Title: Birds and Nature Vol. 11 No. 3 [March 1902]

Author: Various
Editor: William Kerr Higley

Release date: December 7, 2014 [EBook #47569]

Language: English

Credits: Produced by Chris Curnow, Joseph Cooper, Stephen Hutcheson,
and the Online Distributed Proofreading Team at
http://www.pgdp.net

BIRDS AND NATURE.

ILLUSTRATED BY COLOR PHOTOGRAPHY.

Vol. XI. MARCH, 1902. No. 3.

BIRDS AND NATURE.

ILLUSTRATED BY COLOR PHOTOGRAPHY.

Vol. XI. MARCH, 1902. No. 3.

CONTENTS

EASTER CAROL.	97
SPRING.	97
THE WINTER WREN. (*Troglodytes hiemalis.*)	98
VOICES IN THE GARDEN.	101
THE LECONTE'S SPARROW. (*Ammodramus leconteii.*)	107
EASTER LILIES.	108
THE CALL OF THE KILLDEE.	109
THE NORTHERN PHALAROPE. (*Phalaropus lobatus.*)	110
OUR LITTLE MARTYRS.	113
A CARGO OF STOWAWAYS.	114
THE HAIRY WOODPECKER. (*Dryobates villosus.*)	119
A VARICOLORED FROG.	120
WAS IT REASON OR INSTINCT?	121
OPAL.	122
THE CROCUS.	127
MARCH.	128
THE DOMESTIC SHEEP. (*Ovis aries.*)	131
THE BEAUTY OF A STORM.	133
The snow-plumed angel of the north	133
THE VIOLET.	134
THE ROUND-LOBED LIVERWORT. (*Hepatica hepatica.*)	137
THE SPRING MIGRATION. I. THE WARBLERS.	138
A PET SQUIRREL.	140
THE ENGLISH WALNUT AND RELATED TREES. (*Juglans regia L.*)	143
AWAKENING.	144

EASTER CAROL.

Hepatica, anemone,
And bloodroot snowy white,
With their pretty wildwood sisters,
Are opening to the light.

Each blossom bears a message
That a little child may read,
Of the wondrous miracle of life
Hid in the buried seed.

In the woods and fields and gardens
We may find the blessed words
Writ in beauty, and may hear them,
Set in music by the birds.

It is Nature's Easter carol,
And we, too, with gladness sing,
For we see the Life immortal
In the promise of the spring.

—Anna M. Pratt,
From "Among Flowers and Trees with the Poets."

SPRING.

O beautiful world of green!
When bluebirds carol clear,
And rills outleap,
And new buds peep,
And the soft sky seems more near;

With billowy green and leaves,—what then?
How soon we greet the red again!

G. Cooper, “Round the Year.”

THE WINTER WREN.

(*Troglodytes hiemalis.*)

How rich the varied choir! The unquiet finch
Calls from the distant hollows, and the wren
Uttereth her sweet and mellow plaint at times.

—Isaac McLellan, “The Notes of the Birds.”

The Winter Wren inhabits that part of North America east of the Rocky Mountains, breeding chiefly north of the United States and migrating at the approach of winter nearly or quite to the Gulf of Mexico.

This diminutive form of bird life, which is also called Bunty Wren and Little Log Wren, is a denizen of the forest, and it is more common in those forests found on bottom lands adjacent to rivers. It is a shy bird, and does not seek the intimacy of man as will its cousin, the house wren. It is seldom seen far above the ground. In many places where it does not seem abundant it may be quite common, for it readily eludes observation in the underbrush because of its neutral color. It frequents old logs, where it may be seen “hopping nimbly in and out among the knotholes and other hollow places, then flitting like a brown butterfly to another place of refuge on the too near approach of an intruder.” Some one has said, “Its actions are almost as much like that of a mouse as of a bird, rarely using its wings except for a short flutter from one bush or stone-heap to another; it creeps slyly and rapidly about, appearing for an instant and is then suddenly lost to view.”

The Winter Wren builds its nest in the matted roots of an overturned tree, in brush-heaps, in moss-covered stumps, or on the side of a tree trunk. It may be attached to a ledge of rock, and is occasionally found in some unoccupied building, especially if it be a log hut in the woods. The nest is very large and bulky when compared with the size of the bird. Dr. Minot describes a nest that he found in a moss-covered stump in a dark, swampy forest filled with tangled piles of fallen trees and branches. This nest was made of small twigs and moss. It had a very narrow entrance on one side, which was covered by an overhanging bit of moss, which the bird pushed aside on entering. The nests are usually more or less globular and thickly lined with feathers and hair.

This little brown bird, which carries its tail pertly cocked on high, is a notable singer. Many have described this song, or perhaps it is better to say have tried to do so. But words are too inadequate to portray this sweetest of woodland sounds. Reverend Mr. Langille says: “I stand entranced and amazed, my very soul vibrating to this gushing melody, which seems at once expressive of the wildest joy and the tenderest sadness. Is it the voice of some woodland elf, breaking forth into an ecstasy of delight, but ending its lyric in melting notes of sorrow?”

Of this song Florence A. Merriam says: “Full of trills, runs, and grace notes, it was a tinkling, rippling roundelay. It made me think of the song of the ruby-crowned kinglet, the volume and ringing quality of both being startling from birds of their size. But while the kinglet’s may be less hampered by considerations of tune, the Wren’s song has a more appealing, human character. It is like the bird itself. The dark swamps are made glad by the joyous, wonderful song.”

WINTER WREN.
(Troglodytes hiemalis.)
About Life-size.
FROM COL. CHI. ACAD. SCIENCES.

And Audubon beautifully expresses the song as it appealed to him: “The song of the Winter Wren excels that of any other bird of its size with which I am acquainted. It is truly musical, full of cadence, energetic and melodious; its very continuance is surprising, and dull indeed must be the ear that thrills not on hearing it. When emitted, as it often is, from the dark depths of the unwholesome swamps, it operates so powerfully on the mind that it by contrast inspires a feeling of wonder and delight, and on such occasions has impressed me with a sense of the goodness of the Almighty Creator, who has rendered every spot of earth in some way subservient to the welfare of His creatures.” 101

VOICES IN THE GARDEN.

As the snows were being guarded on the mountain tops by the gentle herder Spring two small seeds, dropped from the same busy hand, fell so near together in a fresh furrow that they could hear each other shiver as they struck the cold, damp earth and were covered over by the same.

“How cold our bed is,” said seed number One, as a cold chill ran down her back.

“Yes,” replied seed number Two. “But we will soon get used to this cold, and when Father Sun sends the sunbeams to play on our top cover we will get warmth from their little hot feet.”

With this thought seed number Two snuggled down in her new bed of earth and pulled the tiny clods around her and shut her eyes to sleep. But seed number One still shivered and complained and wished that she was back in the paper package so loudly that all her companions in the furrow were disturbed, especially number Two, who was lying so near.

“Aren’t you feeling more comfortable?” asked seed number Two.

“No, I am not. I am freezing, and these cold clods are mashing me. I wish I was back in the paper though we were crowded on top of each other.”

“But you could not grow there.”

“No, but I could be more comfortable. If it takes these old black clods to make me grow I don’t know that I want to grow,” and she gave a sniff to show her contempt.

“Stop! You don’t realize what you are saying! You are near committing the unpardonable sin. Do you remember your promise to Mother Nature as she placed within your bosom the sacred germ of life? That promise which you gave to grow, at the first opportunity, and to do all within your power to become strong and vigorous, producing seeds in which she could place like germs. Then have you forgotten your dying mother’s request that you live up to this solemn promise?”

Seed number One did not reply, but gave a little rebellious grunt to show her state of feelings and remained silent.

This was a great relief to the other seeds, who were enduring the discomforts of their new and chilly environments with as much fortitude as possible, hoping and believing that their new home would yet become more comfortable. Finally all became quiet and they shut their eyes and waited and dreamed.

The cold, dark night was at last over. The seeds in their little dark chambers could not see this, but they knew it was so when they felt the warm influence of the sunbeams as it crept stealthily down through the damp soil and warmed their cold, wet wrappings. Oh, how it did revive them! They grew larger as they tried to express their thankfulness. The quickening power within pictured to them bright sunshine, refreshing showers and warm, balmy nights. But there they lay helpless in the dark, waiting and dreaming and dimly feeling that—

Instinct within that reaches and towers
  And, groping blindly above for light,
Climbs to a soul in grass and flowers.

But the greatest change of all was in seed number One. She had spent the dark, cold night in thinking of the promise she had given and about which she had been reminded by seed number Two. Gradually the angry, rebellious feelings passed away and she began to realize how sinful her spirit had been. And now that the warm sunshine had turned the cold, wet clods into a blessing she most heartily felt ashamed of herself and could get no rest until she gave some expression to this feeling. She began by snuggling closer down among the clods and trying to make them feel that she was glad to be among them. 102

Then she whispered to them softly: “I am so sorry for the rude, impatient, angry words I spoke yesterday when I first came among you. Can you forgive me?”

“Certainly we will,” said the big clod that the seed had accused of mashing her. “I know we are rough looking companions for a tiny seed and oftimes we are forced, by influences from without, to act rudely. But Mother Nature knows our needs and will send water to soften our natures and men will lift and stir us about so that we can do our very best work in helping you and other seeds to perform life’s obligations.”

“Yes,” replied the seed, “I now remember how my mother used to praise you and tell us children that the nice juicy food she brought for us to eat came from the soil surrounding her roots.”

“I am glad you can remember us so kindly,” responded the clod. “Though we are the lowest of God’s creation, we are also the oldest, and He has most graciously used us as an instrument in performing His higher works. We hold a very humble place, and are trodden upon by all of His creatures, yet we are happy in realizing that we, too, have a direct commission from him and a part to perform in the creation of the great living world above us. Our most extensive and immediate work is helping Mother Nature to produce the vegetable kingdom, to which you belong, and we want you to feel,” continued the clod, “that you are among friends who are waiting and anxious to serve you.”

“Thank you,” replied the seed; “you are very, very kind, and I am sure I shall learn to love you dearly.” Saying this she crept down closer into the warm little crevice and the clod, absorbing the water that had been turned into the furrow, melted around her and gave her protection, moisture and food.

The next night did not seem so cold to the seeds. They had become better acquainted with the soil and through the influence of the sun and water were clasped more warmly and tenderly in his arms. There they lay and waited until the little germ within them began to stir and knock for egress. The kind soil had by his own virtues softened their walls so that it was not difficult for the swelling germs to make an opening through which they stretched tiny white hands and laid them lovingly into the strong ones of their benefactor. In these handclasps were pledged mutual co-operation, sympathy and love throughout life. “Useless each without the other.”

No sooner had these little hands made sure of their hold upon the soil than there came an irrepressible longing in the heart bud to reach up and to know another world. In obedience to this call the little bud peeped out of its own hull and crept softly through the soil, up to the sunshine and air. There it unfolded two tiny leaves in thankfulness and praise to One who had made possible this new life. As the fullness of the higher world was comprehended, other leaves were thrown out until the little plant became a whorl of praise and gladness.

At this juncture new difficulties arose. These little leaves forgot their higher mission of love and praise and began to crowd and push each other, each striving to grow tallest and command the greatest space. As seeds number One and Two lay very near each other it was not long before their leaves came together in the air world. They had been so busy growing that they had talked but little to each other since the first night. Seed number One had grown so happy, gentle and meek that she was fast gaining friends on all sides. Every one regretted that they had so harshly condemned her. But now this new trial was a severe test to her genuine heart goodness. At first she made some show of patience, for seed number Two, her closest neighbor, was so unselfish and gentle in all that she did that there was little excuse to be otherwise. But no sooner did other leaves come into the space she considered her own than her leaves began to rustle and complain and to say: “It is no use for me to try to grow, crowded up like this. I wish I had been planted somewhere all by myself.”

Then seed number Two gently whispered: “He who took you from your mother’s dead arms, kept you from 103
freezing during the cold winter months and prepared for you this nice loose furrow in which to grow had a right to plant you where He wished and to do with you what He thinks best. As for ‘growing room,’ there is likely to be plenty of it within a few days for all those who have the good fortune to be here.” At this there was a rustle of surprise among the bystanders and they asked what she meant.

“I remember mother telling about her early life,” continued seed number Two, “how at first she and her companions were so crowded together that some lost all their beautiful green color and became white and sickly. But one day a girl, with a bucket on her arm and a knife in her hand, came and sat down near them. They all held their breath, not knowing what she intended to do. Then the girl took the knife and, catching a number of mother’s companions by the leaves, cut them off just below their bud. This she continued to do until her bucket was full. When she left there was plenty of room for those remaining to grow, but their hearts were sad and anxious.

