

RUBY AND NATURE

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BIRDS AND NATURE.

ILLUSTRATED BY COLOR PHOTOGRAPHY.

THE CAT-BIRD.

The tufted gold of the sassafras,
And the gold of the spicewood-bush,
Bewilder the ways of the forest pass,
And brighten the underbrush:
The white-starred drifts of the wild-plum tree,
And the haw with its pearly plumes,
And the red-bud, misted rosily,
Dazzle the woodland glooms.

And I hear the song of the cat-bird wake
I' the boughs o' the gnarled wild-crab,
Or there where the snows of the dogwood shake,
That the silvery sunbeams stab:
And it seems to me that a magic lies
In the crystal sweet of its notes,
That a myriad blossoms open their eyes
As its strain above them floats.

I see the bluebell's blue unclose,
And the trillium's stainless white;
The bird-foot violet's purple and rose,
And the celandine like a light:
And I see the eyes of the bluet wink,
And the heads of the whitehearts nod;
And the baby mouths of the woodland-pink
And the sorrel salute the sod.

And this, me seems, does the cat-bird say,
As the blossoms crowd i' the sun:—
"Up, up! and out! oh, out and away!
Up, up! and out, each one!
Sweethearts! sweethearts! oh, sweet, sweet, sweet!
Come listen and hark to me!
The Spring, the Spring, with her fragrant feet,
Is passing this way! Oh, hark to the beat
Of her bee-like heart! Oh, sweet, sweet, sweet!
Come! open your eyes and see!
See, see, see!"

MADISON CAWEIN.

THE HERMIT THRUSH.

(*Turdus aonalaschkæ pallasi.*)

Among the perching birds, no family is better known or more thought of than that of the thrushes. With their bright colors, sprightly manners and cheerful song they are among the most welcome of the avian harbingers of spring. One of the most interesting species of this family is the Hermit Thrush. Its song is wonderfully sweet and seems to hold one in a strange fascination. Reverend J. H. Langille, in his charming little volume, "Our Birds in Their Haunts," thus describes the effect of the song of the Hermit Thrush upon him:

"The song begins with a note not unlike the vowel O, passing through several intervals of the musical scale in a smooth, upward slide, and in a tone of indescribable melodiousness, and continues in a shake which gradually softens into silence, thus giving a most pleasing diminuendo. Put into syllables it is well represented by Mr. Burrough's phrase, 'O-o-o-o, holy-holy-holy holy'; and I sometimes thought I heard it say, O-o-o-o, seraph, seraph, seraph, seraph. Again I could discover no suggestion of articulate language, but only that soul-language of pure melody, which speaks directly to the heart without the ruder incumbrance of speech. With short pauses, this dinuendo is repeated any number of times, but always on a different key and with a different modulation. Now it is on the main chords, now on the intermediates, and now on the most delicately chosen and inspiring chromatics. When pitched high, the shake is through a shorter interval, and in a weaker tone. The lower-toned modulations are always the sweetest. Sometimes the tones are so soft as to sound far away, though the bird is quite near; and again the notes are very penetrating, and may be heard for quite a distance, especially when aided by the enchanting echoes of tall, dense forests. The tone of the melody is neither of flute, nor

hautboy nor vox-humana, but something of inimitable sweetness, and never heard away from the fragrant arcades of the forest. 'Spiritual serenity,' or a refined, poetic, religious devotion, is indeed the sentiment of the song. He whose troubled spirit cannot be soothed or comforted, or whose religious feelings cannot be awakened by this song, in twilight, must lack the full sense of hearing, or that inner sense of the soul which catches nature's most significant voices."

Like the other members of the thrush family the Hermit Thrush may be seen during its migration on the ground searching for food. When disturbed it flies into a nearby tree and perches on a limb not far from the ground where it quietly and fearlessly eyes the intruder. If not molested it will again fly to the ground and continue its search for food, running about with a quick, graceful motion not unlike that of the robin. The favorite haunts of this Thrush are in the open woodlands, near the banks of streams and among the bushes which afford a ready and a safe retreat.

The food of the Hermit Thrush consists of ants, beetles, caterpillars and grasshoppers. In Bulletin Number 3, of the Illinois State Laboratory of Natural History, Professor S. A. Forbes records the following data: Eighty-four per cent of the food is insects, four per cent spiders and twelve per cent thousand-legs. The insect food was made up as follows: Ants, fifteen per cent; butterflies and caterpillars, nineteen per cent; beetles, thirty per cent; hemiptera or bugs, eight per cent; grasshoppers, eight per cent. From these data it will be seen that the Hermit Thrush is a very valuable bird and should be rigorously protected by farmers and agriculturists.

The Hermit Thrush winters in the South and arrives in the latitude of Chicago about the first week in April, and in



HERMIT THRUSH.
Turdus amoenus (Aud.)
(Lutescens)

New England about the middle of April. It pursues its migration leisurely and does not arrive in its nesting region until about the middle of May. A few nest in the northern part of the United States, but the great majority choose their nesting site in the forests of Northern Maine and northward into Canada, in which localities only can its song be heard.

The Hermit Thrush builds its nest on or near the ground, in a secluded spot. It is large and made of leaves, grasses, mosses and pieces of bark, and is lined with finer pieces of the same material. Unlike the wood thrush it uses no mud in the construction of its nest. Writers seem to differ somewhat in describing the location of the nest, some stating that it is built in very low scrubby trees or bushes, quite near the ground, while others state that it is sunken into the ground among the plants or ferns of the forest. It is probable that the nesting site varies in different localities. Four eggs are laid, of a pale, greenish-blue color, which measure three-fifths by nine-tenths of an inch.

From its retiring habits the Hermit Thrush is more rarely seen than the

other members of the thrush family, as the wood thrush and Wilson's thrush, and for this reason it has received its name of "Hermit." It is known under a variety of names, the more noteworthy being Ground Swamp Robin, Swamp Angel, Ground Gleaner, Tree Topper and Seed Sower. It may be easily distinguished by its bright reddish or tawny tail, it being the only thrush with the tail brighter than the back.

The Hermit Thrush starts on its southward migration late in September and spends the winter in the Southern part of the United States, and as far north as Pennsylvania and Illinois. The range includes the Eastern part of the United States, from the Gulf Coast to the mouth of the St. Lawrence Rivér and Manitoba. To the west and north, as far as the Arctic circle, the Hermit Thrush is represented by several varieties, the dwarf hermit thrush being found on the Pacific Coast and the Audubon's hermit thrush in the Rocky Mountain region. These varieties breed far to the north and winter in Mexico and Central America.

COLLINS THURBER.

THE HERMIT THRUSH.

The glory of the sunset sky
Fades into violet and gray
As from the wooded copse near by
A voice in music floats away.
It soars on wings of rapturous flight;
It trills with undertones of pain;
It languishes to reach the light,
Then mounts again.

It tells of all things fair to see,
Till wrong and sorrow seem in vain;
It breaths of all I long to be,
It whispers of immortal gain;
So silence falls, as fades the light
And deeper grows the purple shade,
While on the altar of the night
My heart is laid.

—EDITH WILLIS LINN.

AN AUNT JANE STORY.

CURIOUS PLANTS.—PART I.

"Oh, girls, come here," called Aunt Jane, from over the garden fence, to the children who were playing tennis on the lawn. "Do come here and see what a perfect treasure my friend has sent me."

"Pretty soon, Auntie; we are almost through the game," was the response.

A few moments later, both girls and boys were gathered in the grapevine arbor, around a flower-pot which contained the remarkable gift.

"It is *Drosera*, or Sundew," explained Aunt Jane. "I have been wanting to see a specimen of it ever since I learned it was so famous that its biography has been written, a poem composed in its honor, and its picture taken by various artists."

"Just sit down here in this garden-chair, Aunt Jane; we will all get into the hammocks and will keep ever so still while you tell us all about 'Sundew,' and any other curious flower of your acquaintance," coaxed Alice, in her most persuasive tone, as she arranged the cushion, and drew Aunt Jane toward the chair.

"Children, I won't deceive you. I will confess at once that this wonderful new acquaintance of mine is very wicked."

"Wicked! Aunt Jane; will it poison you?"

"Oh, no, it won't hurt me, or you, either, but it has its victims nevertheless, and has acquired its fame in consequence of its moral obliquity."

"What can it have done! The reddish-leaved, odd-looking plant, does not seem to have a very villainous expression," said Alice, as she took another survey of *Drosera*.

"Look closely," said Aunt Jane, "at the round, flat leaves; they are covered with red glands, and these 'red-lipped' mouths are carnivorous."

"I thought animals were carnivorous, not flowers," said John. "Who ever heard of flowers eating flesh? They have no teeth."

"No; but the leaf of the *Drosera* secretes a glutinous substance, like honey, which attracts insects. When a leaf is touched, a tendril around the edge of it closes it up securely, and the helpless victim becomes food for the plant."

"The poet was quite right, then, in saying the leaf has 'mouths,'" observed Alice.

"Yes, poets are often happy in their choice of terms, which are descriptive of natural objects."

"Do tell us why *Drosera* is called 'Sundew'?" Edith inquired.

"Because the clear fluid it exudes glitters like dewdrops. Naturalists have estimated that each leaf of *Drosera* averages two hundred drops of this secretion. It is a curious fact that 'Sundew' will let go any other substance, such a strip or a stone, when it closes upon it; but an insect it holds fast and uses. As Johnnie seems to have some doubts upon the subject of carnivorous plants, I must tell him about 'Venus' Fly Trap.'"

"Do," cried John; "you make flowers almost as interesting as wolves."

"Hear that boy comparing flowers and wolves!" cried Bird. "I should think he would know better."

"Well, now, why shouldn't I? Aunt Jane says that they 'eat things up,' and so do wolves. There is one point of resemblance, at least."

"You would never imagine," continued Aunt Jane, "such a gay, innocent-looking flower as 'Venus' Fly Trap,' could ever be so cruel as to lure innocent flies by her beauty, and then shut her trap-door upon them and leisurely proceed to digest the little prisoners. Bot-

anists say that the digestion of this plant is so good that it can easily demolish several flies. The side-saddle flower, also called 'Pitcher Plant,' and 'Huntsman's Cup,' is another deceptive flower, for, along the wing of the pitcher, is a honey-baited pathway to the mouth, up which the little insect is lured to its fate. Bladderwort is provided with bladders, which have little doors opening inward. Aquatic insects bend in the free edge of this door and enter. The door closes at once and, to them, forever.

"Birthwort is not so cruel. She does not condemn her prisoners to death; neither does she imprison them for life. She has a cornucopia-like flower, the long tube of which is covered with downward-pointing hairs. Insects can go down the flowers, but the return is impossible, until the hairs are dried up, upon which the little captives make their escape."

"Aunt Jane, you talk about flowers as though they were people," said Howard. "I wonder if you can't find a few giants among them, in addition to the blood-thirsty villains you have been describing."

"Certainly," she responded. "I recall one now. It is said to be one yard in diameter, and sometimes weighs fifteen pounds. It has a cup which holds six quarts of water."

"What is its moral character?" John inquired. "Is it a slayer of the innocents, also?"

"Yes, but indirectly. It is the most disagreeable of flowers. I have never seen one myself, but it is described as resembling raw beefsteak. It has a carrion-like smell, which attracts flies, and they lay their eggs upon it, completely deceived as to its real nature. Of course, when the eggs hatch, the grubs die for lack of food. This very unpoetical flower is called 'Rafflesia arnoldi.'"

"The horrid old thing!" cried Madge. "I don't want one of them in my garden."

"Some of our sweetest flowers are fatal to animal life. It is thought that the Oleander kills insects, by the narcotic effect of its odor."

"What other curious flowers are there besides sanguinary ones?" Howard asked.

"The horned milk-weed kills insects by accidental detention, and not from any malicious purpose. If an insect happens to get its claw into the pollen sack before the pollen is ripe enough for distribution, the sack will not open to release it, and the poor little prisoner dies. But some plants, I am happy to say, are humanitarian, or, should I say, 'insectarian' enough to protect insects from danger by ejecting the pollen on the approach of one of them, and then at once closing the entrance, and refusing it admittance. The benevolent flower, 'Martha,' of the tropics, is said to be thus careful of insect welfare. There is also a flower, in Java, with 'rooms to let' for the accommodation of insects. It is the 'Dischidia rafflesia,' and grows upon trees, without touching the ground. The flowers are fine, urn-shaped jars, and make capital lodgings for the ants, who seem delighted with such elegant tenement houses.

