



Foreign Cage Birds:

CONTAINING

FULL DIRECTIONS FOR SUCCESSFULLY BREEDING, REARING,
AND MANAGING THE VARIOUS BEAUTIFUL AVIARY
BIRDS IMPORTED INTO THIS COUNTRY.

IN TWO VOLUMES.



ILLUSTRATED.

BY C. W. GEDNEY.

VOL. II.

WAXBILLS, FINCHES, WEAVERS, ORIOLES, AND OTHER AVIARY BIRDS.

LONDON:

"THE BAZAAR" OFFICE, 170, STRAND, W.C.

598

GED

V2

LONDON:
PRINTED BY ALFRED BRADLEY, 170, STRAND, W.C.



598
G E D

CONTENTS.

CHAPTER	Page
I. INTRODUCTION—WAXBILLS AND FINCHES	1
II. THE BENGALESE (<i>illustrated</i>)	6
III. THE JAVA SPARROW (<i>illustrated</i>)	12
IV. THE CRIMSON FINCH (<i>illustrated</i>)	20
V. THE LAVENDER FINCH (<i>illustrated</i>)	24
VI. THE NUTMEG FINCH (<i>illustrated</i>)	28
VII. THE WHITE HEADED FINCH (<i>illustrated</i>)	32
VIII. THE ZEBRA FINCH (<i>illustrated</i>)	36
IX. THE AFRICAN GREY WAXBILL (<i>illustrated</i>)	45
X. THE AUSTRALIAN GREY WAXBILL (<i>illustrated</i>)	49
XI. MAGPIE MANNIKINS (<i>illustrated</i>)	53
XII. BRONZE WING MANNIKINS (<i>illustrated</i>)	54
XIII. THE BLACK HEADED WHITE BREASTED MANNIKIN	57
XIV. THE BLACK HEADED BROWN MANNIKIN	58
XV. THE CHESTNUT FINCH (<i>illustrated</i>)	61
XVI. THE ZEBRA WAXBILL (<i>illustrated</i>)	65
XVII. THE COMBASSOU (<i>illustrated</i>)	69
XVIII. THE CORDON BLEU (<i>illustrated</i>)	70
XIX. THE CHERRY FINCH (<i>illustrated</i>)	77
XX. THE SILVER-BILLS (<i>illustrated</i>)	81
XXI. THE CUT-THEAT (<i>illustrated</i>)	84
XXII. THE DIAMOND SPARROW (<i>illustrated</i>)	91
XXIII. THE PHEASANT FINCH (<i>illustrated</i>)	94
XXIV. THE AVADAVAT (<i>illustrated</i>)	101
XXV. THE ORANGE CHEEKED WAXBILL (<i>illustrated</i>)	105
XXVI. THE INDIGO FINCH (<i>illustrated</i>)	106

	<i>Page</i>
XXVII. THE PAINTED NONPARIEL (<i>illustrated</i>)	113
XXVIII. THE PIN-TAILED WHYDAH BIRD (<i>illustrated</i>)... ..	121
XXIX. THE PARADISE WHYDAH BIRD (<i>illustrated</i>)	126
XXX. THE BROWN-SHOULDERED WHYDAH	130
XXXI. THE LONG-TAILED GROSBEAK	131
XXXII. THE BEARDED TITMOUSE (<i>illustrated</i>)	132
XXXIII. THE DOUBLE-BANDED FINCH (<i>illustrated</i>)... ..	136
XXXIV. RARE WAXBILLS AND FINCHES	140
XXXV. THE GOLDEN ORIOLE (<i>illustrated</i>)	145
XXXVI. THE ORCHARD ORIOLE (<i>illustrated</i>)	149
XXXVII. THE BALTIMORE ORIOLE (<i>illustrated</i>)	150
XXXVIII. THE CRESTED ORIOLE	154
XXXIX. THE VIRGINIAN NIGHTINGALE (<i>illustrated</i>)	157
XL. THE CRIMSON-CRESTED GREY CARDINAL (<i>illustrated</i>)	164
XLI. THE CRESTLESS CARDINAL	170
XLII. THE GREEN CARDINAL	171
XLIII. THE SCARLET TANEGAR (<i>illustrated</i>)	172
XLIV. THE RED WINGED STARLING (<i>illustrated</i>)... ..	177
XLV. THE BOB-O-LINK (<i>illustrated</i>)	178
XLVI. THE ROSE-BREADED TROOPIAL (<i>illustrated</i>)	183
XLVII. THE WEAVERS (<i>illustrated</i>)	184
XLVIII. THE CROSSBILL	192
XLIX. THE MING BIRD (<i>illustrated</i>)	195
L. THE AMERICAN BLUE JAY (<i>illustrated</i>)	199
LI. THE AMERICAN BLUE ROBIN (<i>illustrated</i>)... ..	202
LII. THE BUL BUL	206
LIII. THE AMERICAN MOCKING BIRD (<i>illustrated</i>)	209
LIV. THE PIPING CROW (<i>illustrated</i>)	215
LV. THE BOHEMIAN WAXWING (<i>illustrated</i>)	219
LVI. THE CRESTED QUAIL (<i>illustrated</i>)	220
LVII. USEFUL HINTS OF FOOD	224
LVIII. COLLECTIONS OF SUITABLE BIRDS	228



Foreign Cage Birds.

CHAPTER I.

INTRODUCTION.—WAXBILLS AND FINCHES.

THE study of the habits and characteristics of those tiny waxbills and charming little ornamental foreign finches has been to me such a source of pleasure that I should ill requite all the enjoyment derivable therefrom were I to omit such details of management as will secure to these "wee birdies" proper treatment, and so enable them to bear lightly their loss of freedom and to keep in good health. I must plead guilty, however, to having once encouraged my weakness for these little creatures to the extent of indiscretion, by accumulating such a large collection that they ultimately became too numerous for the space devoted to them, and thus the nesting arrangements were interfered with, and failure was the result. Although many of these birds will live through our winter in outdoor garden aviaries, still I do not recommend their being so kept, because it is attended with considerable risk, and also because the beauty and vivacity of these gentle little pets is lost under such conditions. To keep them under the most favourable circumstances, a room, facing south or west, should be dedicated to their use, and the walls having been bushed round with thick branches of birch or other spray wood, it is ready for its little tenants. These branches should be secured close up to the ceiling, and the greatest care must also be taken to prevent any stray sticks hanging down to the floor, and so affording the mice an opportunity of reaching the snug nesting places which will soon be constructed by the birds; for any neglect of this precaution will inevitably prevent them from hatching or rearing their young.

A bath or miniature fountain should occupy the centre of the room, the floor well sanded, and the seed should be placed in a deep tray, suspended from the wall or ceiling in such a manner as effectually to prevent its scattering upon the floor. Apart from the waste of seed which results from any other system of feeding, the encouragement to mice is reduced

to a minimum when no seed is spilled, and I cannot too strongly warn my readers against these insidious little pests, for it is necessary to wage a constant war with them if once they get into your bird room or aviary. Do not attempt to keep any British birds with tiny foreign waxbills or finches, as the result will inevitably prove disastrous. The English finches will never allow the others to breed in peace and quietness.

Nearly all the tiny waxbills and finches are gregarious when in their wild state, the different species often flocking together, much as our own finches do in the autumn and winter, and this peculiarity is very favourable to the maintenance of perfect peace and goodwill between them when inmates of a bird room. It is true that with the advent of spring there is always some squabbling for the possession of favoured spots for nesting purposes; and at such periods the poor little waxbills are unmercifully turned out of house and home by the finches, the chief offenders in this respect being the strong beaked varieties. They all build roofed nests with holes in the sides, but the size of these structures, the materials used, and artistic skill displayed in their manufacture, vary considerably amongst birds of kindred species. The most common materials are hay, moss, very fine strips of bass matting, Pampas grass, asparagus spray, cocoa fibre, long horse hairs, and fine cow hair, shreds of cloth, and feathers. Some of the waxbills make a solid foundation of hay the size of a loaf of bread before constructing their nest on the top, which they form by getting beneath the top layer of material and forcing it up with their backs and heads until a circular space has been made by dint of repeated turnings and twistings. Then the inside is lined with sufficiently strong material to keep it in its place, and finally coated with soft hair and feathers. When all this has been accomplished, and a batch of eggs laid, I have known master zebra finch, failing to drive the little waxbills out, block up the entrance of their nest with moss and hay, and rear a second nest over that occupied by the imprisoned birds, who, but for prompt relief, would inevitably have been starved to death. This kind of thing usually occurs in the early part of the season, before the birds settle down each to its own quarter; but I have found that the use of small wicker cages, in which German canaries are imported, afford safe retreats for the more defenceless varieties. To prepare the cage, remove the half of one end, take out the perches and seed trough, then fill the inside with moss, and hang it high up on the wall, screening it with a branch of wood. Coconut husks, too, are great favourites with the finches, mannikins, and Bengalese, and it tends greatly both to the comfort of the birds and success in breeding if you provide abundant materials and numerous well-varied nesting places.

The staple articles of food with all these birds is millet and canary seed, but they require more stimulating diet as the spring advances, and all through the breeding season. By dint of grating hard-boiled yolk of egg amongst the millet seed, I succeeded in cultivating a taste for it amongst some of my birds, but there were others which never would eat it, and

for these I used German ants' eggs, scalded and then dried in a cloth. During one season, when English ants and their eggs were plentiful, and when some foreign insectivorous birds shared the same room as my tiny pets, they were kept constantly supplied with a soup-plate full of earth that teemed with ants bearing their eggs round and round in vain endeavours to find a place of safety, for the plate stood in a tray of water. I am not sure but that the study of those ants interfered somewhat with my observation of the birds, for so many were the devices employed by the insects to effect their escape that I could not but feel interested. First the strongest party proceeded to throw the weaker lot overboard, and passed over their bodies to land; this was commonly done when the tray, as at first, contained but a small quantity of water, and my respect for their ingenuity was heightened when, on entering the room with a friend, I found them in the act of passing over an impromptu bridge, formed of a blade of grass which had been left in the plate, and which they had launched over the side. Soon after this I was told, "If you please, sir, there's a' emmets' nest under the kitchen hearth-stone!" This combination of ants and eggs was not an unqualified success in other respects, as the insects were eaten by delicate birds that ought not to have done so, and they suffered in consequence, but that is one of the many obstacles in the way of keeping a mixed collection of grain eating and insectivorous birds in the same room.

I have spoken of the tiny finches and waxbills as doing best when allowed the exclusive use of a room to themselves, yet they get on very well when forming part of a miscellaneous collection, although it is useless to expect them to breed under such circumstances, for they are sure to be molested. Many of them will breed in cages, but the birds must be very tame before any great measure of success need be anticipated under such conditions, because timid specimens will incessantly leave their nests at every sound to see the cause of slight noises, and whether there is any danger. Where cage breeding is tried I advise the use of small rush nesting baskets, shaped like a pickle jar, which may be bought of any foreign bird dealer. Some feathers and short cow hair are the only nesting materials necessary to be given, and not the least advantage of these nests is that they can be thoroughly soaked and cleaned at frequent intervals, thus guarding against the accumulation of parasites. Unless the cage be a very large one, it is not desirable to have more than one pair of birds together, where the object is to induce them to breed; but some of the varieties are more pugnacious than others, and I shall indicate the temperament of each when dealing with them separately hereafter.

In entering upon this branch of the subject I become conscious of the fact that upon me devolves the by no means easy task of conveying to the English bird-loving public both an intelligible history of all these "wee birdies" which come to us from every quarter of the globe, and such details for their management as will enable others to participate in the pleasure which their ownership has afforded me. Only such birds

are here treated of as may be obtained of English dealers for cage and aviary purposes, and there is no pretence at classification according to genera. The object sought is to afford such practical information as will prove serviceable to keepers of cage birds, and to do this in a "popular" form. There was a time when I would have given anything in reason for such a book of reference, and therefore venture to hope that it will prove equally acceptable to other fanciers.

Although, as I have already said, some of these birds are very hardy, yet there are a great many of them that will die if the temperature of their room falls below freezing, and the greatest care should be taken to exclude all draught from the window, by pasting narrow slips of paper around the sashes and frame during the winter. If the temperature of the room can be maintained above 45deg. Fahrenheit, then the most delicate African and Indian species may be safely kept, but otherwise I should advise only Australian and American birds, for they will bear the most severe cold, free from draught, and they invariably provide toy nests in which to snugly spend the long winter nights, instead of shivering on the branches of a tree. There are, however, several species of African finches which, when once acclimatised, bear our winters even better than birds brought from more temperate latitudes, and these will be mentioned hereafter. The terrible losses sustained during the early portion of my experience with these birds convinced me that the long abstinence from food—from dusk to dawn—during winter had more to do with the deaths than had the severe cold; and, acting upon this belief, I devised a remedy which was at once simple and effectual, for not a single bird died from cold or hunger during the ensuing winter. My remedy consisted in hanging the seed tray up on the inside of the bird-room door, in which a circular hole, the size of a saucer, had been cut, to admit the face of a large bullseye lantern that stands on a small bracket outside. This lantern contains a good reflector and an oil lamp, which, being lighted just before retiring for the night, throws a flood of light into the seed tray and over the room. Instantly a chorus of sweet chirrups will be heard, and in a few seconds the hungry little fellows are all in the tray making a late supper, after which they again go to roost.

The object of having the lamp outside is to prevent the birds burning themselves, and also to guard against any ill effects upon the atmosphere that might be caused by a lamp burning in the unventilated room all night. This small amount of additional care will amply repay the amateur who adopts it, for, instead of losing his most highly-prized specimens the first winter "through cold," he will be able to keep them in good health, and with profit as well as pleasure to himself for several years. Those of my readers who may keep these little birds as cage pets in sitting rooms would also do well to bear in mind the inevitable consequences of leaving them with shutters closed and curtains drawn without any artificial light during long winter nights; but birds under such conditions have the advantage of being able to obtain food up to the hour at

which the family retire, and are consequently better off in that respect than those kept loose in aviary rooms.

The birds of which I am treating are always sold in pairs, and I strongly advise their being so kept, because one of the great charms about them is their intense love one for the other, which exhibits itself in every action of their life, the male bird never being content unless his mate is by his side, and they never weary of caressing each other by affectionate preening of feathers and innumerable little attentions as fascinating to the spectator as they must be gratifying to the recipient.

Where odd birds of different species are kept they invariably pair together, and mules between finches and waxbills are not infrequently produced in this way; but they are seldom attractive in appearance, and are, moreover, very pugnacious in their nature.

Although not possessing any great power of song, yet the notes of these tiny birds are, for the most part, very sweet and musical, whilst some species are extremely quaint in their mode of singing, puffing out their feathers and dancing up and down by way of accompaniment.

The delicate tints and exquisite markings of these little creatures, together with their quaint manners and intense affection one for the other, always attract the attention of non-fanciers; but it is only the enthusiastic amateur, who has devoted himself to the careful study of their habits and characteristics—watching their development from the eggs to mature growth—that can entertain such a strong affection as I feel for them. When I first engaged in this branch of the foreign bird fancy there was not an Englishman from whom I could obtain the slightest aid or information upon the subject, nor was there a single book of reference, the one or two varieties alluded to by old writers being treated so briefly and ambiguously as rather to confuse than aid me in my search for information. These difficulties have been surmounted, and I am now able to give to my readers the collected information which has rewarded my efforts to trace the history of these tiny feathered pets. I cannot better conclude this introductory chapter than by cordially recommending them to all who find pleasure in the possession and study of the most gentle and beautiful of the feathered tribe.

CHAPTER II.

THE BENGALESE.

Bengalis Blancs (French dealers).
Muscatel Birds (Some English
dealers).

Japanese Gulls (German dealers).
Spermestes Acuti (Zoological
Society).

THESE quaint little creatures afford another striking example of the extraordinary results attained by the Japanese mode of selective bird breeding: and it is certainly a reflection upon our boasted advance in the study of natural science to find that, whilst we looked upon albinos as freaks of nature, yet the fanciers of Japan were able to produce them at will. How do they accomplish it, and how long does it take them? are questions which English amateurs naturally ask; and, although I can answer the second query from personal observation, yet I hesitate to commit myself to an implicit belief in the explanations given with regard to the first. I saw the effect, but was sceptical as to the cause. To make this clear, let me explain that the Bengalese, although classed as a distinct species upon arrival in England, are only *made* varieties of other birds obtained in Japan by the scientific selective breeding above referred to. There are three varieties of Bengalese—the pure white, the brown and white piebald, and the black and white piebald, the two latter being marked in the most irregular and erratic manner, whilst all three varieties are frequently offsprings of the same parents, and bred together in the same nest.

These Bengalese are produced in Japan from mannikins, subjected to that selective system of breeding already referred to, the nesting being conducted under the same conditions as those spoken of in the chapter upon White Java Sparrows. The pure white Bengalese are usually held in the highest esteem in this country; but they are the most delicate, and seldom nest so successfully as their piebald brothers and sisters. In the manufacturing process by which these birds are in the first instance produced they lose many of the characteristics of their progenitors; and, in addition to other deteriorations, the Bengalese have scarcely any power of flight, so that where kept loose in an aviary, there should always be a



THE BENGALESE.

(*Spernaestes Acuti.*)

friendly bush within easy reach from the ground, up which they can scramble to their nests. They are excessively tame and confiding; and they are, perhaps, better adapted for cages than any of the other ornamental finches, because no matter how small the house, these happy little creatures are content so long as a snug nesting basket is provided and a liberal supply of food is kept up. They nest readily under such conditions, and their quaint antics and affectionate attentions one to the other will afford considerable amusement to those who observe them closely. I had a pair of these birds in my possession for some years, and they occupied a waggon cage about fifteen inches long, furnished with a nest which was built of every conceivable material that the little cock bird could collect about my writing table or upon the floor. He was so tame with me that he would always leave his snug nest and come when I called him several times in succession; and to be allowed to bite my whiskers, and struggle frantically to pull some out for nesting purposes, was to him a source of never-failing amusement. His little wife was much more timid and retiring; and, although compelled by her valiant mate to join him in his excursions about the room, yet the carrying home of a piece of nesting material was always a pretext for her to go back again and ensconce herself in their snug little domicile. They bred regularly every season, but their progeny were by no means uniform in the colour of their markings, which varied from dull yellow to rich chocolate brown; some being heavily splashed, whilst others were but lightly flecked; and in each specimen one of the legs and beak mandibles were invariably patched with colour, whilst the others were of a delicate flesh tint. The period of nesting was always influenced by the bill of fare, and soon after ants' eggs and hard-boiled egg were added, there were great preparations for the coming events, the nest being done up afresh, and the little male bird exhibiting unusual activity, keeping up his funny song, resembling the rubbing of a small cork upon an empty bottle, and dancing up and down in the most absurd fashion with drooped wings and feathers puffed out until he looked like an animated ball of raw cotton. The eggs are very small for such a robust bird, and the number laid at a batch will vary from one to eight or nine; the period of incubation is the same as with the other finches.

The duration of life amongst these quaint little birds is very remarkable, especially when their productiveness is taken into account, some couples breeding regularly for six or seven years without any apparent deterioration in the vigour of themselves or their progeny. My pair of Bengalese, above referred to, were known to be four years old when I received them from Japan, and they never ailed anything for five years after arrival in England, nesting persistently every summer with unfailing regularity. Their little house stood within reach of my writing table, and I was admitted not only as a privileged witness to all their household arrangements, but "Little Benny" was wont to consult me through the wires of his cage, and to seek assistance and consolation at my hands during the

FOREIGN CAGE BIRDS.

melancholy period of incubation, when his wee-partner assumed airs and graces, and utterly repudiated his rights not only to caress her, but even to put his head inside the nest! The poor little fellow was very lonely at such times; but the intense love he bore his mate, and the anxiety felt on her behalf, as well as the interest which he took in that stupendous mystery of nature which was being enacted in the nest of his own making, effectually mastered his old weakness for roaming about the room. So, as I have said before, he used to take me into his confidence; and after some prolonged conversation he would always come down from his perch, thrust his beak through the wires, and wait to be kissed. This attention on my part appeared to cheer him up amazingly, for after the kissing was over he would mount the perch again, and keep up a series of performances, in which his quaint antics were enlivened by his still more funny song. A few chirps from inside the nest, apparently rebuking him for such levity, was always sufficient to cut short these antics, and induce him to look timidly in at his better half: but beyond the threshold he dare not venture! He was a hen-pecked husband at such periods beyond all doubt; and the humiliation with which he surrendered all his old self-assertion, and became the most obedient of spouses, was very remarkable. As an evidence of his complete subjection, whenever by dint of tempting he was induced to leave the cage for a few seconds, his little wife always came off her eggs, and the instant her voice was heard he hurried home in a great state of excitement, and set up an apologetic song. They were the funniest little couple that I ever knew; and, in spite of the many other pets which I had at the same time to receive a share of my attention, "Benny" and his mate were my especial favourites, and many hours were pleasantly spent in watching their movements. In an evil moment I was tempted to give these birds their liberty at breeding time in a room devoted to waxbills and tiny finches. "Benny" set to work at once, built up a rare big house, using sufficient materials for twenty nests; and when the establishment was complete, the interior being well lined with feathers and scraps of scarlet flannel, everything went prosperously for a time. The eggs were laid in due course, incubation had been going on for about a week, and then my attention was attracted one morning to the extraordinary behaviour of "Benny." He heard my voice out of doors beneath the bird-room window, and rushing into the circular wire "fly," which projects beyond the open window sash, he made frantic efforts to get out, calling incessantly, and dashing about from side to side in vain attempts to find an opening. I was certain that something had happened, and thought their nest had been disturbed by other birds, but upon going into the room "Benny" preceded me to the nest, and looking in I saw his little mate dead upon her eggs! The poor old fellow perched upon my hand as I turned the dead body over and over, and when he sidled up to it, and failed to obtain a response to his affectionate twitterings, I shared the sorrow which was so strikingly apparent in his bewildered manner. Poor Benny! he outlived his grief; and, after roaming about amongst papers

and writing materials as a gay young widower for nearly six months, he went to console the solitude of a widowed lady Bengalese, at the house of a friend, where a numerous family have blessed his second choice, and he is still as active and merry as in the days when I first made his acquaintance. It is due to him to say that he still cherishes me in affectionate remembrance, and that at the sound of my voice he becomes frantic with joy, and lavishes the most profuse caresses upon me after his peculiar fashion. Although we could not understand each others language in detail, yet our *magnings* were nearly always plain, or, at any rate, they were understood between "Benny" and me; and small though he was in size, yet he possessed an amazing amount of intelligence, which endeared him to all the members of our household.

Although these birds will breed, as I have said, when kept in small cages in living rooms where varying temperatures prevail, yet I found that the sitting was better attended to when the cage, with open door, was hung in a quiet bird room near the floor, and the birds were free to go in and out without being disturbed by the appearance of strangers. Though these birds are wanting in wing power, yet they are not at all deficient of vigour, and should any intruder dare venture within the sacred portal of their house, he is assailed with a fury which would compel even the most warlike of the tiny finches to fly in terror.

The difficulty experienced in determining the sexes is one of the chief drawbacks to success with these birds, because two males or two females will live in perfect peace together, and build nests with as much zeal as if they were properly mated. As in the case of other kindred species, the female may, however, be distinguished by her manner and the fineness of her head and beak; but, as these distinctions can only be seen by a practised eye, it is better for a beginner to rely upon the song as conclusive evidence of male sex, and if his mate responds only by a chirp, then they are a veritable pair, for otherwise they would sing one against the other. If neither sings, then they will both be females; but, inasmuch as the other sex predominate in numbers, two hens are not likely to be sold by any dealer for a pair. The price maintained for these birds is very high, and as they command a ready sale, and are moreover very hardy, they will well repay the attention of those amateurs who expect their pets to yield both pleasure and profit.

FOOD.—The Bengalese are big eaters for their size, millet and canary being their ordinary diet; but it is necessary to caution fanciers against the too free use of eggs or ants' eggs, as the birds develop so much internal fat, that egg-binding frequently proves fatal. Greenmeat may be given with advantage during the hot weather, but its use in winter, or at moulting time, is fraught with considerable danger.

DISEASES.—See "Zebra Finches."

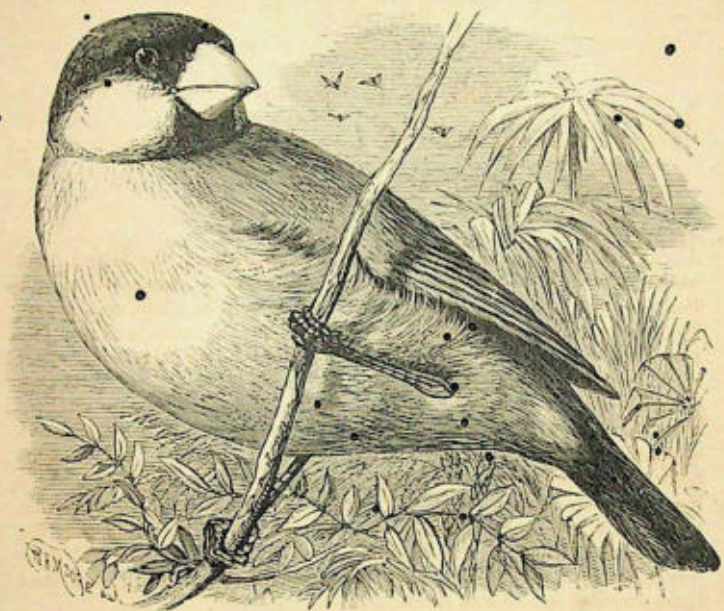
CHAPTER III.

THE JAVA SPARROW.

<i>Fringilla Oryzivora</i> (Zoological Society).	<i>Boorang Peepee</i> (Sumatrans).
<i>Amadina Oryzivora</i> (Gray).	<i>Glate, Glate</i> (Javanese).
Paddy Bird (Chinese).	Java Grosbeak (Latham).

ALTHOUGH these birds abound in vast numbers upon the island from which they take their name, yet are they equally plentiful along the Bornean and East Indian coasts, and even extend to China and Japan. They are true sparrows in their habits and characteristics, and multiply with such amazing rapidity as to seriously damage a large amount of grain, and consequently they are a source of great vexation and loss to the poor tillers of paddy fields. Endless were the devices which I have seen adopted as a means of scaring away those flocks of Java sparrows, sometimes several thousand strong, that frequently besiege fields of ripening grain, and if unmolested destroy best part of it in a few hours, eating to repletion, wasting as much more, and leaving nothing but the empty husks for the farmer. Since the opening of the Suez Canal, such large consignments of these birds have found their way to English dealers that at times the prices realised were less than those obtained for common British finches.

There is something very quaint and knowing about a Java sparrow, which makes him a general favourite with bird keepers, and his sleek quaker grey coat, velvet black head and tail, flesh-tinted, waxen-looking beak, irreproachable white shirt collars, and pink legs, entitle him to be ranked as a remarkably handsome fellow. When in fine feather the whole of his plumage is so smooth and hard that the body appears to have a bloom upon it, and there are very few birds that could compete against him for "high condition." Most of those sent to this country are young branchers that have been netted much in the same manner as sparrows and finches are trapped here, and these youngsters can always be recognised by their defective shirt collars, for the snow-white patches upon the sides of the head do not appear until the second moult, and even then they are usually irregular and defective. I was



THE JAVA SPARROW.

(*Fringilla Originea.*)

recently very much amused to find at an important south of England show that the judge had awarded first prize in a Java sparrow class to a pair of birds in their dingy nest feathers, to the exclusion of some splendidly plumaged specimens; and when asked for an explanation, the judge said he had never seen a Java sparrow without shirt collars before, and so firm was he in the belief that their absence in this instance was due to a freak of nature, that he refused to believe my statement that the white patches would come with the next moult, and so the awards remained unaltered. This mistake was, perhaps, pardonable, when we find such an author as Swainson, in the second edition of his elaborate work, gives a handsome coloured plate representing a "pair" of Java sparrows, the "hen" being shown without any shirt collars. The author gravely says, "This elegant bird has been so distorted in the representations given of it by the elder ornithologists that little apology is thought necessary for introducing more accurate figures of both sexes in this publication"!

The Chinese are famed for their skill in the training of animals, the painstaking and unwearied patience of the Celestials being something marvellous; and, notwithstanding the highly nervous temperament of the Java sparrow, John Chinaman trains him to do many wonderful tricks, and exhibits his abilities in the European quarters of towns and cities in return for stray "cash" (a small brass coin, 500 of which are equal to 1s.) thrown to him by the "long-haired barbarians"—his own countrymen seldom "part" without getting value for their money. Walk down to the end of the Bund at Shanghai, past the bridge, and near its foot would in my time be found, lying in the shade, a goodly collection of naked beggars, whose disgusting sores and leprosy were exposed to excite the sympathy of passers-by. Here, too, of old, was my friend Chumpee, with his stock-in-trade, consisting of a little bamboo stall and a Java sparrow, which earned the old sinner a comfortable income. Chumpee, squatting upon his haunches in the shade, complacently smokes a long pipe, with half-closed eyes, until our party near him, whereupon he responds to our "chin chin," lays down his pipe, and produces Master Java Sparrow from a small cage, and puts him down upon the bamboo stall or table. Chumpee then sets up a miniature gallows, which, being an English institution, he feels is a compliment to us, and says so. This done, he introduces us formally to the bird, which sits upon his forefinger during the ceremony, bowing low to the audience. Chumpee tells us, in pigeon-English, that this "piece bird pigeon no number one fool; him no can talke, him can savee all same; him number one pigeon." In proof of which, at the word of command, the bird flies down to the table, and thence springing upwards catches the string at the arm of the gallows, and there dangles in imitation of a man hanging, until the word "Maskee" tells him to come down to receive half a grain of paddy rice as a reward for the trick. Then Chumpee produces a pack of Chinese cards, about

the length and width of a lady's finger, and handing these to me I select one and mark it with a pencil. This is carefully examined by the owner, whom, I notice, takes some pains to straighten its edges and so forth, before placing it in the centre of the pack, and "cutting" the cards with a great show of mixing them, finally deposits them upon the table, where the bird has been lying on his back all this time. He is now taken up, thrown into the air, and alighting by the side of the cards goes round them carefully, touching the pack gently here and there with his beak, as if to make sure, finally bringing out the marked card and flying off with it to the galloway. Another seed rewards him, and other tricks follow. He swings himself by one foot, head downwards; he flies to the roof of some neighbouring "hong," and waits there till ordered to return; he drops from the galloway and feigns death, and in everything exhibits the most perfect cheerfulness and obedience to his owner. This capacity in a bird of the finch family is not perhaps remarkable, especially when we consider what a high degree of intelligence is exhibited by those trained canaries which one sometimes see going through their performances in the streets; but the Java sparrow is much more nervous and excitable than those birds, and I have known them die with fright on a railway journey.

When kept as cage pets they should not be allowed to share the same cage with any weak or defenceless birds, for they are disposed to be very pugnacious; and although they seldom go out of their way to molest other birds, yet they have a nasty habit of quietly laying hold of any unsuspecting victim that encroaches upon a favourite perch, or that fails to give way when they approach the seed tray, and as their powerful beaks appear to have been specially designed for the cracking of rice, it may easily be imagined that a nip from such a weapon is sufficient to kill a waxbill and to do serious damage to a canary. When flying loose in an aviary, however, such precautions are not necessary, for the Java sparrows are then enabled to find quarters of their own quite removed from the rest, where they can doze and fondle each other with that demonstration of affection which is such a very remarkable trait in their character. The chief objection to them as aviary birds is their inordinate greed for nesting materials, for, like the common house sparrow, they delight to burrow into some thick bushy retreat and there accumulate a mass of hay, straw, bass and asparagus spray, lining the inside with feathers and gay coloured carpet ravelings, and only leaving a small circular hole at the side as a means of ingress and egress. Now, all these materials may be abundantly strewn about the aviary, and there may be basketsful hanging ready at hand; but the birds much prefer to exercise their thieving sparrow-like propensities, and tear out those nests in which canaries and zebra finches are sitting—always taking care to avoid such birds as Virginian nightingales or cardinals, who would fall upon and punish any intruders. Much of this squabbling can be avoided if the aviary roof is thickly coated on the inside with a thatching

of heath, so arranged as to afford snug retreats, and the same material—stem downwards—makes capital cover around the sides of the place, especially where an outer screen of birch branches are provided. In cages it is best to supply either a rush nesting basket or else a cocoonut husk, with a roomy entrance, and withhold all nesting materials except a few feathers.

There are no birds, except canaries, which undergo such marked changes of plumage, when bred in confinement, as Java sparrows, and this is exemplified by the tendency exhibited by most of them either to sport white feathers or to become spotted with patches of dirty white and grey. The Japanese are enthusiastic naturalists and great lovers of birds. It was at Yeddo that I first saw an extensive bird breeding establishment, and there the manufacture of white Java sparrows was carried on upon a large scale. There were a large proportion of foul-marked birds produced, and these were sold for considerably less than the pure white specimens, a pair of which was presented to me by the courteous proprietor of the establishment. These birds were bred in double cages, made of narrow strips of bamboo, coated with white chenam—a kind of whitening—and all the fittings were similarly painted, the whole being covered with a white calico case, which effectually prevented the birds seeing anything but their white surroundings, which were said to have a very marked effect upon the progeny. I am not disposed to deny, nor can I affirm, the correctness of this theory, but my experience goes to prove that whilst these white birds breed more readily in cages than those of the natural colour, yet the white ones very rarely breed true to feather in this country. It may be as well to say that nearly all the white Javas sent to England are foul marked birds, and that—notwithstanding the extravagant price paid—you will eventually find that your birds, if you buy any, put up black feathers either in wings or tail. If these were pulled out before selling them the fraud is more quickly discovered than if the feathers are cut off close to the skin, in which case the fact will not be discovered until the bird moults, and it is useless to go to a man at the end of six or eight months and complain that the birds you paid him three guineas for have moulted and got black feathers. My advice is, examine the birds before you buy them by spreading out the wings and carefully noting the primaries on the inside to see if there are any missing, and also looking with similar sharpness at the base of the tail. If you cannot do this yourself, nor get any person to do it for you, and if, moreover, you object to be swindled, then my advice is, do not buy a pair of white Java sparrows unless you can place implicit faith in the man with whom you are dealing.

One of the greatest drawbacks to success with these birds is the difficulty which an amateur experiences in identifying the sexes, for the plumage of the two is alike in the minutest detail. Let this be clearly and distinctly understood, for most of the manufacturers of English bird books have perpetuated the stupid mistake of a very old writer,

who said that only the male birds had white collars. The difficulty in distinguishing the hen, however, is not so great as would be supposed, for a very little experience enables an amateur to detect the distinctively feminine appearance of her head and beak, both of which are smaller and more delicately formed than those of her mate, and her body is, moreover, perceptibly finer and more gracefully shaped. It is the head and beak, however, which supply the most reliable guide, and although at first sight the distinctions referred to may not be recognised, yet a careful comparison will reveal them.

The male bird has a very pleasant liquid song, consisting of a water-bubble note several times repeated, and then ending in a long drawn note, which appears only to cease when the bird has expended all his wind. This pretty, though feeble, song is usually accompanied by a quaint comical dance, the bird jumping up and down upon the perch in a most absurd fashion, the whole performance being evidently intended for the gratification of his demure little Quaker-like wife, who preens her neck and head as a mark of her great admiration of his skill, and then the happy couple doze side by side in evident enjoyment of each other's society. This peculiarly intense affection which Javans as well as most of the African finches exhibit towards members of their own species, and the manner in which odd birds of the same sex will, in the absence of any other member of their own species, consort together and avoid the rest, sleeping side by side, is not to be explained by the mere fact of their gregarious habits in a wild state, for British finches will not behave similarly when kept in confinement. It is true that although two male—or female, as the case may be—Java sparrows will act in the manner above referred to, still the monotony of their purposeless existence will be relieved by an occasional fight, but it will not be serious, for one always gives in, and they make matters up immediately the scrimmage ends.

Javans are extremely hardy, and as they usually seek some snug retreat as a roosting place, they will stand our coldest winters in an outdoor aviary without any ill-effects, but when kept under such conditions egg production will be deferred until June or July, although some of these birds are making and remaking nests all the year round, but that is only for amusement, or for securing better quarters to roost in. The eggs, which vary from four to six in number, are white in colour and equal in size to those of the common sparrow. The sitting occupies fourteen days, and the young appear to be very hardy and easily reared, provided the parents are supplied with suitable nourishment for their progeny.

FOOD.—Although rice forms the staple article of diet of Java sparrows in their wild state, yet they do admirably well upon canary and millet seeds in confinement; but something more stimulating than this is necessary to induce egg production, and the difficulty of supplying the place of the insect larvæ which these birds obtain from the paddy stems is by no means an easy matter with imported stock. With English-bred birds,

or those that have been some time in confinement, it is an easier matter to induce them to eat soft food, and then finely-crushed eggs can be added to sop, as also may scalded ants' eggs. Green food too will always find favour with them, and if you are able to procure a supply of rice in the husk, a sprinkling now and then will afford your Javas a treat, and give new employment to their powerful beaks. When keeping them in cages, always supply them with the bone of a cuttle fish, hanging it by a wire, and the enjoyment this will give them must be seen to be understood; they are extremely fond of it, and its effects are highly beneficial. These birds have an inordinate love of water, and, whether in cage or aviary, they should be furnished with a clean bath daily. Their mode of tubbing is very peculiar, for, instead of going straight into the water as other birds do, they throw themselves in sideways, and when fairly damp, go in for a vigorous splashing, sending the water in all directions, and emptying the bath, if it be a small one.

DISEASES.—Upon this subject there is very little to be said, for, beyond colds and diarrhoea, I have never known these birds to ail anything; and in such cases as those named, a box cage, wired only in front, warmth and judicious feeding, were the only things requisite. Too much green food in the winter is likely to produce excessive relaxation, and this must be guarded against, but these birds are as hardy as the common house sparrow, and require nothing but good food, and plenty of it, to keep them in health.

CHAPTER IV.

THE CRIMSON FINCH.

Estrela Pheaton (Gould).
Bengali Pheaton (Hombron).
Bengali Pheaton (Jacquinot).

Red Finch (Australian Colonists).
Ing-a-dam-oon (Australian Aborigines).

This brilliant little bird bears such a striking resemblance to the African Fire-finch that I am unable to divest my mind of the belief that the two belong to the same species, notwithstanding the distance which separates their natural habitat. Curiously enough, the Australian variety is more difficult to obtain, and more delicate in this country, than the African, although Gould tells us that Crimson Finches are met with in flocks of hundreds throughout the north and east of Australia. For some reason, however, the small birds from that country always appear to suffer more from the effects of their journey to England than do the African and Indian birds; but I cannot help thinking that this is due to neglect and improper treatment combined.

The male Crimson Finch is 3in. long, somewhat robust in shape, and his plumage is, as his name implies, of a bright crimson colour throughout, the crown, back, and wings being slightly tinged with a darker shade than the breast; whilst the abdomen merges to black at the vent and under-tail coverts, beak red, and legs flesh coloured. The sides of the breast are faintly ticked with delicate white specks. The hen is brown above, merging to fawn upon the breast, which is flecked with minute white spots; the beak is red, as are the feathers crossing from eye to eye over the upper mandible; tail black, and a patch of ruby red upon the base of the tail beneath the wing tips.

There is no instance recorded of these birds having been bred in confinement, and I incline to the opinion that our want of success is due to unsuitable food, for, although they fatten quickly upon an ordinary seed diet, yet they die off in the most unaccountable manner, often dropping dead when apparently in the very pink of condition and robust health. In their wild state they subsist upon grass seeds, and the minute insects found in grass plots, and this being so, then it is pretty clear that hard millet and canary seeds must be much more heating and fattening than is the laxative



122

-96



THE CRIMSON FINCH.