“Each day the girl came back to some portion of the bed and acted in the same manner until the bunches were so scattering that the leaves did not touch each other. Each time mother expected that she would be one of the number and be cut off from the life she loved and in which she was hoping to redeem her promise to bear seeds for Mother Nature. Finally she and her companions began to notice that the girl always chose the largest and freshest looking bunches. Then some of them began to say: ‘What is the use of us trying our best to grow strong and vigorous? That very state endangers our lives. Mother Nature surely did not understand these surroundings when she exacted this promise from us!’ One bold, rebellious spirit said: ‘I am going to have my roots stop their work that my leaves may turn yellow and brown; and then I will get the wind to split and break them.’ ‘But,’ said mother, ‘that will be death.’

“‘Well, what does it matter? I would as lief die one way as another,’ gruffly responded the bold speaker.

“Most of mother’s companions nodded their assent, so she said nothing more until she had time to quietly think over the matter. That night mother stood, awake, looking up at the stars and trying to know what was best to do. Finally, when the first whispers of morning could be heard, they brought her this message: ‘Always and under all circumstances do your best. Live up to the highest and noblest within you and leave the result to Him who knows the heart.’

“Then there came peace and courage, and mother rose above the fear of death and resolved that she would not relax one effort to grow and carry out in detail the promise she had given. She was convinced that Mother Nature wanted her best each day rather than a mere existence in order that she might bear some puny seeds.

“Several days went by and the girl did not appear. The contrast became greater and greater between mother and her companions. She stood erect, holding her broad green leaves up to the sun, while in the midst of them could be seen a young, vigorous seed stalk crowned with the precious promises of the future. The leaves of her companions were fast turning yellow and brown and their whole attitude was dejected and forlorn.

“One day they heard voices in the garden. They thought this must be the girl coming to fill her bucket. All eyes were turned toward mother. They felt sure she would be the first chosen. But mother was calm and possessed, rejoicing in the knowledge that she had lived up to her higher duties and therefore was better prepared to either be cut down or left standing as fate would decide.

“As the voices came nearer they recognized the owner of the garden and with her John, who had always been their good friend, pulling up the weeds and loosening the soil around their roots. The owner and John were soon standing beside the bed where mother and her companions grew, and then the voice of the woman could be heard saying: ‘John, this bed is doing no good. The season is about over, anyway, so you can spade it up and sow it to early turnips. But look!’ and the woman stooped and touched mother’s crisp leaves. ‘Isn’t this a beautiful specimen of fine lettuce? John, you may leave this bunch for seed.’ 104

“So it came about that mother only, of all her companions, was allowed to complete a natural life and to realize the hope that we all have in common.”

As seed number Two finished this narrative they were all very thoughtful and felt more considerate for each other in their crowded condition.

Sure enough, within the next day or two a woman with a pan and knife came down the row and began to thin out their number. Seed numbers One and Two trembled as she passed them, but she did not stop to take either.

That evening seed number One whispered to her companion: “You are very fortunate to have had such a noble mother. I know now why it is so easy for you to be patient and good.”

“Ah! you do not know nor understand, or you would not call me good nor think that it is easy for me to be always patient. I love and honor the memory of my mother, but she does not possess the power to make me good. Mother Nature holds each of us responsible for our own acts and judges us accordingly.”

After a thoughtful silence seed number One said: “I am growing to try to be good and to grow strong and upright,” and she stretched herself a little bit higher in her own effort to appear so.

A few days after this a small, tiny worm came creeping and shivering along the ground and stopped first under the leaves of seed number One and asked for a nibble.

“No,” replied the seed, “my leaves must be kept whole and beautiful, for it is only in this way that I can be my best self and thereby win Mother Nature’s approval.”

“But I am starving,” replied the worm. “I cannot find a morsel to eat anywhere. Please give me one of your under leaves that I may gain strength to crawl on and hunt other food. I do not ask your life, but only a bit of your under leaves, which you can well spare.”

“But it will spoil my appearance,” said the seed, “and Mother Nature wants me to be beautiful. And then I can’t bear to have a nasty worm touch me,” and she rustled and drew up her beautiful green leaves to show her disgust.

“Very well,” said the worm, “I will not take by force what you are not willing to give through mercy. Some day you will know me better,” and the worm crawled away.

He stopped at seed number Two and made the same request. At first she hesitated, but seeing how near starved the poor worm was and how humbly and meekly he asked for the food, she relented.

“I know,” said the seed, “you will spoil the appearance of my leaves and I shall look shabby among my companions, but knowing that you, too, are one of Mother Nature’s children, I cannot believe that she would have me withhold life from you. Therefore, I give you of my leaves as giving unto her, leaving the result with her.”

The worm most heartily thanked the seed and began eating. He stayed a day or two, making several large holes through the under leaves, but at the end of that time he had become strong and vigorous, and again thanking her, he crawled away.

Several days after the worm had departed and seeds numbers One and Two had grown to be quite large bunches, the woman with her knife came down the row. She seemed to be in a great hurry and was gathering the largest bunches as she came along. When she reached the two companions she stooped and laid her knife at the root of number Two, but noticing the holes in her leaves she quickly changed to seed number One and the knife went home. Poor seed number One fell over on her side and was gathered up and placed in the pan. The woman passed on and seed number Two was left standing, but shaking with the emotions of fear, thankfulness and regret. For after all, she loved seed number One and was truly sorry that she had been taken.

All that afternoon seed number Two remained very quiet and her companions knew why.

“How strange!” they murmured. “What we thought was her degradation and destruction has really been her salvation.”

And they looked upon her with awe and whispered:

“How strange! How strange!”

M. Alice Spradlin.

LECONTE’S SPARROW.
(Ammodramus leconteii.)
About Life-size.
FROM COL. CHI. ACAD. SCIENCES.

THE LECONTE’S SPARROW.

(*Ammodramus leconteii.*)

The Leconte’s Sparrow has an interesting history. It was first discovered and named by Audubon in 1843. Later, his account seemed almost a myth, for no more individuals were taken, and even the specimen on which he based his published report of the new species was lost. It was not seen again until Dr. Coues rediscovered it in 1873, obtaining his specimens on the Turtle Mountain, near the border of Dakota.

Of their habits, Dr. Coues says: “In their mode of flight the birds resemble wrens; a simile which suggested itself to me at the time was that of a bee returning home laden with pollen; they flew straight and steady enough, but rather feebly, as if heavily freighted for their very short wings.”

Its range is quite extensive, for it is found from the Great Plains eastward through Illinois and Indiana and from Manitoba southward. During the winter months it frequents the States bordering the Gulf of Mexico. This Sparrow is often seen in the stubble of grain fields which have become covered with grass and low weeds, to the cover of which it will retreat when frightened. In this respect it resembles the grasshopper sparrow, and like it is easily overlooked. Mr. Nelson found it on moist prairies that were covered with a growth of coarse grass. It is also frequently seen in the swampy prairies of the Mississippi bottom lands.

Mr. Oliver Davie quotes the following description of the bird’s habits from an observer who studied their habits in Manitoba, where they nest extensively: “Leconte’s Sparrows are fairly numerous in Manitoba. Their peculiar note can be heard both day and night in fine weather; the only sound I can compare it to is the note of the grasshopper. It is one of the most difficult of all the small birds to collect that I know of. They are great skulkers. I have often followed them, guided by their chirping, in the grass until I was sure the bird was not more than a few yards away; then he would suddenly ‘crowd on all sail’ and dart away at a high rate of speed, gyrating from side to side in a manner that would test the skill of any collector.”

The nests are described as concealed in a thick tuft of grass and are rather deep and cup shaped. They are constructed of fine grass and fibers.

Though this elegant little Sparrow baffled bird lovers for so many years, it is now known to be abundant in many localities, and it is only because of its peculiar and retiring habits, living as it does in grassy places not easily accessible, that it is not more often observed.

EASTER LILIES.

The one delight of Grace Newton’s life was to visit Aunt Chatty White. Winter or summer, autumn or spring—no matter what the season nor how bright or how gloomy the weather—there was sure to be found some unusually fascinating pleasure or employment. There were books of every description with which to while away the winter days. And in summer the trees were full of fruit, the yard with flowers, the fields and garden with good things, while the birds saucily claimed possession of all.

But when she was told by Mamma that she should open Easter with Aunt Chatty her heart was a-flutter with a joy not known before. Easter—her first away from home! And she was sure that there would be presents, and new books to read, and new stories to hear, and rabbits’ nests to visit, and—well, it would be the gladdest Easter of her life, she was certain.

It was Good Friday when she arrived at her aunt’s quiet country home. The winter was dying away and spring was making itself known and felt, while a few birds were venturing to sing of summer’s return. The buds were swelling, the lawns and meadows were becoming green, and in the woods Grace was sure she could find, should she try, a violet, a bloodroot bloom, or a dainty snowdrop. For these were the first flowers, and sometimes appeared, her mother told her, before the snow was fairly gone.

A surprise awaited her, however; for, as she was wandering aimlessly about the garden borders that afternoon, she suddenly came upon a bed of golden buds and blossoms. After gazing at them a few moments to make sure she was not dreaming, she hastened away to Aunt Chatty for an explanation.

“Why, dearie, those are Easter flowers,” laughed her aunt.

“But I thought Easter lilies were white.”

“Not all of them. I have some white ones—in another part of the garden. Those you saw are daffodils and jonquils.”

“John—who?” queried Grace, in astonishment.

“Jonquils,” repeated Mrs. White, amused not a little at Grace’s ignorance and wonder. “Come! I’ll show you which is which.”

Grace ran on ahead, and was minutely inspecting the tender young blossoms when her aunt arrived.

“The large double yellow ones are daffodils. Those across yonder are the white ones. Wait!” she called, for the impatient child had already started toward the bed of more familiar lilies. “Here are the jonquils—these with cups. Really the name for these, both the yellow and the white, is Narcissus. Presently I’ll tell you how they came to have that name. There are twenty or thirty kinds, but the most perfect forms grow in Europe and Japan. Cultivation has done a great deal for the Narcissus, both in this and other countries, but these of mine are but the old-fashioned sort that grandmother planted here. Now let’s go see the white ones. Will they be in full bloom for Easter?”

“Yes,” replied Grace. “See, here are two now. Mamma has this kind,” and she fondled the snowy blossoms as though they were friends of long standing.

“These are, without doubt, the ‘lilies of the field’ that Christ spoke of,” said Aunt Chatty. “Isn’t it nice of them to hurry from the ground in the spring in time to remind us of the resurrection of Him who commended them so highly? And their whiteness tells us of His purity, as though they wish to honor Him as long as they live.”

“But tell me, aunty, how they came to have that other name,” urged Grace presently.

“Oh, yes. That story was told by the ancients to frighten boys and girls who were selfish and unkind.”

To the cosy sitting room they repaired, for the air had not yet become warm enough for so lengthy a stay out of doors. When both were comfortably settled Aunt Chatty began:

“There was a very beautiful youth, mythology tells us, who was devotedly loved by a wood nymph, Echo. 109
But she had incurred the displeasure of Juno, their goddess of the heavens, and by her had been condemned to have the power to speak only the last word and was forbidden any other. For this reason she could not address Narcissus, much as she desired to do so. When he did speak, finally, Echo answered by repeating his last word. Her heart was full of joy, for she was sure that at last her opportunity had come. But in spite of her beauty and purity the youth repelled her, and left her to haunt the recesses of the woods. In her disappointment she pined for him until her form faded because of grief. Her bones were changed to rocks and there was nothing left but her voice. With that she is still ready to reply to anyone who calls to her and keeps up her old habit of having the last word.

“Narcissus was cruel not in this case alone. He shunned every one else as he had done poor Echo. One day one of those whom he repelled so heartlessly breathed a prayer that he should some day feel what it was to receive no return of affection. The wish was granted.

“There was a fountain, with water like silver, to which the shepherds never drove their flocks. In fact, nothing ever disturbed its water, and here one day Narcissus chanced to stop to drink. He saw his own likeness in the water and, thinking it a beautiful water spirit living in the fountain, admired and loved it. He talked to it, but it would not answer; he tried to catch it, but it fled whenever he touched the water. He could not tear himself away from the spot, for he was so captivated by the lovely face in the fountain that he ignored all else. So there he stayed until he lost his color, his vigor, and the beauty which had so charmed Echo. She kept near him, however, and when, in his grief, he exclaimed, ‘Alas! alas!’ she answered with the same words. He pined away and died. The nymphs prepared a funeral pile and would have burned the body, but it was nowhere to be found; in its place was a flower, purple within and surrounded with white leaves, which bears the name and preserves the memory of Narcissus.”