"'Grass of Parnassus' is another deceptive flower. At the base of its snowy petals, are little threads, which end in balls which look like drops of honey. Flies try to extract honey from them, and thus get covered with pollen, which they carry to other flowers. In the wonderful family of Orchids, there is a very naughty flower. It has a flap-cover to a cup, and this cup is filled with an intoxicating fluid, which makes the unfortunate insect drunk."

"How glad I am that you have mentioned Orchids," said Edith. "I want to know about them, for I was reading the other day, that some of them look like human faces, and others like insects and animals. Please tell us if you have ever seen one yourself."

"I am happy to say," Aunt Jane responded, "that I have seen one of the most remarkable specimens of the royal family of plants. In a park in San Francisco, I first saw 'The Flower of the Holy Ghost.' It was in full bloom, and represented a creamy white dove, nestled in a cup-shaped corolla. The wings

of the dove were expanded, the head and body perfect in shape, the eyes yellow, the tail fan-shaped, the bill slightly curved. It seemed as if it might be living, so perfect was its form."

"You should have put this 'flower-bird' on your list of curious birds, I think, although it is a very curious flower," said Howard. "But why do you call 'Orchids' the royal family?"

"Because they are so distinguished, so costly and aristocratic. Even the leaves of some varieties are more beautiful than flowers, being bronzed and velvety in texture, and spangled as with gold dust, while the seeds are marvellous in number and beauty. Darwin estimated that the common Orchid produces nearly 200,000 seeds as fine as mahogany sawdust. A glossy, silky tissue forms the

outer envelope of the tiny, egg-shaped seed in which the embryo lies like a grain of gold.

"Many difficulties attend 'Orchid hunting.' Sometimes lives are sacrificed in attempts to secure fine specimens. In tropical climates, the Orchids are often found growing upon the branches of very tall trees, which must either be climbed, or cut down, or a lasso used in order to secure the flowers."

"I mean to study botany, so when I travel I can be an 'Orchid-hunter,'" cried John, enthusiastically. "I shall not mind the dreadful climate, and I'm pretty good at tree-climbing already."

"Bring me a few Orchids," said Madge. "I would prefer them to the dreadful carnivorous flowers, if they are haughty aristocrats."

BELLE PAXSON DRURY.

THE RESCUE OF A SPARROW.

One afternoon my attention was attracted to the front gallery by a wild medley of sparrow voices, and wondering what could cause such excitement in bird life, I went out to inspect.

There I found our house cat standing very serenely switching her tail while over her, back and forth, darted two little sparrows. The little birds were in a desperate mood and their hysterical chirps indicated the wildest apprehension. They took no notice of my approach, and their cries translated from bird language clearly expressed the following:

"How dare you come here?" "Get away from here!" "You've no business here." "We don't want you." "Don't you understand?"

But Mistress Pussy had no mind to obey the bird's orders, and I myself feeling a keen sympathy for the little birds, called the cat into the house. Believing that the birds must have a nest, I made an examination, but found none.

A short time afterward I heard the same cries of distress from the sparrows, and went out again to investigate more thoroughly. The cat was on the ground this time and the birds were battling with increased vim. Again I looked into the bushes and was just about to pick up the cat when she sprang into a thick china bush and jumped down with a tiny birdling in her mouth.

"Let us save our darling from this cruel fate," came in agonized cries from the parent birds, and lending a hand to their frantic efforts, I succeeded in forcing the cat to drop the tiny creature just as she was going underneath the house. I could feel the rapid beats of its heart, but it had not been injured by Tabby's teeth. As soon as the parent birds saw their birdling in my hands they flew away. I thought it best to put the little thing up in a tree where it would await its parents' return, and soon afterwards I saw the happy family on a high branch.

NINA KING.





SONG SPARROW.
Melospiza cinerea
Linné.

THE SONG SPARROW.

(*Melospiza fasciata.*)

In one of his most beautiful bits of verse, "The All-Kind Mother," James Whitcomb Riley speaks of nature as

Kindly to the weed as to
Lily, lorn and teared with dew,

and although this remarkable impartiality between the lily we admire and the weed we despise is quite difficult for us to understand just now, the poet assures us if we wait patiently we shall

See the lily get
Its divinest blossom, yet
Shall the wild weed bloom no less
With the song-bird's gleefulness.

In reading this over one feels almost certain that it was the Song Sparrow the poet had in mind; for it is the picture of this bird rather than that of any other that is called up by the verses, and the touch fits it so exactly.

And surely no bird is more worthy the attention of the singer of sweetly common things, than the Song Sparrow is, for more than any of the birds famous in song and story. More than skylark or swallow, more than robin or bluebird or cuckoo or thrush or any other of the feathered host that have figured in literature, this modest singer is fit to stand as one of the types of homelike thoughts and ways. It is perhaps because of this very fitness, of his quiet dress and demeanor that he has been so wholly overlooked by the men who make literature. Although the common people have been hearing him gladly ever since he was known.

In appearance, he is a commonplace sort of bird, not catching the glance at a distance as the tanager or gaudy jay may do, but rather hiding beneath

his sober feathers. Really he is rather dressed for concealment than display, and can so perfectly blend his stripes with the leaves of grass and spaces between that he is easily overlooked. He is, however, a neat, trimly built bird, considerably more slender than the English sparrow, and with his slenderness accentuated with a long, rather narrow tail. He can be distinguished from most of the other sparrows by the dark brown streaks or blotches on his breast, and he looks at a distance like a child who has spilt some berry juice on his bib.

Wherever there is an old brush-pile surrounded by weeds, or a bit of tangled thicket in the open, or a neglected edge of ditch or margin of river or lake, the Song Sparrow is pretty sure to be found. If the place is well sheltered, and the winter not exceptionally severe, he is likely to be found there almost any day of the year, and he greets the inquisitive intruder with a few sharp, scolding notes. It is in such places, especially along the edges of ditches, that the nest is built, a neat, closely built symmetrical structure, usually placed on the ground and overarched with the long brown blades of last-year's grass. If one passes too close to the nest, a streak of bird from where it is hidden, to the grass a little distance away, directs him where to look. Here, if the home has been completely furnished at the time of discovery, will be found five small finely speckled eggs, the spots brown on a pinkish ground.

As to the bird's song, there is considerable variation in the arrangement of the parts. It consists of several calls and a series of clear melodious

whistles, lasting for a minute or two, and often repeated. It is a quiet, unobtrusive strain much like the bird itself; not likely to be noticed until you are near the bird, or have learned to recognize the song and have your ears set to catch it. It is not a remarkable vocal performance, but is full of domesticity and sweetness. It is by no means the first bird-song you are likely to become acquainted with. The operatic performances of the brown thrasher, the ringing call of the wood-thrush, or the strong-voiced cheery song of the robin from the treetop, are likely to attract the attention much sooner. It is as if the Song Sparrow had in mind one, not very far away in mind, and sang directly to one set of ears. While these other gay troubadours, conscious of a large audience of susceptible shes scattered about here and there, amid the leafy coverts within the compass of his voice, puts forth the lures of his most finished song to woo them one or all.

But the most attractive feature of the Song Sparrow's strain is its wearing quality; as something befitting the bird's constant nature. The bird has two full tides of song: one in spring, and another, not so pronounced, in autumn; but besides this, you may hear him singing almost every time of the year, even in the coldest days of winter, if the weather is bright, the song of this brave bird can be heard coming from among the tangled weeds.

"Up to the level of each day's most quiet need," is after all a high level, harder to reach and keep than many a jutting peak of special occasion, but not so conspicuous in the eyes of the world. And this is the level that the Song Sparrow has reached and kept. He does not lavishly spend all his music in an extravagant rapturous courtship, and then forget that he ever knew how to sing, as many bipeds both feathered and otherwise, are so

likely to do, and the bobolink's short-lived rapture, and the Spanish serenade business seem to have little attraction for him. Just as people have always associated the dove and olive branch with the thought of peace, one who knows them both can hardly help associating the Song Sparrow and the little speedwell, which puts out its shy blossoms the year round in sheltered nooks, as the emblem of constancy. Both remind us of one of the bravest and gentlest of singers, who sang clear and unwavering through sullen and gloomy days, through days of dust and shadows.

As for the Sparrow, he seems to have the distinct mission of making waste places glad. Hardly a patch of rank weeds, hardly an old brush pile or neglected edge of ditch or overgrown fence-row but resounds with his cheerful music, and here without asking for a day of vacation he toils for the farmer the whole year around at one of the finest miracles of alchemy, transmuting noxious weed-seeds into song.

Every one who has seen it, of course, remembers that picture, so wonderfully fitting and so finely symbolical, in Vedder's illustrations of the Rubaiyat, the bird with uplifted head and voice singing from the top of the skull. And although the artist was not thinking of any real bird or real skull, any more than we when we look at it, but simply of the symbols for which they stand; although the thing the picture brings is simply an illuminated and concentrated glimpse of the things signified, and the bird pictured there is too subtle to be caged in our zoologies, I feel sure if we could only manage to get it there, and manage to run it down with our analytical key, our search would end up with a description of *Melospiza fasciata*, the Song Sparrow.

H. WALTON CLARK.

WHERE THE WRENS BUILT.

I think I must tell you about our Wren's nest. It was something more than a dozen years ago when my husband had an office down town, with sheds and out-buildings adjoining, and sold farm machinery. The little Wren I have in mind chose the hollow center of a ball of binder twine for her home, and having partially filled it with numerous odds and ends dear to her heart, proceeded to lay her tiny eggs and sit upon them.

Now this particular ball of binder twine was situated in the twine box of a sample binder, which was set up ready for work in a shed fronting the street. Here day after day my husband was called upon to show off the various good points of the machine to would-be purchasers. Not being in the field, and there being therefore no grain to cut and bind, the ball of twine was not molested, but other parts of the machine were raised and lowered and otherwise moved about with an amount of noise quite terrifying to the wee sitter upon the nest.

Sometimes she so far mastered her fear as to quietly sit through the ordeal, the motion of her shining eyes alone revealing her temerity, but usually she found this too much for the state of her nerves, and flew off the nest, fluttering about with her faithful little mate who was always on hand to reassure her, and whose angry chirps mingled with hers as she scolded my poor husband for his persistent interference with her maternal duties, in a way quite heartrending to hear.

Just before harvest when the little birds were hatched and nearly ready to fly, the binder was sold. There was no alternative as it was the last of the kind and the purchaser would take no other. My husband, whose sympathies had been with the little mother from the first, though she, poor dear, could not be persuaded to think so, felt very much disturbed over the affair and hoped against hope that the little ones would fly away before time for the machine to be removed, but they were still snugly tucked down in their unique bed when the eventful day arrived. Carefully opening the door of the twine box he lifted the ball and placed it tenderly in a secure place within sight of the indignant parents, who were flying wildly about, uttering the most plaintive, if also the most angry, of bird cries.

The little family, in no wise injured by the move, continued to reside in the ball of twine until the birdlings—there were seven of them—were strong enough to leave it for "the great, wide, beautiful, wonderful world." To the day of their final departure, however, the mother Wren never forgave my husband for his part in the transaction. She seemed ill at ease the moment he appeared and invariably scolded him without intermission whenever he was in sight, which returns for his friendship and oversight he found rather amusing than otherwise, since his conscience was clear and, despite her indignant protest, the birds thrive happily all the while.

GAZELLE STEVENS SHARP.

THE HERON'S NEST.

The Heron builds her nest in the tall pine,
That rises high, a watch-tower in the land,—
The while her mate, by stream or crystal pool,
Stands, mute and listening, warder of the strand.

—ELLA F. MOSBY.

THE YELLOW-BILLED CUCKOO.

(*Coccyzus americanus*.)

Of the Yellow-billed Cuckoo Mr. Dawson has written as follows: "Most birds prefer to face the enemy, so to keep his every movement well in eye, but Cuckoo presents his back, a cold gray affair, from behind which he peers now and then, turning his neck and giving you one eye in a lofty, well-bred way. I recall no other bird whose gaze is so calm, so direct, so fearless, yet withal, so decorous." The Cuckoos are watchful but they do not neglect their work, which apparently is to eat caterpillars. This they will do in your presence, but disturb them by a too positive action, and they will silently and rapidly leave the locality. These birds are very useful to the farmer and fruit-grower. They will frequent orchards and are very fond of tent caterpillars which they destroy in large numbers. Mr. F. E. L. Beal examined the contents of twenty-one stomachs of these Cuckoos which were collected from May to October, inclusive. He says: "The contents consisted of 355 caterpillars, 18 beetles, 23 grasshoppers, 31 sawflies, 14 bugs, 6 flies and 12 spiders. As in the case of the black-billed cuckoo, most of the caterpillars belonged to the hairy species and many of them were of large size. One stomach contained 12 American tent caterpillars; another 217 fall webworms." Many of the caterpillars upon which they feed are very destructive to foliage.