(*Estrela Phaton.*)

diet to which they are accustomed. The difficulty of obtaining females has prevented me from experimenting to any large extent with the Crimson finches; and they therefore afford an opportunity to those fanciers who desire the honour of being the first to induce these birds to nestle in captivity.

FOOD AND DISEASES.—The same as the other tiny finches already described.

CHAPTER V.

THE LAVENDER FINCH.

<i>Estrilda coerulescens</i> (Swainson).	Lavender Finches	(English
<i>Fringilla coerulescens</i> (Vieillot).	dealers).	
<i>Lagonosticta coerulescens</i> (Gray).	Bengali grizzle	(German
<i>Cinereous Waxbill</i> (Zoo. Soc.).	dealers).	

ALTHOUGH these lovely little birds are sold as finches, yet they belong to the waxbill family, and are amongst the smallest of its members. They are natives of Africa, and are very plentiful upon the West Coast, congregating in flocks which feed upon grass seeds and minute insects. During the breeding season the birds pair off, the males being at such periods very pugnacious, and the nests are built amongst the stalks of rank herbage which abounds in marshy land. The materials used are dry blades of grass, and the nest resembles in size and shape that of the English wren; the eggs usually number from four to six, are white in colour, and rather large considering the size of the bird, which is about three inches in extreme length. Their body and wings are of a most delicate lavender tint, which has a soft bloom upon it; the feathers about the thighs being "flecked" with minute white specks, and the tail and beak are ruby red; feet brown.

These exquisite little creatures are by no means scarce in the English bird market at certain seasons of the year, but they suffer so much from the conditions under which they are imported that very few survive the effects, and as a consequence they are looked upon, and spoken of, as being about the most delicate of their tribe. This, however, is a mistake, for specimens obtained immediately upon arrival and carefully nursed for a few weeks in an even genial temperature have done very much better in my aviary afterwards than many of the more robust species. Of course, I should not recommend these birds for outdoor collections—except during summer months—but very few persons care to be at the trouble of catching up delicate specimens from garden aviaries and nursing them through the winter, although this is not a difficult matter where a room in the house is dedicated to bird worship.

It is a curious fact that those birds which are either pugnacious or aggressive at the approach of the breeding season always nest in confine-



THE LAVENDER FINCH.

(*Estrela coerulea*.)

ment more readily and successfully than the gentle timid creatures, and Lavender finches belong to the first named category; for, small as they are, there is no misunderstanding matters when they purpose going to nest, and if any luckless specimen of their own variety occupies the same apartment, the sooner he or she is removed the better it will be for the peace of the place and the safety of all parties. Curiously enough they do not interfere with any but their own kindred, but the habit of these birds when at liberty to pair off at such seasons will probably explain this peculiarity, the intruder in the bird room being punished for his apparent want of manners in remaining to annoy by his presence a happy couple upon matrimony intent. Whether or not these birds would breed in cages I am unable to say, but with proper treatment the chances are in favour of their doing so.

FOOD AND DISEASES.—See other waxbills.

CHAPTER VI.

THE NUTMEG FINCH.

Spermestes Punctularia (Gray).
Fringilla Punctularia (Latham).

*Muscat Finch, Citron Finch,
Spice Bird, Domino Finch,
and Borneo Finch* (English
dealers).

THIS is, perhaps, one of the commonest and best known of the Indian finches, and it was certainly one of the first introduced into this country: for all the early writers mention it, although they speak of it as the "Muscat." The above title at the head of this chapter is one amongst the many which have been given to this and other well known and common birds by English dealers, who find it pays to have new names to cheap "wares" occasionally, for the majority of purchasers know the birds only by their names, and have not the remotest notion of what they are like. Thus the birds now under notice are sold as Muscat finches, Nutmegs, Citron finches, Spice Birds, Domino finches, and Borneo finches, but they all mean the same thing. There is a Citron finch, however, but he is quite distinct from the species here treated of, and worth three times as much.

These birds measure rather more than four inches in extreme length, the body colour throughout being of a rich nutmeg brown, thickly spotted with white, beak, feet, and legs slate colour. The male and female are alike, and they can only be distinguished by the love song of the former, although, like the White Headed finch, the Nutmeg is dumb, and may, therefore, be assumed to be closely allied to the species referred to. Unlike them, however, the Nutmegs are troublesome in an aviary with weak and defenceless birds, and not at all disposed to nestle quietly, preferring to amuse themselves by invading other birds' nests and enjoying a temporary possession, which is often fatal to the prospects of a brood. As this kind of molestation is limited to interference with the tiny birds, Nutmegs may be safely kept amongst a mixed collection, and they will bear our winter in an open outdoor aviary with impunity. Their pretty plumage, active habits, and hardy constitutions, entitle them to a place in most bird rooms, whilst as cage pets, they may be tamed to a remarkable degree of docility, and as they are both inexpensive and plentiful they come within the reach of all classes of fanciers. When kept with a view to breed, these birds are disappointing, for their shyness is even greater than that of the



THE NUTMEG FINCH.

(*Spermestes Punctularia.*)

White Headed finch ; and even should they lay, it is not once in a dozen times that they will hatch and rear their brood. Personally I have never troubled myself about them, because they were so common ; but my plan of action would be to cage and thoroughly tame a pair before giving them their liberty in an indoor bird room, and then to rigidly exclude all visitors, permitting no one to enter the room except myself. I never frighten my birds upon entering their rooms, as it is my custom to hesitate at the door and whistle a few bars in imitation of the little Pheasant finches, who usually sound the alarm, and my call is answered almost immediately, and I find the birds all prepared for my appearance. The effects of opening the door without this warning would be to send half the inmates dashing about the room in search of some place of safety, and probably the scare would upset the quiet occupations of a whole forenoon, and cause the birds to be startled by every familiar sound. When dealing with such shy nestlers as the birds now referred to, these apparently trivial precautions are the main spring to success, and let me once more impress upon amateurs the importance of leaving the nests and eggs unmolested. How bitterly have I repented—over and over again—my folly for peeping into the nest of some choice finch, to satisfy myself, it may be, about the colour of an egg—the result usually being that the nest and eggs were forsaken. Then I have, in fear and trembling, placed the precious eggs in the nest of a Zebra finch, who perhaps straightway resented the addition to her batch by eating the lot, or else turned them out upon the floor.

FOOD AND DISEASES.—See "White Headed Finches."

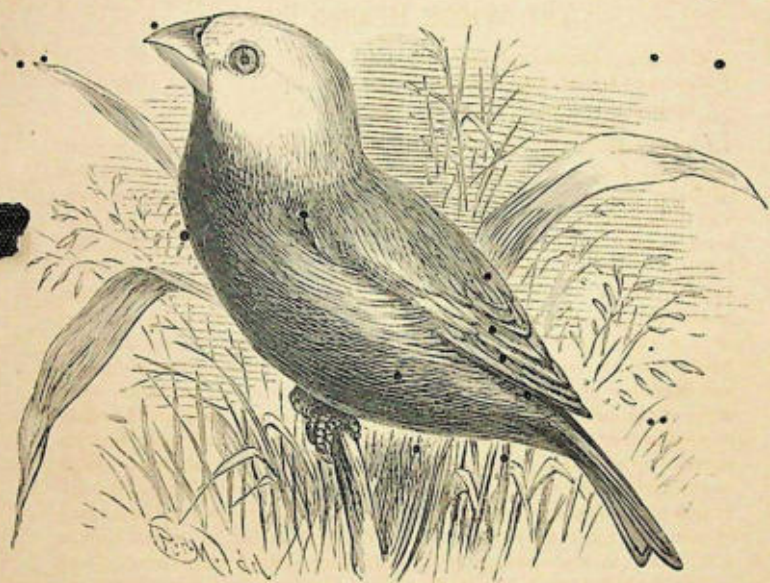
CHAPTER VII.

THE WHITE HEADED FINCH.

• <i>Maia Finch</i> (Zoological Society).	<i>Spernestes Maia</i> (Vieillot).
• <i>Manican à tête blanche</i> (French dealers).	<i>White Headed Finch</i> (English dealers).

THIS is an Indian species belonging to the sparrow tribe, and is more remarkable for beauty of plumage than anything else, the body, wings and tail being of a rich mahogany brown, whilst the head and neck are pure white, the beak, feet and legs being slate colour; total length 4in., and both sexes marked alike. These birds are very common in most of the East Indian Islands, and I have met with them in Java, Singapore, Sarawack, Penang, and also up country, in India proper; but the slight estimation in which they are everywhere held by the natives will, in a great measure, explain their not being sent in considerable numbers to this country. Apart from the striking beauty of their plumage, they are extremely gentle and confiding in disposition, and much more worthy of our notice than many of the more highly favoured finches; especially as they brood readily in confinement, after becoming accustomed to the bird room and its occupants, and also to those who enter within that sanctum. It is somewhat curious that, whilst in a state of nature the White Headed finches will fearlessly breed in thatch and other places close to the haunts of men, like any other bold member of the finch family, yet when kept in a bird room they are extremely shy over their nesting arrangements, and invariably hide their nests at the back of some log or thick bunch of bushes out of sight, always avoiding being caught either making the nest or being found in or near it. They build a coarse roofed nest, like a true sparrow, with an entrance at the side, sometimes preferring a hollow log and lining the hole with feathers; and they lay from three to five white eggs, the young making their appearance when about three weeks old. The head feathers are dirty whitey brown in the juveniles, but they bleach with each moult and ultimately become snow white.

Not the least remarkable thing about these birds is their song, or rather their attempts to sing, for they are dumb, and it is extremely odd to see the male bird going through all the "make believe" business without uttering a sound. He swells himself out like a broody hen, spreads his tail, dances on the perch and works himself up to a pitch of intense excitement; his



THE WHITE HEADED FINCH.

(Maio Finch.)

throat swelling and beak opening, as if giving vent to the most exquisite song—but not a sound escapes him except a final discordant chirp, which ends the performance, and even that small sound is only heard by an effort on the part of the listener.

The gentle nature of these birds make them very suitable as cage pets, and they are capable of becoming exceedingly tame, but a nesting basket for roosting purposes is necessary under such conditions.

FOOD AND DISEASES.—Millet and canary seed form the staple article of diet, with nuts' eggs at breeding time, which extends from June to September, in a cold room, but with artificial heat, the desire to nest will be exhibited nearly all the year round. The diseases are those common to all the finch family, and may be treated as elsewhere described.

CHAPTER VIII.

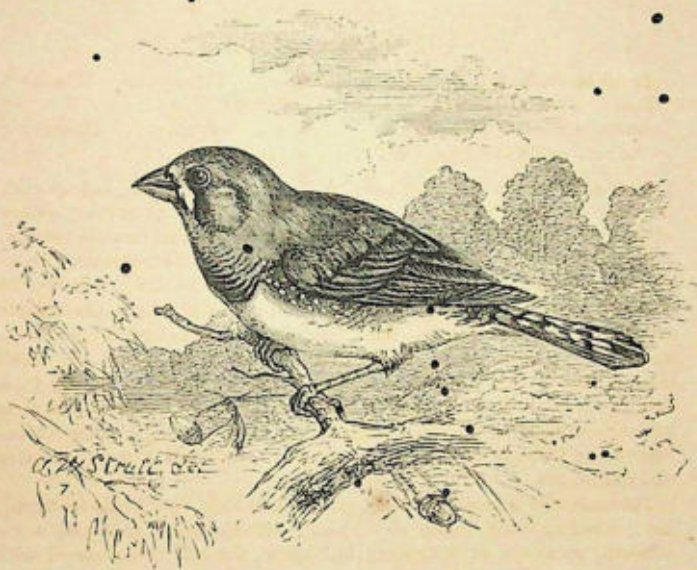
THE ZEBRA FINCH.

<i>Amadina Castonatis</i> (Gould).	<i>Zèbré d'Australie</i> (French dealers).
<i>Loxia guittata</i> (Vieillot).	
<i>Amadina Castonitis</i> (Gray).	<i>Zebra Diamond</i> (German dealers).
<i>Chestnut-eared Finch</i> (Zoo. Soc).	

This is undoubtedly the most popular of all the tiny finches, and as such deserves the place of honour as well in these chapters as in every aviary where his beauty and activity, together with his bold and fearless bearing, always attracts the eye, whilst his quaint trumpet-like notes are distinguished above all other sounds. These birds are more hardy and prolific in confinement than canaries, and may be kept with infinitely less trouble and greater profit to their owners. Zebra finches are natives of Australia, where they congregate in flocks, feeding upon grass seeds and small insects, and rearing three or even four broods in a season, laying from four to seven small white eggs at a batch. They are gregarious in their habits, congregating in small flocks, except during the breeding season, when their jealousy is unbounded, and each pair leads a most exclusive and retired life.

The male bird is barely 3in. long, of a robust shape, and closely feathered, his prevailing body colour above being delicate pearl grey and white beneath, primaries of wings and tail black, the tail being barred with white stripes. The beak and legs are orange pink, the head and neck are finely marked with zebra-like stripes of black, terminating in a black band upon the breast, the abdomen being pure white. The cheeks are marked with a circular patch of chestnut brown (this led to the bird being called the "chestnut eared finch," by Gould), and the eyes have a reddish tinge in them. The hen is slightly smaller than her mate, and, although of the same grey body colour, yet she lacks his zebra markings and also the brown cheek patches, the absence of which is a sure indication of the sex that purchasers should remember.

These charming little birds have been very scarce for the past two or three years in the English market, dealers being solely dependent upon aviary-bred stock, received chiefly from the continent, and, as a consequence, prices rose considerably; but they are now more plentiful, and, being the most profitable of the tiny finches, no collection is complete without them. Immediately upon being introduced



THE ZEBRA FINCH.

(*Amadina Castanalis.*)

to the bird room, they cast about for a snug spot and proceed to build themselves a nest, or else to possess themselves of one already made, for they have no inclination to spend their nights on a perch when a warm corner can be got, and the rapidity with which the plucky little fellow and his gentle partner will construct a habitation for themselves is something marvellous. Their house, however, is constantly undergoing additions and repairs; until the breeding season arrives, and more serious duties engage their whole attention; and upon one occasion I had three pairs which completely filled a bush 3ft. high with nests and nesting materials during the winter months, and apparently derived no end of amusement in forcibly ejecting each other from the various tenements. The aggressors' plan of action was to take up a position at the little hole forming the entrance to the nest, and there to keep up an incessant trumpeting, apparently challenging the inmates to combat. These defiant notes were answered by angry cries from the pair in possession, who, finally goaded to desperation, came out with a rush to dislodge their disturbers, and it invariably happened that in the *mêlée* which ensued one of the assailants slipped in and got possession, calling loudly to his mate to follow. This she would do after some judicious dodging about, and the homeless pair would presently ensconce themselves in the deserted nest of their enemies. If the victors found their new conquest less comfortable than their old nest they not unfrequently returned to their old quarters and another ejection by strategy was effected. The curious thing about these performances was, that the birds never appeared to bite or injure each other in the least; all their anger, real or assumed, being expended in a great display of passion and excitement ending with vehement trumpeting. The Zebra finch, although one of the smallest, is yet the most courageous and fearless of his tribe, and his pluck is invariably admitted by the occupants of the aviary, even the meddlesome Cut-throat and stubborn Java sparrow retreating before the fury of his attack, although they are double his size and "fighting weight," and indeed mere size fails to overawe the little champion should a big intruder trespass within the sacred limits which bound the Zebra's nest. It must not be imagined from this description that he is such an aggressive and pugnacious bird towards his fellow lodgers as to make his presence a drawback to their comfort and well-being, on the contrary his deeds of valour are defensive rather than aggressive, and he may safely be associated with the finest of the delicate waxbill family.

Although the Zebras delight, as I have explained, to squabble with birds of their own species for the possession of nests before the breeding season begins, yet they give up this pastime when brooding has to be attended to, and then leave each other to pursue the serious business of their lives in peace and quietness. This begins with the advent of spring, and is continued all through the summer and autumn, and indeed in a room warmed in winter they will breed all the year round, twenty young ones from a single pair in one season being by no means exceptional results; indeed an instance of

nineteen young from three broods is recorded. The too plentiful use of strong stimulating food is the common cause of failure, producing either egg binding or excessive egg laying: in the former case killing the hen, and in the latter yielding a second batch of eggs before the first are hatched, and a final abandonment of the nest follows. In such cases a new nest is usually built on top of the old one, and in changing the bushes in my bird room, I once found nest upon nest built by a pair of Zebras, and they contained upwards of fifty eggs. When this kind of thing occurs, it is also due at times to the impatience of the male bird, who gets tired before the ten days of incubation expire, so that after two failures have taken place it is always best to cage your pets, giving them a cocoanut husk to nest in, with only a few feathers to lay on, and thus deprived of the means wherewith to go on building new houses, the pair will probably rear their next brood. Should they, however, be too shy to nestle in a cage, keep them shut up for three weeks, fed only upon canary and millet seed, then restore them to the bird room, the chances being that they will go to nest at once, and do so successfully. The number of eggs produced at a batch varies from one to eight, their colour being white, somewhat elongated in shape, and in total length about the third of an inch; some lay larger eggs than others. Both birds share the task of incubation.

The nest feathers of the young birds are light grey, merging almost to white upon the abdomen; the parent's markings, save a white stripe on the face, are absent, and the beak is black, but the birds rapidly attain maturity, and invariably commence housekeeping on their own account and rear a brood before they are twelve months old. As the parents commence to breed again before the youngsters are properly off their hands, always wise to cage the little fellows as soon as they can crack seed, leaving the cage in the room that the cock bird may feed them through the bars. There is something excessively droll about the antics by which the youngsters solicit food from the old ones, following them about, and with heads upon the ground, fluttering their wings and chirping in chorus. Although these birds will often build their nests in exposed positions, so low down that a child could reach them, yet the slightest interference will cause them to forsake their house, and many a brood is lost by the gratification of a natural desire to look at the eggs. In caging the young, do not omit to provide them either with a rush nesting basket, or a snug nest of some kind in which to roost together and keep each other warm.

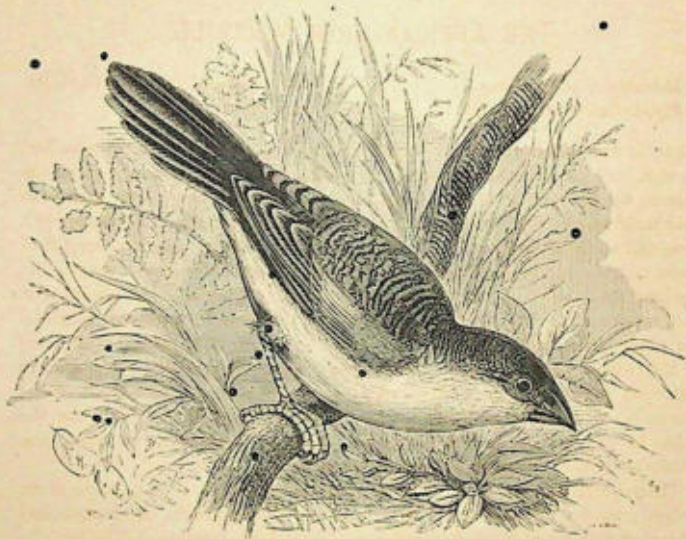
In the early part of one spring I came across two pairs of Zebras at a dealer's, and the poor little things were all deficient of feet; they had been eaten off by the rats on board ship. The man said he was going to kill the poor cripples, for although their stumps were healed up, and the birds were in good plumage, yet no one would buy them. I did not like to see the wee creatures killed, and therefore made an offer which was at once accepted, and my new friends were soon enjoying their freedom in a well furnished indoor bird room. This was a perfect paradise to them after their late quarters, and although their poor stumps prevented their settling

upon the branches around the room, and they had to spend their days and nights upon the floor, yet they were not deterred thereby from making good use of their wings, taking vigorous flights about the places, and trumpeting defiance against all who came down to their seed and water dishes. I laid flower pots on their sides in each corner of the room, and put some hay into each pot, by way of suggesting their use as nesting places. They were seized upon immediately by the little cripples, and for days they hardly gave themselves time to eat, so intent were they upon nest building. The pots were soon crammed to overflowing with moss and grass, and some attempts were made to fashion the fronts of the nest, but this failed through the inability of the builders either to climb or to hold on whilst carrying out this branch of the work. Circular entrances were formed and the interiors were snugly lined with feathers and cow hair; but the young rascals turned each other out of house and home twenty times in the course of a day, even whilst the work was going on, and thus it came about that the defeated pair in these bouts invariably went off to the undisputed flower pot, and did something towards fitting it up as a snug retreat. In this way three nests were built, simply as habitations and roosting places, and not for breeding purposes. It was most amusing to see these cripples day after day laying siege to each others' houses, and driving each other to "change rounds;" and although the birds often tumbled helplessly about on the floor in their struggles for possession of the coveted nests yet they never appeared to lose sight of the end in view. At the present time my stumpy friends have become so expert in the use of their poor mangled legs that they are able to alight upon a branch, and, by squatting down, to remain there side by side. They have also shifted their quarters to a hollow log, suspended near the ceiling; they have lined the parakeets' burrows in this log with feathers, and entered formally into possession, defying the late tenants to dislodge them. I feel assured the cripples will breed in the spring, and they have already well repaid my care and attention.

FOOD.—Canary and millet are the staple articles of diet, but during the breeding season ants' eggs, grated cheese, and hardboiled yolk of egg may be given in moderation with advantage, as may small bunches of ripening grass seeds. Sponge cake is also a favourite and useful article of diet for the summer.

DISEASES.—When purchasing newly imported birds they will invariably be out of condition from the effects of overcrowding and foul drinking water, but they quickly recover both in health and plumage when warmly housed in a box cage, wired only in front, and carefully attended to. It is not wise to turn such birds loose immediately upon arrival, unless the weather is excessively warm, for the sudden change from a close box, crowded, perhaps, with hundreds of their species, packed like herrings, to the chilly atmosphere of a bird room, and doomed moreover, to roost on a branch, the poor little things frequently die before they can accustom themselves to the change. In buying these birds take care that they are

not crippled in the feet, and also reject a bird if he sits with drooping wings, for the chances of his recovery are very remote—in fact, this applies with equal force to all the tiny birds. Diseased feet is a common form of ailment, one or more of the toes swelling and secreting a yellowish waxy substance beneath the skin, the whole foot and legs being highly inflamed. When the inflammation dies away the diseased portion withers, turns black, and the toes drop off. Zebra finches being of robust and hardy constitutions generally survive the suffering which this disease entails, and I have known them, after losing all the toes from one foot, become in a few weeks as healthy and strong as ever they were, and to rear their young as if nothing had happened. With the more delicate species, however, the case is different, and a diseased toe, not observed by the owner, not infrequently causes loss of appetite and ultimately death, the poor little creatures being reduced to mere skin and bone. As it is impossible to doctor such "wee birdies," the only chance is to keep a sharp look out amongst them, and if you see one that keeps pecking his foot and lifting it up and down uneasily, catch him in a small net, and see what ails him. If the disease exists, and has not extended beyond the first joint of the toe, amputate at the first joint with a very sharp pair of surgical scissors. Do not use a thick-bladed clumsy pair, or you will crush instead of cut, and cause unnecessary suffering. Keep the poor little patient in a box cage, the bottom being covered with a linen rag, and the next day the bird may be allowed his liberty, and he will be quite recovered within a fortnight. Egg binding is a source of vexatious loss to the amateur, and the more so because the peculiar habits of these birds usually prevent their owner from applying that simple but effectual remedy which a fine camel-hair brush and sweet oil would afford. In many instances I have saved my hen Zebras by finding them prostrate on the floor; but in the majority of instances I have been attracted by the eccentric behaviour of the male bird, hopping round and round the entrance of his nest, and incessantly blowing his little trumpet note, now and then peeping into the nest, and then coming out again to blow off fresh notes of alarm. These signs were too unusual to escape the eye of an observant fancier, and a peep into the nest revealed the poor little wife lying dead from the effects of egg binding. When the birds are known to be nesting, make a point of seeing the hens night and morning, and if there are any of the symptoms of binding—drooped wings, puffed feathers, and drowsiness—act at once, and you will be saved both loss and disappointment.



THE AFRICAN GREY WAXBILL.

(*Estrela cinerea.*)

CHAPTER IX.

THE AFRICAN GREY WAXBILL.

Estrela cinerea (Gray.)
Fringilla cinerea (Vieillot.)

| *Grey Astrild and African Waxbills*
(Some dealers).

THIS is the smallest of the waxbill tribe, and indeed it is the smallest foreign bird imported into this country alive, but the deficiency of size is atoned for by numbers, as an amazing quantity of these wee creatures find their way to England annually, and always command a ready sale both here and on the Continent. They are very old favourites, and one may find them mentioned in books that were written upwards of a century ago, but nothing was known by early writers of the history of these birds, except that they were natives of Africa, and they were then highly prized in England for their great rarity and value. Although they have now become one of the cheapest of the waxbill family, yet they still deservedly retain a large share of popularity amongst all classes of fanciers; the gentle loveable manners of these tiny creatures and their intense affection for the other being most fascinating to all who take an interest in watching the habits and characteristics of their feathered pets.

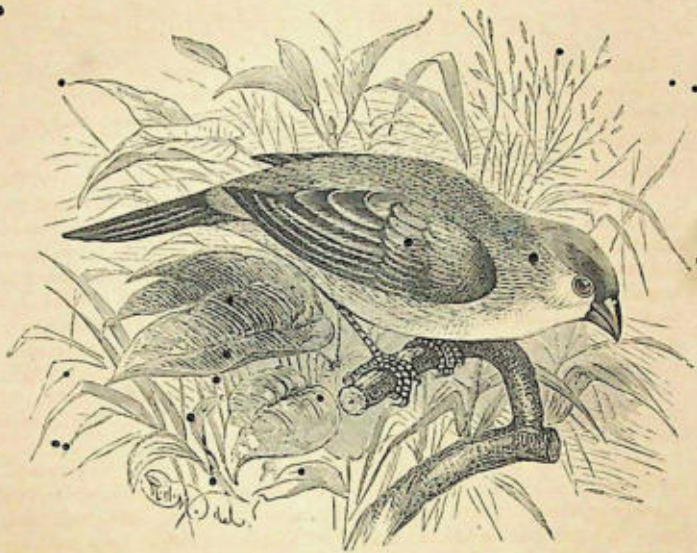
These birds measure barely 3in. in extreme length, their body being of an ashen grey colour, somewhat darker above than beneath, the breast and abdomen being tinted with a delicate "blush" of carmine. The beak is vivid red, and a narrow elongated patch of the same colour extends backwards from the eyes, which are of a yellowish tinge. Wings and tail black, legs and feet dark brown. The two outer tail feathers are edged with white. The hen cannot be distinguished with any degree of certainty from her mate, except by a very slight deficiency of red upon the under body, but this is not reliable in itself, and where nesting is desired it is always the best plan to purchase two or three reputed pairs, and so increase your chances of getting a hon amongst them. It was the custom of old to pamper these birds, as if they were extremely delicate and susceptible to cold, but such is really not the case, and I have had no difficulty in keeping them loose in a cold room during many winters, although they certainly used to die in a most unaccountable manner before I devised a plan to enable them to get food at night.

They do not breed very successfully in confinement, although exhibiting

a great propensity for nest-making, which goes on all the year round, and several batches of eggs are not unfrequently laid between the months of June and September. It may be that a higher temperature is necessary to induce the birds to sit steadily, but, whatever the cause, I have never been able to get more than one or two young ones in a season from these birds under the most favourable conditions, whilst the results have often been *nil*. In their nesting arrangements they differ in no material respect from the other members of the waxbill family, making a spherical nest with a hole in one side, and lining the interior with feathers in preference to other materials. The young attain the same colours as their parents when they get their adult plumage, and at three months old it would be difficult to recognise an old bird from a young one.

As cage pets these little birds are especially charming, for then you are admitted to a closer inspection of all their winning ways, but they seldom breed under such conditions, although I knew one instance of their doing so successfully when caged with kindred varieties and kept in a heated conservatory, where the temperature was evenly maintained and the owner personally attended to his own birds.

FOOD AND DISEASES.—See directions already given for other waxbills.



THE AUSTRALIAN GREY WAXBILL.

(*Fringilla Temporalis.*)

CHAPTER X.

THE AUSTRALIAN GREY WAXBILL.

Red eyebrow Finch (Gould).

Temporal Finch (Latham).

Fringilla Temporalis (Latham).

Fringilla Quinticolor (Viellot).

Amadina Temporalis (Gray).

Estrelida Temporalis (Gould).

Thorn Waxbill (German dealers).

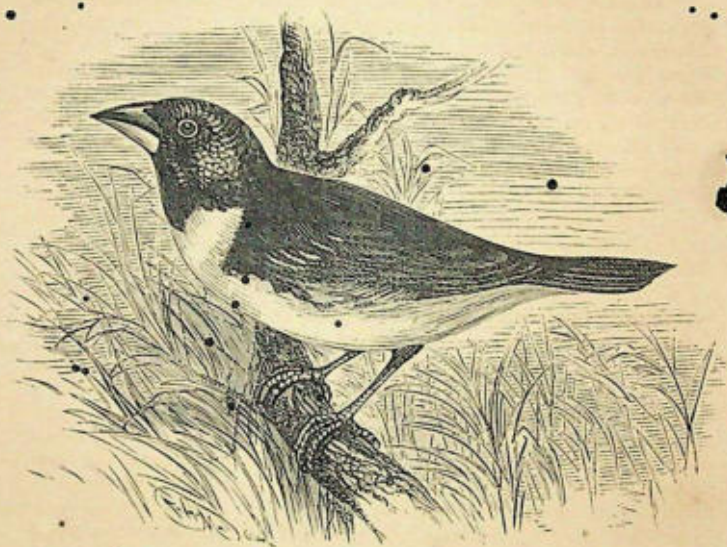
THIS little bird bears a very strong resemblance to his African relative, the Grey Astrild, except that he lacks the faint waving which distinguishes the upper body feathers of the Astrild nor does the red eye marking extend beneath the eye of the Australian bird—but in size and general appearance the two are very much alike. The Australian bird is about three inches in length, of an olive brown above, merging to a mouse grey beneath, his beak is scarlet and a band of the same colour extends back from the upper mandible, forming an eyebrow, tail black, and a brilliant patch of crimson extends upwards for an inch from the base of the tail, legs and feet light brown. The female cannot be distinguished by any reliable distinction of plumage, but she is usually a trifle smaller than her mate, and her colours are less brilliant during the winter months.

These are very desirable aviary birds, being hardy, docile and exceedingly contented. They are very common in New South Wales, abounding in every garden plot, and delighting in cultivated land, their chief food, however, being grass seeds and small insect eggs and larvæ; they break up into pairs as the breeding season advances, build rough looking sparrow-like nests, composed of dried grass without, but very artistically lined within, thistle down, cow hair, and other choice materials being used in the process. The eggs are of a delicate fleshy white, and they are usually five in number.

The contented dispositions of these birds make them especially suitable either as cage or aviary pets, although they are by no means so active and vivacious as most of the waxbill tribe, nor is their song anything more than a feeble twitter, but for all that their pretty plumage and gentle manners are sure to secure them the goodwill of English fanciers—especially the ladies. The Australian waxbills have been bred by everyone who has tried the experiment, but all the instances recorded have occurred where the birds were bred in rooms, and as my own experiences are limited to similar conditions, I am unable to speak confidently as to these birds

breeding in cages, but I entertain very little doubt of their doing so when properly cared for. About midsummer is the best time to procure these and other Australian birds, for they arrive in England at that period of the year, and the sooner they are obtained after arrival the better will be their chances of escaping the fate which befalls the greater part of those poor little birds when left pent up in dealers' boxes for a few weeks. For cage breeding a nesting basket is necessary, and even in aviaries these waxbills often prefer a hollow log rather than build a regular nest in the bushes.

• FOOD AND DISEASES.—Same as other waxbills.



THE MAGPIE MANNIKIN.

(*Amadina Pringilloides.*)

CHAPTER XI.

MAGPIE MANNIKINS.

Amadina Fringilloides (Gray).
Giant Magpie Mannikins (Some
dealers).

Pied Grass Finch (Zoo. Soc.).
La plus grande Nonnette (French
dealers).

THREE are several common varieties of this kind, two the size of the Zebra finch, the others equal to a Cut-throat, but the smaller are sold as Mannikins, whilst the larger birds are commonly disposed of as "Pied Grass finches." They are all common to Africa, and they so closely resemble each other in habits, song, and general characteristics that I deem it unnecessary to devote a separate chapter to each. They nest readily in confinement, and have been bred in cages and aviaries; but they possess much of the pugnacity of the Java sparrows, and are greatly addicted to molesting other birds' nests. They are not at all uncommon birds in this country, and seldom realise fancy prices, although the larger variety is the less frequently met with amongst dealers, but the truth is that these birds are but little sought after, and are not very great favourites on account of their reputed pugnacity. When kept in spacious bird-rooms or commodious cages by themselves they are really very attractive birds, far more desirable than many of the finches previously treated of, and when once reconciled to their quarters and thoroughly acclimatised, they will breed two or three times in one season, and raise an incredible number of young. As it is impossible to distinguish the sexes, the only safe plan is to buy several birds and keep them until they pair off and commence their nesting arrangements, when they will separate and the cocks proceed to fight desperately. Then a veritable pair, having ensconced themselves in their nest, the rest may be caught up and either transferred to cages or be disposed of; for their presence in the room will only disturb the peace and quietness of its occupants. The nest is built of coarse grass and fashioned like that of a true sparrow; the eggs are white and vary in number from four to six.

The large magpie measures about 4½ in. in length, and somewhat slim in build; the head, neck, upper body, and tail being glossy black, tinged with a metallic steel-like shade. The under body from breast to vent is snowy white, serrated on the sides with black flecks; beak slate colour, the upper mandible being darker than the lower; feet and legs light slate colour, strong and large.

CHAPTER XII.

BRONZE WING MANNIKINS.

Amadina cucullata (Gray).

Spermestes cucullata (Swainson).

Hooded Finch (Zoo. Soc.).

Black and White Mannikin (Some dealers).

La Bandelette (German dealers).

THIS is a kindred species to the foregoing, though smaller, less active, and rather more rusty of colour, the wing being crossed by a bronze stripe, which gives these birds their name. They are widely distributed throughout the East Indian islands, and indeed it is by no means certain as to the limits of their habitat. In confinement they are hardy, docile, and disposed to nestle readily, but I have never been successful in obtaining a brood, though the fault has not been with the birds themselves, as they have always been molested by other varieties when incubating.

The Bronze Wing Mannikin measures barely 3in. in extreme length, his head, neck, and upper body being of a rusty metallic black, the wings having a patch of bronze upon the shoulder coverts, under body dirty white, flecked on the sides, beak blue-black, feet and legs slate colour, eyes brown. The sexes are identical in colour.

These are amongst the quietest of cage pets, and they become as tame as white mice by petting, suffering themselves to be handled, and evincing the strongest attachment to their mistress. They are feeble flyers and a roomy cage life therefore suits them admirably, especially if a nesting basket is provided as a roosting place and they are now and then allowed to go in and out of their house and about the room at pleasure.

FOOD AND DISEASES.—Same as other finches; but all the Mannikin family have a tendency to excessive growth of toe-nails, and these must be kept trimmed at intervals, or the birds are liable to get hung up and kill themselves in their efforts to escape.



THE BRONZE-WING MANNIKIN.

(*Spermestes Cucullata*.)

CHAPTER XIII.

THE BLACK HEADED WHITE BREASTED MANNIKIN.

Amadina Malacca (Gray).

Loxia Malacca (Latham).

Black Headed Finch (Zoological Society).

THIS is another of the Indian sparrows, and although not quite so common as the Black Headed Brown Mannikins, yet these white waistcoated rascals are sufficiently numerous in many places of my acquaintance to be looked upon as nuisances of a very emphatic type. This bird is about four inches long, and both in shape and style resembles the Nutmeg finch, illustrated on a preceding page. The back wings and tail are dark mahogany brown, head and neck metallic black, breast and sides snowy white, the centre of the abdomen, extending to the vent being jet black, beak, legs, and feet slate colour. These contrasts of colour are most striking, and the bird is decidedly handsome; he is, moreover, much less pugnacious than the other members of his tribe, and may safely be kept amongst the tiny finches and waxbills. There is no recorded instance of these birds nesting in confinement, but the sexes are identical in plumage, and as two males will agree together and separating themselves from the other birds keep each other's company like a veritable pair, it is difficult for an amateur to decide whether he possesses male and female. They are very hardy when seasoned and need no artificial heat.

FOOD AND DISEASES.—Same as other true finches, already described

CHAPTER XIV.

THE BLACK HEADED BROWN MANNIKIN.

Amadina Linensis (Gray).
Loxia Atricapilla (Viellot).

| *Black Headed Finch* (Zoo. Soc.).
| *Malacca Grosbeak* (Latham.)

THIS is the counterpart of the bird described in the preceding chapter, except that the variety here treated of lacks the white waistcoat of the others. Both are found widely distributed in all the East Indian islands and India proper, and their habits and characteristics bear a striking resemblance to the English sparrow. These Brown Mannikins are more commonly imported than the others, and they are always cheap, not being much sought after, though they are deserving a place in every collection. They have been bred by myself and several persons of my acquaintance, and the remarks as to the nesting of other finches apply with equal force to these birds.

FOOD AND DISEASES.—See other finches.



THE CHESNUT FINCH.

(*Spernaea Peronata*.)

CHAPTER XV.

THE CHESNUT FINCH.

Spermestes Personata (Gould). | *Masked Grass Finch* (Gould).
Chesnut-breasted Finch (Zoo. Soc.). | *Chesnut Finch* (English dealers).

THIS is an Australian bird, which is found in great numbers upon the north-west coast of the Australian continent, and exhibits a great predilection for frequenting rank herbage upon the banks of rivers, feeding upon grass seeds and insects. Unfortunately, these birds do not prosper with us in confinement, but this is due, I feel sure, to some want of knowledge as to the most suitable food. They have, however, bred once with me, and other instances have come to my knowledge, but the progeny seldom do well, and the parent birds have a nasty habit of dropping dead in the most unreasonable manner, when apparently in the pink of health and beauty of plumage. Liver disease is invariably the explanation of these sudden deaths, and whether it be due to the climatic change or the substitution of dry seed for the half ripened grass seed which forms the main portion of their diet when at liberty, I leave others to decide.

The Chesnut finch is about 3½ in. long, his prevailing colour upon the upper body is a bright cinnamon brown, the beak is slate coloured, and the face and throat are encircled by a mask of very dark brown, from which arose the name of "Masked finch." The breast is crossed by a broad band of black, all the rest of the under body being white, and the sides are serrated with black. The upper body feathers are finely waved, and the general appearance of the plumage is both pleasing and harmonious, though the tints are sober in themselves. The sexes are marked alike, but the hen can be distinguished by her breast-band being less in width and density of colour, and by the mask also exhibiting this latter defect; but these are points of difference which can only be detected by an amateur where opportunities of comparison are afforded him.

