw or ankle get sprained, the best and quickest cure is the same treatment which loving mammas give to baby's hurt finger, not only a kiss, but a suck. Cleanse the little member, and try it. See how still birdie keeps while the pain is being thus drawn out ! The simple act will save many rubbings in olive-oil, and hot-water soakings. Salt mixed with the oil is best to rub in. For a sprained wing make a strong tea of wheat-bran, and sop the feathers around the sprain as often as they dry, until the pain is relieved ; keep in a warm place. If the bird shivers, sitting about in great distress, put a drop of opium in water-cup.

WORMS.

Young birds, and sometime sold birds, are troubled with these pests, much the same as children are, though few are aware of it, permitting their birds to die—of consumption, they *think*—when a little proper attention will eject the worms, and save the bird for a good old age.

Symptoms.—Feathers stick out, gapes as if something stuck in the throat, almost constant tasting, at times rubs bill in a frantic manner, mouth has a pale and parboiled appearance, eyes heavy, bowels distended, eats in a fitful, voracious way, craves sweets.

Of course, all these symptoms may not appear in unison, but will all expose themselves in a few days', or even one day's space; are more prominently seen in the young birds than in the old.

Prepare for water-cup, one drop cina, a pinch of pulverized slippery-elm bark, and sugar enough to sweeten. This is the principal exterminator, often passing the worms off whole.

Should shivering take place, one drop aconite, one drop ignatia, one drop iron in one-third tumblerful of water, will prosper the cure. With some birds this last acts better than the first, and with a bit of sulphur each morning is the only medicine needed.

Allow all the green food, especially plantain-rods and chickweed, the bird can eat. Soak bread in one of the medicines.

For young birds the pulp of a fig—obtained by soaking in one of the medicines, the seed previously scraped off—will prove a vast help, as the worms will gorge this. Also plantain-seed mixed with the egg-paste, or the slippery-elm mixed with it, can be fed to the baby birds with telling effect.

In doctoring for worms, it is absolutely necessary to watch the symptoms, as the worms frequently clog the bowel so full the bird is powerless to pass them off, when mortification ensues and the nurse's pains are rewarded by death.

Notice the moment the little patient begins to lose appetite. The fact informs you the medicine has destroyed the worms, and the internal machinery has too much to do. At once administer a good dose of sulphur, or elm and sulphur; feed nothing which has not these physicking properties mixed with it, so long as the appetite continues poor or capricious; and meanwhile the bowels must be kept sweating by applying hot water. To accomplish this, hold the bird in left hand, wrapping a towel about it loosely; have ready a spirit-lamp with a basin of hot water over it, and with a bit of soft muslin, or soft flannel is better, dipped in the water—hot as the fingers will bear—the bowels may be quickened to action by holding the flannel pressed against them, changing it often as the heat escapes. A very young bird must be thus held until all the worms pass off and the bowel resumes its normal size; older ones may need the attention for

a few evacuations only. For birds with worms *not* to need this assistance is rare. When the dead clog is sufficiently decreased for the bowels to assume natural action, the appetite returns, and strengthening foods must be provided, iron administered, the system toned up generally. The rapidity with which health returns is wonderful.

Canker sometimes appears on the tongue. The bird keeps rolling his tongue about in his bill as if it felt oddly. Examine, and you will see the canker ; make him drink mercurius in his water—three drops—till the canker is subdued.

TYMPANY, OR WIND-BLOAT.—The skin, sometimes over the entire body, sometimes some portion of it, swells up with wind, rendering the bird an odd-looking object as well as extremely uncomfortable. Prick with a needle and the air will escape. To obviate recurrence anoint with sweet cream, or wash in sweet milk.

DISLOCATED JOINT.—Gently stretch the limb, pressing the joint in place the while. Done ere inflammation sets in, the cure is complete; but if inflammation has set in, lave with water in which wheat-bran has been well soaked ; and keep two drops aconite in drinking-water till well. Keep bowels lax.

BARE PLACES ON THE HEAD.—Anoint with cosmoline and sulphur rubbed together into a fine paste. Fresh butter may also be used with the sulphur. We prefer cosmoline, however.

SCALES ON LEGS.—Caused by humors in the blood. Anoint with cosmoline and sulphur several days in succession, gently rubbing with the fingers. Thus the scales will soon pass off. Also treat the bird as per directions for “humors.”

SORE FEET.—If caused by dirt drying on, wash it off by soakings in tepid Castile suds ; anoint with cosmoline ; and do not let the cage get so dirty again. Give the bird a constant bath-tub of water to wet his feet in if you can do no better.

If the feet are sore with a scaly humor, proceed as for sore legs.

SWOLLEN LEGS.—Caused by too small perches generally. Provide larger perches. Bathe the legs in diluted arnica water or wheat-bran water, and rub well with fresh lard afterward.

VERTIGO.—Bird looks upward and falls to the ground, too dizzy to go straight on attaining its feet. Covering the cage top is a *preventive* of these falls generally, but not a *cure*. Nux vomica, one drop in water-cup for a week or two, will prove curative.

PAIRING FEVER.—A melancholy or craze for a mate in breeding-season. If not willing to provide a mate, give him—or her—a tiny mirror in the cage, hang in a sunny window, supply plenty of nourishing foods, and keep amused as much as possible. In a few weeks the heat of the desire will depart. A drop of aconite kept in the drinking-water, alternating with a drop of ignatia, will keep inflammation from settling in the procreative organs. Birds experiencing this desire, when not gratified, will bathe twice or thrice daily if permitted, and it does them good. Let them have a bath kept in the cage if possible.

DROPSY.—Within a few days a lady informs us she cured her bird of a bad dropsy by simply keeping the water-cup supplied with pumpkin-seed tea ; feeding the bird as usual, only taking care to wash all the seed clean of dust. (We have doubts of the *badness* of the case thus cured, since we have *had* to resort to more complicated remedies.)

BLINDNESS.—A hard distemper—an influenza-like cold—has been known to impair the sight. A drop of belladonna will generally restore it, if kept in the water-cup a week or so.

A friend possessed a bird so nearly blind, by age, it stumbled over perches, and never knew of her presence in the room, save by the sense of hearing, unless she put her face close to the cage wires. Calling at her home one day, we laughingly suggested a pair of opera-glasses for him. She good-naturedly acted on the idea, and fastened a magnifying glass close by a perch. As soon as discovered, the joy of that bird was delightful to witness ; he stood by it all the while he was not eating, generally carrying his food there to eat as he gazed ; it became his spot to sing in ; he plumed his feathers there. No old lady ever appreciated a pair of good glasses more fervently than did Jacky this loophole of vision ; when two more perches were each given a spy-glass, youth seemed fairly to return. It was cunning indeed, to see him turning his little head to peep with either eye on scenes so long unknown. You who have birds thus afflicted, try these little glasses, and win their gratitude. They cost little ; can easily be

fastened to the wires beside a perch. One will be a blessing, but any number will be appreciated ; and the bird will act more lively in a cage whence views may be taken from all quarters.

STANDARD REMEDIES.

Tincture of iron, saffron buds, cayenne pepper, and flour of sulphur are the four essential and efficient remedies for most bird diseases.

The pepper is used to warm the craw and bowels ; the iron to renew impaired vigor ; the saffron to remove bilious tendencies, flatulency, indigestion, etc. ; the sulphur to cool inflammatory troubles of system or bowels, relieve constipation, cleanse the blood, etc.

Dry flour, salt, black pepper, sugar, and blackberry leaf, are the common home remedies in doctoring lax bowels.

Soaked hemp-seed, cream, slippery-elm, agents to allay most internal irritations that have not reached rupture.

In ordinary ailments these few home agents will, if taken in time, effect speedy cures ; but when the disease is radically seated the prepared homœopathic remedies had best be resorted to, the nurse studying and acting on those directions, in the foregoing chapter on diseases, applicable to the case.

When preparing pepper-bread for the cage, the pepper had best be put in a cup and *hot* water turned on it ; the bread soaked in that will be fully medicated. But pepper-bread being required, and hot water not attainable, cold water in its place is in better order than omitting the bread would be.

In cases of bowel disorders where continuous perspiration is necessary, and the nurse has neither time or patience to promote it by holding the little sufferer in the hands, a warm nest must be prepared in some box or basket commodious enough to admit a good-sized bottle of hot water, the stopper being perfectly snug and firmly fastened. A lady's work-basket is a desirable receptacle for this. First line with layers of flannel, then lay in the bottle wrapped in a dampened flannel, and again wrapped with a dry one ; and close to this build the nest, filling in around the sides to keep it snug up against the bottle, and only enough between to prevent too great heat in the contact. Covered with prudent care against suffocation, the sick bird will lie quietly in such a nest, grateful for its comforting warmth.

CHAPTER IX.

CONCLUDING REMARKS AND SUGGESTIONS.

WORD or two on nesting-birds and their peculiarities : It is a singular fact, that while *true-mates* cling to each other with unwavering fidelity as long as both live together, when once effectually separated the principle founding the loyal tie seems in both natures to become suddenly, irrevocably demoralized. The true mate torn away, none other is elected in his or her stead for a life mate, but only for the season. Each successive spring a new mate is chosen, and faith is rigidly kept for the season, but no longer. Yet, should the true mates ever meet again, the old tie is remembered, recognized, and the remainder of their lives, if permitted, passed exactly as if the "sacred vows" had never been broken in upon. Parting true-mates is a wrong of more heartless magnitude than people generally imagine in the heedless pursuit of their own pleasures. They part a happy couple in the belief that birds do not mind what mate they have so long as one is provided ; and then a friend really wants to borrow or buy the bird, you know, and one likes to oblige one's friends. The birds may pine a little for each other, but that's nothing ; they'll soon get over it !