When Aunt Chatty had finished, Grace, after gazing out at the white Easter lilies a few moments, said:

“I like the story, but I don’t like Narcissus. He was too selfish and ungrateful. I like the story best that you told me in the garden, the one about the ‘lilies of the field.’”

Claudia May Ferrin.

THE CALL OF THE KILLDEE.

“Killdee, killdee.”
The pleasantest sight to me
Is a little brown bird with a curious word;
A queer little word that to-day I have heard
For the very first time this spring, you see,
And that queer little word is “Killdee, killdee.”
That curious word is “Killdee.”

“Killdee, killdee.”
It is cheery and clear as can be.
And there’s snow in the gully not melted away,
And ice in the river; I saw it to-day.
Yet there he goes dipping and skimming along
And singing so blithely his queer little song:
“’Tis spring. Killdee, Killdee.”

—Mary Morrison.

THE NORTHERN PHALAROPE.

(*Phalaropus lobatus.*)

The Northern Phalarope has a wide range, extending throughout the northern portion of the Northern Hemisphere and in winter reaching the tropics. It breeds only in Arctic latitudes. It is a bird of the ocean, and seldom is observed inland except as a rare migrant early in May or in October. Then it “frequents slow streams or marshy pools.”

This Phalarope belongs to the shore birds and to a family that contains but three known species. Two of these are sea birds. The other, Wilson’s phalarope, is an inhabitant of the interior of North America. Their feet are webbed, and usually the two marine forms, or sea snipe, as they are sometimes called, migrate in flocks far from land. Mr. Chapman says: “I have seen it in great numbers about one hundred miles off Barnegat, New Jersey, in May. For several hours the steamer passed through flocks, which were swimming on the ocean. They arose in a body at our approach, and in close rank whirled away to the right or left in search of new feeding grounds.”

It is not an exaggeration to say that it is one of the most beautiful of our aquatic birds. All its motions are graceful. It possesses a quiet dignity and elegance while swimming in search of food, which it frequently obtains by thrusting its bill into the water. In this manner it obtains a large number of marine animals and flies that may be on the surface of the water. When on the shore it may be seen wading and swimming in ponds near the coast.

Dr. Coues wrote in an interesting manner of this bird. He said that the Northern Phalarope is “a curious compound of a wader and swimmer. Take one of our common little sandpipers, fit it for sea by making oars of its feet, and launch it upon the great deep, you have a Northern Phalarope. You may see a flotilla of these little animated cockle-boats riding lightly on the waves anywhere off the coast of New England.”

Its habits at the mating season are most interesting, and no words can better describe them than those of Mr. E. W. Nelson: “As the season comes on when the flames of love mount high, the dull-colored male moves about the pool, apparently heedless of the surrounding fair ones. Such stoical indifference usually appears too much for the feelings of some of the fair ones to bear. A female coyly glides close to him and bows her head in pretty submissiveness, but he turns away, pecks at a bit of food and moves off; she follows and he quickens his speed, but in vain; he is her choice, and she proudly arches her neck and in mazy circles passes and repasses close before the harassed bachelor. He turns his breast first to one side, then to the other, as though to escape, but there is his gentle wooer ever pressing her suit before him. Frequently he takes flight to another part of the pool, all to no purpose. If with affected indifference he tries to feed she swims along side by side, almost touching him, and at intervals rises on wing above him and, poised a foot or two over his back, makes a half dozen quick, sharp wing-strokes, producing a series of sharp, whistling noises in rapid succession. In the course of time it is said that water will wear the hardest rock, and it is certain that time and importunity have their full effect upon the male of this Phalarope, and soon all are comfortably married, while mater familias no longer needs to use her seductive ways and charming blandishments to draw his notice.”

Then after the four dark and heavily marked eggs are laid the “captive male is introduced to new duties, and spends half his time on the eggs, while the female keeps about the pool close by.”

NORTHERN PHALAROPE.
(Phalaropus lobatus.)
¾ Life-size.
FROM COL. CHI. ACAD. SCIENCES.

These birds, which possess such dainty elegance in all their motions, do not exhibit a corresponding degree of taste in home building. Their nests, at best, consist of only a few blades of grass and fragments of moss laid loosely together. Often the eggs are laid in some convenient hollow, with no bedding whatever except that which happened to lodge there.

These are a few of the facts in the life history of this bird, which starts in its career as a little ball of buff and brown and later in life “glides hither and thither on the water, apparently drifted by its fancy, and skims about the pool like an autumn leaf wafted before the playful zephyrs on some embosomed lakelet in the forest.”

OUR LITTLE MARTYRS.

Do we care, you and I,
For the songbirds winging by?
Ruffled throat and bosom’s sheen,
Thrill of wing, of gold or green,
Sapphire, crimson—gorgeous dye
Lost or found across the sky,
’Midst the glory of the air,
Birds who tenderer colors wear?
What to us the free bird’s song,
Breath of passion, breath of wrong,
Wood-heart’s orchestra, her life,
Breath of love and breath of strife,
Joy’s fantasias, anguish breath,
Cries of doubt and cries of death?
  Shall we care when nesting-time
Brings no birds from any clime,
Not a voice or ruby wing,
Not a single nest to swing
’Midst the reeds or higher up,
Like a dainty fairy-cup;
Not a single little friend,
All the way as footsteps wend

Here and there through every clime,
Not a bird at any time?
  Does it matter, do we care
What the feathers women wear
Cost the world? For birds must die;
Not a clime where they may fly
Safely through their native air;
Slaughter meets them everywhere.
  Scorned be hands that touch such spoil!
Let women pity, and recoil
From traffic, barbarous and grave,
And quickly strive the birds to save.

—George Klingle.

114

A CARGO OF STOWAWAYS.

"Birds of ocean and of air
Hither in a troop repair."

—Aristophanes' "The Birds."

Passing out of the golden sunrise into a world of blue sky and the blue waters of Lake Huron, we regretfully assured ourselves that save for the shadowy gray and white gulls that followed in the wake of our steamer in search of a breakfast, there would be for us no bird reviews so dear to the heart of the ornithologist in a strange country, or not at least until we should have reached the far distant islands in the picturesque River Sault Ste. Mary, so with the inertia of the blank waters about us we prepared to be content, but in this instance, as in many others, we were to learn that conclusions are by no means conclusive, and it was with joy that we could exclaim with Aristophanes:

"But hark! the rushing sound of rushing wings
Approaches us,"

when before our delighted and surprised eyes alighted a bronze grackle, most majestic of blackbirds, who stepped off across the deck with all of the pride of a lately promoted major, doubtless glad enough to find himself on solid footing after the heavy gale of the past night, which has blown him into unknown seas. His rich metallic plumage gleamed in the sunlight as he eyed us inquisitively, the while walking calmly about us picking up the insects of which we seemed to have an abundant supply aboard. But where is the little wife to whom he was so devoted, and whose labors of incubation he so materially assisted, taking his "turn" on the nest with clock-like regularity? But also he shared with her their rich song notes which so delight us during the courting season. But our grackle is by no means the only stowaway we were to carry north with us, for all at once the air was resonant with excited "chips" and "zeeps" as the different winged passengers arrived. At least half a dozen pine warblers contentedly flitted onto the deck, filling the air with their sweet calls, and dancing about like little balls of yellow feathers. And to delight beyond anything the heart of a bird enthusiast, far more indeed than can any result of gun, camera or opera glass, was the fact that exhaustion and hunger had entirely obliterated from these birds every trace of their dread of the human kind, and they associated with us as fearlessly as tho' to the manor born. Particularly was this true of the pine warblers who hopped about us on the hatchways like chickens, one venturesome little fellow even becoming so familiar as to alight on the toe of my slipper, and quietly inspect its steel embroidery with silent curiosity, occasionally glancing up at me out of his round, bright eyes as confidentially as though he was a connoisseur in footwear. Another warbler lit on the corner of a book that one of the passengers was holding in her hand. This rare friendliness made us feel that we had not only the bird in the hand, but also the two in the bush, with still a balance in our favor, for we could study their movements as intimately as we desired, but I could hardly keep from rubbing my eyes in amazement, fearing "'twas but a dream," or that my brain has been turned, as topsy turvy this morning as was my stomach the night before. But the experience was certainly uniquely delightful to say the least. After all of these years of careful peeking and prying to secure a moment's observation of some of these birds, to have them now flitting about me, at my very feet as it were, in this familiar and friendly fashion was indeed a rare treat. It is Darwin who has said that he had come to the conclusion that the 115
wildness of birds with regard to man is a particular instinct directed against him, and not dependent on any general degree of caution arising from other sources of danger. Birds in general, however, have had reason to become timid from their experience of the human biped, and hold with Eben Holden that "Men are the most terrible of all critters, an' the meanest. They're the only critters that kill fer fun," and it has become instinctive for them to act accordingly.

However, we had not yet arrived at the end of our experience with the sociable bird world, for it seemed that we were to carry a full cargo of stowaways, for the next arrivals were six or seven juncos savoring of frost and wintry weather, notwithstanding the heat of the autumnal sun. Miss Merriam has quaintly styled these busy little birds: "Gray robed monks and nuns," though their character does not cleverly carry out that conception, for they are a pugnacious lot of feathers and blood, and there were pitch battles going on at every hatch corner, the juncos playing the part of the aggressor every time, turning and conspicuously flaunting their stylish white tail markings in the face of their opponents. The next advent was that of a tiny house wren, who seemed to have had a good deal of his natural belligerency blown out of him, and was content to make a peaceful breakfast on the Canada soldiers that were swarming about. Wrens are noticeable for the interest that they take in human belongings, and love to make their home among them. At Marquette I was shown a nest built in an overshoe inadvertently left in the crotch of an apple tree, and which, I am glad to report, the owner left undisturbed when she learned by whom it was pre-empted. I thought of our little stowaway when I saw the nest and wondered how much he could have told me of its construction. Some one has mentioned a nest built in an old coat sleeve, and Audubon tells us of a pair that nested in his parlor, paying him rent in song music. The wren has also received much “honorable mention” in history, Aristotle being the first, I believe, to call him the King of Birds, possibly because of the legend that tells us that to gain his sovereignty in a trial of flight he concealed himself on the back of an eagle who was one of the contestants, and after that bird of mighty wing power had reached his limit the wren, arising from his seat among the eagle’s feathers, easily flew much higher, thus gaining the race and title. Perhaps not the first time that high places have been arrived at through duplicity. But, in justice to his species, mention should be made of the myth that asserts that in ye golden time the wren was the only bird brave enough to enter heaven and bring down fire to earth for the benefit of the mortals. In this philanthropical work he scorched off his feathers, so the other birds made a donation party and each contributed some spare feathers to the singed benefactor (but we notice that their generosity, like that of some others, was confined to donating their plainest apparel), all but the owl, who refused to part with a single quill, but who for his stinginess was at once ostracised from good society, and forced to make his appearance only after nightfall, when the “best people” were not in evidence.

Of the two other members of the warbler family, who traveled north with us singly and alone, one was a Blackburnian warbler, silent and dull of plumage as befitted the season, and the other a dainty black-throated blue warbler, one of the most dressy and gentlemanly appearing birds of the warbler species. In his steely blue coat, black stock and evening vest and wide expanse of white shirt front, he looks as though fully attired for a swell reception. His two white wing patches closely resemble handkerchiefs peeping from side pockets, completing the illusion. He was rather more reserved in his movements than the gang of noisy associates, and picked daintily at the flies as befits well-bred superiority. But he, like the rest, showed no apparent distrust of us, neither did some newly arrived white-throated sparrows, who joined in the general scramble for insects. But not now do we hear their cheerful “I-have-got-plenty-to-eat-but-no-che-eze,” as Dr. Brewer interprets their song. I am sure that they could have had cheese or anything else they desired on board the Castalia, for on hospitable 116
thoughts intent I secured some crumbs from the table, but my feathered fellow travelers would have none of me, passing my humble offerings by in disdain. There was but one death on the passage, and that was a white-eyed vireo, who either succumbed to exhaustion or struck the rigging too violently in boarding the steamer.