In the aviary these birds will be found sociable and disposed to live at peace with their neighbours, the male evincing great solicitude for the comfort and well being of his wife, and the affection between them being of a very marked character. He entertains her with his low-drawn, though not unmusical, song at frequent intervals during the day, and the happy

pair are seldom seen away from each other, even for a moment. They construct a rough sparrow-like nest, with a bolt-hole at the side, using a great deal more materials than is necessary for the purpose, and paying very little regard to outside appearances; but this nesting, when commenced, is done in earnest, for the Chesnut finches do not, like some of the others, build houses for the mere sake of amusement. This being so, they will seldom be found to interest themselves in such matters until June or July, and then if nest making is entered upon the hen will lay immediately her house is ready, and the eggs will be five or six in number and of a pale flesh tint. At this time it will be found highly beneficial to give the birds sprays of Indian millet, which have been soaked all night in cold water and then allowed to hang in a warm place until nearly dry. The use of this laxative food prevents egg binding, and the young, when newly hatched, appear to thrive much better fed upon soaked seed than they do upon the other.

These birds are very well adapted as cage pets, and it may be that with the additional care and attention which can be given under these conditions, they would nestle more satisfactorily than when kept loose in aviaries. The Chesnut finches can usually be bought of English dealers all the year round, but they obtain prices far beyond the value of the birds upon the strength of their being "Australian finches," all of which, according to "the trade," breed immediately they are put into an aviary, and "nothing will kill them." This story is a very good one with which to tempt the tyro to buy; but my experience goes to prove that Australian finches, when newly imported, are the most risky of speculations, and that a very large proportion either die in the process of acclimatization, or else from the results of bad treatment whilst in transit to England. The African and Indian finches are infinitely better in this respect, but they are all grain eaters, and suffer no ill effects from the seed diet given in confinement. Many of the Australian finches—the Chesnuts amongst them—feed upon green rush and grass seed in the swampy land, where rank vegetation abounds along the course of rivers; and to capture these little creatures, crowd them together like herrings in a box, and feed them upon hard millet seed only, is in itself treatment which will account for the birds dying off wholesale, and of those which survive the voyage many are unquestionably tainted with disease, though there are no outward indications of its presence.

FOOD AND DISEASES.—See other finches.



THE ZEBRA WAXBILL.

(*Estrilda sanguinolenta.*)

CHAPTER XVI.

THE ZEBRA WAXBILL.

Estrelida subflava (Gray).

Fringilla subflava (Vieillot).

Estrelida sanguinolenta (Swainson).

Orange Senegali (Dutch dealers).

Dwarf Finch (Latham).

Zebra Waxbill (English dealers).

Astrild ventre orange (French dealers).

Gold-breasted Waxbill (German dealers).

THE name by which this bird is known amongst English dealers and fanciers is a misnomer and it serves to mislead many beginners in the fancy, who buy "Zebra waxbills" in the confident belief that they are identical with "Zebra finches." The two birds are utterly dissimilar, and although I would not say a word against my gentle little golden-breasted pets, yet, as a truthful chronicler, I am compelled to admit that the dealer who sells a pair of these waxbills for Zebra finches makes double their market value by the fraud. The popularity of Zebra finches and their scarcity for a long time in the bird market led to the re-christening of these "gold-breasted waxbills," which were henceforth sold as Zebra waxbills, although they have neither stripes nor markings of any kind to justify the new name. Their prevailing colour is light olive brown, merging to golden yellow upon the breast, and the plumage is slightly waved; beak and eyebrows red, legs and feet flesh colour, red patch at base of tail, which is black. The female lacks the golden breast of her mate, but in other respects the plumage of the two is identical.

This is classed as an African bird, but I have met with it amongst flocks of other waxbills in Madagascar, St. Helena, and in Abyssinia it was one of the commonest of the visitors about our huts, often paying a heavy penalty for its temerity in search of seed and insects by being trapped and kept prisoner; but these tiny fellows have a clever way of slipping through your fingers and also of squeezing themselves through small apertures, so that we were seldom able to keep them long in captivity.

They feed on grass seed and minute insects in a wild state, and resemble the Avadavat in general habits and characteristics, both at large and in confinement, breeding freely when suitably housed and properly fed, but insect food and a genial temperature are both necessary to egg production and incubation. They are exceedingly gentle and amiable in disposition

though very jealous at nesting time, which usually commences in this country at the end of June, and continues until the end of September or October, according to the mildness of the autumn weather. Four or five batches of eggs are produced in the season, but this excessive egg production militates against the rearing of young, for the old birds often leave their offspring to perish and set about a second brood before the first can take care of themselves. This is undoubtedly due to the too abundant supply of fresh ants' eggs, but without them no good results can be obtained and excessive egg production is better than no eggs at all, so I keep up the supply and allow matters to take their course. They build a roofed nest, with a bolt hole in one side, as indeed do all the waxbill tribe.

As cage pets, these wee creatures have much to commend them, their song being sweet and musical, and their manners both confiding and gentle, but a nesting basket adds greatly to their comfort when kept under such conditions.

FOOD AND DISEASES.—See other waxbills.



THE COMBASSOU.

(*Fringilla ultramarina*.)

CHAPTER XVII.

THE COMBASSOU.

<i>Fringilla ultramarina</i> (Latham).	<i>Ultramarine Finch</i> (Zoo. Soc.).
<i>Fringilla Nilens</i> (Vieillot).	<i>Combassou</i> (English dealers).
<i>Le Comba Sou</i> (Buffon).	<i>Tiaris funerea</i> (Gray).

THIS is a charming little bird of the African finch tribe, measuring about 3½ in. in length, and being of a sturdy, robust form, full of vigour and self-assertion, but withal non-aggressive, though well able to hold his own. During the winter months male and female are alike, their whole plumage being sparrow-like and uninteresting, but with the return of spring the male bird changes his coat and appears in a highly burnished suit of blue-black, which is exceedingly beautiful when seen in the sunshine, the snow white beak and bright flesh-coloured legs forming a remarkable contrast to his prevailing metallic colour. The hen retains her plain feathers throughout the year, but she possesses the flesh-coloured legs which are so distinctive a characteristic of these birds.

They are very hardy, standing our climate well and nesting readily in aviaries without artificial heat. They are amongst the regular importations which we receive annually, and their market value is usually very moderate, so that, unlike many of the beautiful finches previously treated of, the Combassou is obtainable by all classes of fanciers, and to their favourable notice I heartily commend them both for cage and aviary purposes.

FOOD AND DISEASES.—See Zebra Finches.

CHAPTER XVIII.

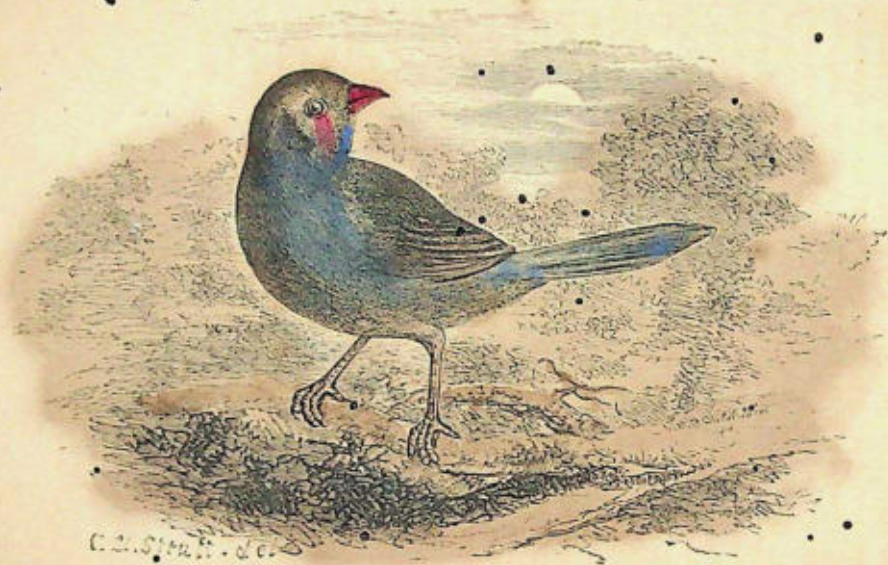
THE CORDON BLEU.

<i>Fringilla Beugalus</i> (Latham).	<i>Crimson Eared Finch</i> (Zoo. Soc.)
<i>Fringilla Beugalus</i> (Shaw).	<i>Butterfly Finch</i> (German dealers).
<i>Estrellda Beuhala</i> (Gray).	<i>Cordon Bleu</i> (French dealers)
<i>Estrellda Phœnicotis</i> (Swainson).	<i>Blue Bellied Finch</i> (Latham).
<i>Fringilla Beugalus</i> (Vieillot).	

THIS is one of the most beautiful of the tiny ornamental birds which we receive from India; but, although classed by naturalists as a finch, yet my observation of its habits in Abyssinia induced a belief—since strengthened by considerable experience with these birds in confinement—that the Cordon Bleu is more than half insectivorous, and that, although capable of subsisting upon seed for a considerable period in confinement, yet that it lacked all the characteristics of the true finch. Having no desire, however, to further discuss the accuracy of classification, as I write for the information of those who feel little interest in that branch of the subject, I need only add that in my opinion the want of success which attends the keeping of these birds is due to the mistaken notion that they ought to be fed in the same manner as the strong-beaked finches proper.

The Cordon Bleu is rather over 3in. in extreme length, slender in shape, and exquisitely delicate in the colouring of his plumage. The upper body and wing feathers are of a very light brown tint, whilst the cheeks, neck, breast, abdomen, and tail are a lovely azure blue; the cheeks being embellished by a large crimson spot, whilst the beak is ruby red, and the eye circles are of a yellowish tinge. No description, nor mere black and white picture, however, can convey an adequate idea of the delicacy of tints which distinguishes the plumage of these graceful little creatures; and I fear that my pen will fail alike to do justice both to their beauty of appearance and the gentle, affectionate characteristics which so strikingly distinguish them from the other birds with which they are classed by ornithologists. Do not, however, let me forget to mention that the hen is to be recognised by the absence of red cheek patches, and by having less brilliant tints of blue than are found upon her mate.

These birds are universal favourites with English and Continental fanciers; but everywhere is heard from them the same lament that they



THE CORDON BLEU.

(*Estrela Phoenicotis.*)

cannot keep their pets alive for any lengthened period, and they are consequently spoken of as being excessively delicate and short-lived in captivity. That there is considerable truth in this complaint is proved by the untimely fate which attends so many of these birds, even in the keeping of the most careful owners; but still I venture to hold the opinion, based on experience, that the more liberal use of insect food would, with the maintenance of an even, genial temperature, keep these charming pets in perfect health for an indefinite period, and induce them to nestle both freely and successfully. Of course, I admit that they require a greater amount of attention than usually falls to the unhappy lot of ordinary drawing-room-pets of this class; and I should not recommend them, except to those amateurs who take a genuine interest in the care of delicate cage birds.

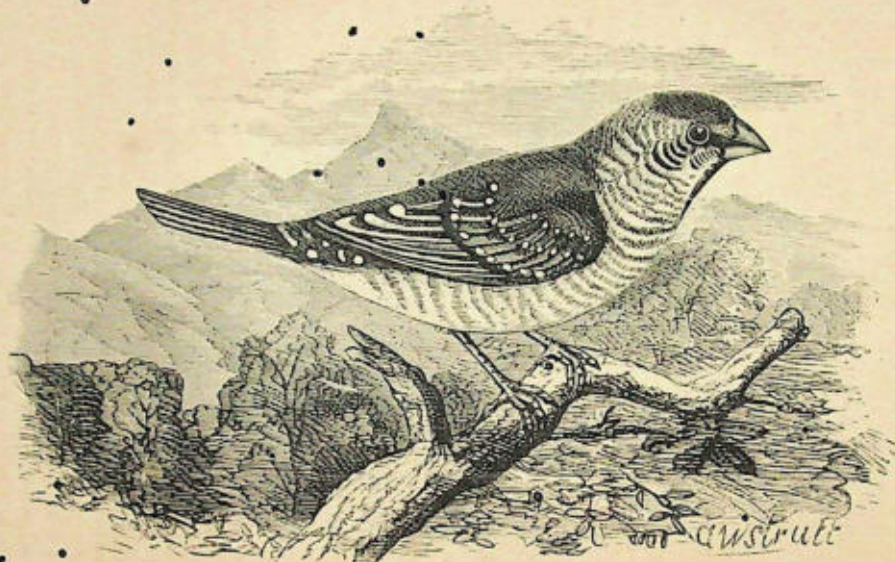
The Cordon Bleus are remarkably quiet and gentle in all their actions; their note is plaintive and soft, and their affection for each other shows itself in every movement. When kept as cage pets, the death of one invariably causes the other to pine away and die, unless a successor is obtained. In one case, where the male bird died, I put a St. Helena Pheasant finch in his place, the result being that a lasting attachment sprang up between them, the little Pheasant remaining true to his Bleu wife when subsequently liberated in a bird room, although there were charming little creatures of his own species which often tempted him to flirtations. His constancy was rewarded by complete domestic felicity; and, having built a snug retreat, he in due course became the happy father of four hybrids, which, if not beautiful, were at least very graceful in form, and, moreover, bore an outward resemblance to both parents. The plumage of these mules was mouse-brown above, and blueish-fawn beneath, the back showing some faint wavings like those which distinguish the male parent; but the juveniles' beaks were less brilliant, and their legs almost black.

In spite of the delicacy of Cordon Bleus in confinement, they have been frequently bred with complete success, both by English and continental fanciers; but on all hands it is agreed that these birds require a higher degree of temperature during the winter than other kindred species which we obtain from more temperate climates. To those who, like myself, find early failures only stimulate them to greater efforts to attain success, I can confidently recommend the Cordon Bleu; and my advice is do not be discouraged, for what has been done may be done again, and if other people have bred these birds, why should you not do the same? The experiment will not prove a costly one, for, spite of their exquisite beauty, the reputed delicacy of these birds keep down the prices, and a pair may be bought for one third of what has to be paid for the Australian finches, although their bulky forms, gay colours, and rude self-assertion, bear the stamp of vulgarity when compared with the graceful outlines, delicate tints, and undemonstrative natures of the lovely Cordon Bleus.

FOOD AND DISEASES.—There is little to add to what has already been said concerning the food of these birds, except it be to recommend for summer

use live ants, ants' eggs, rose sprays, or other plants covered with *aphides* or green flies, and in winter a diet of dried ants' eggs, and hard-boiled yolk of egg grated fine, in addition to millet and canary seed.

Of the ailments of the Cordon Bleu, the most common is consumption, the early symptoms of which are apparent by a puffing of the body feathers, drooping of the wings, and relaxation of the bowels. With this disease the bird will sometimes live for six weeks or more, gradually wasting away although eating voraciously meanwhile; and I must confess that all efforts on my part have failed to effect a cure when the symptoms were of any standing, although I have cured several when first they got "thick," by putting them upon the hob in a small box cage, and keeping them thus nursed up for a fortnight, giving only the ordinary seed diet.



THE CHERRY FINCH.

(*Amadeno Modesta.*)

CHAPTER XIX.

THE CHERRY FINCH.

Amadena Modesta (Gould).

| *Aidemosyne Modesta* (Gray).

THIS is another of the beautiful Australian finches, and, although the quiet plumage of the above-named birds led to their being called by Gould "Modest Grass finches," yet their delicate tints and exquisite regularity of marking more than compensate for the absence of brilliant colours; whilst their gentle natures add to their other claims upon our favour as inmates both of cages and aviaries.

In total length the male bird measures 3½ in., being rather robust of form, and having the appearance of possessing considerable strength. His upper body colour is greyish-brown, the under body being very light ashen grey, finely waved with minute black stripes; beak, tail, and wings black, the coverts being spotted with white, and outer edges of wing and tail primaries laced with white; crown of the head covered by a cherry-coloured patch—hence the name of Cherry finch—and a pear-shaped black spot on the throat from the base of the lower mandible. The female can only be distinguished from her mate by the absence of any black upon her throat.

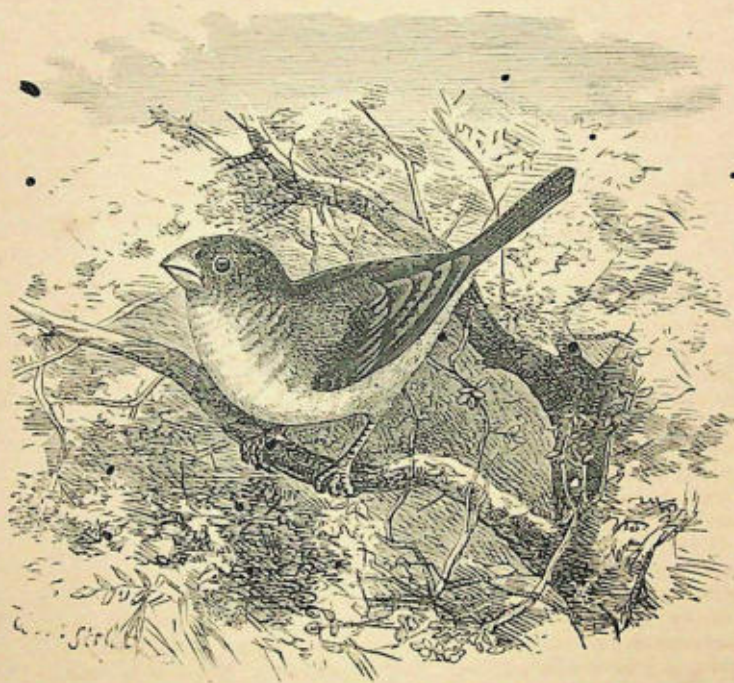
Unfortunately, the importation of Cherry finches is limited at present to one consignment of a few pairs annually, and these command such high prices as to place them beyond the reach of people who cannot or will not give more than a sovereign for a pair of tiny finches; but, in spite of the price, I am of opinion that these little cherry-capped pets are amongst the most profitable of their tribe to those who can afford them the needful well-appointed space, and carefully provide for their comfort.

They are by no means a scarce bird in Australia, being met with plentifully distributed over the grass lands of New South Wales, where they usually congregate in small flocks, except during the breeding season. Their nests are built in bushes, the materials used being coarse dry herbage, with a lining of feathers, and the nest is domed, with a circular hole left in one side; the eggs are white, and they vary from four to six at a batch. Their brooding in confinement is very similar to that in a state of freedom, and the birds are remarkable for their docility at nesting time, the male exhibiting none of that Quixotic desire to wage war against all comers,

which is so common a failing with many of his near relations. Although not aggressive yet the Cherry finch is by no means craven-hearted, and he will not submit to be evicted from house and home without a determined resistance, and, even if dislodged, his persistent attempts to regain possession are often crowned with success.

The scarcity of Cherry finches in our English bird market renders it unnecessary for me to treat of them at greater length, but it is a source of much regret to all fanciers that so few of these come to hand, though many other lovely Australian finches are imported in great numbers. As a proof that the introduction of such birds to this country is remunerative, I saw a pair of wee Green finches from Australia sold the other day for £8, and they belonged to a species which, although rarely seen here, is by no means scarce in their native country.

FOOD AND DISEASES.—See chapters on Zebras and Diamonds.



THE SILVER BILL.

(*Loria outans.*)

CHAPTER XX.

THE SILVER-BILLS.

Amadina cantans (Gray).
Loxia cantans (Latham).
Loxia grise (Vieillot).

Lance-tail (German dealers).
Silver Pheasant Finch (Ditto ditto).
Zilverbeke (Dutch dealers).

THESE soberly-clad though elegant little creatures are old favourites amongst foreign bird fanciers in every country, and their widespread popularity is well deserved, for there are few hardier finches imported; and assuredly there are none which combine so many of the attributes necessary to successful breeding in confinement, whether it be in cages or aviaries, as the Silver-bills. Before going further, however, let me enter a protest against this name, because, in the first place, it is a misnomer; and, in the second, a corruption of "silver bells." The birds have not a silvery appearance about their beaks, but they twitter incessantly, with every movement of the body, uttering just such tinkling sounds as those produced by the small silver bells upon a child's coral.

By whatever name they are known, however, these birds always win the good opinion of their owners by a remarkable gentleness of disposition and readiness to be perfectly happy and contented under any circumstances; never molesting other inmates of the cage or aviary, and agreeing amongst themselves like members of one family, no matter how many may be crowded together. They are, moreover, exceptionally hardy, and in spite of being natives of the tropics, they bear our winters without artificial heat; but a nesting place in which to huddle together at night and keep each other warm, is absolutely necessary. Their gregarious habits are peculiarly maintained in confinement during the winter time, when they always, where several are kept, separate themselves from the other inmates of the aviary, go about together, sit side by side upon the same branch, and, if possible, all crowd into the same sleeping place.

The sexes are alike, both in size and plumage, the total length of the bird is four inches, the prevailing colour being of a very pale brown above, and merging to fawn upon the abdomen. Delicate lines give a wavy appearance to the head and neck, whilst the primaries of the wing and tail are very dark brown (nearly black), the tail itself being sharp at the point, and lance-shaped. Feet, legs, and beak are bluish

white, and the general outline of the bird is both slim and graceful, as will be seen by the illustration.

Next to Cut-throats, the Silver-bills are the most ready of all the finches to nestle in confinement, and indeed there is much in common between these two species which points to a near relationship; although there is an entire absence of pugnacity on the part of the silver-bills, which enables them to be kept in more select society than befits their aggressive relatives. They are but poor architects, using by preference a mass of coarse materials for the main structure of their nest, and then lining it with feathers and pampas grass; but whenever a disused nest is available the birds follow their natural instinct by selecting it in preference to building an entirely new house of their own. When kept in cages, the most convenient nesting place is a roomy rush basket—which may be bought at most bird shops—and just sufficient feathers should be given to form a comfortable bed. It is impossible to afford the necessary space or convenience in a cage to enable the birds to build a nest of their own; and indeed they take very readily either to baskets or cocoa-nut husks, so long as the top is covered, and there is a bolt-hole in the side. This readiness to take possession of disused nests and nesting places is characteristic of Silver-bills in their wild state, and I have seen immense numbers of them occupying the deserted homes left by migratory colonies of Weavers, who had abandoned their villages, and moved to fresh fields and pastures new. Although in thus sharing, in common with the Cut-throat, the habits of all the sparrow tribe, yet the Silver-bills lack the sparrow-like pugnacity, and are altogether of a much more gentle and inoffensive disposition.

With regard to their breeding in confinement, they will be found equally productive as the Cut-throats, but the chief obstacle to success is the difficulty in determining the sexes. Two males or two females, as the case may be, will live in perfect harmony together; and as both sexes possess the same silvery note, their plumage also being identical, amateurs will not find it an easy matter to decide which are which. As these birds are not expensive, however, I advise other people to follow my example, and buy two or three reputed pairs, keeping a watch upon them until there is evidence of pairing, and then the surplus birds may be disposed of, as their sociability will otherwise interfere with that uninterrupted seclusion which is necessary during the hatching process. Upon closely examining a veritable pair of Silver-bills, the female will, as a rule, be found a trifle smaller about the head than her mate, and also less robust in form; but there are exceptions to this rule, and it is by no means safe to rely upon the points enumerated.

Egg production in a cold room rarely occurs before midsummer amongst imported birds, and with them breeding is protracted until so late in the autumn that the hens are frequently killed by egg-binding during the chilly nights. The eggs laid at a batch vary in number from three to seven, and they are of a creamy white colour, about the size of a

chaffinch's, and of a similarly stunted shape. With birds which spend so much time in their nests, it is difficult to determine the exact date when incubation begins; but my observations lead me to believe that fourteen days are occupied in sitting, and both birds participate in the work of hatching. For this reason it is necessary to give a roomy nesting place, or the eggs will get broken, and although the birds may be very tame, and evince no fear at your presence, even when you watch their proceedings, yet I warn my readers against the consequences of any meddling with the nest or eggs, which is sure to result in their being spoilt. Where artificial heat is employed and steadily maintained, these birds will breed during the greater part of the year and multiply amazingly, but they are not sufficiently valuable or gay of plumage to make their production remunerative, although I think they deserve a place in every collection.

The Indian Silver-bill is classed as a distinct variety by old writers, but I have seen both the African and Indian birds in their wild state, and have also kept them either as cage pets or in aviaries up to the present time and to my mind the two are as alike as "two peas in a pod." It is true that the Indian birds are scarcer here than the others, and their superiority is consequently extolled by the dealers as an excuse for obtaining three times the value of the birds from credulous customers, but my readers are advised to disbelieve the stories of the superiority of the Indian birds over their African brothers, because, to use an Hibernianism, if there is any difference between them they are both alike.

FOOD AND DISEASES.—See directions already given in preceding chapters upon finches.

CHAPTER XXI.

THE CUT-THROAT.

Spermestes fasciata (Zoo. Soc.).
Loxia jugularis (Shaw).
Fasciated Grosbeak (Brown).
Loxia fasciata (Vieillot).
Amadina fasciata (Swainson).

Le Con Coupe (German dealers).
Band Vogeltze (Dutch dealers).
Ribbon Finches (French dealers).
Collier Rouge (French dealers).

THE birds bearing this sinister name are natives of Africa, where they are almost as plentiful as the sparrows in England, whom they resemble in size, habits, and characteristics—including pugnacity—as nearly as possible. The Cut-throats, perhaps, were about the first of the foreign ornamental finches that were introduced to Europe, and their extremely hardy nature and irrepressible desire to breed under any conditions in confinement have led to their wide distribution and popularity in almost every civilised nation. The name given to them of late years by English dealers, and used above, was suggested by a crimson stripe which encircles the throat of the male bird; but in France they are called, amongst other names, "*Riband finches*," and this title is also occasionally used here.

In size they are nearly equal to the common house sparrow, the prevailing colour throughout being a salmon-fawn, each feather finely edged with a whitish tinge that gives a shell-like, wavy appearance to the plumage, which is really very pretty when closely examined. The male bird has a red band across his throat, extending from ear to ear, and a breast patch of brown; but, with the exception of these two distinguishing marks in the male, the sexes are alike. The beak, which is sparrow-shaped and powerful, is pale flesh coloured, as are the legs and feet.

Apart from the pretty plumage and sprightly habits of these birds, their extraordinary productiveness makes them deservedly popular as pets, although their pugnacity and thievish propensities in the matter of nests and nesting material renders it quite impossible to let any of the very tender and defenceless birds share the same cage or room with them until after they have quite settled down and got a brood of young, when the parents are too intent upon other affairs to indulge their evil propensities. They usually take forcible possession of all the nests in turn, except the Zebras'—for they can defeat them in open fight—and after altering the style of architecture, by the addition of some straw and



THE CUT-THROAT.

(*Speronestes fasciata.*)

other coarse materials, a final choice is made of the tenement best suited to their taste; but this decision is usually brought about by the hen commencing to lay—then the reign of terror is at an end, and peace is once more restored to the distracted community. The hen lays from four to nine white eggs, of a stunted shape and somewhat small size, the period of incubation ranging from ten to twelve days, and if kept in a room maintained at "temperate" heat in winter, these birds will breed all the year round without moulting, brood after brood being reared in rapid succession; indeed, their extraordinary productiveness has seriously affected their market value, and they can consequently be purchased at times for less than a pair of common canaries.

In cages they do equally well, if allowed plenty of space and suitable nesting accommodation, so that those of my readers who can neither devote space for a bird room nor spare the cost of the more rare and expensive foreign birds, may yet derive considerable profit and pleasure from the possession of a pair of Cut-throats. Do not attempt to keep two pairs in the same cage, because they will so disturb each other that failure is inevitable, and the same result will follow any molestation of their nest, so that curiosity must be repressed.

When speaking of the temperature which induced continuous egg production in these birds, I did not intend it to be understood that they required artificial heat or pampering of any kind. On the contrary, they will, when acclimatised, thrive well in an outdoor aviary, winter and summer alike; but, beyond a brood at rare intervals, they seldom rear their young under such conditions.

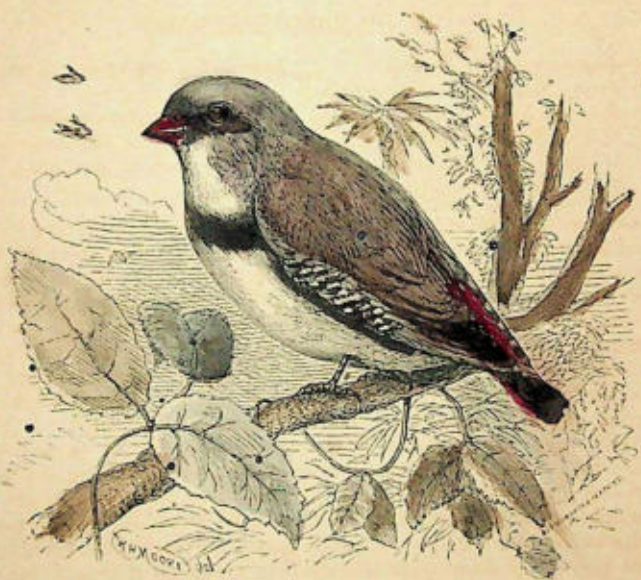
Such extraordinary stories of their productiveness in confinement have been told by Continental fanciers that I can scarcely believe them; but it is right to say that my own personal experiments with these birds have not extended to the use of artificial heat in the winter, so that with the fall of temperature they ceased to breed; still, I can vouch for the fact that a friend of mine obtained thirty-two young ones from a single pair flying loose in a heated conservatory from September to July, when the mother of this large family escaped and was killed by a cat. The juvenile plumage is very like that of the parents, and, indeed, the red throat mark shows plainly in the nest feathers of the male birds. The youngsters develop rapidly, and set up housekeeping on their own account at a very early age, commencing to breed before they are nine months old.

The male bird is particularly cheerful and lively as a cage pet, and, although his sparrow-like chirp is somewhat discordant, yet his song is very peculiar, and is accompanied by a grotesque swaying of the body, whilst the strong demonstrations of affection between himself and his more gentle partner leaves little doubt that much of his aggression is prompted by a desire to add to her comfort. In spite of this charitable explanation of his mischievous propensities, and, whilst doing ample justice to his merits as a cage pet, yet I have long since banished him from my bird room; for the "atrocities" committed upon valuable broods of choice

FOREIGN CAGE BIRDS.

species of birds overtaxed my powers of forbearance, the contents of nests being ruthlessly pitched out upon the floor.

FOOD AND DISEASES.—Beyond what has already been said under these headings, I have only to add that a frequent supply of insect and egg food must be given, and, as it is sometimes difficult to get imported specimens to take kindly to these items in the bill of fare, a tempting variety must be offered. Ants' eggs, meal worms, and hard-boiled yolks of eggs are the items which usually find favour, and, when given alternately, will produce good results.



THE DIAMOND SPARROW.

(*Aimophila lathami*.)

CHAPTER XXII.

THE DIAMOND SPARROW.

<i>Amadina Lathamii</i> (Gould).	<i>Diamond Ordinaire</i> , (French dealers).
<i>Fringilla Leucocephala</i> (Vieillot).	<i>Drop Finch</i> (German dealers.)
<i>Fringilla Lathamii</i> (Vigand Hors).	<i>Diamond Sparrow</i> (English dealers).
<i>Spotted Grosbeak</i> (Lewin).	<i>Diamond Sparrow</i> (Zoo. Soc.).
<i>White Headed Finch</i> (Latham).	
<i>Spotted Sided Finch</i> (Gould).	

As may be gathered from the different names by which these lovely birds are known, they are old favourites, and indeed they were about the first of the Australian finches imported in considerable numbers to this country, where, as on the continent, their beautiful plumage and gentle confiding demeanour, as cage pets, make them especial favourites with their owners and objects of interest to strangers. These birds are very abundantly scattered over the whole of South Australia, and, notwithstanding the wholesale capture of immense numbers for exportation, which has gone on for so many years, the supply appears unlimited. A close time during all the breeding season has been adopted in Australia, and this cannot fail to increase our supply by protecting the birds during their period of nesting. Although Diamond sparrows are the most robust of the Australian ornamental finches, being nearly equal in size to our domestic sparrow—albeit flatter and more stunted in shape—yet they suffer much more severely from the effects of transit than any of their tiny relatives, and, as a rule, upon arrival here present a most deplorable picture. They are brought over in low box cages, each containing perhaps a hundred birds or more, and it is usual to find them nearly destitute of body feathers, and in some cases wholly stripped of their covering. This feather eating is no doubt due to the loss of that insect food which forms a by no means small portion of the bird's diet when at liberty, and considering the very serious loss which importers suffer by the large percentage of deaths arising from this cause, I am surprised that personal interests—if not humane considerations—fail to prompt the addition of ants' eggs to the millet and canary seed used during the voyage. The birds upon arrival in England are placed separately in cages, about 8in. long by 6in. broad, and thus stacked one upon another in a warm room, where they quickly regain their plumage, or else die from disease

engendered by foul water and the mild cannibalism of which they have been guilty. It is a curious fact, maintained by dealers, that those specimens which have suffered the least damage to their plumage invariably die soon after arrival in this country, and the dealers attribute this to surfeit arising from the excessive amount of feather eating in which the birds have indulged; for such specimens are credited with causing all the damage which the plumage of their fellow passengers has sustained. Personally I disbelieve the theory that two or three birds could cause such havoc amongst as many hundreds, and especially as the accused specimens invariably exhibit some slight defects in their own plumage; the evidence, therefore, upon which this charge is based is by no means conclusive. My own theory is that those which save their coats are old birds, that can beat off the younger specimens.

The plumage of the Diamond sparrow is of a velvety greyish black colour above and snowy white beneath, his sides being boldly marked with circular white spots upon a black ground; the breast is crossed by a broad band of lustrous black, and at the base of the tail, beneath the tips of the wings, there is a patch of brilliant ruby red. The female is almost identical, both in size and colouring, with her mate, but she may be recognised by the greyness of her forehead, and that effeminate appearance which can be readily seen where opportunities of comparison are afforded to the purchaser. The young are greyish brown upon the upper portions of the body, and dirty whitish on the abdomen, but they all have the red patch at the root of their tail with their nest feathers; their beaks are black until the adult plumage is fully attained, and indeed the appearance of red in the beak is an indication of maturity, which is usually followed by the young birds going to nest very soon after on their own account.

The song of the Diamond is loud, though of limited compass, but it is singularly plaintive and long drawn, being altogether unlike any of the other finches, and rather agreeable than otherwise.

Although extremely docile when kept alone, as cage pets, exhibiting the most lovable and gentle dispositions imaginable, yet all this is altered in an aviary, where they become very rough diamonds indeed, and their acts of tyranny destroy the domestic peace of the more feeble inmates. All the nests in the place are ruthlessly pillaged and taken forcible possession of by turn, their feeble owners being unmercifully beaten, and the progeny thrown out to perish, and yet these ill-gotten gains are seldom retained for more than a few hours, the birds returning at night to their favourite roosting nest. They are about the worst architects of all the finch tribe, being even more slovenly in their building than a common house sparrow, selecting always the coarsest materials, which they pile upon some other nest, this saving them having to fashion and line a new interior. In their wild state they exhibit a sparrow-like inclination to build amongst the sticks of crow's and eagles' nests; and indeed Gould tells us of an instance where "Nattie," one of his black attendants, climbed a tall tree and brought down an eagle's eggs and nest, in the lower part of which was constructed the nest of a Diamond sparrow, containing her six white eggs, of stunted shape.

In addition to the meddlesome character of these birds, they are somewhat difficult to breed in confinement, seldom producing more than a single brood in one season, even when they do hatch, although they usually lay a great many eggs. The reason of this want of success is attributable in some instances to the restless jealousy of the birds, and in others to their propensity to develop fat; over-feeding being one of the commonest sources of failure in foreign bird breeding. The Diamonds are so sly over their nesting arrangements that, even when they do hatch out, the young make their appearance before you are aware that the parents had commenced to sit, but it is well established that their term of incubation ranges from ten to twelve days, like the rest of the finches. With these birds, as with some others of a kindred species, it frequently happens that several pairs must be tried, and a variety of changes made, before you really succeed in getting a couple to settle down; but where such a pair is found, my complaint of their want of productiveness will not hold good, for they will then nest continuously and rear an incredible number of young. This advice as to changing your birds—if after a fair trial they fail to nestle—is worthy of careful attention, because I and others have proved that the inclination or ability of foreign birds to nest in confinement varies considerably in different specimens of the same species, and even a changing of mates from one aviary to another has frequently resulted in both pairs nesting, although they previously exhibited no sign of any such intention. Whatever may be the reason of this peculiarity, it is one which fanciers should profit by knowing, and so avoid much loss of time and disappointment at the non-success of their pets. With those amateurs whose space or means restrict the number of their birds, Diamond sparrows ought certainly to find favour, for it is when occupying undisturbed possession of roomy quarters that they nestle most readily, and the beauty of their plumage ensures a prompt sale of the progeny at remunerative prices. I am induced to speak of breeding foreign birds for sale as well as pleasure, because it is by such means that we can spread the fancy for them, and by thus considerably increasing the production of English bred birds, reduce the extravagant prices which many of the tiny finches now command.

Although it will be gathered from what has already been said that these birds are not generally very desirable in an aviary, still their extreme beauty entitles them to a place in every collection where breeding is a secondary consideration, or where the defenseless species are not included. As cage pets the Diamonds, however, are seen to their greatest advantage; but the utmost care is there necessary to prevent them becoming over fat—when they will spend most part of their time panting upon the floor of their cage. A constant bath is necessary to prevent diseased feet.

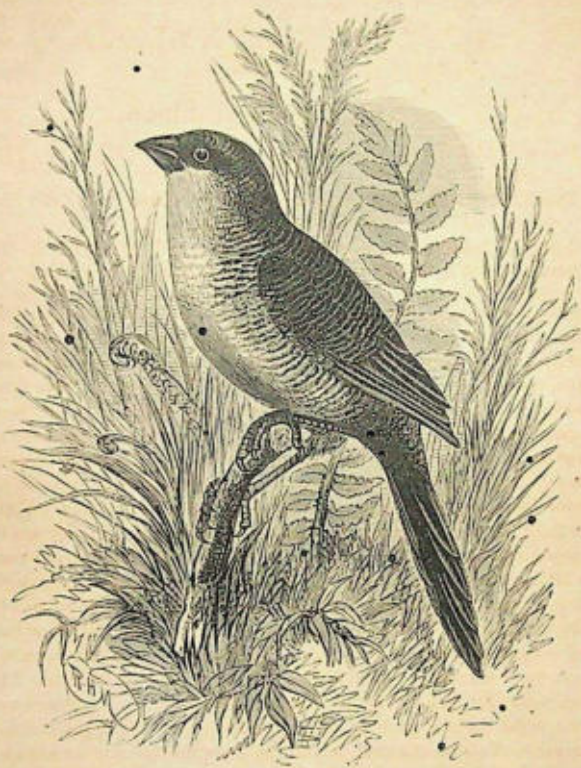
FOOD AND DISEASES.—See "Zebra Finches."

CHAPTER XXIII.

THE PHEASANT FINCH.

<i>Fringilla Astrild et Rubricentris</i> (Vieillot).	<i>St. Helena Waxbills</i> (English dealers).
<i>Estrela Astrild et Rubricentris</i> (Gray).	<i>Little Helena Pheasants</i> (German dealers).
<i>Astrela Undulata</i> (Reichenbach). <i>Red-bellied Waxbills</i> (Zoo. Soc.).	<i>Astrild de St. Hélène</i> (French dealers).

