The Domestic Song Bird

1902

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H. S. Watson
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THE
DOMESTIC
SONG BIRD

AN
AUTHENTIC MANUAL

RELATING EXCLUSIVELY TO THE PROPER CARE AND
BREEDING OF THE CANARY-BIRD

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By H. S. WATSON

CINCINNATI, OHIO

1902

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PREFACE.

THIS MANUAL is published in order to assist those who desire to promote the health and happiness of their canaries—to ascertain all that is essential for them to know in order to accomplish this. The information contained in this book has been obtained from the writer's own personal experiment and observation, and if the directions herein contained are followed, singing birds will retain their health and sing for many years; that no young bird hatched by good parents will be lost—except, of course, they meet with some unforeseen accident.

The remedies for the various diseases to which the canary-bird is possibly subject have been taken from the most reliable sources—excepting the remedies for “red mites”—the birds of the writer never having been affected with

any of the other ailments said to be quite common to the canary.

No person should keep or breed canaries unless they are fond of them and can give them their personal attention. Their care should never be intrusted to careless children or forgetful servants. The care of a pair of breeding birds may be used as an object lesson in teaching and impressing upon the dispositions of children the necessity of kindness and attention to all helpless birds and animals; or may be used as a means of recreation and employment to a cripple or invalid unable to move freely about, and compelled to spend many weary days or years within the small confines of his or her room.

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“The busy birds, with nice selection, cull
Soft thistle-down, gray moss, and scattered wool;
Far from each prying eye the nest prepare,
Formed of warm moss, and lined with softest hair.
Week after week, regardless of her food,
Th’ incumbent hen warms her future brood;
Each spotted egg with ivory bill she turns,
Day after day with fond impatience burns—
Hears the young prisoner chirping in his cell,
And breaks in hemispheres the fragile shell.”

—ERASMUS DARWIN.

INTRODUCTION.

OF the many books and articles relating to the care and breeding of the premier cage bird—the canary—the writer has not yet found one that did not contain unreliable and misleading instructions as to its care and breeding, indicating plainly that the various compilers could not have obtained their information from actual experience and study of this little domestic pet and entertainer.

In a handsomely printed and bound book on “The Breeding and Management of the Canary,” by Rev. Francis Smith, of London, England, he says, on page 127, “ . . . although our eight hens had laid upward of eighty eggs, we only succeeded in rearing three birds, which, however, was enough to make us hope for better luck next time, and to keep us from despairing.

. . .” To say the least, it was presumption to publish a book, purporting to instruct others

in the manner of breeding canaries, when the author acknowledges such a failure in his own case.

In another booklet the author says: "In a fortnight young birds will be able to shift without their parents and to feed themselves," which is just about half the time that is necessary to take young birds from their parents.

Another writer says: "The male takes his turn in setting upon the eggs," such not being the case, for the hen would surely force him off should a male persist in getting into the nest while she was off, feeding or exercising.

It is this misleading information which has prompted the writer to publish this *MANUAL*, that those who own and admire this entertaining little songster may be able to anticipate and supply his wants.

Breeding canaries for the general market can be done very profitably and requires but a small starting capital compared with the results produced. A well-mated pair of canaries will breed at least four times during the season if started early in February in a warm room, producing, on an average, three young at each hatching, at

least one-half of these young birds being males, the writer knowing of one pair of birds laying and hatching five times in one season, producing sixteen birds, fourteen of which were males. Young singing canaries sold by January should net the breeder at least one dollar per bird, not calculating the price derived from the sale of hens, and if males are held until the following late spring and early summer they should net fifty per cent more, the importation of foreign-bred canaries having ceased and singers being very scarce.

In breeding canaries for the general market, two apartments should be used—one for the birds breeding, and the other for the young and singing birds. The original stock, which should be the best singers procurable, must not be permitted to deteriorate, the hens, especially, being renewed from the earliest importations.

The breeding of red canaries was for a long time a secret, some dealers in Europe supposing the feathers to have been dyed, but this was found to be a mistake, the secret being that the birds were fed upon ground red pepper, mixed

with soft food, just previous to and during the moulting of the bird.

A portion of a conservatory would make a very nice aviary, when it is desired to allow the birds to mingle and breed promiscuously, and when it is desired to keep other varieties of seed-eating birds; but very few young birds are raised in an aviary, as the idle birds are apt to destroy the nests of the industrious birds and injure the young, and there is always much quarreling between both males and hens. When an apartment of any kind is constructed for use as an aviary, care should be taken to protect it from the heat of summer and the cold of winter.

An unused attic, with screened windows, and a loose net before the door, to enable the floor to be swept, and the room to be entered without allowing the birds to escape, would be the simplest and most inexpensive aviary; an oil-cloth or linoleum covering for the floor, kept clean and well sanded, would answer well for this room. As little dust as possible should be raised where canaries are kept, as it affects the lungs of these delicate birds seriously. Fresh air, sunshine in moderation, warmth, and cleanli-

ness are indispensable in order to keep your birds strong and healthy. An aviary or room in which canaries are kept should be heated by steam, an oil-stove, or an open grate, the carbon thrown off by the pipes and iron of an ordinary stove being injurious to the song of canaries.

“But most of all, it wins my admiration,
To view the structure of this little work,
A bird’s nest. Mark it well!—within, without;
No tool had he that wrought—no knife to cut,
No nail to fix—no bodkin to insert—
No glue to join; his little beak was all.
And yet, how neatly finished! What nice hand,
With every implement and means of art,
And twenty years’ apprenticeship to boot,
Could make me such another? Fondly, then,
We boast of excellence, whose noblest skill
Instinctive genius foils.”
—HURDIS: “The Village Curate.”

THE DOMESTIC SONG BIRD.

CHAPTER I.

GENERAL INFORMATION.

By Ornithologists called <i>Fringilla Canaria</i> .		
“ Americans	“	Carnary-Bird.
“ French	“	Serin de Canarie.
“ Germans	“	Canarienvogel.
“ Italians	“	Canarino.
“ Spaniards	“	Canario.

THE canary-bird is about five inches in length, of which the tail comprises over two inches. It has a pointed beak, long and pliant neck, gently swelling shoulders, expansive wings, containing eighteen pinion or quill feathers in each wing, and twelve feathers in the tapering tail; light and bony feet and legs; it is covered with a soft and delicate plumage—which is a non-conductor of heat in summer, and a non-conductor of cold in winter—it flies, when not pursued, apparently without effort, with an easy undulating motion.

Its lungs have several openings, communicating with corresponding air bags or cells, which fill the whole cavity of the body from the neck downward, and into which the air passes and repasses in the process of breathing. Its bones are hollowed out with the design of receiving air from the lungs, from which air pipes are conveyed to the most solid parts of the body, and even into the quills and plumlets of the feathers, which are hollow or spongy for its reception. These hollow parts and cells are only open on the side communicating with the lungs, and it requires only to take in a full breath to fill and distend its whole body with air, which, in consequence of the considerable heat of its body, is rendered much lighter than the air of the atmosphere. By forcing this air out of the body again, the weight becomes so much increased that it can dart down from any height with astonishing rapidity.