Get over it, indeed ! Nay, my heedless friend, the birds *never* get over it, never forget it, as you will learn if you give their habits, natures, etc., an honest and thorough study. The beauty of the little lives is forsworn on the altar of a broken heart ! really a broken heart, whose aches, if life continues, creates a callous article to fill its place. They are, in this principle, utterly changed. Did you ever see true-mates mourn each other's loss ? How they droop about, refusing to eat, happy in nothing—calling, calling, all the days, by spells, for the loved one who never comes, never more responds. Presently the lit-

the sorrowful breast is *bared*, as if the pain were too intense to be borne inside the feather coat—as if it were suffocative. A pitiful sight is the sad bird, sitting about with drooped wings, mournful eyes, and breast all bare! Note how the other birds in the aviary move aside, or softly peck toward her, as the bereaved one passes, each seeming to respect and feel sympathy for sorrow so great. They express most excessive misery if the separation occurs during the nesting-season. We are speaking of *true-mates* who have never before suffered the pangs of such a loss. Such not infrequently grieve themselves to death. We have seen male birds that had never sung a note after losing their true-mates; others that appeared to take the loss with real human equanimity, evidently comforting themselves with the trite philosophy that the sea held other fish.

To the observant eye there is as varied a display of character among canary birds as among the more self-exalted human race. There are gentle hearts, tender hearts, indifferent hearts, brutal hearts, and timid and clinging ones, and those that love to hector. The dispositions are *all* of childish texture; we never met one embodying mature sedateness. Their tempers flame up at nothing, a fierce battle ensues, and the next instant Sir Valorous is squealing for mercy from his adversary. The slightest little hurt is sufficient to transform him to abject cowardice, until he gets safe again, when he will resume the attack with renewed energy. Study them, dear friends, and see if you can liken them to any other than a lot of riotous, laughing, scrambling, merry-hearted school-children!

PICKING THE YOUNG.

Female birds sometimes pick their young as soon as the pin-quills are fairly through, having discovered a juicy sweetness in them. She does not always do this out of viciousness, but because they taste nice, and she will, very likely, disgorge them into the craws of the babes she robs. But, whether vicious or otherwise, the little ones will get picked to death if not removed from her reach. Such mother-birds, if good layers, should be robbed of their eggs, and some better bird allowed to hatch them. In aviaries there are sure to be a few birds who lay small nests, yet are trusty mothers. Give the eggs into *their* charge.

We have been told that washing nestlings in beef-gall, or some other harmless, yet bitter decoction, would cure the old ones of pick-

ing them. Perhaps it will, in some rare cases. We tried it once on a nest of four nice healthy birds that the mother had begun to pick, and she was so angry over the nasty flavor that she punched them to death with her bill. We had never considered her a vicious bird before that. So our experience hardly justifies the recommendation of beef-gall, or any other wash. There seems no way to us except to make the best of whatever turns up so far as such traits are concerned. By the way, in selecting a female for breeding purposes, see that she is flat-headed, thin-necked, long-legged, and has a squatting gait.

A lady informs us she cured a vicious pair of birds of picking their young, by squirting water from a syringe on them whenever they attempted to pluck a quill, watching indefatigably to catch them in the act.

She considers it a better way to do than that of removing the young (we don't!), since they have never abused a nest from that date, raising their young as carefully as could be desired. The younglings must have been sacrificed by this discipline, as no nestling is hardy enough to survive a chill, and they must have been deluged. Yet, if the old birds were really cured of the habit, sacrificing *one* nest would not signify much.

Another habit practised by vicious birds is that of pecking into the open throats of their young when teasing for food. For such nothing can be devised except separation, as this heinous act is sure to kill.

BAD DISPOSITIONS.

The male bird is sometimes of so ardent a nature that he tears up the nest and will not allow his mate to sit on her eggs in peace. He must be removed as soon as she is ready to sit.

Take notice these troublesome males are generally of the full German breed. The French and Belgian are incomparable as breeders, rearing their progeny with tenderest solicitude, and are so devoted and affectionate as mates, one grows to love them for the lovable qualities inherent in them.

Among the French canaries in our stock there is not a cross disposition. They give no trouble, tame readily, and are endeared to us as the German birds will never be, though thrice the pains has been taken to develop them into sweet tempers. They always seem

overflowing with the mischievous pranks of monkeydom, capricious, selfish, jealous ; not at all like the mild-eyed, intelligent, fond-hearted French birds. The song of the latter, though not so rattling and forcible as the German, is quite as delicious to hear, and in cultivation acquires as many notes. Those who have had experience with both breeds declare the French large bird the favorite.

The Belgian birds are superior even to these in amiability ; their natures are most lovable in all respects.

TWO QUESTIONS ANSWERED.

Two questions were recently asked of us which it will not be irrelevant to discuss in this chapter, viz., How to distinguish sexes in the nest ; and how the canary acquired its varied colors.

To the latter the response was made : That the various colors are produced in the legitimate breed by crossing with other birds is not probable, since the progeny thus obtained are mules, and are in consequence incompetent to propagate ; but the fact of imprisonment, of artificial diet, has acted on the system, depleted the quality of the blood, etc., thereby producing a progeny exhibiting different characteristics, physical and mental, than could possibly be in the free, wild breed. That this theory is indisputable, the quality of the different colored birds proves, the palest ones being frail, those catching the native strain most hardy of all. The strength of the mottled bird accords with the depth of coloring ; the mostly dark being more hardy than those mostly light.

A pair of dark birds kept on laxative food will produce more lightish progeny than dark. This is another item favoring the above theory. Others might be adduced to support it, but are unnecessary, common sense being in the ascendant.

The sexes in the nest are readily known to the experienced eye by the formation of the back body, that of the male tapering from the thighs to the terminus ; while the other sex is roundly conformed, the entire body shorter and more plumply cast. The necks of the females are also shorter and thicker than those of the male, and in feeding the female sets the head back a little, while the male stretches up his long neck with a piggish voraciousness that will not be denied. He is flatter and broader across the top of the head than the female, the eyes set farther apart. The broader the head the finer the song.

An observer will notice these distinctions of sex the moment the birdlings burst the shell.

HINTS IN REGARD TO HATCHING.

The term of incubation is thirteen days ; the female begins to sit on her first egg the day she lays it, and the little ones hatch in this order, one a day, till all are hatched ; allowing thirteen days to each egg, of course. Hence, if there are three eggs it will take sixteen days to hatch them all.

Should all not hatch in that time, the person who has charge of the birds must *very carefully* take them from the nest. The fingers must be warm, as there exists a chance of the eggs being alive, and a cold touch will chill them. Being alive they are close upon hatching. Gently hold them in the hollow of the left hand and breathe warmly on them, watching closely for signs of life. The hot breath will cause the chick to move in the shell, and the motion will be seen at once, when they must be restored to the nest. There must be no clumsy work in this investigation, no squeezing of the shell ; and do not turn the egg, if it can be avoided, from the position, in which the sitter left it, laying it back on the same side. Properly handled, they will hatch as well as though they had not been disturbed. Remember, if the shell is prematurely broken, or the egg jarred, the little tenant will die. Therefore be very careful in the handling. If nervous of the result, lift out the eggs with a teaspoon. If no signs of life respond to the hot breathing death is there.

By taking the egg endways between thumb and forefinger, the large end uppermost, and holding between the eye and the sun, certain conditions may be determined. If a few days dead, there appears a transparent cavity at the big end ; if rotten, there is a reddish look throughout ; if infertile, a clear transparency throughout ; if sucked, the shell is light weight, pale in color.

Never rob a nest that the eggs may all hatch together ; it is a poor plan, and seldom ends well.

VARIETY OF FOOD NECESSARY.

Birds should be taught to acquire a relish for various foods, especially figs, bananas, oranges, etc. ; also for the mints—peppermint, spearmint—in the green leaf, as these things are often essential in effecting cures ; whereas unknown foods, however essential to the cure

of a sick bird, will be shunned, and death ensue for lack of inclination to eat.

There is a current report to the effect that, by feeding moulting birds on a diet of red pepper and bread and milk, the new plumage will partake of a red tinge. Such diet is *very* deleterious to a bird's system, though, and none but a foolish person will subject them to it. The natural colors of the canary are far prettier; and nature has given us a large variety of red and pink birds to please the eye without tormenting these helpless victims. If you *must* experiment in this way, try it on your own system. Barnum's arms are ever open for human curiosities, and by the time you are ready for the public gaze methinks some glow of sympathy will have entered your heart for the much abused little canary bird.

A certain fancier declares birds will sing throughout the moulting if refined liquorice be kept in the drinking-water. Another advocates the use of lettuce-seed as especially good for the voice. While both are good in their place, we have found a *good, sound constitution* the *best* préserver of the voice during this critical period. Birds kept constantly caged cannot be expected to acquire or keep the strength which belongs to birds loose in the aviary, and, beside them, their notes will have a feeble sound. This may be remedied to an extent by allowing exercise a brief while each day, or every other day. And *do not* confine him to one kind of seed and water. There is another experiment to test on yourself. If you feel much like singing after close diet on mush and milk for a couple of months, we wager the tune will be entitled, "O for something to eat!"

In selecting seeds, be careful to get those that are fresh, and free from dust and mustiness, as old seed will soon destroy the song and disorder all the internal machinery quite as effectually as hard colds do. Taste of the seed if you feel incompetent to judge by its appearance; if good, it will have a sweet, clean flavor; if old, bitter and musty.

Good canary-seed has a glistening shuck, and is heavy and slippery to the touch. Never give canaries maw-seed; it will kill them. Of rape, the German summer is most praised as "sweetest and best" by some fanciers; we have found the English and American quite as desirable when fresh, as one is as worthless as the other when old or musty. German summer rape is of uniform size, and almost black in color. English and American has several colors and sizes, but is

equally as sweet when fresh, in spite of the much descanted on "imperfection in growth," etc.

The Russian hemp-seed is a clean, sound seed, without black specks when good, sweet to the taste. If old, there will be an oily flavor, and the seed hard. Hemp having a speckled pod and withered meat has felt a frost. A clean gray shuck, a white sound meat,

LANCASHIRE COPY CANARY.

[From an original sketch by the author.]

sweet to the taste, and the birds will enjoy it. But they must be fed sparingly of it, lest apoplexy attack them.