Of all the waxbill tribe, these exquisitely delicate little Pheasant finches hold a foremost place as cage pets; their gentle, confiding, lovable manners, combined with their beautiful plumage, rendering them especial favourites with everyone who keeps them. As may be gathered from the array of names by which these birds are known, they have for many years been imported into this country, the island of St. Helena being in former times the chief source of our supply, but now we get them from nearly all the African ports. These birds swarm in amazing numbers throughout all the great watersheds of Africa, choosing the low-lying grounds, and building their nests in the stems of rank herbage, and there feeding upon grass seeds and minute insects. Always on the move, they clamber on delicate grass stems or flit here, there, and everywhere, keeping up an incessant twitter as they shoot about amongst the herbage in search of food, their tails being jerked from side to side, as if beating time to their song. This peculiar motion of the tail is seen amongst all the waxbill family, but in no other species is there such an "expressive" flexibility as that shown in the little Pheasant's "narrative." The tail is "bolted," as old nightingale fanciers would say, from right to left, so long as the little fellows are unsuspecting of any danger, but at the slightest sound up goes the tail to "attention;" then, after a few seconds pause, in which to ascertain if there is ground for alarm, the "finality" is again swung reassuringly to and fro and the self-satisfied chirrup is renewed as the bird continues his pursuit of food. No matter how numerous may be a flock of these birds in their wild state, the pairs invariably keep together, and the anxiety with which, in all their rapid movements, each bird holds his mate in sight, exchanging friendly calls one with the other, and uttering cries of alarm, should either be missing for a moment is remarkable; these are peculiar characteristics which could not fail to attract the attention of any observant person. In the many oppor-



THE PHEASANT FINCH.

(*Estrelda Astrild et Rubicentris.*)

tunities which I have had of studying the habits of these confiding little creatures in their wild state there was for a long time some doubt in my mind as to whether they paired promiscuously, found fresh mates for themselves whenever they got "mixed"; but, innumerable as are their numbers, I convinced myself that the power of identification was as strongly developed amongst these wee birds as in the higher orders of living creatures, and that in a mixed flock of several hundred waxbills, each could find its "other half," although to the human eye all were as alike as peas in a pod. I proved this by trapping and marking a pair. Whether or not these alliances are made for a season or for life, it is impossible to determine amongst the wild birds, but in confinement there is no such thing as grass-widowhood, and a pair when once mated remain true to their partners until death breaks the loving tie which binds them firmly together so long as life lasts. They are not at all a shy bird, and by remaining perfectly quiet I have had scores of them around me, almost within arm's length, as I lay beneath a bush by the side of a pool where they preened and dried their feathers after tubbing. They are excessively fond of water, and when kept in an aviary will indulge in plunging into the bath five or six times during as many hours; and although this is apparently beneficial to them during the hot summer months, yet in winter such repeated wettings invariably result in fatal colds. Some measures are necessary to prevent them having access to water, except for drinking purposes, unless the weather is warm, but they will squeeze into an ordinary glass drinking "fountain," and I have had to break several in order to release the little rascals, for once in they were unable to escape. When kept in cages this must be guarded against.

The Pheasant finch measures $3\frac{1}{2}$ inches in extreme length, the body feathers are of a chocolate-brown colour, lighter beneath than above, and the whole being finely waved with exquisitely minute lines of alternate light and shade, the breast is tinged with a blush of red, which blends with and gives warmth of tone to the whole under body. The beak is ruby red, and the eyes are encircled by a narrow elongated patch of the same rich colour. The primaries of the wing and tail are dark brown, and the feet and legs black.

The sexes so closely resemble each other that they are not easily to be distinguished, except by comparison, but the male birds have more red upon their breasts than the females, and the eye markings of the male are usually double the length of the hen's of the same age. She is also slightly inferior in size, and her wavy markings are less distinct.

These birds are very hardy, and may be safely kept in outdoor aviaries, but they are much better adapted either as cage pets or to have their liberty in a bird room, where their loving gentle manners can be more closely watched, and their nesting arrangements are not likely to be interfered with by aggressive birds. Like all the other members of the waxbill family, the "Helenas" build roofed nests, having an entrance at the side, and they usually commence their nesting about the middle of May,

but this is dependent upon the condition of the birds and their mode of treatment. The male bird about this time becomes more tuneful, and, in addition to the ordinary twitter, common to both sexes, he starts a funny little love song, consisting of two liquid notes, which are repeated at rare intervals during the courtship. The hen lays from four to six small white eggs, of a somewhat elongated shape and shiny surface, and the task of incubation is performed by both birds at the same time, for in this, as in every other act of their lives they must be together, and indeed their intense love of companionship is so great that I have known them, upon the death of a mate, seek out an odd bird of their own sex and apparently find consolation in nestling by his side and receiving and returning his caresses. The young have none of the wavy lines upon their nest feathers, but these, like the red tint on the abdomen, beak, and eyes, make their appearance within a few weeks of the bird's taking flight, and before the end of their first summer it is difficult to distinguish between the old and young birds. These little creatures when deprived of their mates will not unfrequently pair with other species of waxbills, their nearest relations, the Grey *Astrilds*, being the most common alliances, but *Cordon Bleus* are not averse to this kind of thing, and I have had mules from three or four different crosses, although the progeny were not at all pretty in either case, and they were moreover, like all barren creatures, extremely vexations and troublesome to their companions.

Although very tame and confiding as cage pets, the *Helenas* do not nest very readily under such conditions until they have been some considerable time in your possession and become quite accustomed to the ways of the household. A rush basket suspended in the cage, and a few feathers as a lining form the best arrangement under such conditions, but in aviaries it is best to allow the birds to make their own nest, which they will do with greater regard to solidity and comfort than beauty of outside appearance.

FOOD.—Millet seed forms the chief article of diet, but with the advent of spring these birds must be fed in the manner already described in the chapter on *Zebra finches*, and a bunch of flowering grass may be added to the bill of fare there laid down.

DISEASES.—Colds and their attendant evils are the chief ills which these birds suffer from, and it is impossible to doctor such little creatures, though much good may be done by nursing. The first symptoms are a very slight puffing of the body feathers and a disposition to sleep with their heads beneath their wings during the day. If the birds are taken in hand at this stage, a cure may easily be effected. Put them in a small box cage, wired only in front, and failing the possession of a heated "greenhouse" in which to keep them, let the cage be kept near a fire during the day and put it on the kitchen boiler the last thing at night. Beware of cats.



THE AVADAVAT.

(Amaduvade.)

CHAPTER XXIV.

THE AVADAVAT.

Estrella amaudare (Gray).
Fingilla mystacea (Vieillot).
Amaduvade (Zoological Society).

Bengali piquete (French dealers).
Tiger Pinch (German dealers).
Avadavat (English dealers).

THIS bird is well known to all Anglo-Indians, abounding as it does in the East Indian islands and India proper, and everywhere constituting himself a nuisance to the cultivators of land by the wanton destruction of seed. He is a tiny little fellow, about three inches long, thoroughly "game" and as brilliant in his wedding clothes as a polished gem, glinting in the sunshine as he flits about amongst the tall herbage, and ever ready to pounce upon a rival and to do battle for the exclusive possession of his wee brown wife. His love song is remarkably clear and loud, resembling somewhat the liquid notes of our willow wren; and no matter how numerous may be the occupants of your bird room, the Avadavat's song can always be distinguished above other sounds.

These birds breed, like other waxbills, in long grass or low hanging branches of stunted bushes, weaving a circular nest of grass with a bolt-hole at the side, and lining the interior with delicate fibres. The eggs are white and vary in number from four to six. The birds are easily caught during the breeding season; a trained call bird being placed in their haunts, and the grass twigs bird-limed around the spot he occupies, by which means a lot of male birds will be taken in a short time, for they are attracted by the challenges of the stranger, and come down to try conclusions, and drive him off. Small nets are also used for taking them, the birds being decoyed in a similar manner. The natives keep them for sport, training them to fight in the same way as they teach quail, and the little Avadavats become very courageous and expert in battle, the champions being highly valued for their skill and prowess. None of this pugnacity is exhibited by them in confinement, except that as the nesting season approaches the males drive each other away from their chosen spot, but even then the exhibition of rage and excitement seldom leads to blows and I never saw any feathers torn out.

Before going further, let me say that they possess the peculiarity of moulting twice in the year, or, rather, I should say, they change colour in spring and autumn, but the latter is the only real moult, as the other change,

startling as it is, involves no shedding of plumage, for the feathers undergo a colouring process in the same manner as that described in the Pintail Whydah. The winter garb of the Avadavat is a dark rusty brown, and with the advent of spring this gradually changes to a highly burnished glossy claret colour, shaded with ruby red here and there upon the upper body, and merging to a ruby yellow tinge upon the abdomen, the breast, wings and tail coverts, being spotted with white, and the tail itself being black, with a ruby patch at its base. The beak is dark red, edged with black, above, eyes orange yellow; feet and legs pink. The hen is a rusty brown, but she possesses the spotted wings and sides and other characteristics of her mate, by which she is easily recognised.

When thoroughly acclimatised these birds are very hardy; and I knew a pair that were kept in a cold garden aviary winter and summer for three years, but they never bred under these conditions, although they did so when subsequently transferred to an indoor bird room.

FOOD AND DISEASES.—Same as other waxbills.



THE ORANGE CHEEKED WAXBILL.

(*Eurycotis Melpoda.*)

CHAPTER XXV.

THE ORANGE CHEEKED WAXBILL.

Fringilla melpoda (Vieillot).
Estrelda melpoda (Gray).
Melpoda lippa (Reichenbach).

Bengal au, joués Orangées (French dealers).
Orange Cheeked Waxbills (English dealers).

THIS is another of the African waxbills, and his sprightly manners and pretty plumage make him a general favourite, although his natural timidity effectually prevents success in breeding him in confinement. It is true that Orange Cheeks have been bred in aviaries, but the utmost quiet and freedom from all distracting or strange noises are necessary to induce the birds to remain upon their eggs after they are laid. Personally, I have failed with these birds themselves, though their eggs have been hatched and the young reared by my Zebra finches, to whom they were transferred. In spite of this nervousness on the part of the Orange Cheeks, they deserve a place in every collection, for they are extremely pretty, very inoffensive to others, and excessively affectionate toward each other.

The male bird measures three inches in extreme length, his prevailing colour is dark mouse brown above, merging to light grey beneath; the beak is red, and the cheeks have a circular patch of orange upon them, and there is a red patch at the root of the tail on the upper side, and a shading of yellow behind the legs. The hen has no cheek patches, but in other respects resembles her mate.

FOOD AND DISEASES.—See "Zebra Finches."

CHAPTER XXVI.

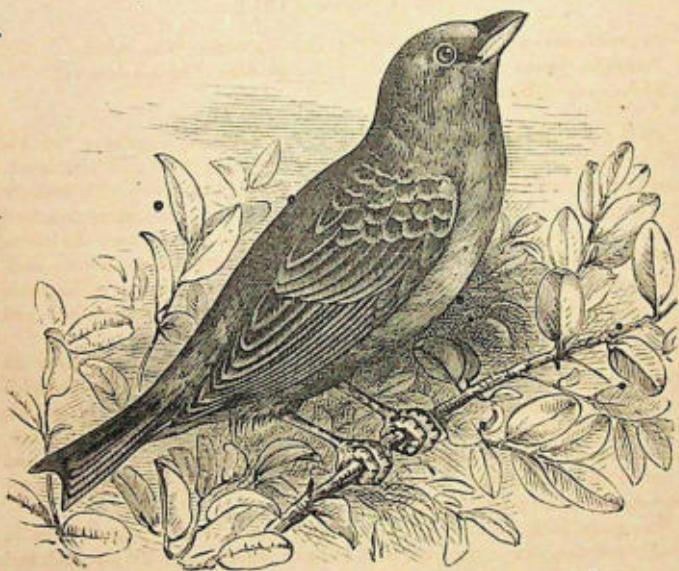
THE INDIGO FINCH.

• <i>Tanagra cyanea</i> (Linnean Society).	<i>Indigo Bunting</i> (Zoo. Soc.).
<i>Fringilla cyanea</i> (Wilson).	<i>Indigo Blue</i> (English dealers).
<i>Blue Linnet</i> (Edwards).	

This is a popular bird amongst fanciers both here and elsewhere, but his life is made miserable in confinement by improper food and treatment, and he rarely survives for any lengthened period in captivity. To remedy this unintentional cruelty on the part of amateurs, it is necessary to afford them a ready means of reference by which they can see what are the habits and characteristics of their pets when enjoying their liberty, but no such handbook has hitherto existed, and the lives of a vast number of valuable birds have as a consequence been sacrificed, to the grief of their owners and the profit of dealers.

The Indigo is a migratory bird, which makes his appearance in Pennsylvania about the middle of May, and there remains to complete his nesting arrangements until the latter part of September, when he and his progeny go off to winter in Mexico. They build their nests in low bushes, amongst rank herbage, suspending it between two twigs, and using grass and fibre as materials. The eggs are five in number, blueish in ground colour, and spotted with purple at the larger end.

The male bird measures 5in. in extreme length, slimly proportioned in body, and finely tapering from head to beak, which lacks the strength and size of the finch proper. The body colour is a rich marine blue, darker above than below, and some of the inner edges of the wing and tail primaries merge almost to black; the beak, feet, and legs are a slatish black. During the winter months he loses all his gay plumage, changing in the autumn to a rusty brown, from which he emerges again in the spring, thus moulting twice in each year. The female is of a dirty olive green, darker upon the upper than lower body, and, except in size and shape, bearing no resemblance, during the summer months, to her brilliant coated mate. Whether the summer suit of blue is obtained by a change in the colour of the old feathers, and not by the growth of entirely new plumage, is a disputed point, and as I have always kept these birds flying loose in rooms or aviaries, my opportunities of close observation have not been so



THE INDIGO FINCH.

(*Tanagra cyanea.*)

good as those who treat their birds as cage pets. I strongly favour the colouring theory, which, moreover, is supported by several dealers who receive hundreds of these birds in the spring when just "coming into colour," and keep them in small cages until the summer suit is attained.

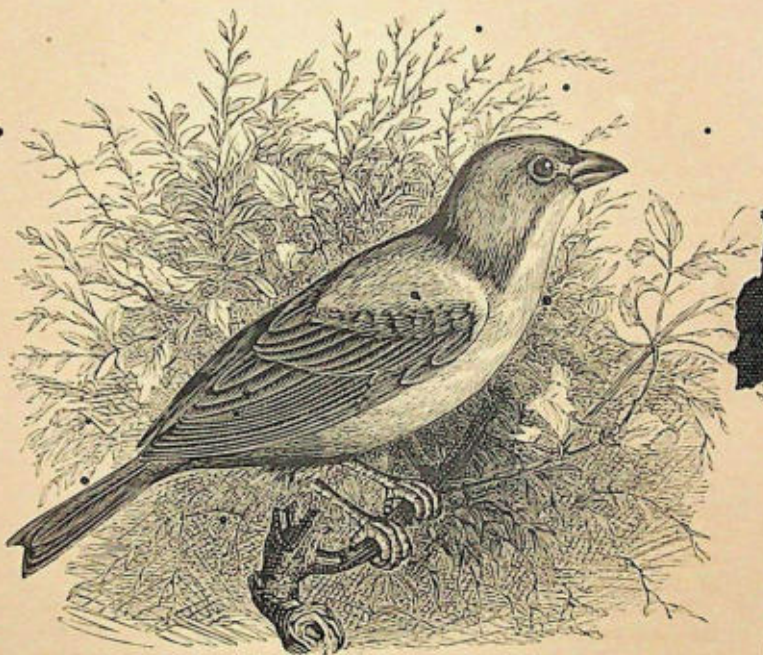
In an aviary these birds are extremely active, but inoffensive towards other species, keeping a strict look-out for flies and other insects which incautiously venture within the wires, and immediately giving chase. I have often been exceedingly amused to watch both male and female indigo struggling for the possession of a "lady bird" which had crawled out of some crevice on to the ceiling, and although it is an easy matter for a bird of fly catching proclivities to take an insect in such a position, yet, when two birds are intent upon getting the coveted prize, the process is by no means an easy one. These contests in my aviary usually resulted in the male bird abandoning the chase and setting himself to "reorganise" his wife; hunting her around the place from bush to bush with an appearance of fury that ultimately reduced her to abject submission, and enabled her lord and master to quietly possess himself of the disputed *caviare* and enjoy it undisturbed. Then he would "make it up" with his amiable little wife and peace would once more be restored, but there were occasions when the chasing of insects and this "reorganising" process were attended with more serious consequences, for the Indigo birds, in their excitement, not unfrequently squeeze themselves behind nesting boxes, cages, or boughs, and, being unable to extricate themselves, perish miserably. The hunting after spiders, too, will tempt these birds into similar danger, and where they are kept the utmost care is necessary to prevent a catastrophe of the character indicated, and any place behind which they can "lodge" ought to be filled up with brushwood. In giving prominence to this source of danger I am but indicating what constituted the principal cause of failure and vexation when first the Indigo finch became to me a special object of interest, and I hope that this dearly bought experience may profit others.

When these birds are sold in the English market they are always being fed upon hard seed only, and although they will apparently thrive upon it for a time, yet it is ruinous to their constitutions, and inevitably kills them from liver disease within a short period. They are really more than half insectivorous, and to keep them in health and induce egg production in confinement, it is necessary to furnish a constant supply of fresh ants' eggs during the summer, whilst meal worms, maggots, butterflies, moths, hard-boiled egg, and such-like delicacies, will at all times prove an acceptable addition to the bill of fare. In the absence of such food it is hopeless to expect that your birds will nest, or even that they will remain in health for any length of time.

The male Indigo finch has a pleasant song, which is heard at frequent intervals during the months that he remains in colour, but the song, though musical, is composed of but a few notes long drawn, and it will not bear comparison with the vocal powers of our own finches.

As a cage pet the cock Indigo should be kept singly for singing purposes, as he seldom "opens" when sharing the cage with others, and he will be found a very docile intelligent bird, and if daily furnished with a spider or some other insect food in addition to seed he may be kept for years in health and beauty of plumage.

FOOD AND DISEASES.—The remarks already made upon diet sufficiently enforce the importance which I attach to it, and as my experience of ailments in these birds has been limited to liver disease, engendered by plain seed feeding—and for which I know no remedy—there is nothing to be said upon that point. Judicious treatment will keep these birds in health, and the old saw tells us that prevention is better than cure.



THE PAINTED NONPAREIL.

(*Emberiza ciris.*)

CHAPTER XXVII.

. THE PAINTED NONPAREIL.

. *Emberiza ciris* (Wilson).

FOR brilliancy and variety of colour there is no finch commonly imported into this country that can equal this beautiful American songster. In size he is about equal to our sparrow, the head and neck are bright marine blue, the shoulders and wing coverts yellowish green, as are also the outer edges of the wing primaries, the inner webs being russet brown; the whole of the throat, breast, and under body, from the base of lower mandible to end of tail coverts, are bright scarlet, and the tail itself is dark olive brown; the eyes are surrounded by bright yellow circles, extending forward to the nostrils; the beak, legs, and feet are slatish black. The female is of a dull olive green above, merging to a yellowish shade beneath; wings and tail brown tinged with dull green upon their outer edges. These birds do not attain their full plumage until the third year, and during the first season male and female are exactly alike; in the second year the male gets his blue head and neck, and in the third season bursts forth in the full glory of rainbow hues. He loses many of these brilliant tints in the autumn, assuming a more sober winter garb, but this varies so much in different specimens that it would be difficult to define the precise extent of this change.

The Nonpareil is greatly esteemed both as a cage and aviary pet, and thousands are caught every spring in the vicinity of New Orleans for exportation. They are very sociable and confiding, evincing a very decided preference for nesting close to the habitation of man, building in hedges and low branches, both nest and eggs resembling those of the English sparrow; occasionally two broods are reared in one season. At the approach of autumn the males become extremely pugnacious towards each other, and advantage is taken of this to catch them in trap cages when they fly down to give battle to the decoy bird used for this purpose.

They are very peaceable when kept in aviaries, where they may be successfully bred without much difficulty after they have once become accustomed to their house and its occupants. The Nonpareil, being partly insectivorous, requires rather more attention to be given to his diet than those finches which subsist entirely upon seed, and in addition to insects

he is also very partial to soft ripe fruit when in season, and will also eat dried figs, cut open, during the winter months.

As a cage pet, he will become exceedingly tame, and his soft pleasant song will be found very agreeable to the ear, but with long confinement the brilliancy of his tints will be lost, though his health may by judicious treatment be preserved for many years. Nonpariels are always plentiful here about June, and may be purchased at prices that place them within the reach of all classes who delight in feathered pets, and to them I cordially commend these beautiful birds.

FOOD AND DISEASES.—Same as preceding species.



THE PIN TAILED WHYDAH BIRD.

(*Vidua Erythroryncha.*)

CHAPTER XXVIII.

THE PIN-TAILED WHYDAH BIRD.

Vidua Erythrorhyncha (Swainson).

Fringilla principalis (Gray and Vieillot.)

Emberiza principalis (Edwards).

Long-tailed Bunting (Latham).

Dominican Bunting (Latham).

Gracie Pevée (Buffon).

THE birds which form the subject of this chapter are perhaps the most elegant, if not the most brilliantly plumaged of the ornamental finches, and they are certainly the most popular of the finch tribe that find their way from Africa into this country, yielding a good profit to the importers. There are only three varieties of Whydahs known to English amateurs, and of these the Pin-tails are the smallest. They may be readily distinguished by their red beaks. These pretty birds, when in full plumage, measure nearly twelve inches in extreme length, the two central tail feathers contributing at least eight and a half inches; in young specimens the tail does not attain so great a length—three years being the age at which the full adult feathers make their appearance. The Whydahs change colour twice in every year, their winter garb being light brown upon the breast, whilst the darker back feathers are laced with a rich brown not unlike those of the common house sparrow. The tail is also short like that bird's, though more pointed. With the advent of spring these feathers all undergo a marvellous change; the breast and neck become snowy white on the surface, though dark beneath; the back and wings change to a rich velvet black, only relieved by a white band upon either wing covert, but the most wonderful part of this metamorphosis consists in the elongation of the two central tail feathers to the dimensions already stated, whilst all these changes are effected without the dropping of feathers or any of those symptoms which accompany the moult. I was first led to an examination of this phenomenon by observing a partially coloured feather pulled from a Whydah by his companion; the quill was charged with dark matter, and the lower half of the feather had become jet black, whilst the upper portion still remained a rusty brown.

There is no fixed period at which this change from winter to summer plumage takes place, but it is seldom perfected before the end of June, even

amongst thoroughly acclimatised specimens, whilst newly imported birds often "come into colour" late in the autumn, and fall into moult almost immediately afterwards. In my observations of the habits of these birds in a wild state upon the west coast of Africa, I was led to consider them as belonging to and forming a section of the weaver family, whilst subsequent study has confirmed my early impressions, for all the Whydahs that have bred whilst in my possession have constructed nests with more than one entrance, the materials being roughly put together, not unlike the manner adopted by sociable weavers. Unlike them, however, the Pintail is by no means pugnacious to other birds, although during the breeding season the male Whydahs, if in full colour, often fight desperately amongst themselves, but they may safely be kept with any of the very tiny waxbills without fear of injury being done to them, except in a confined space.

Before going farther, let me say that the male and female pintail are identical in every detail of colour and marking during the winter; that the female undergoes no change of colour in the summer, and that the only means of distinguishing the hen during the winter is by her inferior size. The difference is not very marked, but, upon close comparison, it may easily be detected; the two central tail feathers of the cock will moreover, invariably be found a shade longer and more pointed than the other ten, whilst the tail of his mate is always even at the extremity. These trivial variations in the plumage of the sexes form the only clue by which amateurs can distinguish them when out of colour; and, as Whydahs are usually kept singly for the sake of their beautiful plumage and graceful movements, the dealers seldom obtain female specimens. This explains the ill-success which has attended so many efforts to breed these charming little pets in England, but our continental neighbours have amongst them many ardent ornithologists who many years ago demonstrated the fact that these hardy tropical finches would breed freely in confinement if properly fed and cared for. They will, moreover, stand the rigours of an English winter in an open outdoor aviary, provided that the process of moult is completed before the cold weather sets in; but, if this is not the case, and moult is protracted, the birds should be removed to a room in the house, or they will inevitably die. This advice will equally apply to any other foreign birds, for it is due to inattention at this critical period that so many specimens are said to be "killed by the cold." The moult will usually commence in September; and where this occurs, and the process is rapid, no danger need be apprehended; but should the long tail feathers not be shed before the second week in October, it will then be unsafe to risk the bird out of doors whilst completing his change of plumage. I have known two instances of the Pintail Whydah retaining the summer plumage until the month of February in an indoor aviary without artificial heat, but the first bird was left to take his chance, and died; the second was transferred to a "stove house," and recovered. Although I have kept Whydahs both in and out of doors, yet an aviary

It always appeared to be the most fitting place where, amongst a collection of those lovely little tiny finches, which are my especial favourites, the Whydahs can flit about unmolested, and afford to an amateur such opportunities of accurately noting their peculiarities as never occur when these birds are kept in the open air amongst a medley of other stock.

The Whydah's love of water is excessive, and they always try to be the first to plunge into the bath so soon as its contents are replenished. I have frequently derived considerable amusement by standing beside the newly-filled "tub" until a very tame pair of Bengalese, and some equally tame Zebra finches, took possession of the water, quite regardless of my presence; then I have retired to the door of the room, when down would swoop the Pintails, and flit round and round the pool—exactly after the fashion that a dragon fly darts upwards and downwards over a flower—the occupants of the bath meanwhile keeping up an incessant buzz of defiant chirping, as open mouthed they revelled in the water, and still kept off the Whydahs.

One of these birds had been petted by me for a considerable period, and became exceedingly tame, permitting me to handle him without evincing the slightest fear. When liberated into an aviary he exhibited great pleasure at my approach, and would, when I entered the place, flit round my head in a circle, so close that his tail feathers often touched my face. Forgetting his presence, I one day hesitated at the open door before entering, when out he came with the usual cry of recognition, and round me he flitted, but I made several snatches which scared him, and he flew into an adjoining elm tree, where a colony of sparrows immediately assailed him with great fury, tearing out both feathers and flesh, and relentlessly pursuing him until he fell bleeding and lifeless to the ground. This conduct on the part of the sparrows was by no means exceptional, they invariably attack and kill any of my bright coloured tiny finches that by chance escape—as they do occasionally—and I have known them hunt a Grass parakeet until it became so exhausted that it could not fly.

The breeding season of the Pintail Whydah in this country is restricted to the months of June, July, and August, the period at which nesting arrangements commence being dependent upon the male bird attaining his full summer plumage and coming into song, which song consists of a short, clear, and not unpleasant whistle, quite unlike the peculiar scissor-grinding noise that distinguishes the notes of the other two varieties. The male bird takes very little share in the building operations, being much too proud of his sweeping train to risk the chances of injuring it by work; and so it happens that when tempted by affectionate twittering to select a few suitable stalks of grass and to carry them to his homely little wife, who is working cheerfully in a bushy bough and skilfully fashioning a house, her vain husband will scarcely bestow a passing glance upon the structure before flitting hastily back to his favourite perch, where he carefully preens himself and whistles softly in evident self-satisfaction. He may flaunt his fine feathers now, and look with contempt upon the other occupants of the

room, but his vanity will presently receive a fitting rebuke, for when the sober garb of winter begins to reappear in place of those metallic, black plumes, and when those sweeping shafts fall, like withered leaves, this humiliated cockcomb will sneak out of sight, and hiding himself in the most secluded nook, spend the whole day sulking, and only come forth when pressed by hunger to seek the seed tray. Whether this peculiar behaviour is due to a sense of shame at the loss of his beauty, as is popularly believed, or whether it arises from the exhaustion caused by moulting, I do not pretend to say, although I am somewhat favourable to the latter theory.

The nest, which is circular, is composed exclusively of grass, bass, and asparagus spray; and although the exterior is so woven as to bear some resemblance to the work of the weavers, yet the structure is much more compact, and the walls are a great deal thicker. It will sometimes happen that the first nest fails to give satisfaction, and a second will then be built on to the first, but the two always have an opening to admit of free passage from one to the other. The male bird is rarely seen inside, for he is evidently afraid of injury to his shaft feathers, but he will, during the period of incubation, select a branch near the entrance of the nest, and occasionally entertain his mate with a song. These birds are by no means demonstrative of their affection one towards the other, and except at the period of nesting, they are rarely seen together in the aviary, for, unlike most finches, they roost on different branches, and then appear utterly indifferent to each other's existence.

The hen lays from four to six small white eggs, and fourteen days are occupied in the process of incubation; the young fledge rapidly, and are neither delicate nor difficult to rear, if proper food is supplied. The nestlings resemble young sparrows in colour, and their beaks are black until the nest feathers moult off, giving place to a darker plumage, when the beak becomes red.

There is another variety of this bird which differs from the foregoing only in possessing four long tail feathers instead of two. The birds are identical in other respects.

For the two first seasons of their existence the young birds of both sexes are identical in plumage; but with the second summer the males come "into colour," as the dealers call it; even then the tail feathers are somewhat stunted, and they will show a considerable increase of length next season, when matrimonial ideas for the first time seriously occupy their attention. As may be imagined from the slow development of these birds, they are longlived, and, although we possess absolutely no information as to their duration of life in a wild state, yet they attain a great age in captivity; and there was considerable truth in the remark once made to me upon the subject by a dealer, who said, "They will never die so long as you feed them well."

A curious statement was made respecting these birds by our late illustrious countryman, Dr. Livingstone, who averred that they possessed the power of reabsorbing their eggs, and so removing them to a fresh nest.

and the first prove unsatisfactory. Apart from the physical difficulties which effectually refute this extraordinary suggestion, I am quite convinced by personal observation that it has not the slightest foundation in fact. That the birds will abandon their old nest if disturbed, build a new one, and the hen lay again immediately, is perfectly true; but that is a peculiarity shared in common by almost every variety of the finch tribe.

FOOD.—This is an important item where efforts are made to breed Whydah birds, but when kept simply as cage pets they require nothing but millet and canary seed, and they may be fed exclusively upon the former. As something stimulating is necessary, both to induce egg production and incubation, as well as to afford nourishment to the young, a more generous diet must be provided; soaked bread, yolk of egg grated fine, and German ants' eggs scalded, are the courses which should be added to the bill of fare, whilst ripe flowering grass will also prove acceptable as a standing dish during the summer months, and serve, moreover, as materials for nesting when all the seeds have been abstracted.

DISEASES.—Except during the autumn moult, Whydahs rarely exhibit any ailment, and, even then, a little careful nursing in a warm room with perfect quiet, are the best restoratives. At such times, the male birds being weakened by the process of moult, are prone to catch colds during the chilly nights, and the symptoms are drooping wings, half-closed eyes, puffing of the breast feathers, and an inordinate appetite—the excreta being watery and transparent. Lose no time in transferring the patient to a box cage, and, having administered a drop of sweet oil, keep him in a warm room, giving a constant supply of clean water, frequently renewed, with a diet of canary and millet seed, and plenty of sharp gravel on the cage floor. Should no improvement be apparent after twenty-four hours, repeat the dose of oil, consisting of a single drop on the point of a camel-hair brush.

CHAPTER XXIX.

THE PARADISE WHYDAH BIRD.

Vidua Paradisæ (Edwards).

Fringilla Paradisæ (Vieillot).

Grande veuve d'Angola (Buffon).

Embrezia Paradisæ (Latham).

Veuve Vidua (French dealers).

Shaft Tail Whydahs (Some English dealers).

OF all the finches commonly imported from Africa none are so remarkable and strikingly beautiful in their summer plumage as the birds now under notice. When first received here they are in their winter garb, and in size and colour they somewhat resemble a hen sparrow, except that the lower body and abdomen are lighter. With the advent of spring the male bird undergoes a perfect transformation; his head, wings, and tail become glossy velvet black, a bright chestnut band encircles the neck behind and spreads over his chest, the abdomen to the vent being milk white. The two centre tail feathers grow suddenly out to a length of ten or twelve inches, falling vertically in a graceful curve, whilst on either side of these two shafts is a broad leaf-shaped feather projecting upwards some six inches, each terminating in a slender silk-like filament that can scarcely be detected at the distance of a few feet if the bird is at rest. I am sure that were these birds as well known amongst English fanciers as they are upon the Continent their popularity here would be equally great. I have omitted to say that the beak of this bird is dark horn colour and that the legs are light brown. The hen does not change colour, but retains her modest garb of brown throughout the whole season. They are very docile in an aviary, and exhibit no pugnacity to any of the other inmates, in fact, the male bird is so impressed with his own magnificence that beyond an occasional visit to the seed tray, and a bath daily, he seldom leaves the favourite bush which best enables his sweeping plumes to be displayed to the greatest advantage. It is true that he beguiles the time with a short song at intervals, and his notes are varied and agreeable, but he pays very little attention to his wife, and, indeed, it is sometimes difficult to make people believe that such a common-looking brown bird can be the mate of this grand coxcomb.

The chief drawback which all amateurs experience in their attempts at breeding these birds in captivity arises from the similarity of the sexes



THE PARADISE WHYDAH BIRD.

(*Emberiza Paradisiaca.*)

when out of colour, and also from the fact that the Whydah does not come into colour until his third year, so that most of the birds sold as hens turn out to be young cocks. I usually rely upon size as a test of sex, the adult males being larger than the females, but having several times found my own judgment erroneous, I hesitate to commend this as a guide to others. Although these birds are true finches, yet they have nothing in common with the weavers about them, their nests, though roofed, being packed together, not woven, and they make no toy nest, like the other birds referred to. The eggs vary from three to six in number and are pure white in colour, and two or three batches are produced in one season.

As a cage pet the male bird is very gentle and tractable, and if supplied with a daily bath will keep his glossy plumes undefiled by any stain to mar their beauty; but the cage ought to be kept well supplied with clean sand frequently renewed, or all efforts to save his shafts from being soiled will prove unavailing.

FOOD.—Being true finches, these birds can be kept upon canary and millet only, but I have always found mine ready to seize upon their share of ants' eggs and meal worms, and also to feast upon flowering grass, chickweed, or other green meat, which came within reach.

DISEASES.—At moulting time, in the autumn, if these birds are being kept in outdoor aviaries, care must be taken to catch them up, should they fail to cast their tail feathers before the cold nights set in, because at this season they are very prone to take cold, which invariably kills them, for they are weakened by the process of moulting. I do not consider them at all delicate, having kept them winter and summer in a garden aviary open to the west, and I always transferred them to an indoor bird-room, if they failed to moult by the end of September. The return of summer plumage I do not consider a moult proper, and, extraordinary though the change may be, the transformation involves no loss of feathers.

CHAPTER XXX.

THE BROWN-SHOULDERED WHYDAH.

<i>Vidua Phanipectera</i> (Swainson).	<i>Orange-shouldered Bunting</i>
<i>La Veuve à epaulettes</i> (French dealers).	(Latham).
	<i>Chera Progue</i> (Gray).

THIS is a very rare bird in the English market, although specimens at long prices are occasionally to be met with. He is when in colour jet black, with the exception of the shoulders, which are boldly marked with an orange-brown patch, and the tail consists of twelve elongated feathers (instead of the four centre shafts, as in the preceding species), falling to a length of about 14in., and forming a very striking appendage. A specimen of this bird will be found in the stuffed collection at the British Museum, and although the small birds there are nearly all so old, battered, and distorted as to defy recognition, yet the specimen referred to is in fair preservation and may be identified without much difficulty.

CHAPTER XXXI.

THE LONG-TAILED GROSBEEK.

Loxia longicauda (Latham). | *Père noir à queue longue* (Buffon).

THIS is a bird which is not unfrequently sold when out of colour for the brown-shouldered or "twelve-tailed whydah," as the dealers call it, and my chief object in mentioning this long-tailed grosbeak is to caution amateurs against imposture, for I have myself been victimised. It was in the early days of my finch mania, when a Jew dealer sold me two pairs of these long-tailed grosbeaks, out of colour, as véritable "twelve-tailed whidahs," and although he considered them worth £10, yet, honest man, he consented to take £6, which I paid cheerfully and then went on my way rejoicing! How that Jew must have alternately exulted over those six sovereigns and then have regretted not getting ten, especially as the birds were bought by him—so a rival dealer told me—for eight shillings per pair that very day in the East India Docks! It was an infamous swindle, but I have balanced accounts with that Jew, although he did subsequently repudiate having sold the birds by "any name."

These birds were nearly double the length of a common sparrow, thinly proportioned and having sparrow-like plumage, strong beak, nearly black and long bony feet, and legs of the same colour. The first indication of a change of plumage was the appearance of golden yellow feathers between the shoulders, forming a crescent-shaped patch about an inch deep down the back, then all the rest of the plumage turned velvet black, and the tail lengthened about two inches. The birds became excessively pugnacious, fighting desperately with each other and maiming several canaries that came in their way, and as the aviary was rendered unsafe by these grosbeaks, they were got rid of, with the exception of one, which was kept as a cage pet. He was called the "Scissors Grinder" on account of his song, which resembled the "whizz" of a tinker's grindstone, and this bird kept it going for hours at a stretch. He was fed upon canary, millet, and hemp, and never appeared "sick or sorry" for two years; but his scissors-grinding nuisance led to his being turned into a garden aviary, where the autumn frosts found him but half moulted, and gave him his quietus. A more worthless bird I never possessed, and amateurs will do well to profit by my experience.

CHAPTER XXXII.

THE BEARDED TITMOUSE.

Paroïdes biarmicus (Buffon).

AMONGST the small birds which we receive from the Continent, none are such favourites for cage purposes as these charming little tits, their delicate plumage, gentle manners, and musical note combining to make them objects of interest and admiration to all classes of fanciers. We obtain a great many of these birds from Hollaud, the low-water meadows of that country affording abundance of reedy covert such as these tits delight in, and also yielding both an unlimited supply of insect life and rush seeds, which form their staple articles of diet. They are gregarious, always being found associating in flocks, and they consequently agree well when more than one pair are kept together in confinement. A roomy waggon-shaped cage is best adapted for their reception, and the more space you can give the better it will be, as it will be necessary to introduce tufts of strong flowering grass, about which the birds can clamber and play hide-and-seek, amusing themselves by picking out the seeds, and finally constructing amongst its friendly cover their pretty nest of slender grass blades, lined as smooth and soft as thistle-down can make it. They lay from four to six eggs at a batch, their colour being a delicate fleshy white, but excessive egg production is a common fault with these birds in confinement, a second batch being frequently laid before the first is hatched. This is fatal to the chances of obtaining nestlings, and the only remedy is to diminish the supply of insect food and increase the daily allowance of green grass seed, as being less stimulating, but this will be found the great stumbling-block to success, and in guarding against it great care is necessary not to fall into the opposite extreme by too sparing a supply of animal food before nesting is entered upon. These birds are reputed to be very fond of the minute mollusk, which is to be found in the mud and around the stems of reeds on river banks, but none of my bearded tits would ever touch these *Succinea amphibia*, or even deign to look at them, though repeatedly introduced to their notice. They are excessively fond of water, and a shallow pan, in which they can paddle without wetting their feathers, should be regularly kept in their cage during the summer months, but it is better to withdraw it during very cold weather, leaving only the ordinary drinking vessel, although on sunny days, or when the room is kept at an even



THE BEARDED TITMOUSE.

(*Parus biarmicus*.)

genial temperature, the tub may be frequently introduced with advantage. The prevailing body colour of the Bearded tit is a delicate fawn above, merging to yellowish grey beneath; the wing-coverts are tinged with black, as are the tail feathers, the under coverts being quite black. The beak is yellow, and the throat and neck nearly white, which shows with greater effect the glossy black moustache which starts from the base of the beak on either side, extending downwards for three-quarters of an inch and then terminating in fine points. The total length of this bird is rather more than six inches, of which the narrow-pointed tail occupies nearly four inches, thereby increasing the slender appearance of the bird and adding considerably to his graceful outlines. The female lacks the moustache of her mate and her general tints are less pure and delicate. The juvenile plumage is of a rusty reddish brown and the back is nearly all black, but the adult plumage comes with the first moult.