But birds were not the only winged creatures who took passage with us. For several hours a continuous stream of honey bees and yellow-jackets flew exhausted upon the deck, only to become food for the bee-eating passengers. The few who escaped and revived sufficiently to crawl up onto the cabin were so fatigued that one could stroke them gently without provoking any antagonism. Wafted across the blue waters by adverse winds came also myriads of common yellow butterflies, tossing in the gentle breeze like handfuls of shining buttercups, and great troops of beautiful milkweed butterflies (Anosia plexippus), their brilliant colors gleaming in the sunlight in all the richness of ebony and crimson. They hovered about the steamer like gorgeous blossoms cut from the parent stalk and left poised in mid air at the mercy of treacherous gales. Funny little atoms of vanity and brightness, whose homes are among the gardens of peace and sunshine, what business had they here in this region of seething waters and tempestuous winds?

We looked to have our feathered friends leave us upon the first appearance of land, but, on the contrary, they remained with us all of the afternoon, as we sailed in and out among the picturesque islands of the “Soo” river, and it was not until toward their bed-time and the setting of the sun that they gradually began to disappear; the last to leave, and that was at dusk, was the black-throated blue warbler. Just before reaching the lock a couple of juncos perched on the rail and engaged in what seemed to us a very heated discussion, until finally one of them, with a chip of command, flew to the shore, the other following in a moment with a note of protest. The latter’s idea doubtless was to remain with a good thing in hand rather than venture into pastures new of unknown possibilities.

On our return trip, the weather being calm, no birds were:

> “Buffeted and baffled, with the gusty gale,”

hence our only stowaways were a couple of yellow warblers, who spent most of their time in one of the offices catching flies on the wall, and we were obliged to resort to other resources for our entertainment, and found at least artistic as well as botanical enjoyment in looking at the great bunches of golden rod, yellow cone flowers and pale primroses, a combination of yellows that formed an exquisite blend, and which covered the embankment of the great willow dike on St. Clair Flats, that seems fast running into a state of dilapidation and decay. But it is a delightful sail down the willow-bordered lane of blue water, a stray bit of Venice with Venice left out, as it were, and where no angry waters toss the brave mariner and consequently seasick traveler across mighty billows, a performance which is a by no means charming accessory to one’s erstwhile home on the bounding deep.

Alberta A. Field.

HAIRY WOODPECKER.
(Dryobates villosus.)
⅔ Life-size.
FROM COL. CHI. ACAD. SCIENCES.

THE HAIRY WOODPECKER.
(*Dryobates villosus.*)

The woodpeckers on trunk of gnarled trees
Tap their quick drum-beats with their horny beaks.

—Isaac McLellan, “Nature’s Invitation.”

The geographical and the breeding ranges of the Hairy Woodpecker are practically the same. These include eastern North America from the southern provinces of Canada southward to the States bordering the Gulf of Mexico and those of the southeastern United States bordering the Atlantic Ocean. In these States it is occasionally found during the winter season. Westward its range extends to the Rocky Mountains. It is, however, most abundant in the forest areas of the Northern and Middle States, where, as it is a hardy bird and not greatly affected by extreme cold, it is generally a constant resident. Though occasionally found in old orchards, its choice feeding grounds are the timbered regions of river banks and other bodies of water. Here and in the trees at the outer borders of forests it seeks its food by itself, for it has an unsocial disposition, and it is seldom that more than a pair are seen together. “It does not live in harmony with smaller species of its own kind, and drives them away when they encroach on its feeding grounds, being exceedingly greedy in disposition and always hungry.” It also is not adverse to a home in the deeper forests and may even frequent clumps of trees in the open.

The Hairy Woodpecker is one of the most useful and valuable friends of human interests. Not only does it feed upon the larvæ that burrow in the wood and bark of our forest and orchard trees, but also upon beetles and other insects. It is only in the winter season, when its natural food is not readily obtained, that it gathers seeds and fruits. It never attacks a sound tree for any purpose, and the loss caused by the amount of useful grain destroyed is greatly overbalanced by the good that it does in the destruction of noxious insects.

The value of this shy and retiring bird is well illustrated by Mr. V. A. Alderson, who says in the “Oologist” (July, 1890): “Last summer potato bugs covered every patch of potatoes in Marathon County, Wisconsin. One of my friends here found his patch an exception, and, therefore, took pains to find out the reason, and observed a Hairy Woodpecker making frequent visits to the potato field and going from there to a large pine stub a little distance away. After observing this for about six weeks, he made a visit to the pine stub, and found, on inspection, a large hole in its side, almost fifteen feet up. He took his ax and cut down the stub, split it open, and found inside over two bushels of bugs. All had their heads off and bodies intact. Now, why did the Woodpecker carry the bugs whole to the tree and only bite off and eat the heads, which could have been done in the open field?”

The Hairy Woodpecker has no leisure moments. He is always active and

The little tap of busy bill
The signal of his work and skill.

is ever present

To rid the soil of every foe,
To guard the leafy trees.

The movements of this Woodpecker are interesting, for, like its sister species, it moves with equal facility either upwards or downwards, sidewise or backwards upon a tree trunk. From time to time it will stop and seem to listen, and, finally bracing itself with the stiff feathers of its spiney tail, it will deliver powerful blows with its chisel-like bill at some point that will be likely to furnish a dainty morsel of food. There is little doubt that its sense of hearing is very acute and that it can detect the slightest movement of an insect in the bark or wood of a tree that to other animals would be imperceptible. 120

The flight of the Hairy Woodpecker is like that of the other species of its group. It is wavering and undulating, seldom protracted and usually consisting of a number of short vibrations of the wings. When alighting, they grasp the object with both feet simultaneously. This Woodpecker is the earliest of all the family to build its nest. Mating begins in the latter part of March, and at this time the birds are exceedingly noisy. The male when not feeding will resort to some dead limb and vigorously drum and “the louder the noise produced, the more satisfactory it appears to be to the performer.”

Regarding the building of the nest, Major Bendire says: “Both sexes take part in the labor, and it is really wonderful how neat and smooth an excavation these birds can make with their chisel-shaped bills in a comparatively short time. The entrance hole is round, as if made with an auger, about two inches in diameter, and just large enough to admit the body of the bird; the edges are nicely beveled, the inside is equally smooth, and the cavity is gradually enlarged toward the bottom. The entrance hole, which is not unfrequently placed under a limb for protection from the weather, generally runs in straight through the solid wood for about three inches, and then downward from ten to eighteen inches, and some of the finer chips are allowed to remain on the bottom of the cavity, in which the eggs are deposited. Both dead and living trees are selected for nesting sites, generally the former. When living trees are chosen, the inner core, or heart of the tree, is usually more or less decayed. These nesting sites are nearly always selected with such good judgment that such obstacles as hard knots are rarely encountered; should this occur, the site is abandoned and a fresh one selected.” The male, after the work is completed, will often excavate one or more holes in the same tree in order that he may have a resting place at night near to his mate.

A VARICOLORED FROG.

An amateur naturalist, amid the ordinary organic forms that he may encounter in his own country, is often grievously puzzled at curious specimens of animal life that may be brought under his attention. But amid the illimitable animal life of the wild region of the upper Orinoco even the most expert and learned naturalist will often find himself “stumped” by the many unusual and hitherto undiscovered things that occasionally beset his pathway.

Among the many curious and quaint animal specimens encountered by the writer in this region was an arboreal frog of startlingly beautiful colorings. This little creature rested upon a stomach of orange flame hue, while the head and back were marked with velvet purple tints, and a narrow snow-white stripe extended from the point of his nose to the tip of a tiny tail. With such brilliant colorings it is easily and distinctly observed, but the snakes, weasels and other arch enemies of the amphibians have no relish for this handsome specimen. Its weapon of defense against its would-be enemies is a sweat venom of a most nauseous odor, which it emits when any one approaches it. This venom is common among the toads, and the fact is referred to by Juvenal (Dryden’s translation) of the lady “who squeezed a toad into her husband’s wine.” It is probable that the beautiful frog of so many glaring colors would have long since been exterminated by its many enemies and persecutors but for the poisonous and nauseous fluid ejected from its glands.

Andrew James Miller.

121

WAS IT REASON OR INSTINCT?

Old Boney is a large shaggy dog of a deep tan color, and a general favorite among the people in the quarter of the city in which he lives, while he is honored and respected by every member of the canine race for miles around. Especially are the little children fond of him; and it seems to be as much a pastime for him as for his young playmates to carry the boys and girls on his broad back, their little, chubby hands buried in his long, matted hair in their half-frightened efforts to keep from slipping off and tumbling upon the ground.

His owner’s daughter, a young girl just entering her teens, attends the high school, about three blocks from her home, which is reached by rather a circuitous route. Boney had often accompanied his young mistress to the school and was familiar with the way thither as well as with the main entrance and winding stairway of the building.

It was in the showery month of April, and Etta had repeatedly neglected to wear her rubbers when she started for school in the morning, a fault for which she had often been reprimanded.

Now it happened one warm afternoon that a copious shower came down in due April style. The door leading from the dining room out upon the veranda was wide ajar, and Etta’s mother, looking out, saw her daughter’s rubbers upon the veranda floor near the rug where they were usually deposited when not in use. “There,” exclaimed the mother, “that child has gone again without her rubbers and will come home with wet feet.”

This sharp remark aroused the attention of old Boney, for he got up from his prone condition on the rug, looked at the speaker, sniffed at the rubbers and lay down again. At this juncture Etta’s father quietly picked up the rubbers, carried them over to the school building and handed them to his daughter, whom he met at the upper landing of the stairway. This had been done more than once, Boney generally lying upon the veranda floor where he could easily hear and see what was being done on such occasions, and he had often followed his master and stood by when father and daughter met at the school building.

Now comes the interesting part of our story. A drenching shower came down about three o’clock one afternoon and Etta had, as usual, neglected to take her needed footwear. It happened this time that none of the family was at home. Boney, however, was keeping house in his accustomed place on the rug. Now, what do our readers think the noble animal did. Why, he just picked up both of the rubbers, carried them in his mouth through the driving rain to the school building, up the winding stairway and laid them upon the landing. As if this were not enough, he lay down and faithfully watched his charge till Etta made her appearance, when he politely dropped her property at her feet.

Thereafter Etta’s father was relieved of this service, Boney regularly attending to the business himself, and, what is more wonderful still, he never attempted to discharge his duty on a pleasant day.

Query. Was this reason or instinct? If the latter, what is instinct?

L. P. Venen.

122

OPAL.

“The Opal, when pure and uncut in its native rock,” says Ruskin in his lecture on Color, “presents the most lovely colors that can be seen in the world except those of clouds.”

While not all of us may share the great art critic’s preference for uncut stones, there are few probably who will not join him heartily in his admiration of the brilliant gem from whose depths come welling up tints of so varied hue that we appropriately speak of them as colors at play. Our interest in these colors may be heightened by reading what Ruskin has further to say of them: “We have thus in nature, chiefly obtained by crystalline conditions, a series of groups of entirely delicious hues; and it is one of the best signs that the bodily system is in a healthy state when we can see these clearly in their most delicate tints and enjoy them fully and simply with the kind of enjoyment that children have in eating sweet things. I shall place a piece of rock opal on the table in your working room; and if on fine days you will sometimes dip it in water, take it into sunshine and examine it with a lens of moderate power, you may always test your progress in sensibility to color by the degree of pleasure it gives you.”

The Opal is indeed one of the most fascinating of gems; yet often elusive and at times disappointing. Of its freaks and foibles strange stories are told. Gems of brilliant quality are known suddenly to have lost their hues never to regain them, while others previously dull and lusterless have become radiant as the rainbow.

Prof. Egleston, of New York city, relates that a bottle of cut Opals once given him by a prominent jewelry firm because they had lost their color, after remaining in his cabinet for a time regained their brilliancy and retained it. But to have opals regain their color is, unfortunately, far less usual than for them to lose it. The gem often exhibits brilliant colors when wet either with water or oil that disappear when it is dry. Taking advantage of this peculiarity dishonest dealers often keep opals immersed until just before offering them for sale. The experience of having stones so treated as well as others which might with more reason be expected to retain their brilliancy, lose it, has very likely led to the superstition commonly attached to the Opal that it is an unlucky gem. Some authorities, however, trace the origin of the superstition to Sir Walter Scott’s novel, “Anne of Geierstein,” in which the baleful influence of the Opal plays a prominent part, and it is stated that within a year of the publication of the book the price of Opals declined fifty per cent in the European market. Even if the superstition did not originate in either of these ways it was probably from a source quite as trivial and it should prevent no one from enjoying the pleasure to be derived from the beauties of this gem.

