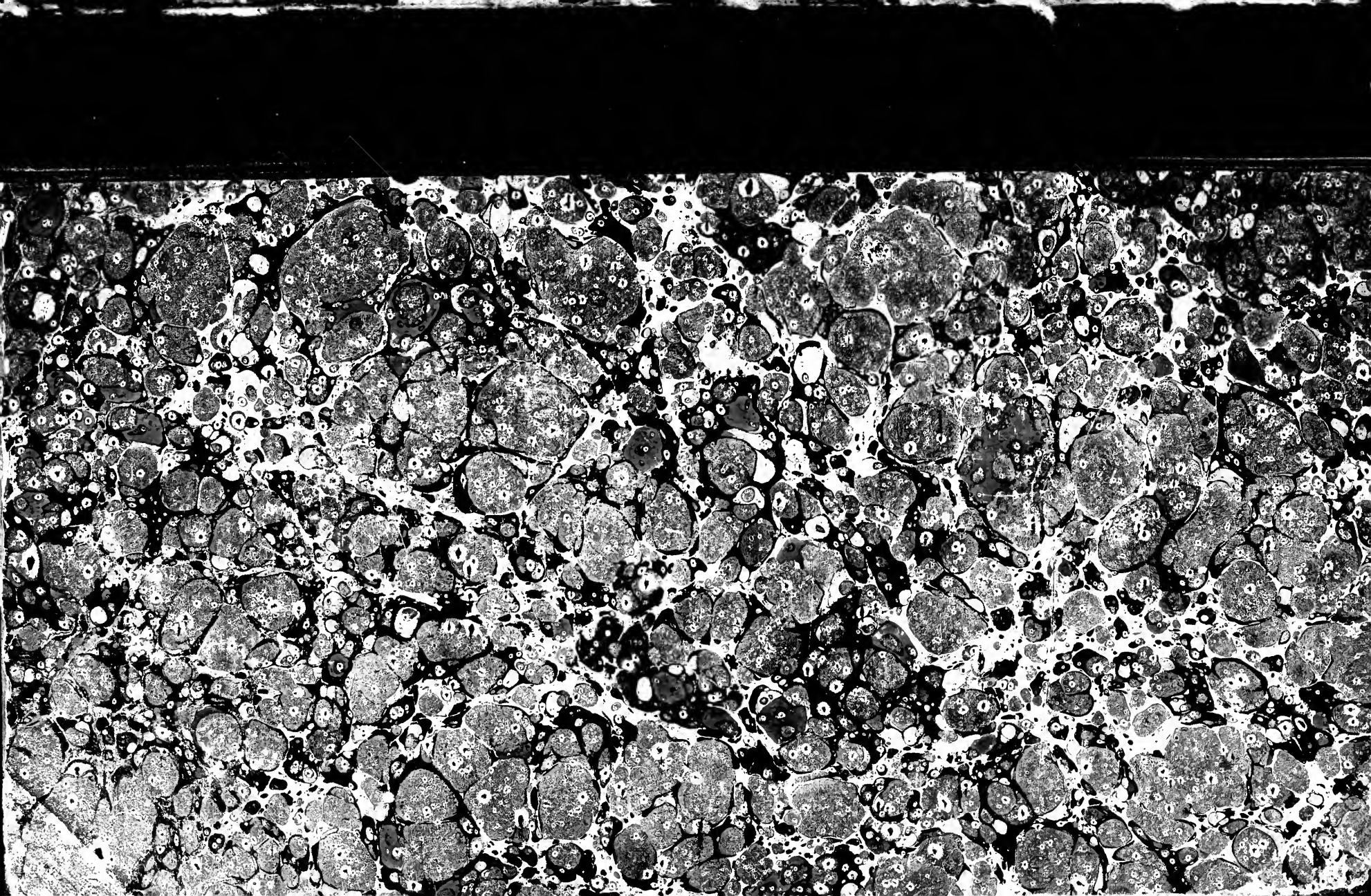

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VOL. XVII., 1892.

BIRDS: THEIR NESTS AND EGGS.

HYDE PARK, MASS.:
FRANK BLAKE WEBSTER COMPANY.
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Vol. XVII. HYDE PARK, MASS., JANUARY, 1892. No. 1.

A Series of Eggs of the Kentucky Warbler.

The eggs of the Kentucky Warbler (*Geothlypis formosa*) exhibit great variation in size, shape, and coloration, and while the series now before me does not exhibit all their types it is sufficiently complete to warrant desription.

Set I. June 1, 1890. Chester County, Penn. Collected by J. P. Norris, Jr. Nest on ground, in woods, at foot of small bush, not more than ten feet from a fence. Made of leaves, lined with rootlets. ♀ flushed. Four eggs, incubation commenced. White, speckled with hazel and lavender-gray. Three of the eggs have the markings nearly all at the larger ends in the shape of indistinct wreaths, but the fourth one is much more pointed than the others, and has a wreath around the smaller end: .79 x .59; .78 x .58; .76 x .59; .76 x .59.

Set II. May 28, 1890. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of spicewood bush, on ground, in low woods. Made of leaves, dried grass, etc., lined with fine black rootlets and white horse-hair. Bird seen. Four eggs, fresh. White, speckled and spotted, principally at the larger ends, with fawn color: .71 x .56; .72 x .55; .74 x .56; .71 x .55.

Set III. June 19, 1885. Delaware County, Penn. Collected by J. Hoopes Matlack. Nest of dried grasses and beech leaves, on the ground, in thicket of young underwood. Four eggs, fresh. White, spotted and speckled with chestnut and lavender-gray: .77 x .56; .79 x .57; .78 x .56; .75 x .56.

Set IV. May 28, 1890. Chester County, Penn. Collected by J. P. Norris, Jr. Nest between leaves of "Skunk Cabbage," on ground, in woods. Made of leaves, dried grass, etc., lined with black rootlets. ♀ flushed. Four eggs, fresh, and one Cowbird's egg. Light creamy white, speckled and spotted with chestnut and lavender-gray. The markings are heavier near the larger ends, where they form indistinct wreaths: .74 x .60; .72 x .60; .72 x .60; .71 x .60.

Set V. June 7, 1889. Chester County, Penn. Collected by J. P. Norris, Jr. Nest between three forks at foot of small bush. Made of leaves and grass, lined with horse-hair and black rootlets. Bird seen. Five eggs, fresh. Light creamy white, speckled and spotted with hazel and lavender-gray. At the larger ends the markings are heavier, and form indistinct wreaths: .78 x .60; .81 x .61; .81 x .60; .78 x .61; .79 x .60.

Set VI. June 9, 1885. Collected by J. Hoopes Matlack. Nest on ground, in thicket of young underwood. Composed of dry grass and beech leaves. Four eggs, fresh. Glossy, light creamy white. Heavily spotted, especially at the larger ends, with chestnut and lavender-gray: .79 x .59; .77 x .59; .77 x .58; .78 x .56.

Set VII. June 18, 1890. Chester County, Penn. Collected by J. P. Norris, Jr. Nest on ground, at foot of weed, in woods, near a fence and a dried up stream. Made of leaves, etc., lined with black rootlets and horse-hair. White, spotted and speckled more heavily at the larger ends, with hazel and lavender-gray: .82 x .57; .79 x .57; .80 x .56; .83 x .56.

Set VIII. June 3, 1890. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of spicewood bush, in woods, twenty-five feet from their edge. Made of leaves, dried grass, etc., lined with black rootlets. ♀ flushed. Four eggs, incubation commenced. (This set also contained a Cowbird's egg.) White, spotted all over, but more heavily at the larger ends, with chestnut and lavender-gray: .74 x .56; .71 x .55; .70 x .54; .71 x .54.

Set IX. May 28, 1888. Chester County, Penn. Collected by Samuel B. Ladd. Nest on the ground. Made of leaves, with fine

roots and a few horse-hairs. ♀ flushed. Four eggs, incubation commenced. White, speckled with chestnut and lavender-gray. The markings are heavier at the larger ends: .65 x .54; .66 x .55; .67 x .55; .65 x .55.

Set X. June 25, 1890. Chester County, Penn. Collected by Henry Norris. Nest in small woods, four feet from a public road. It was in a small bush six inches from the ground, and was made of leaves, etc., lined with black rootlets and horse-hair. Bird on nest. Four eggs, fresh. (Remarkably late for this species, and I think it must have been a second laying.) White, delicately speckled with hazel and lilac-gray. The markings are all over the surface, but are thicker near the larger ends: .78 x .57; .81 x .58; .79 x .57; .74 x .56.

Set XI. May 28, 1890. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of spicewood bush, on ground, in low woods. Made of leaves, dried grass, etc., lined with black rootlets. Birds seen. Five eggs, fresh. White, and quite glossy. Speckled and spotted, more heavily at the larger ends, with hazel, chestnut and lilac-gray: .74 x .58; .75 x .58; .72 x .57; .73 x .58; .70 x .57.

Set XII. May 28, 1890. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of small bush, near dried up stream in woods, not more than twenty-five yards from public road. Made of leaves, dried grass, etc., lined with black rootlets. Five eggs, small embryos. Glossy white, spotted with hazel and lilac-gray: .74 x .55; .75 x .55; .78 x .55; .75 x .55; .75 x .56.

Set XIII. June 29, 1889. Chester County, Penn. Collected by J. P. Norris, Jr. Nest on ground, between forks of two small bushes in woods. Made of leaves and dried grass, lined with black roots and horse-hair. Bird flushed. Three eggs, incubation commenced, and Cowbird's egg. (Owing to the lateness of the date at which this set was taken, it is more than probable that it is a second laying.) Light creamy white, spotted with hazel and lilac-gray: .84 x .58; .85 x .58; .80 x .55.

Set XIV. June 9, 1889. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of and between forks of small bush on hillside, in woods. Made of dead and green leaves, lined with fine black rootlets and horse-hair. Bird flushed. Four eggs, fresh. Glossy white, speckled with hazel and lavender-gray. The markings are much heavier at the larger ends, and on one of them they form a wreath: .76 x .58; .70 x .56; .70 x .58; .67 x .55.

Set XV. June 6, 1889. Chester County, Penn. Collected by J. P. Norris, Jr. Nest between three forks at foot of small bush, in swampy woods. Made of leaves, lined with fine black rootlets. Bird flushed. Five eggs, fresh. Light creamy white, heavily spotted and blotched with chestnut and lilac-gray. On two of the eggs the markings are heavier at the smaller ends, but on the others they are principally at the larger ends: .70 x .59; .71 x .60; .71 x .60; .74 x .59; .71 x .58.

Set XVI. June 4, 1891. Chester County, Penn. Collected by Henry Norris. Nest at foot of small bush. Made of leaves, lined with rootlets and horse-hairs. ♀ on nest. Five eggs, fresh. Glossy white, speckled and blotched with chestnut and lilac-gray. The markings form wreaths around the larger ends, and are largely confined to that portion of the eggs, but there are a few spots on other portions of them: .71 x .58; .75 x .59; .76 x .58; .76 x .58; .75 x .59.

Set XVII. May 27, 1891. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of small bush, in woods. Made of leaves, etc., lined with black rootlets and horse-hair. ♀ seen. Three eggs, fresh. Contained a Cowbird's egg also. White, heavily speckled, principally at the larger ends, with chestnut and lilac-gray: .76 x .56; .73 x .56; .71 x .53.

Set XVIII. June 11, 1891. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of small sapling, in woods on edge of a path. Made of leaves and dried grass, lined with fine rootlets and horse-hair. ♀ flushed. Four eggs, fresh. Glossy white, speckled and spotted with hazel, chestnut, and lilac-gray: .67 x .54; .72 x .56; .69 x .54; .66 x .53.

Set XIX. June 4, 1891. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of small sapling in woods, near the edge. Made of leaves, etc., lined with fine black rootlets. ♀ flushed. Five eggs, fresh. White, delicately marked with wreaths of fine specks of hazel and lilac-gray: .74 x .57; .72 x .56; .72 x .57; .72 x .56; .74 x .56.

Set XX. May 31, 1891. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of small bush in swampy woods. Made of leaves, weed stalks, etc., lined with fine black rootlets and horse-hair. Three eggs, fresh. White, speckled with chestnut and lilac-gray. The markings are more evenly spread over the whole surface than is usual for this species: .74 x .58; .73 x .58; .75 x .59.

Set XXI. June 2, 1891. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of small bush in woods. Very bulky, and made of leaves, etc., lined with rootlets and horse-hair. Four eggs, fresh. White, delicately wreathed with hazel and lilac-gray specks: .68 x .56; .61 x .57; .68 x .58; .70 x .58.

Set XXII. June 4, 1891. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of small bush, four feet from a path in the woods. Made of leaves, etc., lined with fine black rootlets. ♀ flushed. Five eggs, fresh. White, speckled, more heavily at the larger ends, with chestnut and lilac-gray: .72 x .55; .73 x .56; .73 x .55; .72 x .55; .75 x .56.

Set XXIII. June 2, 1891. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of small bush in woods. Made of leaves, weed stalks, etc., lined with horse-hair and fine rootlets. Five eggs, fresh. Glossy white, heavily speckled and spotted with fawn color, hazel, and lilac-gray: .76 x .55; .71 x .55; .71 x .55; .72 x .55; .72 x .56.

Set XXIV. June 12, 1891. Chester County, Penn. Collected by J. P. Norris, Jr. Nest very small. Made of leaves, etc., lined with rootlets and horse-hair. At foot of small bush on bank two feet above a path in woods. ♀ flushed. This is the second set laid by the same birds that laid Set XVII, taken May 27, 1891. Five eggs, fresh. White, heavily speckled, principally at the larger ends, with chestnut and lilac-gray: .73 x .57; .72 x .55; .73 x .56; .76 x .57; .56 x .54.

Set XXV. June 25, 1891. Chester County, Penn. Collected by J. P. Norris, Jr. Nest at foot of a small bush in swampy woods. Made of leaves, etc., lined with fine black rootlets. ♀ flushed. Four eggs, fresh. White, delicately speckled with chestnut and lilac-gray: .75 x .58; .73 x .57; .77 x .59; .74 x .57.

J. P. N.

How I Prepare Eggs.

In my earlier collecting days I lost many a valuable egg, especially those containing embryos, by not knowing how to safely extract the contents, and trusting my experience may benefit others and perhaps interest them, insomuch that they will give of their own experience, I venture to tell the readers of the O. & O. my methods.

My working outfit consists of the best drills that I can procure (and I know of none that can compare with those that friend Webster sells), a solid nickel blow-pipe, also one of glass with a rubber nipple on the mouth end, embryo scissors and hooks, a bottle of strong solution of caustic potash, which I prepare by filling my bottle one-half full of water and then dissolving in it all the caustic that it will take, (the caustic can be procured at any drug store), a small box of dust shot, a sheet of blotting paper, a soft cloth and soft lead pencil, a data pad, also a glass of clean water and a dish of any description to hold the contents of the eggs. The latter should be partially filled with water to prevent accidents, from dropping the egg. Now I am ready for work.

If the eggs are fresh there is no difficulty in blowing them. I will take for illustration a nest of Oriole's eggs. I first examine each egg to see upon which side the markings are most prominent or most handsomely grouped, and on the opposite side I drill as neat a hole as possible. I do not advocate drilling the smallest hole that it is possible to extract the contents through, neither do I admire eggs from which a quarter or a third has been drilled away. I think that the hole should be in proportion to the size of the egg, but be the hole large or small let it be neat and without chipped edges. A rare egg with a large hole, if it be perfect, makes a desirable cabinet specimen.

After blowing my eggs I thoroughly rinse them out with fresh water and wipe them carefully with a damp corner of my cloth, taking care that I do not destroy any of the markings, which is easily done with many eggs. I now set them, holes down, on the blotting paper to dry, after which I put on them the set marks; and here is a point I wish to emphasize: do not sprawl the figures over half the egg as I have known many to do, but make them small, neat and above all legible, and place them close to the blow hole.

All that remains to be done now is to make out the data which should be as full as possible, and the eggs are ready for the cabinet.

Should the embryo be partially formed but soft, it can be blown out by using care, but often leaves a thick skin attached to the shell that is difficult to remove, and here is where the shot comes in play. Place a few grains in the egg and fill it with water, then gently shake it in different directions for a moment, when using your blow-pipe you will find that everything will come out. The shot can safely be used in Warbler's eggs and I have found it a great help

Should the chick be strong and lusty more difficulty is experienced in its removal. If the egg be large as a Hawk's, for instance, carefully cut the embryo with the scissors and extract with the aid of a hook as much of contents as you can with safety, then fill it up with the potash solution, by using the glass blow-pipe, squeeze the nipple, put the end of the pipe in the solution and let go, when you will find your pipe nearly full. It tastes better this way than in your mouth. Set the egg one side for a few hours when the contents will be found partially or wholly dissolved and can be removed with the blow-pipe. In the case of a small egg a few moments is all that is necessary to dissolve the contents.

A friend of mine in Texas said that he removed troublesome chicks by placing the egg in an ant hill, though I have never tried it and cannot tell from experience how it would work. In theory it is right, providing the ants are hungry, and I do not know that they are ever otherwise.

If the above directions are the means of saving one set of rare eggs I shall feel amply repaid.

Charles E. Hoyle.

West Millbury, Mass.

[So far as regards the use of shot in small eggs, I consider Mr. Hoyle's directions very dangerous. — *J. P. N.*]

A Sunny Day in Winter.

It has been snowing for the last few days, and the ground is covered, to the depth of a foot or more, with the beautiful. But at last the sun has come out to brighten the scene, and a beautiful sight it is. Pines and hemlocks bowed down with their heavy load of snow, that glistens in the sunlight like a mass of jewels. All nature seems to be astir, and as we pass out of the house for a stroll through the woods and fields we are met by a small company of Tree Sparrows, who are out in search of crumbs, while in the appletrees close by may be seen the Black-capped Chickadee and the White-bellied Nuthatch in search of insects, and on yonder tree a Downy Woodpecker is hard at work hammering away after some favorite morsel. We pass through the orchard, and as we enter the adjoining field we notice quite a commotion among a flock of Snowbirds and, looking about for the cause, notice a Great Northern Shrike who is out after his dinner, and who, failing to secure a Junco, is now in pursuit of a flock of Redpoll Linnets. As we pass into the woods we are accosted by a company of Jays, which in their flight for safety startle a Barred Owl from his slumbers, and set the Crows to cawing, and awaken the entire woods by their weird cry of "Thief! thief!" The Red Squirrel and the Chipmunk, thus startled, join their voices in the concert, and as we pass along we, in turn, are startled by the rush and whir of a Ruffed Grouse, as he leaves for parts unknown. As we watch him disappear over the top of yon hemlock, our attention is called to something moving about among the branches in the top of the tree, and, upon closer observation, prove to be a party of Crossbills and Grosbeak enjoying a feast of cones in the sunshine. Passing from the woods to the road leading back to the house, we startled a Goshawk from his dinner, and, upon going to the spot from whence he took his departure, we discover bits of hair, etc., which tell us he has been dining upon a good fat rabbit. Passing thence along the road we start a flock of Bunting and Horned Larks, the first that we have seen this winter. And as we again enter the yard we are met by a company of the omnipresent *Passer domesticus*, who, having driven the Tree Sparrows away, are finishing up the crumbs. As we enter and settle down in the easy chair, to think over all we have seen and heard, we all agree that you would have to go a long way to find a pleasanter place to spend an hour or two than in the woods on a sunny day in winter.

S. R. Ingersoll.

A Day's Trip to Ipswich Beach.

We had talked of a trip to Ipswich Beach for Thanksgiving Day, 1891, for the purpose of adding, if possible, some specimens to our collection; also to have a try at the Ducks. Our party consisted of two, my cousin Frank and myself. Tuesday evening was a busy one with us. Decoys were brought out and dusted off (for we had not used them before this season), guns oiled up, shells loaded, etc. My business being in Boston, and we being quite busy, I was obliged to go up in the morning. At 12 o'clock I started for the depot, taking the 12.30 train for Ipswich, where I had sent my stuff in the morning. As the train pulled up at Beverly, Frank got on loaded down with guns and other equipments.

We arrived in Ipswich at 1.40, and went at once to Boynton's stable for a team to take us to the beach, which is about a five-mile drive. This is a very pleasant drive. As we got out of the village the fields and large hills continually reminded us of the pleasant times we had had with the Upland Plover. Then, as we got along further, we could see the snow-white sand hills glistening in the sun, and also Hog Island, which looms up above the other hills in gigantic proportions.

As we drive along, with the crisp air blowing in our faces and the smell of the salt marshes greet us, it brings back many pleasant remembrances, and we passed such remarks as "Here's where we shot the Red-wing Hawk," "Remember how we got into the grass birds here," etc. Birds appeared to be very scarce on the way down. There were plenty of Crows and that was all.

We arrived at the beach at 3.15, and I guess the driver earned his money trying to get the horse out of a walk, but he (the horse) was a *fine* one if anyone wanted to take in the scenery. As soon as we landed at our destination we were out of the team, traps and all, and making a bee-line for our cottage. After opening it up, so as to air it out, we proceeded to change our clothes, fill our pockets with shells, and go down and get the boat off and get over to a favorite hunting ground for Longspurs, Snowflakes, Shore Larks, etc. We found the Shore Larks *very* abundant and secured several fine specimens, which I shall mount. We also noted some few Snowflakes but were unable to secure any specimens.

I have never seen so many Crows together as there were about sunset. There was a continual flight of large flocks for about an hour flying from the direction of Hog Island and toward the beach. There seemed to be a few Ducks flying, but the prospect looked slim at this time. We got back to the cottage at about 5.30, and while Frank built the fire I went to get some milk and other things that we wanted at the hotel, where they are always ready to help a fellow out on anything he needs in the way of food. When I got back Frank had a rousing fire going, and the fragrant smell of potatoes told me that he had not been idle. While he was frying potatoes and making coffee I set the the table and put things in order, and at 6 o'clock we sat down to supper, which, to use Frank's words "that if any king kicked at, he did not know when he had a good thing." But laying joking aside, I would not have taken the best turkey dinner that the Adams House of Boston could have got up for that supper of fried potatoes, bread, sausages and hot coffee, with the *surroundings*. After supper we washed the dishes and sat down by the fire to spend the remainder of the evening in singing, playing the harmonica and talking over the prospects of a good morning for ducks. At 9 o'clock we started to go to bed, and after a pillow-fight and a good deal of joking we got to sleep.

The first thing I remember after this was Frank punching me and telling me it was quarter of five. We got up at once and in thirty minutes we had a hot fire and a steaming breakfast, and by the time we got ready to go out it was 6 o'clock. It was a beautiful morning. The stars were shining brightly and in the east behind a bank of clouds could be seen the faint streaks of the sun just coming up. The river was like glass and as we rowed across to our blind we left a wake that we could see way across it. The Crows had commenced to fly back and all the noise of any kind that we could hear came from them. By the time we got our decoys set and settled in our blind it was quite light.