The Cuckoos are very active and graceful birds when darting through the foliage or hopping along the branches of trees in their search for insects. When in repose, however, they do not appear intelligent but rather stupid. They are somewhat dove-like in appearance and perhaps for this reason they are known as Rain Doves or Wood Pigeons. As they seem to be more noisy at the time of meteorological changes they are also called Rain Crows. They have arboreal habits, and are seldom seen on the ground. Their flight is noiseless, swift, and graceful but rarely protracted. They prefer dense thickets bordering bodies of

water, the shrubbery at the sides of country roads and bordering forests, and orchards infested with caterpillars. They are fairly common birds in many localities, but inclined to be shy and retiring, and were it not for their very characteristic call notes they would be known by few people outside of the circle of bird students. Their call notes are quite varied. One of these notes has the sound of the syllables *noo-coo-coo-coo*, and another sounding like *cow-cow-cow* or *kow-kow-kow*, has given these birds the name Cow-cow. These calls are usually several times repeated. Major Bendire speaks of other calls, one of which resembles the syllables of *ough*, *ough ough* slowly and softly uttered. Of other calls, he says: "Some remind me of the *kloop-kloop* of the bittern; occasionally a note something like the *kiuh-kiuh-kiuh* of the flicker is also uttered; a low, sharp *tou-wity-whit* and *hwæet hwæe* is also heard during the nesting season."

While the Cuckoos cannot be considered social birds quite a number are sometimes seen in the same tree during the mating season.

The breeding range of the Yellow-billed Cuckoo is coextensive with its geographical distribution in the United States and Southern Canada. Its range extends through temperate North America east of the Great Plains, and in winter it passes southward to Costa Rica and the West Indies. There are few if any birds which are poorer nest builders. The nests are shallow platforms constructed with sticks, twigs, rootlets and strips of bark, among which and on the top of the platform there may be found dry leaves, bits of mosses, catkins of various trees, tufts of grasses, and even pieces of cloth. These platform nests are sometimes not as wide as the parent bird is long. The depression in the center of the nest is so slight that the eggs are not easily retained even in a moderate wind, unless one of the birds is sitting on them. The nests are so care-



YELLOW-BILLED CUCKOO.
Coccyzus americanus.

1. For size.

PLATE 1. YELLOW-BILLED CUCKOO.

lessly constructed that the eggs may be readily seen through the bottom. The nests are usually placed in trees and shrubs, where they are well concealed by foliage. The mother bird, though timid at other times, is very courageous in the defense of her eggs and young. Major Bendire says: "Usually an egg is deposited daily, and as a rule incubation does not commence until the set is completed." Sometimes, however, there is a

considerable interval of time, from two to eight days, between the laying of the eggs, and the bird may begin incubation with the laying of the first egg. The Yellow-billed Cuckoo, unlike its European relative, rears its own young in a nest built by the parent bird. It is possible, however, that they may very rarely lay an egg in the nests of other birds, but this is doubted by some of our best observers.

AMONG THE TREES.

THE LINDEN TREE.

Mabel was reclining on a grassy slope and looking at a tree whose leaves, dark, glossy green above, and apple-green with tufts of brown hair at the axils of its veins, shimmered and glistened in the early summer sunshine; myriads of bees filled the air with their noise as they hovered around the blossoms swinging on their long stems. Her thoughts were busy with the past, when she, a little child, climbed her father's knee to listen to tales of his childhood days, for his earliest recollections were of a lime tree, beneath which he rolled and played; and when in boyhood days he trudged, barefoot, along the country road and with others of his age "toed the mark" in the old log schoolhouse at the crossroads, he and his companions would gather beneath this tree at eventide, and talk over those things so interesting to boys. How often, too, mounted on a chair, he would recite those favorite verses, which, some years later, his bearded lips had taught his little daughter.

Tenderly and lovingly, she repeated the words, so fraught with memories of the past:

"Here's a song for thee—of the linden tree!
A song of the silken lime!
There is no other tree so pleaseth me,
No other so fit for rhyme.

When I was a boy, it was all my joy
To rest in its scented shade,
When the sun was high, and the river nigh
A musical murmur made.

When floating along, like a wingéd song,
The traveler-bee would stop,
And chose for its bower, the lime-tree flower,
And drink—to the last sweet drop.

When the evening star stole forth, afar,
And the gnats flew round and round,
I sought for a rhyme beneath the lime,
Or dreamed on the grassy ground.

Ah! years have fled; and the linden dead,
Is a brand on the cottier's floor,
And the river creeps through its slimy deeps,
And youth is a thought of yore!

Yet they live again, in the dreamer's brain
As deeds of love and wrong,
Which pass with a sigh and seem to die,
Survive in the poet's song."

The pendulous clusters of bloom with their long, ribbon-like, greenish yellow bracts, swayed gently in the light summer breeze, contrasting pleasantly with the leaves which quivered and shimmered in the sunlight, and Mabel, gazing at the tree, heard the musical hum of the words:

"You would like me to talk to you? to tell you the history of our family?"

"Nothing would please me better, you beautiful, sweet-scented tree!"

"Take care; were I not a sensible tree, I might be made vain by your highly complimentary words."

"It is the truth," said Mabel, wishing to defend herself.

"All the more reason to make me proud. We are a proud race, anyway, and an ancient one, for remains of us are found in the cold lands of

Spitzbergen, thus proving that we are a northern race as well. We are hardy and can withstand the cold of winter so well that we are often planted on the windward side of orchards to protect young or tender trees. Notice my trunk; strong, well-knit, and sturdy, our branches divide and subdivide until they form a spray small and thick."

"Yes, and some of them almost touch the ground," said Mabel, as some lower branches caught her wind-blown tresses.

"In some instances they quite touch the ground. There stands in Kent, England, a curious member of our family. The branches of this tree touched the ground, where they took root, and a circle of new trees grew up around the parent; the outer branches of these also touched the ground and took root, thus forming a second circle. So you see, one tree became a small, but very unique, grove.

"We are a small family," continued the Linden, musingly, "consisting of only four branches, these are the American Linden, the Downy Linden, the White Basswood, and the European Linden. The term Basswood is rapidly supplanting the proper name of Linden."

"You call yourself Linden. Father's old poetry calls you the Lime as well."

"I can easily explain all that. You no doubt have heard of 'bast' which is a tough, fibrous string used by gardeners in their work; it very much resembles a bit of yellow ribbon. Now this bast is the inner bark or liber of the Linden Tree, which has been soaked in water and separated into innumerable threads or lines. How it ever became corrupted into Lime Tree, is beyond my knowledge; the true lime is a shrub, the fruit of which, you no doubt know, very much resembles a lemon in size and color. This bast is also put to other uses, in our country it is often fashioned into coarse ropes and mats, in Sweden the fishermen make nets out of it; in Russia, the liber is used in making the tops of shoes, the outer bark being used for the soles; when the tree is thus

denuded, the trunk is converted into charcoal."

"You are a very useful family, then!"

"We are, indeed," came proudly from the Tree. "You should know that trees, as well as human beings, like to be of use in the world. Our wood is also put to other uses; being light, tough and durable as well as free from knots, renders it of great value to the wood-carver. Grinling Gibbons, that famous English wood-carver, who fashioned such beautiful flowers, fruit and game, that they were used to decorate Chatsworth Hall and Windsor Castle, used our wood for his inimitable work. Our wood, too, was used in his carvings for St. Paul's Cathedral, and the great Holbein used the wood of the Linden Tree for his blocks, as no other wood could be relied upon for its utter freedom from knots and its even texture, as is said:

Smooth linden best obeys

The carver's chisel; best his curious works displays,

In nicest touches."

Please go on, Linden Tree, tell me some legends, will you?"

"There are no legends to tell, but there is history, and we are loved by the poets. Barry Cornwall, your father's poet, was not the only one who wove verses about us. Tennyson who saw and revelled in so many of the hidden beauties of nature, speaks of us more than once; he tells you that:

A million emeralds break from the ruby-budded lime,

which refers to our young leaves bursting from their winter quarters. The ancient poets, Homer and Virgil, also sang of us."

"Do you grow to be very old, like the Conifer?"

"As you would count years we are old, but not as the Conifer; there are instances on record of some members of our family attaining the age of nearly a thousand years. In the grounds of the Imperial Castle at Muremberg is a Linden Tree which was planted by Empress Cunigunde, and is over nine hundred years old; then there was also the famous Linden of Neustadt, in Wurtemberg, which it was

claimed, was fully one thousand years old."

"There are very few members of your family in our beautiful country, Linden Tree, or perhaps I should say that I've not seen many."

"You are right; we are by no means as numerous as the oak, conifer or elm, or the much loved maple, but in that part of Germany formerly called Prussia, and in certain parts of Russia, there exist great forests of us, and the wild bees swarm and hive in our hollow trunks. Do you know that the honey made from our blossoms is very valuable, and will bring three or four times the price of other honey? Do you know also that bees when gathering honey will visit only one kind of a flower at a time?"

"No," said Mabel in surprise, "I never noticed that."

"Well, watch the bees the next time you have an opportunity; there is much to be learnt from these industrious creatures. As I was saying, the honey made from our blossoms is much sought after, so the villagers who live near these forests collect the honey as soon as our blossoms are done, before the bees seek other flowers. This honey is white in appearance, and dishonest people often seek to imitate it by exposing ordinary honey to frost, with the view of whitening it.

"Our fruit when ripe is small, round and white, much resembling peas; a great physician once thought to utilize these nuts by grinding them, which made a kind of chocolate, but as it would not keep, the project had to be abandoned, and our pretty nuts were left to fly away and seed themselves. Although our fruit and our wood are of so little commercial value we are amply repaid in other ways."

"I suppose you refer to your honey, Linden Tree?"

"No, not altogether," said the Tree musingly, and its leaves made a musical murmur, like some soft, sweet lullaby, "although it is considered the most delicious of all honey. Our blossoms when gathered and steeped in boiling water, make a tea greatly re-

sembling in taste that of licorice, and it is a very soothing drink for those afflicted with a cough."

The sweet, low murmur ceased and Mabel heard nothing but the continual hum of the bees and noticed the great number of birds, darting hither and thither.

"I suppose," she thought, "those nectar-laden blossoms attract insects, too, and they in turn attract birds. What's that?" she sat erect, as she noticed a bird whose exhausted pinions seemed scarcely able to carry it and who uttered a shrill note, as if in distress. Closer and closer it came, and, looking beyond it, Mabel discovered the large body of a hawk. Quickly she started to her feet and with keen anxiety in her face, she saw the tiny songster seek the refuge of the Linden Tree. Presto! the whole army of birds had disappeared. The hawk circled near, then spreading its strong wings sailed upward into the blue arch, until it looked like a tiny black speck.

"Oh, I am so glad the poor little bird is safe! How good of you, Linden Tree, to protect it! I must say, though, that I am surprised the hawk gave up its prey so readily; I wonder it did not dart into your branches."

The branches bent and awayed in the wind, and an almost triumphant note seemed in the words which floated to Mabel's ears.

"It knew better than that; the Linden is a City of Refuge among trees. You no doubt have heard of the cities of refuge of olden times, a certain number of these were established, and when a person sought shelter within their sacred walls, the city refused to give him up; then, too, in later times when the persecuted sought refuge in churches, they were safe from harm."

"Yes, indeed, I remember that, for just last evening I was reading that portion of Victor Hugo's *Hunchback of Notre Dame* where Quasimodo seized the slender, girlish form of Esmeralda and fleeing with her into the holy precincts of the cathedral, flung back the cry 'Sanctuary, Sanctuary,' and thus defied the mob of Paris. But,

Linden Tree, I must say that I am at a loss as to how you can apply the term to yourself."

"Come closer, still closer, right up against my trunk. That's right, now look upward. What do you see?"

"I cannot see much but a thick mass of green. Oh, why it looks like a tiny forest—a dense thicket of—of—brushwood."

"You need not be afraid of offending me; I am proud of that brushwood. There's where the little songsters are safe from hawks and birds of prey, safe, too, from prowling cats and from the thieving, mischievous hands of boys. Now it is almost alive with birds; think what would have become of that exhausted little one, if there had not been something in my branches to protect it."