The canary has a cartilaginous stomach, covered with very strong muscles, called a gizzard, which is lined with a thick membrane of prodigious power and strength, in which organ the food is completely triturated, and prepared

for the operation of the gastric juices. All ingredients entering the gizzard are evacuated, never ejected.

The original color of the canary-bird is gray, which merges into green beneath, but by means of domestication, climate, and intermixture with other birds, as the citril finch and serin of Italy, and with the siskin and linnet of Germany and England, they have become so multifarious that they are to be met with of almost every color and hue.

Song appears to be the special privilege of the male, whereby it either attracts the hen or seeks to obtain her love, for there are but few hens which produce notes similar to the song of the male, and these almost exclusively after being separated from their mates during the breeding season; but they listen attentively to the song of the male, and, when allowed their own selection of a mate, bestow their affection upon the one whose song seems to please them the most.

The birds from which are descended the canaries now kept and raised throughout Europe and America, were natives originally of

the Canary Islands, a possession of Spain, off the northwest coast of Africa. At first the rearing of the canary-bird in Europe was attended with considerable difficulty, partly because the mode of treating these delicate strangers was not sufficiently understood, but principally because males chiefly and not hens were introduced.

The first record we have of the introduction of the canary into Europe proper is that "Early in the sixteenth century, a ship, which, in addition to other merchandise, had a large number of canaries on board that were consigned to Leghorn, a seaport city of Tuscany on the coast of the Mediterranean Sea, was wrecked on the coast of Italy, and the birds, thereby gaining their liberty, flew to the nearest land—which was Elba—where they found so favorable a climate that they multiplied without the intervention of man, and probably would have naturalized themselves had not the wish to possess them been so great as to cause them to be hunted after until they were entirely extirpated."

In Italy, therefore, we find the first tame canaries, where they still are raised in large

numbers ; and here are trained the finest singing canaries in the world. The birds are placed in separate cages in a room and for hours daily an expert violinist plays to them. He plays one tune until every bird in the room is singing as if in chorus, and then he changes. When these birds become proficient they are worth from twenty-five to five hundred dollars each. But few Italian canaries are imported into the United States.

It is estimated that one hundred thousand canaries are imported into the United States from Germany every year, where these birds are bred in vast numbers to supply the markets of the world. In many places the German exporters equip the farmers with entire breeding outfits free of charge and contract to buy every bird raised at a stipulated price each, and the familiar breeding cage may be seen during the breeding season through the open door or window of the home of the peasants who live in the region of the Hartz Mountains. The small wooden cages in which the cages are shipped are made by the peasants from a fir which grows upon the mountains.

The best songsters are raised in the Hartz Mountains, particularly in the village of St. Andreasberg, where, with the aid of an instrument called a bird organ, they train the variety called "rollers," whose song consists of a long, rolling whistle, the most highly prized of all German canaries. The finest of these have no "chop notes," and use what is called the "water roll," the "bell," and the "flute notes."

It is not generally known that but few first-class singing canaries are imported into the United States unless specially ordered, as the dealers find a ready market for their superior grades on the Continent, the birds shipped to the United States being of the second and third grades mostly.

The German canaries are by far the best songsters of all the different varieties; but many are sold under this title which do not deserve the name, many unscrupulous dealers using the discarded wooden cages of the imported birds in which to sell American-bred birds.

The genuine German canary has a very sweet, soft song, full of beautiful trills and shakes, not shrill and ear-piercing like the majority of Amer-

ican-bred canaries. It is generally a small and short bird, with a large throat, and will sing almost constantly, both during the day and by artificial light, and under the most adverse circumstances; it is generally very sensible and affectionate and very easily tamed.

The Belgian canary is a tall, stoop-shouldered bird, the top of the head, when the bird is standing erect, being a little lower than its shoulders, its tail touching the perch. It is a delicate and lazy bird, though a high-priced one, a fine specimen costing as high as twenty-five dollars. They are of no one color, and but ordinary songsters.

The cinnamon canary is a brown bird, without any white feathers in its wings or tail. It resembles the German canary in shape and song, and by some writers it is claimed that a perfect specimen should have pink eyes.

The Norwich canary is of somewhat compact form and beautiful plumage. They are a strong bird, of fairly good and powerful song. Some have large, beautiful crests, and their color is often a deep yellow, or a mixture of yellow and white. This variety of canary was formerly bred in large numbers in Norwich and principally sold

in London, but is not common in the United States.

The London fancy canary is of a rich golden yellow or deep orange, with black wings and tail. This variety is supposed to have originally been produced by crossing a male of the lizard variety with a French hen with black spots in her plumage, or by crossing an ordinary mealy-colored hen with an American goldfinch.

The lizard canary—so called from its resemblance to the reptile of this name—is of a bronze-green throughout; the crown of the head of the golden-spangled lizard being yellow, and the crown of the silver-spangled being white. The markings or spangles of the feathers are very regular, and the bird should have no white feathers in either wings or tail, but these generally make their appearance as the bird grows old.

The French variety, with ruffled feathers; the Manchester copy, with large crests; the Scotch fancy variety; the Yorkshire, and several other varieties, are, as a general rule, but indifferent songsters, and have ceased to be of interest to the breeders.

CHAPTER II.

PROPER CARE AND FOOD.

THE canary, never having known wider freedom than that of the cage, and being accustomed to find its food and drink prepared for it without any expenditure of labor, has no idea of searching for food should it escape or be released from its cage, but would perish from hunger or be destroyed by some natural enemy of the bird.

Being, in their natural state, inhabitants of a mild-climated country, and rendered delicate by a constant life in rooms, they have become habituated to a temperature similar to that of their native islands, and care is necessary in winter in order that a uniform temperature may be preserved, carefully avoiding an exposure to cold air and draughts, than which there is nothing more fatal to a canary's song and health.

Its cage should be hung not less than two

feet below the ceiling of a room, in order to avoid the vitiated atmosphere always found near a ceiling; nor should it be hung less than six feet above the floor. This places a timid bird out of the reach of persons who thoughtlessly place their faces close to the cage, or place their hands upon the cage, thus frightening the bird.

A hen should be kept, if intended for breeding purposes, in a large breeding cage, in order that she may have sufficient space to keep her limbs in constant exercise, and preserve the bird in health and strength. They should have the same kind of food as the males, but in winter she may have more miscellaneous food than the male and less seeds. A hen canary is more partial to water than a male, and should be given a bath daily.

When there are two or more singing birds in the same room it is best to keep them as far apart as possible, or have them placed in such positions as will prevent them seeing each other, for some birds, though excellent singers when placed alone in a room, are of such a pugnacious disposition that at the sight of another bird they

cease to sing and continually strive to get out of their cage.