There are two kinds of native millet-seed. That known as pearl millet is best, and is more readily eaten ; has a clean, pale shell beside the other, which bears more of a straw color. The pearl millet is healthy and nutritious ; so is a little crushed rice healthful in summer, when green foods are often too generously allowed for the bird's good. The Hungarian millet is a larger and much sweeter seed, and preferable to the others.

If breeding-birds be allowed plenty of figs, the plumage of the progeny will be bright; the green birds will be especially brilliant. During gestation stint the female on nothing she craves; give her exercise each day, and keep very bright, pleasing colors where she can see them. Some lively colors knotted to the cage-wires are sure to exert an influence toward beautifying the plumage of her young.

Young birds must have a varied, generous diet until seven months old, when a standard diet must be planned that is not too rich for the imprisoned one's health. After maturity overfeeding is easier effected than before. The expanding ligaments, etc., require, as in children, proper nourishment to form a strong and durable physique for maturity to base on. Denied *all* they crave—that is, sparingly fed—the constitution is ever feeble.

Many advocate starving birds for the purpose of taming them. Starvation is likely to make any creature submissive, but it is a cruel way to manage. As the poet says, "Tis better far to rule by love than fear." And birds tamed by loving association are gifted with a sweet, pert manner of response never seen in birds that are starved, or otherwise *forced* to docility. Breeders, however, having hundreds on hand to cultivate, must resort to a formula that occupies small time; the bird's love is not what he covets. But ladies desire the unequivocal surrender of their pet's little heart. In this lies a difference, and the methods adopted must be to the desired ultimatum. She does not like a mechanical tameness, but independent, saucy, intelligent, ingenious capering about her person, when freed, to exhibit its fond delightedness.

As the child trained by love, and the child trained by coercive measures to ways of stern rectitude, betray a widely-shaped difference of character, just so does the training tell among birds.

The system of "starving to tame" ought never to be practised on *immature* birds. They are more liable to fall into illnesses under strains upon the system than are fully-developed, mature birds. In fact, to make extra songsters, the young lives should be free of all terrors, all unnecessary restraint. The appetite is so keen only very little coaxing is required to get them to receive bits out of the fingers. There need be no starving, merely denial of some dearly-prized dainty for a day or two, until, to have it, willingness is manifested to pick at it when offered. The hints in the chapter on taming, etc., will prove an efficient guide for any one.

ESCAPED BIRDS.

Pet birds are frequently forever lost—when by some unforeseen accident they get loose—that could have been enticed home without difficulty had the owners known how to go to work. A few simple directions herein may be of value to such.

A bird that escapes from its cage in the breeding-season is trapped at once if he or she be still on the premises, and a double-cage is hung out, a bird of opposite sex confined in one compartment, and the door of the other left open for the wanderer.

If the bird has a mate, hang her or him out immediately. A loose canary will go to the cage of any bird that is to be seen. When hunger calls, an empty cage is sure to tempt entrance, and the door must be managed to spring to easily if one cannot stay by to watch.

If a sheet be spread on the ground the bird will alight on it, and another sheet can be tossed over to make him captive. A very tame bird will return to alight on its owner, if a sheet, or any white article, be thrown over the shoulders, and position taken where the bird can see and also hear the familiar call.

A young miss lured her lost pet in through the open casement by playing on the piano a favorite tune of the bird's.

As twilight approaches, if the stray bird is on the premises, throw open the windows, light up brilliantly, cages being arranged where they can be distinctly seen from without, and the bird will soon enter the room and settle in a cage. In pursuing this plan, the open room is best vacated, as the sound of talk, or laughter, or the presence of people will scare the timid creature. The cage shows best on a white table-spread.

Escaped birds are easily entrapped in cages set out of doors on a white spread table or box. They are sure to seek the cage when hungered. All food must be *inside* the cage, remember.

Never beat around with sticks or stones, as that frightens them to seek refuge in tall trees, and may drive them far away.

THE USES OF MUSTARD.

Mustard when green, also the ripened seed, is a food birds are fond of, but will create inflammation when too freely given. A little is good for them, occasionally given, but do not mistake the kind. The yellow mustard is *the* sort to give. The white mustard is fit only for medical uses, as it is very laxative. So is the yellow rather laxa-

tive if too freely eaten, and, in fact, extremely injurious if persisted in day after day, being irritant as well as laxative.

All seed is healthier if the dust be washed off. It is soon accomplished by tying the seed in a muslin bag, and sousing in a vessel of clean, fresh water. Drain well, spread the seed on a sheet, or paper, in a hot sun, to dry.

CARE OF THE FEET AND LIMBS.

Sometimes nestlings in very warm weather are kept too warm, or the mother-bird may sit too heavily on them, and the feet or limbs become somewhat paralyzed. Be sure to examine the limbs ere old enough to come forth, as they will always be cripples if not attended to in time.

Each day the paralyzed limbs must be dipped first in tepid water, then in water made as hot as can be borne, following with very cold water, holding them in it and rubbing with the fingers a couple of minutes or so ; after which return to the nest. A few of these ablutions will restore their strength. Also practise this plan with female birds who lose the use of their limbs by too close sitting on their nest.

Should the hind claw of younglings turn forward, tie it back with *woollen* yarn, after first dipping the feet in waters of extreme temperatures—as above—and touching the joint with olive-oil, leaving it thus tied two or three days, when the foot must be given freedom during the day, binding it up again at night, if the toe inclines to turn under again. Should the yarn shrink and draw the toe too tightly to the leg, put on a new binding at once, lest the joint stiffen and render the toe useless. Besides stiffening the joint, the bird is in misery with the yarn so torturingly tight. Attend to it.

BIRDS ARE IMITATIVE.

Young birds will ever evince great alarm when the cage is being cleansed. Perfectly tame in all other respects, yet the removing of perches, the introduction of a hand inside the cage, will cause them to beat about, wild with fright. Time alone will give them confidence ; time and kindly patience. If caged with old tame birds, the confidence is sooner attained. In fact, young birds will imitate whatsoever they see the old ones do. An amusing instance of this imitative spirit occurred in our aviary. A pair raised a nest of four,

three singers and a female, taking unusual pride in their education. One of the singers was imbued with a mischievous disposition. His father was unwieldy in flying, the back body teetering heavily with each spread of the wings, and this to youngling was a funny sight ; he was sure to eye his flying papa very closely so long as he remained on the wing, then would himself assume an air of prideful gravity, and go teetering through the air in exactly the same manner, touching at the same points and halting in the same spot where his papa did. Ordinarily, he was very swift and graceful on the wing, but this bit of mimicry afforded him—seemingly—an immense lot of satisfaction.

Caged birds when young and forming their first attachment will quarrel some, but once happily mated are generally peaceful. The German breed are most liable to have bitter combats at this time.

A VARIETY OF HINTS.

In feeding crackers to birds the Boston cracker is the best, the other makes having rather too much shortening to be healthful. Grease is sure to create dyspepsia ; if persisted in it will cause the feathers to fall off, and eventuate in death. When the Boston cracker cannot be had, stale bread will do in its place. Hoarhound candy is better for hoarse birds than rock-candy, and dissolved in water, will be drunk quite as freely by most birds.

Birds loose in a room are captured without difficulty if the room be first darkened. To catch a good flyer in the naked hand is not easy, but if a handkerchief, or other light cloth, be tossed over the bird as it alights, the task is at once simplified.

Birds of pale colors are gifted with clearer sight than are the dark-colored birds. The latter go to roost early, while the yellow birds fly about when the gloaming is so dense their dark brothers and sisters could not see to find a perch ; but the light birds are most liable to blindness in old age.

In selecting cages give preference to any but the brass or gilded cage. They are very poisonous, verdigris forming on all foods attached to the wires. Green-painted cages are also to be avoided.

Aviaries may be beautified with a small fountain with a very little expenditure. Say the aviary is beneath the piazza-roof ; a tin reser-

voir—a small one—may be arranged on the roof to catch the rain as it falls ; a small conductor will carry a tiny stream to the fountain-pipe below, the elevation of the reservoir giving sufficient impetus to the stream to send it up again in a shower of spray. Any ingenious man may construct the entire thing of materials such as farmers or mechanics commonly keep in their workshops. There is nothing more pleasing to house-birds than a spray-bath at the fountain.

In closing this work, that our sister admirers of the canary may find the difficulties of keeping a fair-sized aviary in health and song materially lessened, we append the recipes of three valuable invigorators, each one of which is worth more than thrice the cost of this volume ; and are equal to any in the market. In fact, those “invigorators” generally sold to the public are—save in one or two instances—far inferior in effect, besides being very costly for the amount of *strength* each bottle contains.

For all diseases of lungs, throat (asthma, consumption, etc.), weakness, drooping in the moulting-season, bowel derangements, and all cases attributable to colds and impaired vigor, the two first are found always efficient.

NO. 1.—INVIGORATOR.

Canary wine.....	2 ounces.
Simple syrup (made of rock-candy)	4 drachms.
Firwein (fluid)	1 drachm.
Tincture of iron	1 scruple.
Water	$\frac{1}{2}$ pint.

If a quart of water be added to this prescription the usual strength is acquired which is found in the best patented invigorators. It keeps best not to be diluted, however, until ready to use, when one drop will be sufficient for a common drinking-cup when the bird is sick ; but used once a week, merely to keep the health and song vigorous, one drop will supply two cups.

NO. 2.—INVIGORATOR AND SPECIFIC FOR COLDS.

Canary wine.....	2 ounces.
Syrup of rock-candy.....	4 drachms.
Syrup of squills.....	2 drachms.
Tincture of iron	1 scruple.
Water	$\frac{1}{2}$ pint.

In using No. 2, care must be taken to keep the bird out of draughts of air, and the bath must not be allowed the same day. The squills is opening to the pores, which makes the partaker susceptible to chills. For this reason—although one of the best invigorators extant—we give preference to the first prescription—as will, we think, all fanciers who will give it a trial. The squills has been in common use many years as a general specific for birds' ailments. The firwein must soon take its place, as it possesses far rarer qualities as a specific, and requires less caution in the using.