"Or if you had been twenty feet farther away, its little wings seemed unable to carry it a foot farther. What a pretty trunk you have," said Mabel, as she patted it. "How bright and clean and sunshiny it looks!

"That surely is what one poet thought and he put it into words:

"There a linden tree stood bright'ning
All adown its silver rind;
For as some trees draw the lightning,
So this tree, unto my mind,
Drew to earth the blessed sunshine
From the sky where it was shrined!

"There is a big basswood tree beside the river and its beautiful trunk rises, oh, it must be seventy feet high——" Mabel caught her breath and paused for fear that she had overestimated its height.

"No doubt," came reassuringly from the tree. "Some of the White Basswoods reach the height of nearly one hundred and thirty feet, but the usual height is about seventy feet. They are the tallest members of our family."

"Well, this tree," continued Mabel, "has the most beautiful leaves, they are so wide and broad, almost the size of a small plate; I've often watched them drifting down the river in the fall; but now when the wind stirs them and they flutter on their long, slender stems, the silvery whiteness of the underside contrasts so prettily

with the dark green of the upper."

Mabel ceased, and as she gazed at the sky, which could be seen between the fluttering leaves, she heard what seemed to be the voice of the Tree in tones clear, distinct and proud.

"You have heard of Linnæus, the 'Father of Botany'?"

"Yes, I have; there is a society in yonder city named for him."

"That is only one of many. He was a Swedish naturalist, but his researches in botany were much wider. Perhaps it will interest you to know that his name was derived from a member of my family."

"Is that so?"

"It is, indeed. The father of Linnæus belonged to a race of peasants who had Christian names only; when he, by his own efforts, raised himself to the dignity of parson of his native village, he followed the Swedish custom of adopting a surname. Now it happened that a Linden Tree grew near his humble home, of which, also a botanist, he was very fond, so he chose the name Linné, which is Swedish for Linden. His son Carl was a very precocious child, and at the early age of four, asked his father many questions in botany; the father, Nils Linné, would refuse to answer if he had forgotten what had been previously explained. When in after years Carl became Professor of Botany at the University of Upsala, the name was Latinized into Linnæus, as we know it today. The King of Spain became much interested in Linnæus, and conferred upon him the patent of nobility as Count von Linné, or Count of the Linden Tree, and made him a munificent offer if he would reside in Spain. Linnæus, however, refused, saying that his country deserved all he had to give."

"There was loyalty," said Mabel, admiringly, but no answer came from the Tree. Bees and insects buzzed about, birds twittered in the branches, but listen as intently as she would, no sound that she could construe into words, so rising, she slowly wended her way homeward.

EVELYN SINGER.





RUBY-THROATED HUMMINGBIRD.
(*Trochilus colubris*).
About Life-size.

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THE RUBY-THROATED HUMMINGBIRD.

(*Trochilus colubris.*)

Voyager on golden air,
Type of all that's fleet and fair,
Incarnate gem,
Live diadem,
Bird-beam of the summer day,—
Whither on your sunny way?

—JOHN VANCE CHENEY, "TO A HUMMING-BIRD."

Regarding the Ruby-throated Hummingbird, Mr. Wilson has said: "Nature, in every department of her work, seems to delight in variety, and the present subject of our history is almost as singular for its minuteness, beauty, want of song, and manner of feeding, as the mockingbird is for unrivalled excellence of notes, and plainness of plumage." One of the most interesting facts regarding these, the tiniest and most exquisite of our birds, is that they are the only ones of a large family (for there are about five hundred known species of Hummingbirds) which pass through the United States east of the Mississippi River, and finally on to the Fur Countries and Labrador. They may be seen as far westward as the Great Plains, and they winter to some extent in the southern portions of Florida, but the majority pass to the West Indies and through eastern Mexico into Central America. Of the many species of the Hummingbird family only seventeen have been observed within the borders of the United States, and of these only seven species really belong to our country, for they are the only ones whose breeding ranges lie chiefly or entirely within our limits. The other ten species are only visitors within our borders.

The names of few birds are found more extensively in literature. The sedate naturalists as well as the poets and others have been inspired to write eloquently regarding these little birds. Buffon, Audubon, Wilson, John Gould,

Coues, Ridgway and many other ornithologists have glowingly expressed their admiration of the beauty and interesting habits of the Hummingbirds. Audubon speaks of the Hummingbird as a "glittering fragment of the rainbow," and says: "Who, on seeing this lovely creature moving on humming winglets through the air, suspended as if by magic in it, flitting from one flower to another, with motions as graceful as they are light and airy, pursuing its course and yielding new delights wherever it is seen * * * would not pause, admire, and turn his mind with reverence toward the Almighty Creator, the wonders of whose hand we at every step discover, and of whose sublime conception we everywhere observe the manipulations in his admirable system of creation." Beautiful are the lines of Ednah Proctor Clarke:

Dancer of air,
Flashing thy flight across the noontide hour,
To pierce and pass ere it is full aware
Each wondering flower!

* * *

The grave thrush sings
His love-call, and the nightingale's romance
Throbs through the twilight; thou hast but
thy wings,
Thy sun-thrilled dance

Yet doth love's glow
Burn in the ruby of thy restless throat,
Guiding thy voiceless ecstasy to know
The richest note.

Oh brooding thrush!
Now for thy joy the emptied air doth long;
Thine is the nested silence, and the hush
That needs no song.

It seems strange that so beautiful a bird should have no song. The voice of the Ruby-throat is confined to a chirp or squeak expressive of surprise, excitement or anger, and also fine chirping notes uttered when seeking a mate. Mr. Chapman says: "The Ruby-throat needs no song. Its beauty gives it distinction, and its wings make music." Our little Hummers are inquisitive and fearless birds. When standing near a trumpet-creeper, watching the little bird, it hovered directly over and in front of my face looking me straight in the eye for several seconds. Both parents valiantly defend their nest and its contents, and it is said that should the female be killed, the male will take her place in the care of the young.

While there seems to be no question that the Ruby-throats are exceedingly

fond of the sap of the sugar maple and other trees, and of the nectar secreted in the flowers of the honeysuckle, lilac, begonia, horse chestnut and many other plants, it is also evident that they require and like insect food. They are attracted to certain species of thistles, the flowers of which contain many minute insects but do not furnish nectar to the birds. It is the belief of many careful students of bird-life that these little birds obtain their nourishment chiefly from the large number of minute insects and spiders which they eat. One investigator found sixteen small spiders in the throat of a young Hummingbird which was only about two days old. It is also known that they feed to some extent on the small plant-lice which are so annoying. The Ruby-throats then are not only beautiful ornaments of nature but they are also of some economic value.

HUMMINGBIRDS.

The characteristics of this class of birds are, a slender, weak bill, in some species curved, in others straight; the nostrils are minute; the tongue is very long and is formed of two conjoined cylindrical tubes; the legs are weak, the toes are placed three forward and one back; the tail contains ten feathers.

The Hummingbirds are the most diminutive of all the feathered tribes. They are natives of the warmer parts of America, and of the West India islands; they bear a great resemblance to each other in manners. Their name is derived from the constant humming noise they make with their wings. They construct elegant nests, in the shape of hemispheres, in which they lay two small white eggs. It is said that the young ones are sometimes attacked and devoured by spiders.

A simple way in which to capture these birds is by blowing water upon them from a tube, or shooting them with sand. Although they are small in size, they

are extremely bold and pugnacious. Their colors are too brilliant to be described by any pen.

The length of our Ruby-throated Hummingbird is about three and one-fourth inches, of which its bill occupies three-fourths of an inch. The male is of a green-gold color on the upper part with a changeable copper gloss and the under parts are gray. The throat and forepart of the neck are of a ruby color, in some lights as bright as fire. When viewed sideways the feathers appear mixed with gold and beneath they are of a dark garnet color. The two middle feathers of the tail are similar in color to the upper plumage and the rest are brown. The female, instead of the ruby throat, has only a few obscure brown spots and all the outer tail-feathers, which in the male are plain, are in the female tipped with white.

This beautiful little creature is as admirable for its vast swiftness in the air,

and its manner of feeding, as for the elegancy and brilliancy of its colors. It flies so swiftly that the eye cannot follow its course, and the motions of its wings are so rapid as to be imperceptible to the closest observer. Lightning is scarcely more transient in its flight, nor its glare more bright than its colors.

The most violent passions at times animate these small creatures. They often have dreadful contests when they believe that any other bird, even if it is one of their own kind, is trespassing on what they consider their own domain. They are fearless of mankind and in feeding will allow persons to come very near to them but on too near an approach they dart away with wonderful swiftness.

"A friend of mine informs me," says Dr. Latham, "that he kept these birds alive for months by placing artificial flowers with the bell of the flower fastened to a tobacco-pipe and painted a proper color; he then placed them in a natural position in the cage where the little creatures were confined; the bottom of the tubes were filled with a mixture composed of brown sugar and water, as often as emptied; he had in this way the pleasure of seeing them perform every action, for they soon became familiar, and, though close under the eye,

took their nourishment in the same manner as when ranging at large in the open air."

I watched a Hummingbird one day nearly three hours trying to locate its nest which I thought was somewhere near at hand. Finally it entered a rose bush near where I was standing; carefully I parted the branches and there was the nest, but just as I located it, they, for both the birds were present, made an attack on me, attempting to strike me in the eyes, they came and went in almost incredible swiftness, and I was glad to retreat. As soon as I was away from the bush they returned to their home to protect it from further invasion.

The tongue of a Hummingbird is formed much like that of a woodpecker, being curled around the head, under the skin, and thus capable of being darted to a considerable distance. Like many other little creatures, the assurance and impudence of the Hummingbird is remarkable. It is easily tamed, and for that very reason it has been known to domesticate itself in an hour's time after capture, and even when released it has returned again to partake of the dainties which it had tasted during its captivity.

GEORGE W. MACNINCH.

MIDSUMMER.

Hushed are the songs of birds,
And wearily the patient herds
Of dun-road Jerseys, seek the shade a-field
Or slake their thirst amid the oozy shallows
By shrinkage of the pasture stream revealed.
Deserted, brown and dusty lie the fallows;
While, outlined on the hills against the sky,
Flocks of white sheep, close-shorn, in silence lie.

—MRS. CORA A. MATSON DOLSON.

THE HOUSE WREN.

(*Troglodytes ædon.*)

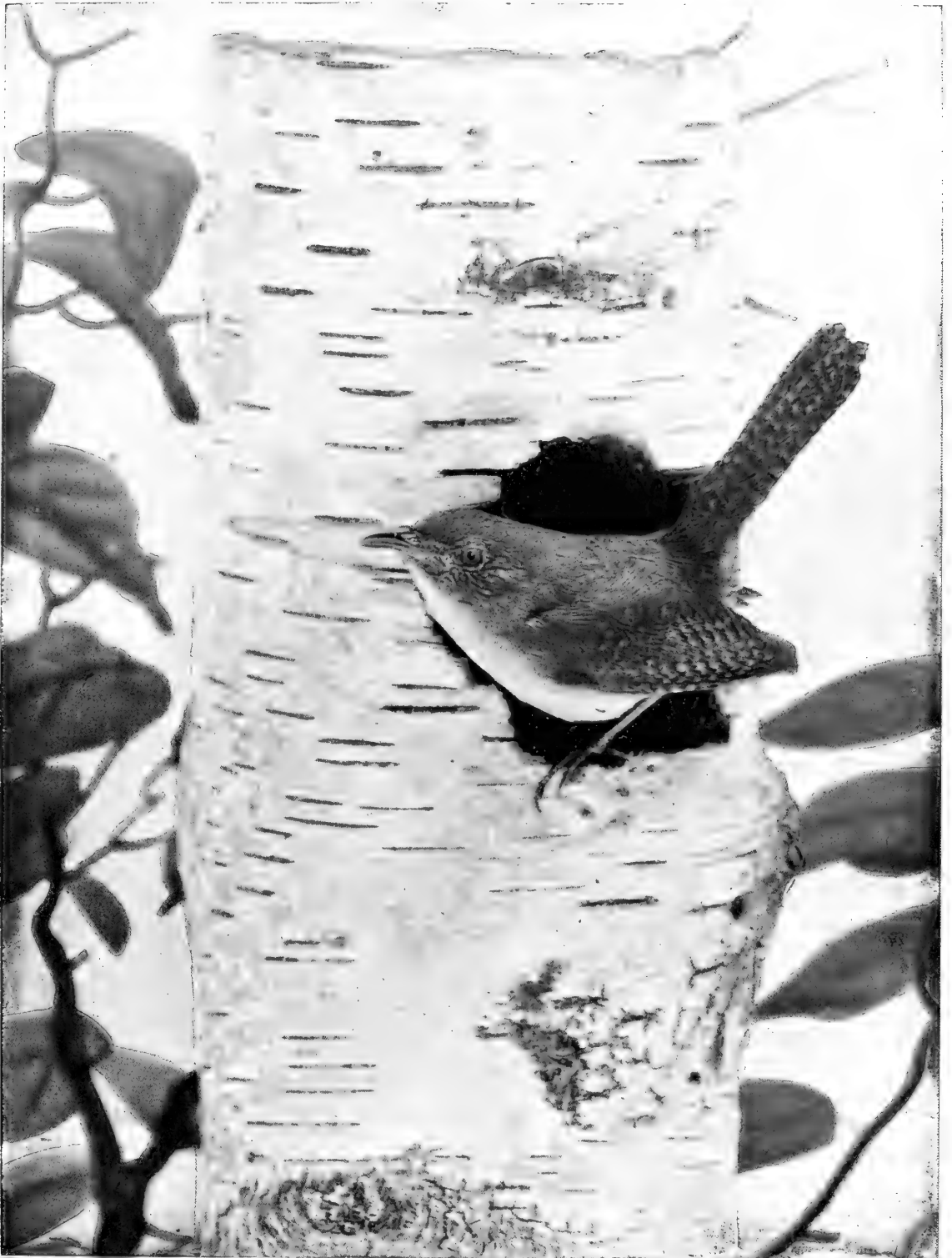
The russet Wren glides in among the vines,
And adds another strand unto its nest,
Then; on the neighboring trellis, pours its song.
The poor man's cottage is its favorite haunt;
And he is poor indeed, who to his roof
Can welcome not the yearly visitor,
To cheer his door with music!