Chemically, Opal is oxide of silicon with varying amounts of water, the water varying from 3 to 9 per cent. It is, therefore, closely allied to quartz, but differs physically in being softer and not as heavy. Further, it never crystallizes, and it is soluble in caustic potash, which quartz is not. It is infusible, but cracks and becomes opaque before the blowpipe. In sulphuric acid it turns black, on account probably of the organic matter it contains.

Its hardness is sometimes as low as 5.5 in the scale in which quartz is 7 and its specific gravity is from 1.9 to 2.3, while that of quartz is 2.6. On account of its relative softness a cut Opal often does not retain its polish well and requires frequent smoothing. Opals when first taken from the ground are often softer even than the above and for this reason it is usual and desirable to allow them to harden or "season," as it is called, for some time after quarrying, before they are polished.

OPAL.
LOANED BY FOOTE MINERAL CO.

Top row:
Precious Opal in Matrix (Queensland.)
Wood Opal (Idaho.)
Precious Opal (New South Wales.)
Center:
Precious Opal (New South Wales.)
Precious Opal (New South Wales.)
Fire Opal in Matrix (Mexico.)
Bottom:
Prase Opal (Germany.)

Opal as a mineral is quite common, so that no one need suppose because he has specimens labeled "opal" in his collection that he has as many precious stones. It occurs in many varieties, and, especially if it contains foreign matter, in many colors. Nearly all silica deposited by hot waters is in the form of Opal, so that the geysers of Yellowstone Park build up cones of Opal and fall into Opal basins. This particular form of Opal is known as geyserite, and it is often differently colored by different ingredients.

Wood is often preserved by silica in the form of Opal, the siliceous waters taking away the wood and replacing it by Opal, grain by grain, with such delicacy and accuracy that the structure of the wood is perfectly maintained. The minute shells which diatoms make consist of Opal, and when these dead shells accumulate to form deposits of some extent we call the powdery substance tripoli and use it for polishing silverware and other metals. Then there are hyalite, a variety of Opal looking like transfixed water, so clear and colorless is it; hydrophane, a translucent variety which sticks to the tongue and becomes more nearly transparent when soaked in water; cacholong, a porcelain-like variety, and menilite, a concretionary variety.

Common Opal varies from transparent to opaque, being most often translucent and sometimes exhibiting the peculiar milkiness of color which we call opalescence. It has sometimes a glassy, but often a waxy luster, the latter when pronounced giving rise to the varieties known as wax Opal and resin Opal. When Opal has the banded structure of agate it is known as Opal-agate; when it has the color of jasper as jasper Opal, and when that of chrysoprase as prase Opal. But none of these varieties are used in any quantity as gems. This distinction is reserved almost wholly for the variety known as noble or precious Opal. This is Opal which exhibits a play of colors. No essential chemical or physical distinction between noble Opal and other varieties is known. In a large vein of Opal portions will exhibit the play of colors and the remainder will not, but why the difference has not yet been determined. Neither can the origin of the varied coloring; i. e., the iridescence, be determined. Some regard it as due to interspersed layers containing different percentages of water, which break up the rays of light somewhat as a prism does, while others think that minute cracks and fissures through the stone furnish surfaces from which the rays are reflected in different colors back to the eye. Some Opals which are dull and lusterless when dry exhibit considerable play of color when immersed in water, and this fact seems to favor the first theory of the cause of the iridescence, but the subject is not understood. The character of the play of colors differs in different Opals, and this gives rise to different varieties. The true noble Opal has the color quite uniformly distributed. When the color appears in flashes of red, yellow, etc., the stone is known as fire Opal; if blue as girasol, and if chiefly yellow as golden Opal. When the patches of color are small, angular and uniformly distributed it is called harlequin Opal, and if these are long and somewhat parallel, flame Opal. These colors are not, of course, inherent in the stone, its color varying from colorless to opaque white. The black Opals sometimes seen and highly prized by some are usually artificial, and are made by soaking ordinary Opals in oil and then burning oil on them. The brilliancy of the stone is thus increased, but it is usually fragile and liable to lose color.

Any Opal will lose its play of colors on being heated too highly, hence possessors should avoid subjecting them to more than ordinary heat. It is the variety and brilliancy of their changing colors which give to Opal nearly all its desirability as a precious stone, for, as has often been remarked, the qualities of hardness, transparency and rich body color which give to most other gems their value are lacking in the Opal. But together with the beauty of its changing colors Opal possesses an advantage over all other gems in that it cannot be successfully imitated. 126
It is said that the Romans were able to make artificial Opals closely resembling the real, but, if so, the art has been lost never to be recovered, and we may hope it never will be. Hence, however much danger there may be in buying an Opal that it has not been properly “seasoned,” or may not retain its color, the purchaser may at least be sure he has an Opal and not an imitation. The stones are usually cut in the oval form known as en cabouchon, this cutting being found to bring out their brilliancy better than any facetted form. The brilliancy of the stone may be increased in setting by giving it a backing of mother of pearl or black silk. When a number of Opals are placed together they seem to borrow brilliancy from one another, a fact which is taken advantage of in settings by placing a number together and also by Opal dealers to dispose of inferior stones by grouping them with good ones. For this reason when Opals are purchased they should be examined separately. The value of Opals depends almost wholly on the brilliancy of their coloring and their size. Stones without the play of colors are practically worthless, while stones of ten to twenty carats’ weight, with brilliant coloring, may bring several hundred dollars. The most highly valued Opals have long come from the mines of Czernowitza in northern Hungary. These Opals are often known as Oriental Opals from the fact that in early days they were first purchased by Greek and Turkish merchants, and by them sent to Holland. There are, however, no localities in the Orient where precious Opals are found. The rock in which the Hungarian Opals occur is eruptive, and of the kind known as andesite. It is considerably decomposed, and the Opal occurs in clefts and veins. There is little doubt that it was from these mines that the Romans obtained the Opals known to them, and the output has been quite constant since.

It is said that the Hungarian Opals are less likely to deteriorate than any others. Still the danger of deterioration is not great in any Opal. The other important countries from which precious Opals are obtained are Mexico, Honduras and Australia. The Mexican Opals are mostly of the fire Opal variety. They are mined in a number of the States of the Republic—Queretaro, Hidalgo, Guerrero, Michoacan, Jalisco and San Luis Potosi. The oldest mines are in the State of Hidalgo, near Zimapan, where the Opal occurs in a red trachyte. Most of the Mexican Opals on the market at the present time, however, come from the State of Queretaro, where mining for them is conducted on a more extensive scale. The Opal here occurs in long veins in a porphyritic trachyte, and is mined at various points. The stones are cut and polished by workmen in the city of Queretaro who use ordinary grind-stones and chamois skins for the work and are said to receive an average wage of 23 cents a day.

The Honduras Opals reach foreign markets but rarely and usually uncut. The mines are in the western part of Honduras, in the Department of Gracias. They are little worked, but there is no doubt that extensive deposits exist which might afford a good supply of gems if they were properly exploited. The Australian Opals come from several localities, the most prominent at the present time being White Cliffs, New South Wales. The matrix is a Cretaceous sandstone which has been permeated by hot volcanic waters. Shells, bones and other fossils are found here entirely altered to precious Opal, making objects of great beauty. In 1899 Opals to the value of $650,000 were sold from this single region. There is no doubt that the present popularity of the Opal is due to some extent to the supply of beautiful stones which has come from these mines at prices at from one-third to one-tenth those of the Hungarian stones. Other localities in Australia whence precious Opals are obtained are places on the Barcoo River and Bulla Creek, Queensland, and occasional finds in West Australia.

No localities in the United States yielding precious Opals in any quantity have yet been discovered. Some good stones have been cut from an occurrence in Idaho, and some other minor finds have been made, but they possess little commercial importance at present. 127

Opal does not seem to have been extensively known or used by the ancients, although we know the Romans prized it highly and ascribed to it the power of warning against disaster. The Roman Senator Nonius owned one set in a ring which was said to be valued at nearly a million dollars. History records that for refusing to sell the stone to Mark Antony he was sent into exile. The next most famous Opal in history is one owned by the Empress Josephine which was called “The Burning of Troy,” on account of the brilliancy of the flames which shot forth from its depths. The present whereabouts of neither of these gems is known. A large Mexican Opal, now in the Field Columbian Museum, is carved in the image of the Mexican sun-god, and has a setting of gold representing the diverging rays of the sun. This gem is very ancient and is believed to have been kept by the Aztecs in a temple, so it is probable that the Aztecs knew and prized Opals.

The Arabians believe that Opals fall from heaven with the lightning's flash, a beautiful fancy, indeed. Modern usage makes the Opal the birthstone of the month of October, some of the properties assigned to it being that it has the power of making its wearer a general favorite, enhancing the keenness of his sight and shielding him from suicide.

October's child is born for woe
And life's vicissitudes must know;
But lay an Opal on her breast
And Hope will lull those woes to rest.

Oliver Cummings Farrington.

THE CROCUS.

"Rest, little sister," her sisters said—
Violet purple and wild-rose red—
"Rest, dear, yet, till the sun comes out,
Till the hedges bud, and the grass blades sprout.
We are safe in the kindly earth, and warm—
In the upper world there is sleet and storm.
Oh, wait for the robin's true, clear note,
For the sound of a drifting wing afloat;
For the laughter bright of an April shower
To call and wake you, sweet Crocus flower."

But brave-heart Crocus said never a word,
Nor paused to listen for note of bird,
Or laugh of raindrop * * * In rough green vest
And golden bonnet, herself she dressed
By the light of a glow worm's friendly spark,
And softly crept up the stairway dark,
Out through the portal of frozen mold
Into the wide world, bleak and cold.
But somehow a sunbeam found the place
Where the snow made room for her lifted face.

—Madeline S. Bridges, in Ladies' Home Journal.

MARCH.

The stormy March is come at last,
With wind and cloud and changing skies;
I hear the rushing of the blast,
That through the snowy valley flies.

Ah, passing few are they who speak,
Wild, stormy month, in praise of thee;
Yet, though thy winds are loud and bleak,
Thou art welcome month to me.

For thou, to Northern lands again,
The glad and glorious sun dost bring,
And thou hast joined the gentle train
And wear'st the gentle name of Spring.

And, in thy reign of blast and storm,
Smiles many a long, bright sunny day,
When the changed winds are soft and warm,
And heaven puts on the blue of May.

Then sing aloud the gushing rills
And the full springs, from frosts set free,
That, brightly leaping down the hills,
Are just sent out to meet the sea.

The year's departing beauty hides
Of wintry storms the sullen threat;

But in thy sternest frown abides
   A look of kindly promise yet.

Thou bring’st the hope of those calm skies,
   And that soft time of many showers,
When the wide bloom, on earth that lies,
   Seems of a brighter world than ours.

—Royal Arcanum.

DOMESTIC SHEEP.
(Ovis aries.)
ADAPTED FROM A PAINTING BY FRED. WILLIAMSON.

THE DOMESTIC SHEEP.

(*Ovis aries.*)

It was a little strip of fur which adorned a lady’s cloak. It was soft and warm and black and curly. The lady called it astrakhan, but the sheep, whose lamb met an early death that its pleasing fine coat might become the covering of someone in far away America, still lives on the steppes of the Far East. Her master and herder belong to one of the wandering tribes which roam about Central Asia. Had the lamb lived to maturity its beautiful fine coat would have changed to coarse hair, very unlike the wool of the sheep we find in America. It would have grown to a large size; it would have had short horns, a very short, flat tail, with great bunches of fat on the haunches at either side.

There would have been among its companions some sheep entirely white; others white with black heads; but in its immediate family all would have been black throughout.

Imagine the little lamb taking the journey across the Eastern continent! Should we follow it in its journey we would find many interesting varieties of its kind. In crossing Syria and Asia Minor we would find the curious, flat-tailed sheep; their tails are most remarkable to one unaccustomed to the sight, for they are long masses of fat, sometimes weighing forty or fifty pounds, and often trailing upon the ground. In this case they are frequently supported by little sledges to relieve the animal of its burden. It seems impossible to understand why these tails should grow to this inconvenient and enormous length, when other breeds near by have practically no tails at all.

Leaving the country of the broad-tailed sheep and passing along the south of Europe, we find in Spain a very important and interesting variety, the Merino sheep. While in the mountains of Spain they are found in the greatest perfection, the breed has spread over many parts of Europe and has been introduced into South Africa, America and Australia. It is noted for the fineness of its wool and is considered by many to be the most profitable of all sheep.

For some reason the Merino sheep has not found favor in the British isles, but we find there many other well known round-tailed varieties.