We do not claim that disease will *always* yield to these "Invigorators," because it often attains a settled or chronic condition, which obliges the owner of the sick pet to cast aside all *general* health promoters and settle upon a systematic doctoring; when the "Chapter on Diseases," will be found indispensable. But taken in time, either of these "Invigorators" will be found to act like a charm. Long-continued cases of hoarseness, loss of voice, hard breathing, etc., etc., will readily give way with their use.

No. 2 is given in same dose as No. 1. Used as specific—to *prevent* disease—one-half drop to a drinking-cup; weaker yet if the bird appears to dislike the taste—which is scarcely perceptible in the strongest dose; yet some birds cannot take squills all the day—however weak—without a sickening feeling.

The prescriptions can be filled by the apothecary.

The third prescription is to be used in bilious attacks, dyspepsia, humor, constipation, and kindred complaints.

No. 3.—CORRECTOR.

Canary wine.....	2 ounces.
Rock-candy	2 drachms.
Sulphur (homœopathic, third dilution)	1 drachm.
Nux vomica (homœopathic, third dilution). .	2 drachms.
Water	$\frac{1}{2}$ pint.

A drop in the drinking-cup once a week for breeding birds keeps them in a high order of health, and seems to convey a strengthening principle to the ovum. Try it.

It is well to remember that *preventive* care ranges far ahead of *curative* care, and so give our pets such choice and *regular* attention as will keep them in continuous health. And birds in *perfect* health should *never* be dosed with any sort of medicine, not even with a

drop of the "Invigorator," for it is as injurious to stimulate a bird in perfect health as to stimulate a man in *perfect* health. In both cases the healthful balance is lost ; bad feelings, languor, inertia, will result, the heralds of a pronounced disease.

Yet, "in the best regulated families accidents will occur," and the hitherto healthful bird becomes the victim of some unforeseen disorder ; in which case we humbly submit these cures of our experience to your study, confident the fair trial of either one will win deserved encomiums. *Con amore.*

APPENDIX.

EDITED BY E. B. FOOTE, M.D.

ADDITIONAL FACTS AND NARRATIVES.

HIS appendix is added at the suggestion of the publishers. It has been the agreeable task of the writer to look after the printers while the written pages of the author were being put into

type. Several communications have passed between the author and the editor of this additional matter while the mechanical work has been in progress. These letters contain some additional facts and narratives which may be regarded as instructive and interesting. Then, too, there is a valuable lesson to be drawn from the publication of a work of this character, and it will not be overlooked in the concluding pages.

First of all, let us call attention to the pretty pictures of the canary, as presented on the two covers. They are from original sketches supplied by the author. The chromo artist has tried to give the colors true to life, and has succeeded as well as could be expected, although it is due to Mrs. Farwell to say that he has not made them so lifelike and true as she gave them in the pictures drawn by colored crayons. Perhaps it was hardly possible; indeed, as impossible as it would be for a "penny-aliner" to give the feeling advice in the care of the pet canary that she has given.

Says the author: "I am well aware that to the experienced knight of the quill this work of mine will disclose many imperfections, both in arrangement and composition; but I trust the good-will of its import may, to some extent, counterbalance them.

"Common-sense composition is new practice to my pen, long saddled to the butterfly back of fiction; therefore, I hope the learned and practical critic will do me the kind justice to see—and sympathize with the fact

—that, in rowing my boat outside the novelist's current, the waters become naturally both strange and roughly obtuse to me; and if I sometimes jar upon a rock, or brush heavily over bedded sands, I yet am doing my ablest to keep in sight of the land at my prow."

Perhaps the "experienced knight of the quill" could excel her in the matters of which she speaks; but no one, for mere pecuniary compensation, could prepare such a work as this.

"I am not versed in medical lore," again says this lady, "and so lack much in the expression of those ideas which the diploma-ed physician trills so neatly, but I think the novitiate rendering within these pages will be quicker comprehended by those who do not own the physicians' diplomas; and as it is for the masses I am writing, there can be little doubt the plain, simple facts relative to the universally-kept canary, being plainly and simply phrased, will prove more acceptable and beneficial than would the Latin in which Æsculapius disguises his tongue to awe the world withal."

That is plain speaking, but Æsculapius can digest it, and good-naturedly acknowledge its pith as profoundly true. But we see no necessity to apologize for the literary character of Mrs. Farwell's work. She does not base her medical treatises on a technical education, but on that practical common sense which evolves from experience in nursing both the human creature and the feathered tribe, having applied, and successfully, the same general treatment to each.

Where good writing could be used effectively in touching the heart of the reader, so as to make him understand the true nature of his helpless little pets, Mrs. Farwell has performed it beautifully, nay, eloquently. When giving directions in regard

to feeding, dosing, etc., it is difficult for the writer to rise above commonplace, and the careless jottings of the pen in some instances may seem fragmentary. Albeit, all that has been attempted in this line is a success, because it does convey to the most ordinary reader, in the plainest language and without unnecessary phraseology, the practical advice needed by those who have the care of canaries. Any attempt at literary excellence in this practical department would have been liable to render its recommendations less clear and comprehensible to the common mind.

How well prepared, by nature and real sympathy with the canary family, our author is to treat on the management of the pets under consideration, is illustrated by an incident related in a private letter. She concludes a communication to the writer of this appendix by saying: "I have but my right hand at liberty in this writing, the left being occupied by a pet singer who has had a leg amputated. It is the first accident in my aviary. I was away when he got caught by the leg, and he fluttered until the lower part of the leg and claws were all broken and twisted beyond our power to save. He hung thus fully eighteen hours, and was a very sick bird when discovered. I am trying to alleviate his pain as much as possible; have been up with him three successive nights. Foolish, am I? But I cannot sleep, and leave him to suffer from the terrible fever and thirst which are devouring him, and—kill him, we can't! In spite of fever, I think he will recover. He takes medicine as docilely as a child, but is utterly helpless now." The reader will no doubt feel interested to know how the little patient came out. It must be said that he died, in spite of the close care and attention he received. One who can thus patiently sit up nights to ameliorate the sufferings of a pet canary that has undergone the amputation of a leg, is the very one to prepare a book like this for the guidance of those who indulge in feathered pets.

HUMAN NATURE AND BIRD NATURE.

HE reader cannot have attentively perused the foregoing pages without perceiving that many of the characteristics found in human nature crop out in bird nature. If man in his evolution had some time been a member of the canary family, we should say that he had held on to many of the hereditary traits of his feathered ancestors; but the real secret of the bird-nature, as we see it, is perhaps better explained in an extract from a letter from

the author, which will come in by-and-by. Just now we desire to quote from a lecture delivered at Boston, some ten years ago, by the gifted poet and platform speaker, Mrs. Augusta Cooper Bristol. She was speaking of "Human Nature and its Relations," and in the course of her address related an interesting story of "PIP AND BIDDY."

"Long before I had ever read Darwin," said Mrs. Bristol, "I had become convinced of the unity of man's nature with the order of life below him, from observing the life and habits of a pair of canaries which belonged to me. Pip and Biddy were an interesting study, not only to the ornithologist, but to the student of human nature. With them, and as is usually the case everywhere, the honeymoon—the season of perfect bliss—ended with the advent of offspring. Biddy, her love no longer undivided, and burdened with new responsibilities, began to realize that Pip's husbandly attentions were sometimes annoying. She was happy and amiable when he would assume the duties of parentage, feed and brood the little ones while she took a hurried bath and hasty meal; but when he thought only of himself, and persisted in love demonstrations, Biddy grew sometimes very indignant, and, in the strength of the larger love of motherhood, would battle him from the perch, and hold him at bay as long as she chose. And although Pip's manhood seemed to deteriorate in some directions under such ignominious defeat, yet it developed his powers of strategy. A white thread hung down from the bottom of the nest which I had made for Biddy, and, during his hours of defeat, Pip would jerk this thread with his bill so hard as to rudely jostle Biddy, and keep her in a constant state of wonderment and apprehension; for, as he was directly under the nest, just out of her range of vision, she never seemed to quite comprehend the cause of her disturbed equilibrium. Biddy, like the most of her sex, was fastidious, had an eye for the beautiful, to which the love-element within her held evident relation, for whenever Pip bathed he became miraculously ugly. Every separate feather quit neighboring with its fellow in an uncommon individuality wholly disgusting to Biddy, who in all her ablutions never succeeded in making quite so shocking a spectacle of herself. That it was distaste, instead of anger, that disturbed her at these times was evident from the fact that, with neck outstretched toward the object of her disgust, she expressed herself in a shrill, voluble, exclamatory note which could be nothing more nor less than scolding. When enraged, nothing but a pitched battle satisfied her. Biddy could draw an inference, which a little incident conclusively illus-

trates. One very cold night in the winter season I concluded to move the cage from the room in which it usually hung to another more comfortable and even in temperature. I lifted and carried it with such care that the two birds asleep upon the perch were not awakened. But, in placing the cage upon the table where I had decided to let it remain for the night, I did not lift it high enough, and the corner of the cage hitting the corner of the table, Biddy was rudely jostled from the perch, but Pip, being the lighter and more agile, was able to preserve his equilibrium and maintain his elevated position. Biddy, who had never suffered inconvenience or displacement except through Pip's wonderful powers of strategy, immediately inferred that the whole mischief was attributable to him, and dashing at him in furious indignation, she routed him from the perch into the corner of the cage, where he cowered through all the hours of darkness, only now and then giving a faint chirp in order to assure his indignant spouse that while he had the "spirit of a man in him he *would speak out*." But as every true wife proves sooner or later the reality of her attachment, so did Biddy prove the intensity of her love for Pip. One day she seemed to grow sick, and fearing that her disease might prove contagious, I removed her to another cage. For some time, from judicious reasons, I hardened my heart against her apparent loneliness, as she sat moping upon the perch, till one day I was so touched by her listless despair that I restored her to her mate. Biddy's joy was too great for her feeble strength. She gave a succession of sharp cries of delight, her wings trembled in an ecstasy of joy, till she finally sank upon the floor of the cage, and in a few hours her eyes were dim in death! Pip was mystified, perhaps shocked by this sudden dénouement; yet he evidently mourned not as one without hope, for soon after the floor of his cage fell out, and away he flew into the woodland with a carol that made the forest palpitate with song, his melody all thrilling with the realization and expectancy of new freedom and another mate. Human nature again!"