—THOMAS BUCHANAN READ, "THE NEW PASTORAL."

All birds are beautiful, and in one way or another attract our attention and interest us. There are, however, certain of the smaller birds which seem to be almost a part of our own lives and seem to be members of our households. Such a bird is the House Wren. It is one of the best known of bird species in those rural districts which are enlivened by its presence. It will seek a home in villages and cities, and does not hesitate to build its nest in close proximity to our dwellings. It was once my pleasure to observe a very striking illustration of the attachment that man will acquire for these familiar and cheerful little Wrens. Sitting on the porch of a summer resort hotel and noticing the Wrens visiting the globe of a large illuminating lamp suspended from the roof of the porch, I asked the proprietor if the Wrens nested there. This practical man of the world said "Yes," and that he never lighted the lamp as he could not bear to disturb this happy bird home. He did not realize that in protecting these sprightly and active birds, because of his love for them, he was also favoring himself for the House Wrens are extremely destructive to insect life, which constitutes nearly all, if not the whole, of their food. They should be protected and encouraged to breed wherever they will, for they rear large families and not infrequently two in a season. The number of eggs laid varies from six to nine. Mr. Robert Ridgway in his "Ornithology of Illinois" quotes the observations of Colonel S. T. Walker, of Milton, Florida, who found that forty-seven days elapsed between the begin-

ning of the building of one nest and the time when the young left it. In this instance, the last egg was laid the third of May and the young left the nest on the first day of June.

The House Wrens are very active, and their familiarity and fearlessness are remarkable. One of their marked characteristics is persistency, and pairs have been known to rebuild a nest several times in a site that suited their fancy, though destroyed each time by human hands. Mr. Silloway says: "A pair of Wrens once laid claim to an empty shot sack hanging under a porch of a farm house, and refused to be dispossessed, even after their work had been thrown out twice by the farmer's wife. They finally reared a brood in the third nest made in this odd site." House Wrens become attached to a nesting site once selected and return to it year after year. They are irritably disposed, not only against individuals of their own kind, but also toward other familiar birds, such as the martins and bluebirds, which they will sometimes assail and drive from their homes and then take possession of the site for their own habitation. This habit has made the Wrens disliked by many people, especially in the East, but it should not be so, for the difficulty may be overcome by providing bird-houses enough for the three species. The Wrens are fully as useful as are the martins and bluebirds, but in a different field. Mr. F. H. King says: "The size of the bluebird, its method of obtaining food, and its haunts, fit it best for work in the open fields, where it should be



HOUSE WREN.
(*Troglodytes aedon*).
About Life-size.

especially encouraged; the House Wren is especially fitted to do work among the shrubbery of orchards, gardens and yards, and these, particularly, should be the foci of its labors." Such places, too, are the choice of the Wrens, and if given places to nest in such localities they will be quite sure to occupy them.

It is quite difficult to enumerate all the kinds of sites that are acceptable to the Wrens for homes. The more common sites are hollows in orchard trees, bird-boxes, holes and crevices or any protected places about buildings, holes in posts, and fence rails, and, in fact, any nook the entrance of which will admit them. They have been known to nest in discarded tin cans, in an old teapot, between the window sash and the blinds, and in many other peculiar places. No matter where the nesting site is located, it is bravely defended against all bird intruders.

While the geographical range of the House Wrens is quite large, extending over eastern North America from Manitoba and Southern Ontario southward and west to Illinois and Louisiana, they are somewhat local in their distribution, for in the selection of haunts they are astonishingly particular. They are resident throughout the year from about the latitude of South Carolina southward.

In addition to its scolding notes, the House Wren has a beautiful song. It is a "merry little roundelay—a forcible, voluble gush of hurried contentment," and it is at its best during the time of courtship and while he is preparing a

home for his mate. The male is too busy, too full of life to sing long at a time, but he keeps up a constant chattering as he moves from place to place. Mr. Chapman has well described his vocal efforts. He says: "The song of the House Wren is delivered with characteristic energy—a sudden outpouring of music which completely dominates the singer, who with raised head and drooping tail trembles with the violence of his effort." Reverend Herbert Langille is very enthusiastic in his description of the song. He says: "Of all the songs of birds within the range of our acquaintance, there is no melody more gushing, more sparkling, more full of the very soul of vital energy than the warbling, twittering performance of this most active and industrious little creature. If the syllables have not that measured cadence, nor the tones, that heart-searching vibration, which moves one to melancholy, or to joy, to prayer or to praise, it touches the nerves with a startling impulse, like the gust of the summer wind shaking the leaves, the patter of rain on the roof, or the streaming of sunshine through a rift of the clouds." Mrs. Olive Thorne Miller listened to the song of the House Wren and wrote: "Never did a personage of his inches pour out such a flood of rapture. It was luxury to lie and listen to the gushing, liquid melody that floated into the window at my head." After the mating is over and the bird-*bride* of the happy Wren is installed in their home, he still sings, but his song is more subdued and not so vivacious.

IMMORTELLE.

Unto the last the world's best hearts will sing
Of sun and star in boundless sky, and rose, beneath;
These songs will live for aye, and doubtless bring
Full fund of happiness to Life; to Death, Love's wreath.

—C. LEON BRUMBAUGH.

HUMMINGBIRD HOMES.

It has been my privilege to be more or less intimately acquainted with three hummingbird families. With the first I was so timid, fearing to disturb the dainty owners of the home, that I only ventured a peep at long intervals and contented myself with securing the nest after the family had departed.

The second was built some twenty feet above ground on the limb of a large sycamore tree, a knot of which it closely resembled, with one huge leaf above it to protect it from the weather, and I could only observe it through an opera glass.

The third, it was my good fortune to discover some eight feet from the ground on the branch of an apple tree, the nest being formed of vegetable down stuck together with spider webs and covered with lichens until it seemed a part of the apple limb. When discovered, it contained two tiny eggs which resembled the small beans used for baking, except that they were translucent and ethereal looking, as if a touch would break them. Two days after the discovery, the eggs hatched, and there lay the two smallest birdlings I had ever seen. Such miniature unopened eyes! Such tiny, funny, gaping bills! Such thread-like necks!

The hummingbird is the most easily tamed of any of our wild birds, and the tiny host and hostess of this dainty home seemed rather to enjoy the daily inspection of their establishment. Flying to a spruce tree twenty feet from the nest they would preen their feathers and calmly watch me while I, standing upon a chair, would note the change from day to day in the little occupant of the nest. Usually but once a day was allowed for inspection. Then, the whole family assembled, each would mount the chair and enjoy the cunning sight with appreciative exclamations of "oh!" and "ah!" and "how cunning" and "how he grows," then the nest was left to itself for twenty-

four hours. Only now and then when callers came was this rule broken.

In each of the three families of hummingbirds I have known well, one of the tiny fledglings died a few days after hatching. One might think this was due to human interference had it not been the case in the nest far out of reach. In this case, the dead bird was discovered on the ground beneath the nest. In the other cases it was removed on the point of a penknife as the parent birds did not push the body out at once.

The parent birds did one thing that I could never understand. I observed it through the opera glass in the nest far above ground, and again in the apple tree nest near at hand. The parent birds would often stand upon the fledglings and execute a sort of dance with wings extended. They appeared to trample upon the young with their feet as if to massage them. So vigorous did this treatment appear to be that I was fearful lest they kill the little ones, and possibly this would account for the death of one of the young from each nest I have observed. One naturalist mentions having seen this same sight, but gives no explanation of it.

Having the nest all to himself seemed to agree well with the baby bird in the apple tree. He grew amazingly fast and the most wonderfully small green feathers appeared on his little buff body, and when he saw me looking at him he gave forth the most diminutive of birdling squeaks, and was altogether the most fascinating and charming of creatures. But the great world demands its due of hummingbirds as of men. In that tiny breast moved desire for larger life and broader fields, and the tiny wings grew responsive.

One perfect day I watched the little fellow all day, as the new-found joy of life moved within him. He would sit

upon the edge of the nest while his parents encouraged him to try his wings, then his courage would fail him and he would settle back, demanding more honey or another spider before he ventured forth again. The camera was brought and several pictures were taken, but to my great disappointment none of them turned out well. Once, alarmed at the nearness of the camera, the little fellow assayed to fly but fell to the ground in a fluttering heap of distress. I carefully picked him up. O, such a wee, dainty, trembling little object! Tenderly placing him in the nest I held my hand over him until he seemed to be asleep, and he remained quiet for some time. But as the afternoon waned, his ambition and strength seemed to increase. He now sat on the edge of the nest all of the time and he fluttered his wings more vigorously. I did not then know that young birds almost invariably leave their

nests towards night, or I would have gone without eating, so desirous was I of seeing that first real attempt at flight. But when six o'clock came and the shadows of the tall cliffs shut off the light from the western sky, it seemed to me no right-minded parents would allow their offspring to venture forth into the great world, and I left my dear protégé perched upon the edge of his tiny mansion, his little bead-like eyes looking at me intelligently, his little untried wings a-tremble with their new-found life. I ate my meal as quickly as I could, but alas for me!—in those few moments the great instant had come. When I returned the lovely nest was empty; no hummingbirds were to be seen. Infinite space had claimed my tiny companion; he had gone to fill his place in nature's great plan and I could only claim as my own the empty nest and pray for him a continuation of love and protecting care.

EDITH WILLIS LINN.

THE WILD GOOSE.

I hear the voices call me and I go,
Nor question of the way, nor why, nor where;
The tides of seasons bear me to and fro;
I am content as forth with them I fare.

Against the wind I press my trailing wings;
I breast the drive of rain, the stab of sleet,
And through the day and night my harsh cry rings
Over the woodland waste, and city street.

I journey far from mighty inland seas
To lakes and ponds, that lie in softer zone,
And in the warmth of Spring's inflowing breeze,
And in her vagrant storms, content I own.

—THOMAS JEFFERSON MARLIN.

A BOY'S OBSERVATIONS OF A HUMMINGBIRD.

On my way to school one morning, I ran across a Hummingbird's nest, which looked so much like a dried leaf that I came near passing it by. The nest was about an inch and a half across and it nearly matched the light gray eucalyptus leaf on which it was made, both in color and shape. A closer examination showed two pure white, oval eggs and a very cross little Hummingbird, who was very much provoked to have me intrude upon her nest.

About two weeks later, on coming near the nest, I saw a tiny, black-skinned baby Hummingbird in the nest alongside of the egg that had not hatched. The egg never did hatch, so the mother threw it out to make room for her young one, who was growing fast. The following days were busy ones for the little mother who had to work hard to get enough for her growing youngster, who made such rapid growth that at the end of three weeks he was nearly as large as

his mother. Some people near by hitched some cows under the trees; and one afternoon I found the young bird near its demolished nest. I brought it home and put it in an empty canary's nest, which it did not like. After some severe criticism of its new home it at last settled down and went to sleep. The following morning I heard it making a noise for its breakfast; I mixed some sugar and water together in a spoon and gave it from a straw. Later I fed it from a medicine dropper, which it took to as quickly as a duck does to water.