These birds are not at all expensive here in the autumn, and they can be readily obtained through any Bondon dealer, but in spite of my admiration for these sweet little Bearded tits, I do not recommend them to amateurs who have a scarcity of leisure time at their disposal, but to those who need interesting pets, as a source of amusement and employment I cordially recommend these exquisite birds.

FOOD AND DISEASES.—Make "maw" seed (poppy) and crushed hemp the staple article of diet, giving in addition ants' eggs, meal worms, either dried or fresh, hard-boiled eggs crushed, fine with a table fork, flowering grass in season, or very finely scraped carrot mixed with the egg food. Soaked canary and millet seed which has been allowed to germinate will also find great favour as a change, and indeed much that comes to your own table will also be relished by these tits, and do them good too. Of the successful treatment of the diseases of these birds, I am unable to speak from personal experience, as all the tits which died in my possession were the victims of their appetites, and died from apoplexy or something very like it.

CHAPTER XXXIII.

THE DOUBLE-BANDED FINCH.

Estrela Bichenorii (Gould).

THIS is another of the charming Australian finches, and although his colours are limited to black and white, yet the exquisite blending and delicacy of markings make him even more beautiful than many of his more gaudy relations, whilst his extremely gentle and inoffensive disposition is strikingly at variance with the general characteristics of the finch tribe. The Double-banded are more abundant in the southern and eastern portions of Australia than elsewhere, and there they are rarely met with except in the interior, congregating in small parties upon open plains, feeding on grass seeds, and minute insects. Their favourite haunts being somewhat beyond the happy hunting grounds of professional bird catchers for the English market, these finches are seldom to be obtained amongst dealers in this country; the few pairs which annually find their way over being readily bought up at high prices, Continental dealers always being ready to purchase any number of them. They enjoy great popularity, not only on account of their beautiful plumage and amiable temperament, but also because of the great success which attends their breeding in confinement; for, whether in cage or room, it matters not, these gentle little creatures no sooner get comfortably settled and accustomed to those about them than they set to work and build themselves a nest, laying from four to eight white little eggs, and exhibiting none of that extreme temerity which distinguishes other species at such times, and greatly militates against their success in hatching and rearing young in cages.

The scarcity of these Double-banded finches, and their consequent high price, is a matter of regret to amateurs, because it deters many from keeping them who would otherwise do so, and this reduces the prospect of English-bred birds becoming so numerous as to reduce the market value. However, I hope that one of the results of my thus making known what species of foreign birds may be kept with great profit to their owners will be to add greatly to the number of amateurs in this country at present engaged in the fancy, because I feel assured that amongst our English home-loving people these pets are sure to find a welcome when it is understood how few and simple are their wants and how well they repay all the attention bestowed upon them.



W. Strutt del.

THE DOUBLE BANDED FINCH.

(*Estrela Bichenorii.*)

Like all the rest of the Australian birds, the Double-banded when first imported exhibit a desire to go to nest during the winter months; but this is fraught with some danger, and should be discouraged as far as possible by withholding insect food until the spring, when the birds will soon adapt themselves to the change, and breed at the proper season. April is quite early enough, and that will admit of their rearing three or four broods before the chilly autumn evenings set in.

Unlike some other finches, they are not quarrelsome about nests and nesting materials, selecting by preference a nest that has already been roughly prepared for them by their owner in a basket hung close to the ceiling, and this they will line with soft hair and feathers, but when once completed they rarely add to or alter it in any way, nor exhibit any desire to seek fresh quarters. Their period of incubation varies according to the number of eggs laid, from ten to fourteen days, the male and female sitting alternately in the daytime and the hen taking entire possession at night, when the cock bird not unfrequently ensconces himself in a small sleeping chamber which he constructs roughly amongst the outer materials of the nest.

The nest feathers of the young have the principal breast and face markings of the parents, but the plumage is blurred and dull, and the delicate variations of colour only come with the adult plumage.

It will be gathered from what has already been said that these birds are so gentle that they can be safely kept with any of the delicate waxbills, whilst for hardihood and ability to bear cold I consider the Double-banded equal to any of the foreign finches. They are extremely quiet and reserved in their habits, possessing a sweet twittering note, which well accords with their undemonstrative characteristics, and although their attachment one for the other is shown by their rarely leaving each other's side, yet this affection is gentle and subdued, lacking that boastfulness which is so conspicuous in kindred species of the same family. These birds are great favourites of mine, and I have had the singular good fortune never to lose an adult specimen, so that I feel justified in strongly recommending them to the favourable notice of all who make cage birds their hobby.

There is another variety of Australian Double-banded finch, having a black patch at the base of the tail, on the upper side; but in all other respects resembling the preceding variety. The black groups, however, rarely find their way into our bird market, and it is not necessary to notice them here at any length, as they are numbered amongst the *rare aves*. They are met with upon the north-west coast of Australia, but are not at all a numerous variety.

FOOD AND DISEASES.—See remarks under the chapter devoted to "Zebra Finches," the same applying equally to the Double-banded finch.

CHAPTER XXXIV.

RARE WAXBILLS AND FINCHES.

The birds hitherto treated of have been those which are annually imported in considerable numbers, but there are a great many lovely varieties only to be met with occasionally in this country, and which, by reason of their surpassing beauty and great rarity, command prices which place them beyond the reach of any save wealthy fanciers. The experience of the past has proved that birds which are deemed exceedingly rare to day, may, a few months hence, become very numerous in the market, whilst other varieties which for years have been found in every dealer's shop, at nominal prices, disappear entirely from their lists and cannot be obtained. For this reason I have decided to give in this chapter a brief description of some of the rare small birds of the present day, and I do so in the belief that, for the purposes of identification, the information thus imparted will prove useful hereafter.

AUROREA ASTRILD (*Pytelia Phœnicoptera*, Swainson).—The Auroras are natives of Africa, and being non-gregarious they are difficult to obtain in considerable numbers, still a few do find their way to this country now and then, where they realise extravagant prices. Length of bird four inches, prevailing body colour lilac grey, varied above and barred with white upon the lower body, like the cherry finch; wings, tail and lower part of back bright crimson, beak black, and eyes yellow, feet and legs flesh colour. The hen is much less brilliant than her mate. With the opening up of Africa to trade these birds will no doubt become well known in England, and as they are, in their habits, true finches, their appearance will be hailed with great satisfaction by amateurs.

GOULDIAN FINCH (*Spermestes Goulda*, Gould).—These lovely birds were named by Gould in memory of his wife, and they certainly deserve the foremost place in the ranks of Australian Grass finches. He measures four inches in length, his upper body and wings being of a rich green, beak ruby at tip, yellow at base, face and throat velvet black, suddenly terminating in a broad, dazzling, lilac band, which crosses the breast, the abdomen to the vent being bright orange yellow, feet and legs flesh colour.

RED EARED FINCH (*Estrela Ocula*, Gould).—The colonists of Swan River call these little Australian birds the native sparrows, but in spite of their abundance we rarely see them. This bird measures fully four inches in length, the upper body and wings being olive brown, the under body much lighter and thickly spotted with white, lower part of back and tail scarlet; beak black, and a "spectacled" patch of the same colour encircles the eyes; legs and feet flesh colour. Sexes alike.

AUSTRALIAN FIRE TAILED FINCH (*Estrela Bella*, Gould).—There can be no doubt of this being a closely allied relative of the preceding, and they are both found in the same localities. The Fire tail, however, differs somewhat in markings though in size they are equal. His prevailing colour is olive brown above, merging to grey beneath, all the lower body being finely barred with narrow white wavy lines, somewhat like the cherry finch, which will be found illustrated in this work. The short tail and rump are scarlet. Sexes alike in plumage.

INDIAN FIRE TAIL FINCH (*Amadina Prasina*, Gray).—THIS is a very beautiful bird, which measures some five inches in extreme length, and he is sometimes called the Indian Nonparcail by dealers. His upper body and wings are leek green, forehead, face, and throat turquoise blue, abdomen orange red merging to scarlet between the legs, tail reddish brown, with two centre feathers of a brilliant crimson extending two inches beyond the rest, the upper tail coverts are also crimson; beak black, and feet flesh colour. The hen has no blue about the face, and she also lacks the elongated tail feathers. These birds are occasionally imported, and they command very high prices. They are true finches, feeding upon growing rice, grass seeds, and insects when at liberty, and they are reputed to be very docile and inoffensive to other birds in confinement.

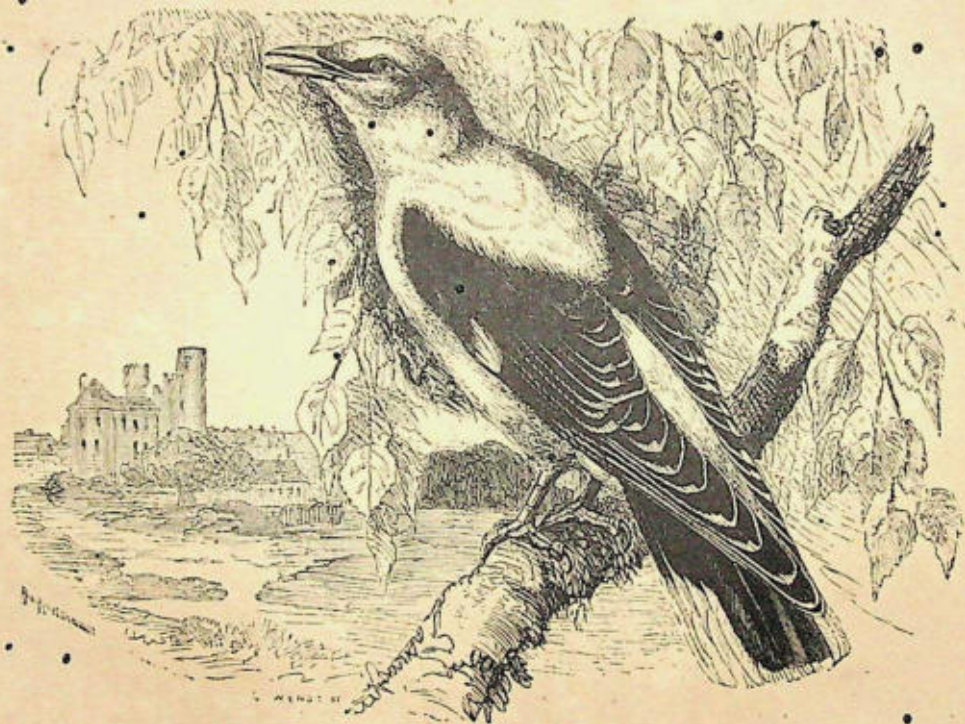
QUAIL FINCHES AND PARTRIDGE FINCHES (*Amadina Polyzona*, Gray).—Under these names we occasionally receive from the West Coast of Africa some tiny birds no larger than the Zebra finch, which are called Negro finches, Quail finches, and Partridge finches, but it is supposed that they are all one and the same species, though our limited knowledge of the birds will not enable anyone to decide this point. Early naturalists have classed these Quails as three distinct varieties, but I do not propose to offer any opinion, merely giving a sufficient description to enable the birds to be identified. Length about three inches, robust in shape, entire body colour chocolate brown, the feathers being finely edged with yellowish white, face, neck, and tail, black, tipped with white.

AUSTRALIAN PAINTED FINCH (*Emblema Picta*, Gould).—Total length, 3½ in.; upper body feathers olive brown; under body black; spotted on sides, like Diamond finch; cheeks, throat, and centre of breast bright red; beak red below, black above, and red patch at base of tail; feet and legs flesh colour. The female lacks the red cheeks and breast.

DUFRESNES WAXBILL (*Fringilla Dufresnes*, Vieillot).—Although the colours of this tiny bird are not very brilliant, yet I consider him very handsome. He is about 3½ in. long; his wings and back being olive brown, finely varved; head dark mouse grey, cheeks and throat encircled by a patch of black, which contrasts very strongly with the pale grey of the breast, fading away into a yellow tinge upon the abdomen; beak yellow below, black above, tail black, with brilliant patch of red at its base, legs and feet brown. The sexes are marked alike, but the hen is less brilliant. These birds are natives of Africa, and may be met with occasionally in this country, at reasonable prices as compared with the others here treated of.

THE BEAUTIFUL GRASS FINCH (*Poephila mirabilis*, Gould).—The name of this bird is somewhat vague, considering the large number of other beautiful grass finches common to Australia, and if he becomes at all common in our country, it is to be hoped that his species will get re-christened. This little bird is one of a not very numerous group remarkable for their prevailing colour being of a vivid green, which in the above named variety covers the wings and back, the rump being azure blue and tail black, the two centre feathers jutting out, sharp and pointed, two inches beyond the rest. The bird's head and face is a brilliant carmine red, the chin and throat jet black, there being a narrow line of black extending backwards from the throat and forming a fringe to the red head colouring. Beneath this is a collar of blue, which extends to the green on the back. The breast is bright lilac, and the abdomen orange yellow. Total length four and a half inches. These combinations of brilliant colour make this graceful little bird such a marvel of beauty that he is literally worth double his weight in gold to any English dealer at the present day, and it is astonishing that where such a demand exists the supply should receive such small attention at the hands of those who make bird importation their business in life.

LONG-TAIL GRASS FINCH (*Poephila acuticauda*, Gould).—This is another of the pointed tail finches, closely allied to the preceding species, and also found in the same habitat, viz., the northern portion of Australia. The bird here treated of is grey upon the head and face; the whole of the upper body and wings are yellowish green tipped with red; the tail is black, and the two centre feathers extend beyond the rest to a point. The throat is black; breast, fawn colour; abdomen, pink; and under the coverts and vent, white. Total length, five inches. This is a very rare bird in England.



THE GOLDEN ORIOLE

(*Oriolus Galbula*)

CHAPTER XXXV.

THE GOLDEN ORIOLE.

(*Oriolus Galbula.*)

BUT for the fact that a very extensive trade has been done of late years by dealers in passing off as weavers Golden orioles, I should scarcely have deemed it worth while to treat of this species, on account of its scarcity; and I only do so now in the hope that the information given may put a stop to the imposition referred to. The Golden oriole is met with in all the northern parts of Africa, and is very plentiful in the Mediterranean islands and on the Continent, extending northwards to Sweden and some parts of Russia; but everywhere it is a summer visitant, migrating so soon as its young are fully matured, and able to undertake the journey.

In extreme length the female bird measures 9in. or 10in., being of robust form, with a rather stunted broad tail, olive-green plumage above and greyish yellow breast, which is flecked with a few longitudinal dark spots, a blackish green circle round the eye, and wings and tail of the same colour, iris of the eye red, beak long (nearly straight and fleshy tinged), legs and feet slate blue, toes long, and possessing great strength.

The male is the counterpart of his mate as regards size, but, unlike her, his body feathers are brilliant golden yellow, with wings and tail black, the wings being marked by a yellow spot on the quills, and the tail being fringed with the same colour.

The male birds do not attain their full plumage until the third moult, and prior to that they resemble the female in marking, although the colour of the breast is somewhat brighter.

Numerous instances of these birds nesting in England are upon record, and one of the most interesting was that reported in the *Field* in 1874, when a pair of Golden orioles successfully reared a brood of young in Dumpton Park, Isle of Thanet. There, as in their native haunts, they suspended a nest very cleverly by means of long blades of grass, the nest hanging down, like a ba-in between two forked branches. The eggs are described as being the size of a blackbird's, and white with claret coloured spots on the larger ends.

When taken young, these birds do well in captivity, and make interesting cage pets, their mellow flute-like song being very agreeable,

and their habits remarkably active, whilst they become strongly attached to those who pet them. Unfortunately their scarcity makes them very dear, and the few which occasionally find their way into the hands of English dealers sell readily at high prices. A friend of mine has devoted considerable time and attention to the Golden oriole, but his efforts to breed them have hitherto been thwarted by a series of accidents, yet he appears confident in ultimate success. The difficulty to most of us amateurs is the necessity of devoting an aviary exclusively to one pair of birds, when attempting the reproduction of this and kindred species of confinement, for the pilfering of nest materials, and the fights which ensue, are utterly destructive of that perfect quietness which is so necessary if success is to be attained. To those who are content to concentrate their energies upon one pair of birds, the Golden orioles offer a very attractive opening for experiments, especially as the results, if successful, will well repay the time and trouble expended.

FOOD.—A generous diet is absolutely necessary, for, although fruit forms a portion of the oriole's food when at liberty, yet he consumes a vast number of caterpillars, grubs, and insects, and where similar fare cannot be given in confinement it must be substituted by ants' eggs, meal worms, or cooked meat finely minced. Bread crumb, egg, and grated carrot, are frequently used for orioles by dealers, but I am strongly averse to the systematic use of egg, being convinced of its ultimately doing serious injury to the birds which are fed upon it, although as a change it is exceedingly valuable.

DISEASES.—The remarks as to the ailments of Baltimore orioles, which see hereafter, apply equally to these birds.

L
su
han
are
co

CHAPTER XXXVI.

THE ORCHARD ORIOLE

Oriolus Mutatus (Wilson).
Icterus Spurius (Bonaparte).
Orchard Oriole, (Audubon).

La Baltimore Batard (Buffon).
Bastard Oriole (Catesby).

THIS American bird is a kindred variety to the Baltimore, and, indeed, resembles it in every respect save that under body of the Orchard oriole is of a light chocolate-red colour instead of yellow. The habits and characteristics of the birds are the same, both in a state of freedom and in confinement, and I only mention this variety here for the purposes of identification.

There is also another variety, slightly larger, which we get from Africa, but those birds are of a pale primrose yellow, with jet black head, wings and tail and a bar of white on the wing; but they are all so closely alike that I am disposed to consider their slight variations of colour as being attributable to the various latitudes they occupy, and the consequent difference of food and conditions of living. Of course, this is opposed to the theory of early writers, who, whilst admitting the close affinity of the three varieties here mentioned, yet classed them separately, giving a generic name to each. Thus the African variety here referred to is called *Oriolus vulgaris*, and, being the largest of the three, they are invariably sold as Golden orioles, though they possess no claim to that title.

CHAPTER XXXVII.

THE BALTIMORE ORIOLE.

Oriolus Baltimore (Wilson). | *Zyphantes Baltimore* (Vieillot).

AMONGST those who are fond of amusing cage pets these birds always become great favourites, for they are exceedingly active, tricky, and knowing; whilst the vivid colours of their plumage makes them objects of attraction to visitors. The oriole family is very numerous and widely distributed, and the name by which this particular species now referred to is known has no reference to its habitat, in fact my experience disproves the theory of Wilson, that these birds are confined to America, for I killed numbers of them in the gardens of the Summer Palace, at Pekin, and kept some young ones for a considerable time that were taken from a nest there. They are commonly called "mango birds," both in India and China. It is from America, however, that these birds find their way to the English market, vast numbers making their appearance in the United States as summer visitants, and departing southwards—no one knows where—when the autumn approaches and their young have grown strong of wing. Fruit gardens are their favourite resorts, and this has led to their being called "Orchard orioles" by some people, and by others "hang-nests," on account of their skill in the construction of pensile nests, but the name I use at the head of this chapter was given to the bird because his gorgeous colours of brilliant orange and black were similar to those in the livery worn by the dependents of Lord Baltimore, who formerly owned Maryland.

The bird is about eight inches long, thin in proportion, and somewhat high on the legs, the beak is horn coloured, long, and very sharply pointed, the head, neck, wings, and tail velvet black, the outer feathers of the tail yellow, the whole body being a brilliant orange. The wing coverts are fringed with white, forming a bar that is very striking in contrast. But the most remarkable feature about the bird is his eye, which is white, with a black pupil, and this contracts when the bird is excited either by pleasure or anger, and expands when at rest, its rapid or slow variations, when closely watched, forming an index to the mental condition of the bird. The Baltimore does not attain his full plumage until the third moult: in the interval his head and wings



THE BALTIMORE ORIOLE.

(*Oriolus Baltimore.*)

are rusty, and the breast has a dirty greenish tinge upon it, so that at this period the young are usually sold for hens, the few English compilers of bird books perpetuating this imaginary distinction of plumage in the sexes. I had a pair of these birds for a long time, but they were identical in colour and markings, and the hen laid for two successive seasons at the bottom of the cage, the eggs being a trifle larger than those of a blackbird, white in ground colour, and having very dark, almost black, spots at the larger ends. Nothing would induce these birds to build a nest, and the hen showed no desire to incubate; but I feel confident that this was due to the conditions under which they were kept, and that had I been able to spare them an aviary to themselves, they would have bred successfully. Unfortunately the hen died in moult, and fearing that Jack, as we called the survivor, would pine, he was transferred to a room which was seldom unoccupied during the daytime by some of the members of our household. Here he became a prime favourite, and; the cage door being left open, he roamed about at will, catching flies, collecting odds and ends, putting them away in his cage, and prying about in sly corners for the purpose of tearing the wall paper. When detected at this destructive trick, and reprimanded for it, he immediately puffed out his feathers, drooped his wings, like an old broody fowl (see the illustration) and set up an apologetic song, which resembles somewhat the "jug jug" of a nightingale, only much more mellow and flute-like. The note commences slowly, and is repeated faster and faster until the bird appears to have expended all his wind. This, however, was Jack's song; but he possessed a totally different voice when angry or alarmed, for he then gave vent to a series of shrill cries not unlike those used by a man in whistling for a dog, but the note used by Jack defied all my powers of imitation, and indeed it was unlike any sound which the human mouth is capable of producing. He would sit upon the fingers of his favourites, and even allow himself to be handled occasionally, but his powerful beak, with a point like a needle, secured him from molestation at the hands of any but the privileged few admitted to his friendship, and even they ran grave risks of having their blood drawn if they disregarded the manner in which their caresses were received. The worst of it was that, instead of flying off when he got angry, Jack only used to grip the closer, and the more you excited him by efforts to dislodge him, the more severe would be your punishment. Those who have experienced the beak power of these birds cannot doubt for a moment the stories told of their ability to beat off the black snakes, and even peck out their eyes, when those reptiles attempt to rob the orioles' nests. My Baltimores evinced the most deadly hatred towards other birds, and it was impossible, therefore, to put Jack into an aviary; indeed, I have known him to be attracted from his own apartment by the song of a canary in another part of the house, and tracing out the offender, Jack fell upon him with a fury that, failing timely aid, would quickly have ended the songster's days. Jack was once so scared by

the sudden entrance of a strange dog that he bolted out of the window like a flash of lightning! Deep was the sorrow that fell upon our household as night closed in and all efforts had failed to trace poor Jack, but our hearts were gladdened next day when the truant was brought back shut up in a canary's cage, with the compliments of the owner, and "would Mr. Gedney tell them the name of this strange bird which they had caught in a plum tree eating the fruit?" That messenger heard the name shouted in a chorus of delight, which was joined in by all those beneath our roof, whilst Jack puffed out his feathers and gave vent to such a series of long drawn notes that left no doubt as to his pleasure at seeing us again. The only person disappointed was the messenger, at the prospect of taking his cage home empty, so we gave it a tenant, which has since become a great pet with those who restored us poor Jack.

In order to make his history perfect, I must explain that his diet consisted of such dishes as came to our table (a small tin of sop being kept in his cage), and whether it was egg, bread and butter, oatmeal porridge, meat, vegetables, pudding, or dessert, all were alike acceptable to him, and to watch his inspection of the dinner table often afforded us great fun. He had a weakness for potatoes, and after hopping around the vegetable dish he would suddenly insert his long beak beneath the lid and then, opening his mouth to its full extent, so lift the cover, get a view of the contents of the dish, and finally, thrusting his head forward, securing a large piece of his favourite food, he would drag it out and make off in triumph. I have put potato between plates that were piled one upon another and yet the bird was sufficiently strong in the beak to lift two dinner plates in the manner above described and look underneath them. In everything he betrayed an amount of intelligence and cunning that resembled the habits of a magpie when kept in domestication. Poor Jack was sent to the Crystal Palace bird show and won a prize, and in spite of the prohibitory price set upon him he was bought by a lady whose address we were unable to obtain, and our pet was lost to us for nearly two years, when I unexpectedly found him in that room of horrors at the Zoo, which is called a parrot house. That Jack recognised and knew me I am absolutely confident, and, indeed, it was his extraordinary attempts to get out of the cage that attracted my attention to him, and he behaved in such an extraordinary manner that it was impossible to doubt his delight at the recognition. All that could be learnt from the attendant was that the owner had "deposited" the bird, as she was going abroad, and she had never called for him since, so he occupies a cage to himself and appears as full of vigour and mischief and as brilliant as when I first made his acquaintance ten years ago; the only evidence of age being the growth of horny scales upon his legs, forming quite a casing. He must be fully thirteen years old.

These birds, when kept in confinement, are excessively fond of bathing

and provision must be made to allow them a regular dally tub, the soaking of their feet and legs being absolutely necessary to keep off those gouty swellings of the feet which dirty perches and neglect engender, and which usually kills off most of the oriole family in this country.

The Baltimores are most skilful architects, suspending their nests from the extremities of the highest branches, using long pieces of hēmp at the commencement, and weaving with them a pouch hanging down seven or eight inches from two forked twigs, and then interlacing this outer framework with fine grass, fibre, raw cotton, and horsehair, finally doming the top and leaving a round aperture at the side like the nest of our own titmice. Wilson says that so zealous are the Baltimores to procure proper materials for nesting purposes that women have to keep a close watch upon any thread which may chance to be bleaching, and the farmer has also to secure his young grafts; for these birds, finding the bleaching thread and string from grafts well adapted for their purpose, frequently carry them off, and even if the one be too heavy or the other too firmly tied, they will tug away at them for a considerable time before giving up the attempt. Skeins of silk and hanks of thread are commonly found forming part of the Baltimore's nest.

There is another variety of oriole commonly imported into this country (*Icterus vulgaris*) from South America, somewhat larger than the Baltimore, and being of a much paler yellow, but differing in no other detail, either of appearance or characteristics. They make famous pets for cage purposes, but are wholly unfit for aviary purposes if other birds are to be kept with them.

FOOD.—The food of these birds in their wild state consists mainly of insects and stone fruit, but the damage done to cherry, plum, and strawberry crops is amply atoned for by the incessant war waged against every species of winged insect, and a restless activity in searching out grubs and larvæ from the bark of trees. English dealers usually prescribe a diet of bread crumbs and hard boiled egg, but this will inevitably kill by surfeit if persevered with, and the experience of others amply bears out the treatment which we have described in the case of "Jack," as being highly satisfactory wherever it has been adopted.

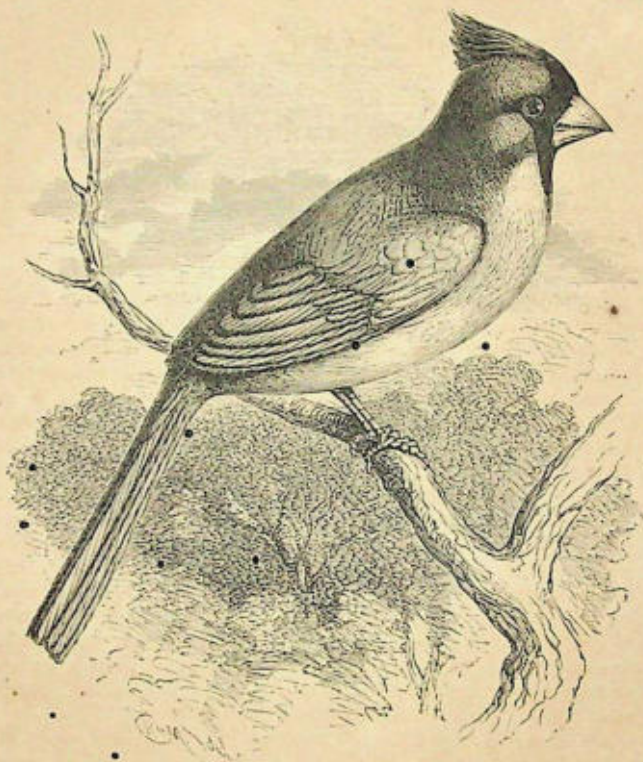
DISEASES.—Of these we have had very little experience, judicious feeding, plenty of room, and scrupulous cleanliness being sufficient to guard against and prevent the ailments from which these birds suffer in confinement. At moulting time a little extra amount of food and attention is necessary, but artificial warmth, unless maintained day and night, is a fatal mistake, for these birds are quite hardy, and require no pampering.

CHAPTER XXXVIII.

THE CRESTED ORIOLE.

Coccyus cristatus (Audubon).

THIS is a very handsome bird, double the size of the preceding species. the prevailing body colour is a chocolate brown, the wings being olive green. The tail is bright orange yellow with the exception of the two centre feathers, which are brown. The breast and thighs are slightly tinged with green, and this, too, is the colour of the formidable beak, which is very powerful, and the upper mandible extends upwards on the forehead some distance. The head is surmounted by a flexible crest, which can be raised or depressed at will, and the general appearance of the birds is both striking and handsome, but withal somewhat fierce. It is a true oriole in habits and characteristics, and is found in great numbers in tropical America, where its nests are seen suspended at the extremities of branches and often forming a bag two feet deep, the outer wall of which is finely woven of flax and other materials of a like character. The Crested oriole is seldom met with amongst our dealers' stock, but the above will serve for purposes of identification. Food and treatment in confinement the same as the Baltimore.



THE VIRGINIAN NIGHTINGALE.

(*Fringilla cardinalis.*)

CHAPTER XXXIX.

THE VIRGINIAN NIGHTINGALE.

<i>Cardinalis Virginianus</i> (Audubon).	<i>Cardinalis Phœniceus</i> (Museum collection).
<i>Fringilla cardinalis</i> (Swainson).	
<i>Loxia cardinalis</i> (Buffon).	

THIS bird is a very old favourite, not only in England but in America, whence are annually exported immense numbers to all parts of Europe, one London dealer alone receiving in a single consignment seven hundred pairs. They are caught in the snow in a similar manner to what larks are netted here, and then packed in flats, after the same fashion as quails; a cloth covering to the box being used to prevent the birds injuring themselves in the sudden jumps which they make upwards when startled. It is from a want of similar provision that many hundreds of these gorgeous songsters perish so soon as they pass into an amateur's hands, whilst thousands which escape this danger perish miserably through improper feeding—literally starving to death. I own to having many weaknesses in the matter of birds, and also to giving undue preference to certain species which possess for me especial charms; but in introducing my crimson-coated friend, the Virginian nightingale, as first and foremost in my list of favourites, I feel confident that, no matter who makes his intimate acquaintance, he will sustain his position, and his owners will endorse my opinion that he deserves to be ranked as the hardest and most "jolly" bird ever imported into England.

Before saying more upon this head let me give a brief description of the birds themselves for the benefit of those of my readers who only know them by name. They measure in total length about Sin., and in shape resemble our English blackbird, though a trifle more robust of frame. The cock bird is a brilliant crimson throughout his entire plumage, the beak being also red, save that the face is encircled by a mask of black, which, together with a crest of red feathers, that the bird can raise or depress at will, gives to him a somewhat fierce aspect, totally foreign to his nature. The hen is the counterpart of her mate as regards size, but she is clothed in sober russet brown relieved by a slight tinge of dull red in the principal wing and tail feathers, and her

beak is also red. It is generally believed that Virginian nightingales lose the brilliancy of their colouring in confinement, and that they ultimately become a dirty brickdust red after moulting in England. Where this occurs it must be due either to improper treatment and food or to cramped and dirty cages, absence of fresh air and pure water, and an utter ignorance on the part of the owners of the proper way in which to treat their pets. My oldest birds are as brilliant as the day I bought them, and their progeny lack none of the vivid colouring of the parents. This is due to a liberal use of animal and green food.

A very quaint old book, written by "A Lover of Birds," and published in the year 1737, gives an account of the American "Red Bird," with an illustration "curiously engraved on copper," and states that the hen is possessed of a voice surpassing in sweetness, though deficient in power, that of the male. This early historian gives the following particulars of the bird, which are strictly accurate: "It hath an agreeable melodious song, with some notes like the English nightingale. The hen is not so beautiful as the cock, being more brown, with a tincture of red. Its strength with its bill is remarkable, it being able to crack the stones of almonds, olives, and Indian maize very expeditiously, the kernels of which it is very fond of. In England they bring it to feed upon hemp or canary seed. It will eat also the woodlark's or nightingale's food. There are persons with us that highly value these birds, which makes them sometimes sell at a great price. I have heard of those that have attempted to breed them in England, but made little of it. If your bird should be sick, a spider or meal worm will relieve him."

Feeling assured that I recognised in the "Red Birds" my old friends, the Virginian nightingales, I resolved to test the vocal abilities of a hen which had long been a prime favourite on account of her docility. I caged her at mid-winter, and she soon became tame enough to eat from my fingers, even permitting me to touch her without exhibiting any fear. As the spring advanced she would spend long intervals crouched at the bottom of the cage, and presently she began to rehearse the first notes of her song. "Jug, jug, jug, jug," she repeated over and over again, so low that one had to strain his faculties to catch the sound; but as days went by she increased the scope of her song and the pitch of her voice, until both were perfect, when she no longer hid herself at the bottom of the cage, but poured forth her music seated upon the perch, and was evidently proud—as she well might be—of the admiration which her melody evoked.

Like all the members of her sex, she had a weak side to her nature, and her weakness partook of a liking for good things in the way of food. To her a meal worm was an irresistible delicacy, and I could always tempt her into singing by the gift of such dainty morsels. She would take them from my fingers, mount to her perch, and, placing them beneath her left foot, pour out her song in joyful thanks, sometimes breaking off abruptly to obtain a more secure

grip upon her struggling victim, and then going on again until she had fairly earned her prize. She became a great pet, and sang continually for eight consecutive months, when she fell into moult. Curiously enough, she was very shy of strangers—as are all the birds of this variety—and upon one occasion she remained silent for several days because I had a visitor in the house whom she frequently saw. She is still in my possession, and has never had an illness during the five years I have had her—indeed, I quite believe the statement of American ornithologists who say that, with proper management, these birds will live for twenty years in a cage.

Having demonstrated the truthfulness of the old writer referred to, I reluctantly restored my pet to her disconsolate mate, who had for so many months cheered himself by singing lustily in an outdoor aviary. Poor old fellow! I often watched him as he clung to the wires of his well-furnished home, and endeavoured to obtain the luxury of a wet coat from a passing shower, meanwhile making the place resound with the volume of his song. Rain and snow are alike in their effects upon these birds, and they appear strongly impelled to song, either by one or the other. March is the usual month when the Virginian nightingales begin to "open," and they sing persistently until November, when they fall into moult. But to return to my pet. She rejoined her lord and master in the month of April, having been previously "hardened off" by being kept in a cold room; and towards the end of the month she was busily engaged in carrying twigs about in her beak, flying hither and thither as if in search of a suitable retreat in which to deposit them. Taking the hint, I put up a bundle of birch spray in one corner of the aviary, made a snug hollow in the centre, and carefully packed therein a large handful of fine sticks as a foundation for a nest. Then I threw into the aviary a lot of the same material and a bundle of hay bands cut into lengths of about eight inches and well picked to pieces. She took the idea. Piling the fine sticks one upon another, she formed a solid circular foundation like a basin, and then wove an inner lining of hay with marvellous neatness and accuracy, leaving a receptacle for the eggs about the size of a breakfast cup, and giving to the whole a finish as fine and complete as any blackbird; her mate meanwhile attending and examining the structure with a critical eye, though he shared in none of the labours. The nest, thus formed, was only three feet from the ground, admitting of free inspection from without; and I was greatly entertained by the antics of the cock, who spent several hours ensconced in it, looking as important as if he were responsible for the whole affair, and as if it were he for whom the snug place was specially prepared. Next morning, however, Mrs. N. was found upon the nest, and when tempted to leave it, by the offer of a piece of cooked meat, I saw that the first egg had been deposited. Four others were laid at irregular intervals, eight days being occupied in the laying of the five, the hen showing very little desire to incubate until the

batch was complete. During her absence from the nest Mr. N. never left it for an instant, but perched at the entrance, kept zealous guard against all intruders, singing lustily meanwhile: and there he remained during the whole period of hatching, except that at such times as his better half indulged in a bath he occasionally settled himself down upon the eggs until her return. The period of incubation extended to fourteen days from the laying of the last egg, and the young when hatched were quite naked, resembling somewhat those of the common house sparrow. The eggs too were similar in colour and markings to those of the bird referred to (dirty white, thickly covered with olive blotches), though equal in size to that of the song thrush. The young fledge rapidly, and in favourable weather leave the nest at the age of five weeks. Although there is great similarity in the colouring of the two sexes, the nest feathers being very rusty in appearance, yet the cocks are easily distinguished both by their superior size and by a shading of red upon the breast. When the first brood are reared before mid-summer the parents invariably go to nest immediately they get the youngsters off their hands, and although they sometimes interfere with the arrangements, especially where the old nest is repaired and used a second time, yet I fancy that the presence of the progeny is a source of satisfaction to the parent birds, and that it gives them a greater sense of security in their future proceedings.

These nightingales are remarkable for the affection which they exhibit, not only for their own offspring, but for those of other birds, and in an aviary, where canaries breed, the Virginian nightingales were constantly to be seen feeding the young canary fledglings until they looked upon it as quite the correct thing, and would open their beaks, flutter their wings, and set up a plaintive "cheep! cheep!" whenever their foster parents chanced to pass. No young bird would starve if there were either a cock or hen Virginian nightingale in the same cage, or aviary, though the food given might be productive of bad results to the fledgling. This tender-hearted disposition is so invariably displayed that no fear need be entertained of injury being done to delicate birds by my crimson coated friends.

Although thus amiable to strange birds, and compassionate beyond measure to their offsprings, yet the Virginian nightingales show no mercy to members of their own species (during the breeding season especially), and the presence of more than one pair in the same aviary will inevitably lead to a daily round of turmoil and excitement, both cocks and hens sharing in the fight of extermination which goes on until the strongest rid themselves of the other pair. This antipathy is somewhat remarkable, because they agree admirably with their near relatives, the Crimson-crowned Grey cardinals, and will even breed in the same aviary bush with them, never appearing the least interested either by their presence or movements. These Grey cardinals will hereafter form the subject of a separate chapter, for they are very general favourites, and highly merit the approval bestowed upon them. But to return to my red-coated pets.

A friend of mine who has been very successful with these birds makes them a nest in a small wicker cage—such as German canaries come in—which he hangs on a nail in the aviary; but I prefer to see a nest built in the natural way, and nearly all foreign birds will do this if supplied with the proper materials. There is always a stronger attachment exhibited by members of the feathered tribe for nests of their own making than for any substitute which the art of man can devise.

Whether or not they would breed in a large aviary cage is quite an open question. I have never tried the experiment, but there appears no reason why, with proper treatment and the rigid exclusion of all strangers, such results should not be attained. Whilst upon this subject of strangers, let me say that I attach the very greatest importance to their exclusion from my bird rooms during the breeding season, and I am confident that nothing so much disturbs foreign birds when breeding loose in rooms, as the admission of visitors. Hens leave their nests, and a panic seizes the whole community, the consequence being that eggs are spoiled, and a commotion is caused which requires several hours to subside.