MRS. FARWELL'S EXPLANATION.

UR author hearing the story of Pip and Biddy, did not quite agree with Mrs. Bristol in her conclusions. Nevertheless, the views of the former, it will be perceived, do not antagonize those of the latter, when she said she had "become convinced of the unity of man's nature with the order of

life below him." But Mrs. Farwell has another way of explaining it. Referring to the concluding portion of Mrs. Bristol's story, where she speaks of Pip soaring off over the woods singing—singing, leaving his dead mate in the cage, our author says:

"As you have astutely noticed the magnetic link which runs through a family, showing in each individual certain habits, traits of character, methods of reasoning, etc., you will not feel inclined to doubt my assertion, that the canary kept in any family soon acquires the same traits of character which are strongest developed in the family, and the person who cares for him or to whom he is most attached. To observe the resemblance to character between my birds and self would afford you amusing study. A pair of birds kept in a quarrelsome family will quarrel the greater part of the time. Those reared in the hands of the selfish will be sure to have selfish propensities. A pair of birds belonging to a couple who quarrelled a great deal gave us much amusement. The wife was jealous and quick-tempered; the husband rather lax in morals, fond of a joke, and particularly fond of tantalizing his wife when in one of her furies. He would whistle, laugh, joke, kiss or fondle her, and then get vexed out of reason and storm back; presently he would leave the house and kill care in naughty sports, while his wife, left alone, would either have a cry or sulk until a chance occurred for 'humble making-up,' as the phrase goes. Their birds, which we had the care of for a year, evinced exactly the same traits. If Dick looked at another bird he was whipped unmercifully, but he good-naturedly stood his ground at first. He would offer to feed her, sing his sweetest strains to her, go to the nest and talk over all the pretty facts appertaining thereto; but she would hear to nothing. Finally he would spread his wings, face her, and pour forth his song until it seemed as if his little throat must burst with the volume. Sometimes, at this stage, she marched quietly about her business, thus signifying the quarrel had reached as high a point as she felt able to encounter; but at other times she would throw herself upon the impudent singer and peck at him most viciously. At this juncture, we one day opened the cage door, to give Dick a vantage for self-preservation. Together they both tumbled forth, she not losing her hold, and he flew to the floor ere he was able to shake himself free; and then, oh! the performance was well worth looking at! With wing and tail feathers spread and dragging, he danced before his astonished spouse, singing such a wild pæan of triumph as was never sung by a bird before. How he danced around! Round and round he con-

tinued to go, the ends of his toes barely touching the floor, his song swelling louder and louder; and Mrs. Katie could only crouch and regard him with wonder-wide eyes. Ere long she assumed a humble aspect, crept to her crazy liege's feet, and said something in the softest, most supplicating tones possible. At once the proudly-poised head drooped to hers, a long quavering note cut short in the act, and he was feeding to her the whole contents of his crop, their reconciliation perfect. The docility and admiration tendered her liege lord the next few days was a sublime thing to witness; but *then* there came another difference, Dickie not wishing to shorten his vocal exercise to feed her on the instant she called. They were a very smart, intelligent pair of birds, but so long as they lived they kept up these hot disputations. A pair of birds kept in a nursery, with a sweet little girl as companion and mistress, were directly opposite the above pair in disposition. I had their management one season while the child was sick. She was all affection, ready to close her tiny arms about one's neck, or put up her soft mouth to kiss the face bent forward to her own. No pair of love birds ever caressed each other more constantly than did this pair. When the male bird sang, the female sat at his side, and either tried to supplement his notes with hers, or gazed at him with idolatrous expression. They ate together, chatting softly upon (we used to say) the quality of the food. Their nest—the eggs—well, I cannot relate the story and do justice to it, as the manner of the little pair was far too sweet for expression; but when the eggs failed to hatch, she told him time was up; something was wrong! He got into the nest and tried to hatch them himself. No better result! Finally, after many discussions, they agreed to sit no more! I removed the eggs. She laid three more, and they both sat upon them. Probably this was agreed upon during those discussions, for they stuck to the business until the eggs hatched—two of them. Such devotion as those babes received could not be equalled. To be brief, the mother never again had a nest which her mate did not aid in developing during the term of incubation. He evidently got the idea from the non-success of the first—that the case required the joint warmth of both of their bodies. He seemed to like the fun too. In all their little lives they had never seen other than those phases of love which are purest and holiest, and the influences thereof were vividly portrayed in these tiny pets, even as the devotion of love or the exhibition of hatred is portrayed in the development of children, either softening or hardening their natures."

Many other little anecdotes, for which space can hardly be spared, have been related by the author to illustrate the contagion of character between the family and its pets. But if we were to leave off here the consideration of this branch of the subject, the true cause of the flight and song of Pip, when he left Biddy stone-dead, might be misinterpreted. Our author has a plausible way of accounting for the peculiar conduct of Pip on this mournful occasion, without calling in question his faithfulness to Biddy, or reflecting unfavorably on his human examplars in the light of the new philosophy. Mrs. Farwell says that in the close study of canaries she has never met a case where the mate at once left the dead companion to seek another; therefore, she maintains that Mrs. Bristol's deduction was quite wrong, though natural enough to one who knows little of the inner character of these birds. "There is," says Mrs. Farwell, "a period of grief more lengthy with the female than the male bird, yet he manifests very openly always that his little heart has been sorely touched. Judging from the warm attachment ever existing between Mrs. Bristol's birds, and deducting from the known general character of the canaries, I should say this little fellow soared, singing, away from his dead mate in an ecstasy of misery, even as a newly-caged lark frequently sings itself to death in a vain protest against its confinement. What would our poetess do in an exaltation of misery? She would soon snatch her pen, and pour forth her soul in wildest heart-breaking song, and never drop the theme until the whole story of the storm-tossed heart was told. Then, relieved, she would go back to prosaic life again, feeling rational. That is generally the style of passion-poets like Shelley, Byron, etc., who wore their hearts into early graves through this same ecstatic poet-sympathy. Had Mrs. Bristol lived in their time, she too would have died in comparative youth; but the freedom and refined liberal civilization of this century preserves the untrammelled thinker from such martyrdom as was encountered in Shelley's life, with conservatism so barbarously conservative as it then was. Perhaps I magnify Mrs. Bristol's powers of temperament, but I cannot look in her face and believe she is minus that cyclonic strength of exaltation of which I have been writing, or credit that it was any other sentiment that caused the bird to soar off in such an ecstasy of song. He undoubtedly went on thus until exhausted, or until some wary hawk or other bird of prey settled upon the hopeless songster, and ended the sweet strain with one stroke of those cruel talons, or one wrench of the terrible hooked beak. Be sure of

this—no house-bred bird ever yet lived to find a mate in the woodland wilds, for they are not cunning enough in woodland craft to hide from preying birds, or sufficiently fleet of wing to get away from the winged pursuer. It is no mercy to turn house-pets into the open heavens to find a livelihood, for they do not know the first rudiments of such a life, and will surely either die, or go and beg a home at some hospitable mansion, always providing that the hawk or some other bird of prey does not get them. So, though I cannot accept the simile facetiously presented of the bird manifesting much of human nature in thus quickly seeking another wife, I can appreciate the sense in which it is used, and have my laugh with Mrs. Bristol over the instability of the average human creature."

In what Mrs. Farwell says in regard to the canary bird acquiring the characteristics of the family in which it is reared and cared for, it will be observed that she is quite in accord with the views of the editor of this appendix, as expressed in "Plain Home Talk, embracing Medical Common Sense." On pages 197-8 of this volume will be found the following: "Man fills the whole animal world with magnetism, bearing more or less of his qualities of mind and disposition. Place a good man for a while in the magnetic atmosphere of those who are bad, even if the latter be mute or asleep, the good qualities of the former will be in a measure modified. No one can habitually live in the atmosphere of wicked people without being in some degree contaminated. There are places which good men cannot enter without having their moral nature somewhat injured. Now, if men are so much under the influence of their fellow-men, may not the inferior animals be also affected by the moral atmosphere of mankind? We find, where men are the most savage, most brutal, and most given to the pastimes of torturing and killing, that there, too, animals of all kinds exhibit the most bloodthirsty instincts. The same animals, removed to regions of civilization, and among men of greater kindness of feeling, lose much of their savage disposition; and, too, these ferocious animals are often subdued by the presence of one noble, generous man. . . . All successful tamers of ferocious animals, as well as our best horse-trainers, are men of kind hearts. It is impossible to subdue the tiger with a club, or a vicious horse with a whip; and may it not be that the promised millennial era, 'when the lion and lamb shall lie down together,' will make its advent on earth so soon as man shall have subdued all his cruel passions—so soon as he shall recognize the rights of animals of every grade to exist and enjoy life—shall love his neighbor as

himself—and shall love everything that creeps upon the earth, because he is impressed with the fact that he is related to it."

In the face of this philosophy, however, as expounded by Mrs. Farwell, it will not do in all cases to judge of a family's character from the conduct of its pets. Even the law of heredity sometimes miscarries, and if we cannot safely measure the conduct of parents by that of their children, there must be many exceptions to the rule laid down by our author in accounting for the queer antics of family pets, as well as their praiseworthy virtues. And, again, this view of the subject does not militate against the proposition that human nature is quite commonly reflected in bird-nature. Mrs. Farwell herself relates a story which strikingly corroborates it.

THE STORY OF PINKIE, PHYLLIS, AND BUTTERCUP.