As a male canary in full song will mate at any time of the year, a hen should never be kept in the same room with a good songster, nor, if possible, within his hearing, as she will call to him, causing him to frequently break off in his song.

To keep a canary in a happy and contented condition, it is necessary occasionally to hang it in brilliant daylight, if possible in the morning sunshine, especially when giving them their bath, but with the window closed, unless it be a still, warm day. To keep a male canary in a kitchen, or in a room where culinary work is performed, spoils both its plumage and song.

The cage in which a canary is confined should be roomy—better too large than too small. It should be of brass, and be thoroughly polished occasionally with a stiff brush and fine ashes from a stove or grate made into a paste with water, after which it should be thoroughly rinsed and dried. The bird can be transferred to another cage temporarily by removing the

perches from the cage which is to be cleaned and placing the two cages, with the bottoms removed, upon a table, with the two open doors together. The bird will hop from one into the other, and can be retransferred in the same manner after its regular cage has been cleaned and prepared.

Every cage should have two sets of perches in order that a clean, dry set may be substituted for those which have become dirty, without being compelled to wash and immediately replace the same set, as wet perches sometimes give a bird rheumatism in its feet. A bird's perch should not be less than one-half inch in diameter to insure ease and comfort. Should the perch be too small, the claws sometimes curl round and enter the toes and cause them to wither. The perches should be perfectly smooth and round, and if possible be made of cedar wood.

Clean gravel should be spread thickly upon the bottom of the cage. A screen made of close-knit cloth can be made to fit around the cage by passing a piece of elastic through a seam at the top, the two ends meeting at the door and tied, with the bottom gathered and tied tightly with

a ribbon. This screen can be made very ornamental, and need not be removed until it is necessary to renew the gravel in the bottom of the cage, which it is not necessary to do more than once a week, if it has been spread thickly. The cups containing the seed and water can be removed daily by simply drawing the elastic out, and no hulls, feathers or gravel will be strewn upon the floor.

Canaries thrive best upon a mixture of Sicily or Spanish canary-seed and German sweet summer rape-seed, about two parts of the former to one of the latter, though canaries are more partial to rape-seed in winter than in summer. Some birds being of a wasteful disposition, it is best not to put more than enough seed for each day in the cup, but the drinking and seed cups should be frequently scalded and cleansed. A piece of cuttle bone should be placed inside the cage at one end of the perch nearest the seed cup, fastened with a wire thread looped through two holes, as a bird will persistently peck it loose if fastened with a string.

Bad seed will often cause disease and the death of a canary, if tainted by mice, roaches or

mildew, so that it is of great importance to purchase it from a dealer who handles only fresh and sound seed.

A singing canary should have no hemp seed, bread, sugar, candy or cake, for if it is fed these dainties—which are unnatural foods to a seed-eating bird—his song will weaken and finally cease. No paper should be placed in the bottom of its cage, as they peck at this, and the ingredients it contains will give the bird diarrhoea, which is sometimes very hard to cure. Once or twice a week a little chopped hard-boiled egg should be given a canary, or a small piece of lettuce or water-cress in summer, in winter a small piece of sweet apple or celery once a week.

A bath may be given to a singing canary every day during summer if it will take one, once or twice a week during spring or fall, and none at all during very cold weather, unless the room in which the bird is kept is quite warm. The water for his bath must never be chilled, nor must it be tepid, as a bird will not bathe in tepid water, nor will it bathe in the same water on two consecutive days, although it will often enter the same water two or three times the same day.

CHAPTER III.

PAIRING CANARIES.

WHEN the temperature is kept even and mild a male in full song and an active, prolific hen will often breed during any month in the year; but when canaries are not being raised for profit it is best to pair the birds in February, for it is generally acknowledged that the best singers develop from the birds hatched during the months of February and March.

Unless the birds are being raised solely for profit, four broods should satisfy the owner of a good pair of birds, for to permit a hen to lay and hatch out more than four broods will often exhaust her vitality, and a good mother bird, from a good strain of singers, should be well taken care of. On the other hand, it is a well-known fact that a good breeding hen one year may turn out to be worthless the following season, often destroying her eggs or maiming

her young, though this destructive propensity may be caused by feeding the hen a piece of bacon rind in order to permit the easy laying of her eggs—quite a common practice among some persons who raise canaries.

Meat of any description fed to a canary will develop carnivorous propensities and an angry, quarrelsome disposition, meat being an unnatural food to any seed-eating bird; and the object should be always to make the food and surroundings of a cage bird conform to those of its natural state as nearly as possible.

By observing them closely, it will be found that every canary is possessed of some characteristic peculiarly its own. Some males are always dejected, sing but little, are indifferent to their mates, and are unfit for breeding purposes; others are too choleric, incessantly snap at and chase about the females, and often kill them and their young; others are too ardent, annoy the hen while she is setting, tear the nest, throw out the eggs, or continually excite her to pair until she quits her eggs or neglects her young; others, in the breeding season, sing so incessantly and so powerfully that they rupture the

small vessels of the lungs and suddenly drop dead.

In selecting a male canary, notice the ones that stand the most erect on their perches and hop quickly and smartly about their cages; then hear them sing before deciding which to purchase, and select the one which has the fullest and most melodious tone. A really good bird will sing under the most unfavorable conditions. Should a bird refuse to sing when separated from others, do not purchase it. A dealer in canaries generally keeps the best singers and most costly in a dark room, or has them covered with a thin cloth, not permitting them to sing freely. The feathers of a healthy bird are smooth and lay close to its body. Should a bird feel soft and spongy when taken in the hand it is unhealthy and weak. The toes and legs of a young bird are smooth, and its claws small and short, while the legs of an old bird are scaly and its claws long.

Those birds of a green and brown color paired with a bright yellow hen often produce dusky-white young. A bright yellow male should be mated with a mealy-colored hen to produce

handsome young. A green male mated with a deep - yellow hen often produce the much-admired cinnamon bird. If the male be a mottled bird and the hen light yellow the young will most likely be divided in the resemblance to their parents. It is generally found that where one bird is crested and the other has a smooth head the young are about equally divided. Two crested birds must never be mated, as the heads of the young will be deformed in some manner, often being bald or having ulcers on the ridges upon which the feathers should grow.

Some hens merely lay and quit their eggs as soon as laid; others feed their young badly, pluck out their feathers, and bite off portions of the wings of their young; others lay with much exertion and labor, and when they should hatch become sickly, or lay again after a long interval.

Hens should be selected which are known to have come from good singing stock, and should be of a lively disposition, as lazy, puffy hens seldom make good mothers. It is generally found that timid and apparently wild hens make the closest setters and the best mothers. In purchasing a hen canary select a young bird, as an

old hen may have been bred the previous season and been sold by her owner on account of some bad practice.

It is always the safest plan to mate an old hen with a young male, or a young hen with an old male; a brother should never be paired with a sister, or a father with a daughter, or *vice versa*.