The Shetland and Orkney breeds have in their fleece soft, fine wool, largely intermixed with hair. They are of small size and horns may be found on both sexes, although they may be lacking in the ewes.

The soft-wooled sheep of Scotland are a breed nearly extinct; they have short horns, lank bodies and short wool.

In Wales we find two races of small size; one lives in the higher mountains, is dark in color, has much hair mixed with soft wool, and horns are found on both sexes. The other race is without horns and is covered with a soft wool. Both varieties are hardy and are noted for their fine flesh.

The Irish Wicklow sheep were originally very similar to the Welsh variety. Among other Irish breeds the Kerry is best known. It is wild in disposition, larger than the Welsh sheep, with the horns frequently absent in the ewes.

The hardiest and boldest of all the British races are the black-faced Heath breed; these have dark colored limbs and faces and coarse and shaggy fleeces.

The Cheviot breed are hornless, with white limbs and faces; they are heavier than the Heath breed, but have less endurance.

The old Norfolk breed of the east of England are strong and active, with horns, which are thick and spiral in the rams; the body and limbs are long, the face and legs black, and the silky wool is of medium length.

The Dartmoor and Exmoor sheep are “the breeds of the older forests, commons and chases.” They are of small size, may or may not have horns, have dark or gray faces and have wool of medium length.

The well known Southdowns have no horns; they have dark brown faces, ears and limbs; the head is always 132
comparatively small, the lower jaws are thin and fine and the space between the ears is well covered with wool.

The Dorset and pink-nosed Somerset breed are in the southwest of England. They are known by their long white limbs and their white faces; the muzzle is sometimes flesh-colored and the wool is of medium length.

Then there are the various long-wooled sheep of which the new Leicester breed is considered first in respect to form and ability to fatten readily. Other long-wooled sheep are the Lincolnshire, the Romney Marsh, the Cotswold, the Devonshire, the Notts and the long-wooled Irish breeds.

There are other breeds less well known and less important, but the breeds of the British isles are by no means confined to that locality. They have been taken to the United States and to other countries. In fact, some variety of domestic sheep can be found in every land, and no animal is more useful to its owner.

In spite of the various breeds, the characteristics of all domestic sheep are similar. They have not the courage and independence of their cousins, the wild sheep of the mountains. These delight to roam to the highest altitudes, some species being found as high as 22,000 feet above the level of the sea. No other animal save the musk ox and the mountain goat can exist at this height. Doubtless the domestic sheep would thrive better if it could escape the low levels and the plains, for, like the wild sheep, it is a mountain-loving creature. It has adapted itself to the lower altitude, but at a great loss of its original characteristics. It has to an extreme extent become a dependent animal, unable to care for itself, totally lacking in courage and resources, very easily frightened and without marked character. An entire flock is easily startled by any unusual noise; thunder and lightning completely unsettles them, and human efforts to quiet them often prove unavailing.

Brehm tells us that “on the steppes of Russia and Asia the shepherds often have the most arduous tasks in preserving their charges. During a snowstorm or thunderstorm the panicstricken flocks disperse in a wild stampede, rushing out into the wastes of the steppe like senseless creatures, and then resignedly suffer themselves to be snowed under or to freeze without making any attempt to shelter themselves from the storm or even to seek for food.” In Russia a goat is generally used as a leader for a flock of sheep, but even a goat is not always able to keep the stupid animals under proper guidance. During a thunderstorm they huddle together and cannot be made to move. “If lightning strikes into the flock,” says Lenz, “many are killed at once; if fire breaks out in the sheepfold the sheep do not run out, but, on the contrary, sometimes rush into the fire.” The best manner of rescuing sheep from a burning fold or structure is to let the sheep dog to which they are accustomed, drive them out.

To a certain degree, however, the sheep exhibits mental capacity. It learns to know its keeper, obeys his call and displays a certain amount of affection and docility towards him. It seems to have a liking for music, or at least it patiently and passively listens to the bagpipe playing of the shepherd, and it has evidently some premonition of impending changes in the weather.

Sheep thrive best on a diet of various dried plants. The botanist Linnæus states that they “feed on three hundred and twenty-seven of the common Central European plants, avoiding one hundred and forty-one. Ranunculus, cypress spurge, meadow-saffron, shave-grass, wild cabbage or skunk cabbage and rushes are poison to it. It is fond of salt and fresh drinking water is necessary to its well being.”

The mother usually gives birth to but one lamb, although occasionally there are more. The little creature must first have human care, but later they are permitted to follow their mother, which shows great affection for her offspring.

A sheep may live to be fourteen years of age, though at nine or ten years it will lose most of its teeth and cannot maintain itself by grazing.

John Ainslie.

THE BEAUTY OF A STORM.

The person standing by the window watching the progress of the storm may see some of its beauty, but he will miss the most vital part—its very spirit.

Perhaps the majority of people looking out of the window this morning exclaimed, “What a disagreeable day!” And so it might seem to those who remained indoors; and, alas! also to many pedestrians who are not attuned to Nature and who have not yet seen the wisdom of providing themselves with suitable attire for stormy weather, instead of foolishly clinging to the old idea that “anything will do to wear on a rainy day.”

These very likely were oblivious to the beauty which surrounded them and failed to be touched by the spirit of the storm.

To many besides myself, however, I hope it was a “beautiful morning.” When I started forth to walk the wind, which was quite strong, was blowing in fitful gusts, while the rain fell heavily, in spite of which state of things the note of a brown creeper smote my ear cheerily, assuring me that one little friend, at least, was sharing my enjoyment.

After about two hours, during which time the rain had not ceased to fall, I set out on my return walk. The first sound to attract attention, on again setting foot out doors, was the crackling of the needles in a tall pine tree, and I was surprised to note that the rain was freezing on the trees. It had not seemed cold enough. Very soon there was sleet mixed with the rain, which changed again presently to snow and sleet. Then the snow and the wind commenced a mad frolic, and Oh! how beautiful they made the world! Who could be deaf to the deep-toned music of the wind roaring through the upper branches of the trees!

The spirit of the storm entered into my veins and a wild delight seized me. I could have shouted aloud with the mere joy of living. The redbird’s call note was as the greeting of a friend, and the hairy woodpecker’s loud “pique” seemed to say “Hi! down there; this is a world worth living in!”

It is in such moments as these that our unity with Nature is most strongly felt and our co-partnership with the elements realized. We are as much a part of the great and wonderful universe as the stars or the clouds, the mountains or the sea.

Thus may the storm spirit embrace our spirit as the wind and rain and snow encircle our bodies. If the invisible and visible parts of our being be both equally prepared to face the elements, we shall return from our encounter with them exalted in mind and refreshed in body; with new life in our veins, and in our hearts new wonder at the beauty of Nature in her wilder moods.

Anne Wakely Jackson.

The snow-plumed angel of the north
  Has dropped his icy spear;
Again the mossy earth looks forth,
  Again the streams gush clear.

—John Greenleaf Whittier.

THE VIOLET.

With the exception of the rose, no other plant is so widely distributed and at the same time so universally admired as the Violet. Not alone is it esteemed because of its beauty and fragrance, but a wealth of romance, of historical associations and mythical lore have clustered around the purple blossoms, endearing them to the poet and scientist alike.

The Violet was formally baptized with the ancient Latin name Viola in 1737. Since that time, by some strange oversight, botanists have allowed the name to remain unchanged. Two hundred and fifty species of the Violet have been described, although a more careful study of the genus has reduced the number to one hundred or more species. Three-fourths of these forms are found in the temperate Northern Hemisphere and the balance in the Southern. Under these diverse conditions of growth the plants assume many seemingly unnatural characteristics. Thus, in Brazil a species of Violet is eaten like spinach, while others found in Peru are violent purgatives. Among certain Gaelic tribes the plants are highly esteemed as a cosmetic, and the ancients largely used the flowers to flavor wines.

Whatever other attributes a plant may possess, it is predestined in large measure to waste its fragrance on the desert air, unless it catches the fancy of the minstrel or tips the bolts that fly from Cupid’s bow. In fact, the Violets were originally white, until they were accidentally struck by Cupid’s dart, which was hurled at Diana, and since then the petals have been “purple with love’s wounds.” Hence Shakespeare calls the Violet “Cupid’s flower of purple dye.” Another reason for the change from white to purple is found in the jealousy of Venus, who, envious of Cupid’s admiration of the purity of the flowers, changed them all to blue.

The Greek myth, however, would certainly not be content if it could not more fully account for the origin of the Violet, and so it appears from the classic legend that Ianthea, the most beautiful of Diana's nymphs, while dancing in the woodlands, was pursued by the sun god, and in order to save her favorite the immortal huntress changed her into a Violet. The name Ion was given to the plants by the Greeks after the nymphs of Ionia presented the flowers to Jupiter. The Thunderer evidently saw something more than a mere blossom in the dainty flowers, for it appears that the Violet became a beautiful priestess in Juno's temple, known as Io. In order to protect her from the jealousy of his consort, Jupiter was forced to change the young goddess into a heifer, and whenever she lowers her head to feed, the white violet springs from her perfumed breath as it comes in contact with the soil.

Among the ancients the Violet was the flower of honor. It was the sacred flower of the Acropolis, and the "Athenian crowned with Violets" was a distinction much sought after. Pindar writes of "Violet-crowned Athens," and in the "Cyprea" it is said that Violets were among the perfumes employed by Venus to win from Paris the prize of beauty.

No less esteemed were the purple blossoms among the more rugged people of the North, for a Saxon legend tells how Czernebogh, god of the Vandals, lived with his beautiful daughter in a stately castle. When Christianity swept through Saxony, destroying all evidences of the heathen faiths, the god and his castle were turned into rocks, and the lovely daughter became a Violet, nestling among the crags. Whoever is fortunate enough to discover the hidden flower will restore the maiden and the castle to their original form and may claim this Saxon Flora as his bride.

COMMON PURPLE VIOLET.
(Viola obliqua.)
LIVERWORT.
(Hepatica hepatica.)
FROM "NATURE'S GARDEN."
COPYRIGHT 1900, BY
DOUBLEDAY, PAGE & COMPANY.

In Norse mythology the Violet is called Tyr's flower, and this is the first instance in which the modest plant became disassociated from the realm of love and assumed the guise of war. Tyr's violet mantle, however, in later years, fell upon the great Napoleon, who adopted the flower as his emblem. He was, in fact, called by his followers Pere de la Violette, and upon going into exile Napoleon assured his friends that he would return with the Violets. Hence the flower became the sacred symbol by which his followers recognized each other. When asked, "Do you like the Violet?" if the reply was "Oui" the answerer was not a confederate. If, however, the reply came, "Eh, bien," they recognized a brother conspirator and completed the sentence, "It will appear again in the spring." 137

During the middle ages the Violet became the chosen symbol to the minstrel and troubadour, of loyalty and faithful love. A blue Violet was the first love token passed by Clemence Isaure through a hole in the wall of her convent garden to her noble lover, Count Raymond, of Toulouse, and in its association as a bridal flower Milton used it to carpet Eve's bower in Paradise.

Charles S. Raddin.

THE ROUND-LOBED LIVERWORT.

(*Hepatica hepatica.*)

All the woodland path is broken
By warm tints along the way,
And the low and sunny slope
Is alive with sudden hope,
When there comes the silent token
Of an April day—
Blue hepatica.

—Dora Read Goodale.

There are many plants that are closely related to the mythology and folklore of nations. This is even true of many that are native only in our own young country. The Liverwort, or Hepatica, as it is more often called, though it is not entirely free from mythical association among the Indian tribes, does not enter largely into their folklore.

This beautiful plant has, however, been the inspiration of many poets. Helen Chase calls the Hepaticas

"Hooded darlings of the spring,
Rarest tints of purple wearing."

The delicate blue of the flowers is mentioned by William Cullen Bryant:

"The liverleaf put forth her sister blooms
Of faintest blue."

The life of this plant is poetical. During the summer months a luxuriant growth of leaves is produced. As cold weather approaches these lie down upon the ground and are soon covered by the falling leaves, which have been nipped from the trees by bite of the frost king. Soon, too, they are covered with snow. In this warm cradle they sleep through the winter, yet, as it were, with open eyes for the dawn of spring. Had the Hepatica the power of reason we would say that it longed for spring, for after the first few warm days that herald the approach of that season there is activity in every part of the plant. It does not wait to produce new leaves, but in an incredibly short time sends up its flower stalk and spreads its blue, purple or white petals to the warm rays of the sun. The Hepatica is truly a harbinger of spring, and in Eastern North America, from Southern British America to the Gulf of Mexico, its appearance introduces the new season. In the northern portion of its habitat its flowers are among the first to grace the dreary, leafless forests. This Hepatica is also found in Europe and Asia. It is not only a flower of the forests of lower altitudes, but is also found in mountainous regions at an elevation of nearly three thousand feet.