When enjoying their freedom in the rich valleys of Pennsylvania the Virginian nightingales delight in frequenting those thick foliaged bushes which border the streams, and there build their nests of slender sticks and grass in the manner already described. Of their natural food Indian corn and other grain form the staple articles, which are varied by such light viands as green peas, cherries, apples, bees, grubs, beetles, butterflies, and a variety of other delicacies. These birds are excessively fond of water, and they delight in a heavy downpour of rain, singing loudly as they spread their wings to catch the drops, and evincing the most intense enjoyment at the prospect of a soaking shower bath.

In buying these birds it is always best to get them as soon as possible after importation, for a very short stay in a dealer's shop is sufficient to bring on lung disease, and when once stricken with it they fall away to mere skin and bone and inevitably die. The losses which dealers sometimes sustain from this cause may be estimated when I say that our principal importer recently told me, no less than seventy Virginian nightingales had died in his possession within a period of two months. The disease from which they succumbed was engendered by close packing and a long sea voyage, protracted by adverse winds. For my own part I would never buy a bird of this sort if he showed the slightest sign of being "puffed," and even if he looked healthy I should insist upon handling him, in order to confirm appearances, and to satisfy myself that he was as plump as a partridge. A roomy cage, wired only in front, and having a canvas top, is the best receptacle for the newly imported specimen, and the cage should be hung in a cool room, out of all draught, as high up as you can put it. The bird will thus be able to get accustomed to the members of the household without being startled by what goes on around him. Occasionally tit bits may be thrown to him, and, in

approaching his cage, for the purpose of renewing the supply of sand, water, and food, care should be taken to do it all quietly, and to avoid startling him. In a very short space of time he will lose all fear of those who thus minister to his daily wants, and his cage may then be lowered to admit of a closer acquaintance. Meal worms, beetles, pieces of meat, and such like morsels, will soon tempt him to feed from the hand, whilst a constant supply of pure water will contribute greatly to the restoration of that robust health which has been seriously tried by the conditions under which he has hitherto been kept. It is a good plan to have for the water a tin pan, made like the egg tins used in canary breeding cages, and fitted in a similar manner, so that it can be withdrawn and its contents renewed without disturbing the bird; whilst its presence on the inside gives him the advantage of a constant bath. A little extra care upon these simple details will amply repay those who employ it, especially as the birds are extremely wild when first caged, and they very soon knock themselves about and become miserably ragged and dejected if roughly treated.

FOOD.—It will be gathered from what has already been said in reference to this matter, that I attach a great amount of importance to the diet of Virginian nightingales when kept in confinement. Give canary, millet, and hemp, mixed in equal quantities, and a sprinkling of maize. Shreds of meat, meal worms, beetles, grubs, ants' eggs, chopped egg, or some such stimulating food in small quantities on alternate days, with portions of barley meal dough, about the size of a walnut, four or five times a week. A small crust of bread, cold suet pudding, and wee pieces of cheese may also be added to the bill of fare, by way of giving it variety. Green food must be regularly supplied, and this may consist of any and every fruit or vegetable your garden produces, or your greengrocer supplies; though green peas are the favourite vegetable, and young birds thrive wonderfully upon them. Ripe fruit, such as strawberries, are objectionable when there are young in the nest, but at such periods a constant supply of chopped egg, a few meal worms, and finely minced meat, either raw or cooked, must be regularly furnished, and a more liberal allowance of hemp seed is also necessary. Either barley meal or bread and milk should also be given every morning, thus keeping a variety of sound wholesome food within reach of the parent birds, but care must be taken that nothing sour or tainted is left. To guard against this, adopt the system of frequent feeding, giving "little and often." Where the birds are in an aviary, it is undesirable to mix the seeds; each should be kept separate, but this is impossible in cage feeding.

After what I have said about the love of water exhibited by these birds, it is unnecessary to lay stress upon the desirability of keeping a bath in the aviary for their use, and as if to remind me of this item of toilet I see, upon raising my eyes to the window, the Virginian nightingales flapping the water from their newly-filled pan, and sending the spray in all directions, notwithstanding that there are several inches of snow upon the ground,

and that a keen east wind makes one stir the fire, and shudder at the very mention of a cold bath in the open air.

DISEASES.—When kept loose in an outdoor aviary, and fed as described, Virginian nightingales enjoy an entire immunity from ailments, but with caged and newly-imported specimens it is otherwise. The most common disorder is gapes, and these are caused by foul water, a number of minute worms accumulating in the windpipe and impeding free respiration, causing the birds to gape with each breath. These symptoms are so marked that no amateur, however young in the fancy, need hesitate to act; if he does his bird will assuredly die. Take him in your left hand, and opening his beak with your fore finger and thumb pass a small camel-hair brush, saturated with turpentine, down the bird's windpipe, performing the operation with as much rapidity as possible. Should the bird continue to gape at the expiration of an hour, repeat the dose; but this will be unnecessary if the first operation was properly performed. Newly imported specimens are frequently swarming with parasites; and although diluted benzoline is a sharp and sure antidote, yet it is a dangerous liquid (to the bird) in the hands of an inexperienced person, and I therefore prefer to recommend flowers of sulphur to be dusted on the skin of the bird's back, the feathers being raised for this purpose; and if this is done every evening for a week, and a plentiful bath of cold water is supplied each morning, the parasites will all be killed within the time named. Prevention is better than cure, and as poverty of flesh, dirt, and bad living are the causes of all the ills from which Virginian nightingales suffer, I venture to hope that, with the appearance in print of this chapter, a new era will dawn upon the hundreds of specimens at present condemned to a life of misery through a want of knowledge on the part of their owners, of what is the proper food and treatment for their pets.

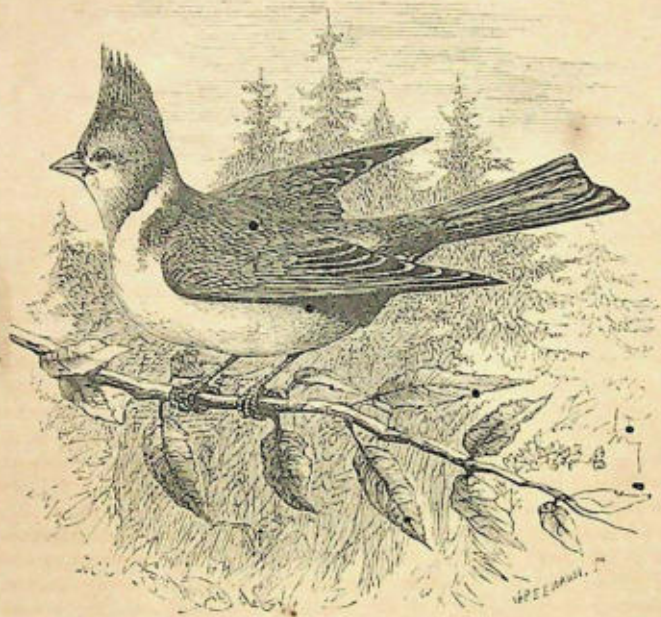
CHAPTER XL.

THE CRIMSON-CRESTED GREY CARDINAL.

Passerina cullata (British Museum).

THIS is a showy active bird, whose merits specially recommend him either as an occupant of a cage or aviary. His glossy coat and brilliant crest are always well kept, and his hearty whistle and jaunty carriage bespeak the possession of a robust constitution and contented disposition that entitle him to be ranked second only to his gaudy next of kin, the Virginian nightingale. These birds are classified by ornithologists as grosbeaks, and as such may be assumed to possess characteristics very much in common with our British hawfinch. It is a very curious fact that only one Englishman has ventured upon mentioning the existence of the Grey cardinal, notwithstanding that they have for years past been imported in vast numbers from South America into this country. For my own part, I am not at all satisfied with the classification, for I believe that the Crimson-crested cardinal is many degrees removed from the hawfinch; and I am moreover convinced that in structure, habits and natural characteristics, the two birds are utterly unlike each other. The cardinal does not possess the massive beak of the grosbeak proper, and his taste for worms, snails, beetles, grubs, and insects is so great that without a liberal supply of animal food in confinement his health breaks down, and he becomes sluggish and indifferent, and ultimately drops dead from the perch.

Although largely kept as cage pets, I prefer these birds to have their liberty in an aviary, for they can then indulge their restless disposition and obtain that amount of exercise which their active habits demand, and possessing as they do a brilliant exterior and the ability to stand any amount of cold weather, they deserve a place in every collection. With regard to temper, they may be trusted to share the same aviary with the weakest of the tiny finches, provided there is plenty of space and that the food supply is properly attended to; but I have known a great many instances where cardinals, deprived of animal food, have killed canaries and wax-bills and eaten their brains. It is very curious that only the head of the victim should be partaken of, and I am quite unable to offer any explanation that will satisfactorily account for this peculiar taste on the part of the cardinal family, unless it is explained by their aversion to blood, as



THE CRIMSON CRESTED GREY CARDINAL.

(*Passerina callata*.)

shown in confinement by a very decided preference on their part for cooked meat over raw flesh. During the breeding season—which commences in April and extends to July—a craving for animal food is most apparent and neither egg production nor incubation will be satisfactorily attained unless this want is supplied. My object in giving so much prominence to this subject of food, is to warn amateurs against pursuing the usual mode of treatment with these birds, and to dispel the illusion that they should be kept and fed in the same manner as the thick-billed finches to whom they bear but little affinity, and indeed I think them more closely allied to the *Icterus* family.

As a cage pet the chief drawbacks to the cardinal's popularity are his activity and restlessness, but this is much less noticeable if he is kept as he ought to be, in a roomy cage, with plenty of space for a good spring upwards from the sand tray to the perch. To keep cardinals as I have seen them, hanging at the windows of gentlemen's houses, imprisoned in ordinary canaries' cages, is an act of such gross cruelty that I am almost tempted to write to the owners and protest against such a public exhibition of their inhumanity. A tame cardinal ought to have a cage at least 2ft. long, by 1ft. 4in. broad, and 2ft. high, wired all round, but a smaller box cage should be used until the bird is tamed down and ceases to dash himself about when being fed and having fresh sand supplied.

A lady amateur of my acquaintance tells me that it was a long time before she really liked her pet cardinal, "because his legs were so bony and long, and his feet so large." Well, he certainly is a very leggy bird, and the whiteness of the breast and abdomen feathers make his highly-polished, black "understandings," all the more conspicuous; but I am not of those who delight in any bird's legs, and consequently the cardinal loses nothing in my estimation by the length or strength of those useful members. He is a jolly, sociable bird, requiring neither luxuries nor paupering, and whether kept singly or amongst a collection, in cage or aviary, he is equally happy, and his pointed crimson crest gives him a remarkably sharp appearance that well accords with his active habits. Although less robust in shape than the Virginian nightingale, the Grey cardinal is about his equal in length, and the flexible crests of the two birds are very much alike, both in shape and texture, but the Grey bird has not so great a power of contracting and expanding his gay head-dress, nor does he "bolt" his tail after the manner of his near relation. In total length the Grey cardinal measures 5in., his upper body being a light ashen grey, the larger feathers being black in the centre, as are the inner margins of the primaries and tail. The beak, which is horn colour, is more pointed and less massive than that of the preceding species, and the whole of the face, throat, and crest are a vivid crimson, which varies in shade according to the age of the bird. The sexes are identical in plumage, and it is by no means an easy matter to identify one from the other unless you have opportunities of comparison. This fact militates against the chances of an amateur's success in breeding Grey cardinals in confinement,

especially as it is a very common practice for dealers to sell specimens of a crestless species as hens, although the non-crested are quite distinct from the others. Young birds, too, before attaining their full plumage, and when their breasts are mottled and their backs very dark, are made to do duty as hens, as do those specimens with very pale crests; but these alleged "signs" are all shams, the only way of determining the sexes being by a slight inferiority of size in the hen and her unmistakably feminine appearance and demeanour when contrasted with that of her mate. The variation of crest colouring is the least reliable of all tests, for the gradations of shade will be found to extend from pale orange red to a rich ruby tint, and yet all the birds be of the same sex. An inexperienced amateur would do well to rely more upon size as a guide to sex in selecting pairs, provided that the specimens are in full adult plumage, when the hen will be found more delicately formed about the head and neck, and having a less commanding appearance than the male bird.

In attempting to breed from imported stock, it is a very good plan to first tame your cardinals by caging, especially if a bird room in the house is to be their breeding place hereafter, for such places afford less seclusion than garden aviaries, and wild birds seldom nest under such conditions.

The great danger of close caging is its liability if too long continued, to permanently injure the birds' health, and the taming process must therefore be carried out in a cage of sufficient size to afford plenty of scope for exercise. There should only be wires in the front, and the food and water tins ought to be so constructed as to slide in without the necessity of putting the hand inside the cage, an act that will drive these excitable creatures into a frenzy of fright, and make them dash themselves about regardless of consequences.

In their nesting arrangements the cardinals resemble the Virginian nightingales, and like them require some thick bushy boughs to be provided, the nest being constructed of twigs, with an inner lining of grass stems. The eggs, which vary from four to five at a batch, are of a mealy white, somewhat densely speckled with brown at the larger end, and they are laid at irregular intervals, some young hens allowing two days to elapse between the first and second egg, whilst older birds will not unfrequently lay day by day until all the number are deposited, and then proceed with the process of incubation. This occupies a fortnight, both birds sharing in the task, but the male is not always a trustworthy nurse in confinement, as his affection for the progeny will occasionally tempt him to try how they taste! One rascally old cannibal sacrificed two broods before I could fix him as the guilty party, there being a mixed company in the same aviary, but when at last I eventually caught him demolishing the skull of his only surviving infant—meanwhile pretending to be nestling the poor little creature in the absence of its mother—my feelings, as the penny awfuls say, "can be more easily imagined than described." The old savage deserved to have been killed upon the spot, and indeed nothing but his good looks saved him—as they have many

another villain—the extreme penalty of the law being commuted to imprisonment for life. He is now the pet of a lady who, ignorant of his past misdeeds, lavishes the most tender care upon him, and judging by the jollity with which he conducts himself, those crimes of infanticide sit lightly on his conscience.

The nest feathers of the young are a nondescript mixture of black and dirty white, and the head colouring comes with the adult plumage, but even this is not perfect until the third moult; thus exhibiting a slowness of development consistent with the longevity of the cardinal family, and affording another striking instance in support of my theory that those birds which develop slowly are always long lived, and *vice versa*.

It is not a desirable arrangement to have more than one pair of Grey cardinals in the same aviary, but should a greater number be desired they must all be kept together in a cage for a few weeks before turning out, or otherwise the new comers will inevitably be persecuted by those already in possession, and such a war of extermination will be waged as will keep the place in a constant uproar, and effectually prevent any nesting affairs being attended to by the other occupants of the same bird house.

FOOD AND DISEASES.—Except that the Grey cardinal requires a more liberal supply of animal food than the Virginian nightingale, the diet prescribed for the last named bird in the preceding chapter may be safely followed, as may the treatment for ailments. Caged specimens are prone to become gouty and crippled about the feet through insufficient exercise, and as exercise and frequent bathing are the surest preventatives, a daily bath should be hung at the open cage door, and the bird should be encouraged to come out of his house and take a flight round the room as often as convenient, and if a little care is taken to avoid frightening him when this treat is first afforded, he will quickly learn to go in and out without fear, thereby increasing the good understanding between himself and those about him, and also adding greatly to his health and comfort.

CHAPTER XLI.

THE CRESTLESS CARDINAL.

Passerina Lavata (Zoo. Soc.). | *Dominican Cardinal* (dealers).

THIS bird resembles the preceding species, except that the Dominican possesses no crest, and his crimson head and neck are somewhat darker. In characteristics the birds are alike and should be treated the same. Like all the Cardinal family they have an agreeable song.

CHAPTER XLII.

THE GREEN CARDINAL.

Passarina Cristatellus.

ALTHOUGH by no means common in this country, yet the above-named bird can frequently be met with in West End dealers' shops, and may occasionally be obtained at reasonable prices. The plumage of the Green cardinal is dark olive green above, merging to yellow on the breast and abdomen; the primaries of the wings and tail are black fringed with green on their outer edges, and he possesses a flexible crest which can be raised and depressed at will. In size and general characteristics he resembles the preceding species, but he is a superior songster, and his feathers secrete large quantities of copper, an appreciable amount of which may be extracted by soaking a few of the wing primaries. The sexes are alike.

CHAPTER XLIII.

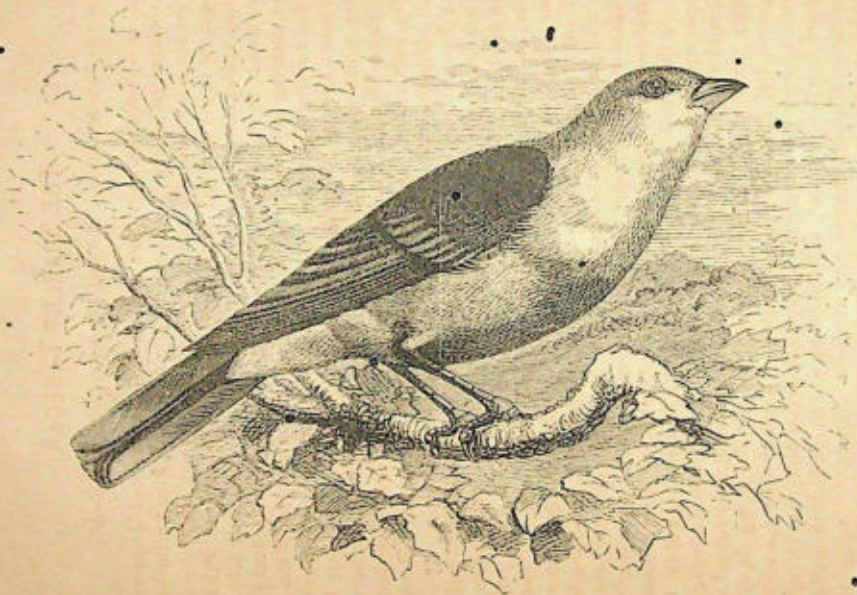
THE SCARLET TANEGAR.

Pyrranga Rubra (Buffon & Vieillot). | *Tanager Rubra* (Wilson).

THIS is a favourite cage bird both in this country and America. He measures seven inches in extreme length, and his brilliant crimson body and jet black wings and tail make him a very showy pet, whilst his jaunty demeanour in the cage and quaint song are equally attractive. The female is quite unlike her mate in plumage, and she is very commonly sold under other names by retailers in England. Her body colour is dusky olive green, merging to yellow on the abdomen, and the outer edges of the wings and tail are tinged with green, the under portions being rusty brown. In both sexes, however, the outer tail feathers are longer than those in the centre, which gives a slightly forked appearance to this appendage when the bird is flying. This Tanager is migratory, arriving in the Northern States each spring, and remaining until his young are reared and the moult complete, when they all go south for the winter.

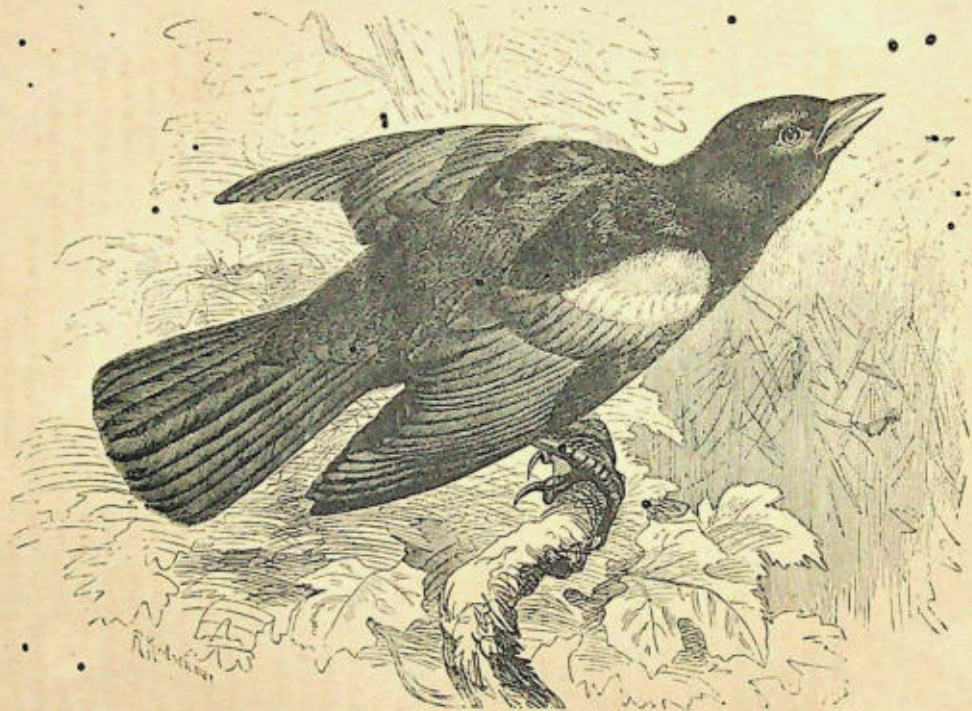
At the conclusion of the autumn moult the winter suit of the male bird is much less gaudy than his summer dress, the wings being tinged with green and the scarlet body feathers have given place to a dingy yellowish colour; but still the sexes are easily recognised at this season. The male comes into colour again in the spring. Their nesting arrangements resemble those of the oriole family, the nest being woven and very thin, though it is not pensile like the hang-nests proper. The eggs are blue, spotted with chocolate at the larger end, and only one brood is reared in the year. The great objection to these birds as occupants of aviaries is the necessity of keeping them well supplied with insect food, or some substitute for it, without which they cannot be maintained in good health and plumage. In their wild state, and especially at the breeding season, they subsist almost entirely upon winged insects and ripe fruit, cherries being an especial weakness, but during the winter, grain and seeds of all sorts are freely eaten. I do not recommend the Tanegars as aviary birds, but as cage pets they are sure to be popular, and their song will be found both mellow and harmonious, although not of a very extensive compass.

FOOD AND DISEASES.—Add to the diet of the Baltimore oriole any and every seed that your bird will eat, and look to the chapter named for ailments, and their prevention and cure.



THE SCARLET TANEGAR

(P. Esbea.)



THE RED WINGED STARLING.

(*Angelia phoeniceus*.)

CHAPTER XLIV.

THE RED WINGED STARLING.

Angelus Phoeniceus (Wilson).

AMONGST the American birds which we annually receive, these so called starlings are always to be found, but they have very little beyond their glossy plumage to recommend them either as cage or aviary pets. Although classed as starlings, yet they are hard billed grain eaters, and indeed their depredations in flocks of thousands render them greater pests to the farmer than are the sparrows of this country or the Rice birds of India. The Red Winged starling, however, destroys an amazing number of insects, feeding upon them and their larvæ during the breeding season, and levying a heavy contribution upon the green maize in payment of the valuable services thus rendered.

This bird measures some eight inches in length, the body colour being of a glossy black throughout, the shoulders and wing coverts of bright crimson, forming a striking contrast. The hen is rather smaller than her mate, her body feathers are tinged with rusty brown, and she lacks the wing marking of the male. They are knowing birds in confinement, and will become very tame and tricky, exhibiting in most things the characteristics of the Baltimore oriole already described.

The Red Wing has been successfully bred in confinement by a friend of mine, who gave up an outdoor aviary to an old pair of these birds, feeding them, in addition to ordinary seeds, with an abundance of ants' eggs, moths obtained by "sugaring," beetles, and indeed any and everything in the shape of insects that could be obtained. These birds built their nest behind a thick bundle of brushwood suspended at the most inaccessible place in the aviary and the birds, although previously so tame as to permit anyone to handle them, became very shy and "scary," so that it was deemed unsafe to touch their nest with a view to examining its contents. Three young were hatched, and two eggs were thrown out for some reason, and these were of a blue colour, thickly spotted at the larger end with chocolate. The young males were of a rusty brown until the second season, when they attained their adult plumage, and the old pair nested successfully for several seasons, but they were kept caged and petted all through the winters, and were given their liberty when the spring was well advanced. They have a short song, but it hardly deserves that name, and these birds would certainly not be kept for their music.

FOOD AND DISEASES.—See kindred species.

CHAPTER XLV.

THE BOB-O-LINK.

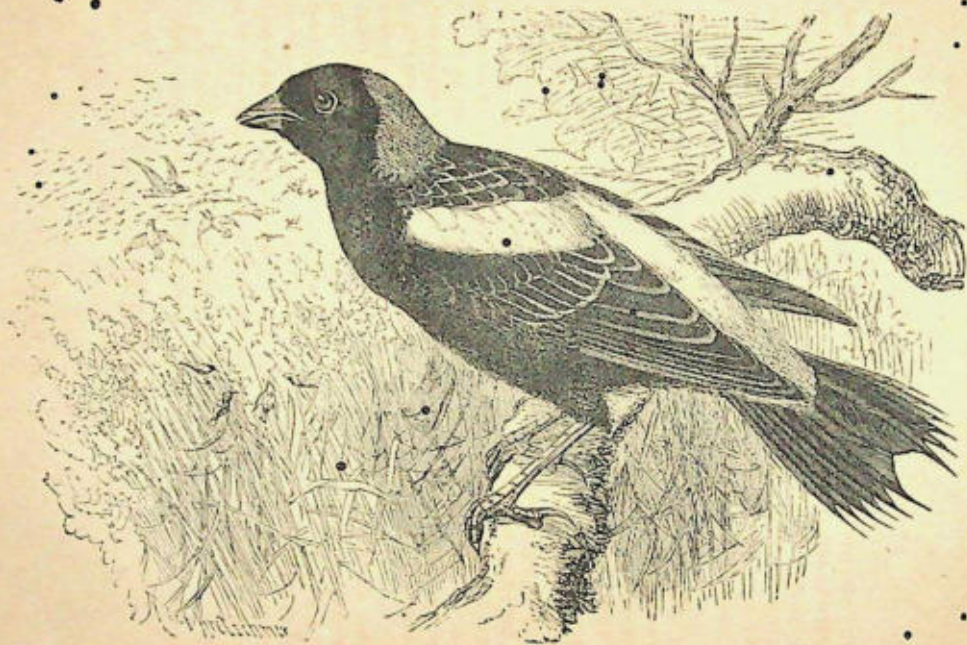
Dolichonyx Oryzivorus (Swainson). | *Bob-o-Link* (English dealers.)
Rice Troopial (Zoological Society). |

VERY few of the American birds are more heartily detested by farmers in that country than the Bob-o-links, for, like the preceding species, they come in myriads from the south every spring, doing immense damage to young corn of every description, which they descend upon in flocks of thousands, inflicting no end of damage. They feed chiefly upon insects during the breeding season, however, but their services to the farmer are scarcely repaid by the heavy toll taken from his growing crops.

The male Bob-o-link is barely eight inches long, and like the preceding species his plumage changes twice in each year. The summer suit, which comes at the approach of spring, is jet black upon the head, neck, and all the lower portions of the body. The nape of the neck is crossed by a patch of yellowish white, and the black feathers extending from the collar, half-way down the back, are edged with yellow, all the rest of the back to the tail being white. The tail itself is black, and each of the feathers are curiously pointed, the wing coverts are white, and the black primaries of the wings are also edged with white. The beak, feet and legs are a slate blue, but when the bird is out of colour the beak becomes flesh tinted. The winter plumage of the male is similar to that of the female, the white back and wing coverts giving place to rusty black, and the whole of the under parts of a dirty yellow.

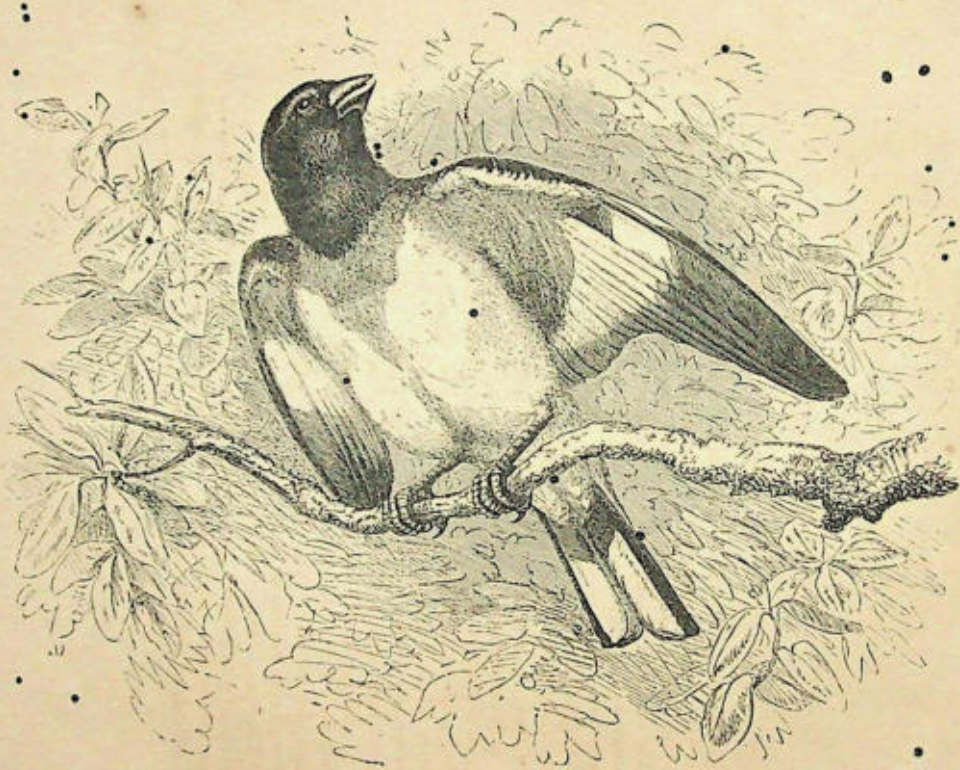
They are like all the rest of their tribe, pugnacious in confinement, and are best suited as cage pets, although their hardiness enables them to bear our winters in garden aviaries with perfect immunity from the effects of cold. Their song is rather pretty and more varied than that of any of the allied varieties, and the Bob-o-link will be found a hardy cheerful pet, keenly alive to everything that effects his own interests, and especially so, with regard to matters of food.

TREATMENT.—Same as preceding species.



THE BOB-O-LINK.

(*Dolichopus Oryzivorus.*)



THE ROSE BREASTED TROOPIAL.

(*Coccyzus Ludovicianus*.)

CHAPTER XLVI.

THE ROSE-BREADED TROOPIAL.

Coccyzus ludovicianus (Audubon).

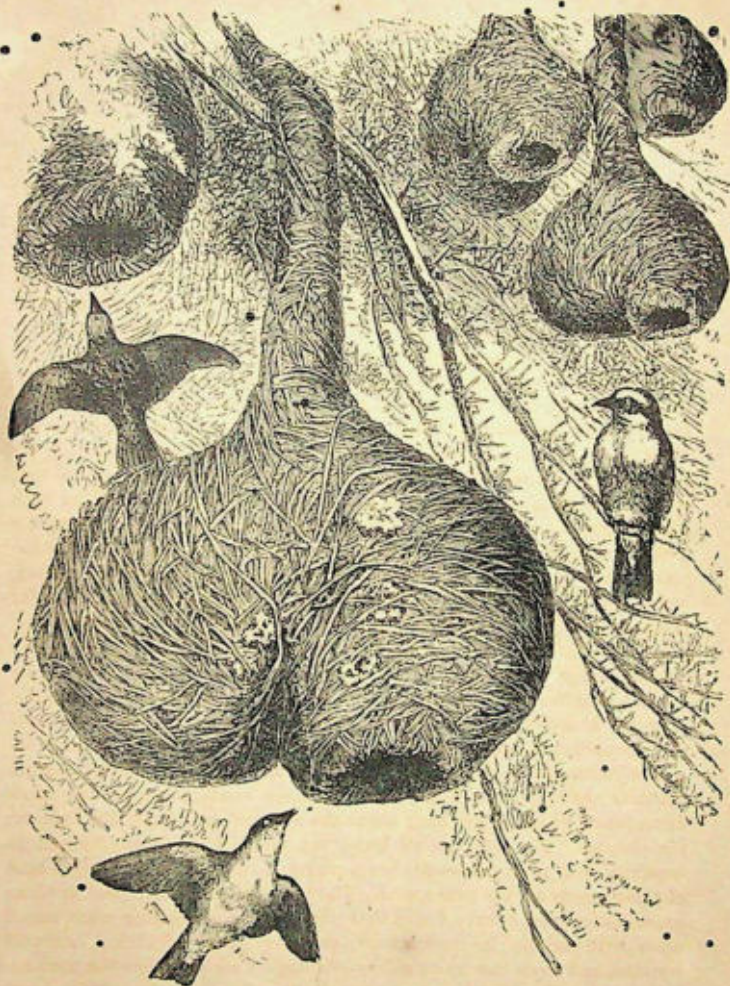
THESE are amongst the occasional importations received from America, and they are always welcome guests either for cage or aviary, possessing, as they do, a handsome exterior and considerable power as songsters. The male bird measures between seven and eight inches in length, and is somewhat robust in shape; the head, upper body feathers, wings and tail, are black; the neck and breast are beautiful ruby-red; beak, grey; and feet light brown. The wings have a double band of white on them, and the underside of the tail is also white; the general appearance of the bird, as shown by the accompanying illustration, being strikingly handsome. The female lacks the brilliant breast colour, she is altogether more soberly clad, and can be easily recognised; but as these birds do not attain their full plumage until the third year, it is not always certain that the hen upon which you may rely—where it is desired to breed them—will not eventually turn out to be a cock. In their habits and characteristics they greatly resemble the cardinals, and they may be similarly treated. The troopials are splendid songsters, and, indeed, I consider them very little inferior to the Mocking bird. They are very confiding, and quickly become attached to their owner, and by judicious management they will permit even visitors to handle and caress them.

They nestle in confinement, and at the breeding season require to be supplied with a liberal allowance of animal food, but the directions given as to the food, management, and diseases of cardinals and Virginian nightingales apply equally to these birds.

CHAPTER XLVII.

THE WEAVERS.

THIS is a very numerous family, of which some eight or ten species are commonly imported to this country, but they are held in very little esteem by amateurs, and, as a consequence, realise but small and unremunerative prices. These birds have very little to commend them either as occupants of cage or aviary, being by nature exceedingly vicious towards weak and defenceless specimens, which not unfrequently have limbs broken or get killed outright by snaps from the powerful beaks of the weavers. Their presence in an aviary is fatal to the prospect of other birds breeding, for their weaving propensities tempt them to plunder and tear to pieces every other nest that may be built, in the hope of finding fresh materials for their own. The result of everyone's experience will confirm my advice that weavers should always be kept by themselves in an aviary or cage, or with other large and strong-billed birds that will effectually keep these unruly gentlemen in order. Where this is done, and they have a place to themselves, their nesting arrangements will be found extremely interesting, especially in the case of the larger species of weavers, as they stand our climate better than their small relations, and, whilst nesting more readily, they also construct much more roomy and commodious houses. The accompanying illustration shows a common form of nest adopted by several members of the weaver family, but there are others which build a long stocking-shaped nest, with an inner apartment, but in every case the entrance is at the bottom; so that it is impossible to get at the contents without cutting open the structure. This remarkable style of architecture protects the eggs and young from monkeys, snakes, hawks, and other depredators which always hang about the weavers' colonies on the look-out for plunder. The weavers all build toy nests, both at liberty and in captivity, and their propensity for weaving induces them to do this kind of thing nearly all the year round. The principal materials used are long grass blades, and I have found that strips of bass matting were seized upon with avidity in confinement, as were pieces of string, coloured worsted, and even the white willow shavings used for stove decorations. The outer shell is woven as neatly as a basket, and the entrance is finished off with remarkable skill, but after the exterior is complete there is still considerable labour necessary to construct an inner chamber, which is



WEAVERS' NESTS.

woven to the outer shell and fashioned to a cup-like shape. Sometimes a second apartment is made for the use of the male bird as a bedroom during the process of incubation—if he does not set up a separate establishment altogether—and, curiously enough, a small ball of clay is frequently found in these nests, but what purpose it serves has always been a matter of speculation amongst those who have mentioned its presence. The negroes say it is the weaver's candlestick, on which he fixes fireflies to light his bedroom; but this fable may be taken for what it is worth. I think the clay is intended as ballast to steady the nest as it swings to the wind.

In this country weavers are now being sold under a variety of high-sounding names, amongst which are the African oriole, the Orange Bishop, Napoleon Bishops, and Crimson Bishops. Before going further let me explain that most of the African weavers, like nearly all the other African finches, change colour twice in the year; the summer plumage of many species (including the above named) being extremely brilliant, though the winter feathers of the whole family are rusty brown and sparrow-like. None of these birds possess any musical ability, their call note being a discordant chirp, and those that make any pretence of singing utter only a few harsh rasping sounds.

Weavers are not favourites of mine, and, indeed, so much have I suffered from their vicious habits, that no member of the weaver tribe will ever again find a home in any of my collections. Holding them, as I do, in such small estimation, I shall only devote a limited space to the description of those varieties commonly imported; and, before doing this, let me say a few words upon the subject of food and treatment.

In a state of freedom weavers subsist mainly upon corn and rice, doing no end of damage to the crops, but making some return by devouring vast numbers of insects and grubs, especially during the breeding time, which lasts for five months in the year, two and sometimes three broods being reared in each season. As may be imagined, these birds abound in vast numbers, and, being of gregarious habits, they congregated in flocks many thousands strong, selecting some spot near the water as their head-quarters, and there establishing a colony, all the big trees in that locality being literally covered with nests suspended side by side from the ends of every branch, and forming a sight that must be seen before it can be realised. They abound upon the western coast of Africa, where I once saw upwards of a hundred killed by two of our party firing simultaneously into a flock of these birds. The island of Madagascar, too, is another stronghold of the weavers, as is Java and its adjacent islands and also in East India proper.

THE RED-HEADED WEAVER (*Euplectes ruber*, Swainson).—This is the smallest of the weaver tribe, and also one of the commonest; he is a native of East Madagascar, barely the equal in size of our English sparrow. Length, about five inches; robust in shape; upper body yellowish brown, and under body fawn colour; head, dull red; beak, horn colour, and very

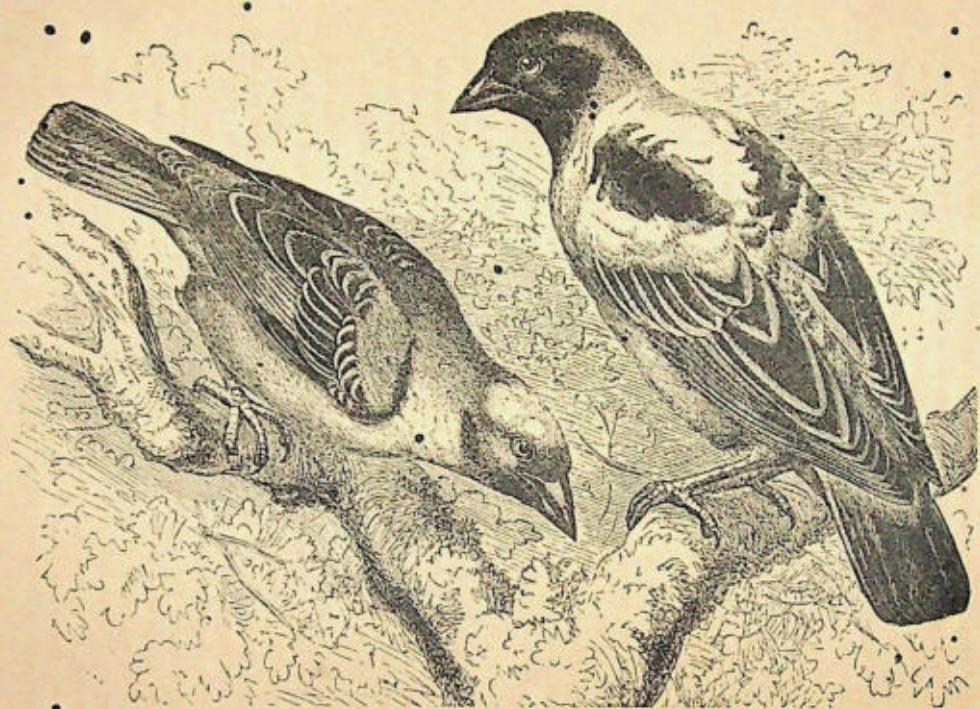
massive; legs and feet, flesh colour, and tail stunted. The red head feathers disappear during the winter.