OW "I am going to relate another little true story. I had to sell last spring a tame singer I much prized, Pinkie by name, lest he keep me too thoroughly occupied with his antics. He felt the enchantments of Phyllis—a female canary—so deeply, no other could distract his attention. She, however, reciprocated the suit of another songster—Buttercup by name—and entered with him the hymeneal state, constructed her nest, and reared young. Yet Pinkie could not give her up. He was incompetent to whip Buttercup off the field, so he accepted the inevitable in so far as he was compelled to. He took Topsy, a female topknot, for his spouse, but all his love and care were given to Phyllis. Mark the human in his conduct. Topsy was enforced to keep her vows inviolate to him; also obliged to rear her young all alone, while her lord and master kept hovering tenderly by Phyllis' nest, ready to feed her younglings or her the instant Buttercup was out of sight—and Buttercup was a first-class husband and father. He objected to Pinkie's devotion, and gave him a lesson each time he caught him sneaking about. But it was to no purpose. By Phyllis he would stay and help her in her domestic duties. It was a cunning scene to watch, and had he been less tyrannical to poor little Topsy, I would have let it go on for the fun in it. It did go on for two years. I being obliged to interfere almost daily to save Topsy a jealous drubbing, or separate Pinkie and Buttercup. So, being a most excellent singer, a friend fancied Pinkie and purchased him, much to my relief. Now Buttercup is left in peaceful posses-

sion of his wee wife, and Topsy has taken a more congenial mate, whose cares and affections are not divided. Such wonderful tales I could tell of these little creatures! People who have never studied birds or beasts little realize the marvellous instincts they possess, or the divinity of the moral principles that guide them."

success when the female bird has ever attached herself to a mate of her own species, or when she has been allowed to realize that there exist male birds of her own kind. I have seen the breeding canary nearly destroyed by its wrathful alien mate. Those who have never witnessed the realities of interbreeding can scarcely

SCOTCH FANCY CANARY.

[From an original sketch by Mrs. Farwell.]

ALIEN MATES.

WHAT our author writes us in regard to alien mates may properly find place in this connection. In writing of the care of the pet canary she says: "I did not give the subject of inter-breeding the thorough handling I might have done, for two reasons: First, there is too much cruelty in the business to make me wish it practised universally. It can be done with no

imagine how wickedly tyrannical the male alien birds are in the breeding season, when the current of true love does not run smooth, to use a trite quotation.

"Secondly, to give accurate detail of the various birds that can be interbred with canaries would have nearly doubled the size of the book, as those birds must generally receive special treatment ere they are allowed to pay their respects to their future consorts. Furthermore, while they require the same general treatment as the canary, they do not thrive well unless given

a little different care. Fanciers are apt to talk too slightly of the needs of birds. Should circumstances warrant the production of another volume, to be devoted to forest pets, the subject of interbreeding will receive a very natural discussion, along with a description of birds, their habits, foods, and possibilities of civilized handling."

of horny color and expression: the Ortolan and Poephila, or Grassfinch—classed Poephila-Leucotis, or white-eared Grassfinch." Describing the Citrilfinch, the author says: "It is of a lemon color, and generally known as Lemonfinch. It is not a Goldfinch; it has a paler color and shorter bill."

YORKSHIRE CANARY.

[From an original sketch by Mrs. Farwell.]

A few points, however, supplied by Mrs. Farwell in a subsequent letter, may be profitably added. "The chaffinch (male) will interbreed," she says, "with the canary hen, and with far more profit than does the Bullfinch." In further explanation of some of the birds spoken of previously, she remarked: "The Serinfinch has a small horny bill, and is well colored. I have always called the Ortolan the Serin. I see Mr. Rittenhouse mentions two finches as Serin—both having small thick mandibles

THE SCOTCH FANCY AND YORKSHIRE.

FTER all of this volume, excepting the appendix, was in type, a letter was received from Mrs. Farwell, enclosing two more original sketches, giving the conformation of the Scotch Fancy and Yorkshire, and even the colors of those specimens from which she copied.

In reproducing these sketches we shall attempt nothing further than to give the contour of these birds.

The Scotch Fancy of her sketch is certainly a very beautiful creature, the breast plumage being a deep yellow, and extending to points above and back of the shoulders and fore-neck, while from the crown of the head to nearly the tips of his wings a greenish color predominates. Much of the cinnamon shade edges the long pennons, and appears intermixed with the green of the back body. The tail feathers merge into yellow more than white.

In Mrs. Farwell's letter, accompanying the sketches, she says: "Until early the present week I never saw either of these birds, so could not add them to the sketches previously supplied. I was then convinced the Scotch Fancy alluded to in Mr. Rittenhouse's notes meant the Belgian, and the Yorkshire and French were identical; and especially as Mr. T. Hammond—an excellent scholar in ornithology, and fancier in a seclusive way—approved my belief in the matter, was I the more assured of it; so went to work on the subjects in hand quite confident that they comprised all the strains of the canary then extant.

"But Monday morning of this week I was surprised to have some beautiful specimens of these two birds placed before me by the hand of this same Mr. Hammond, who found them in the large bird-rooms of his friend—I think, am quite sure, he found them at Murphy's—and obtained the loan of them for half a day, for the purpose of having their pictures taken. Though half fearing they would be in too late to be of service, I felt it a duty to prepare them and brave the chances, since the book could not be complete without some notice of strains so notable.

"The Scotch Fancy, as you will observe, has a curved form—a hooped body—which gives him a very odd look when sitting on the perch. He resembles a half oval, almost, the end of his tail being nearly on a line with the tip of his beak. This one was valued at \$40, while the Yorkshire was valued at \$25, both being so very rare, you see.

"These fancy strains are always difficult to breed, and so must command good prices. The Belgian—or humped canary—is often sold for nearly its weight in gold. Good specimens, to this day, fetch as high as \$125, although it is among the earliest of the fancy strains. The French bird is not so rare or so expensive, being more of the natural form, the only difference perceptible being the long, straight legs, large shoulders, and the length, which yet does not seem to be as great as that of the new strain—the Yorkshire. The Scotch Fancy

is thus named because first bred in Scotland, and the other was produced in Yorkshire, England, just as the Lancashire copy was first bred in Lancashire. Some call the copy the Manchester, but they do not understand that the Lancashire, though having the same style of crest as the Manchester, has *always* a *yellow body* and *brown crest*, while the Manchester may have any other colors and markings or tickings, save those arrogated to the Lancashire.

"Now, to return to the Yorkshire. It is a very long, slim, straight bird, with shoulders that look rather queer, they are so low. The body seems scarcely larger in circumference than the head; this appearance being due to low shoulders and a general elongation of the whole body, for it really is much larger than the head. It is—like the Scotch Fancy—valuable in any color or combination of colors, because it is not easy to breed a good specimen. By the way, I forgot to state in the proper place that the Top-knot or Turn-crest is often known as the Norwich crest. Why so called I do not at present know, but am going to try and learn. Of course, I will not be selfish enough to hoard the mighty truth once it is discovered, but will disseminate the same for the curious to handle as well.

"I am assured that the sketches now in hand embrace all the true strains of the canary, unless we except the Cayenne-pepper bird, and that can hardly be classed as a real strain, because the free use of the pepper will transform any of the canaries into red-plumed birds. All the others are born to those colors, beauties or ugliness in form and feather, which give them license to classification as fancy strains.

"I suppose you know there has long existed in England a society especially devoted to the improvement of pet birds. Most of these fancy styles of the canary were there developed, and it will be strange if we do not soon learn that some able experimenter has conceived and produced something yet more remarkable and worthy than is now attainable."

LONGEVITY OF THE CANARY.

SOMETHING may be added which may prove of interest regarding the longevity of the canary family. "Two years ago," Mrs. Farwell writes, "I saw a canary eighteen years old, which died within that same year. The age of this one we thought remarkable, it being three years older than any canary I had ever seen or heard of; but I have dis-

covered another instance which, it seems to me, can have no parallel. In this place (Vineland) resides a family that lost in February a pet canary that had been with them twenty-eight years. Think of that! Twenty-eight years old! He was a strong singer up to his fifteenth year, when his notes became less vivid, and as the years increased the voice grew more feeble, until at last it seemed like a meaningless warble. His sight was good, and he was sprightly up to the last, except that he slept later in the morning and took daily siestas. When this story first reached me, I was inclined to treat it as an exaggerated 'Jersey yarn,' but I this morning had a conversation with an aged member of the family in which the bird lived and died, and she gave me the details. When the bird died, they felt as if they had been bereaved of a child."

It is needless to add that a canary must be well cared for to reach half the age of the one referred to in the foregoing. Just as the human family tamper with their health, and in some instances change the color of their hair, the bird-fanciers, it seems, sometimes tamper with the health and life of the canary to enhance the beauty of his plumage. These facts are also presented in a letter received a few days before this volume was ready for the press. "I have just learned," says Mrs. Farwell, "the deleterious effects upon the canary's system of the lately fashionable habit of coloring the feathers with cayenne-pepper. From my own observation, I knew it was injurious to thus dose the bird, but not having experimented with it to any extent, could give no statistics. The effect of red pepper on the feathers was accidentally learned by a fancier who, during the moulting period, allowed some of his birds to contract colds. To warm their chilled blood, and with hopes to cure thereby, he began to give them a diet strongly tinged with pepper, keeping it up many weeks because their colds proved obstinate. In the interim the new feathers started, and surprised the man by unfolding with a changed color—a very good pink; so he kept on supplying the cayenne diet until the plumage was all out. Perhaps you remember the furore this red canary created in—I think it was—the fall of 1880. The next year, T. Hammond (ornithological student and fancier previously alluded to) tried the pepper on two dozen canaries, and with the best result; some were for sale, others for his own experimental use. He kept ten for this use. He says they were very sensitive to atmospheres, and would shiver often if not frequently fed with pepper during the seasons following the moult and change of color. Then the next fall they must again be thus dieted, else the red

tint would not appear on the new plumage. This over-stimulation with pepper acted on the nervous economy exactly as stimulants act on the nervous structure of the human system. Out of the ten, two died from the winter rigor the first season, and one other lingered till May. The remaining seven were again dieted the next fall, but another dropped off ere the advent of winter. Six now remained, and all possible benefits of warm atmosphere, etc., were given; yet four died ere the spring was fairly over, and of the remaining two only one lived till the spring of this year. Feeling confident that this undue stimulation of the blood was not conducive to longevity, Mr. Hammond has talked with other fanciers who have used it to attract buyers, and they admit that it is almost always fatally injurious to use it the third season, and that few of our frail home-bred birds can bear the effects and continue in ordinary health, unless given the most tender and careful attention. Sometimes a very hardy bird will live four years, but they generally drop off the winter after the third moult; so we may say the average age of the pepper-stimulated bird is but three years, while that of a bird not so abused is seven years, and a large percentage live to be nine, ten, and eleven years of age (mine do); in rare instances, to fifteen, eighteen, and even twenty-eight years. If your appendix is not complete, would it not be well to introduce this matter for the consideration of people who ignorantly try these abuses on their helpless pets? Cayenne is good for birds if properly and moderately used—as a relish or medicine—but as a stimulant immoderately employed, it is highly injurious, and cuts short the life of the bird."