If it is desired to mate two hens to one male they should be kept together for some time in order that they may become perfectly familiar with each other, thus providing, if possible, against their quarreling after they have been placed in the cage with the male.

The nails or claws of old birds must be clipped, to prevent them becoming entangled in the materials of the nest and thus possibly dragging the eggs or young out in getting in and out. By holding the bird's feet to the light the "red ray" will show how far it is safe to clip them without drawing blood.

CHAPTER IV.

BREEDING CAGES.

THE larger the breeding cage the better the birds will prosper. A breeding cage should not be less than twenty inches long, twelve wide and about fifteen high, divided into two compartments, or into three compartments if two hens are paired to one male. A cage made entirely of metal is always preferable, as being easier to clean and less liable to be infested with those persistent enemies of the canary, "red mites."

If the ordinary wood-and-wire cage is used, and the cage should not be a new one, examine it thoroughly and carefully for these pests; for if your birds have but recently been purchased from a bird dealer, you may be sure that they have these insects upon them, the writer never yet having seen a bird come from a dealer that did not bring these insects with it. Should your

cage or bird have these insects about it, proceed to get rid of them as directed in the chapter on "Red Mites," Chapter IX. It may be safely said that the cause of many of the failures to breed canaries successfully can be directly or indirectly traced to the birds being worried and fretted by these insects.

Having properly cleaned the breeding cage, a set of four perches must be placed in it—two about four inches from the ends and the same distance from the top; the two lower perches about two inches from the ends and the same distance above the bottom, or of a sufficient height to enable the birds to easily reach the seed cups. If the cage has a wooden back, small holes can be made with a gimlet at the proper distance from the top and bottom, to correspond with the rest of the perch at the other end, one end of the perch being grooved or forked, the other being trimmed to a point to fit in the hole made with the gimlet; these perches should not be less than one-half inch in diameter at the middle.

Two nests must be supplied for each hen, one in each of the four corners of the cage, about

three inches from the top. If one female only is used—and it is always safer to use but one—two nests, one in each end at the back of the cage, are necessary only. It is safer to use the small willow baskets made for the purpose as nests, than the woven wire variety, the birds being sometimes caught by a claw in the latter kind and having a leg broken in trying to extricate itself.

The metal breeding cages have a frame in which a basket fits nicely, which frame in turn fits into a socket soldered to the back of the cage. If a wire-and-wood cage is used, the nests can be fastened with wire thread attached to the top of the cage. These wire threads should pass beneath the basket and be fastened from three different points to prevent the nest from tilting to one side, and thereby throwing out the eggs or young birds.

A tinner can make a wire loop into which a willow nest will fit snugly and not fall through, or it may be more securely fastened with wire thread inserted through the rim of the nest and around the wire. This loop should have two ends over six inches long, bent vertically, which

may rest upon the top ridge or binding wire of the cage outside from the inside, then forced inside again, and braced against the lower ridge of binding wire. This style of nest can be removed and cleaned easily if placed in position properly, whereas, if fastened with the thread as described in the preceding paragraph, it is stationary.

If the cage has not the usual arrangement in the ends for holding the seed and water cups, the wires may be easily bent a little with a pair of ordinary pliers and a thin nail driven at an angle from the outside to prevent the cups from falling backward. Clean sand or gravel should be spread over the bottom to the depth of a quarter of an inch or more, and a piece of cuttle-bone for each hen fastened inside above the lower perch, as it is composed of pure carbonate of lime and is wholesome and positively necessary to prevent the hen laying soft-shell eggs. It should be renewed for every prospective brood, as they also feed it to the young birds.

The cage having now been prepared, it should be hung in a light, quiet corner of the room, about two feet below the ceiling, and

where the temperature is even and not too warm, and out of the reach of prying children and inquisitive visitors, as it is necessary that the birds be not interfered with more than is absolutely necessary; nor must the cage be removed or cleaned while a brood is being hatched and reared.

A small piece of cloth should be fastened over the opposite end of the cage in which the hen is setting, in order that the light which may be burning in the room at night will not worry the male, as he generally roosts upon the perch away from the female; or, what is better still, a screen can be placed across the entire front of the cage, about six inches below the top; this will shield both birds and still admit sufficient light. A paper or some other covering may be placed upon the top of the cage to protect it from dust.

After the first brood has been successfully reared greater liberty may be taken with the parents, and the sliding bottom removed and freshly sanded, as they will by this time have acquired confidence in your good intention toward their young.

"I'll Get You Yet!"

From the Drawing by H. KAULBACH

CHAPTER V.

LAYING AND HATCHING.

THE birds having already been selected and freed from parasites, if they were originally possessed of any, the wire partition used for dividing the cage into two compartments should be placed in position and the male placed in one compartment and the hen in the other, in order that both birds may become familiar with their new quarters and with each other. After two or three days have elapsed the partition may be taken out.

If two hens are mated to one male, only one hen is placed in the compartment with the male, and after they have mated and the hen has laid all her eggs, the male may be placed in the other compartment with the remaining hen by raising the partition and placing your hand against the side in which he is, and when he has flown across lowering it again. When the second hen has

built her nest the partition can be removed entirely, and the male will feed and attend both hens, provided they have all three become friends, which is not always the case. Should both hens be allowed together in the cage at one time without the partition being used, they might both select the same nest, and one hen having secured possession, the other would sit on or near it until the occupant was driven off by hunger or thirst, when she would immediately take possession of it, and trouble would surely follow.

It is a curious fact, perhaps not known to every one, that when there are two hens with one male in a cage, and one hen dies, the other, if she has not already laid her eggs, will hatch the eggs laid by her co-mate, and rear the young as her own; and, during this foster-mother care, carefully avoid the caresses of the male.

The male and hen may fight, or the male may seemingly avoid the hen and give way to her in apparent fear for a short time, but if they are suited to each other the male will begin to feed the hen, and when he does this you may be assured that all is going well so far as their pair-

ing is concerned. A piece of tissue paper or string should be placed between the wires at this time.

Probably in a day the male will commence to flit about the cage in front of the hen with a piece of string or paper in his beak, and shake it in the sand upon the bottom of the cage, and go in and out of the nest.

The hen, for some time, will appear not to notice him; but she will soon begin to get restless and fly from one perch to another and against the wires of the cage, appearing to be in distress, or she may tug at the feathers on her breast as though in misery. She will then pick up a piece of string or paper and still fly about in an uneasy manner, perhaps for one or two days, and sometimes longer if a young bird, not noticing the nest at all; finally, she will go into one or both of the nests and right out again, but will finally select one and bustle around in it.

Now is the time to place the building material in the cage, which must consist of some pieces of tissue paper, string, excelsior, and raveled toweling, all cut into lengths of about two inches, not longer, as the materials are woven together,

and should some of the ends hang over the edge of the nest, and the male have the bad habit—which some males have—of pulling them out, he is liable to pull the whole nest out. The building of the nest occupies from one to three days, and is built entirely by the female. After the hen has been working on her nest the first day some medicated cotton or wool should be added to the building material, as some hens, being very erratic, will not build without it. The building material can be placed on the top of the cage, directly over one of the perches, tied about with a string and a weight placed upon it, as a hen seems to delight in being compelled to use force in pulling the strands out.