The first birds seen were a pair of Whistlers coming up the river, but they gave us a wide berth. Then they commenced to come along singly and in pairs, but not in our direction, and we commenced to think that this was not one of the days that Ducks decoyed. Frank complained of his feet being cold so I said "go back of the bank and get them warm but be careful not to scare any Ducks if any come along." He had hardly got away before a pair flew by, Sheldrakes I think, but did not come in. I was sitting there thinking about pulling in the decoys and going after Snowflakes when I heard a noise that sounded like Whistlers, and almost before I knew it a flock of no less than thirty went past just out of range. They sailed by a way then turned and came straight for the decoys. Pictures of a dozen Ducks laying dead on the water came to me, but alas! so near and yet so far. They set their wings to come down when Frank's head bobbed up from behind and away they went too far off for a shot but I sent two charges of fours after them which made one change his mind about going away. We soon got settled again and had another long wait. Since I had fired at the large flock, birds seemed to be scarcer than before so I concluded to go over on the marsh and see what I could see. I succeeded

in getting two more specimens of Shore Larks, and could have got more but I had enough. I was just going back when I heard Frank fire twice. I ran over and found that a pair of Whistlers had come in to the decoys and he had succeeded in stopping one and wounded the other, but No. 2 got to feeling better and started off before we could get to him. I then took my turn at the blind and three birds came sailing along out of the river. As they sailed over the decoys I fired, killing one and I had a bead on another, but the shell missed fire. Now if there is anything I like (?) it is to have a shell miss fire. So after easing my mind up a little I started out after the bird that I had shot and found it to be a ♀ Sheldrake.

We had just got in the stand again when a pair of Whistlers came by going with the wind. Frank fired and thought it was funny he did not get them as he aimed as much as six feet ahead. But I don't think that twelve feet would have been any too much at the rate they were going.

We were obliged to come home on the 11 o'clock train from Ipswich so at about quarter of ten we pulled in our decoys and started to row back to the cottage against the tide. When we arrived there we found the team in waiting, and the fellow kindly told us that we would "have to hustle" if we wanted to catch the train. We climbed in and got our traps in and arrived at the depot just in time to get aboard the train. If we had been a minute later we should have lost it.

We arrived home all right and I for my part never had a better time, although I *have* got more game, and I think Frank was of the same opinion. And after all taking into consideration the time we had and the scarcity of game in this section, the pleasant weather and everything, I don't think we ought to kick on the amount of game we got. Anyway we made up our minds that if possible we should make a like trip Christmas, which we will give an account of in the O. & O. if we have any luck, and this piece does not find its way into the editor's waste basket.

C. E. Brown.

Beverly, Mass.

Ornithology and Meteorology.

The correlation of ornithology and meteorology has been somewhat underestimated, and it is my purpose in this paper to give a few brief suggestions as to the advantage and use of keeping weather data.

If a careful student or field worker keeps a series of temperature observations from day to day, he will learn: Firstly, that there are what might be termed temperature periods, or groups of days, during which the mean temperature of each is relatively alike, and much unlike the common temperature of either the following or preceding group. Secondly, he will learn that groups of high and low temperature are very apt to alternate, a familiar example being that of cold and warm waves, common over most of the United States.

Besides these temperature notes, he may keep a daily or tri-daily record of the direction and force or velocity of the wind. Comparison will show the necessity of the same periodical division which was applied to temperature, viz., the sequence of winds from the several cardinal points, and the alternation of windy and calm periods.

The appearance of the sky is, also, of considerable importance. Irrespective of bird lore, the observer will find a correlation of fair and of stormy weather and certain winds.

Now the reader may ask, "Of what good is all this to the ornithologist?" In reply, I would say, for any one, be he interested in birds or otherwise, it sharpens the observatory powers, and encourages inferential deduction; two valuable traits in any walk of life.

For the bird man it does much more. For instance, we will suppose that he has kept an approximately correct record of the numbers of the various species which he may have observed during his walks afield. By reviewing his data he will find a tendency towards the formation of alternate periods of plentifulness or scarcity, just as in his meteorological data, like and unlike conditions were grouped in periods of successive days.

It then follows in his mind to compare the two kinds of data in order to detect, if possible, the coincidence of certain kinds of weather, and certain conditions of plentifulness among the birds. If his data has been compiled in spring-time, high temperature, southerly winds, and cloudy or stormy weather, will be apt to coincide with periods of more than ordinary abundance of birds, while cold, northerly, and fair weather accompany scarcity.

As the season passes the markedness of these coincidences decrease until, at midsummer, it is hardly apparent. As autumn comes on, the fluctuation in numbers increases

again when the correlative meteorological conditions regain prominence, but comparison will give different results. Although the sequence of cold and warm, windy and moderate, and fair and stormy weather remains the same, the periods of abundance of birds will now be on the days of cold, north wind and fair weather, or the reverse of spring-time, when the warmer days and favorable winds were incentives for the birds to push northward on their journey, while in the fall the cold, north winds act in the same way, the *direction* being reversed.

And so the migration passes, and autumn ages into winter, and the birds become scarcer and their fluctuations less prominent, though never ebbing entirely away.

In Massachusetts the east and northeast winds of autumn are cold and promote migration, but in winter they are warmer than the west and northwest gales, so that at that season birds are sometimes most noticeable during easterly weather.

Harry Gordon White.

A Rainy Day in the Woods.

Saturday, December 26, 1891, we shouldered our guns and pocketed our note-books, and started off for a tramp through the woods to see what we could collect and note in the bird line. By *we* I mean my cousin Frank and myself.

It was cloudy and rather dark and rainy, just the day one would expect to see Owls and such, and therefore we concluded to go first to a strip of woods called Ober's, and then through a large, dark woods and swamp called the Park. Birds (as usual here) were scarce, except, of course, the usual amount of Crows and Chickadees. By the way, if it were not for the latter the woods in winter would seem very lonesome to me. They always seem so sociable, and welcome you to the woods at all seasons.

We had been walking on the road for awhile when I happened to glance into the woods, and my eye caught sight of a small object on a pine tree, which looked some like a bird but more like a pine knot. I kept my eyes on it, however, and thought I saw it move. We went closer and found, sure enough, it was a bird, and one we had been looking for, a Saw-whet Owl. He seemed very tame, so I thought we might capture him without shooting. First I tried walking slowly around behind him with a long pole I had cut to hit him with. As fast as I walked he would turn his head until it got around exactly the the opposite way from what it should be. I thought then of the piece I read in the O. & O. about walking around and around an owl until he twisted his neck off. But I found this was not that kind of an Owl, for just then, almost too quick for me to see him, he turned his head way around the other way. Finding I could not get out of his sight, to approach, I got my cousin to go around in front of him and execute a war-dance to attract his attention, then I walked carefully up behind and tapped him (the Owl) on the head, and in a minute more he was in my hands, looking surprised and shocked at such treatment. We thought of keeping him alive at first, but finding he was going to be troublesome we decided it would be better to carry him home in a cone.

The next birds noted were Golden-crowned Kinglets, in a flock of six or eight, of which we captured two. Soon after this we noted a large flock of Juncos and also a flock of Redpolls. We captured one from the former and none from latter flock. In coming back through the woods we started one Ruffed Grouse which I fired at but failed to get.

In the course of the day we overturned an old stump and in it there was a large butterfly, which when released seemed to be as lively as though it were the middle of summer. Is this not an unusual occurrence? I always thought they died in the fall.*

We spent the rest of the day and evening in my workshop, mounting our specimens.

Birds have been very scarce here this fall and winter so far. We saw more on this trip than I have seen all the rest of the winter put together; and what we thought would be rather a dreary, wet trip turned out to be a very pleasant one, in spite of cloudiness and occasional showers. As I write this the Saw-whet stands on the mantel, all wound with string, staring at me as though he knew just what I was writing about him.

C. E. Brown.

Beverly, Mass.

* Not at all an unusual occurrence. The family *Vanessa* often hibernate in stone heaps and exposed buildings, and the first butterflies of the spring are these insects, which have been warmed by the approach of the sun.—ED.

Habits of the Terns.

For many years the Wilson Tern has not been here in any such numbers as the present fall. We concede the reason to be that the "sand eel," the natural feed for them, were in schools of millions. "Mackerel Gull" is the common name for the bird here, while further south I have heard them called "strikers" and "plungers" because of their wonderful and beautiful diving. It is certainly very amusing and fascinating to watch a flock of several thousands feeding. I can almost hear their screams and guttural sounds (which only can be imitated by a special whistle or by wearing one's throat out), as they circle and rush in every direction, now and then plunging under the water and appearing with a fish partly swallowed.

Let us watch the manœuvers of one, if we can follow it through the crowd, which a westerner would liken to a "ghost dance," as it rushes hither and thither, now darting up, down, this way and that. Suddenly it stops in mid-air, poises gracefully, then like a white streak disappears beneath the water. Or, perchance, it will be lazily flying along and seeing a fish directly under it drop suddenly, head first, as if shot, and come up with a fish. Though each bird always seems to be for itself and alone, very rarely being in flocks except when chasing a school of fish, yet they all disappear at once. This fall, the last day I saw them, there were thousands and thousands. The next morning not a bird was to be seen.

I did not see a Least Tern the whole fall, but a good many Black and Roseate and more large ones than ever before, either Royal or Caspian, probably. Speaking of them makes me think of a good story at the expense of our lamented John C. Cahoon, when Tern shooting was booming and a big paying business.

He was on this end of the cape and wanted to go out shooting with a Capt. Lavender, the best shot on this end of Cape Cod, if not the whole cape. He told Mr. Cahoon he was perfectly willing for him to go, "and," he continued, "I always shoot with every one and divide the birds even, no matter who shoots the most." Cahoon objected as he thought with his little 16-bore gun he would greatly out-shoot the captain. "All right," the captain said, "we will each have what we shoot." They started, the wind blowing quite a fresh breeze on shore, making it extremely difficult to shoot accurately.

Well, as I remember the record, it was forty-five birds for the captain and twenty-eight for Cahoon. The next time they shot they went even. Poor Cahoon made many friends here, was greatly liked, and will long be kindly remembered. *Fred L. Small.*

Provincetown, Mass.

Late Nesting of the Bob-white.

In the October O. & O. Mr. James B. Purdy of Plymouth, Mich., records a nest of the Bob-white found at that place on August 30, 1891. The nest contained thirteen eggs and the next day, August 31st, they were about half hatched.

Mr. Purdy wishes to know who can beat it for a late Quail's nest. I have an egg of the Bob-white in my cabinet which was collected on September 12, 1889, at Blue Rapids, Kansas, by my cousin, W. F. Hoag. The nest contained ten eggs perfectly fresh, but he drove over the nest before it was discovered and broke them all but one, which he kindly sent to me. I presume there are many who have later records of this bird breeding than either Mr. Purdy's or the one mentioned above. Let me hear from those who live where the Bob-white is an abundant breeder.

Benjamin Hoag.

Stephentown, N. Y.

The Frigate-Bird. — I see a small blue point in the heaven. Happy and serene region, which has rested in peace far above the hurricane! In that blue point, and at an elevation of ten thousand feet, royally floats a little bird with enormous pens. A gull? No; its wings are black. An eagle? No; the bird is too small. It is the little Ocean Eagle, first and chief of the winged race, and daring navigator who never furls his sails, the lord of the tempest, the scorner of all peril — the Man-of-War or Frigate-bird. We have reached the culminating point of the series commenced by the wingless bird. Here we have a bird which is virtually nothing more than wings: scarcely any body, — barely as large as that of the domestic cock, — while his prodigious pinions are fifteen feet in span. The storm bursts; he mounts to lofty heights, where he finds tranquillity. The poetic metaphor, untrue when applied to any other bird, is no exaggeration when applied to him: literally, *he sleeps upon the storm.* When he chooses to oar his way seriously, all distance vanishes: he breakfasts at the Senegal; he dines in America. — Michelet.

THE

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A Monthly Magazine of

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ESPECIALLY DEVOTED TO THE STUDY OF

BIRDS,

THEIR NESTS AND EGGS,

and to the

INTERESTS OF NATURALISTS.

Under the Editorial Management of

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Brief Notes.

During the present year we shall insert clippings from the press that we think will be of general interest to our readers. We will always give preference to notes that are sent in.

A Golden Eagle taken at Kalamazoo, Mich., New Year's day. R. F. Judson.

RATTLESNAKE PETE AND HIS PET COON.—Rattlesnake Pete has had a pet coon for the past three years that was as full of tricks as an egg is of meat. One of these tricks was to throw back the three bolts on his cage, let the other animals out, and go visiting. His favorite resort was the Exchange Hotel, where he would hide in the cellar and chase the women when they entered. On one occasion he entered the dining room and frightened the girls so they climbed on the table. He kept guard for nearly a half hour, when the girls cried for help. He performed his last trick at supper time Friday, when he chased one of the girls up the cellar stairs and caught her dress in his teeth. She drew his head through the door, slammed the door shut, and held him there until one of the other girls brought a cleaver and split his head open. The body weighed twenty-seven pounds, and the hide will be stuffed.—The Oil City Derrick.

We received a number of Snowy Owls from Minnesota early in January. The finest one of the season was purchased by Philip Laurent, one of our subscribers.

HIS TRAP CARRIED OFF BY A BUZZARD.—A boy living at Lewes missed one of his muskrat traps, the chain of which was broken, indicating that the trap had been carried away by something stronger than a muskrat. Two weeks afterward he found the trap in Russell's woods, and caught in it was a large Turkey Buzzard fastened by the leg. The trap was opened and the vulture flew away. Alongside of the bird while it was in the trap were two eels, which are supposed to have been brought to the captive by other Buzzards.—The Wilmington Morning News.

A pair of walrus tusks weighing nearly fifteen pounds was brought to us last week. Although not the largest they were of sufficient size to attract considerable attention.

ANNIHILATED IN MID-AIR.—Yesterday afternoon about 3 o'clock, just before the heavy shower, several gentlemen were sitting in front of a store in West Nashville when one of the party observed a large Turkey Buzzard that was sailing majestically across the sky, and remarked that if that Buzzard did not look out he would get wet. Their attention was thus called to the bird, and all were lazily watching its flight, when suddenly, just as it was opposite and above them, they were blinded by a flash of lightning which seemingly exploded on the back of the Buzzard. They were astonished somewhat but recovered themselves and looked for the Buzzard, but alas, the majestic bird was out of sight. All that was left of him was a few black tail feathers, which fluttered pathetically to the ground. Those who witnessed the phenomenon succeeded in catching several of the scorched feathers, which they exhibit in corroboration of the story.

The shooting season in Massachusetts is about over, and there seems to be but one verdict: "The worst on record." It is impossible to ignore the fact that game is growing scarcer each succeeding year, and there is a very strong sentiment among the gunners that game importation on a heroic scale and iron-bound protective laws are the only things to save the game bird shooting of the commonwealth from becoming a thing of the past.

The dealers are taking the matter up, and it is more than probable that they will contribute generously to the exchequer of the Massachusetts Fish and Game Protective Association. Those firms who supply cartridges, guns and other requisites for the sport realize that it will not be to their interest that the Quail and the Ruffed Grouse shall become extinct in this state.

Said Mr. C. E. Schworer of this city to a Herald reporter: "The time has come when we must import and turn out annually thousands of birds. The dealers must come to the assistance of the game protective association. I believe that it will pay our firm to do so. Instead of turning out a few hundred Quail at a time, thousands should be let loose. I am a strong believer in big 'plantings.' Instead of importing birds such

as the Arizona Quail, which may possibly not succeed in Massachusetts, and which at any rate are costly to maintain, would it not be better to get Quail from Carolina that we know will give satisfaction, and at any rate can be got for far less money? The great need of the M. F. G. P. A. has been money, but I believe that subscriptions will in future flow in with much greater freedom, as sportsmen are now beginning to realize the grand work it is doing in their behalf.

"In my opinion every man who handles gun and dog in Massachusetts should send in a donation of at least $5 a year to the association. It would prove money well invested. A first-class gun costs from $150 to $250, a broken dog is worth a large sum, then ammunition is not given away, and when to these items are added the value of time taken from business and actual travelling expenses, it will be readily seen that $5 to guarantee something at which to shoot is but a trifling consideration."—Boston Herald.

A party in Montana offers us a tame Rocky Mountain sheep. He writes regarding it that it is kept tied as it can jump a twenty-foot fence easily.

To Fricassee Pigeons.—Cut two pigeons into pieces, and wash and clean them well, and put them into a stewpan with a pint of water and the same of claret, season it with pepper and salt, a blade of mace, one onion, a bunch of sweet herbs and an ounce and a half of butter rolled in flour; cover the stewpan closely, and let them stew until there is just enough for the sauce; then take out the onion and the herbs and place the pieces of pigeon on a dish and keep them hot; beat the yolks of three eggs and stir them into the gravy until it is thick and smooth; then put in the pigeon and shake all together over the fire; put the pieces of pigeon into a dish and pour the sauce over them; scatter some fried oysters over the top and lay slices of toasted bacon around.

Pigeon Compote.—Truss six young pigeons, as for boiling, and fill their craws with forcemeat, lard them down the breasts, and fry brown in butter, then put them into a stewpan with a sufficient quantity of good gravy, and when they have stewed three-quarters of an hour thicken it with a piece of butter rolled in flour: serve with the gravy strained over them, and garnish them with forcemeat balls.

May 10, 1891, at Fayette County, Ga., the nest of *Columba carolinensis* was taken. It was located in a black gum tree, ten feet up. It contained three eggs, which is unusual. The nest was composed of pine needles and grass. This species is very common throughout the southern states. They begin nesting the latter part of March. Glen. B. Wynn.

Before the society of American Ornithologists a paper was read recently on "Why the Mocking Birds left New Jersey." The New York Tribune lays it to the fact that the mosquitoes crowded them off the perch.

AN ANTIQUATED ADAGE.

"Shoot folly as it flies," said Pope;
But in these latter days
'Tis better far to let it fly,
And shoot it when it stays.
—Post.

Folly is a bit of game which evidently was in existence at the time of Pope, and has survived the attacks of the dude-sportsmen since. There is plenty of this kind of game left for them to shoot at as is well shown by the acts of these gentry at this day. They will not harm anything.

A cow moose so gentle that the children can play with it, and that it is allowed to run about with the cattle, has been offered for sale to us.

The Mexican hairless dog whose epidermis is to be transferred to a man's arm believes that it is a skin game.—Boston News.

The Sportsman and Tourist, Jamaica Plain, Mass., (a forty-page magazine devoted to sportsmen and tourists and pleasure seekers). Subscription rate has been reduced to $1.00 per annum. We now offer it in connection with the O. & O. for $1.50 for the two magazines.

To Separate Fighting Dogs.—Apply to the nostrils a pinch of snuff or pepper, or a handkerchief wet with ammonia.

Large flocks of wild ducks have been going over Niagara Falls for the last week. The birds have been gathering in large numbers above the falls for two or three weeks past. They float out and down the river until they are caught in the rapids and are whirled along over the brink. Those that are not killed are stunned and seem bewildered. The largest bags of this game were made the other night, when a dozen men picked up some four hundred in the river below the falls. The game is shipped to Eastern markets.

Parrots Dangerous.—One day, when this parrot's mistress was very busy, and did not care to see callers, she happened to look out of the window, and saw an acquaintance approaching the house.

"*There comes Mrs. B. Dear, dear!*" she said in a tone of impatience.

A moment later, Mrs. B. was ushered in. On the instant Polly exclaimed, with a remarkable imitation of her mistress's tone and emphasis,

"*There comes Mrs. B. Dear, dear!*"

The number of wild ducks which are seen in Charles River this season since cold weather began is said to exceed all previous seasons. —Boston Transcript.

This is within city limits.

American Quail are being introduced into China, for the benefit of American and English sportsmen. — Herald.

There are said to be about fifty buffaloes left in Wyoming. — Herald.

Related to the Dodo.—The insect house at the Zoological Gardens contains an interesting little bird which might be easily passed over by the visitor on account of its resem-

blance to an ordinary pigeon. This resemblance is in no way deceptive, for it is a pigeon which has acquired a certain amount of fame, or rather notoriety, on account of its near relationship to the Dodo. This kinship has not, however, been admitted by recent authorities, and so the name Didunculus has been got by false pretences, although the alliance claimed for the bird is by no means a noble one. But this little pigeon is interesting for the ingenious way in which it has defeated the machinations of that enemy of the bird tribe, the cat. Didunculus lives in Samoa, where there were originally, of course, no cats. These were introduced, and made short work with the Manumea, as the natives call the bird, killing not only the adult, but the chicks in the nest. Owing to its habit of nesting upon the ground the bird nearly became extinct; suddenly, however, it took to building its nest upon the tree tops, where it could bring up its young ones in peace, and since that time the bird has again become fairly plentiful. — London Daily News.

Mr. R. H. White, Jr., of Boston, has brought in for our inspection a new book of record for birds' skins and eggs, made for his own use. The first includes all the points of measurement on one column at left of the page (ten items); a column at other side for other items of usual interest, and space for remarks in centre of page, the whole bound in a book. The egg record is equally complete. Mr. White is taking great interest in ornithology at present, and bids fair to become one of the shining lights in the science, if he continues as he has begun.

A CURIOUS CANARY. — A childless couple up town expend most of their sympathies on a canary bird which is a crank on the feather question. The little fellow, who is seven years old, has always had an aversion to his natural dress, and has industriously pulled out every feather he could reach. The result is that he has now a smooth, shiny skin which looks like polished parchment, two or three lonely tail feathers, and a trifle of plumage on his head and neck. In summer he is all right, but the cold of winter bothers him. As soon as frost comes he is clad in a warm flannel jacket, which he admires immensely. At night he lies down on a bed of cotton batting, submits quietly to be covered up, and sleeps there contentedly till morning. If the cold becomes too severe, he calls out until he is taken out of the cage and put in bed with his mistress, to whom he cuddles up eagerly for warmth. — New York Sun.

One of our contemporaries, in the January issue, presents a beautifully colored plate of what we should call the Audubon's Warbler. Owing to some peculiar phase of plumage it flits under other colors.

HOW SERPENTS MOVE. — King Solomon acknowledged that there were "three things which are too wonderful for me — yea, four which I know not," and one of these was "the way of a serpent upon a rock." For hundreds of years after the time of Solomon the snake's mode of progression remained a mystery. Latter day men of science have learned that his snakeship's ribs furnish him with a means of progression. So, instead of having a pair or two pairs of "feet," they really have from one hundred and fifty to two hundred pairs. Aristotle thought that serpents had as many ribs as there are days in a month, but had he examined a python he would have readily detected his mistake, that species having four hundred. Snakes move in this way: Each vertebra supports a pair of ribs, which act like a pair of legs, the extremities being connected by a broad plate. The hind part of this plate is free, and when the ribs are moved forward that end is raised, so that it takes hold of the surface underneath, even though it be glass, the straightening of the reptile propelling it forward. — Dover (N. H.) Star.

Ornithologists tell us that when feeding, the stride of the ostrich is from 20 to 22 inches; when walking but not feeding, 26 inches, and when terrified 11½ to 14 feet, or at the rate of about 25 miles an hour. — Clipping.

But very few Snowy Owls have been reported in New England this winter. The usual number of Barred Owls are also wanting. The unusual mildness of the season we think unquestionably accounts for it.