BIRD CULTURE AND RACE CULTURE.

One who attentively reads these pages can fail to admire the painstaking of the sympathetic and intelligent author in embodying not only her own experience, but also the experience of many others, in the judicious mating, feeding, and general care of the canary. The question has often arisen in our mind whether man is justified, humanely speaking, in taking these little feathered songsters from their native haunts, and imprisoning them for a lifetime in cages for his diversion. But if those who have the care of these little innocents would watch over them, and do for them what our author has suggested in this interesting volume, it may well be

questioned whether the lot of the canary is not made more agreeable to him when he becomes a part of the human family, in human civilization, than when he is left to chance in the bird family, in the wilds of bird barbarism.

There are those who will say that it is a shame to give so much attention to pet birds when there are so many little human waifs languishing in tenement-houses, struggling for existence in foundling asylums, or dying from neglect on baby farms. The answer to this is, that there are thousands who can take the directions given by Mrs. Farwell, and be the teachers and guardians of pet birds, who neither ought to become mothers nor the guardians of children, simply because their qualities of mind and, perhaps, physical characteristics, entirely unfit them for such responsibility. If, then, they have that organ which the phrenologist calls "Philoprogenitiveness" largely developed, shall they be denied the gratification yielded by the care of birds, or may they not satisfy such yearnings by introducing into their homes a well cared for aviary? These reflections are only preliminary to the suggestion of the most important point of all. When the reader observes how minutely practical rules may be given for the culture of the canary, the thought will naturally intrude itself in the form of an inquiry such as this: If a volume like Mrs. Farwell's can be prepared for those who have the care of birds, why cannot an equally practical monograph be written, telling just how to rear the human young, and make the most of them? The author of such a work should certainly be a mother; not only a mother, but a woman of observation; not only a mother and an observer, but one who can commit the information she derives from her own experience and from questioning others to paper, in a way to interest and to captivate the intelligent being, yea, even the ordinary mind. Just as a picture has greater value set in an elegant frame, or a jewel greater lustre when held in an artistic setting, so must all practical information have greater attractiveness to the common, as well as the higher being, when presented by a gifted pen. The writer has in mind just such a mother, just such an observer, and just such a gifted writer, who, if she can be persuaded to give her time to the preparation of such a work, would place herself among the envied authors as well as benefactors of mankind.

It will be observed—and particularly note this—that Mrs. Farwell has really discovered a law of temperamental adaptation in the mating of birds. She has not given names to the temperaments, nor has she classified them, but she has given advice which shows that the law of temperaments

obtains among the feathered tribes as well as in the human family. She starts out by showing the importance of having the birdlets born right. To this end *she shows how the parent pets should be mated*, and, further, gives directions how the mother bird must be cared for during the important period of incubation. The writer for the care of babies, in order to present a comprehensive and really useful treatise, should start out by giving information as to the proper mating of human parents, and follow closely many of the hints given in the rearing of birds, so that the babies may be born right. Such information is not only attainable, but it can be made familiar to the ordinary mind. This work on the canary is only one among hundreds appertaining to the breeding and rearing of domestic animals. It is something which excites the surprise of the humanitarian, that so much has been written of a practical character bearing on the culture of the domestic animal, when so comparatively little has been presented in a comprehensive way to teach the human being how to mate and how to rear its young. Recently, at the Liberal Club in New York, when the subject under discussion appertained to the elimination of ignorance and superstition from the human family, Wilson Macdonald, the well-known sculptor, arose and said that he had a "hobby." He had just visited the horse show at the Madison Square Garden, and had observed how completely the stock breeders had developed the horse, how rapidly indeed this beautiful animal had been improved, through judicious scientific methods; and now, he said, so far as practicable, we must apply these laws to the human family, and in this way more surely than in any other, the ignorant masses can be elevated, and something like human equality brought about. Arising from the perusal of this book, the mind of the reader must be profoundly impressed with such a thought as that which Mr. Macdonald experienced after visiting the horse show. We can but hope that some one possessing all the qualities we have indicated, resulting from experience, observation, and genius, may be led to produce a volume—no matter how small, so long as it covers the necessary ground—that will tell a little girl, in language that she can understand, how, when she grows to adult age, she may become the intelligent mother of a child that shall come into the world without moral, physical, or mental blemish. And, having led her thus far, the writer can open to her mind how she can rear this child in such a way as to secure to it internal peace, and the daily satisfaction that it is an invaluable member of society. In no other way can human reformation and elevation be so

surely and even speedily attained. We say speedily, because if it takes a thousand years, and if each generation can be raised up only a little, greater results will be attained than have ever yet been realized within the known history of man.

THE MEDICAL TREATMENT OF THE CANARY.

an Eclectic, who abjures the use of the more powerful mineral remedies, it would seem to the writer that the materia medica presented by Mrs. Farwell might be, in a measure, improved. We are not prepared, however, to point out just how, as we do not feel sufficiently familiar with the physical nature of the canary. Until something better is presented we should certainly say, follow implicitly the rules laid down by our author. She has had wide experience in the care of the little feathered pets. Usually, her doses are homœopathic, and her medical practice in the care of her aviary is according to the same school. If mercury is to be given, it may better be administered in homœopathic doses. But the writer, in his practice in the human family for over thirty years, has never found occasion to administer a particle of mercury, nor has he had much occasion to employ opium. The story of the sick robin is remarkable. The doses of morphia administered were by no means homœopathic. In that instance, the free use of morphia seemed to end well, but probably Mrs. Farwell herself would hardly say to anyone of her readers, "go and do thou likewise." Indeed, those doses were not given by her advice, nor were they administered to promote life, only to ease the death struggles; and the result was a surprise to the giver, as it well might be. In the main, we think that the directions given for the medical management of the canary are judicious. The little criticism herein given would hardly have been added, except for the fact that the editor of the appendix has always been known as a botanical practitioner, and further, as one opposed to the use, as a general rule, of all powerful drugs, whether mineral or vegetable. Hence, while endorsing this work, he wishes, for consistency's sake, to point out the one little matter of difference, in a medical point of view, between the gifted author and himself. It may be said, however, that while the breeders of domestic animals have surpassed the human family in the production of perfect specimens, the pioneers in human medicine are somewhat in advance of those in veterinary practice in the selection, ma-

nipulation, and administration of remedial agents. If Mrs. Farwell is not quite up to the Eclectic standard, as practised in the management of human ills, she is certainly greatly ahead of what is usually taught in our veterinary colleges, and hence she may be regarded as a safe adviser in the care of the sick as well as the robust canary.

A REVIEW OF THE EDITOR'S WORK.

AFTER preparing the foregoing, a large portion of which is made up from the printed letters of the author, we thought best to submit it to the latter for her revision and approval. In return, we have a review of our editorial work which emphasizes some important points and presents many new ones. We therefore beg the indulgence of the reader when we append to our appendix the criticism which the latter evoked. Mrs. Farwell gracefully says: "My thanks are due you for submitting your appendix for my perusal ere giving it into the hands of the printer.

"So far as I am competent to judge," she says, "its inferences and the general kindly character of the entire review do credit to your discernment. Especially do I applaud your astute selection of points wherewith to eliminate the great fact of universal kinship. Howso careless the mind, it seems to me your idea, so simply and judiciously stated, must take lodgment and induce some earnest reflection.

"Who was it said this world did very well for so heedless a world? I forget; but have ever agreed with him that we, as a people, *do not think enough*; or, at least, that we are too *self-contained* in our thoughts and actions. And it is essential to the quick advancement of that 'perfect era' of which you speak, that we forget to hug these selfish propensities—forget ourselves, as it were—and learn how divinely compensating is the love that is sacrificial, watchful, and patient.

"You observe that many may deem it a shame to bestow on pets such close study and care as my book teaches. I expect to hear much of this cant from the selfish-hearted, and desire to say to such that whoso gathers around them helpless pets, thereby depriving them of the natural enjoyments which pertain to liberty, place themselves under moral obligations to study their needs, and do the best they possibly can to keep the little prisoners happy and in health.

"Then you proceed with the natural query—which the minute details of the work

evoke—'Why cannot an equally practical monograph be written which shall tell how to rear the human young, and make the most of them?'

"If I, with my philanthropic disposition, had no good thought upon this reasoning to connect it with my work, thereby furthering its object, you might with justice consider the links in my moral philosophy broken, or only partially developed.

"Let me show you how these links glow and revolve under the focus of my moral penetration.

"I have shown the reader that the confidence of the canary can be won only through sympathy and love, and that, once convinced of the reality of this gentle regard, he is plastic as wax, can be taught wonderful things, and is happy as the day is long. Having learned how to realize the love of a little bird—and I am glad to perceive there exists a general ambition to have tame pets—has not the true key been acquired with which may be unlocked the reserve, the repulsion, the indifference, and the too common impatience which is keeping the many from performing generous offices for the alleviation of the overburdened, the sick, and destitute? Must not a heart, warmed with a real solicitude for its home pets, soon succumb before the tide-waves of circumstance, and warm also to the outside creature? The patience and perseverance practised for the benefit of a bird will have laid the corner-stone of a sublime strength to sustain the good-souled patient in the broader, nobler work which thus comes naturally to her or his hands.