The first egg is generally laid within a week after the pairing of the birds takes place, the birds having in the meantime had hard-boiled egg given them in addition to their regular seed. From three to six eggs are laid, not always one each day, it generally taking the hen six days to lay five eggs. As the hen eats the cuttle-bone the evening previous to laying an egg, she has laid all her eggs when she ceases doing this.

The hen may cover the first egg laid, but

does not begin to sit close until the second egg has been laid, consequently it is thirteen days from the time the second egg has been laid until the first young bird is hatched, the remainder of the eggs being hatched in the order in which they were laid, thirteen days from the laying of each egg, there sometimes being four or five days' difference in the age of the birds, the last born often dying, being too weak to struggle successfully for its portion of food.

Care should be taken not to remove a light from the room in which the hen is setting without first being sure that she is on her nest, as they frequently come off to eat or drink when persons are moving about in a lighted room, and should a light be suddenly removed or extinguished the hen would be unable to get back on her nest and the eggs become dead and worthless.

Some young hens become egg-bound and are unable to eject the egg, and sit puffed up on the perch or on the bottom of the cage; in such case treat them as instructed in the chapter on "Diseases and Their Remedies."

Should the eggs fail to hatch after the hen

has sat upon them faithfully, the eggs were infertile, which may have been the fault of the male, or the hen may have been a hybrid, and the one at fault must be found and removed and another substituted.

Sometimes a hen will come off the eggs or young birds with the feathers of the abdomen very wet. This is called a "sweating" hen, and though it is no doubt very weakening, it really amounts to nothing serious; but a bath should always be in the cage for her use if she is so inclined, although but few setting hens will go into the water, but will do so after the young birds are a few days old, sometimes two or three times the same day.

A hen will occasionally be found that builds her nest, but does not lay an egg; she will set the same as any hen that has laid four or five. Such a bird should be gotten rid of, as she is worthless, being a barren hen, or afflicted with what is termed "functional derangement." A setting hen should never be forced off her nest. If, for any reason, you should desire to inspect the nest or young birds, place a step-ladder in the proper position and wait until she has left

the nest for food or exercise, then go quickly and make your inspection.

Again, hens are met with that eat their eggs, which is often caused by the person who attends to them not keeping a sufficient supply of food in the cage, which should be looked after carefully.

Should there remain eggs in the nest unhatched after the sixteenth day they are no doubt infertile or contain dead birds and may as well be thrown away. They may be tested, however, by dropping them into a cup of tepid water; if they sink toward the bottom they contain a bird, dead or alive; should they refuse to sink at all they are surely addled and worthless. Young birds are sometimes killed in the egg by loud and startling noises, such as the firing of a gun, slamming of a door, or thunder.

Some breeders, when the hen has commenced to lay, remove the eggs, placing them in a box filled with clean, dry sand, substituting, as each egg is taken away, an artificial egg, sometimes whittled from a piece of chalk, and after the hen has laid all her eggs, returning them to the nest. In this manner, they have the birds all hatched

at once, and not at intervals, as in the natural process of hatching. This interference with a laying hen should only be attempted by one who is thoroughly familiar with the hen, as she is very liable to desert the nest if she be not of an amiable disposition. This removal of the eggs should not be attempted with the first laying, but may be after one or more broods have been raised.

It is customary for some who breed canaries to take away the fifth egg laid by a hen and destroy it, as it interferes with her in setting, it being a smaller egg than the other four and nearly always turning out, when hatched, to be a weak bird, besides being generally hatched some four days after the first two birds.

Care should be taken that the water vessels in a breeding cage are shallow, as young birds sometimes contrive to get into them, and being unable to turn around or get out, are drowned before the attendant has discovered their condition.

CHAPTER VI.

FOOD AND CARE OF YOUNG BIRDS.

THE time for the young birds to hatch out having arrived, the seed should be taken away and a preparation of hard-boiled egg and bread crumbs supplied to the old birds. The bread should be without salt, or home-made, if possible, baked in an oven until it is dry and brittle—not burnt—and rolled or grated into a fine powder. At first a teaspoonful of these crumbs should be added to half a fresh hard-boiled egg, minced or chopped very fine, and thoroughly mixed, never allowed to become the least bit sour, and supplied to the birds so soon as it becomes light enough in the morning to enable the parents to see to feed the young. (Whenever the words “nestling food” are used hereafter, they mean this preparation.) After the young have become a week old the seed may be returned to the cage in a decreased quantity,

with the addition of a teaspoonful of ground hemp seed—not more. This seed can be ground in an ordinary coffee mill; but the nestling food of egg and bread crumbs must be continued in the same quantity so long as the young birds are in the cage with their parents, and in a decreased quantity after they have been separated and recovered from their first moult, which is generally at the end of about two months.

Young birds do not appear to grow very rapidly until after the first week. In ten days they will be able to see, and after they are two weeks old they are likely to leave the nest at any time, to which they will not return, though they may sit upon its edges.

The male generally takes the greatest share of the duty of feeding the young birds after the first few days, previous to which he procures and macerates the food, feeding it to the hen, who in turn feeds it to the young birds.

Some birds are very shy of being seen to feed their young, and it is difficult to find out whether they perform their duty or not; others will delight in being noticed, and will call attention to their infant brood with great parental pride.

Sometimes a cross-grained male will be annoyed at the mother's attention to her young, and will not only neglect, but injure them. If he does this once he must not be trusted again, but removed, as soon as the young are hatched, to the next compartment, and the mother will often bring up her brood by herself.

It may be necessary to change the nest when it becomes very dirty; but this must not be attempted except with very tame birds who have entire confidence in the good intentions of their owner toward the young, until they are tolerably well fledged, as the hen will sometimes show her displeasure at having her nest meddled with by refusing to return to it. She may, perhaps, still feed the young birds, but if a cold night follows and she does not cover the young, they will perish. It is necessary to keep some supervision over the nest, however, as a weakly bird may die in it, and if not taken out it will remain trodden down by the living birds until corruption takes place.

Should young birds be hatched during the mosquito season the cage must be covered with a mosquito netting, which can be raised and laid

back upon the top of the cage during the day and lowered at night.

When young birds are about two weeks old the hen generally begins preparations for another brood, leaving the care of her young entirely to the male, and she must be supplied with the materials with which to construct her nest as before. The sliding bottom of the cage should be withdrawn, thoroughly cleaned and sanded. Some hens will insist on laying in the same nest with the young, in which case the young may be placed in a shallow wooden box lined with cotton, and set upon the floor of the cage, where the male will attend them.