WOOD WORMS CAN'T STAND BENZINE. — Wood worms can be destroyed in books and woodwork by benzine. Books are locked up in a cupboard with a saucer of benzine. The insects, as well as their larvæ and eggs, soon die off. Furniture and carvings are similarly placed in a room with a dish of benzine and kept closed up for several weeks, the time required for the complete destruction of the insects varying according to the thickness of the wood. New wood-work can be protected against their entry by a coating of glue, as, living on vegetable substances, they do not touch animal products. — New York Journal.

Dr. Sheldon Jackson is trying to stock Alaska with Siberian Reindeer. It's a pity he couldn't import some of the exiles at the same time. — Post.

NO CELEBRATION. — Uncle Rastus: "I'se afeard I ain't goin' ter hab no turkey fer mah Thanksgivin' dis year."

Hooks: "Why not Uncle Rastus? Are the prices too high for you?"

Uncle Rastus: "No, sah; but de fences is." — Life.

We read recently of a fox being caught and held by a barbed wire fence until some hunters came up and captured the animal. His bushy tail had in some way become entangled in barbs and it was more certain in its grip than a steel trap. Last Friday while Will M. Small was out hunting he noticed something peculiar fluttering from the top rail of a barbed wire fence between the Highlands and North Truro. On going up to investigate he discovered a large owl of the "Long-eared" species, se-

curely fastened to one of the sharp wire barbs and dead. The bird had evidently been there several days, and suffered a slow torture. One of the wires had gone entirely through between the bones and cords of the wing near the body and pinioned him with a grip of death. A very peculiar trap surely.

We have received two fine skins of the Newfoundland Caribou, both bucks with fine antlers, and suitable for mounting. The antlers are much heavier than those that we have from other sections in the East.

Any person having information in their possession relating to the first arrival of the following species in Newfoundland, Labrador, Cape Breton Island, Prince Edward Island, Magdalens, Nova Scotia, New Brunswick, Grand Manan, Maine, Province of Quebec, or Manitoba, for the spring of 1885, will confer a great favor by communicating the same to Harry Gordon White, Department of Agriculture, Washington: Robin, Bluebird, Baltimore Oriole, Catbird, Summer or Yellow Warbler, and Yellow-billed Cuckoo.

Extinction of the Giraffe.—The giraffe is in danger of extinction. Ten years ago herds of seventy or eighty could be found, where to-day thirteen would be a large herd. An African chieftain, however, Khama, has taken the giraffe under his protection and preserves it, just as the czar of Russia has preserved in a forest of Lithuania the European bison from extinction.—Clipping.

It Makes a Difference.—Wife: "My dear, that horrid man next door has killed the dog."

Husband: "Well, never mind, my dear, I'll get you another one some time."

Wife: "But it wasn't my Fido that he killed: it was your hunting dog."

Husband (wildly): "Where is my gun?" — N. Y. Herald.

W. E. Clyde Todd, Washington, D. C. (Division Ornithology Department of Agriculture) wrote us a few days since requesting the names of our subscribers who resided in Pennsylvania. The list was sent to him and in return he very kindly sent us quite a list of ornithologists in the state who were not included. Should this reach the eye of any ornithologist it might be of assistance to Mr. Todd if they would drop him a postal giving their address.

Much discussion was evoked sometime since by the question of the change of plumage by the Mallard Drake. Mr. Geo. E. Boardman, a veteran naturalist and a careful observer, on a recent visit to our office, stated that the ♂ Mallard loses its green head every season about May, and resumes it again in the fall. In the interim it does not particularly resemble the ♀ as it has the green wing-patch, and the curled tail, with a sort of mottled gray plumage. Mr. Boardman has shot this bird in New England and in the West at all seasons of the year, and is positive whereof he speaks. It is somewhat curious that this fact has so long been hidden from the ken of the run of collectors if it has been known.

No Longer Tabooed. — There was a time when peacock's feathers were tabooed because considered too unlucky to be admitted to the house. Now my lady is not at all up to the mode if she has no screen of the vain bird's plumage in her boudoir. Not only that, but she ties the unlucky plumage about her neck for a boa, fringes her garments with the glossy feathers, and even sets them against the warmth of her fair shoulders in the neck of her evening bodice. — Boston Globe.

All birds seem to have an instinctive knowledge that if they once surrender to the force of the wind and allow themselves to drift like leaves, there are unknown dangers in store for them. They will hardly ever do so except to escape pursuit, and then only for a few minutes, when their pace is so marvellously rapid that, in the case of land birds, a few minutes is sufficient to carry them out of the district they know into others from which they will perhaps never be able to find their way back to the fields which are their native home. — Science.

A woman in Indiana has gone to eating dog to cure consumption. Probably the medicinal quality is in the bark. — Post.

A Pelican's Pouch. — In Gray's Harbor, Wash., the Pelican is a common sight. Capt. Bergman, of the steamer Typhoon, shot two of the birds the other day, and, in order to find out how much water the pouch of this bird would hold, he cut off the head of one of them and tied a string tightly about the neck. Water from a faucet was allowed to flow in, and when the pouch was filled it contained six gallons. — Dover (N. H.) Star.

The United States Government now issues ♂ & ♀ Postal Cards.

December and May. — The old man who marries the "dear little duck" usually gets "henpecked," and acknowledges himself an "old goose." — New York Herald.

Wanted.—A copy of Minot's Land and Game Birds. Will give satisfactory exchange or will pay cash, if price is not too high. Frank A. Bates, care of O. & O.

TACKING.

'Neath tropic suns and arctic seas
He gaily sailed a whaler;
And when he wished for exercise
He gaily whaled a sailor.

—Clipping.

Mistook a Snake for a Fence Rail.—Joseph Graham of Jones district had fed his hogs the other morning and was leaning on the fence looking at them eat, when he felt something chilly fondling and caressing him in a peculiarly earnest way about the head, face and neck. He saw at once that he had placed his elbow about midway on the body of a king snake, several feet long, and was holding him fast down on the rail, and, as you would suppose, both ends of the snake being loose, they cut up vigorous and rapid capers about Mr. Graham's countenance. Mr. Graham says he took his elbow off as soon as he found that the snake did not want it to stay on.

A happy New Year to you all.

Correspondence.

Editor of O. & O.:

The Massachusetts Society for the Protection of Game has lately been introducing game-birds into the state, and have stocked some muchly depleted sections with Bob-white, Sharp-tailed and Pinnated Grouse and Gambel's Partridge. A member of the committee has now at his place in our market a consignment of eleven English Partridges, imported for a friend in Oregon. This fact prompts the Boston Herald to say that "There is little doubt that they will find the climate suitable to their needs. It seems, however, risky to import so small a number. In stocking a ground with game or a stream with fish it is always safest to rely upon a good-sized planting rather than upon a few individuals. Game propagation is becoming quite the rage with sportsmen, and is a relief after the slaughter that has been going on all over North America for the last twenty-five years. 'Unless game is planted and protected the next generation may take to billiards or skittles or some other harmless recreation, but there will be but little use for either scatter-gun or rifle.'" The scribe of your neighbor little presumed, I think, of what he was writing, and how much his words meant in the last sentence of his paragraph. And how true it is that so many birds are destroyed by sportsmen (?) that the country has to be restocked. And yet "The Sportsman" is allowed a few months in each year when he can slaughter at his pleasure all the "game-birds" that he chooses. Good! Why should not the "Naturalist" also have an open season when he can shoot a few birds? And he will not point with pride at a string of "twenty quail, all taken on the wing, in one day"; and not one collector in a hundred would shoot over four or five birds of a kind, and there are not so many "bird cranks" as there are "game gunners." Oh, no, it is the fad that the birds must be *protected*, and providing that a certain class has not money to procure the necessary legislation or make themselves feared among those who control the laws and rules of conduct, they must take a back seat and wait their turn. *B.*

Editor O. & O.:

The birds looked for at this time of year seem to come very slowly. For instance, at this time one year ago the harbor and bay were almost alive with such birds as American Golden Eye (*Glaucionetta clangula americana*). I suppose I must give the Latin name or some scientific crank will take me to task for not writing something that common people cannot read, so I give it. At the same time the local name may be as good as any, so here it is,—"Whistler." Red-breasted Merganser (*Merganser serrator*), American Merganser (*Merganser americanus*), — these last two are both known as Sheldrakes, and at times, to define them, spring and winter Sheldrakes. Long-tailed Duck, "Old Squaw" (*Clangula hyemalis*). American Eider, "Black and White Sea Duck" (*Somateria dresseri*). Besides these there were Puffins, Little Auks, Grebes, Looms, Guillemots and others. As yet they are very scarce. *Frederic L. Small.*

Provincetown, Mass.

Editor of O. & O.:

Upon first arriving at Guilford College, about two months ago, I was struck with what, to me, was the seeming scarcity of bird life, but I soon located this scarcity as being principally among the aquatic birds, there being no bodies of water of much size within several miles of here, while in Florida where I had spent the past nine years there are lakes and ponds innumerable, furnishing homes and feeding grounds for thousands of water birds; so naturally I was a little disappointed in finding them here in such small numbers.

At this place, located as it is, midway between the mountains and the coast, with no rivers close, the field could not be expected to furnish much of a variety of birds. However, I have observed Chickadees, Robins, Grosbeaks, Quails, and many other common varieties; Carolina Wrens are quite numerous, as are also Turkey Vultures, Red-eyed Vireos, Sparrows, and Hairy Woodpeckers; have seen Cooper's Hawks, Waxwing, one Wood Duck (dead), Pileated Woodpecker, and on October 13th watched a Bald Eagle as he flew over, going south. This is the only Eagle I have seen, and, from what I hear, I suppose they are not very common in this locality.

Have learned of some Wild Turkeys within a few miles of here; am to investigate it soon.

T. G. Pearson.

Asst. Curator of College Museum, Guilford College, N. C.

Editor of O. & O.:

The December issue of the O. & O. has just received my careful attention, and find it replete with customary information and points of interest.

I congratulate its management upon the successful termination of the sixteenth volume, and doubt not future numbers of the little journal will be quite as indispensable to the ornithologist as well as those interested in other branches familiar to the naturalist. I heartily concur with the views expressed in one of the December editorials to the effect that the ORNITHOLOGIST AND OÖLOGIST should not be "exclusively scientific," but that its columns should be open to other branches of natural history and "items that make us smile." This latter brings the reader into close sympathy with the author and renders the features of the paper more susceptible of general interest, while many subjects treated will of their own nature require the introduction of sufficient scientific matter to please those whose tastes run in that direction.

I have recently mounted an Albino Blue Jay and would be glad to know if any readers of the O. & O. ever came across one of the kind. This specimen is of a rich cream color and I regard it quite an acquisition to my collection. I have also mounted several white squirrels killed in this neighborhood.

Was much amused at a case of mistaken identity which occurred Wednesday night in my poultry yard. A hunter having "tipped the wing" of a large Bald Eagle sent the bird to me to be mounted. As its wounded wing just barely prevented its flying at the time, and appeared to be healing so rapidly, the unfortunate bird was placed in an ordinary hen coop, fed and given a little longer lease of life. But night before last some unknown genius visited the chicken yard in question and adroitly untwisted the wire fastening on the door of the coop. In this was quietly perched the eagle — in full feathers and war paint,— no doubt dreaming of freedom or the honor the American people put upon his tribe by placing him upon a ten-dollar gold piece and then giving it his name. He was then and there snatched from his only pinnacle of fame and forthwith entered a vigorous protest. American bird, he believed in civil and social rights and did not intend to be handicapped by the rough hand of oppression without making his power known. The night was dark. . . . . Morning's gray dawn visited the poultry yard and disclosed the meaning of the situation. The proud bird was still master and enjoying the liberties of a large yard, out of which he had evidently not tried to make his escape. He returned quietly to his throne in the coop and seemed chagrined to have been mistaken for the most timid of birds,— a common turkey.

It would be interesting to know the other side of the case. Mr. Snatchem Atnight no doubt was chuckling to himself when he found nothing but a wire fastening on the door— easily removed. He felt a magnificent specimen of fowl, and his mouth watered at the prospect of a turkey dinner for Christmas day. But was it the "old boy" in a feathery suit and a forked tongue that he was gently proposing to remove, which lacerated his hands and stamped upon his mind indelibly the eighth commandment?

J. E. Taylor.

Easton, Md.

[Some three years since we had an Albino Blue Jay, white as a bird could be. On the wings a faint tracing in white could be seen of the usual markings.—ED.]

New Publications.

Fremde Eier im Nest. Another Bird's Egg in the Nest.

The above is the title of a unique work recently published by Paul Leverkuhn, C. M., A. O. U., C. M. Z. S., etc., of Munich, and offered to American collectors through his agent, A. E. Pettit, 15 Cortlandt street, New York. A handsome volume printed on super calendared paper and bound in antique paper. The author, well known in Germany as an ornithologist, discusses what is to us a somewhat novel ornithological subject: the behavior of parent birds against eggs not deposited by themselves in their nest, but introduced by other birds of the same species or another one, or by men. He gives a mass of detail under each head of the four divisions, into which he divided his theme, and he takes from the American literature which he knows in a surprising manner. All little journals are searched and investigated. Our brother ornithologists in Europe spoke in the highest pride and acknowledgment of the work, and in the Edinburgh newspaper, the *Scotsman*, writes in his review of books: "Mr. Paul Leverkuhn has studied the matter with a care that goes to the ground of it and seems to leave nothing to be done by a successor." Similar criticisms appeared in the *Ibis*, *Zool. Garden*, *Ornith. Monthly*, *Nature*, *Feathered World*, *Helios* and many other periodicals. We would recommend this volume as a valuable addition to

any library. The copies sent here are not for profit but simply to gain an entry into the libraries of our American ornithologists.

Many a diamond is hidden beneath a rough crust, but how much better when we can see the beauties without digging it out from beneath the rude exterior. Many worthy articles are consigned to the waste basket by the remorseless editor, because their beauties are hidden beneath uncouth wording, poor diction, and worse punctuation: and if said editor happens to have a "sore head" he will not bother to pick out the diamonds from the gravel which encumbers them.

We have had handed to us a little book by Kellogg & Reed on the English Language, which would enable many of the parties from whom emanate these encrusted gems to crack off the crust and so often save the jewels. It gives the various grammatical changes with prefixes, suffixes and synonyms, in short concise language. It cannot be learned in a day, and new beauties develop with each examination. Published by Effingham, Maynard & Co., N. Y. H. I. Smith, of Boston, is the New England representative of the firm.

Naturalists are too prone, as a general thing, to turn the study of nature into a matter-of-fact channel, and dwelling more on the peculiarities of their plumage and its variations than upon their habits as seen by him who goes into their homes and becomes one of their brotherhood.

About ten years ago Wilson Flagg got out a book through a prominent Boston publisher, on "A Year with the Birds," but it never sold, although it was a good treatment of the home-life of our feathered friends. It has now been taken in hand by the Educational Publishing Co., and brought out as a text book for school use.

The author did his part passably well, for although some of his remarks are not above criticism he has made a very readable book.

The publishers, however, have shown that they were not ornithologists, or if they were, they have not collated wisely, nor chosen well, for on page 38, among Birds of the Garden and Orchard is shown a reproduction of an old English cut of a group of Sparrows; very well, but it is among descriptions of Vireos and birds of that ilk, and not a word of our alien friend, *Passer domesticus*. He might well be admitted here, although he does not fraternize well with the Vireo, and through no fault of his; but our friend of the hanging nest loves better the depths of the forest than the eternal chatter of his English cousin. On page 63, commences an excellent description of the habits of our own Robin Redbreast, and is preceded by a full-page illustration of what purports to be the English Robin. Now our bird is not a Robin at all, but a Thrush, while the European bird is nearer allied to our Wagtails, although the illustration is nearer like a Wren. The author has done a very commendable deed on page 68, where he inveighs very strongly against the metamorphosis of nomenclature.

It may seem an odd subject to place before a youthful archer, shooting for ideas, but it does seem well to inculcate in the minds of the young a firm contempt of the closet naturalists who would give us a new list every few years, each entirely different from the others, until no one knows where he stands.

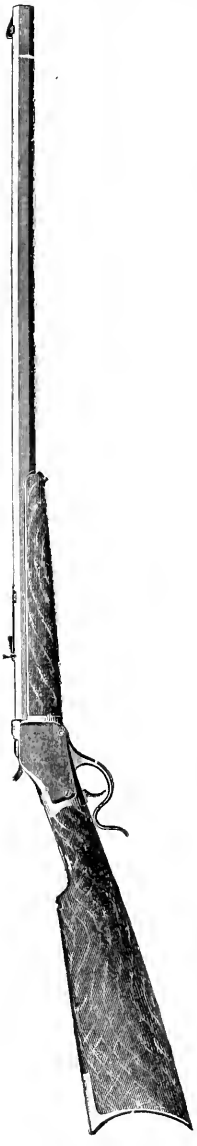
That the author was a well read man is easily seen, and he generally gives credit for his extracts. On the whole, it is a very good sort of a book for the youthful mind. [A Year with the Birds. 12 mo., 317 pp. Illustrated. Educational Publishing Co., Boston.]

In our November issue we noted the speedy advent of a new work on *Rifles* by Mr. A. C. Gould, which it was hoped would give to the shooting public, information for which it has long been hungering. How many sportsmen or even working naturalists, were they called upon suddenly to select a new rifle for personal use, at the beginning of an unexpected trip to new grounds, would be able intelligently to select an arm which they would be able to use to their satisfaction in the days to come?

Ornithological collectors, especially those who take long trips, often find themselves in positions where their shot-gun is, for the time being, practically useless, as, for instance, when lying on the edge of a cliff, with a beautiful Glaucous Gull resting on the water just out of the range of their gun, and this sight occurs day after day. "My kingdom for a rifle!" but alas, the bird is safe for all that the collector is able to do, and he swears that he will have a rifle as soon as he steps foot in a gun-store. When that delectable day comes he is in a quandary as to what gun he shall choose. He wants an arm that will carry and kill, and he cannot encumber himself with a pound more weight than is absolutely necessary, and swaying between Scylla and Charybdis of the various patterns he chooses at

random, and generally wishes afterwards that he had taken some other; and his cry then is, "If I had only had some guide to follow which would enable me to choose intelligently!"

Mr. Gould, editor of one of the standard sportsmen's periodicals of the day, a sportsman himself, an earnest lover of his rifle, and a naturalist of no mean grade, combining a knowledge of what is wanted with a twenty-five years' experience in the use of this form of arm, now tells us what he knows about the subject, and in such a manner as to interest the reader, while he is learning the lesson.



WINCHESTER SINGLE SHOT .25 CAL. RIFLE.

He commences with the principles of a rifle, and tells us of their mode of manufacture and the various parts of it, with comments on the advisability of the various patterns and sections, the sights in their infinite variety; and I note that he advocates the Lyman sight for a hunting rifle, while showing where in it is at fault, —a difficult task in such a subject, where personal likes and dislikes are apt to overweigh the desire to judge impartially, for in no point is a rifleman so cranky as in his advocacy of his favorite sight.

Descriptions of various makes of the arm follow, classified by their adaptability to either practical use (hunting) or play (target-work), and he appends to this, positions and notes on aiming, holding and firing, which may be studied to advantage by even those experienced in the use of the rifle.

There is a demand for a rifle for the ornithological collector, and I gather that Mr. Gould intends to speak a good word for the new .25 caliber for light shooting. It has a flat trajectory, which is a matter of vital importance, for the places which demand a rifle in our work are those where it is exceedingly difficult to judge of distance, and the high trajectory of the .22 and .32 caliber will cause one to often overshoot, and the .32 caliber has too much smashing power. This .25 caliber is the result of years of study by Mr. Gould and other prominent riflemen, and is a golden mean between the two. This is furnished by two different makers, but the advantage of the Winchester arm over any other is too obvious to admit of any argument on that subject, and the cost is much less (I believe about $15.00). This is not an advertisement for the Winchester company but the honest opinion of the writer, who has tried many of the different forms, and got the opinion of many others interested in Natural History.

The section on target work is out of our province, but is as complete as the rest of the work, and worthy of attention, since practice at a target is a good preliminary to work in the field.

While Mr. Gould has not, probably, written without stirring up someone's old grievances, and laid himself open to criticism in some of his judgments, he has accomplished what no man yet has, and that is, furnished to the public a work on the American rifle which will be a manual to the rifleman and the textbook of the learner for years to come.

Nothing appeals more to the reader than a good illustration of what the writer is talking about, and in this respect there is nothing wanting, as there are over 200 illustrations of various models of guns and their parts, positions, targets, tools and other accessories.

[*Modern American Rifles*, by A. C. Gould (Ralph Greenwood) editor of *Shooting and Fishing*. Boston. Bradlee Whidden. 1 vol. royal 8vo., cloth, price $2.00.]

A Late Date for the Pewee.

While taking an outing in the vicinity of Washington, D. C., (Four-mile Run, Va.,) on Sunday, December 13th, I saw a solitary Pewee (*Sayornis phabe*). I am informed that is a late date for this species to be found in this vicinity.

Harry Gordon White.

Washington, D. C.

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—AND—
OÖLOGIST.

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Notes from Michigan.

No branch of natural history is more interesting than ornithology and oölogy. The note-book and field-glass are the only articles necessary to study the habits of our birds. True, to secure specimens for scientific purposes, the gun is required, but here the trouble arises, — they carry it too far. I was examining the cabinet of a friend the other day and counted twenty-five skins of the Song Sparrow, thirty of the Robin, and a large number of other common species. Is it any wonder our birds are becoming scarcer every year? As a writer has said, "The system of thoughtless butchery is similar in its results to that of killing the goose that laid the golden egg." I refer more particularly to the beginners, though many of the more advanced students are always ready to shoot every rare bird they meet (made so by their own recklessness, as is often the case), although they may have a dozen or more of the same; but it is not my intention here to defend our feathered friends, but to give a few extracts from my note-book, taken in this vicinity.

Local matter has but little interest to many except in the district represented; but there are some who do take pleasure in perusing such manuscript for the knowledge it affords of the range and abundance of many species; to these the following is respectfully submitted.

I have lately seen a mounted Gyrfalcon, which was shot in Mackinaw County; and have just returned (January 16th) from a week's stay on Horsen's Island, St. Clair County. The last month has been extremely mild. A snake was observed on Christmas day (the party who saw it is a prohibitionist). Found the following birds most common during my stay on the island: Tree Sparrow, Snowflake, Siskins, Chickadee, Downy Woodpecker, White-breasted Nuthatch, Blue Jay, Marsh Hawk and Kittiwake Gulls. The Marsh Hawks could be seen at all times flying silently over their hunting grounds. I believe they utter their not very agreeable cry in the mating season only, at least that is the only time I ever heard it. The males can be easily identified while on the wing by the white patch on the rump, and the females by their light-colored plumage. Saw a flock of twelve Meadow Larks singing merrily in a field (all forgetful of what is yet to come), and a Song Sparrow in the bushes on the bank of North Channel. He was very tame, and I approached quite close to him, so there can be no mistake in identity. The Meadow Lark is found in the marshes here throughout the winter. Caught a green frog and saw a few Red-shouldered Hawks and Northern Shrikes; also a dead Red-headed Woodpecker. Noticed several flocks of the Scaup Duck on the waters of South Channel. Red squirrels and rabbits were abundant. Caught a White-footed Deer Mouse.