"Duty is the watchword which the missionary, too, universally sings, and which sends him forth to undertake benevolent tasks among the heathen, the misguided, the forsaken; and their painstaking efforts too seldom are repaid by the results. Why? Because 'duty' alone never appeals to the heart, but love can never be withstood. A bird will feel the difference between the two principles, and temper its trust accordingly. It is the sympathy of love which all creatures covet, and a *natural* creature will not accept the spurious, be it ever so smoothly disguised. Everybody has read Harriet Beecher Stowe's unparalleled novel, entitled 'Uncle Tom's Cabin,' and must retain the memory of Aunt Ophelia's practical treatment, according to set theories, as bestowed on black Topsy. It was repellant to her nature to even tolerate a 'darkey,' but she nevertheless did her *duty* by the child she set herself to christianize. Topsy felt the repulsion, and could not love her or feel properly grateful for the favors provided her. Eva rebuked this lack of true feeling. 'But she don't love me!' said Topsy. 'Oh, yes, she does,' Eva declared. 'No—

no—she loves you, not me!' 'You mistake, dear,' and gentle Eva kissed her. 'No—no,' sobbed the black girl, entirely overcome by the demonstration, 'she don't kiss me; she don't like me!' And it was so. Ophelia's conscientious duty might command the respect, but, lacking the true inward feelings of sympathy and love, could not awaken in the yearning heart any deeper sense than respect; yet Eva's love warmed the little heathen soul to sublime sweetness. She would work, study, strive for any attainment Eva might advise, because she perceived her triumphs really pleased the only heart that gave her a particle of true affection."

HOW KINDNESS TO PETS IS REPAID.

IN regard to the nursing of pets, Mrs. Farwell remarks: "No wise moral teacher will try to discountenance the assertion, that the nurse who, with generous patience, follows directions and saves the life of a sick bird, is not only performing a praiseworthy deed, but is also familiarizing herself with the rudiments of a science that may develop her into becoming a first-class nurse or doctor some day.

"I once heard a mother say to her tender-hearted young daughter, who was racking her ingenuity to relieve a sick kitten, 'Throw that cat out, and go and amuse baby!' Baby was asleep, and required no care just then, while kitty suffered and was an object of pity. That girl is now a wife and mother, and is careless in both relations. She has not the least tact in nursing her babies, or in ministering to her husband or self when ill. Her parents believed nothing in the relation of the brute with the human, and cared less for the lower orders of life than for the wood daily burned in the kitchen-stove. Then how could they show to their children the principles embodying self-care and the care of others? Of that self-abnegation, which is the inner light of true affection, they had no conception, consequently their children knew not the meaning of the word in its moral sense. Had this mother evinced interest in the pet, shown the girl its symptoms, and indicated the remedies to be used she would have been interested, and would never have forgotten the lesson.

"With the aid of this work, a mother can teach her child the simple rules relating to disease and its management; how to recognize, to locate, to nurse; and in tending the wee sufferer will accustom herself to those habits of quiet patience which

make the practised nurse a blessing in the sick-room.

"May not these results hasten the advent of that golden era when the mother-wisdom shall surround and 'make the most' of her offspring?"

"To know the human creature we must first know the lesser creatures, and there is no way in which they can be so profitably studied as by introducing them into our homes, and associating them with ourselves and the domestic adjuncts of our civilized age.

"THE NEW PHILOSOPHY."

UR author continues: "As you, rather mischievously, speak of my philosophy assuming something of an antagonistic appearance in the inferences to be drawn from the story of Pinkie, Phyllis, and Buttercup, I feel impelled to offer a thought upon this point also, not in a defensive form, but for the further inculcation of those temperamental truths we have been discussing.

"In the first instance, I would say that the facts of this story were realized in my aviary, where more than one hundred other canaries were also portraying the individuality of their natures. The *true faith* of a *first affection*, as exemplified in each bird, could not be disputed. Pinkie's jealousy—like that of many husbands whose toes count five instead of four—arose, evidently, from a sense of his own unworthiness. He demanded more than he gave, and was conscious of the injustice of such a demand. Buttercup exhibited no jealousy, only a righteous indignation at Pinkie's presumption. And the two little wives were miniature examples of wifely fealty.

"It is impossible to judge just what course would be pursued by any member of my family had their affections been unfortunately cast upon an unattainable object, but in the other premises, I doubt if Buttercup's indignation could exceed the possibilities that might accrue.

"We can measure the ocean's depths, but those of the human heart, never.

"Birds do exactly as they incline to do always, when they have sufficient liberty for action, for they have not advanced far enough into the tenets of human civilization to know the value of self-repression. They cannot deceive. Their love disappointments are patent to all who take the interest to observe. Their next elected love knows just what metal she is mated to, and sees all the depths of the tiny heart as they stand. Ah, what a world of grace

were this if the human family were thus transparent in these relations!

"In the aviary, even as among a bevy of young people, there are certain of both sexes who seem to be objects of general regard, and the courting for favor among these warrants the names I give them of 'favorite,' 'coquette,' or 'Apollo.' Sometimes there is a hard fighting over these pretty favorites, but order pervades the chaos presently, and each has elected a mate to *stay by*.

"When speaking of the influence of the human temperament over pets, I refer not to those natural laws that permeate all creation—those are *facts*—but to the individual *peculiarities* that are most prominent. Those quarrelsome birds—Dick and Katie—were faithful to the universal principles out of which evolves the marital relation, while they exemplified in their habits the uncomfortable couple who owned and held daily disputes before them. Now, I am fond of seclusion. So are my birds. Whom is repulsive to me is also repulsive to them, and *vice versa*. Does not this fact, independent of the scores of others that I might quote, prove an instinctive harmony of sympathies has become verified between us?"

"Mrs. Bristol says: 'Biddy could draw an inference.' Indeed she could. So can any bird. They almost talk at times. I have a pet sparrow—Posey, I call him—who delights to watch the canaries in the aviary, and apprise me of the fact whenever they are disorderly. Of course, I have shown them that fighting displeases me. Posey dances, squeals, screams, when they begin to spar, and seems to say, 'They're at it! Mistress, they're at it! Come and scold 'em! Scold! I like to see 'em scolded!' And truly he does act as if it were keenest enjoyment to see the canaries, of whose song he is extremely envious, merit and receive reproach.

"When a bird in the aviary gets ill, it invariably watches an opportunity to fly into my room and show me the fact. They have so often watched me care for sick birds, and are so confident of my affectionate interest in all their out-of-joint matters, they approach me with almost the familiarity a child does in soliciting mother's sympathy. They get out of some food they are fond of. I am at once informed. First, they cling at the screen door to attract my attention. (I am usually within its range, my desk having situation opposite this door.) I say, 'Well, what's wanting now?' and rise to investigate. They discreetly aid my vision by going to the empty dish, and casting such earnest glances from it to me as I cannot fail to understand. If I say 'All right, you shall have some this min-

ute,' there is immediate excitement infused through the entire aviary, and the door will be covered with the little eager waiters until I reappear with the food in question.

"Of course, it takes time and constant association to get so many birds thus tame and intelligent, yet I am not always fondling them. I am only where they can see me daily, hourly, and overlook my occupation."

BOPEEP AND THE MIRROR.

BOPEEP, Mrs. Farwell tells us, by watching her toilette before the mirror, "had a dawning conviction it was not another mistress she saw, and not another bird, but herself and her own mistress; and from first trying to feed the bird therein, soon began to observe it reflectively; but not until she took her mate before the wonderful surface, and caused him to turn and turn the while she gazed, was she convinced of her own identity with that of the image. Never afterward did she offer food to her reflection, but would go to the glass to lay her feathers whenever she took a bath, and would often sit admiring her sleek beauties by the half-hour. She pulled pins and needles from their cushion with rapidity, and often piled them up in some chink or cranny in the room. Often she has held a pin-head in her bill and amused herself scratching the mirror with its point. She liked pretty colors—a rose pink in particular—and always lined her nests with them. A pretty color, or a tasty dressing about my throat, kept her around me in an ecstasy of admiration, her great ambition being to snuggle inside its fascinating beauties. You will say Bopeep was a miracle of bird intelligence. I must admit that she was, for among all the birds I have handled, she excelled in all points. Like very smart children, she was 'too smart to live;' I found her one morning—about a year ago—on her nest, stone-dead. Perfectly well at night, one of her eggs (she was laying out a nest of eggs at the time) became stopped in its course, and ended her prized life in the darkness of the night. I felt so bereaved, none of the family dared utter her name in my presence for nearly a month, for I was too ill at that time to use reason with much profit, and was unable to repress the tears that naturally started with every jar on my disease-weakened nerves. She was my constant companion four years. While the other birds were confined to the aviary, Bopeep and her mate had the lib-

erty of my room—my sanctum, the family euphonize it.

"Should the publishers of this book examine the paper on which it is written, they will find numerous indentures thereon where Bopeep's sharp little beak toyed during my labors, as she sat on the corner of the desk overlooking the glide of the pen, her busy brain speculating on some untried antic which should elicit the merry commendation she so pridefully loved.

"When the scientific naturalist states the canary has, according to its size, a larger brain than man, I am disposed to believe him. An untutored child—or man even—would require time to ascertain the real facts of the mirror, and the same principles of deduction employed by Bopeep's cunning little brain would be drawn upon, the same methods pursued. And the enlightened human, puffed with vain-glory, would display to the ignorant ones about him this acquired fact precisely as the bird did her companions. She also taught her young the mirror's truth, and they evinced comical disgust at the conduct of a strange canary whose 'wool was so thick,' he would insist on trying to out-battle his own reflection. While I have not elaborated the point started on as I designed, these exemplifications have filled so much valuable space, good sense tells me to 'dam my river' here and permit your own intelligence to work out the myriad deductions I fain would portray, especially those which convince me the *inferences of birds and beasts are not born of mere instinct*, as so many self-hipped minds theorize. 'They do reason even as we reason, and are capable of civilization, though their class and mental and physical conformation incapacitate them from revolutionizing a world with such ingenious devices as are shaping our century a very glow-star in the galaxy of time.'

A GENEROUS COMPLIMENT.

RS. Farwell concludes her review as follows:

"That truly great and noble work of yours, to which the homely title of 'Plain Home Talk and Medical Common Sense' has been given, treats so thoroughly the many phases of temperament, character, etc., I feel that my adjustments must seem to your larger experience like a sort of 'slopping over,' if I may be allowed to use such a term.

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