Some breeders place the young on one side of the partition as soon as they leave the nest, and the parents on the other side; but this is not necessary unless the male should become vicious and attack them. The hen does not generally bother them unless they persist in sitting upon the edge of the nest, when she drives them off by gentle pecks.

At the end of four weeks the young are able to feed themselves and should be placed in a large cage—an unpainted breeding cage will do

—out of sight and hearing of their father, with perches fixed near the ends of the cage in order that they may be compelled to use their wings in going from one perch to another.

In removing a brood of young birds from the cage in which they were born, they should be gathered on one side of the breeding cage, the partition let down, caught as quickly as possible, and taken away by an assistant, who should be at hand.

The young birds must have the same food as before, both the nestling and seed, but as they grow older the soft food can be decreased until they have moulted, after which the nestling food can be discontinued altogether, and the birds fed and cared for the same as are regular songsters, the directions for which have been already given.

If through some accident the little birds should be left orphans, keep the nest as warm as possible, give each bird so much as will go on a quill pen, dipped in the yolk of an egg, of the nestling food, about three penfuls every hour during the day, until they are able to shift for themselves.

After young canaries leave the nest they

appear to many persons to be sickly, as they sit upon the perches in a puffy manner, and do not appear to be as clamorous for food as while in the nest ; but they are not sick, and will fly wildly about the cage whenever the person attending them goes near to replenish the food and drinking vessels.

CHAPTER VII.

TRAINING YOUNG SINGERS.

YOUNG birds sometimes begin to warble when they are about three weeks old, but this is not always the case. Both the males and the hens warble at first, and they generally start it while sitting lazily upon the perch, or may be started by running water, operating a sewing machine or turning a coffee-mill. It is somewhat difficult to distinguish the males from the hens when they are young, but the males are of a deeper color about the head, neck, and upper part of the body; the neck is more extended; the body is more lithe and slender; there is a larger swelling of the throat, and the warbling is more continuous and frequent as they grow older, and altogether they have a more bold and bright look than do the hens, the latter being generally of lighter color and more broad and "dumpy"

in their general appearance, their warbling becoming less frequent and finally lapsing into a chirp.

When the young males are through their first moult they should be each placed in a cage by itself, and the cages so arranged that the birds can not see each other, and placed within the hearing of a first-class songster. If the young birds hear the song of but one bird they will acquire his notes, to which they often add their own, but they more readily pick up the chop-notes (this chop-note resembles the word "chop," repeated rapidly) of a common nerve-racker, and care should be taken that they be kept out of hearing of such a bird.

To teach a young canary a tune he must be placed in a small wire cage, which, at the commencement must be covered with muslin, and by degrees with thicker woollen cloth, when a short air must be whistled to him, or a flute, a phonograph or small organ may be used. This lesson must be repeated five or six times a day, especially mornings and evenings, and in about six months, if the bird is possessed of a good memory, he will have acquired the air.

Occasionally a hen will develop into an exceedingly good singer, which has caused it to be mistaken and purchased for a male, the real sex being only discovered when she has surprised her owner late in the following spring or early summer by laying several eggs. A singing female, if a good mother, is worth her weight in gold to a breeder, who would, no doubt, rather keep her than the best male he possessed, as her progeny are always the very best singers. In case the sex of a singing canary is in doubt it should be placed, during the breeding season, near the cage of a male. Both birds will stop singing almost entirely and cling to the sides of the cage nearest to each other; the male drooping his wings, raising the feathers on his head, and giving vent to frequent short bursts of song. If the doubtful bird proves to be a hen the male will continually utter a low click, something entirely different from what you have ever heard him use before. Should the doubtful bird prove to be a male they will soon resume their song and not bother about each other, except they may occasionally want to fight.

A canary may be taught to sing while sitting

upon the finger, by keeping it for some time in a cage without food, and while sitting upon the finger its favorite food must be held to it upon the tip of the extended tongue. A bird must be taught while it is young, and soon becomes very tame.

Some young canaries are very late in developing into good singers, appearing to spend their time in playing about their cage, picking up grains of sand, or strengthening their beaks by testing the wires of their cages, it often being six or seven months before they really begin to sing. It has not been idle, however, for it will eventually surprise its owner by turning out to be one of the very best singers, having absorbed and stowed away in its little memory all the notes of the birds to which it has been listening.

A season's crop of young canaries may be divided into three grades, even if both parents were of the finest strain, a few always being but indifferent singers, seeming to be lacking in liveliness and imitativeness, and possessing no memory at all in comparison with their more sprightly brothers.

CHAPTER VIII.

HYBRIDS, OR "MULES."

THE breeding of hybrids—the progeny of crossing or mating the canary with other species of the finch or seed-eating tribe—possesses a fascination to the breeder of canaries which it is hard to resist, notwithstanding that the chances of failure outnumber two to one the chance of evolving a bird of superior song and beautiful plumage.

In pairing a canary with a different species of seed-eating bird it must be remembered that a hen canary is always to be preferred, although it is by no means certain that just as good results may not be obtained by using a male canary and a hen of another species if such a hen is perfectly domesticated and tame, for it must also be borne in mind that these birds were born in their natural state and still possess, to a certain extent, their wild instincts and natural timidity.

About the middle of April, if the spring promises to be early and warm, is the best time to pair these crosses, placing one bird on each side of the breeding cage for about a week, or until they seem to have become thoroughly familiar with each other and their new surroundings.

It may be impossible to procure some of the species mentioned if arrangements are not made with some importer of foreign birds about the beginning of September or October, as these importers make arrangements with their foreign buyers in regard to the variety and number of birds wanted.

The following-named and described species of the finch tribe can be successfully crossed with the canary :

AMERICAN GOLDFINCH.

The American goldfinch, or yellow bird, as he is commonly called, is so named from its resemblance to the English goldfinch in its habits and natural food. It is found all over the American continent. As summer approaches, the males cast off their olive-covered winter suits

and appear in their golden livery—the front of the head, wings, and tail being of a deep black. They may often be seen in flocks, flitting from reed to reed, twittering all the time, and opening and closing its wings in the same manner as the wild canary. They have a varied, soft, and cheerful song.

In confinement the yellow bird soon becomes familiar and reconciled to its surroundings. In addition to the regular seed of the canary they should have also some seed of the thistle, lettuce, hemp, and sunflower; not necessarily all of these seed, but those which can be procured.

They are very fond of bathing and picking up small particles of sand and gravel, with which they should always be well supplied. It is somewhat difficult to secure a hybrid from this bird and the canary.

THE EUROPEAN GOLDFINCH.

This is a delightful cage bird, alike from the beauty of its plumage, its docility, its melodious song, its incessant activity, and its ability to repeat airs and the songs of other birds.

It is about five and a half inches long, of

which the tail is two inches. The beak is pointed and very slightly bent, with a horn-colored tip; the feet are brownish. The front of the head is of a bright scarlet red; a broad margin of similar color surrounds the base of the beak; on the top of the neck there is a white spot; the cheeks and front of the neck are white; the back of the neck and back are of a beautiful brown; the longer feathers are black; both sides of the breast and flanks are of a bright brown; the middle of the breast, belly and vent are whitish, with some feathers brownish. The tail is slightly forked and black.