I have often, while rambling through the woods in spring, been disappointed after a tedious climb to a Hawk's or Owl's nest to find it the home of this mouse. Flushed a Short-eared Owl from a musk-rat house in the marsh. He is very common in fall and winter, but has never, to my knowledge, been observed in summer. He is diurnal in his habits to some extent; have seen several hawking for mice at mid-day. Found a dead one last October hanging from a joist in a barn.

The Short-ear on his arrival in October is rather unsuspicious, but persecution makes him wild and wary and he soon defies the most skilful efforts of the collector to approach nearer than rifle range.

Jan. 25. Went out along the river in Ecorce township. The first bird seen was a Rusty Blackbird, that arose from the reeds, flew a short distance and lit again. It flew with difficulty and was doubtless a wounded specimen that had been unable to make the migration

south with the rest of his kin. Shot it, but the reeds were so thick that it could not be found. Nothing seen on the river but floating ice and a large Herring Gull. Crossed the marshes to the woods, and on the way saw a flock of Tree Sparrows, out of which we shot several, and a Prairie Horned Lark.

Feb. 12. Day stormy. Went out to Highland Park. Only saw two White-breasted Nuthatches. This bird is common here throughout the year. The only nest I ever found was in a decayed tree stump in the most uninviting and gloomy part of a large woods. The eggs, seven in number, were of a handsome white color, covered thickly with fine spots of light brown. It is called Sapsucker here, as it is said to bore holes in trees and suck the sap as it oozes out. Now if it does bore into trees while feeding (a thing I have never seen it do), it is probably to secure insects concealed in the wood. It is a very restless and active little bird and for boldness and sauciness is rivalled only by the Chickadee, often allowing the observer to approach within a few feet of it.

Feb. 15. Saw a Brown Creeper on a maple tree in the city to-day. I have often seen it climbing in a spiral course up the trunk of a tree, stopping now and then to peep into a crevice in the bark for insects, until it reaches the top, then flit to the base of another, up which it goes in a similar manner; but approach it while it is thus engaged and it will slip quietly around the trunk, but if you remain perfectly still a little head and breast is soon seen peering anxiously around the bark, and soon the bird will resume its progress. In this respect it reminds one of the Red-headed Woodpecker.

March 17. Saw a Marsh Hawk flying northward. Shot a Chipping Sparrow and two Bluebirds. Large numbers of Crows have arrived during the week and are to be found in nearly every woods or field. Heard the scream of a Red-shouldered Hawk.

March 27. A small bird wave arrived during the week, consisting mostly of Robins, Meadow Larks and Juncos. The Meadow Larks are numerous in the open fields, while the Robins prefer the swamps and damp woods. Saw a pair of Sparrow Hawks. Noticed some Crows chasing a large Hawk (probably a Red-tail). One would poise itself on its wings for a few seconds then dart suddenly downward, almost touching the back of the bird of prey. Found a Bluebird's nest in a fence-post that had escaped my notice last year.

April 7. Saw a White-rumped Shrike to-day. This bird can often be seen flying about trees and hedges in search of nestlings or insects, or perched on the top of a thorn-apple tree, its head turning restlessly from side to side and its eyes glancing in every direction, watching every blade of grass and dropping with unerring aim upon any field mouse that has been so unwise as to show himself. All the nests found of this shrike were placed in oak trees, generally not over twelve feet from the ground. They were large, rather bulky and clumsy and easily seen by any person standing under the tree. He has well been termed the Butcher bird. Not only does he kill enough meat to supply his wants, but seems to delight in slaughtering and impaling upon thorns all he can catch, eating only their brains and leaving their bodies to decay.

April 9. Saw seven Purple Martins.

April 14. Found a nest of the Red-shouldered Hawk containing one egg and a nest of the Crow containing two eggs.

April 16. Saw a Broad-winged Hawk sitting in a tree near the edge of a thick piece of timber. My presence did not disturb him in the least, and after watching him a few minutes I passed on, leaving him sitting in the same place and cleaning his feathers in the most contented manner imaginable.

April 21. At 9.30 found the first nest of the day (a Red-shouldered Hawk) in a large beech tree. Took two eggs of this species out of it last year, and a pair of Hawks have taken possession of it this season; but up to the present date no eggs have been deposited. About a quarter of a mile west of this, in a woods known as Highland Park, secured one Red-shouldered Hawk's egg from a nest placed in the main fork of a large elm. My brother found the nest on April 14th. It then contained two eggs; these he took and substituted hen's eggs. Had not proceeded far from here when my attention was attracted to a hole in an old rotten stump by seeing two Bluebirds fluttering around it. Looked in and saw a nest composed of fine grass. I put my hand in and drew it out, but it was immediately followed by a flying squirrel that made for the nearest tree, up which she scrambled, closely pursued by the Bluebirds. The nest contained three young squirrels about one week old. Before leaving the timber, visited a nest of the American Crow and Red-shouldered Hawk. From the Crow's nest took five eggs and the Hawk's two. My brother secured five Crow's eggs and three of the American Robin.

April 22. Found two Crows' nests near Windsor, Ont. They were situated nearer the ground than any found during the last two seasons; also a nest of the Red-shouldered Hawk containing three highly colored eggs. The bird is not very particular in his choice of a nesting tree, especially if it be in thick woods. This nest was placed in the thickest portion of a scrub oak forest and about eighteen feet from the ground. He is less daring as a robber of the poultry yard than most large Hawks, and I have often seen him sail serenely over a number of chickens in an open field, without apparently noticing them, and of the stomachs of five specimens shot here not one contained fowl of any description. It seems to me his flight is less sluggish and more graceful than the Red-tail.

April 30. Two friends and myself went collecting north of the city. The first nest taken was one of the Robin containing four fresh eggs. Near it we secured another set of three. Walked about a mile farther and found a Pewee's nest with one egg in it; also (in a large woods) four young Crows and one egg, out of which another tiny Crow was fast making his exit.

May 2. Day bright and warm; not a cloud obscures the sky. Reminds me very forcibly of the 10th of March two years ago. It was one of those clear, bracing spring days when nature seems to have at last slipped from the icy embrace of grim old winter and extended a friendly hand to warm, showery April; when the Bluebird can be heard twittering merrily from the fence-post, and the Song Sparrow mounts a convenient brush-pile and pours forth his joyful song of welcome. I could not resist the temptation of spending such a day in the woods, so with note-book and shot gun I started out, promising to secure a few specimens for a friend. Bluebirds and Meadow Larks were abundant. As I sat in the corner of an old snake fence, enjoying everything in general and beating a tattoo with my feet, my attention was directed upwards by the screams of a Red-shouldered Hawk. A small army of these birds were sailing about most majestically. Suddenly one (doubtless a scout, sent out to reconnoitre) descended until he was on a level with the tree tops, then, apparently satisfied, ascended in a spiral manner and soon joined the others. I proceeded on my way and pushed into a thicket of dwarf oaks. A Great Horned Owl flew by quite close to me and lit on a tree some distance ahead. The light, downy nature of his plumage made his progress through the air so noiseless that, were it not for the shadow his form cast on the ground and the screams of several pursuing Blue Jays, I would not have seen him. The Jays attacked his Owlship on all sides, screaming furiously, and seemed in no way to relish the intrusion of the twilight king into their society. An Owl on the wing reminds one of a bunch of down conveyed through the air by the wind. Found a Long-eared Owl's nest situated not five feet from the ground.

Last year about the middle of May I was passing through a swampy woods of second growth timber when I came unexpectedly upon a nest placed on the top of an oak stump ten feet from the ground, and surrounded with a luxuriant growth of wild grape-vines, to which a bunch of down clung here and there and all over the nest. "An Owl's nest!" I exclaimed, and hardly were the words out of my mouth when a bird left it, flew about a hundred feet and uttered the barking scream of the Long-eared Owl. The nest was rather difficult to get at, owing to the thickly interwoven grape-vines, but my labor was rewarded by the sight of four eggs and one Owlet which had just come into this cruel, deceitful world of ours. In going and coming from collecting tramps I often stopped to have a look at my four tiny Raptores, that sat up so awkwardly in the nest and took bits of meat from my fingers, until it seemed as though their little crops would burst, and the mother, at first wild and wary, gradually became bolder, until at last she would sit on a bough not ten feet from my head and watch proceedings with evident interest and without showing any signs of uneasiness. Some time after they left the nest I found them bunched together in a tamarack tree, by the excrement on the ground beneath, but they had lost all their former friendliness, and scattered in different directions when I attempted to climb the tree; indeed, they were more suspicious than their parents, but this may have been owing to the anxiety of the latter for their safety. But to return.

I emerged upon a road, and following it for a mile or more cut across the fields, bound for the metropolis of the Evening Grosbeak, which is a piece of timber covering several acres of ground, for the most part high and covered with red oak. This is the only wood around here in which the Grosbeak is found in plenty. As I approached it from the east the white trunks of the birch attracted my attention above their surrounding neighbors, and the

tamaracks in the background, with myriads of vines and bush, were also prominent objects. A Hawk sailing about in wide concentric circles occasionally emitted his loud *ka, hee!* No other sound broke the stillness except the cries of a number of Chickadees and loud energetic tap of a Woodpecker. The ground was covered with half decayed logs, to whose surface a few creeping vines were clinging. When I came to the oak and beech timber, the distant, confused murmuring of *Hesperiphona vespertina* reached my ear, and, following the sound I came upon a flock of these birds comprising about one hundred individuals. From here, followed a cow-path and came out on the south side where there is a high, grass-covered hill, on the top of which stands an old, broken down cabin. Explored this and found an old Pewee's nest and two of the Chimney Swift. Sweeping around the base of the hill is a stream known to us boys as Norris' ditch. Through the winter and early spring there is a constant volumn of water running over the pebbly bed, and the stones gather a slimy coat of green moss. Here the Pike come to spawn, and in a single day two companions and myself speared twelve by the simple process of a table-fork, fastened firmly to the end of a hickory pole. As the hot days of June approach it gradually dries away, and nothing is left by July but the dry, hard bed; except, perhaps, in some deep hollow a pool of stagnant water, where a few tad-poles still struggle for existence. The banks are high and steep, and covered with luxuriant grass and tall weeds. In places where the soil is sandy are berry bushes. Every year I take a trip along its course, for amid the dense growth, Song and and Chipping Sparrows, Catbirds, Brown Thrasher and many other species make their homes. On one occasion I found a Thrasher's nest, situated in a bunch of hardy ferns that grew so near the water's edge that their roots were constantly bathed in the flying spray. The stream is crossed by numerous little bridges which make a regular paradise for Birds. Spotted Sandpipers are also very common.

On the 15th of this month last year, I was sitting on the bank of the stream, when a Tree Swallow paid me a visit. He flew back and forth over the surface of the water several times, occasionally dipping in his beak, whether to drink or snatch up some insect I cannot say. He appeared half stupefied with the cold, lacking in his flight the various evolutions and quick turns of his April brother. The crimson and golden tints of old "Sol" were glistening and sparkling on the distant tamaracks when I turned my face towards home. High up in the air could be heard the call notes of various migrating birds as they passed swiftly overhead on their journey northward, and the frogs awakened from their long winter stupor poured forth their melancholy ditty to the silent, silvery moon. All nature seemed to have at last burst the bonds of winter, and the recollections of that day's ramble are imprinted on my memory so deeply that time cannot erase them, and will always be regarded by me as one of the most enjoyable days ever spent in the field.

May 5. A rather ortunate day. The first nest (a Pewee's) was taken early in the morning. It was on a beam under a bridge and contained five slightly incubated eggs. About a quarter of a mile above this, on the same road, secured another nest of this species with three fresh eggs. Worked my way into Highland Park and came suddenly upon a Red-shouldered Hawk's nest, about thirty feet up in a beech tree. The female arose with a cry of alarm and was soon joined by her mate. They soared high overhead uttering their familiar scream and occasionally darting downward in a most threatening manner, but a charge of shot put an end to these performances and they both retired to a respectful distance where they sorrowfully watched the plundering of their home, which held three highly incubated eggs. One of these eggs is very handsome, its color being creamy white, covered with brown of different shades. The third is grayish white and unspotted, while the second is between the two. Just before leaving the woods, I took five Crow's eggs. In the next woods visited, found another Red-shoulder's nest, from which two fresh eggs were secured. They were both highly colored, plainly showing that the set was not complete.

May 7. Collected a set of five eggs of the Long-eared Owl. Nest in red oak fifteen feet from the ground; evidently an old squirrel's nest.

May 8. Set of three Bluebird's eggs from the hollow of a fence-post and four Robin's out of an old barn.

May 19. Secured three slightly incubated eggs of the Crow to-day. Nest placed in main fork of red oak, seventy feet up. The latest set ever found by me.

May 23. Four eggs of the Red-headed Woodpecker. This bird was (until the last few years) found around here in plenty, but

now only a few pair can be seen within a day's walk. Perhaps this is owing to a scarcity of a favorite food, but more likely to the continuous persecution of the farmer, for his cherry stealing propensities are well known here. The movements of this bird are quick and energetic and the powerful strokes of his bill can be heard for a considerable distance. He has been so often pursued and shot at that, like the Crow, he is wild and difficult to approach. A friend told me of one he took from the nest before it could fly and kept for a pet for several weeks, feeding it on grubs and bits of meat.

May 26. Along the American side of Detroit river a few miles below the city are large marshes of thick reeds, large patches of which are dead. Worked my way through these to-day and found four sets of four eggs of the Red-winged Blackbird; also one with five and a nest containing three young. Captured six large land tortoises.

While chasing a snake, came unexpectedly upon a Least Bittern's nest; two of the four eggs were dotted with brown. Did not see the bird at first but upon starting to leave the place she arose from a clump near by and with head thrown back and dangling legs flew far out into the rushes.

June 9. Caught a young Chickadee. This bird is common here in spring, fall, and all winter. It is one of the smallest of our winter visitors and, owing to his trusting nature, often meets with a very inhospitable reception from the shot gun of the boy sportsman. A few remain and breed. Woods, fields, orchards, tall weeds and hedges are alike frequented by this species; here they may be seen in small whisps of seven or eight, always travelling in one direction and feeding as they go.

J. Claire Wood.

A Series of Eggs of the Scarlet Tanager.

The eggs of the Scarlet Tanager (*Piranga erythromelas*) are usually three or four in number, although two are sometimes all that are laid.

Set I. June 18, 1888. Nazareth, Penn. Nest in white oak tree, about twenty-five feet up. Composed of sticks and weeds. Two eggs, incubation advanced. Light greenish blue, spotted, much more heavily at the larger ends, with purplish gray and chestnut: .97 x .67 ; .95 x .66. This set contains a Cowbird's egg.

Set II. June 12, 1886. Montgomery County, Penn. Nest in an ironwood tree, over a road, twenty feet from ground. Made of twigs and root fibres. Two eggs, incubation commenced. Light greenish blue, thickly speckled and spotted with purplish brown and chestnut: .88 x .65 ; .88 x .64.

Set III. June 14, 1888. Preston, Conn. Small flimsey nest on tip end of long horizontal limb of tall savin tree. Collected by "J. M. W." (Mr. C. L. Rawson). Four eggs, fresh. Light greenish blue, thickly spotted and speckled, especially at the larger ends, with purplish gray and chestnut: .87 x .62 ; .88 x .62 ; .87 x .62 ; .87 x .64.

Set IV. June 14, 1887. Black Hawk County, Iowa. Nest on horizontal branch of tree. Three eggs, fresh. Light greenish blue, speckled with purplish gray and chestnut. The markings are heavier at the larger ends : .81 x .64 ; .84 x .64 ; .86 x .64.

Set V. June 17, 1875. Norwich, Conn. Nest on end of oak limb, on edge of wood. Collected by "J. M. W." (Mr. C. L. Rawson). Three eggs, fresh. Light greenish blue, speckled and spotted with purplish gray and chestnut: .89 x .68 ; .89 x .67 ; .88 x .68.

Set VI. May 23, 1887. Black Hawk County, Iowa. Nest on a side limb of an oak tree, fifteen feet from the ground. Four eggs, fresh. Light greenish blue, speckled and spotted with purplish gray and chestnut. The markings form indistinct wreaths around the larger ends: .80 x .63; .82 x .63 ; .83 x .63 ; .83 x .63.

Set VII. June 15, 1883. Nazareth, Penn. Nest on horizontal limb of an oak tree. Three eggs, fresh. Light greenish blue, spotted with purplish gray and chestnut. The markings are heavier at the larger ends : .91 x .66 ; .98 x .66 ; .91 x .65. This set contains a Cow bird's egg.

Set VIII. June 17, 1885. Nazareth, Penn. Nest on an oak tree, saddled on a lower branch. Four eggs, fresh. Light greenish blue, spotted and speckled with purplish gray and chestnut. On two of the eggs the markings form indistinct wreaths, but on the other two they are scattered over the whole surface : .89 x .64 ; .91 x .65 ; .89 x .66 ; .83 x .64.

Set IX. June 7, 1885. Black Hawk County, Iowa. Nest on horizontal branch of oak tree, fifteen feet from the ground. Four eggs, fresh. Light greenish blue, heavily spotted with purplish gray and chestnut. The

markings are much heavier at the larger ends, where they form indistinct wreaths: .99 x .66; .95 x .63; .97 x .66; .95 x .64.

Set X. June 4, 1876. Norwich, Conn. Nest thin, on tip end of oak limb. Collected by "J. M. W." (Mr. C. L. Rawson). Three eggs, fresh. Light greenish blue, evenly spotted with purplish gray and chestnut: .95 x .70; .99 x .68; .94 x .69.

Set XI. June 1, 1887. Nazareth, Penn. Nest of fine sticks and weeds, on pine tree about ten feet up. Four eggs, fresh. Light greenish blue, spotted with chestnut and purplish gray. The markings are heavier and closer together near the larger ends: .89 x .68; .87 x .67; .92 x .67; .88 x .66.

Set XII. June 11, 1887. Nazareth, Penn. Nest composed of fine sticks and weeds, about twenty feet high on a white oak tree. Four eggs, incubation slight. Light greenish blue, very heavily spotted, especially at the larger ends, with purplish gray and chestnut. On one of the eggs the markings form a wreath near the larger end: .97 x .66; .93 x .64; .88 x .66; .83 x .69.

Set XIII. June 7, 1890. Chester County, Penn. Nest on horizontal limb of dogwood, twenty feet from the ground. Made of dried grass, twigs and a few hairs. Three eggs, fresh. Light greenish blue, speckled and spotted, especially at the larger ends, with purplish gray and chestnut: .86 x .65; .85 x .65; .87 x .65.

Set XIV. May 31, 1887. Preston, Conn. Collected by "J. M. W." (Mr. C. L. Rawson.) Nest well out on end of limb. Rather slight but substantial. Four eggs, fresh. Light greenish blue, boldly spotted with purplish gray and chestnut. This is a very handsome set, and the markings are principally confined to the larger ends: .86 x .64; .85 x .66; .92 x .66; .93 x .65.

Set XV. June 3, 1887. Nazareth, Penn. Nest on a white oak, far out from the main trunk of the tree. Composed of fine sticks and weeds. Three eggs and one of the Cowbird, fresh. Light greenish blue, speckled and spotted with chestnut and purplish gray. The markings on two of the eggs are all over the surface, although much heavier at the larger ends, but on the third egg all the surface is entirely unmarked, except the larger end, which is almost entirely obscured by a heavy ring of chestnut, producing a most beautiful effect: .93 x .64; .91 x .66; .86 x .65.

Set XVI. May 31, 1884. Preston, Conn. Collected by "J. M. W." (Mr. C. L. Rawson). Nest in savin tree in open woods. Slight, but well constructed. Four eggs, fresh. Light greenish blue, speckled and spotted with purplish gray and chestnut: .85 x .64; .83 x .64; .81 x .65; .83 x .64.

Set XVII. June 12, 1886. Chester County, Penn. Nest on limb of beech tree, twenty feet from the ground. Made of twigs, etc. Four eggs, incubation advanced. Light greenish blue, speckled and spotted, more heavily at the larger ends, with purplish gray and chestnut: .94 x .67; .96 x .67; .92 x .64; .96 x .67.

Set XVIII. May 31, 1885. Norwich, Conn. Collected by "J. M. W." (Mr. C. L. Rawson). Nest on tip end of long limb of apple tree overhanging carriage road, in the heart of the city. A most beautifully marked set. Light greenish blue, sported with chestnut and purplish gray. The markings form wreaths around the larger ends: .90 x .63; .90 x .64; .91 x .64.

Set XIX. June 20, 1887. Nazareth, Penn. Nest on linden tree, about thirty feet up. Composed of fine sticks, heavy stems of grass, lined with grass. Two eggs, and two of the Cowbird, incubation slight. Light greenish blue, thickly speckled and spotted with purplish gray and chestnut: .93 x .68; .91 x .68.

Set XX. June 15, 1888. Nazareth, Penn. Nest in apple tree about twelve feet up. Made of sticks, lined with grass. Four eggs, fresh, and one of the Cowbird. Light greenish blue, heavily speckled and spotted, especially at the larger ends, with chestnut and purplish gray: .85 x .61; .84 x .63; .84 x .64; .88 x .63.

Set XXI. June 11, 1887. Nazareth, Penn. Nest on hickory, about twenty-five feet up. Composed of fine sticks, weeds and wild cotton. Three eggs, fresh, and one of the Cowbird's. Light greenish blue, thickly speckled and spotted, more heavily at the larger ends, with purplish gray and chestnut: .93 x .65; .90 x .64; .89 x .68.

Set XXII. June 11, 1888. Nazareth, Penn. Nest on apple tree about nine feet up. Made of weeds and straw. Four eggs, and two of the Cowbird, incubation far advanced. Light greenish blue, clouded at the larger ends with purplish gray, and over this there are wreaths of chestnut. The whole effect is beautiful and very odd: .95 x .67; .96 x .66; .97 x .67; .89 x .67.

J. P. N.

Habits and Nesting of the Violet-green Swallow.

The Violet-green Swallow (*Tachycineta thalassina*) is the first of the family *Hirundinidæ*, to arrive here (which is in the first week in March), and no sooner have they come than they can be heard chattering about the windows, looking for a suitable place for nest building.

We note the Tree or White-bellied Swallow next, and then comes the Cliff and Rough-winged. The Violet-green, however, is the handsomest bird of the lot, being of the color the name indicates on its back with a contrast of pure white on the under parts.

I have often watched them circling around, high up in the air for an hour at a time, their actions being so graceful one does not tire of watching them.

Nest building begins about the 15th of May, and fresh eggs may be procured from the first to the latter part of June. They are pure white in color, rather pointed at the smaller end, averaging .74 x .52. Five eggs seem to be the full complement, but I have taken as many as seven in one set.