As it grew older, it began to take short flights; and my mother, fearing that a cat would get it, had a cage constructed for its confinement. A few days afterward we placed it on some nasturtiums, because we thought a Hummingbird that stayed around there would take care of it.

It stayed a few hours and then disappeared.

HARLAN TRASK.

JENNY WREN AND THE SPARROWS.

The Wren's box was under the eaves at the corner of the house. The entrance to this tiny, cozy cottage was through a door, the exact size of a 25-cent piece. This diameter allowed the Wren to enter her home with perfect ease, while the Sparrows could do no more than peep within. The door had no entrance step nor porch, but the roof of the well-curb, close by, served for this purpose.

The Sparrows decided to keep the Wren from feeding her family. In consequence, a regiment would line up on the roof of the house ready for battle. The anxious mother, returning with her dainty worm morsel, was sorely distressed. Her cry brought me to the rescue. Flirting my apron at the Sparrow

intruders I completely routed them—"for the time being."

The Wren was quick to learn her relief party. She would alight on the roof of the well-curb, just opposite the "army," drop her bit of food and sing a sweet, trilling song, to let me know of her return and need of help. (When the enemy was absent she failed to call me.) After the birdlets were fed the little mother would pour forth a seeming extra song of thankfulness.

This performance was repeated until the Wren's family was able to go into the busy world of workers. The Sparrows never ceased to bother; the Wren never ceased to work and sing.

HARMONIA TATE.





COURTESY OF THE U.S. GEOLOGICAL SURVEY

PHOEBE.
(Savornis phoebe).
Life-size.

THE PHOEBE.

(*Sayornis phæbe*.)

Phæbe! is all it has to say
In plaintive cadence o'er and o'er,
Like children that have lost their way,
And know their names, but nothing more.

—JAMES RUSSELL LOWELL, "PHOEBE."

The homely and confiding Phœbes are, perhaps, more generally esteemed than any other birds. They are favorites with all who have made their acquaintance, and are always welcome at the North when they return in the spring from their winter home. The farmer realizes that their presence is a blessing and, being careful not to molest them, the Phœbes' confiding nature leads them to seldom build their nests at any great distance from human habitations in settled districts. While their favorite nesting sites are under bridges, cliffs of rock and earth, in caves, and under protecting rock shelves in quarries, they are almost, if not quite, as well satisfied with suitable places in barns or sheds and the porches of houses. They have also been known to nest in tin cans, and Mr. Dawson speaks of a pair which nested in an old coffee pot which was hanging on a nail in a deserted cabin. The economic value of the Phœbes is so well known that they are seldom disturbed and their tendency to nest near homes is constantly encouraged.

Mr. Chapman has well said: "There is something familiar, trustful, and homelike in the Phœbe's ways which has won him an undisputed place in our affections. With an assurance born of many welcomes he returns each year to his perch on the bridge-rail, barnyard gate, or piazza, and contentedly sings his humble monotonous *pewit-phæbe*, *pewit-phæbe*—a hopelessly tuneless performance, but who that has heard it in early spring when the 'pussy willow' seems almost to *purr* with soft blossoms, will not affirm that Phœbe touches chords dumb to more ambitious songsters." The

Phœbe's reputation is hardly equalled by any other birds. It is loved not for its song nor for the splendor of its plumage, but because its life so well fits the saying "handsome is that handsome does." The Phœbes are insect catchers *par excellence*. They are devoted parents and are never cruel. As a rule they exhibit an amiable disposition toward other birds, often nesting in close proximity to some of them, but a pair will not allow others of their own kind to occupy a nest close to their own. Some one has said the "Phœbes are almost faultless."

A large portion of the United States is favored with the presence of the Phœbes. Their range covers eastern North America, west to eastern Colorado and western Texas, and from the British provinces southward to eastern Mexico and Cuba. They breed from South Carolina northward and they winter from the South Atlantic and Gulf States southward. The Phœbes begin their northward migration very early in the season, and in the North they may well be called heralds of spring, for they begin to appear quite frequently very early in March, when their welcome voices are heard in their old haunts. They are the first of the fly-catcher family to leave their winter home, where there is such an abundance of insect life. Can it be possible that their deep love of home and of a brood of care demanding young hastens their departure toward their summer home, where it is too early for insects to be very abundant. They are also the earliest of the fly-catchers to breed and two or even three broods are often raised in a season. The female performs nearly all the work of incubation,

which lasts about twelve days. She is a close sitter and seldom leaves the nest. Her mate remains in the vicinity and faithfully watches for intruders. The young are fed only on insect food, of which they consume an exceedingly large amount each day. The parents must work very hard to obtain such a quantity of food. The nests vary both in form and in the manner of construction. The form depends upon the kind of support to which it is attached. When attached to the face of the support it is semi-circular, but if placed on a flat support it is circular. The nest is a thick walled cup or cup-like bracket constructed largely with moss and mud and lined with plant-down, mosses, fine grasses

and horse-hairs. The same pair of Phœbes are believed to return to the same place year after year, and if they do not always avail themselves of the same nesting site they select one which is near by.

Regarding the economic value of the Phœbes Mr. Beal says: "An examination of eighty stomachs showed that over ninety-three per cent of the year's food consists of insects and spiders, while wild fruits constitute the remainder. The insects belong chiefly to noxious species." As two broods, each numbering from four to six young, are generally raised each season, it is quite evident that a single pair must materially reduce the number of insects in the vicinity of their nest.

SPIDER COURTSHIP.

Courting among spiders is decidedly a dangerous occupation, for, sad to say, in the spider world the female is more fierce and depraved than the male. She is larger, also, and the gentleman spider who goes to woo his lady, braves much more than a mere refusal or a possible unconventional exit from the house at the hands or feet of an irate parent. In fact, he carries his life in his hands, so to speak, for Miss Spider invariably tries to eat her rejected suitor. Nor is acceptance a guarantee of continued safety, for the capricious lady has an original and effective solution of the divorce problem. When she grows tired of her husband she simply makes a meal of him.

Those who have watched a spider courtship must agree that the spectacle is an interesting one. When she sees her humble admirer approaching, my lady takes up her position in the center of her web. The gentleman advances quite rapidly at first, but slows considerably as he gets nearer, and prepares to beat a hasty retreat should the lady of his affection attack him. When within about four inches of the web center he begins to show off his dancing. He

goes through some wonderful balancing feats, which his dear one watches with apparent interest, often changing her position, as though to gain a better view. If she seems satisfied the would-be husband moves toward her, in a series of semi-circles. If she should resent his approach she will make a dash at him, and he will run for his life. She may follow him, and in that case he needs to be lively. But generally she contents herself with a pretense of pursuit, and he returns to try his luck once more. He edges up very closely this time, though still with caution. He begins his dance again and she joins in, and soon both are whirling as fast as they can go.

The gentleman, after a few seconds retreats somewhat, but the lady, now thoroughly worked up, begins to consider his good points. If the result of her meditation is acceptance, they embrace, if not, the gentleman soon becomes aware of the state of her feelings, and, again, is obliged to run, this time, at top speed. After this, there is no return, and no gentleman, in fact, should the lady succeed in catching him.

LOUISE JAMISON.

THE PRICKLY PEAR.

(*Opuntia vulgaris.*)

The useful is not always beautiful, and there is sometimes in plants a combination of utility and harmfulness. A common variety of the North American Prickly Pear which may be classed in this category belongs to one of the most prominent species of cacti, and is found in various parts of our country. It attains its greatest growth in Western Texas and in certain parts of Mexico, matting vast stretches of land, and woe to the traveler who finds it necessary to wind his way through these thorny beds.

The plant is irregular in form, having somewhat the appearance of green plates elliptical in shape, jointed one upon the other, and both sides covered with long greenish thorns. It varies in height, sometimes growing as high as six feet. It is one of the few varieties of the cactus useful as food, and the inexperienced will be puzzled to think how this thorny plant can be acceptable as an article of food for either man or beast.

In cattle regions it is gathered and stacked in huge piles, and a familiar sight during the fall and winter months is a fire in which the plants are held for a moment, thereby burning off the thorns and leaving the fleshy cake a

most nutritious and enjoyable diet for cattle. This work has been facilitated in some localities by a machine which is used to burn the thorns on the plants as they stand.

The plant contains a liquid which doubles its value wherever a scarcity of water exists. The shepherd guides his flock to the prickly pear grounds, severing the plants with his machette and the sheep eagerly nibble the soft fleshy portion.

In certain parts of Southwestern Texas there are extensive tracts of the prickly pear of such large size and thickness of growth as to be impenetrable to man, but which are the home of the deer and other wild animals.

When flowering, the prickly pear presents a most beautiful spectacle, being covered with clusters of brilliant red or yellow flowers with many petals. The bunches of bright red pears, cone-like in form, look very tempting to lovers of wild fruits, but 'tis with a sense of disappointment that the uninitiated discover that a fruit so inviting to the eye should not be more luscious in flavor.

The fleshy portion of this plant has a healing effect, and is now used in the medical world.

NINA KING.

THE BUTTERFLY.

A tiny egg on a milkweed's leaf,
In the warm and mellow sun;
A belted worm on the selfsame leaf,
With its cocoon just begun;
A gilded bag of a china hue,
Like a gem of unknown name;
A mystic change, and a Butterfly,
Soars forth on its wings of flame.

—JAC LOWELL.

THE RUBY-CROWNED KINGLET.

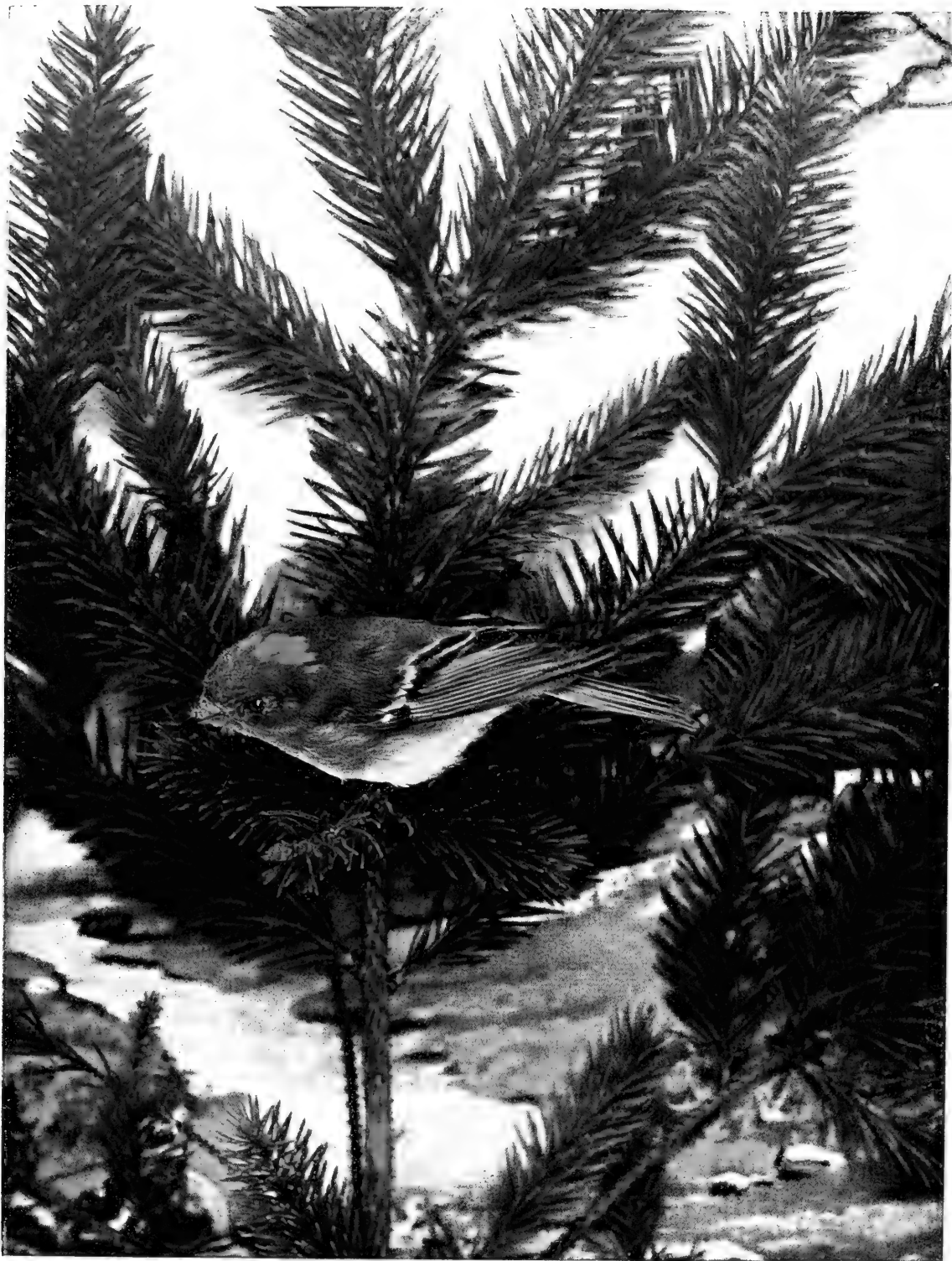
(*Regulus calendula.*)