This plant was first described by Linnæus in 1753, who gave it the name Hepatica, as he saw in the shape of the leaf a resemblance to the form of the liver.

Of the four known species of Hepaticas but one other is found in North America. This species has the lobes of the leaves pointed instead of round. In some localities it is quite as common as the plant of our illustration, and by many it is considered merely a variety of that form.

Bishop Coxe has said:

Flowers are words
Which even a babe may understand.

The word expressed by the beautiful and hardy Hepatica is confidence.

THE SPRING MIGRATION.

I. THE WARBLERS.

In two former papers I told you of some of the birds that spend their winters in the Gulf States. It is my purpose in the present article to tell some of the features of the great spring migration as viewed from a Mississippi standpoint; how myriads of the little fellows in yellow, black, white, and olive-green stop in these forests to rest and feed for a day or two, then under the impulse of a little-understood instinct continue their journey to the region of their birth. The migration takes place in successive waves, till the last one breaks upon us and spring is over.

In early March the first wave rolls in upon us; happy little creatures hop about and chatter among the opening buds and feast on the insect life awakened by the returning sun. On successive days or, perhaps, at intervals of a few days other waves roll in from the far lands of the Gulf and the Caribbean Sea, till the final one beats against these hills and we awake about the first of May to realize that summer, fervid, tropical, is here. For the months of March and April all is bustle among the feathered traveling public; after that the summer residents have things all their own way till the fall migration begins.

As the sun draws near the line you notice that up in the tops of the gum trees are little birds about the size of a savanna sparrow, and, viewed hastily, of much the same coloring. You know they are not savannas, because the savanna never frequents such places. Some of them have probably spent their winter in this latitude; but just now by their restless activity they tell us that the sap has begun to stir and that the great migration is about to begin. Closer inspection with a good glass will show four spots or patches of yellow, one on the crown, one under each wing, and another on the rump, hence the bird's name, the yellow rumped warbler, sometimes known as the myrtle warbler. A month later you will scarcely recognize the males of this species, the dull brown of the winter coat being replaced by the shiny black of his bridegroom's suit.

When the beech buds swell and the jessamine puts forth its little yellow trumpets to announce that spring has actually come, the first great wave comes flooding into the awakening woods. Here come the first arrivals, both sexes in coats of grayish blue, with shirtwaists of brilliant yellow, the male distinguished by a patch of rufous of an irregular crescent shape across the lower part of the throat and upper part of the breast. On fine sunshiny days the parula warbler, for that is his name, loves the topmost branches of the tallest trees; if the day is gloomy he comes down to the lower branches, affording a better opportunity to study him. His only note at these times is an insect-like buzz much in keeping with his diminutive size.

In the lowlands the Halesia or silver bell is putting out its graceful pendulous racemes of purest white, and it is time to look for the next migrant, the hooded warbler, one of the largest and finest of his race. A V of brilliant yellow coming down to the bill, covering the forehead and running backwards past the eye, bordered by a well defined band of intense black, and a back and tail of green slightly tinted with olive make him a marked 139
bird. Unlike the parula, he cares nothing for treetops or sunshine; a perch on a swinging rattan vine or in a shrub in the dark woods hard by a canebrake is good enough for him.

As soon as the hooded warbler appears we will see the black and white creeping warbler, the connecting link (so to speak) between the creepers and warblers in both appearance and habits. Like our common brown creeper, he loves the dense woods, but unlike him seems to prefer the tops and higher branches. Alternate patches and streaks of white and black without a suggestion of the yellow or olive green so characteristic of his genus make his identification easy. His note is simple and short; in fact the sounds that he emits in his journeys are scarcely worth being called a song.

The flood tide comes about the first of April and lasts two weeks. Prominent among the multitude of visitors you may see a warbler slightly smaller than the hooded but of the same general coloring, yellow, black and green, only in this bird the black is in three patches, one on the top of the head, the others running from the bill back and down. This is the Kentucky warbler, a lover of the ground and of the low growths. There is another that the hasty observer might mistake for the hooded or the Kentucky, and that is the Maryland yellowthroat. The black on the latter is confined to broad bands of rich velvety black below the eyes; the yellow is more of a sulphur than a chrome shade, and the green is more nearly olive than in the two just mentioned. Many of this species make their summer home in this latitude, making their nests and rearing their broods in the mat of vines and weeds along the fence rows. The usual song is wichety, wichety, wichety, uttered with the cheerful vigor that makes the Carolina wren so attractive. During the months of April and May, 1900, I had frequent opportunities to observe two pairs of yellow throats that had built just inside the fence that parallels the railroad; the males, as they caught sight of me coming down the track, would mount the highest weed within reach and sing with all their might, but as I came opposite their perch would drop suddenly down into the weeds and remain there till I was well past, then resume their perch and song as long as I was in hearing.

Another of this family conspicuous for its brilliant coloring is the prothonotary warbler. Yellow breast, head, neck and shoulders, yellowish olive wings and back and darker olive tail render him conspicuous against any woodland background. If you want to see him during these busy April days we must go where he is, i. e., in the cypress or willow swamps. The dark gray festoons of Spanish moss (Tillandsia usneoides) and the tender young green of the cypress leaves afford both contrast for his bright colors and provisions for his larder. Some of this species also nest here, choosing for their homes oftentimes the holes made by some of our smaller woodpeckers in dead willow stubs. I remember one morning seeing a cheerful flock of prothonotary and parula warblers and noticing one of the former leave his companions and fly to a clump of willows where another less brilliantly colored, presumably the female, joined him. Together they inspected the willow stubs, running in and out and up and down the trunks, peering into every cavity. Finally they found one that met their requirements, then, after a short but earnest discussion, flew away through the swamp.

Inhabiting the marshes and swamps is the Louisiana water thrush, a slender brown bird shaped much like the brown thrasher, only much smaller, being about six inches in length as compared with the thrasher's eleven or twelve. A gifted singer, he is very wild and shy, always resenting the intrusion of the lords of creation upon his quiet haunts, flitting quietly on before you in the shadows, evincing his distrust of your motives by an occasional angry "clink." He well illustrates the principle of compensation: though denied the brilliant yellows and greens of his warbler brethren, he surpasses them all in the quality of his song, as free, as beautiful, as wild as the bird himself. All the individuals of this species that I saw in three years' observation were either in the water beeches (Carpinus caroliniana) that grew so thickly along the creek or in the sweet gums and cypress along the 140
borders of an immense swamp.

As the Louisiana water thrush is the star soloist of the warbler contingent, so the yellow breasted chat is the clown of our woodland troupe. His coloring is vivid but simple, being green with a wash of olive above, lores black, breast bright chrome yellow, other under parts white or whitish. Under most circumstances this bird is shy and difficult to approach, as I learned by personal experience; but when one of his strange moods comes upon him—perhaps it is the approach of the nuptial season that so affects him—he doffs much of his shyness and becomes a veritable clown, making such a profusion and variety of noises that one would fain believe that there is a whole score of birds in the bush or thicket from which the medley proceeds. He darts out of his retreat and flies away over the shrubbery, twisting and turning his body, raising and dropping his tail as if all his joints were of the ball and socket pattern, making as many ridiculous contortions and as many varieties of squeaks and squalls as an old-time elocutionist.

Besides numerous individuals of the species of warblers already named, in the two weeks between April 9 and 23 I saw one or more of each of the following: Yellow or summer, bluewinged, worm-eating, magnolia, golden winged, chestnut sided, prairie, and the redstart. As I write these names they call up mornings spent in the land of the ’possum and persimmon while yet the steamy breath of the dew was going up to meet the fervor of an April sun, and all the air was heavy with the perfume of the blooming holly, mornings of music from a thousand throats inspired by “the new wine of the year.” At such times one realizes the force of these two lines from Richard Hovey:

Make me over, Mother April,
When the sap begins to stir.

James Stephen Compton.

A PET SQUIRREL.

“Grandma, what made those little scars on this finger?” asked Nellie.

“Those,” said grandma, reflectively, “were made by a saucy little gray squirrel.”

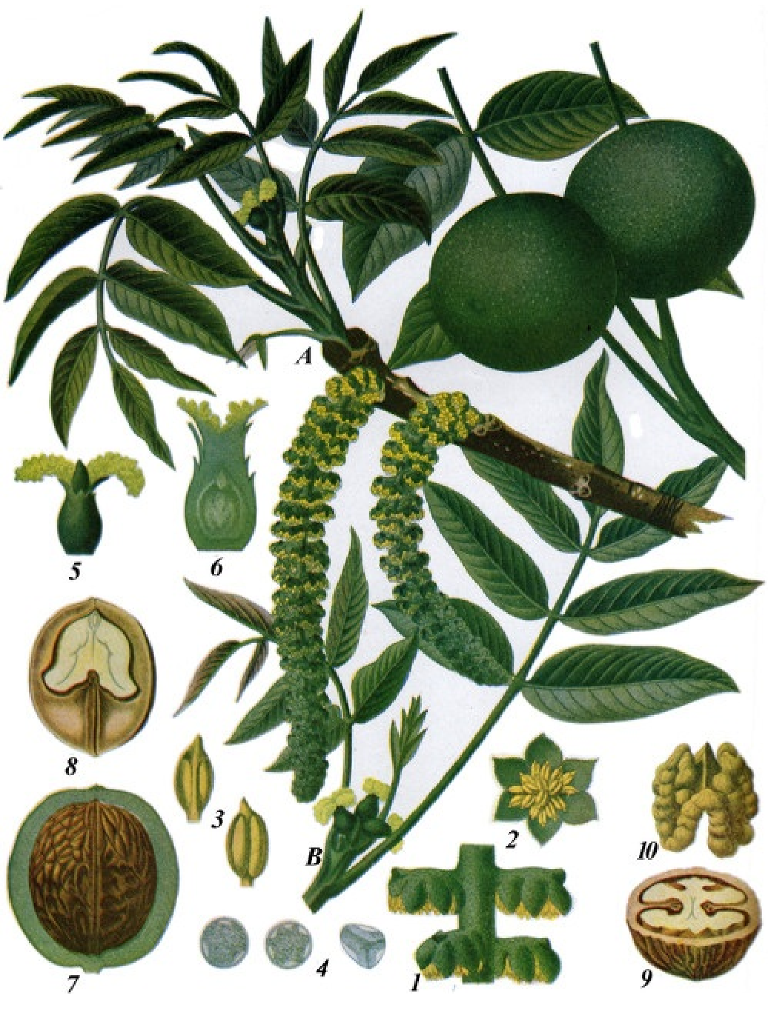
“How?”

“When I was a little girlie, smaller than you, uncle gave me a gray squirrel in a cage for a pet. As we all fondled him he soon became very tame. We often opened his cage door and allowed him to run around the house at will. One day he ran upstairs and played havoc in a feather bed. After that when out of his cage we kept a close watch on him, never allowing him in a bedroom.

“But he had already learned a new trick which he seemed very loth to forget. Every time that he could sneak into a bedroom he would make a bee-line for the bed, tear a hole in the tick and be inside among the feathers in a flash.

“As I said before, everyone around the place petted and handled him and he had never bitten nor scratched anyone. But one day while playing with him he suddenly leaped from my arms and raced upstairs. Just as he jumped upon a bed I caught him. This angered his squirrel-ship. He turned and savagely ran his long, sharp teeth through my finger. The sores were slow about healing and left these little scars. After that mother would not allow me to let him out of his cage.”

Loveday Almira Nelson.



ENGLISH WALNUT.
(*Juglans regia.*)
FROM KŒHLER'S MEDICINAL-PFLANZEN.

Description of Plate.—A, twig with staminate and pistillate flowers; B, twig with pistillate flowers; C, fruit; 1-6, flowers and floral parts; 7-10, fruit and seed (nut).

143

THE ENGLISH WALNUT AND RELATED TREES.
(*Juglans regia* L.)

Children fill the groves with the echoes of their glee,
Gathering tawny chestnuts, and shouting when beside them
Drops the heavy fruit of the tall black-walnut tree.

—William Cullen Bryant: "The Third of November."

The English walnut, butternut, black walnut, shagbark or shellbark hickory, mockernut or whiteheart hickory, bitternut hickory and pignut hickory are closely related, belonging to the butternut family, or technically the Juglandaceæ. They are large, handsome trees, with spreading branches and cleancut leaves. They are of comparative slow growth but hardy and enduring.