The nest of *T. thalassina* is a very bulky affair, being rather loosely built. It is composed of straws, strings, etc., and thickly lined with feathers. Boxes put up for the purpose are quite often used for breeding in, and if several are put up close together the birds will nest in another box after the first set has been taken, and sometimes return to the first box should the second set be collected, but never have I recorded the fact of a pair nesting in the same box twice in succession when the first set was taken.

A peculiar incident took place the past season. A pair of Violet-greens were nesting in a hole in a barn and not more than seventy-five feet from there was a gourd on a high pole; this was occupied by a pair of Parkman's Wrens. It happened that the sets of both species were complete at the same time and upon taking them the birds changed homes when second sets were laid. Upon these being taken they again traded homes.

In case the Violet-green should nest in trees, as in days gone by, the difference between it and the Tree Swallow to a general observer might not be noticed, but to one who has made it a study the chief difference will be in their length, the Violet-green being much shorter. Another point worth mentioning is their eyes. While the eyes of the Tree Swallow are in the dark feathers they are in the white ones with the Violet-greens, and the white feathers near the lower tail coverts show from the back of the bird when it alights on the opening of its nest.

Although the Violet-green Swallow used to nest in natural cavities in trees, of late years it has changed its nesting place to bird boxes, knot holes in dwellings, etc., and could I look into the future I would not be surprised to see the White-bellied Swallow nest in such places near habitation preferable to the trees, though it is found breeding near water at the present day. *Clyde L. Keller.*

Salem, Oregon.

Megantic Fish and Game Club.

[From Shooting and Fishing, Boston.]

The fifth annual dinner of the Megantic Fish and Game Club was held at the Hotel Brunswick, Boston, on the evening of Jan. 28th. The occasion was one long to be remembered by those participating in the festivities. The hour for the dinner was set at 6 o'clock, and for an hour previous a reception was held, which gave the club members and the guests an opportunity to greet each other and become well acquainted. There were many gentlemen present who were well known to the readers of sportsmen's papers. Among the guests were: Col. Elliott B. Hodge, of the New Hampshire Fish and Game Commission, with his genial face and courtly bearing; Gen. Douglas Frazer, who writes so fascinatingly of his adventures with gun and rod in many lands, a veteran in years and experience, but buoyant and as full of enthusiasm as a tyro: Hon. Frank B. Currier, naval officer, Port of Boston, who tells his experience in fishing so fascinatingly as to make those who never could see much sport in handling the rod think they have lost an immense amount of sport.

I observe a medium-sized gentleman chatting with a group of attentive listeners. He has curly gray hair, and his frosty beard indicating him as belonging to the class of veterans. Why, that is my old friend, Walter M. Brackett, sportsman and artist, with a world-wide reputation. If you have never seen one of Mr. Brackett's salmon pictures you have not seen the king of fishes portrayed by one of the sovereign painters of fish.

The halls became crowded by six o'clock, and while tarrying on the outskirts I came face

to face with Capt. Fred Barker, the most popular man in the Rangeley Lake district. Capt. Barker's popularity has been gained by his sterling worth.

In this vast assemblage I perceived a person who would be noticed anywhere. He looked as though he feared no living person or animal. He was tall, broad shouldered, and possessed a herculean frame. He had a clear, rich brown complexion, a heavy brown moustache sprinkled with gray, and throat beard. He had an eye as clear as a mountain spring, and it was piercing as an eagle's. I never saw a more resolute face, and yet there was not a cruel line in his features, and his smile was genial and winning. He was neatly dressed, and his whole appearance indicated a man of cleanly and abstemious habits. "Who is he?" I heard many of the assemblage inquire, and then would follow this answer, "Why, that is the famous Jock Darling of Maine."

I might write several columns of the distinguished sportsmen in this congregation, but the call came to fall in for the banqueting hall, and, headed by the following guests, the company proceeded thereto:—

Hon. George W. Wiggin, president of the Massachusetts Fish and Game Protective Association; Hon. E. B. Hodge of the New Hampshire Fish and Game Commission; Hon. F. D. Courier; Mr. Stephen O'Meara, *Boston Journal*; Mr. S. A. Wetmore, *Boston Herald*; Capt. Fred C. Barker; Mr. Walter M. Brackett; Mr. Jonathan Darling, Maine Game Warden; Gen. Douglas Frazer; Mr. J. N. Taylor, *Boston Globe*; Rev. C. F. Lee; Mr. Henry Dutton; Mr. A. C. Gould, of *Shooting and Fishing*; Mr. J. D. Whitcomb; Dr. W. G. Kendall; Mr. W. S. Adams and Mr. Frank B. Webster.

The banqueting hall was a scene worthy of description. Upon entering the hall the first object seen was a huge black bear; this animal was shot in Manitoba, and was one of the largest specimens ever killed. Suspended from the ceiling, midway in the hall, was a full-sized birch-bark canoe, and at one end of the hall was a large deer, superbly mounted. Attached to the columns in the room were two fine moose' heads, three caribou heads and five 'deer' heads. In the centre of the room was an artificial grotto containing otter, mink, beaver, weasels, and in fact almost every small game animal, as well as the birds found in New England and Canada. Here and there were Winchester rifles, fly rods, landing nets, gaffs, and various implements used by the sportsman, and arranged with artistic effect.

Mr. Walter M. Brackett kindly loaned some of his superb salmon paintings, one showing the rise and two others the dead king lying upon the river's bank.

Mr. Darling brought an enlarged camp scene, showing six immense bucks killed by sportsmen visiting his camps.

The walls were covered with trophies of the chase; every available space was decorated with skins, mounted specimens or paraphernalia of the sportsman.

The menu was in keeping with the other features of the entertainment, and a fine orchestra discoursed music through the reception and dinner.

There was something like decorum until the musicians chose to render "Maggie Murphy's Home," when the ice was broken, and the strains of the orchestra were drowned by the singing of the assembled sportsmen.

While dinner was being served President Woodruff rapped for order and read the following telegram:

NEW YORK, Jan. 27th.

Broke my paddle and can't fetch your camp in time, but here's health to you all; long life on earth and something very like camping ever after. W. H. H. MURRAY.

At the conclusion of the repast President I. O. Woodruff called the assemblage to order. He stated that it was his pleasant duty to preside at this meeting. The past year has been the most successful one in the history of the club. In behalf of the committee of arrangements he extended thanks to Mr. Webster, of the Frank Blake Webster Co., for the elaborate decorations. He referred to the increase in membership from 217 last year to 283 at the present time, there being but 17 shares of stock unsold at the present time. The club had redeemed bonds to the extent of $2200 last year, and there was a balance of $2235 in the treasury at the present time, the remaining bonded indebtedness being $1800; outstanding liabilities none, except current expenses. The club now controls 159,600 acres or 250 square miles, and although a young club, has the largest preserve, except a strictly private territory, in America. He referred to the work accomplished by the club in the past four years, and hinted at what might be expected in the next twelve. There were to be additional accommodations for members, new boats and canoes having been ordered. Reference was made to one of the visitors who, when visiting the preserve last year —

Was awakened by a tapping,
As if some one, gently rapping
At his cabin door.
Somewhat sleepy, out of temper
Did the angler bid him enter.
No response except a rapping,
Tapping at the cabin door.
Not until the irate angle
Had with emphasis and anger
Flung awide the cabin door,
Beheld a Woodpecker—nothing more.

Hon. Nathan Matthews, Jr., mayor of Boston, was unavoidably absent and failed to respond.

Hon. George W. Wiggin, president of the Massachusetts Fish and Game Protective Association, was then introduced and received with cheers. He said his remarks would be brief. He was young in office and they could not expect much from him. It was difficult to tell whether he was at a meeting of the Megantic Club or the Massachusetts Fish and Game Association, as he saw so many gentlemen belonging to both organizations. The object of both associations was the same, the protection of game. He desired the coöperation of the Megantic Club members in the great work of protecting fish and game in Massachusetts. If the preserves of the Megantic Club were as extensive as their hospitality they ought to own the earth and have a mortgage on the air.

The Megantic Club Quartette then favored the audience with a song.

President Woodruff then presented some interesting statistics in regard to game killed in the club's preserve in the season recently closed. There were seven moose against two the previous year, eight caribou and 36 deer. The record of ducks and grouse had not been kept. Over 18,000 trout had been caught during last season, besides many not registered. There had been as high as 55 pounds of bass taken in one day.

The next speaker was Col. E. B. Hodge, of the New Hampshire Fish and Game Commission. He was introduced as the first white man to launch a canoe on Lake Megantic. Colonel Hodge stated that he was one of two to launch the first skiff on those waters. He thought the magnificent decorations before him well worth a long journey to see. He told of the almost incredible number of trout taken from the waters of the Megantic preserve years ago. They were caught and piled up by the cord and left to rot. He never expected to see so many trout again in those waters, but hoped to see them increased. He referred to the benefit derived from spending a month in the woods; it gave restored life and gave a person fresh energy to work for the next eleven months. If you want rest go to Megantic Lake.

If thou art sad and hard beset,
With sorrow that thou would forget;
If thou would keep thy heart from fainting
And thy soul from sleep,
Go to the Megantic woods and hills,
For there no tears dim the sweet look which nature wears.

Mr. John B. Whorisky then favored the club with choice vocal selections.

President Woodruff said that at the time when the Megantic Club was first talked of, some of the projectors said it would be impossible to get sportsmen to go to that region. Sportsmen would not go beyond Rangeley, for there was a man there whom all the sportsmen loved if they once knew him and that person was Capt. Fred C. Barker. It was his pleasure to introduce him.

Captain Barker was received with cheers. He said if he had expected to receive such a reception he thought he might have remained in the woods. He then gave an interesting account of a trip he made with John Danforth through the Megantic region. He congratulated the club on acquiring the Seven Ponds district, an acquisition he thought the club would never regret.

Hon. Frank B. Currier was the next speaker. His remarks showed him to be an enthusiastic devotee to "the gentle art." He found perfect happiness only when angling. The fisherman was a patient listener and never expresses a doubt of any story he hears. Sometimes the fisherman's face seems to say, when listening to a narrative, "I am something of a liar myself." In anticipation of the pleasures of coming seasons he would meet one of the proprietors of the Brunswick, who was a member of the Megantic Club and an enthusiastic angler, and the accounts of fish they had caught and would catch were startling. He referred to the work of the fish commissioners and particularly to the stocking of the Merrimack with salmon. Salmon had been hooked with the fly there last year. The difficulty in stocking the Merrimack River with salmon was the low water at certain seasons. It was said you could tell when a salmon passed up the fishway by the dust it kicked up (laughter). But the salmon ascended the river, though it was reported that Commissioner Riddle grabbed the salmon, and with it under his arm rushed

around the falls and planted it above (laughter). He had a confession to make. Col. Hodge tried to have the law governing the size of trout permitted to be taken in New Hampshire changed. He had opposed him, and wanted the law fixed so as to permit the taking of trout four inches long. Col. Hodge appeared before the committee with a small pair of letter scales. He showed the committee that a four-inch trout weighed just one-quarter of an ounce, and a five-inch trout one-half ounce. He immediately withdrew his argument and apologized. He illustrated the value of protecting small trout by relating his experience in raising trout. After a trout is five inches long its growth is rapid. Some small trout placed in a pond last year now measured from 7 to 14 inches in length. He fed these fish only once a week, sometimes only once a fortnight. He thanked the club members for courtesies, and hoped to make a trip to Megantic.

Dr. Heber Bishop asked the attention of the club for a few minutes. He alluded to the work of Mr. Webster, of the Frank Blake Webster Co., in furnishing the elaborate decorations, and made the motion that a vote of thanks be extended to Mr. Webster and the company he represented. This motion was unanimously carried.

President Woodruff then introduced Gen. Douglas Frazer as a man who had travelled over much of the world and hunted and fished in many countries. Gen. Frazer was warmly greeted. He spoke of his gratification at being with the Megantic Club members that evening. He had visited many countries. He described his early experience in shooting with a flint-lock gun and pistol when he could make them go off; of the mishaps which befell him while burning gunpowder during his youth. When he came to years of discretion he chased that same old grouse that lived in Newton, year after year. He had sat for hours by the river and nearly frozen, trying to get a shot at a duck. He had shot plover and black ducks under these very tables. Just where this hotel stands was once famous grounds for shore birds. Some German gunners killed immense bags of game here. He learned of the place and had killed 70 or 80 Yellow-legs in this place. Later, while on a voyage to China, there was a calm at sea; he boarded the quarter boat and made off from the vessel; within two hours he killed 18 albatross, the largest birds in the world. One of these birds measured over twelve feet six inches from tip to tip of wings. An interesting account of shooting in China was given. He described a native gunner whom he met at a season of the year when the river was frozen; but this gunner was nude, except about the loins. He had two big guns, 12 feet long, and of about 1½-inch bore. These were primed and a fuse attached to them. The native would break the ice with his foot and work his boat toward a flock of ducks, and at the proper time light the fuse and discharge his gun with deadly effect. This native did not seem to know what cold meant. After killing all the ducks he could carry he would walk thirty miles to Pekin to sell them. He then sang Chinese and Japanese songs. But after seeing all these things he came back to New England with the greatest pleasure to enjoy its sports. He closed by advising all to seek the pleasures of the woods. Why will Americans work so hard during this one short life? Why not enjoy the greatest pleasure given to man?

Letters regretting their inability to be present were read from the following: Gov. W. E. Russell; Ex-Gov. John D. Long; Hon. John Tilton, Canadian Minister Marine Fisheries; Samuel Wilmot, president of the Wild Goose Club; A. Nelson Cheney; Fred Mather; H. P. Wells; F. E. Boothby; Dana J. Flanders. There were also a large batch of telegrams of regret from Fish and Game Commissioners.

Mr. Stephen O'Meara, editor of the Boston Journal, was the next speaker. He thought he might take a lesson from the owl before him and remain quiet. He had been recommended by his physician, a member of this club, to come there and pass a quiet evening (laughter). He hoped to some day experience the pleasure of a trip to Megantic.

The next speaker was Mr. Jonathan Darling. In introducing him, President Woodruff said: "We have here to-night a man you have all heard of; a man who has defied law, as well as the fish and game commissioners. Deputy sheriffs could not catch him and even jails could not hold him, but he had now been enlisted on the right side and was now a fish and game warden of Maine." He then introduced Mr. Jock Darling.

Mr. Darling was received with cheers. He said he felt out of his element; the woods was

the place in which he felt most at home. He never before was called upon for a speech. He related his first experience in shooting, which was with a wooden pistol. He loaded it with powder, then a charge of sand; he then placed it near a string which he had smeared with molasses which drew the flies, and when the string was covered with flies he would touch off his pistol. Later he hunted big game. Years ago before they knew of any game laws he killed great quantities of game. He brought loads of it to Boston, and the market-men endeavored to prevent his selling the game, so he hired a team and, standing his biggest bull moose up where it could be seen by those coming near his stand, he did a thriving business, and the market-men were glad to buy him out. He had written some of his experience, which he handed Dr. Bishop to read.

Dr. Bishop referred to the rejoicing over the reclaiming of a sinner. He expected to see a person with a cloven foot and forked tail, instead of the fine specimen of manhood. He thought Mr. Darling had not been so bad as he had been represented to be. He then gave extracts from Mr. Darling's reminiscences, which were in substance what has appeared in these columns over Mr. Darling's signature.

After singing Auld Lang Syne the company adjourned. *Ralph Greenwood.*

Nesting of the Sharp-shinned Hawk.

In the summer of 1878, as I was passing along the road that borders Cedar Swamp, I heard the cries of some species of young birds within the adjacent forest, which I at first supposed to be that of young Crows, but presently an unusual note attracted my attention and my curiosity sufficiently to draw me from the road and in among the tall cedars on an investigation. The source of the cries was speedily developed, and I saw an old Sharp-shinned Hawk go dashing away, followed quickly by a number of young ones well fledged, all immediately disappearing in the denser part of the forest.

This adventure gave me an idea: here are young Sharp-shinned Hawks, consequently there must have been a nest and eggs, and here next season will be another, and don't you forget it, as the boys say, for a nest of that species was one which I had never had the good fortune to find. It may be depended upon that my memory was faithful to its trust in a matter of so much interest, though I had no clue to work upon, having had no experience of the nesting habits of the species. Perseverance will sometimes, however, fill the place of experience.

In this case, on the 27th of May, 1879, during one of my repeated tramps within the shady precincts, I was suddenly startled by a loud cry like *kil-dy, kil-dy, kil-dy*, three times rapidly repeated, and a little male Sharp-shinned Hawk came dashing by my head and perching on a neighboring bough again repeated his wild cries. Of course I was at once wide awake to the possibilities, though this was only one of the clews; thoroughly followed up, however, it led me at last to the spot where, in one of a group of cedars near at hand, about forty feet from the ground, I saw a nest and the long tail feathers of the sitting bird extending over one side of it. As I climbed the tree she joined her mate in his outcries and *kil-dy, kil-dy, kil-dy* resounded on every side in stirring remonstrances against the intrusion. The little male bird was the most demonstrative of the pair, and he would dash at me with the greatest violence and utter his most piercing cry within a few feet of my head, threatening to strike me with his talons, the mate encouraging him and reiterating his stirring outcries.

With great gratification I gathered in the beautiful set of five handsomely marked eggs, the first set of the species it had been my good fortune to secure. None but a collector can appreciate the satisfaction such an acquisition for the first time yields. We may become accustomed to a series of successes till we can greet them with indifference, but the satisfaction of that first triumph never fades and it is never forgotten in its minutest circumstance.

In 1880 I was fully prepared with a hearty welcome for *Accipiter*, and after a little delay was gratified to hear again the old familiar note. This time the nest was built lower down, not over fifteen feet from the ground, and I found the female sitting on the nest several days before the first egg was deposited, and it was near the 10th of June before the set was completed.

In 1881 the wily pair eluded me till incubation was far advanced, by selecting a distant and secluded part of the swamp and an inconspicuous tree as the nesting site, but I found it all the same at last, and here my triumphs ended for a long period. Early in 1882 there was a noticeable flight of Sharp-shinned

Hawks in this vicinity during a mild spell in February, a severe cold wave following shortly after. The early migrants were straitened for sustenance and fell easy victims to the gunner; even the inexpert felt his duty call to hunt a Hawk, though the smallest possible in size, and several were brought me as curiosities, one that chased a Sparrow into a house and another in a neighbor's barn.

Since that period, from whatever cause, the species has been decidedly rare here, so much so that some of the intervening years have passed without the observation of a single specimen in the whole twelve months. But in 1891, as the spring advanced, an occasional little *Accipiter* went glancing by and led me to look again toward the old haunts. Thither as I passed up the old road one May-day, far away flying over the forest I spied a little Hawk bearing something in its talons, and this reminded me what I had long ago observed, that the female of most species of Hawks, if not all, cling tenaciously to the nest during the period of incubation at least, and that the male was a persistent hunter and furnished the commissariat. I saw that little fellow as he disappeared in a distant part of the swamp, and thither at the first opportunity I followed, and there in the darkest recesses I was again welcomed with the almost forgotten salutation, *kil-dy, kil-dy, kil-dy*. I found the nest at last, but it was a long hunt. In a thick-topped cedar there seemed a dark spot; I struck the trunk of the tree with a stick but there was no response, and again with greater violence, and the female Hawk came dashing out of the tree top with loud outcries in which the male, appearing on the scene, immediately joined, the loudest of the pair.

This nest was about twenty-five feet from the ground and composed entirely of small twigs. It contained four eggs with incubation already well begun. This was on the first day of June. The set is very different from that first found, and which I have always retained in my collection as one of my most highly prized captures. In them the markings are chiefly large, bold, heavy blotches, in one instance on the smaller end. The new set are more of the clouded pattern, the coloration more uniformly distributed and lighter. The size of the eggs is also less, and if dissimilarity is any sign these must belong to an entirely different bird. For diversity of marking and general variation as well as beauty, I think that the eggs of the Sharp-shinned Hawk take the lead, and that a well selected and arranged series thereof would be one of the greatest attractions in a collector's cabinet.

John A. Clark.

Saybrook, Conn.

[I can fully endorse what Judge Clark says about the beauty of a series of sets of eggs of this bird. A series of twenty-three sets now before me shows an almost endless variation in coloration and markings, and yet there is not an ugly set among them.—*J. P. N.*]

The Chimney Swift.

The ancient village of Bernadotte, surrounded on three sides with overhanging, vine-clad hills, and the beautiful little river, "The Spoon," flowing at its feet, has always been a favorite resort for the Chimney Swifts, the low houses, with their old-fashioned, wide-mouthed chimneys, unused in the summer months, affording them just the site desired for a nesting-place. In these old chimneys scores of them nest every summer.

After a somewhat hazardous climb to the top of one of these chimneys in the month of June, and after my vision had become somewhat accustomed to the gloom, I could discern a dozen or more nests, arranged around the sides of the chimney wall, at a depth of eight or ten feet from the top. The dusky females could scarcely be distinguished from the dark, sooty surroundings.

Frightening them from off the nests, a strange phenomenon would be witnessed: dropping a short distance below the nest they would distend the wings, and after the manner of a bumblebee on a window-pane, come upwards with a buzzing, roaring sound, until near the top, then dropping back again repeat the process probably several times before they would rush past me out of the chimney.

Was this strange performance on the part of the Swifts enacted in the hope of frightening me away from the outlet of the chimney, or can they not make their exit in any other manner?

Some writers have thought that the Swifts feed their young at intervals during the night. Anyone who has slept in close proximity to a chimney full of young Swifts, and heard their cries and chatterings at intervals all through the night, would believe this theory plausible, the feeding being done, of course, by regurgitation. This noisy habit of the young birds becomes very obnoxious to some persons; so much so that summary means are sometimes

resorted to, to get rid of them. The hotel building in the village afore mentioned had an old-fashioned, great fireplace chimney. In its roomy recesses scores of Swifts brooded every summer. The landlady, a fussy, nervous body, was very much annoyed by their noisy demonstrations during the night time. Determining to get rid of them, she took a straw tick and, emptying its contents into the wide fireplace, she set it on fire. This did the work for the baby Swifts, but the heartless woman was punished for her cruelty. The stench that arose from the half-roasted bodies of the birds was so great that for many days the building was almost uninhabitable.

In the dusk of the evening, just before retiring for the night, the Swifts will descend to the streets, and skim rapidly about close to the ground, getting a supper. I have seen the village boys, armed with long cane fishing-poles, station themselves on either side of the street, and vainly try to hit them as they would flit rapidly by. The birds appeared to take but little notice of the efforts of the boys, and it seemed inevitable that some of them would be killed. But the blows, seemingly without effort on the part of the Swifts, would be dexterously avoided, and by their continually returning and circling over the boys' heads, they appeared to enjoy the sport nearly as much as did the gamins, and their joyous twitterings seemed to say to them, "hit me if you can!"