RED-BILLED MASKED WEAVER (*Euplectes sanguinirostris*, Swainson; *Tector erythrorhynchus*, Smith).—An African species, somewhat larger than the preceding, but quite as common. Length, nearly six inches; upper body, yellowish brown; under body, pinkish drab; beak, red; face and throat encircled with a black mask. This is the summer plumage of the male, and the female may be recognised by an absence of the black face markings. The winter plumage is a dull greenish-brown above, a dirty white beneath. These birds nest readily in confinement, but they require a good supply of ants' eggs throughout the whole of the breeding season, or the results will be nil. There is a closely allied variety, which differs only from the preceding by having a yellow mask around the face and being of a brighter pink upon the breast; this is the coral-beaked red weaver.

YELLOW CROWNED WEAVER (*Ploceus Baya*, Blyth).—This is the East Indian sparrow, or Toddy bird, as he is called by some English residents, whilst by others he is spoken of as the Bottle-nested sparrow. Length, six inches; sparrow-like brown on upper body; yellowish brown below; beak, horn colour; crown of head, bright yellow; face and throat, black; legs and feet, flesh colour. Female lacks the yellow crown.

RUFOUS NECKED WEAVER (*Ploceus Senegalensis*, Swainson; *Oriole weaver*, Latham; *Oriolus Melanocephalus*, Buffon; *Fringilla Longirostris*, Vieillot).—Reference has been made to this bird in the chapter upon golden orioles, as the rufous weaver is frequently sold as an oriole, although there is nothing in common between them, except the yellow in their body feathers. The rufous is a large weaver, nearly seven inches long; stout in build and short tailed; head, black; back wings and tail, blackish; all the feathers being boldly marked with yellow upon their outer edges; breast and abdomen, bright orange yellow; legs and feet, flesh colour; beak, slatish brown, and eyes red. Like all the weaver tribe this bird has long bony legs and toes; and these, with the stunted shape of his tail, does not give him a graceful appearance in a cage; but the peculiarities referred to are admirably adapted for climbing about the bushes and hanging head downwards whilst engaged in weaving his nest, in which operation the strength of the bird's lower limbs is displayed in a remarkable degree. He possesses no power of song, and being, like the rest, of a meddlesome and vicious disposition, his gay coat, during the summer months, is his only recommendation to the favour of fanciers. There is a closely allied species to the preceding, which differs only in having a black mask encircling the face and passing beneath the beak. He is called the half-masked weaver (*Ploceus Rufices*).

CHESNUT WEAVER (*Hyphantornis Castaneo-fuscay*, Gray).—This is



THE RUFIOUS NECKED WEAVER BIRD.

(*Ploceus Senegalensis.*)

rather an uncommon species, but it can be met with occasionally. In size he is equal to the preceding, his head, wings, and tail, black; and the whole body is a dark chestnut brown; beak, slate colour; eyes, yellow; and legs and feet pinkish.

THE OX WEAVER (*Detroides Albirostris*, Swainson).—At one time these "Buffalo weavers," as they were then called by English dealers, were imported in considerable numbers; but they ceased to find favour when their true characteristics were understood, and, as a consequence, very few are now sent over, and those fail to obtain a ready sale. There are several varieties of this species, which is distinguished from the rest of the family by having black summer plumage, only relieved, as in the case of the above named variety, by a slight edging of white upon the outer margin of the principal wing feathers, and the beak being of a brick-dust red. Feet and legs brown. These red-billed birds congregate in flocks and follow the herds of wild buffaloes, eating the parasitic insects by which they are infested, and raising an alarm at the slightest suspicion of danger. They are hardy birds in confinement, but quite as unsuitable for aviaries as the others.

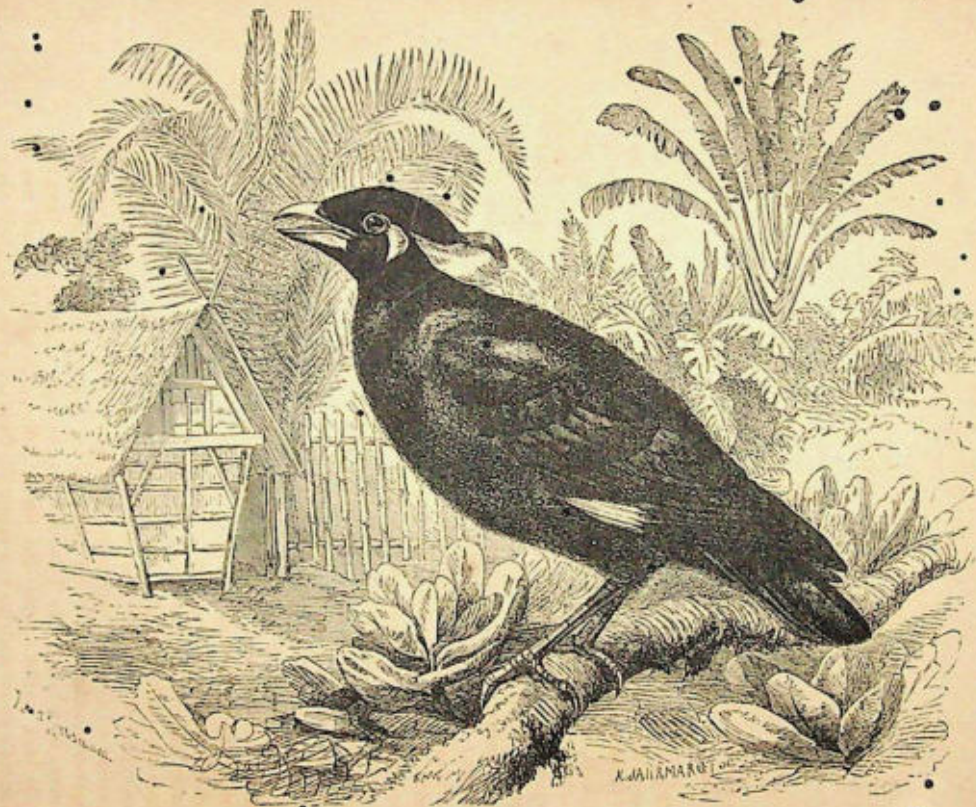
CRIMSON WEAVERS (*Euplectes*).—This is by far the handsomest plumaged species of African weaver, and we receive two or three varieties of these red birds; but they resemble each other very closely. The male is about seven inches long; and his winter plumage is like that of a common sparrow; but with the advent of spring the whole of his feathers, except those on the wings, undergo a wonderful change. In one variety the breast becomes of a rich velvety black, whilst the head, neck and body turn to a brilliant crimson, the face being encircled by a black domino or mask. The crimson tail coverts grow down until they almost hide the tail proper. Beak, horn colour; legs and feet, brown. Another variety becomes crimson all over, except small spectacled patches round the eyes and some black feathers edged with crimson upon the back; the wings and tail are brown. These red gentlemen are not one jot more sociable than their yellow relations, and I have nothing to say in their favour, but may just add that the red birds do not nest so readily in confinement as the others, neither do they exhibit the same amount of skill as architects. They are sold as "Crimson Bishops."

CHAPTER XLVIII.

THE CROSSBILL.

Loxia Curvirostra (Buffon).

THIS is a common bird, so well known to everyone that no description of his appearance is necessary, and my only object in mentioning him is to warn amateurs against introducing such an ill-behaved creature into an aviary with other birds. He is exceedingly vicious, meddlesome, and indeed possesses no redeeming feature in his character; and I strongly advise amateurs to have nothing to do with him. These birds are imported in great numbers from Germany, and the temptingly low prices at which they are sold is likely to induce beginners to add a pair to their collections.



THE MINO BIRD.

(*Eulabes Indicus.*)

CHAPTER XLIX.

THE MINO BIRD.

Gracula Religiosa (Linnaeus).
Beo and Mencho (Javanese).

Eulabes Indicus (Cuvier).
Tecong (Sumatrans).

THE subject of this brief chapter is a very popular bird amongst all fanciers who have made themselves acquainted with his wonderful faculty of imitating the human voice. He is a native of East India and its adjacent islands, but the high estimation in which the Mino is held amongst the natives, and the ready sale which promising specimens realise (the equivalent of £2 being often paid in India) render it difficult to obtain a really good bird in England except at an extravagant price. As these birds are uncommon I only propose to give such a description as will insure an amateur against deception, and I strongly recommend my readers to have nothing to do with specimens which are offered as being "young and not yet in colour." The Mino has many of the characteristics of the starling, especially in his mode of nesting in roofs of temples and other secure places, but the Mino is rather larger and more robust, measuring about nine inches in length, the tail being short and stunted. The whole of the plumage, save a white bar on the wings, is of a rich velvet black, the beak, eye circles, and feet are bright yellow, and the head is ornamented by two pendulous lobes of the same orange colour, extending backwards from the ears. The female lacks these lobes, as shown in the male bird represented in the accompanying illustration; her wing-marking is not so white and well defined, nor are the legs, beak, and ears so bright a yellow as those of her mate. Most of the birds of this species sold here are houg, and some of them are taught to speak a few short sentences, but they never make such accomplished linguists and whistlers as the males. One of the best specimens I ever met with belongs to a well known London dealer, and my first introduction to this bird impressed me greatly with admiration for his powers of mimicry. As I entered the premises a female voice from the little back parlour cried out loudly "Shop, Charles!" There was a moment's pause and no one appeared, then the voice was heard again, "Charles, did you hear a gentleman in the shop?" So impressed was I with the belief that this was the dealer's wife talking that I said, "Pray don't disturb him; you can no doubt tell me the price of that parrot in your

window." At this moment the woman to whom I had been addressing my question came into the shop from the street and apologised for keeping me waiting, and leaving the shop unattended; her husband was out, and she had crossed the road to buy some article. I was astonished to find that the talker in the little parlour was "Jacob," a Mino, and since then I have had many opportunities of listening to his extensive vocabulary. He has never been taught any set lesson by his owners, so they tell me, and all that he says is a repetition of what he hears frequently about him. Whether the plentiful use of "the language of the poets" is in constant occurrence in that establishment, or whether the bird picked up his profanity on the voyage to England, I have never yet inquired, but the dealer in question who owns this bird, in enumerating his many accomplishments, always pays a high tribute to his ability as a "hearty swearer."

There is another species of Mino bird found in Java (*Eulabes Javanus*, Cuvier), but it is not held in such high repute as the preceding, from which it is easily distinguished by the absence of the white wing bar. This bird is a linguist, but its capacity is not great, and both species being fed upon soft food, are dirty cage pets, requiring considerable care and attention to keep them from becoming in a state of nuisance. They are very hardy when once acclimatised, and may be fed upon anything and everything which comes to table, a daily morsel of raw meat being necessary to their health and well being, but crumbled bread and egg form the standing dish with them, and fruit in season must not be forgotten, though diarrhoea should be guarded against, as it is the chief source of danger. These birds, with judicious treatment, will live to a great age in captivity, but a roomy cage and an occasional fly are absolutely necessary to this end.



THE AMERICAN BLUE JAY.

(*Cyanus Christianus*.)

CHAPTER L.

THE AMERICAN BLUE JAY.

Garrulus Cristatus (Audubon).
Cyanocorax Cristatus (Wilson).

| *Corvus Cristatus* (British
Museum).

To those who are fond of amusing and somewhat troublesome cage pets, these birds may be commended, for they can usually be obtained at a reasonable price amongst east end dealers, and their showy plumage makes them very attractive objects when caged and thoroughly tamed down. They become very good talkers and mimics, and for sly cunning and thievish propensities are infinitely worse than either magpie or jackdaw. The length of this bird is 11in., his body colour being of a bright blue, merging into a purplish-tinge upon the wings and tail, which are barred with black and boldly tipped with white, as are the wing coverts. The beak, legs and feet are black, and the eye hazel brown, abdomen merging almost to white. The female can be distinguished by her brown breast.

In a wild state they feed chiefly upon ripe fruit and seeds of all kinds, but whether it be maize or cherries, or the fallow brood of some defenceless bird which form a repast, they are all equally enjoyed; for the Blue Jay is an ardent plunderer, and his mission appears to be one of robbery and destruction. Unlike their English relatives, these American birds are gregarious and may frequently be seen in flocks of forty or fifty strong during the winter months, when they scare the game by warning cries as the sportsmen approach and feast upon his spoils should he leave any suspended from the trees to "be called for" on the return homeward. The habit of stealing and secreting articles when kept in confinement is but the following of a natural instinct, for the jay when at liberty stores up through the season of plenty sufficient food to carry him through the hard times, and he, moreover, does considerable service to the State, for it is said that the beech masts and chestnuts dropped by the jays would in a few years re-plant all the cleared land. Webber says of this bird that so jealous is he of his sole prerogative of supervision over the interest and welfare of his neighbours, that he is for ever on the look out for all interloping stragglers. Every racoon that shows his inquisitive nose is assailed with vehement clamour and angry snappings of beak, which compel him, in terror for his eyes, to return to his home. Our friend jay is said to attribute the noctur-

nal habits of raccoons, wild cats, opossums, owls, &c., to their apprehension of his valorous vigilance by daylight. Be the facts of the case what they may, no one of these gentry, nor mole, nor musk, nor weasel, can make its appearance without being beset by the obstreperous screams of this audacious knave. Nor does he confine his operations to the defence of his foraging ground from these depredators, from whom he has little to fear of personal danger, on account of his superior activity, but he even sometimes assails the lightning-winged and lordly hawk; these scenes are very characteristic and very amusing, and I have frequently witnessed them.

The pine log cutters of the North know him well, and bestow on him many a blessing from the wrong side of the mouth. The deep snow is raked away, and the camp is pitched beneath the gloomy shelter of the heaving pines. Scarcely has the odour of the first roast streamed through the air, and freighted every biting wind, when, with hungry cries from every side, the jays come gathering in. They swarm about the camp in hundreds, and such is their audacity when hard pinched with hunger, that they are frequently seen to dash at the meat roasting before the fire, and, hot as it is, bear pieces off until they can cool it in the snow. They are regarded with singular aversion by these lonely men; for, take what precaution they may, they are often robbed to such serious extent by the persevering depredations of the jay as to be reduced to suffering. They dare not leave any article that can be carried off within their reach; when they kill game, and hang it up until the hunt is over, the jays assemble in thousands and frequently tear it in pieces before they return.

The Blue Jay has many of the traits of the magpie, and, like him, possesses an inveterate propensity for hiding everything he can lay hold of in the shape of food. The magpie hides things that are of no value, but a jay is in every respect an utilitarian, and when, after feeding to repletion, he is seen to busy himself for hours in sticking an acorn here, or a beech nut there, in a dust-hole, or wedging snails between the splinters of some lightning shivered trunk, or making deposits beneath the sides of decaying logs; naturalists wonder what he is doing it for. But our blue friend knows well enough, and you may rest assured if you see him along that way next winter, as you will be apt to do if you watch, you will find he has not forgotten the place of one single deposit, and that with a shrewder economy than the ant or the squirrel, instead of heaping up his winter corn in one granary where a single accident may deprive him of it all, he has scattered them here and there in a thousand different spots, the record of which is kept in his own memory. So it cannot be denied, whatever may be said of his thieving and other dubious propensities, that the Blue Jay is a decidedly sagacious personage.

So universal is the Blue Jay's reputation for mischievous and impish tricks of any kind, that the negroes of the south regard them with a strange mixture of superstition and deadly hate. The belief among them is that it is the special agent of the devil here on earth, and carries tales to him of

all kinds of slanderous gossip, particularly about negroes, and more especially that these birds supply him with fuel to burn them with. Their animosity is entirely genuine and implacable, and Mr. J. receives no mercy at the black man's hands.

FOOD AND DISEASES.—Any and every kind of seed and nut, cooked or raw meat, and scraps of everything which comes to table. The jay is extremely hardy, needs no pampering, and, if well fed, he may be kept as a cage pet in perfect health for many years.

CHAPTER LI.

THE AMERICAN BLUE ROBIN.

Sialia Wilsoni (Swainson).

Eritheca Lialis (Bonaparte).

Sialia Lialis (Audubon).

To those amateurs who keep insectivorous birds the Blue Robin is a "joy for ever," the beauty of his coat, the sweetness of his song, and the sociability of his nature, to say nothing of his cuteness, affording plenty of scope for praise and admiration. He is a true robin in shape, make, habits and characteristics, and, indeed, his mode of living in a wild state is identical with that of our own redbreast. The Americans look upon his arrival in the United States from his winter quarters in more southern latitudes as an evidence of the return of summer, and so soon as the trees begin to put forth their spring shoots, the Blue Robins commence their nesting, choosing such quaint places for the purpose, close to dwelling houses, as are usually fixed upon by the redbreast. The blue bird is rather larger than his English relative, being higher on the legs, robust in shape, and measuring 7 in. in length. His head, neck, wings, and tail are rich azure blue, the whole under body from throat to vent being of a ruddy chestnut brown; the centre ribs of the wing and tail feathers are black, as are also the beak, legs, and feet. The female differs in plumage from her mate by much less brilliant colouring, and the sexes are therefore easily identified.

No insectivorous birds of my acquaintance equal the Blue Robins for breeding purposes, because, providing you can devote the necessary amount of attention to their requirements, they will nestle successfully either in house or garden aviary, and make themselves as happy and contented as if enjoying their liberty. A good big spout of virgin cork, formed by binding two half circular pieces together, placed up in some retired part of the bird room, will inevitably attract your robins, especially if some dead leaves and hay be dropped into this home made nesting place. The eggs, which are of a pale blue colour are five in number, and two broods are invariably produced each season, sometimes three, so that but for the labour attending the food supply of these birds, they would be very profitable to their owners. The migratory habits of the Blue Robins make them very restless and unsettled in an outdoor aviary as the autumn approaches, and I have found it very advantageous to transfer them to an indoor bird room about the end of September, keeping them there all through the winter. They



THE AMERICAN BLUE ROBIN.

(Sialia Wilsoni.)

are perfectly hardy, and well able to stand any reasonable amount of cold and frost, but still, I advise those who keep them to make trial of my plan. Whether or not they would breed in a roomy cage I am unable to say, though I incline to the belief that they would do so suitably provided with nesting box and materials, and had all their wants carefully supplied.

FOOD.—Soft billed birds are all very well, but it is the feeding of them which vexes the souls of their owners, and such birds, moreover, require double the care as to cleanliness that is necessary with seed eating pets. Although I hold in contempt all the abominations sold as German paste, yet where insectivorous birds are kept, some stock article of diet which does not go sour is a great boon to those who have the feeding of these pets. The bottom of a stale loaf cut in halves and then baked for two hours in a cool oven makes a capital basis for such a stock food. The bread must be pounded to a powder and kept in a tin canister, and to a spoonful of this may be added a little scraped swede or carrot, a few small currants, and a little finely crushed egg, but ants' eggs or meal worms should be used alternately with the hard boiled eggs by way of a change. Beetles are esteemed as an especial dainty by the blue birds, as are small worms, and almost every species of winged insect or their larvæ; soft fruits will also find favour when in season, and, above all other luxuries, that of a frequently filled bath is a thing dear to the heart of my blue friends, and without it they cannot be maintained in health.

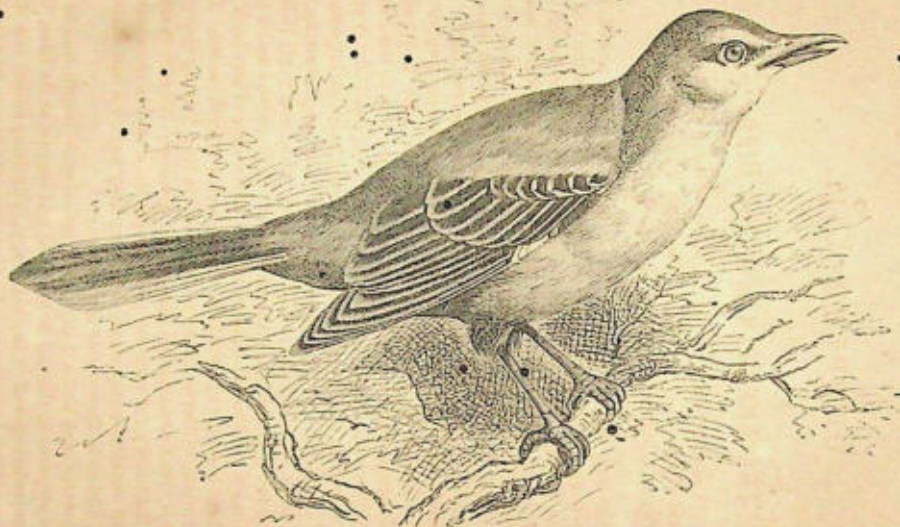
CHAPTER LII.

THE BUL BUL.

Psychonotus hamorrhoids (Blyth).

THERE are several varieties of this Indian species which may occasionally be met with in England, and many worthless birds are also sold as Bul Buls. The commonest variety is that named above, which is known in the trade as the Red-vented Bul Bul, and although possessing very few notes of his own, yet his voice is powerful and melodious, and his powers of mimicry are considerable in imitating the songs of other birds. He measures some seven and a half inches long, being slender in shape and soberly clad. The prevailing colour is rusty black, the head and tail being glossy black, the abdomen is a dirty whitish, and the vent is encircled by a red patch. The feathers upon the centre of the crown are ridged and give to the head an appearance of being crested. These birds are easily tamed and tolerably hardy in confinement, and being very abundant in India they may be purchased in England at very reasonable prices by those who know what they are buying.

FOOD.—Bul Buls are insectivorous, though they consume considerable quantities of fruit in their wild state, and the soft food mentioned in the chapter on Blue Robins suits them admirably in confinement if soft ripe fruits are given in season. These birds are only adapted either as cage pets or inmates of indoor aviaries, and even then plenty of stimulating food, ants' eggs and meal worms, is necessary to enable them to stand our winters without artificial heat.



THE AMERICAN MOCKING BIRD.

(*Turdus polyglottus.*)

CHAPTER LIII.

THE AMERICAN MOCKING BIRD.

Turdos polyglottus (Wilson.)
Mimic Thrush (Latham).
Le Grand Moquer (Buffon.)

Mocking Bird (Audubon.)
The Mock Bird (Catesby.)

AMONGST all the cage pets imported to this country, the above named bird ranks first as a songster, and he is consequently held in high estimation by amateurs. He belongs to the thrush family, and indeed one hears him frequently called the polyglot thrush, both by dealers and authors, and a lucrative business is done by unscrupulous retailers, who sell a great variety of worthless birds under this name to unsuspecting tyros, who for a time are proud in the fancied possession of a "real Mocking Bird." I have had at least twenty victims to this imposition apply for my "opinion" about the genuineness of their specimens within the past two years. Amongst the creatures thus sold, at prices ranging from 20s. to 60s., were Cow Birds, hen Troopials, Tanagers, and Orchard orioles, small Glossy starlings, various thrushes, and other equally absurd and palpable impostors, which would have been recognised in a moment by anyone possessing the slightest knowledge of ornithology. The victims were nearly all ladies, and that fact shows a sound discretion on the part of those who make this mode of swindling a profitable business, whilst the absence of any book of reference has kept beginners in the fancy at the mercy of such rascals. The following description will save those who consult it from buying spurious "Mocking Birds," but considerable care will be necessary, in order to make certain about the sexes; for they are provokingly alike, and in the absence of the means of making comparison, it is very easy to buy a hen instead of a cock bird, and so to throw your money away.

The male measures nine and a half inches in extreme length, and he is very slender in proportion, the tail being long and narrow at its base, but rounded and somewhat spread at the extremity. The body colour is a dull ashen brown throughout, inclining to ashey grey upon the throat, breast, and abdomen. Not less than nine of the principal wing feathers are white at their base, thus forming a bold white patch, upon which the amateur must mainly rely as a test of sex, although the lower portion of the back is a much darker blackish brown than that of the female. The two outer tail

feathers are pure white, and the rest are white on their lower halves, the upper side being dark brown edged with white. This tail marking is identical in both sexes, and indeed the only points of dissimilarity is the dark back and distinct wing patch of the male. The white wing bar of the female never extends over more than seven or eight feathers, and her back is light ashen brown.

The Mocking Bird is common to both North and South America, and also to tropical America, including the Brazils and adjacent islands, but the birds are more numerous in the Southern States than elsewhere, and they remain there all the year round, whilst those which visit the Northern States do so only in the summer. Their food, when at liberty, consists mainly of winged insects, berries, and ripe fruit, and in confinement they will eat almost anything and everything which comes to table.

Of the vocal abilities of this wonderful bird so much has been written by American authors that I feel tempted to quote their testimony here, and simply add from personal experience, that the lavish praise therein bestowed exaggerates none of the magnificent powers of mimicry and song possessed by the Mocking Bird.

His powers of imitation are marvellous, and, being a night songster, like the nightingale, his mimicry is heard to great advantage. Webber, speaking of this bird's song at night, says it represents all the notes of the other songsters. "Yes, they are all here! Hear them each warble, chirp, and thrill! How they crowd upon each other! You can hear the flutter of soft wings as they come hurrying forth! Hark, that rich clear whistle! ••••• Boō White, is it you? Then the sudden scream! Is it a hawk? Hey! what a gush, what a rolling limpid gush! Ah, my dainty redbreast, at thy matins early! Mew! what, pussy! No, the cat bird; hear its low, liquid love notes linger round the roses by the garden walk! Hillo! listen to the little wren! he must nearly explode in the climax of that little agony of trills which it is rising on its very tip-toes to reach! What now? Quack, quack! Phut, phut, phut! cock-doodle-doo! What, all the barnyard Squeak, squeak, squeak! pigs and all. Hark, that melancholy plaint, Whip-poor-Will, how sadly it comes from out the shadowy distance! What a contrast! the red-bird's lively whistle, shrilly mounting high, higher, highest! Hark! the orchard oriole's gay, delicious, roaring, run-mad, ranting-riot of sweet sounds! Hear that! it is the rain crow, croaking for a storm! Hey day! Jay, jay, jay! It is the imperial dandy blue jay; hear, he has a strange, round, mellow whistle too! There goes the little yellow-throated warbler, the woodpecker's sudden call, the king bird's woeful clatter, the dove's low plaintive coo, the owl's screeching cry and snapping beak, the tom-tit's tiny note, the kingfisher's rattle, the crow, the scream, the cry of love, or hate, or joy, all come rapidly and in unexpected contrasts, yet with such clear precision, that each bird is fully expressed to my mind in its own individuality."

Wilson says: "In measure and accent he faithfully follows his originals; in force and sweetness of expression he greatly improves

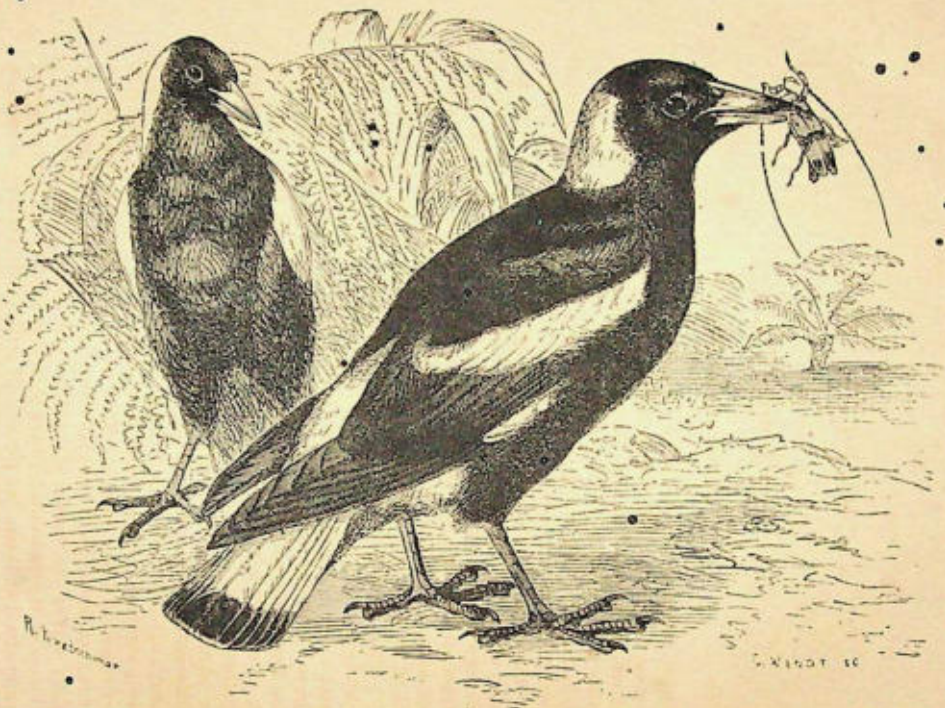
upon them. In his native groves mounted on the top of a tall bush or half grown tree, in the dawn of dewy morning, while the woods are already vocal with a multitude of warblers, his admirable song rises pre-eminently over every other competitor; the ear can listen to his music alone, to which that of all birds seems a mere accompaniment. Neither is this strain altogether imitative. His own native notes, which are easily distinguishable by such as are well acquainted with those of our various song birds, are full and bold and varied, seemingly beyond all limit. They consist of short expressions of two or three, or at the most four or six syllables, generally interspersed with intonations, and all of them uttered with great emphasis and rapidity, and continued with unlimited ardour for half an hour or an hour at a time, his expanded wings and tail glistening with white, and the buoyant gaiety of his action arresting the eye, as his cry most irresistibly does the ear, he sweeps round with enthusiastic ecstasy as he mounts or descends as his song swells or dies away; and as my friend Mr. Bartram has beautifully expressed it, 'he bounds aloft with the celerity of an arrow, as if to recover or recall his very soul expired in the last elevated strain.' While thus exerting himself, a bystander destitute of sight would suppose that the whole feathered tribe had assembled together on a trial of skill, each striving to produce his utmost effect, so perfect are his imitations. He many times deceives the sportsman, and sends him in search of birds that are perhaps not within miles of him, but whose notes he exactly imitates; even birds themselves are imposed upon by this admirable mimic, and are decoyed by the fancied calls of their mates, or dive with precipitation into the depths of thickets at the scream of what they suppose to be the sparrow-hawk."

Webber gives us the most complete account of the breeding of these birds, and describes the nest as being similar to that of the blackbird, and seldom more than eight feet from the ground; the eggs being five in number, greenish blue and spotted with brown. The parents wage a fierce war against all intruders, and it is reported that they not unfrequently attack and kill the black snakes which climb trees and feast upon the young of all American birds. The author referred to found two newly hatched unfledged Mocking Birds upon the ground nearly dead, and carrying them home introduced them into the nest of a pair of Blue Robins that had nested beneath the eaves of a summer house; when fully fledged these foundlings were placed in an aviary, where the Blue Birds followed and fed them through the wires; they became very tame, and when subsequently given their liberty would come at the call of those they knew and feed from their hands. Webber says: "They lived on the place, and we felt ourselves for years afterwards plentifully, aye, bounteously, rewarded for our anxiety on account of these little outcasts by the glorious songs they sung for us the summer nights to dream by."

Mocking Birds have been successfully bred in confinement both here and on the Continent, but it is necessary to give them an aviary to themselves,

for at the period of nesting the male becomes very pugnacious and makes war against all intruders. They may be kept in a garden aviary during the summer months, or in an indoor bird-room all the year round, without artificial heat; but the difficulty of feeding these soft-billed birds in a mixed collection will no doubt deter most amateurs from keeping them under those conditions. The Mocking Bird is much more musical and interesting as a cage pet, kept alone, and if his house be roomy and his diet liberal he will well repay your care by his song.

FOOD AND TREATMENT.—See chapter 51, on Blue Robins.



• THE PIPING CROW.

(*Gymnokitta* [?])

CHAPTER LIV.

THE PIPING CROW.

Gymnorhina tibicen (Gould).

AMONGST those fanciers who affect cage pets the Piping crow of Australia is a great favourite, his bold and strikingly marked plumage, jaunty self-assertion, and magnificent flute-like song entitling him to a very prominent position in the ranks of feathered songsters. He is, moreover, a hardy bird, bearing our climate well, and being blessed with a voracious appetite and splendid digestive powers, he is prepared to accept his share of everything that comes to table and afterwards pick all the bones with an amount of painstaking that is very creditable. In a wild state, insects form the staple article of diet, and he is a deadly enemy to the great grasshoppers which infest the pasture lands. His total length is about fifteen inches; stoutly built, and tail short; body and wings black; a white patch at nape of neck and white bar on the wing coverts and spurious wing; rump and tail white, except at the extremity, which is black; eyes reddish-brown; beak slate colour; legs and feet black. As there are several other varieties of black and white crows which are sold as "Pipers," intending purchasers would do well to note that the veritable Simon Pure is the only one possessing the white patch at the nape of his neck, "without which none are genuine," as the vendors of patent medicines say.

In addition to their natural song, these birds learn readily tunes of considerable length, which are frequently repeated within hearing, and although old birds attain a certain degree of proficiency in this respect yet a young specimen proves himself a much more apt pupil, and makes, in every respect, a better cage pet. They are all liable to become irascible in confinement, and to resent every interference, whether it be for the cleansing of their cage or the renewal of supplies; and, indeed, some of the touchy old Pipers of my acquaintance have been so savage that their owners were actually afraid of them. As these birds attain their adult plumage when only three or four months old, it is difficult to determine their ages, but an old bird can be recognised by the scales upon his legs being coarse and large and the skin dry and scaly; whilst the legs and feet of the youngster are cased in a delicate covering, and the skin will appear thin

and soft. They require to be kept scrupulously clean, otherwise their cages will quickly become offensive; and although small particles of raw meat may be given with advantage at short intervals, yet its too free use is objectionable upon sanitary grounds, and the birds will thrive upon the ordinary diet of a human being and live upon such food to a grey-headed old age. Newly imported specimens require to be kept out of all draught, but they need no artificial heat, and when once acclimatised they will become as hardy as a common jackdaw.



THE BOHEMIAN WAXWING.

(*Bomby cilla Garrula.*)

CHAPTER LV.

THE BOHEMIAN WAXWING.

Ampelis Garrula (Buffon). | *Bombus cilla Garrula* (Zoo. Soc.).

THESE are a widely distributed and migratory species, and our dealers occasionally receive a few specimens from Norway, where they abound in vast numbers at certain seasons of the year. Whence they come and whither go has never yet been decided, but they are met with in Central Asia, North America, and the region of the Great Bear Lake. They have occasionally been seen wild in England during the winter, but these birds are quite as rare in Bohemia as in this country as voluntary visitants, though they are sold as an article of food in Norway, the regular price for each bird being one penny.

The Waxwing is some eight inches in length, of a pinkish brown colour, the plumage being remarkably soft and silky in appearance, and the upper body being darker than the under side. A black band crosses the base of the upper mandible and extends backwards, forming well-defined eyebrows, and a pear-shaped patch of black extends downwards on the throat from the base of the lower mandible. The primaries and secondaries of the wings and tail are black, tipped with yellow. Each wing is embellished with eight small pellets of a waxy-looking substance, which grow at the extremity of the feathers, and have the appearance of small pieces of sealing wax that were dropped on hot and then flattened with the finger. These appendages do not make their appearance until the birds attain the age of two years, and occasionally one or two tail feathers are found similarly adorned. The head is surmounted by a soft crest, which can be raised or depressed at will, and both sexes are alike in plumage. In confinement they thrive upon sops and currants; but they are coarse feeders, and will greedily eat anything which comes to your table. Their beauty of plumage is their only commendatory quality, for they possess no note save a grating chirp; they are mopish, and their intelligence is of a very mean order.

FOOD AND DISEASES.—In their wild state these birds feed upon insects, berries, and fruit, and in the winter time the berries of the juniper tree furnish their only article of diet. They usually go blind in confinement, but I attribute this to artificial heat and forcing diet, and too much care cannot, therefore, be taken to prevent killing these birds with kindness. They spend a portion of the year within the Arctic circle, and are unable to bear even a small degree of heat.

CHAPTER LVI.

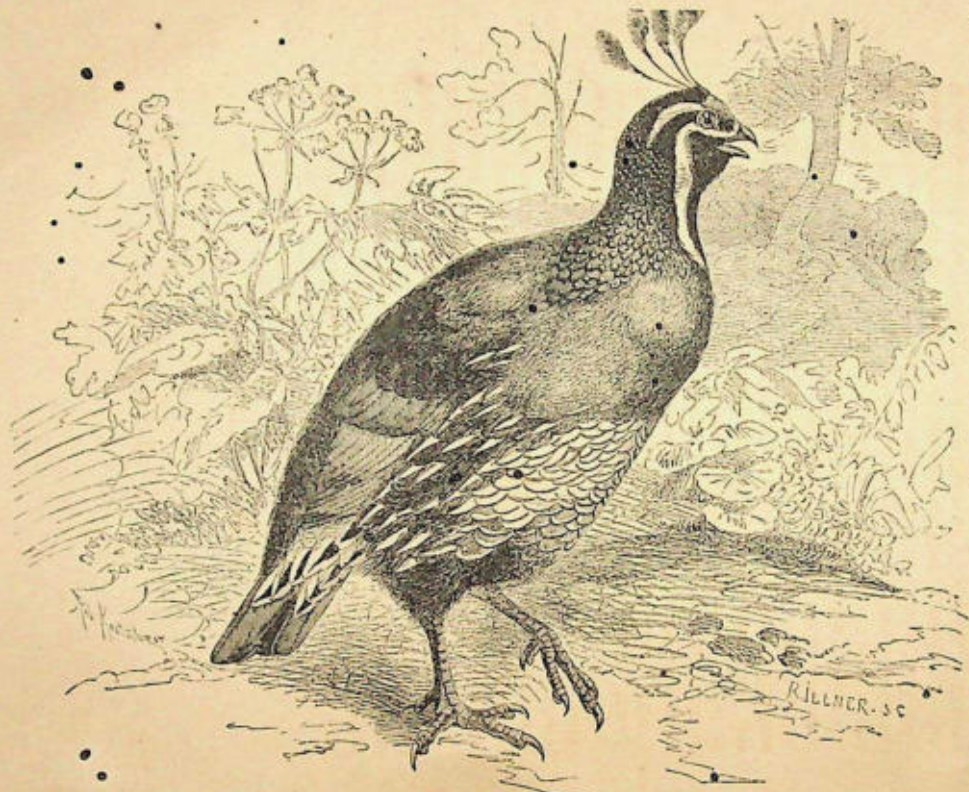
THE CRESTED QUAIL.

Lophortyx Californica.

ALTHOUGH these can scarcely be called cage birds, yet they thrive so well in garden aviaries and are, moreover, so strikingly handsome and attractive in appearance, that they deserve to be better known to English amateurs. Continental fanciers have for years kept these birds and multiplied them abundantly in confinement; finding a ready sale for the progeny amongst our dealers.

This bird is a native of California, and he is in general shape and style like our partridge, though only two-thirds of his size. The whole of the plumage is dark chocolate brown, save the rump and under tail coverts, which are nearly white; the head being surmounted by four feathers, forming a graceful crest. A white crescent-shaped stripe extends backwards from the eyes for half an inch, and another white stripe starts from the base of the upper mandible and passes in a circle round the throat. The female has no crest, but in other respects the sexes are almost alike.