The English walnut is a tall, large, handsome tree which undoubtedly came from India. The name walnut is from Walish or Welsch nut; Juglans from Jovis glans, meaning the nut of Jove, and regia, meaning royal, hence the royal nut of Jove. The Greeks dedicated the tree to their chief deity Zeus, who corresponds to the chief deity of the Romans, namely, Jove or Jupiter. At a Greek wedding the nuts were scattered among the guests that Zeus might bless the marriage. The tree was described by numerous ancient writers, among others by Dioscorides, Plinius, Varro, Columella, and Palladius. Medicinal and other virtues were ascribed to the fruit and leaves and even to the shade of this remarkable tree. Arabian physicians used the hull of the unripe fruit and the leaves medicinally, Karl der Grosse (Charlemagne) recommended the cultivation of this plant in Germany about 812. It was introduced into the Mediterranean countries at an early period and extensively cultivated. From these countries it rapidly spread to northern Europe, and about 1562 it found its way into the British Isles, where it is extensively cultivated. It is cultivated somewhat in the United States.

All the other members of the Juglandaceæ are common throughout the United States, either growing wild or under cultivation. The wood of the butternut or white walnut and that of the black walnut is extensively used in cabinet making, furniture making and interior finish, particularly the wood of the black walnut. The earlier craze for black walnut furniture threatened to exterminate the plant, but fortunately (for the walnut tree) the fashion is waning. The wood is heavy, dark brown in color, of medium hardness, easily worked and readily polished, though it does not take the glossy polish of the harder woods, as ebony. Hickory wood is very hard, tough and durable, but it is not suitable for cabinet making, etc., because it warps too much. It is an excellent wood for making handles for tools of all descriptions, oxen yokes, hoops, walking sticks, whiffletrees, wagon stocks, etc. Its tensile strength is enormous, being said to be equal to that of wrought iron.

The seeds (kernels) of the English walnut, butternut, black walnut and shagbark hickory are edible and greatly relished, while those of the bitter and pignut hickories are not edible. Eating too many of the kernels causes distressing dyspeptic symptoms because of the large amount of oil which they contain. Salting the kernels before eating or taking a little salt with them is said to lessen these disturbances. The oil of these nuts is expressed and used as a salad oil and by artists in mixing pigments. The half-grown green fruits of the walnuts are pickled with spices and eaten, but as such relishes have never come into great favor. They are too severe in their action on the intestinal tract, due to the tannin, acids and coloring substances present. The hulls of these nuts are used in dyeing cloth; also the bark of the butternut and black walnut. The leaves and hull of the English walnut and the inner bark of the roots of the butternut are still quite extensively used medicinally. A decoction of the 144
leaves is said to cure gout, scrofula and rickets. The hulls are recommended in gout and eruptive skin diseases. Fresh leaves are applied as a fomentation to carbuncles. The extract is used as a gargle, wash for ulcerous eruptions and taken internally in tubercular meningitis. The juice of the green hull has been extensively employed as a popular remedy to remove warts, as an external application for skin diseases, and internally as a stomachic and worm remedy. The medicinal virtues of these plants are, however, apparently limited and unreliable.

The nut so-called of the English walnut, black walnut, butternut and hickory nut consists of the kernel (seed) and the inner layer (endocarp) of the fruit coat (pericarp). The endocarp, which is ordinarily designated as the shell, is very hard and splits more or less easily into two equal parts. The shell of the English walnut is comparatively thin and quite easily removed from the kernel. The shell of black walnut and butternut is very rough, very dark in color, thick, and not so easily removed from the seed or kernel. The hickory shell is quite difficult to remove. The kernels are eaten direct or added to cake, cake frosting, and other pastry, or encased by sugar and chocolate by the candy maker. The halves of the shell of the English walnut figure conspicuously in the well known "shell game" of the gambler who seems to be the central figure at county fairs and many circuses.

As already stated, the trees belonging to the butternut or hickory family grow quite slowly, and do not attain their full growth for many years. In our latitude the nuts are planted in the fall when they begin to germinate late the following spring. In order to give the trees free growth they should be planted at least thirty feet apart. They begin to bear fruit at about the tenth year, few nuts at first, but gradually more and more each year, and they continue to bear for many years. The leaves, buds and green fruits have a resinous, characteristic aromatic odor, recalling the lemon. All who have ever handled leaves, green bark and fruit will remember that the juice colors the skin a dark brown which is very difficult to remove.

The fruit of the black walnut and butternut when ripe is gathered, the hulls removed by stamping with mauls, the nuts dried for a week in the sun and then stored for use. The hull of the English walnut and the hickory nut is quite easily removed.

Albert Schneider.

AWAKENING.

My heart is glad,
And hopes deemed dead now wake to life again.
This morn I heard,
Ere I to conscious thought returnéd had,
The spring song of the sparrows in the rain.

—M. Townshend Maltby.

Transcriber's Notes

- Created an eBook cover from elements within the issue.
- Reconstructed the Table of Contents (originally on each issue's cover).
- Retained copyright notice on the original book (this eBook is public-domain in the country of publication.)
- Silently corrected a few palpable typos.

- You provide a full refund of any money paid by a user who notifies you in writing (or by e-mail) within 30 days of receipt that s/he does not agree to the terms of the full Project Gutenberg™ License. You must require such a user to return or destroy all copies of the works possessed in a physical medium and discontinue all use of and all access to other copies of Project Gutenberg™ works.
- You provide, in accordance with paragraph 1.F.3, a full refund of any money paid for a work or a replacement copy, if a defect in the electronic work is discovered and reported to you within 90 days of receipt of the work.
- You comply with all other terms of this agreement for free distribution of Project Gutenberg™ works.

1.E.9. If you wish to charge a fee or distribute a Project Gutenberg™ electronic work or group of works on different terms than are set forth in this agreement, you must obtain permission in writing from the Project Gutenberg Literary Archive Foundation, the manager of the Project Gutenberg™ trademark. Contact the Foundation as set forth in Section 3 below.

1.F.

1.F.1. Project Gutenberg volunteers and employees expend considerable effort to identify, do copyright research on, transcribe and proofread works not protected by U.S. copyright law in creating the Project Gutenberg™ collection. Despite these efforts, Project Gutenberg™ electronic works, and the medium on which they may be stored, may contain “Defects,” such as, but not limited to, incomplete, inaccurate or corrupt data, transcription errors, a copyright or other intellectual property infringement, a defective or damaged disk or other medium, a computer virus, or computer codes that damage or cannot be read by your equipment.

1.F.2. LIMITED WARRANTY, DISCLAIMER OF DAMAGES - Except for the “Right of Replacement or Refund” described in paragraph 1.F.3, the Project Gutenberg Literary Archive Foundation, the owner of the Project Gutenberg™ trademark, and any other party distributing a Project Gutenberg™ electronic work under this agreement, disclaim all liability to you for damages, costs and expenses, including legal fees. YOU AGREE THAT YOU HAVE NO REMEDIES FOR NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTY OR BREACH OF CONTRACT EXCEPT THOSE PROVIDED IN PARAGRAPH 1.F.3. YOU AGREE THAT THE FOUNDATION, THE TRADEMARK OWNER, AND ANY DISTRIBUTOR UNDER THIS AGREEMENT WILL NOT BE LIABLE TO YOU FOR ACTUAL, DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR INCIDENTAL DAMAGES EVEN IF YOU GIVE NOTICE OF THE POSSIBILITY OF SUCH DAMAGE.

1.F.3. LIMITED RIGHT OF REPLACEMENT OR REFUND - If you discover a defect in this electronic work within 90 days of receiving it, you can receive a refund of the money (if any) you paid for it by sending a written explanation to the person you received the work from. If you received the work on a physical medium, you must return the medium with your written explanation. The person or entity that provided you with the defective work may elect to provide a replacement copy in lieu of a refund. If you received the work electronically, the person or entity providing it to you may choose to give you a second opportunity to receive the work electronically in lieu of a refund. If the second copy is also defective, you may demand a refund in writing without further opportunities to fix the problem.

1.F.4. Except for the limited right of replacement or refund set forth in paragraph 1.F.3, this work is provided to you ‘AS-IS’, WITH NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE.

1.F.5. Some states do not allow disclaimers of certain implied warranties or the exclusion or limitation of certain types of damages. If any disclaimer or limitation set forth in this agreement violates the law of the state applicable to this agreement, the agreement shall be interpreted to make the maximum disclaimer or limitation permitted by the applicable state law. The invalidity or unenforceability of any provision of this agreement shall not void the remaining provisions.

1.F.6. INDEMNITY - You agree to indemnify and hold the Foundation, the trademark owner, any agent or employee of the Foundation, anyone providing copies of Project Gutenberg™ electronic works in accordance with this agreement, and any volunteers associated with the production, promotion and distribution of Project Gutenberg™ electronic works, harmless from all liability, costs and expenses, including legal fees, that arise directly or indirectly from any of the following which you do or cause to occur: (a) distribution of this or any Project Gutenberg™ work, (b) alteration, modification, or additions or deletions to any Project Gutenberg™ work, and (c) any Defect you cause.

Section 2. Information about the Mission of Project Gutenberg™

Project Gutenberg™ is synonymous with the free distribution of electronic works in formats readable by the widest variety of computers including obsolete, old, middle-aged and new computers. It exists because of the efforts of hundreds of volunteers and donations from people in all walks of life.

Volunteers and financial support to provide volunteers with the assistance they need are critical to reaching Project Gutenberg™’s goals and ensuring that the Project Gutenberg™ collection will remain freely available for generations to come. In 2001, the Project Gutenberg Literary Archive Foundation was created to provide a secure and permanent future for Project Gutenberg™ and future generations. To learn more about the Project Gutenberg Literary Archive Foundation and how your efforts and donations can help, see Sections 3 and 4 and the Foundation information page at www.gutenberg.org.

Section 3. Information about the Project Gutenberg Literary Archive Foundation

The Project Gutenberg Literary Archive Foundation is a non-profit 501(c)(3) educational corporation organized under the laws of the state of Mississippi and granted tax exempt status by the Internal Revenue Service. The Foundation's EIN or federal tax identification number is 64-6221541. Contributions to the Project Gutenberg Literary Archive Foundation are tax deductible to the full extent permitted by U.S. federal laws and your state's laws.

The Foundation's business office is located at 809 North 1500 West, Salt Lake City, UT 84116, (801) 596-1887. Email contact links and up to date contact information can be found at the Foundation's website and official page at www.gutenberg.org/contact

Section 4. Information about Donations to the Project Gutenberg Literary Archive Foundation

Project Gutenberg™ depends upon and cannot survive without widespread public support and donations to carry out its mission of increasing the number of public domain and licensed works that can be freely distributed in machine-readable form accessible by the widest array of equipment including outdated equipment. Many small donations ($1 to $5,000) are particularly important to maintaining tax exempt status with the IRS.

The Foundation is committed to complying with the laws regulating charities and charitable donations in all 50 states of the United States. Compliance requirements are not uniform and it takes a considerable effort, much paperwork and many fees to meet and keep up with these requirements. We do not solicit donations in locations where we have not received written confirmation of compliance. To SEND DONATIONS or determine the status of compliance for any particular state visit www.gutenberg.org/donate.

While we cannot and do not solicit contributions from states where we have not met the solicitation requirements, we know of no prohibition against accepting unsolicited donations from donors in such states who approach us with offers to donate.

International donations are gratefully accepted, but we cannot make any statements concerning tax treatment of donations received from outside the United States. U.S. laws alone swamp our small staff.

Please check the Project Gutenberg web pages for current donation methods and addresses. Donations are accepted in a number of other ways including checks, online payments and credit card donations. To donate, please visit: www.gutenberg.org/donate

Section 5. General Information About Project Gutenberg™ electronic works

Professor Michael S. Hart was the originator of the Project Gutenberg™ concept of a library of electronic works that could be freely shared with anyone. For forty years, he produced and distributed Project Gutenberg™ eBooks with only a loose network of volunteer support.

Project Gutenberg™ eBooks are often created from several printed editions, all of which are confirmed as not protected by copyright in the U.S. unless a copyright notice is included. Thus, we do not necessarily keep eBooks in compliance with any particular paper edition.

Most people start at our website which has the main PG search facility: www.gutenberg.org.

This website includes information about Project Gutenberg™, including how to make donations to the Project Gutenberg Literary Archive Foundation, how to help produce our new eBooks, and how to subscribe to our email newsletter to hear about new eBooks.