Swallow trees, where hundreds of these birds would congregrate to roost at night, have been described by observers from various parts of the country. Two or three years ago I had the good fortune to discover one of these novel resorts of the *Chætura pelagica*. In the dusk of the evening I was riding along through some heavy timber on the river road four miles below the village. My attention was suddenly attracted by the great number of Swifts that were flying rapidly about in circles. After observing them for some moments, I presently saw that their lines converged towards a large sycamore that stood at the edge of the woods a little distance away. It was about eighteen feet in circumference, and at a height of about fifty feet had been broken squarely off, presenting much the appearance of a factory chimney, the cavity extending clear down to the ground. Into this opening the birds were settling by scores. Hunting up a heavy club I approached the tree and dealt it a resounding whack. The roar produced by the Swifts rushing out of the tree could be likened to nothing but heavy thunder. The air, too, was black with the dusky birds, rushing, circling, gyrating swiftly among the trees; their rapidly uttered notes of *tsip*, *tsip*, *tsip*, *tsee*, *tsee* was almost deafening, though not unpleasant to the ear. In a few moments they were again dropping rapidly into the hollow cavity of the tree.

No bird produces a more singular nest than does the Swift. It is formed entirely of very small twigs, which are broken from the limbs while the bird is on the wing. These twigs are cemented together by a glutinous saliva from the bird's mouth, and the whole inside of the nest is thickly coated with the same material. No soft lining, whatever, is used, and the nest in the form of a crescent is attached to one side of the wall. The usual number of eggs is four, but I have often observed six in a nest. The young birds have a habit of leaving the nest sometimes a week before they are able to fly and cling to the sides of the chimney, where they are fed by the parents till able to take to the wing.

W. S. Strode, M.D.

Bernadotte, Ill.

An Early Bird.

The old adage that "The early bird catches the worm" does not always prove true, at least not in the case about to be mentioned. On January 20th, with the thermometer ten degrees below zero, and about eight inches of frozen snow on the ground, an adult ♀ Robin put in an appearance here (Ballston Spa, N. Y.). As there are no worms to be found here at this time of the year I substituted a small charge of dust shot, with the desired result. This is the earliest record, to my knowledge, of the arrival of the Robin in Saratoga Co.

S. R. Ingersoll.

THE

ORNITHOLOGIST AND OÖLOGIST

A Monthly Magazine of

NATURAL HISTORY,

ESPECIALLY DEVOTED TO THE STUDY OF

BIRDS,

THEIR NESTS AND EGGS,

and to the

INTERESTS OF NATURALISTS.

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Brief Notes.

LARGE CLUTCHES. — Cold Springs, N. Y., Jan. 8. Mrs. Ellsworth Miller gave birth to her second pair of triplets to-day. In seven years she has given birth to fourteen babies, twice triplets and four times twins. They come in pairs or three of a kind every time. Mrs. Miller is only thirty years old.—Wade's Fibre and Fabric.

Sheep have two teeth in the centre of the jaw at one year, and add two each year until five years old, when they have a "full mouth." After that time the age cannot be told by the teeth. — Wade's Fibre and Fabric.

A camera attached to a rifle is the latest photographic invention. It takes a picture when the trigger is pulled. The chief advantage of it is that the victim is spared the anguish of seeing how he looked. — Post.

The death of the old horse Comanche, which was the only living thing belonging to the United States that survived the battle of the Little Big Horn, where Custer fell, recalls the most horrible massacre in the history of Indian warfare. After the battle Comanche was found covered with wounds and riderless, the body of every other horse that carried the brave cavalry into the fight having been found dead among the heaps of slain soldiers. From that day to this Comanche has lived on the bounty of Uncle Sam, and no one has been permitted to sit upon his back. His hide will be stuffed and his image will survive as a reminder of a memorable fight.

ONE USE FOR A BULLHEAD'S HORNS. — Lexington, W. Va., June 16. A black snake about three feet long was seen swimming in Tomlinson's Run yesterday with a fish, commonly known as bullhead, in its mouth. The fish was nearly eight inches long. The snake had succeeded in swallowing the fish, beginning at the tail, up to just back of its head, where its forward fins are reinforced by strong horns or spines. Beyond this point the snake's jaws could not get, for so long as the fish survived just so long would it instinctively raise its fins and horns whenever it felt the end of the snake's jaws touching them. With a strong forked stick the snake was lifted out of the water, whereupon the fish fell out of the snake's mouth. Evidently it had been there some time, for it was lacerated, livid in spots, and its life blood seemed to have been horribly sucked out of it, leaving the most of its body pallid and colorless. When released it sank head first to the bottom of the pool, then revived and came to the surface, and afterward swam slowly and laboriously away.—Pittsburgh Dispatch.

SEAL CAPES WILL BE LOWER. — San Francisco, Nov. 19. James Warden of the Consolidated Black Cat Co. is here from Fairhaven, Wash. He is one of the stockholders of a novel company just organized on Puget Sound for the propagation of black cats. An island is to be purchased and there the black cat breed is to be perpetuated. These cats will live on fish and are to be raised for their fur.

AT THE WINTER RESORTS. — The rush of tourists to Florida increases every winter, and so much shooting (every man, nearly, takes his gun) is rapidly diminishing the game all through the country. The time was and only a few years ago, when every bay and lagoon was teeming with birds; but when the fashion demanded that every woman's bonnet should be decorated with some kind of a bird or its feathers, men were sent to Florida to procure them, and one expedition returned, it is said, with one hundred thousand bird skins, shot in one winter. Such destruction is now felt, and although the authorities have now prohibited the slaughter, it is like locking the stable after the horse is stolen. On the Apalachicola river wild turkeys and ducks are shot wantonly from the decks of the steamboats, and alligators all along the banks come in for a fusillade from the rifles of the passengers. On my recent trip on this river I saw numbers of turkeys shot as they were running along the banks, that were of course wasted, as the boat could not stop to pick them up; and every flock of ducks that rose was fired into, killing or maiming more or less of them. Not only on the ground of wanton cruelty should the owners of these boats prohibit the use of firearms, but it is a great annoyance to many passengers to have rifles and shotguns banging away around them, to say nothing of the danger to life from careless use of guns by mere boys, as some of them were. It is a theme the *Forest and Stream* might properly bring to the notice of the proper authorities

(the owners of the steamers) in the cause, and enter a protest against such wanton destruction of such rare game as the turkey, as well as every other bird coming in for slaughter, as is now the case on the river boats on the southern rivers. — Forest and Stream.

On a sultry night last month, Mrs. A. H. Ellsworth, of Jackson Hollow, was awakened by the flapping of wings at one of the windows of her bedroom. She struck a light and found that a female Whip-poor-will had got wedged in between the screen and the sash, that the bird was unable to free herself, and that one of her wings was broken. Mrs. Ellsworth took pity on the wounded bird, bound up the broken wing as well as she knew how, and placed her in a canary bird's cage for the night.

In the morning Mrs. Ellsworth found that the Whip-poor-will, with the exception of the broken wing, was all right, and she fed the bird and hung the cage on the porch, intending to set her free as soon as she was able to fly. During the morning the Whip-poor-will sang out a number of times, and along in the forenoon Mrs. Ellsworth noticed that another Whip-poor-will was flitting around the cage. She concluded that the wounded bird had succeeded in calling her mate from a row of willows down by the creek, and her conclusion proved to be correct.

The male Whip-poor-will alighted on the rim of the cage, and coaxed like a good fellow for his wife to come out and sail away with him to their home among the willows, and then they put their bills together between the wires and had a real sweet domestic kissing spell for three or four minutes, the wife seeming to convey to her anxious husband an understanding of the fact that she would be delighted to accompany him if she only had two well wings. Anyhow, the male appeared to understand pretty soon that his wife was a cripple, and in prison, too, for when they had kissed one another all they cared to just then, the male flew away toward the brook. In a little while he returned with his bill full of food, which he liberally dealt out to his wife from his perch on the rim of the cage. It tasted better to her than the food that Mrs. Ellsworth had put into the cage, Mrs. Ellsworth said, and during the day he came and went a score of times. Mrs. Ellsworth left the cage out all night, so that the wife might be as near to her husband as possible, and the male roosted on a lilac bush close by. He carried lots of food to his wife each day, and in about a fortnight her wing got well. Then Mrs. Ellsworth turned her loose. Her mate joined her immediately, and the happy pair sailed off toward the willows, singing a song of gladness on the way. — Dayton (Dayton) Daily Journal.

Lard applied at once will remove the discoloration after a bruise.

BOSTON TRAGEDY.

She wrung her parrot's neck and strewed
Its feathers through the streets,
Because it made remarks most rude
As she recited Keats. — Truth.

George: "I wish I could turn Fido's coat as I can mine."

Jessie: "What do you mean?"

George: "I fancy I should like him better with the bark on the inside." — N. Y. Herald.

"Hello, old man, have any luck shooting?" "I should say I did; shot seventeen ducks in one day." "Were they wild?" "Well — no — not exactly; but the farmer who owned them was." — Harper's Bazar.

Mr. Jock Darling, whose name has been conspicuously before the sportsmen of Maine for a long time, and who has defied the game laws successfully — so they state — *has been appointed as game warden in that state.*

"We have no use for bear stories," said the editor. "Our readers demand something spicy." "Well," said the man with the manuscript, "this story is about a cinnamon bear." — Indianapolis Journal.

An effort is to be made to successfully introduce German song birds into Oregon. A number of Red Cardinals, Bobolinks and Indigo Birds have also been brought there from the East and are to be liberated in the spring. — Boston Post.

THE PHILOSOPHICAL BUMBLEBEE. — The household arrangements of Emerson's bumblebee are peculiar. There are a few queens left over from each nest in the autumn. These in November crawl into snug places, where they hibernate, gathering pollen in the spring and laying their eggs in it. Only the queen survives, all the workers and drones dying, so that every bumblebee hive is wiped out each autumn. They do not accumulate large stores of honey, notwithstanding their industry, for a single colony will not number more than thirty or forty; and their cells are huddled together without order, so that the honey cannot well be obtained from the combs in a clear state, as school-boys and farm lads very well know. But these bees are philosophers all the same; perhaps that is why they lay up so little. — Boston Daily Advertiser.

JOKING WITH SEA GULLS. — Sea birds are always interesting objects to voyagers. They follow a vessel sometimes all the way across, ever restless and untiring. The gulls particularly, with their long, swift wings, realize the highest powers of endurance and fly with ease against the severest storms. Some say that these birds never visit the earth except to deposit their eggs; otherwise they live constantly between the sea and the sky. In fine weather they fly high in the air, descending with great rapidity to seize the fishes on the surface of the water.

The symmetry and strength of the gulls are remarkable, showing how nature has adapted them in every particular for the purpose of long flight. Their pectoral or breast muscles are one solid mass of firm, hard muscle, and their bones are hollow, having no marrow in them. Sleep is not necessary to them, or, rather, they rest upon their wings and allow themselves to be cradled by the breezes, whose violence neither worries nor frightens them.

On the other hand they seem to feel a fierce delight in the fury of the storm, which, convulsing the waves, brings up the dead fishes and mollusks.

Sailors are very fond of playing off a joke upon the gulls which are always hovering about the ships. They take three or four pieces of sail twine about six feet in length; these are tied together in the middle, and to the end of each a small piece of blubber or fat is attached tightly and then thrown into the sea. A gull comes along and swallows one piece; another then sees there is plenty to spare and swallows the next; perhaps a third bird takes possession of another, but as they are all attached to the sail yarns, whenever they try to fly away one or the other is compelled to disgorge his share, and this is continued to the tantalizing suspense of the poor gulls and the great fun of the passengers and sailors. — Ocean.

Anti-Mosquito Powder: —

R	Eucalyptol,	5 parts.
	Talc,	10 "
	Corn-starch,	85 "

Mix.

This may be rendered more effective by replacing fifty per cent. or more, of the starch by naphthalin.

Protective Against Insect Bites: —

R	Acetic ether,	5 parts.
	Eucalyptol,	10 "
	Cologne water,	40 "
	Tincture of pyrethrum,	50 "

Mix.

Dilute with from three to six parts of water before applying to skin. — W. Drug.

Flight of Eagles. — A Russian letter says: "A curious and unusual sight has just been witnessed by the inhabitants of Bjelgorod in the South of Russia. A few days ago an enormous flight of Eagles was seen to fly past the town and settle in an adjacent forest. The woodmen, who were in the forest at the time, fled in dismay from the place. It is well they did, for when these unwelcome visitors had taken their departure, it was found that they had devoured ten horses, several sheep, and a vast number of smaller animals. The ground where they alighted was strewn with feathers, and all the birds of the neighborhood have been so terrified that they have flown away. Only one of the Eagles was caught — a bird of immense size, and belonging to a Siberian species. The Eagles, which were several hundreds in number flew away in a south-westerly direction. The peasants who saw this remarkable sight state that there were so many of them, that for the space of several seconds their wings hid the sun from their sight.

The Wheaton collection of the birds of Ohio, made by the late Dr. J. M. Wheaton of Columbus, O., has been purcha-ed from Mrs. Wheaton by the Ohio State University. The consideration was $1000. This collection includes nearly 1000 bird's skins, mostly taken in Ohio, although quite a number of extra limited species are contained in it. They have been arranged according to the A. O. U. check list and placed in Harvard, insect-proof display boxes. This collection is an extremely valuable accession to the college, as well as to the state, as any future report of the birds of Ohio must draw its information largely from the state report which was compiled by the late Dr. Wheaton and based upon this collection. *N. G. Buxton.*

Twenty Screech Owls were received in one lot, Feb. 6, from Illinois.

A number of Bohemian Waxwings came early in February from Dakota. More expected.

New Publications.

"*Our Birds in Their Haunts*" is not merely a book about birds, but a complete treatise on the birds properly belonging to eastern North America; sufficiently full in respect to their life histories, with environment and habitat, to be consecutively readable; and clear enough in description to answer as a hand-book for identification.

As it is written from observations which are the result of extensive travel, it contains no small amount of information not found in any other work covering the same field, especially in reference to the habitats of the land birds, and the habits of the water birds on the great bodies of fresh water in the interior.

It makes oölogy a specialty. Nothing in the science of birds has been more charmingly interesting to the author than the location, the material and structure of the nests; and the size, form and color of the eggs.

Readableness, that is, a philosophical and lucid presentation of the facts of nature, and a poetic coloring of incident in its relations to season and scenery, has been a special study in making the book. In other words, while endeavoring to be true to nature, the pleasure of the reader has been particularly consulted.

The new edition now about to be issued, will be in the same style as the former, and will retail at $2.50; but all orders, — *bona fide* orders simply — coming in before February 15, 1892, will get the book at $1.60, including postage. The work, in 624 pages, is bound in cloth, the paper and typography the very best, twenty-five illustrations, and of convenient size — small octavo. All persons not satisfied with the book can return it promptly and get their money back.

J. H. Langille.

Kensington, Md., or Box 63, Smithsonian Institution, Washington, D. C.

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Geographical Variation in Birds.

In my first paper relating to surface geology and the birds, I have shown how different parts of the country came to be inhabited by peculiar species. In this paper I shall endeavor to give an idea as to why such changes take place.

If we suppose an instance where a bird is perfectly fitted in a special manner to lead its life in a particular way: it may feed entirely upon fruit, which the climate admits to mature at all seasons and in sufficient quantities to constitute a never-failing supply; it may breed in hollow trees, common in humid climates. The food is healthy and sustaining, the nesting places secure from many predatory animals, and under the influences of this favorable environment the species thrive and multiply.

If they, on account of individual variation, chance to differ in any way from the parent stock they are consequently in discord with their surroundings, and their associates which vary less have a better chance of survival, and to reproduce their kind. In this way the species is kept true to the parent stock. But if the climate should undergo a slight change the whole state of equilibrium is upset. A drier atmosphere or a lower temperature may strip the country of its fruit-bearing forests, and new plants may take their places, and thus materially alter the conditions of existence of the birds which were perfectly adapted to the old regime. One of three things must inevitably happen: the birds must die, they must search for new quarters, or they must conform to the new conditions of life.

The last is accomplished by a natural selection applied to the individual variation which had previously been detrimental to the species. Now, however, any slight deviation from the orthodox habits, as, for instance, in the selection of the nesting-site, or an acquired appetite for a new article of diet, would be a benefit to the race, and the advantage gained by such individuals over their fellows would enable them, by means of a competitive system which has been termed natural selection, to live and multiply where others would perish. Those of their offspring which inherited the parental traits would mature, only to leave more descendants, and the variation once started by chance would become more and more noticeable and universal as time progresses.

Nowhere is a knowledge of the laws of variation, and consequently of geographical distribution, more needed than in the study of American ornithology, for it is in this country natural selection has created varietal or subspecific forms and closely allied species, on the grandest scale. As the process of their restriction to comparatively small areas was discussed in the first paper of this series, it only remains to refer to the more general laws of variation.*

There is an axiom, first established by Prof. Baird, that birds having a wide range increase in size from south to north, and from east to west; and, as if for compensation, particular organs, viz.: the beak and tail, decrease in proportion to the increase in size, and, in some cases, the measurements were absolutely less.

In color, the intensity is found to be greatest in the more southern limits of the habitat, and decreased toward the north. West of the Rocky Mountains, and especially in the arid regions of Arizona, New Mexico and Nevada, a general bleaching or fading is the rule, but on the middle and northern Pacific Coast the colors are again intense, with a tendency towards ferruginous tints in the former.

This was one of the first steps to the proper understanding of geographical variation, which soon after resulted in the recognition of sub-

* For the subject of faunal areas the reader is referred to *North American Fauna*, No. 3, by Dr. C. Hart Merriam, and published by the U. S. Department of Agriculture.

specific differences, and the boundaries of many of the lesser faunal divisions are based upon such variation.

Further research has demonstrated the fact that the majority of the birds found along the numerous islands of Southern Alaska are strongly tinged with red as in California; the paler browns become rufous, and grays are apt to be intensified to dark brown; while further north, in the Aleutian chain, the browns are replaced by gray.

Until the latter part of the season the bird waves will come as before, with stormy weather. There is, however, an important difference. In spring, high temperature accompanied storm periods. The warm weather, backed by favoring winds, were incentives for the birds to push northward, and the coincidence of stormy weather was a necessary evil to be endured. But in autumn the temperature drops with the advent of a storm, and the bad weather acts as an auxiliary force, which combines with the low temperature and usually favoring winds, to urge birds towards the south. Late in fall the conditions are somewhat changed, and the lowest temperature comes with the fine weather after the storm. In consequence, the most marked waves no longer occur during bad weather.

In this way the migrations pass, rising as a tide in spring and fall, and falling off at other times, the lowest period being in winter, although in New England it never ebbs entirely away. *Harry Gordon White.*

Washington, D. C.

A Morning on Spoon River, Ill.

The morning of September 25, 1891, was one long to be remembered by the writer. The air was balmy and the river as still and quiet as the surface of a lake. In company with a naturalist friend, Professor D——, we manned our little boat and set sail for a few hours' general collecting on the beautiful river, the "Winding Spoon."

For a number of miles above the mill-dam at the village of Bernadotte the stream maintains an average depth of about seven feet. The banks present an ever-changing scene of landscape beauty, with the wooded hills in the distance for a background. Now a great tangle of blooming morning-glories, purple astors and golden-rod, and then a soft fringe of swaying willow or drooping elm, dipping to the water's edge, weighted with wreaths of the wild grape-vine and a wreath of purple fruit. This landscape beauty was mirrored with such vivid distinctness that we seemed looking down upon another world beneath the waves.

As we glided along in our light-running craft, there raced ahead of us a number of water birds. A small flock of Blue-winged Teal, a Great Blue and a pair of Little Green Heron, a Kingfisher and a Dabchick were observed. The latter bird made strenuous efforts to distance us by diving, but the game was a losing one, for every time that it reappeared at the surface the distance between us had rapidly diminished. Finally it stayed under the water an unusually long time, and when next seen it was down the river fully a hundred feet below us. Wings as well as legs must have been used and the transit under the water an actual flight.

The little Sandpipers were busily seeking a breakfast along the river's bank, and their call notes could be heard on every side. So tame were they and unsuspicious of danger that they paid but little attention to us. If we ran the boat too close to suit them they would rise upon the wing and skim along the water, uttering their peculiar notes of *peet-weet-weet*, and, alighting upon the opposite bank, tilt their body backward and forward for a moment upon their long stilt-like legs, and then again resume the business of breakfast hunting. We were not seeking birds, and, having left our guns at home, they were safe from harm.

Two miles up the river we came to a great forest of trees with an almost impenetrable undergrowth of vines, wild touch-me-nots and nettles. At this place we expected to do some collecting, and, landing our boat, at once prepared for business. Prof. D——, whose hobby was entomology, could talk of nothing but butterflies and beetles. In these woods we expected to find many of them, nor were we disappointed, for no sooner had we climbed over the steep bank, than great numbers of butterflies were to be seen flying about through the lower limbs of the trees, or hanging in clusters from the leaves of the silver maple and hackberry, upon which they were feeding and depositing their eggs.

With our butterfly net we soon had all that we desired snugly going to sleep in our cyanide jars. The species captured were mainly of the *Asterias*, the *Bevisise* and the *Idalia*.

We also flushed from the nettles and touch-me-nots a fine luna moth and several tiger and ermine moths, which we secured.

Having all the *Lepidoptera* that we cared for, we now turned our attention to the *Coleoptera* or beetles, and in a short time had captured a number of species. By turning over old logs and pulling the bark from old dead trees and stumps we found several of the great stag beetle and the horned *passalus*; several species of the lady bugs and caterpillar hunters were also secured.

These low, damp, shady woods were just the place for the *Helices* or snails. Under the shady side of rotten logs or under pieces of bark numbers of them were to be observed. Setting to work we soon had a cigar box nearly full. The *Helix alternata*, an almost universally distributed species, was the most abundant; of these we selected only a few of the largest and finest.

The next in abundance was the beautiful *H. multilineata* or many-lined snail; great beauties a half inch in diameter were found. We also secured a number each of the following fine snails: *H. profunda*, *H. appressa*, *H. mitchelliana*, *H. albolabris*, *H. hirsutii*. We also found adhering to old weed stalks some fine large *Succinea obliqua* and *oralis*, and under the bark of an old sycamore log we secured quite a number of the *Zonites arboreus*.

These land shells should be prepared for the cabinet by subjecting them to a bath of hot water, and after extracting the animal with a hook or head of a pin, drying them in the shade. If it is desired to keep them fresh looking and lustrous a light coating of best olive oil will do the work.

Many birds were all about us as we quietly moved about in the dense woods. Of the Woodpeckers, the Little Downy, the Hairy, the Zebra and the Golden-winged were seen, while the trumpet-like notes in the distance of the Great Pileated Woodpecker revealed to us the fact that at least in these woods it was not yet an extinct species. Several Cardinal Grosbeaks betrayed their presence by continually scolding us for this intrusion upon their favorite haunts. The Rose-breasted Grosbeak, too, from a dense tough of vines could be heard uttering in a dreamy undertone a few notes so plaintive and low that they seemed but the echo of the vigorous, rollicking song heard in the nesting time of the summer months.

We now returned to the boat, glad to escape the sting of the nettles and the bite of mosquitoes that swarmed about us. Here we were surprised to find that a great migration wave of Bank Swallows had arrived from the north, and were circling and whirling around over the river like thousands of leaves in a whirlwind. Accompanying them were a few Bee and House Martins, accidental stragglers, perhaps, from the main army that had gone south a month before. As the Swallows arose high in the air or dashed suddenly to the surface of the river, the Bee Martins flew about in a confused, dazed fashion, uttering their rattling, unmusical notes as though protesting against this delay, and urging the Swallows to come along and stop their nonsense. In a little while they disappeared down the river, and we saw them no more, but certainly our best wishes went with them on their long journey to their winter homes in the far South.