The Ruby-crowned Kinglet, "that natty little dandy," is only known in the larger portion of the United States during its migrations, for it breeds further north, aside from the Rocky Mountains, the Sierra Nevadas and, it is said, to some extent in the mountains of Arizona. Its range covers North America from the Arctic coast southward, and it winters in the southern United States and southward to Guatemala. During their spring migrations these Kinglets may be seen among the blossom-decked fruit trees, closely examining the blossoms, partly opened buds and unfolding leaves for insects, which form their food. During the fall migrations they are less conspicuous. They frequent woods, orchards and shrubbery and are often mistaken for wood warblers as they flit from point to point among the foliage. Their food also resembles that of these warblers, but in their method of climbing about the branches, while searching for insects, they are more like the chickadees. They are much more tame and lively than are the warblers, and they frequently move their wings in a nervous manner. They also utter a scolding note which, with their nervous motions and activity, make them seem quite wren-like. In fact, they are sometimes called Ruby-crowned Wrens. These dainty and diminutive birds are very useful to mankind. They not only search for their food of minute insects, their larvæ and eggs, on the foliage and twigs at the top of trees, but also search the twigs of branches lower down and on shrubbery. It is said that they have one very noticeable habit; they are thorough and if not disturbed seldom leave the twig upon which they have lighted until they have cleared it of insect life.

During the nesting season the Kinglets frequent the coniferous forests, in the trees of which their nests are built at an elevation of from six to fifty or

more feet above the ground. Their nests are somewhat globular in form and usually semi-pensile. They are constructed with moss and fine strips of fibrous bark which are carefully interwoven and lined with feathers. Sometimes large families are raised, for the number of eggs varies from five to ten. The Kinglets are courageous during the nesting season and do not hesitate to attack birds much larger than themselves. In his "Birds of Alaska," Mr. E. W. Nelson relates an incident observed by Dr. Dall. A pair of Kinglets "which appeared about to commence a nest in a small clump of bushes tore to pieces a half-finished nest of the rusty-headed blackbird, and upon the return of the female blackbird the pair of pigmies attacked and drove her away. This was repeated several times, and when Dr. Dall left Nulato the quarrel was still unsettled."

Often the first indication of the presence of the Ruby-crowned Kinglets are their somewhat garrulous and grating call-notes. These notes sometimes precede its marvellously beautiful and powerful song. This song is noted for its softness, sweetness, and its brightness and vigor of expression. Mr. Ridgway has described the song as "an inexpressibly delicate and musical warble, astonishingly protracted at times, and most beautifully varied by softly rising and falling cadences, and the most tender whistlings imaginable." It hardly seems possible that such a loud and powerful a song could emanate from the throat of so small a bird. Dr. Coues has said: "The sound-producing organ is not larger than a pinhead, and the muscles that move it are almost microscopic shreds of flesh, yet its song may be heard two hundred yards." The song must be heard, for it defies description and any syllabic rendering of the notes is unsatisfactory. One of the best descriptions of this exquisite song is that of Mr. Chapman. It



RUBY-CROWNED KINGLET.
(*Regulus calendula*.)
About Life size.

PLATE 10. THE BIRD CLUB.

was the first time that he had heard the Kinglet sing. He says: "The bird was in the tree tops in the most impassable bit of woods near my house. The longer and more eagerly I followed the unseen singer the greater the mystery became. It seemed impossible that a bird which I supposed was at least as large as a blue-bird could escape observation in the partly leaved trees. The song was mellow and flute-like, and loud enough to be heard several hundred yards; an intricate warble past imitation or description, and rendered so admirably that I never hear it now without feeling an impulse to applaud. The bird is so small, the song so rich and full, that one is reminded of a chorister with the voice of an adult soprano. To extend the com-

parison, one watches this gifted but unconscious musician flitting about the trees with somewhat the feeling that one observes the choir-boy doffing his surplice and joining his comrades for a game of tag."

The Ruby-crowned Kinglet has been called a "dainty monarch." Dr. Henry Van Dyke calls him "Little King," and in his poem, "The Kinglet," says:

"Never king by right divine
Ruled a richer realm than mine!
What are lands and golden crowns,
Armies, fortresses and towns,
Jewels, scepters, robes and rings,
What are these to song and wings?
Everywhere that I can fly
There I own the earth and sky;
Everywhere that I can sing
There I'm happy as a king.

A WESTERN MEADOWLARK.

The Meadowlark to which my story relates was reared in a beautiful, hair lined cradle sunk below the level of the unbroken sod and overshadowed by a thick tuft of long coarse grass, upon the far stretching prairie.

He shared the nest with four other fledglings who filled it to overflowing, while their growing appetites demanded the almost constant attention of their devoted parents who foraged far and wide, catching insects which flaunted their bright wings among the prairie grasses, or delving deep in the cultivated soil and drawing forth the corpulent grubs.

Despite the attention their offspring demanded, they failed not to break the prairie's stillness with the clear and varied notes of their wonderous song, so far surpassing that of their eastern relatives. The male seemed to delight in frequenting the roadside and trustful of the chance passerby, he would perch upon a weed or nodding grass stalk and sing his song of hope and cheer until the human listener approached so near as plainly to distinguish the swelling of his yellow

throat; or if discovered upon the ground he would often half spread his wings, stoop lower and throwing backward his beautiful head pour forth a soft sweet trill of gurgling notes before soaring far across the flower bedecked plain.

The summer was well advanced when their young were large enough to assume the responsibilities of providing for themselves, for when the first nest had long been completed and the young were daily expected, a fire swept across the prairie, and their nest, with many others in its path, disappeared as if by magic. Only the charred shells lay upon the naked ground while the saddened owners sought a new site and prepared for the rearing of another family.

The day was intensely warm when the young Meadowlarks started forth upon their first hunting expedition alone and unaided. At noonday the birds had hushed their songs and with slightly extended wings and panting breasts seemed to join the drooping flowers and grain, fast ripening before its time, in their silent appeal for rain. At last it came, but with it came the dreaded hail and all living things sought shelter while

the grain bent before the wind and was beaten as by a mighty flail, and large white stones bounded high in exaltation above the ruin they had wrought.

My hero lay beneath a large gray stone and escaped uninjured but when the storm was spent, shaking his dampened feathers, he started forth. All unheeding him, a hawk passed by dragging a broken wing; a maimed grouse fluttered along the ground, and his beautiful mother lay with her storm-beaten breast turned to the pitiless sky, while across the ice-strewn prairie came the sad note of her lonely mate.

He passed the remainder of the summer and autumn without farther adventure save when, the water supply having failed in the ravine he frequented, he visited a barn yard to slack his thirst and venturing too far over the brim of the watering tank, he fell in and was found there by the farmer's daughter, an apparently lifeless form. After warming him by the kitchen fire, rubbing his damp plumage, and blowing into his unresisting throat, her efforts were rewarded and he showed signs of returning life; but before his unsteady limbs would bear him, the instinct of self-preservation asserted itself and he began pecking viciously at the hands that had saved his life, showing that the mouth held open for the exit of the sweetest song may be used for sterner things.

The prairie grasses were brown and dry and the first snowflakes had fallen before he joined others of his tribe on the long migration southward. I know not of his adventures in his sunny winter home but before the snow had left the northern slopes and slight ravines, before the swelling buds had unfurled their tender leaflets to the breeze, his joyous song was once more heard upon the prairie and each human listener gladly welcomed the sweet harbinger of spring.

In due time, he and his newly chosen mate began the structure of their dwelling and his heart seemed overflowing with joy as in the cool early morning, the genial warmth of noontide, or in the soft hush of evening he called to her whose responsive notes seemed the faint, sweet echo of his song.

But, alas, that man should so often change the purest domestic joys of his feathered friends to keenest sorrow! One evening while singing on a stake by the roadside, all trustful of the human pedestrian approaching him, a shot rang out; the song was stilled and the minstrel's life-blood stained the springtime grasses while through the still evening air sounded the single mournful note of his mate, repeated again and again in accents of despair, one of the saddest notes that Nature ever knows.

HATTIE WASHBURN.

A BIRD IN THE HAND.

While visiting a primary schoolroom near Chicago, my attention was called to a frightened hummingbird, incessantly beating its dainty head against the ceiling of the room. For over an hour, without a moment's pause, the poor creature strove in its agony of fear to find an exit through the hard plaster, which must have seemed like a sky of heretofore unknown resistance.

While the pupils were being dismissed, the tiny bird dashed down behind a large

framed picture, which offered a semi-shady retreat. It could have found no spot on which to cling, for when the frame was lifted the bird fell to the blackboard ledge, where I caught it in my hands. Its head fell to one side from either fright or other exhaustion, and it seemed to be dying. "Get some syrup," I called to my friend. There was none to be had. "Then get some sugar and water as quickly as possible," and as these were at hand they were made ready

for the little patient. I thrust the bird's bill into the spoonful of diluted sweetness and was glad to see the beak open and a small quantity of the water disappeared. In a short time the muscles of the fairy frame began to gain strength and soon the wings pressed strongly against the palm of my hand, as I tried to prevent its escape. A little child, who had remained with us, beseeched me to let her take the feathered guest, and with her promise to not let it fly away until we had examined it more carefully, I parted with my treasure.

Together we went into the next room, where the pupils were yet studying from books, and there our little visitor readily partook of more refreshment from the cup of sugared water. Hardly one of the many children had ever before been so near a living specimen of this fairly common species of American birds and not one, including the teachers, had ever seen one quietly drinking.

"Is its bill a tube? Does it suck the syrup through its tongue? Does it ever eat anything but honey? Can it sing something beside that squeak? These and many other questions showed the intense interest of the little unfeathered bipeds about me, and for awhile it was difficult to find an opportunity to give answer. Perhaps you may make a similar capture during the year and not be ready for such a catechism and a repetition of some hummingbird truths may be of interest here.

The probe-like bill is not a tube, but it is used as a protection and guide for the long tongue, which moves so rapidly that one can hardly discover its motion. These birds do eat insects which haunt the funnels of the trumpet flower, the petunia blossoms, and other long-necked repositories of plant nectar; and here would be a chance to discourse upon the difference between the bee-made honey wrought from the plant supply and its original form when in the flower. The bird does not absorb its liquid food after the manner of the boy with a lemonade straw, but drinks it, drop by drop, by means of its long tongue. Its hard bill, beside serving as a means of defense more powerful than the awe-inspiring hat pin of the school girl, also aids it in

securing a change of diet in the shape of tiny spiders which often infest plants, and other insects which are desired neither by the flower nor the gardener or farmer. It thus pays for its sweet repast of nectar and for its protection; for who has ever heard of the destruction of these morsels of bird-life in our part of the country.

It needed only a glance to tell that this little wanderer from the world outside was either a female ruby-throat or a male less than one year old. Does some one ask "How did you know?"

The method of determining is extremely simple, for there is only one species east of the Rocky Mountains and Colorado, and that is *Trochilus colubris*, or the ruby-throated hummingbird, and it is found from Labrador to Uruguay, according to season. In the Northland they are with us from May to October; the remaining months they spend in travel and search of health in other lands.

Both sexes are wonderfully attractive in the iridescent coloring, but to the mature master belongs the blood-red ruby at his throat, which gives him his name.

Beyond the barrier of the Rockies one will discover many other varieties of these dervishes of the air, who, if they do not actually whirl, at least make as many motions as the most devout of whirligig devotees.