They must have, in addition to the food generally given to a breeding canary, some hemp and poppy seed, and green foods, as cabbage, lettuce and water-cress, as it is a voracious eater. It is subject to epilepsy and sore eyes. In old age and confinement they lose the brilliant colors of their plumage and generally become blind.

As the females of the European goldfinch are often sold for males by unscrupulous dealers on account of their close resemblance to the males, they may be distinguished by their being a little

smaller, not so broadly and beautifully red about the beak; the chin brownish; the cheeks intermixed with bright brown; the small coverts of the wings brown; and the back of a deeper dark-brown than the males.

The males of this cross are generally of most striking plumage and superior songsters.

THE LINNET.

The linnnet excels most other song birds in its power of beautifully and purely imitating airs and melodies which are played to it. Its natural song consists of many connected strophies, and it is admired for what is called its "crowing," from its resemblance to the crowing of a cock. It will also learn the songs of all the birds in the room with it.

The length of the linnnet is somewhat more than five inches, of which the tail measures about two and one-half inches. The beak is dusky-blue in summer and grayish-white in winter, with the point brown. The feet are black.

A male linnnet less than three years old in the spring has a blood-red forehead, the rest of the head ash-colored, with the top spotted with

black ; the feathers of the back are chestnut, with the sides lighter ; the sides of the breast are blood-red ; the sides of the belly are pale rust-color ; and the under part of the body reddish-white. The tail is black and forked, the four outer feathers having a broad white border, the two middle feathers being narrower and reddish-white.

After moulting in autumn little red is to be seen on the forehead, and males one year old have no red on the head, more black, pale-red on the breast, and the back rust-colored. These birds are known as gray linnets.

There are other clouded varieties of linnets, produced by the seasons and old age. Birds brought up in the house never acquire the fine red on the forehead and breast, but remain gray like the males of one year old ; on the other hand, old birds brought into the house lose their beautiful colors at the first moulting, and appear as gray linnets.

The progeny of this cross resemble an ordinary green or gray canary, but the males are superb songsters and very imitative, quickly acquiring the song of any bird within hearing.

THE BULLFINCH.

The bullfinch is one of the greatest favorites of the finch species. It is especially desirable for its winsome ways and its remarkable tameness.

The top of its head, wings and tail are of a glossy black; the beak is thick and black; the back bluish gray; the breast red. Its song is a soft, low whistle, interspersed with other guttural sounds. It can be taught to pipe short tunes, and will also perform various amusing tricks. It is capable of great attachment for its owner, and will often mope and sulk if another person attempts to become familiar with it. Hybrids from this cross are very hard to rear, but are of beautiful plumage and more imitative than the bullfinch proper.

THE GREENFINCH.

The greenfinch is nearly the same size and shape as the canary, and is also known as the green linnet. It is of yellowish green plumage, somewhat gray on the back, and inclined to be lighter beneath. It is a sprightly and robust bird, but its song is only ordinary, and it is of a somewhat combative disposition.

THE INDIGO BIRD.

This bird is a beautiful American songster, about the size of the canary. The top of its head is pure violet, shaded to deep indigo blue on the back, with a green tinge on the lower part of the body. The tail is brown, and the beak and legs lead-colored. Its song somewhat resembles that of the linnet. Besides the regular food of the canary, a little millet and hemp seed should be given it occasionally, and they also are fond of flies and spiders.

THE CHAFFINCH.

The chaffinch, also called the "shell-apple" and "beech-finch," has a sharp, thrilling song, which varies in different varieties of the same species, according to the different localities from which the bird has been captured, those having the "double trill of the Hartz" being considered the most desirable.

The head is bluish-gray; back brown; wings black. The breast is pinkish-red, with the belly inclining to white, and it has bright yellow circles around the eyes. In addition to the regular diet

of the canary they should have green food, ant's eggs, and mealworms occasionally.

THE SISKIN.

The siskin is sometimes called the "black-headed finch," "gold-wing" and "barley-bird." It sings continually in a low, sweet twitter, and is a great mimic. It has a pretty mixture of black, green and yellow in its plumage, and is shorter and more thick-set than the goldfinch, and is very active and amusing in a cage—always climbing about, swinging by one leg with its head downward, and assuming all kinds of postures. It is of a somewhat greedy disposition, and is fond of throwing water over its feathers. The offspring of this bird and the canary are generally of beautiful plumage and good songsters.

THE NONPAREIL.

This bird is called the "painted finch," or "painted bunting," and by some the "Pope," on account of his beautiful violet hood. He has a violet hood and neck; a red circle around the eyes; the beak and feet are brown; the upper

part of the back yellowish green; the lower part of the back, and the throat, chest and whole under part of the body, as well as the upper tail coverts, of a bright red; the wing coverts are green; the quills are reddish-brown, tinged with green; the tail is reddish-brown.

It has an agreeable, low, soft song. It is subject to epileptic fits, but is generally brought around by being plunged head-downward into cold water two or three times. In addition to the regular food of the canary, it is exceedingly fond of flies and spiders.

THE HAWFINCH.

The hawfinch is a long and stoutly-built bird, of a drab-color on the upper parts and inclined to gray underneath. Most of the pinion and tail-feathers are black, having a large white spot on the inner vein.

It has but an ordinary song. In addition to the diet of the canary, it should have mullet, cherries and peas.

CHAPTER IX.

RED MITES.

THE most persistent enemy of the canary is the "red mite." It is a small brown or red insect, varying in size from the point to the head of a pin or the dot over the letter "i." In its habits it may be likened to the household pest—the bed-bug. Like the latter, it works principally in the dark, and dreads the bright light and the sunshine. Placing a bird for a few hours each day, for several successive days, in the sun, will often, with the aid of a bath, entirely free it from these vermin and drive them away.

If your bird is restless, especially at night; if it is continually picking among the roots of its feathers, loses its appetite, is fretful and vicious, and the first feathers on the tips of its wings drop out, look out for the "red mite." In order to ascertain if these insects be present, a piece of white flannel or soft white cloth may be laid

upon the top of the cage during the night, and should these insects be present, some of them will be found clinging to the cloth in the morning. Their presence in a breeding cage may be detected, if the cage has a wooden back, by numerous little silver-colored specks around the upper corners.

To free a bird of its diminutive but numerous enemy, it should be taken from the infested cage; a piece an inch long from the finger of a glove, open at both ends, slipped over its head to cover its eyes and nostrils, and insect powder rubbed into its feathers, especially under the wings and on the abdomen; or the powder may be applied with an ordinary blower; two persons being necessary to do this in order to not injure the bird.