A half mile down the river we came to a great flock of Blackbirds. A clump of giant sycamore trees was perfectly black with the Red-wings and Purple Grackles, and their camp-meeting chorus as we rounded a bend in the river was almost deafening. Suddenly the song stopped and for a few seconds not a note was heard; then a few clucks from the leaders and all at once the hundreds arose on the wing with the noise of a tempest, flying to the hills beyond, turning and circling over the village, swooping down again to the river's valley, dashing, whirling and turning with the precision of well-trained cavalry; again lighting on the old sycamores, and once more their song was borne to our ears, now afar down the river, now loud and distinct, and then low, dying away to a mere murmur as the breezes gentle or strong bore the sound to our ear.

Wishing to obtain certain species of shells which we knew abounded in these waters we slowed up our boat and with a dredge made of a large tin dipper commenced to fish for them. Every dredge full of mud brought to the surface would contain a number of species.

In a short time we had quite an assortment of kinds washed out from the sand and mud. The little mussel-like shells called *Spheriums*, not larger than small beans, were plentiful. The rare and unique shell called *Lewises pleurscera* was also found in considerable numbers. Also the large horn-colored water snail, *Melantha integra* and a smaller species, the wax-like *Physsa*, were found in satisfactory numbers. These were all live shells, that is shells containing the animals, and were as

bright and lustrous as though they had been varnished. To prepare them for the cabinet they should first be treated to a bath of hot water and then the animal extracted with a small hook or forceps. To preserve their natural appearance each shell should be given a light coating of glycerine or best olive oil.

Spoon River has become justly noted for the large size, perfection of form and beautiful markings of its *Unios* or mussels. So many fine ones were to be seen on the sand bars and in the shallow water along the banks that we could not refrain from selecting a few of the finely marked species.

The *Occidens* with its beautiful lines of green on variously tinted backgrounds especially attracted our attention. The long slender *Rectus* with its black exterior and purple interior lay alongside of its relative, the *Anodontoides*, with its white epidermis and rose-tinted interior, and near by was found their cousin, the *Gibbosus* or hump-back mussel, with its liver-colored nacre or interior.

Scattered all about in the shallow water were to be seen several species of the pustulate group of *Unio*; especially conspicuous were the following species: *Lachrymosus* or teary mussel; *Pustulasus*, a species covered all over its exterior with warty postules; *Trigonus* or red-meated mussel; *Cornutus* or horn mussel, zigzag with its wavy lines; *Elegans*, a truly elegant species, and the great *Anodonta grandis*, or grand mussel, with one exception probably the finest of all the twelve hundred species of the mussel or *Unio* family. This is only a partial list of the species observed and collected. At least a dozen more species found ranging in size from the little *Parrus*, an inch in length, to the great *Unio heros* of Say, a mussel seven or eight inches long and weighing several pounds.

Having secured all the shells desired we resumed our journey down the river. As we neared the boat landing we were again witnesses to a fine exhibition of bird life. Circling high over the village was a great flock of Cooper's Hawks on their way to the sunny lands of the far South. Their rapid gyrations and circlings vividly reminded one of the many and sudden changes revealed by the kaleidoscope. In a few minutes they passed from view beyond the hills to the South.

Our outing had been a success and we were correspondingly satisfied and happy.

W. S. Strode, M.D.

Bernadotte, Ill.

The Herons of Alachua County, Florida.

Of the sub-family *Ardeinæ*, true Herons, we have eight varieties which are more or less abundant within the limits of our county.

The notes which I have to refer to are taken from observations made by myself during the past five years. By straining the point a little I might to these make the addition of another variety, the *Ardea wardi*, making a total of nine varieties, but not being able to substantiate the statement with specimens I will not at the present time claim this last variety in the *avifauna* of our county.

GREAT BLUE HERON.

This, the largest of all our Herons, is a common resident with us. Unlike some varieties of the smaller Herons it seldom accumulates in large numbers except for breeding purposes, and may be seen singly or in pairs, as the case may be, wading around in the shallow lakes bent upon obtaining its dinner of fish or frogs.

They begin to nest usually early in February, and young may often be seen of considerable size by the middle of March.

On March 28, 1890, I visited one of their breeding places and found at this time young birds, many of which were nearly as large as their parents. Not a single egg was found. There were, perhaps, thirty nests in the rookery, placed around in the cypress trees at various heights. The number of young in a nest was usually three or four. There were no small Herons breeding in the rookery, nor have I *ever* found them breeding in company with the Great Blue. There were several Anhingas and Egrets nesting close by, but nothing smaller.

While passing through the woods near Levey Lake on March 9, 1891, I was attracted by cries of young Herons, and going in the direction from which they came found a company of perhaps twenty pair of Great Blues nesting in the tall trees, which grew in a slew that runs into that lake. All had hatched and the young could be seen standing around on the nests.

Just north of Ledwarth Lake, in some tall pines, quite a number of Great Blues nest every year. Strange as it may seem this bird is considered a great game bird during the breeding season by the negroes of this locality, and many are annually slain for food.

AMERICAN EGRET.

Five years ago the American Egret was very common around our lakes and ponds, but through the agency of man, especially the plume hunters, its numbers have been reduced to such an extent that at the present time it is seldom met with in any great numbers. During the breeding season the Egret is adorned with a magnificent train of long white plumes, which, starting from the back, float far behind the tail, even reaching to the feet or beyond while flying.

On March 28, 1888, I found perhaps a dozen pair breeding at Levey Lake. The rookery was on a partly submerged island one mile from shore, and the nests were placed in the bushes usually about three feet above the water. Incubation at this date was far advanced; in fact, in at least one-half of the nests examined the eggs had hatched. No fresh eggs were found on this day at all. The usual number in a nest was three, sometimes, however, only two, and in no case were four found in a single nest.

While on a camping and collecting expedition in Walkahootta Hammock my partner and I, on April 27, 1889, found a few pair of Egrets breeding in the buttonwood bushes of a slew just east of Horse Prairie, although at this late date the nests contained eggs only partially incubated. The usual number of eggs in this case was also three. Four were found in a nest in one instance. A set of four fresh eggs were taken by my partner from a nest in the northern part of the county on March 26th of the same year. These birds around here are becoming quite shy and it frequently requires considerable caution to approach within gun-shot of them.

SNOWY HERON.

Along in February the Snowy Heron is to be seen around the wet prairies and shallow lakes in considerable flocks in company with the Little Blue Heron, and sometimes with the Louisiana Heron. In March they begin to frequent their old breeding grounds and shortly afterwards commence repairing their nests of the previous year or building new ones. During the first two or three weeks of April the eggs are deposited. It is now that their plumes reach perfection, which soon afterwards begin to drop out, and by the close of the breeding season many have shed them entirely.

The number of eggs usually laid is four, but sometimes five or three are found. May 15, 1890, I found a colony of perhaps fifty pair breeding in the buttonwood bushes of a little pond in the hammock near Levey Lake. At this date the eggs had all hatched and the young completely covered the bushes of the little pond. Many of the young were of considerable size and no eggs were found at all. In this heronry no other Herons were found breeding, while on April 25, 1891, in a similar rookery near Walkahootta, at least one-half of the birds found nesting there were Little Blue Herons, the remainder being Snowy Herons. As a rule, however, I find that they usually nest in company with other small Herons.

LOUISIANA HERON.

"Lady of the Waters." Not so abundant as some of the other small Herons. In early spring they were to be met in small companies feeding around the margin of the lake. It nests in company with the Little Blue and Snowy Herons; and its nest, like others of its family, is simply a small, almost frail nest of twigs and sticks placed on the horizontal limb of some wild willow or cypress tree of the rookery. The number of eggs laid in one nest is usually four, but it is not uncommon to find five or even six in a single set. In the spring of 1889, about the middle of April, I visited a colony of Herons breeding on an island in Kanappahaw Lake. In this rookery were found nesting Little Blue Herons, Snowy Herons, Green Herons and perhaps twenty pair of Louisiana Herons, besides numbers of Boat-tailed Grackles and Red-winged Blackbirds. The Louisiana's nests were placed around on the wild willow trees after the fashion of other Herons. At this date most of the nests contained complete sets of eggs, and many of the eggs showed signs of incubation. The number of eggs found in a nest was usually four, but not uncommon was it to find five, and two of the nests examined contained six eggs each. The eggs closely resemble those of the Little Blue Heron, but, by putting a series of their eggs by the side of a number of the Little Blue's eggs, the shade of blue is noticeable as not being quite so deep as in those of the latter, and as a rule the eggs are not so oval in shape.

F. G. Pearson.

Guilford College, N. C.

[To be Continued.]

A Trip to Tolchester Beach.

On May 30, 1891, my brother and I took the Steamer Louise, which leaves here for a pleasure resort on the Eastern shore of Chesapeake Bay, called Tolchester Beach. We took our rifles with us in order to shoot some frogs but our chief aim was to find some bird's eggs. My brother took a fine set of Fish Hawk's down there last year, but on reaching the nest we found some one or the wind had torn it down. Another nest we found was in a large sycamore tree, and inaccessible. I think it had eggs in it as we could see the old bird looking over the edge of the nest.

Our first find was a set of four Spotted Sandpiper's, which my brother took on the bay shore about 100 yards from the wharf. I scored the next point with a nest of three young Green Herons. Next I flushed a Towhee on the edge of the woods, and going to the place where she got up found a nest with two young ones just hatched.

Leaving the woods we took to the bay shore again and looked into some Bank Swallows' nests. I took a set of seven fresh eggs and another of five. My brother took a set of six. I also found a Belted Kingfisher's nest in the same bank, but as we could hear the young ones in it did not attempt to dig it out.

I waded into a small cat-tail swamp, about one-quarter of an acre in extent, in which I found a dozen or more Red-winged Blackbirds' nests, most of which contained from one to three eggs, but some were empty. Just as I was leaving the wet ground I found a set of six King Rail's, my first find of this species. The nest was a platform of broken bits of the cat-tail placed flat on the ground, and was not hollowed as much as the Clapper Rail's nest. This was our last find for the day, as we had to hurry back to catch the boat for home. Later on, June 15th, when I was down there again, I thought I would take another look at the nest. Wading into the marsh I found the old one, and not more than six feet from it was a new nest of the same species with ten fresh eggs, which soon found their way into my box. *Wm. H. Fisher.*

Baltimore, Md.

Bird Notes of Northern New Jersey.

I have never noticed any record of birds singing on their nests. One of our best field ornithologists, and a great observer of nature, says no birds sing on their nests. Three years ago I heard the sweet song of the White-eyed Vireo. It often proceeded from one tree that I frequently peeped under. As it sounded from one particular spot I stopped several times to discover the vocalist. I was rewarded by seeing its nest about thirteen feet from the ground, on an outer branch of the maple, well concealed by leaves. It happened that the nest was just below an upper window of a barn; by taking a place by the window I could see plainly into the nest. I took the position at the window several days, an hour at a time. I saw the male Vireo singing the entire time he was on the nest with his full song. Another singular trait I noticed was the restlessness of the pair; for they changed position at the incubating duties every fifteen or twenty minutes, the male singing almost continuously, whether on or off the nest. I watched them feed their young, and only took their nest after the family had moved out.

The first American Goldfinch's nest I ever found was betrayed to me by the female on the nest answering the male, or it might be another male Goldfinch, as it flew by. The male bird always utters his call note when flying in summer. Hearing the hen several times in the same place I found her on her nest, after which I had no difficulty in finding the nests of this species by their position.

Several times I have noticed a solitary Cowbird (*Molothrus ater*), late in autumn, after the main flocks retired southward. Sometimes I have seen a belated Cowbird with a flock of House Sparrows in the barn-yard. On the 1st of January this winter I saw two, and on the 8th I saw one in a flock of Sparrows. It is probable, from being of a gregarious nature, the birds associate with the Sparrows from seeing them in flocks. Prof. J. A. Allen tells me he knew a Cowbird to stay all winter in Cambridge, Mass. It is astonishing how these birds, reared as they are in various other birds' nests, can find each other and associate in flocks. Certainly they have little affinity with the modes of life of their foster parents, many being of the Warbler or Vireo families. Here it is well to observe that there is no other case in natural history, at least in the northern hemisphere, of birds being reared in nests of foster parents, and afterwards seeking each other and remaining together.

The Cuckoos of Europe, raised the same by foster parents, do not seek each other or flock together. It is a very solitary bird, seldom seen even two together.

A *Fulmarus glacialis* was picked up quite weak, apparently exhausted, in this locality early in December, Bergen County, N. J., being a long way from the sea. The bird was six miles west of the Hudson River. East, between this river and the ocean, is the widest part of Long Island. Just previous to finding him the weather had been very stormy on the Atlantic. *Henry Hales.*

A Dip into the January O. & O.

I don't like the shot method, "according to Hoyle," of removing the placenta from a much incubated egg. A stream of water sharply driven obliquely into the drill-hole, and a vigorous shaking of the egg, will, especially if faithfully repeated, enable one to blow the placenta out with the rinsing water.

Nobody has touched, as yet, the bottom mark as to latest normal nesting date of the Bobwhite, — not even your reporter from Kansas. Last autumn, while gathering apples with a friend in his orchard, about the middle of October, my friend told me that, the week previous, while some ladies who had driven into the orchard with a carriage were gathering apples, their horse stepped upon and crushed a nest full of Quail's eggs, and that he did not consider this late nesting as unusual. (But the readers of the O. & O. must have exact *dates:* my friend will investigate this matter, accurately, in the autumn of 1892.)

About plumage of the Mallard Drake: does not everybody know that the "green wing-patch" is *constant* with both sexes in all plumages? The Drake does not *always*, at least, don his bachelor coat in May, else the expression "breeding plumage" is a misnomer. I have seen the drakes in full plumage as far south as Central Kansas, as late as the middle of June.

The moult of the summer plumage is really *not* a moult but a chromatic change, such as certain hares and Ptarmigans undergo. Hence, the effect is often "patchy," as often in the case of hares. This effect is the most noticeable on the head and neck, which are the last parts to change. I have heads, preserved for the study of these very conditions, the birds being taken in Kansas as late as November. At that date and in that locality the proportion of perfect male plumages, among the male birds, was from one-third to one-fourth, roughly speaking. In some heads the green feathers are generally diffused, in others distributed in patches, none of them having a "budding" appearance. Of all this, more later.

A gentleman who kept a pair of American Goldfinches in confinement lately told me that the color of the plumage turned, in the spring, from drab-olive to golden yellow, in less than a week. Perhaps these changes have much in common; though the age of the Mallard Drake is certainly an important factor.

P. B. Peabody.

The Western Robin and Varied Thrush.

Of the different varieties of the birds of eastern North America which are included in the *avifauna* of British Columbia, none are more conspicuous than the Robin (*Merula migratoria propinqua*). It is found in all the valleys of that "Sea of Mountains," and I noticed it when passing through "the Rockies," east of the Columbia River, and as common at Port Kells, Fort Langley and other localities on the lower Frazer, where I was informed it was resident throughout the year, so that no notes needed to be taken regarding its migratory movements, but I did not notice it at Vancouver city, nor down the Straits of Georgia; it was common at Victoria, but not again observed on my southward voyage and inland rambles, until some miles east of Seattle.

Why it is distinguished as a different species, or even variety of the *Merula*, I could not determine from what observations I was able to make regarding it. The same drab plumage of the upper parts, the same reddish breast, and ashy undergarb that characterizes the Robin of Ontario is noticeable in this bird of the sunset land, as are also its song and other notes, as well as its general modes of action, nesting habits, and the number and color of its eggs. A comparison, however, of the western forms and those of the east may establish the facts that the former is a little larger in size and the plumage on the back somewhat darker in hue than the latter species, and since my return I notice that the specimens of the eggs of the western species are about one-tenth larger than those of the eastern variety.

The spotted breast of the young, which is remarkable in the Robin of Ontario, is also a characteristic of the nesting plumage of the species of the Pacific Coast, and may indicate in the case of this genus that it is a development of the more woodland Thrushes.

A nest at Port Kells, from which I took a set of four fresh eggs, now in my collection, was placed in a small balsam, about seven feet from the ground, and composed of stalks of weeds and some bark fibres, plastered on the inside with mud, and lined with fine, dry grass. These are of the same form, and of a similar greenish blue color as those of the eastern Robin, but, as previously noted, are a little larger. This was on the 14th of May; at the same period I observed in that vicinity young Robins able to fly, which must have been incubated in the latter part of March.

At Green Lake, some miles eastward of Seattle, the southern terminus of my western rambles, I observed another nest of this species composed outwardly almost wholly of moss. This was placed on a forked branch of a small birch tree, leaning over a small stream of water, near the border of the lake into which the stream emptied, the nest being about fifteen feet over the water, and then contained young. With the exception of a number of Spotted Sandpipers on the sands of the lake shore, I saw but few other birds here, though I remained some hours in the vicinity. This was on the 18th of May.

THE VARIED THRUSH.

This is one of the most beautifully plumaged and pleasing songsters whose presence and notes affect the wild woods in the lower Frazer valley, in British Columbia. In size it is about the same as the Hermit Thrush, and its song notes closely resemble those of the *mustelinus*, but to me these did not appear to be so loud or prolonged, yet, as the season was still early, and before the nesting period had begun when I had the pleasure of listening to its lays, it may be that, as the Varied Thrush season advances, it pitches its notes in a higher key, and devotes more time and energy to the emission of its charming music, and, while the ear is delighted with its song, the eye of the student of nature who rambles in these primeval wilds, which it makes its haunts and home, is no less pleased with its varied plumage of dark brown and golden yellow. And when to these natural advantages of song are added its graceful movements among the deep green foliage and snowy blossoms, which in the early summer intermingle in the Columbian forest, it may be imagined that this species is among the most noteworthy of all the *auriauna* families west of the Rocky Mountains.

The tourist, whatever be his object, who suddenly finds himself in the woods bordering the streams or wave washed shores of the Pacific Coast of our western province, is at once astonished at the different appearance of his surroundings to what he had previously observed nearer the Atlantic sea-board. The woods, the rocks, the mountains, have all a different aspect, even the air has a different smell, and for a time produces different effects on the physical system and impressions on the mind, and many of the birds whose forms meet his gaze and music falls upon his ear, have differently hued plumages, and notes.

Favored by a rich soil and temperate climate, giant firs raise their waving tops to an altitude surpassing those in most other lands; monster cedars rival these in tallness and trunk proportions: balsams and other evergreens, though much smaller, nevertheless standing close together, cast a deep shade on the damp earth, from whence spring, while intermingling with these, species of white wood, alders, and large flowering dogwood, which altogether make a forest so dense that it can scarcely be penetrated, and few attempt to do so except on matters of business. It is late in the forenoon before the sun's rays penetrate these gloomy woods, and though out in the clearing the heat is at times oppressive, yet in these shades there is always a coolness, though the wind's influence is seldom felt and storms cannot rage, while in most places, as the spring and summer advances, the ground is covered with mosses intermingled with plants and flowers of varied and beautiful hues. Amid such scenes are the haunts and home of the Varied Thrush, and should it appreciate views of scenery, which perhaps it does, it has only to move a short distance from the deepest shade to the lakelet shore, the river bank, or the margin of the rippling brook, to view the azure sky, the noonday sun, and the dark outlines of rock-formed mountains whose summits are capped with eternal snows.

Such feeble outline of some of the localities affected by the presence of this species may assist in conveying to the mental vision of the reader ideas not otherwise attainable, yet inseparable from its life history, and should the eastern reader wander on a summer morning in some dark wood, and hear in the higher branches the song notes of the Rose-breasted Grosbeak and the Scarlet Tanager, and in unison with these, in the lower woods, the soul-inspiring lays of the Wood Thrush, he may without much stretch of the imagination assume that he is passing through a part of a

British Columbian forest and listening to the musical strains of the Black-headed Goshawk, the Western Tanager and the rather melancholy refrains of the Varied Thrush.

Among the vines and bushes, as well as the ferns, flowers and mosses, this species finds the berries and lower forms of animated existences, as its daily needs require.

Its nest, of which I saw a few specimens of the past year, is composed almost wholly of mosses, lined with lichens and other soft, dry materials. This is placed in bushes, or among branches not far off the ground, or in much similar situations as that of the Hermit Thrush. The eggs, four or five in the set, are of a bluish hue, mottled with reddish brown spots. This species, known also as the Varied Robin and Oregon Thrush, is reported to be more abundant on the sea-shore, where it remains throughout the year, than further inland, and here among the stunted firs, rocks and sands it finds a scenery much different from that of the more inland valleys, as well as the effects of the sea-breezes and the rolling waves. In the museum at Victoria I saw some fine, mounted specimens, and in the deep woods near Port Kells its songs strongly reminded me of the Wood Thrush of Ontario: but under the circumstances the effects were more melancholy than pleasing.

Wm. L. Kells.

Notes on Bird Flight.

To me, bird flight has always been an interesting study. Statements of extreme velocity often appear in print and are sometimes misleading. To say that a flock of geese moves at a rate of one hundred miles an hour for an entire day may require to be "backed up by statements."

At times, when fleeing before a *norther* and its flight is accelerated by the force of a high wind, many birds sustain a great velocity. But more frequent is unusual speed in the fierce dash of Falcon or short flight of Grouse Though different classes of birds may usually be distinguished by their mode of flight, there are variations at once odd and pleasing. Those measured strokes of the Brown Crane in full force make a pleasing contrast with the majestic and long-continued aerial evolutions, seen while on his migratory course.

The Canada Goose presses onward, borne up by strong and steady pinions. For forceful, solid business he has few rivals. I remember once, while travelling by rail at a rate of thirty miles an hour, our way lay for a time along the course of a swollen creek. A flock of geese, among them one little Teal, came alongside the train and kept almost within gunshot for fully ten miles, seemingly at an ordinary rate: and the Teal was at no loss to keep his place among his larger companions.

While collecting on the Iowa River I chanced to be near a close cover of weeds and dwarf willows, one cold winter day. Snow lay two feet deep on the level, and but little bird-life was in motion. Suddenly a Quail came by me like a flash: a Goshawk was in hot pursuit. The Quail glided safely under cover and the Hawk went again to the woods. In a short time he drove another Quail into the willows, repeating his unrequited task until not less than a dozen birds nestled in the clump of brush about me: yet the Hawk had not observed me, and he hung about the place for a while, unwilling to leave such good game. The frightful speed of those poor, scared birds and their relentless pursuer haunted me for many a day.

At another time, while riding in from the country, I saw a male Cooper's Hawk making a determined effort to catch a Quail as it whirred past over an open space, but the Quail was too swift. It would be impossible to estimate their fleetness, but neither could protract it for a considerable distance.