Although these are "game" birds, yet they will not be found pugnacious in an aviary, and may therefore be kept with most of the larger varieties of foreigners, but some logs or pieces of rock should be so ranged on the side farthest from the door so that the quail can run behind, and also make a snug nesting place for themselves quite out of sight. The floor of this retreat should be strewn with dry sand to a depth of three inches, unless the floor consists of loose earth, when sand will be unnecessary. If your birds are imported specimens the date of their nesting is uncertain, but aviary bred stock commence about June, and they form a little mound of earth with a hollow in the centre, which serves as a receptacle for the eggs. These I have found average about nine in number, and they resemble those of the partridge in appearance, though smaller in size. When the birds are "scarey" and not likely to sit steadily, I remove the eggs and put them under a little bantam hen, who rears the young much better than their natural parents would do, and the usual result of this proceeding, moreover, is that the quail goes to nest again and lays another batch of eggs. The youngsters require a regular supply of ants' eggs, or very finely minced cooked meat, small chicken's grits and



KILLNER. SC

THE GREAT QUAIL.

crushed hemp seed forming the rest of the ordinary diet, which must be plentiful and good. The nest feathers are dark rusty brown, but the young birds attain their adult plumage before they are six months old, though it is not so glossy nor are the markings so clear and well defined as in the older specimens.

Although these are ground loving birds, yet, curiously enough, they always—except when nesting—go up to roost amongst the branches at night; but, as no person has written about the habits of these quail in their wild state, I am unable to find out whether this is their natural habit or the result of being kept in confinement with other birds who all go up to roost at night. These pretty creatures when reared from the nest become excessively tame with those accustomed to feed them, but they are very much afraid of strangers, whose approach they detect very quickly.

FOOD AND MANAGEMENT.—My practice with these birds was to let them take their chance with the other occupants of the same aviary, hemp, canary, and millet being the standing dishes, whilst meal worms, ants' eggs, and other choice morsels were given in small quantities daily, as was flowering chickweed during the summer. The chief drawback to success in my case was the frequent deaths amongst the hen quail from egg binding, produced by overfeeding on hemp seed, and the secret manner in which these birds nestle prevented any knowledge of what was wrong until after the birds were dead. In other respects they are extremely hardy, and no case of disease amongst my stock ever occurred whilst I kept them.

CHAPTER LVII.

USEFUL HINTS ON FOOD.

As most of the foreign birds require animal food of some kind, either to induce egg production in this country, or else to enable them to rear their young, amateurs are frequently at a loss how to obtain the necessary supplies, the lack of which leads to so much disappointment. A few hints upon this subject may therefore prove useful, and to facilitate easy reference I classify the various articles of diet.

ANTS' EGGS.—This is undoubtedly the best and most stimulating of all insect diets, and where a frequent supply can be obtained fresh from the ant-hills, all through the summer months, the amateur thus favoured need trouble himself no further until the little insects cease to furnish the customary yield of new-laid eggs for the bird room table. When this happens, there is no alternative but to fall back upon the German dried ants' eggs, which may be purchased at about 2s. 6d. per lb. in this country, and can be obtained in any quantities from an ounce to a hundredweight. The production of these ants' eggs form a special branch of industry in Germany, where bird keeping is studied as a science, and where an amount of enthusiasm is brought to bear upon the subject which is as widespread as it is remarkable, and it affords one of the most striking proofs of the home-loving habits of the German people. These dried ants' eggs are invaluable to the bird keeper during the winter months, provided the eggs are good; but in this country the sale is so slow that dried ant eggs through long keeping frequently become utterly worthless, being nothing more than outside shells, the contents having dried up and perished. Even the freshest of this food looks shrivelled and dry, but a very simple test will prove whether or not the eggs still retain their stimulating properties. Put a teaspoonful into a cup, pour over sufficient boiling water to cover them, then place a saucer on the cup, to prevent too rapid evaporation of heat, and allow the mash to stand undisturbed for a quarter of an hour. At the end of that time strain the water away and spread the eggs upon a cloth, when, if they are good, they will be found to have swollen to their original size, and be quite plump and egg-like in appearance after this treatment, and in this condition they should be given to the birds, who will eat them with avidity. Should the ant eggs, after scalding, remain shrunken, they may safely be thrown away as useless, for the birds

will not eat them, and, even if they did, such a diet would do more harm than good. Dried ants' eggs can be employed with great advantage in a variety of combination foods for insectivorous birds, or may be used in the manner above described for those members of the finch and waxbill tribes who, in their wild state, plunder the grain crops for their staple articles of diet, and make substantial return to the cultivators of the soil by the destruction of vast numbers of insects and their larvæ all through the period of nesting. Should the small birds evince no inclination to eat ants' eggs when offered separately, sprinkle them upon the surface of the millet seed, and the little fellows will thus grow accustomed to their appearance and acquire a taste for them.

YOLK OF EGG.—When first I embarked in the "fancy" hard-boiled egg was recommended to me by all the dealers, both as food for insectivorous birds and also as necessary to induce the tiny finches and waxbills to breed in confinement; but I soon found that its continued use for insectivorous birds was extremely pernicious, producing surfeit, and that it was only useful by way of variety with the tiny finches and their wax-beaked relatives. It is by no means easy to get these two last named varieties to eat boiled egg at all, and I only succeeded by grating the hard-boiled yolk over the pans of millet and canary seed, and, by dint of persistent repetition, the birds acquired a taste for this stimulating food, and they greatly improved in consequence. Since the early days of my anxiety on this score a very admirable commodity has been introduced to this country from Austria, consisting of the pure yolks of eggs, dried by simple evaporation, to get rid of the water, and then packed in tins of 1 lb. and upwards, which are sold at 3s. 6d. lb. This excellent bird food comes from a vast factory of albumen, where the whites of egg are only used in manufacture, and the yolks were, until recently, treated as a waste article. They are now slowly dried by gentle heat, and when finally reduced to a dry flaky condition are packed in tins holding about three pints, which are equal to a pound weight. As a substitute for the ordinary hard-boiled egg, this dried yolk is far and away superior in quality, as I can testify after a season's experience; and the advantages of having a constant supply of egg food that is always ready at hand, which may be kept in the seed tins for weeks, until the last scrap is eaten, and yet never turn sour—these are advantages which every bird breeder who has suffered from the infliction of having daily to provide an ordinary supply of hard-boiled egg for his birds ought to thoroughly appreciate. Where boiled eggs are used, it will be found very advantageous to mix with each egg one-third of a hard arrowroot biscuit, rolled into fine powder, as this prevents the food going sour, and it also economises its use where birds are disposed to be gluttonous. Bread crumb, unless very stale, goes sour quickly when mixed with egg, and biscuit is much to be preferred.

MEAL WORMS.—These are invaluable for insectivorous birds, and also for any of the finch and cardinal family, especially when out of health and at the moulting period. By a little judicious management a sufficient

number of meal worms may be bred to supply the occupants of an ordinary aviary, and this, too, without any trouble or expense; so that I hope all my readers who keep finches or insect-eating birds will, in view of the benefits derived therefrom, set up one of these worm-breeding establishments forthwith. Meal worms are to be found in the dusty corners of mills, granaries, and corn chandlers' warehouses and shops, and to breed these valuable insects for the bird room a box not less than eighteen inches square (or a small tub), fitted with a lid, will be necessary. Cut up some old sacking, sufficient to three parts fill the box or tub, sprinkling bran and barley meal between the layers of cloth, and adding a few worms here and there as the sacking is put in. Take care that the covering fits tolerably close, or the worms will get out, but they will presently turn into chrysalides, and ultimately emerge as beetles of a dark brown colour and elongated shape. At this stage they lay an amazing number of eggs, placing them in the snug corners and folds of the sacking, and this finally accomplished, the beetles die. The produce of twenty or thirty of these insects will prove ample for most amateur bird keepers, but care should be taken to retain sufficient worms for rearing a fresh stock each season, and do not commit the mistake of saving all the largest for this purpose or you will have only females, and their eggs will prove unproductive. In starting meal-worm breeding get a good lot to begin with, and resist the temptation of using any of the stock until they have actually bred. By this means a constant supply will be assured.

SPIDERS.—These are excellent as medicine either for purely insectivorous birds or finches, and I have frequently revived a "puffy" bird by giving him a couple of fat spiders, the effect, in some instances, being perfectly magical. As these insects have purgative properties, they should not be given in greater numbers than two per day, and I do not recommend their continued use unless good results are apparent from the first day's treatment.

FLIES.—All the waxbills will be found ready to dispose of any number of those green flies, or "blight," which infest the young shoots of our rose trees in the spring and early summer, and they may be taken off the branches with a soft brush into a small tray, and thus be transferred to the bird room, where a short shrift awaits them. This addition to the ordinary diet will prove highly beneficial to the tiny birds, and encourage their inclination to nestle. House flies, bees, and even wasps, will be greatly appreciated by many of the larger birds, and by none more so than the Indigo finches and Nonpareils. Although there are many substitutes for this natural insect diet, yet the extra trouble involved in providing these luxuries will be well repaid by results. American fanciers are able to obtain in large quantities a species of gnat, which is collected, dried, and sold as diet for insectivorous birds, and I have proved, by an analysis made by a medical friend, that these flies retain their essential oils, and that, dry though they be, yet that they still possess all the properties necessary to the maintenance of delicate insectivorous birds in confinement.

These flies were recently obtainable in Liverpool, but I am unable to find the name and address of the individual who sold them, and I get a supply as required from a friend in Boston, U.S. They are kept by most large dealers in the west end of London, Hawkins, of Bear-street, amongst the number.

GERMAN PASTE.—This is such an ancient "institution" that I hesitate to declare my dislike of the concoction. Whatever may be its merit as a food for British birds I do not recommend its use for foreigners. The most satisfactory "soft food" with which I am acquainted is that prescribed in the chapter upon "Blue Robins," and that mixture will be eaten readily by all the foreign insectivorous birds, and even the most delicate thrive and do well upon it. There is another mixture, however, that finds equal favour with the half seed-eating and half insectivorous class of birds, and, as this can be kept good for months in a tin with a close-fitting lid, I give directions for preparing a pint of the food, which will prove a convenient quantity to make at one time. To a pint of fresh pea-meal add two new-laid eggs, previously well beaten, and mix these thoroughly with the meal by dint of much stirring; then add two ounces of treacle (or honey), a like quantity of lard, and a pennyworth of maw seed; stir on until the whole is incorporated and the mixture becomes perfectly smooth, friable, and free from all lumps. Place it in an enamelled stew pan, over a very gentle clear fire, and stir briskly all the time until the food is thoroughly scalded, taking great care that it does not get burned, or become smoky. When done, turn it into a fine wire sieve, and rub it through on to a newspaper, allowing it to remain untouched as it falls until quite cold, then put it lightly (not pressed down) into tins, and it will keep good for months. For large birds, some labour may be saved by passing the food through a colander instead of sieve.

GENTLES.—These insects, though deemed unsavoury by the bird keeper himself, will find great favour with his pets, and although too stimulating as a common article of diet, yet their occasional use will prove highly beneficial amongst insectivorous birds. In the country a piece of meat suspended (in a cage) in some out of the way place will yield an unlimited supply of gentles, and in most towns they can be purchased very cheaply.

CHAPTER LVIII.

COLLECTIONS OF SUITABLE BIRDS.

IN accordance with a promise made in the first volume of this work, I now propose to give a short list of such birds as may be kept together in cages or aviaries, but it is difficult to guarantee the good behaviour of individual specimens, however docile may be the general character of the family to which they belong, and allowance must therefore be made, should some of the members in the following collections prove pugnacious. It is in cages that the presence of aggressive birds towards their fellows proves the greatest source of annoyance and loss, and I therefore advise my readers not to attempt keeping any but the tiny finches and waxbills together in small cages, and even then to exclude the strong beaked varieties or keep them together by themselves.

COLLECTION No 1, IN SMALL CAGE (WEAK BILLED).—Avadavat, Grey waxbills, Orange checks, zebra waxbills, St. Helena Pheasant finches, Cordon bleus, Lavender finches, and Fire finches. These should be kept in pairs, and some little nesting baskets must be provided for the birds to roost in.

COLLECTION No 2, IN SMALL CAGE (STRONG BILLED).—Zebra finches, Combassoes, Diamond sparrows, Silver bills, Mannikins, Bengalese, Double banded finches, Cherry finches, Parson finches, Chestnut finches, and Spice birds. These birds require more space than those given in the preceding collection, but they will roost together at night in nesting baskets.

COLLECTION No 3, IN AVIARY CAGE (not less than 3 ft. long).—Budgerigars, Turquoisines, Java sparrows, Cut throats, Whydahs, Nonpareils, Indigo finches; Love birds will sometimes agree under these conditions, but they require to be looked after when first introduced, as they are apt to prove spiteful towards those who disturb their afternoon nap. Nesting baskets are useless where parakeets are kept, as they nibble them away; neat rustic boxes can be obtained for roosting places, and Budgerigars will sometimes nestle in them.

COLLECTION No 4, IN AVIARY CAGE (not less than 4 ft. long).—All or any of those in No 3, Virginian nightingales, Cardinals, and Cockatiels.

COLLECTION No 5, LOOSE IN ROOM—All those mentioned in the preceding lists, with Paradise parakeets, Blue bonnet parakeets, and Red rumps.

COLLECTION No 6, GARDEN AVIARY (outdoor, not less than 8 ft. long).—Budgerigars, Cockatiels, Turquoisines, Red rumps, Rosellas, Virginian nightingales, Cardinals, Java sparrows, Cut throats, Indigo finches, Nonpareils, Zebra finches and Whydahs.

COLLECTION No 7, GARDEN AVIARY (outdoor).—Pennant parakeets, Rosellas, Rosy cockatoos, Small sulphur crests, King and Queen, Carolina parakeets, Cockatiels, and Red rumps. These form a very showy collection, but it is not safe to trust any of the finch family amongst them unless the aviary is a large one, and even then only such birds as Cardinals, Virginian Nightingales, and Weavers could take care of themselves in such company.

INDEX.

	<i>vol.</i>	<i>page</i>		<i>vol.</i>	<i>page</i>
A.			Bird (<i>continued</i>)—		
African grey waxbill	ii	45	toddy	ii	188
Amazon parrots	i	120	Birds, breeding, in cages	i	12
blue fronted	i	127	food for	i	14
double fronted	i	128	importation of	i	4
Dufresne's	i	126	mode of packing	i	4
Finche's	i	127	selecting newly im-		
golden naped	i	126	ported	i	5
green checked	i	127	water for whilst		
yellow faced	i	128	travelling	i	4
yellow shouldered	i	128	Bishops, crimson	ii	191
American blue jay	ii	199	Black and white manni-		
blue robin	ii	202	kins	ii	54
mocking bird	ii	209	headed brown manni-		
Anta' Eggs	ii	226	kin	ii	58
Astrild finch, aurora	ii	140	headed finch	ii	57, 58
Aurora astrild finch	ii	140	headed, white		
Australian fire-tailed			breasted manni-		
finch	ii	141	kins	ii	57
grey waxbill	ii	49	Blossom headed parra-		
painted finch	ii	141	•kets	i	118
Avadavats	ii	101	Blue and yellow macaw	i	162, 166
Aviaries :			banded grass parra-		
conservatories for	i	15	keets	i	35
fittings for	i	12	bellied finch	ii	70
mice in	ii	61	fronted Amazon		
outdoor	i	8	parrot	i	127
rats in	ii	11	green and scarlet		
B.			macaw	i	165
Baltimore oriole	ii	148	jay, American	ii	199
Bastard oriole	ii	147	linnet	ii	106
Bearded titmouse	ii	132	mountain lory	i	102
Beautiful grass finch	ii	142	robin, American	ii	202
or paradisæ parra-			Bob-o-link	ii	178
keets	i	44	Bohemian waxwing	ii	219
Bengalese, the	ii	6	Borneo finch	ii	28
Bird, love	i	112	Bottle-nested sparrow	ii	188
muscatel	ii	6	Breeding birds in cages	i	12
Paddy	ii	12	Bronze wing mannikins	ii	54
room for waxbills			Brown mannikin, black		
and finches	ii	1	headed	ii	58
spice	ii	28	shouldered whydah	ii	138
			Buogerigar	i	19

	K.	vol. page		vol. page
King and queen parrot ...	i	— 80	Mino bird ...	ii — 195
King lories ...	i	— 80	Mock bird ...	ii — 209
			Mocking bird, American	ii — 209
			Modest grass finch ...	ii — 77
L.			Moroton Bay rosella ...	i — 73
Lance-tail ...	ii	— 81	Muscat finch ...	ii — 28
Large rose-crested cocka- too ...	i	— 141	Muscatel birds ...	ii — 6
Lavender finch ...	ii	— 24		
Leadbeater cockatoo ...	i	— 151	N.	
Le Vaillant's parrot ...	i	— 130	Negro finch ...	ii — 141
Linnæ, blue ...	ii	— 106	Nesting materials for waxbills and finches	ii — 2
Little Helena pheasants	ii	— 94	Nightingale, Virginian ...	ii — 157
Long billed white cocka- too ...	i	— 157	Nonparail, painted ...	ii — 117
nosed cockatoo ...	i	— 157	Nutmeg finch ...	ii — 28
tailed bunting ...	ii	— 121		
tailed grass finch ...	ii	— 142	O.	
tailed grosbeak ...	ii	— 131	Orange - bellied parra- keets ...	i — 26, 35
Lories :			checkered waxbill ...	ii — 105
blue mountain ...	i	— 102	Senegali ...	ii — 65
crimson ...	i	— 111	shouldered bunting ...	ii — 130
king ...	i	— 80	oriole ...	ii — 147
purple capped ...	i	— 104	Orioles :	
red-faced green ...	i	— 98	Baltimore ...	ii — 148
Love birds ...	i	— 112	bastard ...	ii — 147
golden tailed ...	i	— 116	crested ...	ii — 154
green ...	i	— 116	golden ...	ii — 145
red-faced ...	i	— 115	orchard ...	ii — 147
			weaver ...	ii — 188
			Outdoor aviaries ...	i — 8
M.			rats in ...	i — 11
Macaws :			Ox weaver ...	ii — 191
blue, green, and scarlet	i	— 165		
blue and yellow ...	i	— 166	P.	
dark blue ...	i	— 167	Packing birds ...	i — 4
military, or red and green ...	i	— 162, 166	Paddy bird ...	ii — 12
Magpie mannikins ...	ii	— 53	Painted finch, Australian	ii — 141
giant ...	ii	— 53	nonparail ...	ii — 117
Malacca grosbeak ...	ii	— 58	Pans for seed ...	i — 9
Management, general ...	i	— 8	for water ...	i — 9
Mannikins :			Paradisa parrakeets ...	i — 44
black and white ...	ii	— 54	Paradise whydah bird ...	ii — 126
black headed, brown	ii	— 58	Parrakeets :	
black headed, white breasted ...	ii	— 57	beautiful or paradisa	i — 44
bronze wing ...	ii	— 54	blossom headed ...	i — 118
giant magpie ...	ii	— 53	blue banded grass ...	i — 35
magpie ...	ii	— 53	budgerigars ...	i — 19
Many coloured parrakeet	i	— 40	Burke's ...	i — 49
Masked grass finch ...	ii	— 61	Carolina ...	i — 63
weaver, red-billed ...	ii	— 188	chesnut - shouldered	i — 26
Meal worms ...	ii	— 227	cockatoo or cockatiel	i — 57
Mice in aviaries ...	i	— 61	crested ...	i — 57
in aviaries ...	ii	— 2	crested grass ...	i — 57
Military macaw ...	i	— 166	Earl of Derby ...	i — 51
Mimic thrush ...	ii	— 209	elegant grass ...	i — 32
			green leek ...	i — 96

	vol. page		vol. page
Sulphur-crested cockatoo, great	i — 136	Waxbills (continued)—	
Swift parakeet	i — 108	red-billed	ii — 94
T.		St. Helena	ii — 94
Tanager, scarlet	ii — 172	temperature for	ii — 4
Temperature for waxbills and finches	ii — 4	thorn	ii — 49
Thorn waxbill	ii — 49	zebra	ii — 65
Thrushes:		Waxwing, Bohemian	ii — 219
mimic	ii — 209	Weavers	ii — 184
polyglot	ii — 209	buffalo	ii — 191
Tiger finch	ii — 101	chesnut	ii — 188
Titmouse, bearded	ii — 132	crimson	ii — 191
Toddy bird	ii — 188	half-masked	ii — 188
Travelling, water whilst	i — 4	oriole	ii — 188
Troopials:		ox	ii — 191
rice	ii — 178	red-billed masked	ii — 188
rose-breasted	ii — 183	red-headed	ii — 187
Turquoisines	i — 26	rufous-necked	ii — 188
Twelve-tailed whydah	ii — 130	yellow-crowned	ii — 188
Twenty-eight parakeet	i — 86	White breasted black headed mannikins	ii — 57
U.		cockatoo, great	i — 136
Ultramarine finch	ii — 69	cockatoo, long-billed	i — 157
Undulated parrot	i — 19	cockatoo, red-faced	i — 158
Useful hints on food	ii — 226	fronted parrots	i — 135
V.		headed finch	ii — 32, 91
Virginian nightingale	ii — 157	Whydah birds:	
W.		paradise	ii — 126
Warbling grass parakeet	i — 19	bird, pin-tailed	ii — 121
Water pan	i — 9	brown-shouldered	ii — 130
whilst travelling	i — 4	shaft-tail	ii — 126
Waxbills:		twelve tailed	ii — 130
African grey	ii — 45	Worms, meal	ii — 227
and finches	ii — 1	Y.	
and finches, rare	ii — 140	Yellow collared parakeet	i — 86
Australian grey	ii — 49	crowned weaver	ii — 188
cage or room for	ii — 1	faced Amazon parrots	i — 128
cinerous	ii — 24	shouldered Amazon parrot	i — 128
Dufresne's	ii — 142	Z.	
gold breasted	ii — 65	Zebra diamond	ii — 36
nesting materials for	ii — 2	finch	ii — 36
orange-cheeked	ii — 105	parakeet	i — 19
		waxbill	ii — 65

FOREIGN CAGE BIRDS:

CONTAINING

Full Directions for Successfully Breeding, Rearing, and Managing
the various Beautiful Cage Birds Imported into this Country.

By C. W. GEDNEY.

Vol. I.—Parrakeets, Parrots, Cockatoos, Lories, and Macaws.
In Cloth gilt, price 3s. 6d.

Fully Illustrated.

In cloth gilt, price 5s.

THE CANARY BOOK:

CONTAINING

FULL DIRECTIONS FOR THE BREEDING, REARING, AND MANAGEMENT
OF CANARIES AND CANARY MULES;
CANARY SOCIETIES, EXHIBITION CANARIES, AND ALL OTHER MATTERS
CONNECTED WITH THIS FANCY.

By ROBERT L. WALLACE.

Illustrated.

In paper, price 2s.

GENERAL MANAGEMENT OF CANARIES:

CONTAINING FULL DIRECTIONS FOR THE BREEDING, REARING, AND
MANAGEMENT OF CANARIES AND CANARY MULES.

By ROBERT L. WALLACE.

Illustrated.

In paper, price 2s.

EXHIBITION CANARIES:

CONTAINING

THEIR POINTS OF EXCELLENCE AND HOW OBTAINED, THE FORMATION
AND MANAGEMENT OF CANARY SOCIETIES AND EXHIBITIONS,
AND ALL OTHER MATTERS CONNECTED WITH THIS FANCY.

By ROBERT L. WALLACE.

ADVERTISEMENTS.

THE FOLLOWING IMPORTANT WORKS ARE IN THE PRESS.

PIGEONS
FOR PRIZES AND PROFIT:

CONTAINING
FULL DIRECTIONS FOR THE BREEDING AND MANAGEMENT OF FANCY
PIGEONS, AND DESCRIPTIONS OF EVERY KNOWN VARIETY;
TOGETHER WITH
ALL OTHER INFORMATION OF INTEREST OR USE TO PIGEON FANCIERS.

By J. C. LYELL.

Illustrated.

BRITISH DOGS:
THEIR
VARIETIES, HISTORY, AND CHARACTERISTICS.
ILLUSTRATED WITH PORTRAITS OF DOGS OF
THE DAY.

By HUGH DALZIEL.

Division I.—Dogs Used in Field Sports.

[Shortly.]

THE RABBIT BOOK:

BEING
A COMPLETE GUIDE TO THE SUCCESSFUL BREEDING AND REARING OF
EVERY VARIETY OF THE FANCY RABBIT, BOTH FOR
THE EXHIBITION PEN AND THE TABLE.

Magnificently Illustrated.

This will be the most exhaustive work on Rabbits ever published.

DUCKS AND GEESE:

THEIR
CHARACTERISTICS, POINTS, AND MANAGEMENT.

By VARIOUS BREEDERS.

[Nearly Ready.]

PRACTICAL HAND-BOOKS

PUBLISHED AT 170, STRAND, LONDON, W.C.

LIVE STOCK.

PRACTICAL DAIRY FARMING: A short Treatise on the Profitable Management of a Dairy Farm. Illustrated. By G. SEAWARD WITCOMBE. In paper, 1s. 6d.; by post, 1s. 6d.

PRACTICAL BEE-KEEPING. Illustrated. By FRANK CHESHIRE. In cloth gilt, 2s. 6d.; by post 2s. 9d.

FANCY MICE: their Varieties, Management, and Breeding. Illustrated. By an OLD FANCIER. 6d. by post 6d.

FOREIGN CAGE BIRDS: Containing the breeding, rearing, and managing Parakeets, Parrots, Cockatoos, Lorries, and Macaws. Illustrated. By C. W. GEDNEY. In cloth gilt 3s. 6d., by post 3s. 9d.

THE CANARY BOOK. containing the Breeding and Management of Canaries and Canary Mules; Canary Societies and Exhibitions, and descriptions of every variety of the Canary. Illustrated. By ROBERT L. WALLACE. Part I.—General Management, 2s.; by post, 2s. 2d. Part II.—Exhibition Canaries 2s., by post 2s. 2d. In one vol. cloth gilt, 5s., by post 5s. 4d.

FERRETS and FERRETING: Containing Instructions for the Breeding, Management, and Working of Ferrets. In paper 6d., by post 7d.

POULTRY for PRIZES and PROFIT. By JAMES LONG. Profusely Illustrated. In cloth gilt, 2s. 6d., by post 2s. 9d.

THE DISEASES OF DOGS, and their Treatment: For the use of Amateurs. By HUGH DALZIEL. In paper, 1s., by post 1s. 1d.; in cloth gilt 2s., by post 2s. 2d.

BREAKING and TRAINING DOGS both for Field and for Companions, Retrievers, Pointers, Setters, Spaniels, Terriers, &c. In cloth gilt, 5s., by post 5s. 4d.

RABBITS for PRIZES and PROFIT. By CHARLES RAYSON. Contains every particular of management and minute description of all varieties of Fancy Rabbits. Splendidly Illustrated. In cloth gilt 2s. 6d., by post 2s. 9d. Also in two parts "General Management" and "Exhibition Rabbits," 1s. each, by post 1s. 1d.

THE BOOK of the GOAT: Being the Management of the Milch Goat. Illustrated. By STEPHEN HOLMES. Cheap edition. In paper, 1s., by post . 2d.

MECHANICS.

PRACTICAL ARCHITECTURE as applied to Farm Buildings of every description (Cow, Cattle and Calf Houses, Stables, Pigeries, Sheep Shelter Sheds, Root and other Stores, Poultry Houses), Dairies, and Country Houses and cottages. Profusely Illustrated with Diagrams and Plans. By ROBERT SCOTT BURN. Cloth gilt, price 5s.; by post, 5s. 4d.

MINOR FIREWORKS: Containing Instructions for the Manufacture of the Common and Simple Varieties of Fireworks, for the Use of Amateurs. Illustrated. By W. H. BROWNE, Ph.D., M.A., &c. (Author of "The Art of Pyrotechny") Price 1s.

PRACTICAL BOAT BUILDING FOR AMATEURS: containing full instruction for Designing and Building Punts, Skiffs, Canoes, Sailing Boats, &c. Fully Illustrated with working diagrams. By ADRIAN NELSON, C.E. In cloth gilt, 2s. 6d., by post 2s. 9d.

PRACTICAL TAXIDERMY: A Manual of Instruction to the Amateur in Collecting, Preserving, and Setting-up Natural History Specimens of all kinds. Illustrated. By MONTAGU BROWNE. Price, in cloth gilt, 3s. 6d., by post, 3s. 9d.

PRINTING FOR AMATEURS. Illustrated. By P. E. RAYNOR. In paper 1s., by post 1s. 2d.

CARPENTRY and JOINERY for AMATEURS. In cloth gilt, 2s. 6d., by post 2s. 9d.

TURNING for AMATEURS. Illustrated. In cloth gilt, price 2s. 6d., by post 2s. 9d.

THE ART of PYROTECHNY: The Manufacture of Fireworks for the use of Amateurs. Profusely Illustrated. By W. H. BROWNE, Ph.D., M.A., L.R.C.P., &c. In cloth gilt, 2s. 6d., by post 2s. 10d.

WORKING in SHEET METAL: being practical instruction in Brazing, Soldering, &c. Illustrated. In paper 6d., by post 6d.

WOOD CARVING for AMATEURS. Illustrated. In paper 1s., by post 1s. 1d.

GARDENING AND BOTANICAL.

ORCHIDS FOR AMATEURS: Containing Descriptions of Orchids suited to the requirements of the Amateur, with full Instructions for their successful Cultivation. With Illustrations. By JAMES BRITTON, F.L.S. (of the British Museum), and W. H. GOWER. Cloth gilt, price 7s. 6d.; by post, 7s. 10d.

BULBS and BULB CULTURE. Illustrated. By D. T. FISH. In parts, price 1s. each; by post, 1 1d. Vol. I. cloth gilt, 2s. 6d., by post, 2s. 9d. Part I., Snowdrops, Bulbocodiums, Sternbergias, Crocus, Colchicum, Tulips, and Hyacinths, and how to grow them in and out of doors. Part II., Anemones, Narcissus, Lilies.

POPULAR BRITISH FUNGI: containing Descriptions and Histories of the Principal Fungi, both Edible and Poisonous, of our Country. Illustrated. By JAMES BRITTON, F.L.S., &c. In cloth gilt, 3s. 6d., by post 3s. 9d.

BRITISH MARINE ALGÆ: Being a Popular Account of the SEAWEEDS OF GREAT BRITAIN, their Collection and Preservation. By W. H. GRATTANN. Magnificently Illustrated with 205 engravings. In cloth gilt, 5s. 6d., by post 5s. 10d.

THE PEAR: Its History, Varieties, and Cultivation. Illustrated. By D. T. FISH. Post free, 1s. 6d.

THE APPLE: Its History, Varieties, and Cultivation. Illustrated. By D. T. FISH. Post free, 1s. 1d.

ROSE BUDDING. Illustrated. By D. T. FISH. In paper, 6d., by post 7d.

VINE CULTURE for AMATEURS. Instructions for growing Grapes with the means and appliances usually at the command of Amateurs. Illustrated. By W. J. MAY. Post free, 1s. 1d.

ROSE GROWING for AMATEURS: being Practical Instructions for the successful Culture of Roses, with selections of the best varieties adapted to the requirements of the Amateur in Town or Country. By W. D. PRIOR. Post free, 1s. 8d.

PRUNING, GRAFTING, and BUDDING FRUIT TREES. Illustrated with ninety-three diagrams. By D. T. FISH. Post free, 1s. 1d.

VILLA GARDENING: With lists of Trees, Shrubs, and Plants most suitable, and thirteen Designs for small gardens. By W. J. MAY. Post free, 1s. 1d.

SPORTS AND PASTIMES.

COUNTRY POCKET-BOOK and DIARY, for Reference and Registration. Full of facts and forms of the greatest value and interest to country gentlemen and sportsmen. Prices: In Russia leather, 5s. 6d.; morocco, 4s. 6d.; roan, 3s. 6d.; postage, 2d.

BICYCLES OF THE YEAR. Illustrated. By HARRY HEWITT GRIFFIN. Price 6d.; by post, 7d.

BICYCLIST'S POCKET BOOK and DIARY, for Reference and Registration. Full of facts and forms of interest to Bicyclists. Prices: Russia-leather, 4s. 6d.; morocco, 3s. 6d.; roan, 2s. 6d.; postage, 2d.

THE LEATHER WORK BOOK: Making and Ornamenting articles so as to successfully imitate Carved Oak. By ROSA BAUGHAN. Illustrated. In cloth gilt 2s. 6d., by post 2s. 9d.

CARDS and CARD TRICKS: Containing a brief History of Playing Cards, full Instructions, with Illustrated Hands, for playing nearly all known games of chance or skill, and directions for performing a number of amusing Tricks. Illustrated. By H. E. HEATHER. In cloth gilt, 5s., by post 5s. 4d.

SLEIGHT OF HAND: being Minute Instructions by the Aid of which, with proper practice, the Neatest and most Intricate Tricks of Leggerdmain can be successfully performed. By EDWIN SACHS. Cloth gilt, price 5s.; by post, 5s. 4d.

ARTISTIC AMUSEMENTS: being Instructions for a variety of Art Work for Home Employment. Cloth gilt, 2s. 6d.; by post, 2s. 8d.

MISCELLANEOUS.

CHURCH FESTIVAL DECORATIONS for Christmas, Easter, Whitsuntide, and Harvest. Illustrated. In paper 1s., by post 1s. 1d.

ARTISTIC FLOWER DECORATIONS for Ball Rooms, Halls, Passages, Dinner and Supper Tables; with Directions for Making Bouquets, Hair Sprays, &c. Illustrated. By B. C. SAWARD. Price 2s., by post 2s. 2d.

THE PHOTOGRAPHER'S POCKET-BOOK: Containing Register for nearly 1000 Negatives, Almanac (renewable) for the Year, Notes, Formulae, &c. Compiled by O. E. WHEELER, author of "Practical Photography." Prices: In cloth, 3s.; in leather, 3s. 6d.; with Almanac, 6d. extra; by post, 2d. extra.

COLLECTING BUTTERFLIES AND MOTHS: Containing Directions for Capturing, Killing, and Preserving Lepidoptera and their Larvæ. By MONTAGU BROWNE, Illustrated. Price 1s.

STOCK AND SHARE INVESTMENTS: being Explanations for the General Reader of the Nature and Quality of the different Classes of Securities dealt in on the Stock Exchange. By ALBERT SHARWOOD. In paper, 1s.

CHARACTER INDICATED BY HANDWRITING: with Illustrations from Autographic Letters of Eminent Persons. By R. BAUGHAN. In cloth gilt, 2s. 6d.; by post 2s. 9d.

THE HONITON LACE BOOK: Containing full and practical instructions for making Honiton Lace. With Illustrations. In cloth gilt, 3s. 6d., by post 3s. 9d.

PUBLISHING OFFICES, 170, STRAND, W.C.

THE COUNTRY,

A JOURNAL OF RURAL PURSUITS.

PUBLISHED EVERY SATURDAY, PRICE THREEPENCE.

CONTENTS.

BICYCLING.—Accounts of Tours and Runs; Notices of all Novelties; Reports of Matches, and all news relating to the subject; making *The Country* the most complete journal for Bicyclists.

FISHING AND SHOOTING.—Spirited Sketches of Fishing and Shooting incidents; accounts of Sport at Home and Abroad, both with the Rod and Gun; Articles upon the Fishing and Shooting Questions of the day, by leading writers; Where to go for Sport; Letters from various Correspondents on the many questions embraced by these sports; Notices of Novelties connected with Fishing Tackle, Guns, &c.

KENNEL AND STABLE.—Illustrated Articles on Dogs, by the most noted breeders and fanciers; Articles on Horses and their Diseases; Speedy Reports of Shows; Discussions on all matters affecting the Canine world, &c.

POULTRY AND RABBITS.—Illustrated Articles on Poultry, Pigeons, and Rabbits, by the very highest authorities; Early, Accurate, and Impartial Reports of Shows; Discussions on various points of interest to Fanciers.

NATURAL SCIENCE.—Interesting Articles, Illustrations, Letters, and Observations on Entomology, Botany, Zoology, &c.

FAR AND NEAR.—Descriptions of Travels in all Countries, giving graphic accounts of Mode of Life, the Sport to be obtained, the Natural History of the places, and their suitability for emigrants; Notes on Current Events connected with travel.

FARM.—Breeding and Rearing of Stock, Practical Papers on Growing and Harvesting Crops; Descriptions of Notable Labour saving Machines, and other Articles interesting to the Farmer, professional and amateur.

GARDEN.—Gardening in all its branches; Cultural directions for various flowers and fruits, both out of doors and under glass, with frequent illustrations. Particulars of new introductions, and other horticultural matters of general interest.

REPORTS.—Full and Special Reports of Athletics, Cricket, Rowing, Swimming, Bicycling, Football and other sports in their Season are given Weekly by competent Writers.

ILLUSTRATIONS on various Sporting Events, Remarkable Animals and Birds, New Plants, Novelties connected with Guns, Fishing Tackle, Bicycles, &c., and a variety of other subjects.

Quarterly Subscription, post free, 3s. 9d., prepaid.

LONDON OFFICE: 170, STRAND, W.C.

"Like all grand conceptions the process is remarkable for its simplicity."—
The Globe.

The Bazaar, The Exchange and Mart, and Journal of the Household.

ILLUSTRATED.

PUBLISHED EVERY WEDNESDAY AND SATURDAY. PRICE 2d.

GENERAL CONTENTS.

CLASSIFIED ADVERTISEMENTS of Thousands of Articles of every description for Exchange, or Sale, or Wanted, by *private persons*. Through this department all kinds of property may be procured or disposed of without publicity, with marvellous cheapness, and PERFECT SECURITY FROM DISHONEST PERSONS. Full particulars are given in each issue.

THE LITERARY PORTION consists of Art, Dramatic, Scientific, and Musical news of the week; Critiques on New Music, &c.; Articles and Notes upon Canaries and Foreign and British Cage Birds; Places at Home and Abroad; Practical Photography; Noteworthy Books recently published; Various Literary Subjects; Organ Building; Manufacture of Fireworks; Various Branches of Amateur Mechanics; Domestic Matters; Recipes of all kinds; Present Fashions, with original illustrations; New Materials; Fancy Work of different kinds; Cultivation of Flowers, Fruit, and Vegetables; Garden Operations; Bee Keeping; Dogs; Rabbits; Horses; Farming; Poultry; Pigeons; Reports of Poultry, Pigeon, and Rabbit Shows, &c., &c.

TERMS OF SUBSCRIPTION.

One issue weekly: Quarterly, 2s. 8d.; Half-yearly, 5s. 4d.; Yearly, 10s. 8d.
Two issues weekly: Quarterly, 5s. 4d.; Half-yearly, 10s. 8d.; Yearly, 21s. 4d.

LONDON OFFICE: 170, STRAND, W.C.

Cut Paper Patterns.

To meet the demand for good and fashionable patterns of ladies' and children's garments at reasonable prices, there is issued in connection with THE BAZAAR a series of high-class patterns, each one of which has been specially designed and prepared for that paper, and ladies are invited to inspect the list before making other arrangements. This list is added to week by week, so that it contains the newest and most reasonable fashions. The list will be found in each of the above papers, or Illustrated Catalogues may be had, price 1d.



1000000000