The bird should now be placed in an extra cage—which every bird keeper should have for an emergency; a small, clean wooden cage in which a foreign bird is imported will answer—and be hung in the bright light or sunshine. This treatment should be given every bird purchased from a bird dealer if it is to be soon mated, as a

precautionary measure; it will not injure the bird, although it may appear stupid for a short time.

The bird having been attended to, the cage, if a metal one, and not new, if it is infested with insects, should be placed in an ordinary wash tub, in a strong solution of lye water, and scrubbed thoroughly inside and out, until every joint and crevice has been saturated and cleansed; it should then be rinsed thoroughly and wiped perfectly dry.

Another effective remedy is to use a small paint brush and a strong solution of carbolic acid—about one part of acid to ten parts of water—painting the cage thoroughly inside and out with this solution, going over the work two or three times. If the cage be a breeding cage of wire-and-wood, after it has become thoroughly dry it should be blown with insect powder, not missing a crevice or joint.

The wood-and-wire breeding cage may be cleaned also by pouring gasoline into and upon every joint and then painting the surface with the same fluid, turning the cage two or three

times. If intended to be used for breeding purposes, it should also be blown with insect powder. The rust on the wires of a cage is not injurious; but the green rust upon the wires of a brass cage, if corroded, is poisonous.

CHAPTER X.

DISEASES AND THEIR REMEDIES:

LIKE animals, birds that are kept in confinement are liable to more maladies than those which have their liberty, some ornithologists claiming that birds in their natural state are never ill.

The maladies to which cage birds are subject are considerably increased by their having all kinds of delicacies, such as cake, candy, sugar, pastry, etc., which spoils a bird's stomach and produces a slow consumption.

Inferior seed is a cause of many diseases to which a canary is subject; but colds are another cause. A bird is often seen placed in an open window, or hung outside in a chilly wind, which soon destroys its song and health.

ASTHMA—Birds attacked with this disease have their breath short, often open their beaks

as if to gasp for more air, and when frightened keep them open for a long time. The cause of this disease is that their food is probably too dry and heating, possibly composed largely of hemp seed, and the bird being kept in a room which is too hot and too cold by turns. As a remedy they should have only scalded rape seed, bread soaked in water and then pressed; also bread placed in boiling milk and well pressed; also lettuce, endive, or water-cress and celery. Keep in pure air, out of draughts, and the song and health often returns after the autumnal moult.

BLOATING—The skin of the bird is filled with air and stretched like a drum. Pierce the skin with a needle and the air will escape.

BROKEN LEGS—Remove all the perches in the cage, place clean gravel in it to the depth of half an inch, and see that the bird can get its food and water without effort; do not disturb it more than necessary.

CONSTIPATION — The bird will be noticed making unsuccessful efforts to evacuate. Give it plenty of the green food which may be in

season, such as celery, water-cress, chickweed, lettuce, apple, or salad.

CONSUMPTION—The bird ceases to sing, becomes thin, and loses its appetite; if taken in the hand, it is very light. It will, in nearly every instance, die in spite of all efforts made to save it.

DIARRHOEA—The evacuations of the bird become frequent and watery, causing it to become very weak in a short time. See that the bird has clean sand, give it spring water to drink, if obtainable, or place a rusty nail in the drinking water; change its regular food entirely, giving it hard-boiled egg, minced fine and sprinkled with red pepper, together with a teaspoonful of crushed hemp seed.

EGG-BOUND HEN—Some young females are unable to eject the first egg and sit weak and puffy on the perch or bottom of the cage. Take the bird in the hand very carefully in order to not break the egg, and insert a common quill brush, dipped in castor oil, into the vent, and place a drop or two into the bird's beak. Another remedy is to place a piece of bacon-rind in

the cage, fastened with a piece of wire thread; if she eats this she will be able to pass the egg easily.

EPILEPSY—This is caused by too great a quantity of rich food and the want of exercise, whereby too much thick blood is produced. The bird should not be frightened or alarmed in any manner. If it appears to be hot and feverish, plunge it frequently into cold water, and pare one of its nails sufficiently close to start blood, a drop being sufficient to relieve it.

FUNCTIONAL DERANGEMENT — This disease occurs to a mated hen. She will go through all the preliminaries of laying, but will be unable to do so, the constituent elements which form the perfect egg refusing to amalgamate. The lower part of the abdomen will protrude and appear red and swollen. If a valuable hen, let down the partition, separating the birds. After a few days, if the swelling has subsided, remove the hen out of sight and hearing of the male and try her again later in the season.

LOSS OF VOICE — Should the male, after moulting or through exposure, lose his voice, he

must be fed on thoroughly baked stale roll or bread, dipped in boiled milk until thoroughly saturated; then press out and mix with it a proportion of two-thirds of coarse barley or wheat flour, freed from the husk or bran; also place a piece of the rind of bacon in the cage, securely fastened.

LONG CLAWS OR BEAKS—It sometimes happens that the perches of a cage are so small that the claws of a bird curl over from the opposite side and enter the flesh, or the beak becomes curved. Hold the bird up to the light and clip off the overgrown portion with a pair of sharp scissors. The “red ray” in beak or claws will indicate how far it is safe to clip.

MOULTING—This occurrence, though natural, is very weakening to a canary. Its cage should be hung near a window or placed in the sun for a short time daily. Give it hard-boiled egg in addition to its regular seed, place a rusty nail in its drinking water, and hang the cage in a warm place.

OBSTRUCTION OF THE OIL GLAND—Canaries are sometimes troubled by hardness and ob-
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struction of the oil gland above the tail, at which they are continually pecking; this should be anointed with a little fresh butter or vaseline, and if very bad, pierced with a fine needle before applying it.

CLOGGED OR SORE FEET—This affection is only found in a bird which does not bathe. The perches should all be removed from its cage and the bottom filled with water. This should be repeated daily until the bird acquires the habit of bathing. If the feet are sore the dirt must be removed with the aid of warm water and then anointed with butter or vaseline.

PAIRING FEVER—Birds are sometimes attacked with “pairing fever” in the spring, or at the time when the inclination to mate is greatest. They sometimes cease to sing, become sorrowful and thin, and die. If a hen is within hearing of a male she should be removed. Place the affected bird near a window that it may have its attention diverted, and it will soon resume its liveliness and song.

RUPTURE—This malady occurs generally in young birds. The bird has a lean, blown-up

body, full of small red veins, and the intestines seem to have fallen to the lower part of the body and become entangled. The rupture is sometimes cured by a scant and simple diet, but the case is generally hopeless.

ULCERS—Small ulcers sometimes form near the eyes or nostrils of a canary which is the progeny of two crested parents. Touch these ulcers twice a day with a small quill brush dipped in witch hazel or a solution of glycerin, alcohol and rose water—five cents' worth of each—which is also a sovereign remedy for chapped hands and face or lips. Feed the bird plenty of water-cress or celery.

VERTIGO—This is caused by a bird turning its head and neck so far round that they fall off their perch. Place a cover over the top of the cage, which will prevent the bird from looking up, for it is this habit which causes giddiness.

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