Many persons have declared that they have seen one species hovering over clover blossoms in the dusk of twilight or in the evening hours. But the youngest and the least expert of true, close observers will soon discover that this strange nectar-seeker is a moth and not a bird.

As to actual protection of the ruby-throat by written law I cannot say, but unwritten ruling is in his favor here. Beyond Mexico's northern boundary and southward throughout the South American countries, which are his habitat during his migration, he suffers violence from the bird-hunters who supply the wants of the milliners of all lands which are civilized enough to have their women wear hats. There has been a time when a wreath of murdered ruby-throats about the crown of an Easter creation of rib-

bons and silken flowers was considered the acme of fashion and for which the devout attendant at Easter service would pay a sum sufficient to support a missionary for months. If that sum had been called a fine for the destruction of innocent, happy life the milliner's attempt at artistic arrangement of colors would have received its true name of barbarity. But the word "Fine!" was used only in commendation. Thanks to the united efforts of the Audubon Societies and other bird-lovers, bird sacrifice is becoming poor taste as it grows unfashionable.

A few years since a friend of mine had her dining-room window nearly covered by a trumpet-creeper. In the shade of this plant, among the flowers they seem to love best, a pair of ruby-throats came one May day and made their nest, and so close to the window was it built that all their house-planning and house-keeping could be closely and easily observed. The male would often rest upon a twig among the thick green leaves, and in a squeaking voice tell either of his

love for his mate or of his day's labor. The tiny eggs hatched under the care of the house-people, for they saw to it that no cat or other beast of prey, two-legged or four-legged, molested these tiniest treasures of bird land. The nestlings, small as honey bees at first, grew rapidly from the effect of the nourishment thrust down their infinitesimal throats by the beaks of their parents. They became nearly full-fledged air sailors in a few short weeks; then, all flew away together and the house beautiful on the inside of the window panes has nothing but loving words when any of its members speak of the home beautiful outside.

For reasons very apparent to those who have ever made friends with any family of our little brothers of the air, hummingbirds, mounted life-like upon swaying wires, amid laces and bewitching blossoms, have seemed as a sacrilege to them and to their friends, who together watched the unfolding of that unwritten idyl among the summer leaves.

MARY CATHERINE JUDD.

AUGUST.

I know 'tis August, for the milkweed flower
Hangs heavy-headed on its stately stem.
Soon shall the pale, curved pods, shed silver floss
To broider Autumn's robe with shining hem.

I know 'tis August, for the fields of rye
No longer wave in shining billowy ranks;
But have, like armies, pitched their tawny tents,
And streams have shrunken, 'neath their willow'd banks,

The harvest fly, with sudden stinging sound,
Rings his triangle in the drowsy trees.
He bids us note wan Summer drifting by,
Her robe scarce stirring in the languid breeze.

Subdued bird-music hints of southern flight;
At night the katydids begin to call
And deep-toned crickets chant of shortening days
With coming frosts, and glories of the fall.

—BELLE A. HITCHCOCK.





MOURNING DOVE,
Zenaidura macroura.
♂ Life size.

Published 1935, by A. W. Cooper, Inc., Chicago, Ill.

THE MOURNING DOVE.

(*Zenaidura macroura*.)

The breeding and the geographical ranges, both being practically the same, are extensive, covering temperate North America from the southern portion of Canada and British Columbia, southward ward to Panama and the West Indies. The majority of these birds winter south of the more northern states, but some have been known to remain through this season as far north as Ontario. The cooing of this Dove, which is one of the most mournful sounds in nature, is also one of the characteristic voices of spring. The sadness of its notes, however, do not indicate a mournful nature, for they are not notes of grief, but, rather, they indicate attachment for their mates.

The Mourning Dove, also called Turtle Dove and Carolina Dove or Pigeon, is to my mind a bird of exemplary habits. It is rarely quarrelsome and easily adapts itself to its favorite locality, placing its nest wherever it seems most convenient. The nests of these birds may be built in trees, bushes, on stumps and logs, on cliffs and on the ground, especially in treeless regions. Occasionally they will utilize the old nests of other birds, and I know of one instance where a pair nested in a cavity of a tree. It is my experience that the Mourning Doves are rarely seen during the nesting season in greater numbers than two in an area of one or two acres. This trait may account, to some extent at least, for the fact that they are abundant and have not been exterminated as is nearly the case with its relative, the passenger pigeon. I am informed that these Doves sometimes nest in colonies consisting of a few pairs. In one instance, it is said, the nests were found in a small group of pine trees. The nests are simply frail platforms made of sticks, twigs and roots when built in trees, but if placed on a large limb or a stump a mere rim of twigs, sufficient to retain the eggs, is constructed. On the ground a few

straws and twigs are all that is usually used. These Doves rear two and sometimes three broods in a season.

After the breeding season both the young and the old Doves collect in flocks and resort to grain fields and berry patches. Eating plentifully of various grains, the seeds of weeds, small acorns and other nuts, berries, worms and insects, they become fat and their flesh becomes delicate and makes a food that is appreciated by hunters. At this time, it is a favorite pastime of gunners to station themselves in the fields and bag the birds, their swift and straight flight offering a great temptation to the sportsmen.

An interesting note regarding the Mourning Doves in the arid regions of the Southwest is given by Major Charles Bendire in his "Life Histories of North American Birds." He says: "In the more arid regions of the West, especially in southern Arizona, I have often noticed this Dove a long way from water, but as they are exceedingly strong and rapid flyers, distance is but a trifling matter to them. They usually visit their regular watering places in the morning, and in the evening just before sundown, and, where water holes or springs are scarce, they can be seen coming from all directions in search of such localities, usually in pairs or little parties of from four to six. At this time, if closely watched, they are a sure guide to water. Old mountaineers are well aware of this fact, and, if not familiar with the country they shape their course after the line of travel of these Doves, which is always a direct and straight route to the objective point."

In the southern portion of the range of the Mourning Doves, their mating season begins early in March, and fresh eggs have been found toward the last of that month, and Major Bendire says that he has taken them in Arizona as late as the fourteenth of September and might,

probably, have found them still later had he looked for them. In northern Illinois I have found them nesting from the last of April to the first of August. The eggs of these birds vary considerably from a true oval and are usually a glossy white, though some have a rather rough surface.

The Mourning Doves show a strong attachment for their mates throughout the season. Both parents exhibit a true

love for their young and give them much attention even after they have left the nest, and it is said that the mother bird will brood fully fledged young, though she always sits crosswise of them. The love notes of these Doves are familiar to those who are acquainted with the birds. While they are low and rather mournful in sound they may be heard at some distance. It seems impossible to give a satisfactory syllabic description.

FRANK MORLEY WOODRUFF.

THE RUSSET-BACKED THRUSH.

(GRAY'S HARBOR, WASHINGTON.)

O wandering thrush! the homeland is the best;
The salmon berry blooms for thee, its guest,
And songs are in the air, ended thy quest.

The forests' thine, their fragrances so sweet,
Afar the line where sky and mountain meet,
Thy message lends the charm to make complete.

After the long and difficult ascent
To heights where vision sweeps the firmament,
What infinite repose thy voice hath lent!

Like to the fir tree's fragrances that stay
In rich suggestions through the long sweet day,
The echoes tell that thou hast passed that way.

O song that lures me where the fir trees grow
Or down into the "tide flats" far below,
Still constant where the shadowed rivers flow!

Tenderest at morning, half subdued, it seems
Only the ending of the gladdest dreams,
The gentle wave beat of melodious streams.

Triumphant when the sun sinks low behind
The dark hill-forests, and the searching wind
Is gone with day, and night is still and kind.

'Tis then it rings in notes so sweet, so clear,
The very angels well might pause to hear
And, listening long, leave heaven to draw near.

And when the twilight fades, the long day done
Between the silences thy song rings on,
The voices of the night are thine alone.

Aye, when the darkness comes, silence unstirred
Save by thy son, O little flute-voiced bird,
A truer harmony was never heard!

—NELLY HART WOODWORTH.

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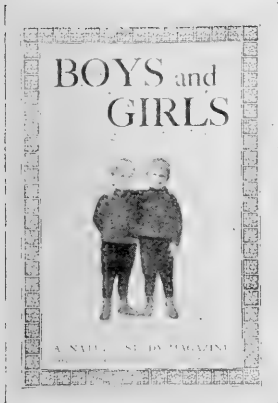
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NORTH AMERICAN LAND BIRDS. By Spencer F. Baird, Thomas M. Brewer, and Robert Ridgway. A. W. Mumford & Co., Chicago, 1905. Octavo, 3 volumes, cloth, illustrated. Price, \$10.00.

To say that the authors of a book are Spencer F. Baird, Thomas M. Brewer, and Robert Ridgway is a sufficient testimonial of its great worth. The names of these men are known to all students of ornithology. The present edition of this great work is a new and popular one. It contains more than 1,000 illustrations. There are 64 full-page plates, containing 545 heads of birds, printed in colors, and 593 wood-engravings. These illustrations are excellent and will be of great assistance to the student. They consist of a series giving the peculiarities of the wing, tail, bill, and feet of each genus; a series of 593 full-length figures of the birds, engraved on wood in the highest style of the art; a series of 545 life-size heads of the birds, very accurately printed in colors, and frontispieces in each of the three volumes, colored by hand. The text is interesting as well as instructive. An important feature of the work is that portion written by Dr. Brewer. His accounts of the habits of the birds form one of the most valuable features of these volumes. The analytical and synoptical tables will greatly assist the student in the identification of birds, and the geographical distribution of the various species in America is fully discussed. There is also an excellent glossary of technical terms. It is a work which should be possessed by all bird students, and we recommend it to our readers.

ALL THE YEAR ROUND. Part IV, Summer.

By M. A. L. Lane and Margaret Lane. Ginn and Company, Boston and Chicago, 1905. 12mo, pp. 99, cloth, illustrated. Price 30 cents; by mail, 35 cents.

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BUTTERFLIES AND BEES. THE INSECT FOLK.

Vol. II. By Margáret Warner Mosley. Ginn and Company, Boston and Chicago, 1905. 12mo, pp. 267, cloth, illustrated. Price, 60 cents; by mail, 70 cents.

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O'Sheridan; Music by W. C. E. Seeboeck. Rand, McNally & Company, Chicago and New York, 1904. Quarto, pp. 98, cloth. Price, \$1.25.

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"Verses from valley and hill are these,
Songs of flowers and birds and trees,
In Nature's big book I learned them all,
As I turned the leaves from spring 'til fall.

"Dear, wee children, wherever you are,
Looking at blossom or bird or star,
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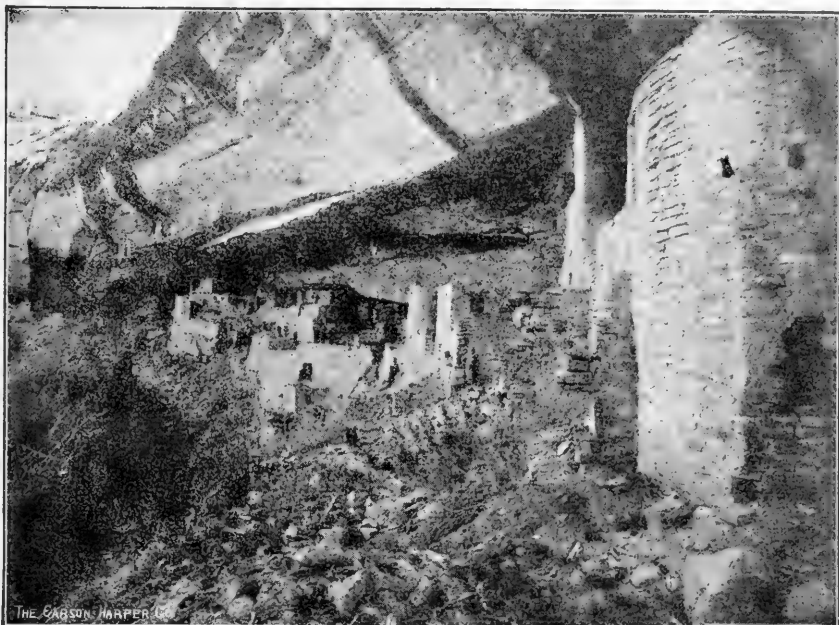
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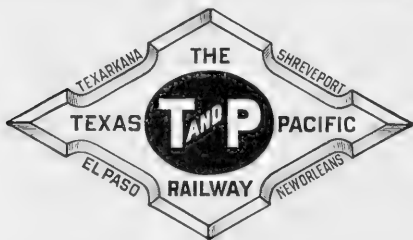
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