Often, by cunning, the smaller birds accomplish their escape from a swifter pursuer. From my father's house a quarter mile distant, stands a row of tall cottonwood trees. Here the Northern Shrike makes his perch in winter time, and by adroit imitation of their notes beguiles many an unsuspecting victim. Hearing the fellow's loud, grating cry, and knowing his tricks I started with the gun, intending to *entice* him. All at once he left his high perch and chased a little bird; and, though he flew hard, his efforts were not successful, the bird evading his clutch. As I had but just started and could scarce see them I was the more interested that they came toward me. The Chickadee — which it proved to be — made good use of its wits. Whenever the Shrike came directly at it the bird made a sharp turn, thus gaining a little advantage. Many times the Shrike chased him up in mid-air, but when the Chickadee attempted to come to ground the Shrike's greater weight accelerated its speed, and thus the entire way was fought, and when that slight creature at length found shelter it was

none too soon. It was a pleasure to handle that Shrike.

Once only in my experience have I seen that pleasing exhibition,—the upward flight of the Shore Lark. It was a bright, warm morning in early spring. A pair of these birds made merry at the far side of an old field. Lightly one began to fly about over the meadow and was soon ascending in easy spirals until almost out of sight, singing as he arose. But it was at the very highest point he reached that those ecstatic notes swelled out and fell sweetly, while he floated here and there light as a feather. Then gradually the song died away, and with closed wings he came easily to earth again.

How different from their leisurely habit is the fierce, swift dash the Common Crow makes when maddened by the presence of a Hawk!

Who has not admired that sober sailing of the despised Turkey Vulture, as far over hill and wood and river he spreads his wing on the morning breeze? During the summer of 1890 the cholera plague worked havoc with the swine of this region, bringing in its train unsanitary conditions, and a Buzzard's feast. One morning my attention was called to a flock of Vultures coming on motionless wings from the far West. On and on they went, yet more were coming. Some settled in neighboring fields, while the most passed on and out of sight, their great wings half drawn up to their bodies. Perhaps a thousand birds were in the caravan. Whence came they and how knew they the feast?

The Great Blue Heron is much at ease on the wing, yet those long, sweeping strokes carry him far. In the vicinity of a heronry they are coming and going, busy as a swarm of bees, the extra allotment of neck, superfluous in flight, drawn up against the breast. In long passages over wilderness and lakes, however, betimes he stretches forth his slim neck and with spread wings and tail, using much length of legs for rudder, soars aloft, seemingly oblivious to his uncouth appearance.

A sleepy old member of the tribe once gave me a free exhibition of their peculiar flight. I came suddenly upon him as he stood in two feet of water near a lonely shore. As I hurled an oar at him he became aware of my intent and began exerting his energies. For extreme awkwardness of movement his was a success. With unearthly, croaking squawks and hurried gathering up of dangling legs, he urged himself up above the trees and away, until those garrulous screams sounded only in echoes through the dim, lonely woods.

Of all the birds with which I am familiar the Loon, or Great Northern Diver, excels in impetuous speed. I can now almost see that trim form as it came cloud-high, returning from its morning meal on Lake Gabriel. Clear and loud rang forth its cry; then poising one moment with folded wings, it fell gradually for a time, then faster and faster, until, reaching a level with the forest, it began a circuit of the lake, a distance of several miles. At length it passed my boat like a flash, the wind from its movement being plainly felt. The air fairly whistled through its feathers, and when it struck the water at a slight angle so intense was its momentum that a foaming furrow was ploughed for more than twenty rods.

While camping on Little Twin Lakes, Northern Iowa, some years since, I noticed a male Hooded Merganser circling around a grove so often that it seemed certain that he was feeding his mate, which they do at incubating time. I concealed myself and watched for a long time, and finally was rewarded by seeing the fellow fly plump into a hollow in a gigantic oak. It would seem to be a piece of recklessness; certainly, if he had not aimed well he would have suffered for the error.

A pleasing characteristic of the species is the manner of flying during nesting time. One may see them chasing round and round some wooded lake, speeding ever with a thrilling impetuosity; uttering a peculiar note as they glide along; then they have darted out into the forest, leaving the beholder pleased with the performance, and none the wiser as to the nest site. I timed one of this species, and it made its mile in less than one minute.

Did you ever see the American Coot *try* to fly?

From the depths of a dark, larch swamp, cool with its shadows, I chanced, one hot July day, to look upward; and out through an open space among the branches, away far up where the fleecy clouds floated, appeared a troop of birds, like specks against the glistening cirrus. For a time they seemed motionless, then in miniature curves and dashes they began a descent across the sky, and as they fell the flight became like a quiver of arrows thrown, and before the moss-clad branches hid them I recognized that fairy form. *Elanoides.*

J. W. Preston.

Baxter, Iowa.

Birds of Five-mile Beach.

Five-mile Beach, situated on the coast of New Jersey, twelve miles north of Cape May and twenty-four miles from Philadelphia, is a narrow strip of land at no place more than a mile in width, and, as its name indicates, about five miles in length. It is bounded on the north by Hereford Inlet, on the east by the Atlantic Ocean, on the south by Turtle-Cut Inlet, while to the west stretches away a broad expanse of salt marshes. The greater part of the beach is thickly wooded; the holly, maple, oak and cedar being the principal trees, while the undergrowth is a mass of thorn, blackberry and bramble, in many cases so dense as to be almost impenetrable. Numerous small streams and brackish ponds are scattered throughout the neighborhood. To the botanist, entomologist and ornithologist much of interest is to be found on this beach. Mr. Henry Wenzel of the Philadelphia Academy of Natural Science, who has been my companion on several trips to this place, has turned up no less then ten species of *Coleoptera*, heretofore not recorded as being found north of the Carolinas, while several species proved new to science.

The following notes are the result of eighty-two trips made to this interesting locality, the length of the trips being from that of a day to two weeks:

2. Holbœll's Grebe (*Colymbus holbœllii*). Have met with this species on several occasions during the winter months.

3. Horned Grebe (*Colymbus auritus*). Common from late in October until end of March. The local name applied to this species is that of Sausage Neck.

6. Pied-billed Grebe (*Podilymbus podiceps*). Probably rare, as I have met with it but twice.

7. Loon (*Urinator imber*). Common during winter months.

32. Razor-billed Auk (*Alca torda*). Three birds of this species were observed on Grassy Sound on several occasions during the month of February, 1891.

51*a*. American Herring Gull (*Larus argentatus smithsonianus*). The first generally arrive about October 6th; by the 20th they are common, and remain so until about the 10th of April, when they start north.

54. Ring-billed Gull (*Larus delawarensis*). Arrives and departs about the same time as its near relative, the Herring Gull, and is equally abundant.

58. Laughing Gull (*Larus atricilla*). Common from April until October. Large numbers breed in the vicinity of Five-mile Beach. Gull Island takes its name from the number of birds of this species that breed there.

70. Common Tern (*Sterna hirundo*). Very common from April until October. Many breed on the lower point of the opposite beach.

74. Least Tern (*Sterna antillarum*). Common but not as much so as a few years ago. Some breed on the opposite beach.

94. Sooty Shearwater (*Puffinus stricklandi*). Two birds of this species were shot by Capt. Taylor at the fishing banks opposite Five-mile Beach and presented to me.

109. Wilson's Petrel (*Oceanites oceanicus*). Common at the fishing banks opposite the beach.

117. Gannet (*Sula bassana*). Occasionally seen at the fishing banks opposite the beach. A fine ♂ was shot by Capt. Taylor on April 26th and presented to me.

120. Double-crested Cormorant (*Phalacrocorax dilophus*). Common. Often flying close in along the beach. Known to the residents on the beach by the name of Nigger Goose.

129. American Merganser (*Merganser americanus*). Have seen but few of this species, probably rare.

130. Red-breasted Merganser (*Merganser serrator*). Very common from October until April. May breed in the neighborhood, as specimens have been seen throughout the summer.

131. Hooded Merganser (*Lophodytes cucullatus*). Rare. A few killed each winter. Known to the local gunners by the name of Hairy Head.

132. Mallard (*Anas boschas*). Rare. One secured this winter and one last winter.

133. Black Duck (*Anas obscura*). Very common. During a hard winter, when the salt ponds and small creeks are frozen up, large numbers are killed.

135. Gadwall (*Anas strepera*). Rare. A stray specimen of this species sometimes killed.

137. Baldpate (*Anas americana*). Rare. Capt. Taylor secured two during the winter 1889–90.

139. Green-winged Teal (*Anas carolinensis*). Rare. My only record of this species is a specimen shot by John Stermer on November 15, 1890.

142. Shoveller (*Spatula clypeata*). Very rare. One shot by Capt. Taylor in the winter

of 1888–89 is my only record of this species for this neighborhood.

143. Pintail (*Dafila acuta*). Not common. A few seen each winter.

144. Wood Duck (*Aix sponsa*). Secured two out of bunch of five. This was the only time I ever observed this species on the beach.

148. American Scaup Duck (*Aythya marila nearctica*). Common on Grassy Sound.

149. Lesser Scaup Duck (*Aythya affinis*). Not common. This and the foregoing species known to the local gunners as Broad-bills.

151. American Golden-eye (*Glaucionetta clangula americana*). Common. Only known as Whistler.

153. Bufflehead (*Charitonetta albeola*). Common. Those secured generally young males and females.

154. Old Squaw (*Clangula hyemalis*). Very common from about the middle of November until the middle of April. Old Momme or Momme is the only name known here for this Duck.

163. American Scoter (*Oidemia americana*). Common during the winter. I have observed this and the following two species far up in Hereford Inlet, as well as off shore.

165. White-winged Scoter (*Oidemia deglandi*). Common during the winter months. All the Scoters are called Coots by the local gunners.

166. Surf Scoter (*Oidemia perspicillata*). Common during the winter.

172. Canada Goose (*Branta canadensis*). Although very common during the winter yet very few are shot, as they will not decoy well.

173. Brant (*Branta bernicla*). Not common. A few seen every winter.

Philip Laurent.

Philadelphia.

[To be Continued.]

The Appearance of the Chewink in Lat. 37° 48′ N. in Winter.

It may be of interest to some of the readers of the O. & O. to know that while hunting near the White Sulphur Springs, W. Va., in company with Messrs. R. M. McLeod and John A. Mastin, on February 5th, I saw a male Chewink (*Pipilo erythrophthalmus*) in the winter plumage. On looking over my records I find it recorded as having previously arrived on the following dates: April 13, 1890; April 17, 1891.

Thaddeus Surber.

White Sulphur Springs, W. Va.

Arrivals of Some Migratory Birds of Johnson Co., Ind.

The dates given below are those on which the birds named were first seen by the writer, and represent approximately the date of the earliest arrival of each of the species named for the year 1891.

Robin (*M. migratoria*),	Jan. 28.
Bluebird (*S. sialis*),	Feb. 2.
Redbird (*C. cardinalis*),	" 8.
Field Sparrow (*S. pusilla*),	" 8.
Cowbird (*M. ater*),	March 4.
Killdeer (*A. vocifera*),	" 16.
Meadow Lark (*S. magna*),	" 17.
Blackbird (*Q. quiscula*),	" 18.
Chewink (*P. erythrophthalmus*),	" 18.
Pewee (*S. phœbe*),	" 19.
Sparrow Hawk (*F. sparverius*),	" 23.
Kingfisher (*C. alcyon*),	" 23.
Pine Siskin (*S. pinus*),	" 23.
Golden-crowned Kinglet (*R. satrapa*),	" 30.
Bewick's Wren (*T. bewickii*),	April 1.
Chipping Sparrow (*S. socialis*),	" 1.
Southern Chickadee (*P. carolinensis*),	" 7.
Barn Swallow (*C. erythrogaster*),	" 13.
Brown Thrush (*H. rufus*),	" 13.
Yellow-bellied Woodpecker (*S. varius*),	" 16.
Whip-poor-will (*A. vociferus*),	" 20.
Orchard Oriole (*I. spurius*),	" 21.
Rain Crow (*C. americanus*),	May 8.
Goldfinch (*S. tristis*),	" 8.
Catbird (*G. carolinensis*),	" 20.
Nighthawk (*C. virginianus*),	May 21 to 25.

The Bullbat or Nighthawk is remarkably punctual in arriving here on its southern migration about the 17th of August. In both the years 1889 and 1890 the first individuals made their appearance promptly on the 17th of August. This year they were one day later.

E. M. Kindle.

How is This For a Rare Egg?—"There is now on view in a shop window in Kirkwall," says the *Pall Mall Gazette*," four eggs of the Great Skua, a bird of peculiar habits and now almost extinct in Britain. Indeed, its only known nesting place is the remote Island of Foula, Shetland. So ruthlessly is the bird pursued for its now valuable eggs that last year out of about twelve nesting pairs only two eggs were hatched. A tourist who visited Foula Island this year paid $200 for one egg."

Old Squaw (Clangula hiemalis).

This bird is in my opinion the most abundant duck in this locality, during migrations generally appearing in immense flocks after a blow. Last November these birds were caught in the herring nets on Lake Erie by the thousand. At Dunkirk, N. Y., between five and seven thousand were taken at one haul. At this port (Erie) the largest haul, to my knowledge, was eight hundred. A very few American Black Scoters were also taken, but no other species. Lake Erie is, to be sure, a shallow lake, but the fishermen informed us that most of the ducks were caught when the nets were set 15 fathoms (90 feet) of water, a few being caught in 18 and 20 fathoms. One captain told me that he caught three ducks of this species in 27 fathoms, and I do not doubt his word. One of our daily papers printed a long article on this subject, claiming that the fishermen set their nets on purpose to catch ducks, but I had ample proof that such was not the case, for the ducks were invariably so badly entangled in the nets, as to cause considerable trouble in getting them out; besides, after the first large haul the markets were glutted in all directions, and many were thrown away.

This bird is well known to be an expert diver, yet the fact that they can descend to such depths as I have noted seems quite remarkable to me. Their flesh is very poor, still it seems a pity that they should be slaughtered in this way, and while I do not think they are liable to be exterminated, last fall's catch must have made quite a diminution in their ranks. *Samuel E. Bacon, Jr.*

Erie, Pa.

Capture of a Mink.

December 29th I started for the village store. On the way I saw some boys skating and one of them said "Mr. Farmer, do you want a young (?) muskrat?" Of course I did, and asked them where it was. They told me, and from the description they gave me of it I knew it was a mink. I concluded to look into the matter when I came back but just as I was going on I happened to glance across the brook and there, sure enough, was some kind of an animal going under a cake of ice near the shore.

I hurried home, and, loading my gun with 3's, went back. When I got there, on the other side, the boys said that they had seen it again and that it was under the thin ice near where I stood. I began breaking the ice with my feet and in a moment up popped Mr. Mink's head about fifteen yards away. I moved my foot a little and that scared him, but I took a snapshot at his head just as it disappeared and had the satisfaction of seeing the ice fly all around the hole where he had gone down. Rushing forward I saw that the ice was covered with blood. I kept still a moment and loaded my gun. I had hardly finished and laid the gun down preparatory to breaking the ice when he came up again and made for the shore. I seized my gun, but the confounded shell (a boughten one) missed fire. This was maddening, but I soon came up with it and dealt it two good blows over the head with the gun-barrel. This only served to make him go faster, so I raised the gun by the barrel, regardless of the fact that it was loaded, and brought it down on his back. This did the business and I soon had possession of him.

Fur dealers and sportsmen who have seen it declare it to be one of the finest minks they ever saw. I have it nicely mounted and consider it one of the gems of my collection.

Arthur M. Farmer.

Amoskeag, N. H.

For blowing eggs, when there are a quantity of large ones, the use of a rubber syringe bulb, with two pieces of rubber tube, will be found of great value. A blow-pipe is attached to one end of the tube and the other end is placed in a bowl of water. Filling a small box with sawdust, make a hole through one side at the top and insert the blow-pipe. This holds it in position with the pipe over the sawdust pointed upwards. Now, instead of blowing the egg, force the water by means of the bulb into the hole, and the contents can be quickly and easily emptied, and the shell thoroughly rinsed. This bulb, tubing and pipe can be obtained from the publishers of this magazine, postpaid, for $1.00. This is not a new idea, but is a good one just the same.

The subscribers to the O. & O., from Halifax to Mount Pleasant, S. C., cry "Down with la grippe." It is a case where the man that cries is down.

THE

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NATURAL HISTORY,

ESPECIALLY DEVOTED TO THE STUDY OF

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THEIR NESTS AND EGGS,

and to the

INTERESTS OF NATURALISTS.

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Editorial.

The egg collecting season is here again. Already the records from the Great Horned Owl districts are coming in and will soon be followed by others. Many will begin their experience with the season of 1892. To those, as well as older collectors, we would advise that a special effort be made to use all possible care in preparing the specimens that are procured, and to making proper records; to the last give your most careful attention. We believe that many charges of dishonesty that are continually made arise from mistakes that are made through carelessness, which when discovered by others are hard to refute. To the ornithological collectors we advise that you pay careful attention to the sexing of the specimens. If there is the least shadow of a doubt; do not jump at a conclusion. Mark your opinion on the label but state that there is a doubt, in so doing you may be spared a future annoyance and increase the value of your collections.

It should be distinctly understood that the O. & O. is not antagonistic to any association or publication. To the contrary, it is always ready to advocate any plan that will facilitate the study to which it is devoted. As an independent journal it will not hesitate to criticise whenever the occasion demands.

There is an indication that considerable preparation is already being made in the taxidermists' line, looking forward to the Columbian fair in 1893. We hope that the occasion will mark an increase in the interest throughout the country. All hands should unite to further such a result. How would it do to have a space secured and all hands, professionals and amateurs, each send a specimen of their work, and let it be a general exhibit from the collectors and taxidermists of America?

Brief Notes.

By a misunderstanding on the part of a clerk a number of bills were sent out to subscribers of the O. & O. for fractional parts of the year. Subscriptions are renewed in full if not otherwise requested.

Nov. 24, 1891, I received a fine male White-winged Scoter (*Oidemia deglandi*). This, with one other, was obtained from a flock of five at Lost Island Lake, Iowa. The duck is said to be common in the East, but so far as I can learn this is the first record of its appearance in this state. I would like to hear from others on this subject. It is a beautiful bird of a velvet black, except the white wing speculum and a small white patch under and behind the eye. Bill and feet black and red. Frank W. Sheldon, Des Moines, Iowa.

We wrote to C. F. Newell a few days since, asking him to procure a wild-cat for us. In a day or so back came a cat. He had shot it in the barn-yard of a neighbor. This could hardly be called a miracle, but like Abraham's ram was on hand just at the right time.

Edward Thayer reported that Robins were seen on Morris' Island, Chatham, Mass., Jan. 16.

A Pigeon Story of By-Gone Days.—Chronicled in my memory, many years now, I recall the time, not so long ago as when deer and bears were abundant in New Hampshire, but quite long enough to make one regret the days when wild Pigeons were plentiful in Carroll County, the writer in company with two companions, tired after a long day's hunt after Pigeons, were sitting, together with a number of country folks, one evening in early fall, before a huge log fire in the main room of the tavern at West Ossipee, then kept by "Jeff" Jewell. Our pipes were lighted and we were all just beginning to get well "toasted" when the ever-welcome George Whiting entered, the veteran stage-driver of this section and who, though now on the shady side of sixty, is still hale and hearty in

his comfortable home in South Tamworth. The conversation quite naturally turned upon the events of the day and to Pigeons. Suddenly George spoke up and said "See here, boys, I'll tell you a Pigeon story, and one which, although the events described in it happened many years before you were born, will interest you, I think." Some one who knew George's "proclivities" passed him the "weed," another, an article from which I daresay he took that which eased the dust from his throat a bit, gathered there from his long drive that day and from which he had just returned. Pipes were filled anew, the little assembly, almost to a man, settled back in their chairs, prepared for a hearty laugh, so sure to follow, and George, getting his "quid" adjusted, said:—

"Now boys, this is the Pigeon story as told by Stephen Allard, an old bear hunter of Albany, N. H." "About 1825 or '30, somewhere 'long there, I was out one day a-hoein' corn on my burned ground, and the sun was a-shining bright as ye ever see it, when all to once there was a dark cloud passed over my head, and I looked up and see a flock of Pigeons flyin', and there was more'n five hundred thousand million legion of 'em. Jest beyond me there was an ole dry stub with plenty of sways on it, and they all flew and lit on the old stub, every one of 'em.

"I had my ole Queen's arm with me, in case the Injuns should attack me or the bears (pronounced bayars), and as I had but one charge of ammunition with me, that being in the ole Queen's arm, I wanted to be sure and kill ev'ry one of 'em the first shot, and as I pulled the trigger I give her a little switch, so as to scatter the shot, and I killed every one of 'em *dead as 'pelture*,' and down they come, the whole five hundred thousand million legion of 'em onto the ground. Then I took my bayonet and pricked holes through their necks and strung 'em onto a string o' withes, and I slung 'em over my shoulder and started for home.

"I had to ford across the river on my way there, and as the water was pretty high, it being in the spring of the year, the current carried me down stream into deep water, so it run over the waistband of my pantaloons. However, I managed to climb up the bank, and when I got on the shore I found my load was a great deal heavier than before, so I took off my pantaloons to wring 'em out, — mind ye, gentlemen, my wife Molly carded the wool and spun the yarn and wove the cloth and made the pantaloons: they were very stout and sufficient to carry my load, — and when I come to shake 'em out I shook out more'n five bushels of the handsomest trout you ever see in all yer life; and mind, ye, gentlemen, this is jest as trew as the Holy Writ, every word of it." Chas. F. Danforth.

I have taken Great Horned Owls' eggs this season on the following dates: Jan. 28, 1-2; Feb. 3, 2-2; Feb. 8, 3-2; Feb. 16, 4-2, 5-2; Feb. 19, 6-3. First Bluebirds appeared here on Feb. 13, and on the 16th a Red-headed Woodpecker was seen. Dr. W. S. Strode, Bernadotte, Ill.

TRINOMIALS. — "Well, little boy, what's your name?" "Shadrack Nebuchadnezzar Jones." "Who gave you that name?" "I don't know. But yer bet cher yer life if I find out, when I get's me growth they'll be sorry for it." — Life.

Those who have watched the naming of birds since the advent of the A. O. U. will probably appreciate the above joke. [This is sent in by a well-known friend. — ED.]

A beautifully marked specimen of a partial albino Bobwhite was secured by Henry J. Thayer at the Boston market. The tips of the feathers were natural, while the background was nearly white, giving a very unusual appearance.

A. E. Kibbe writes that his pet skunks are doing nicely, and he hopes to breed from them this spring.

A few flocks of Pine Grosbeaks were reported at Readville, Mass., early in February.

Prof. Forbush is now on the war-path after the Gypsy Moth.

Twenty thousand tanned dog-skins on the floor in one loft in the city of Boston was an unusual sight of this week, all from China. They are used for mats, robes and garments, and no doubt the animals were eaten. The black ones are the most desirable.

The following additions have been recently made to the Zoological Department at Roger Williams Park, R. I.: A fine male tiger, a bull bison, and a pair of lions about two years old, captured on the coast of Africa when about six months old. There are expected shortly a pair of leopards, Rocky Mountain lions (panther) and spotted hyenas. The park is located on the outskirts of the city of Providence, and under the present management is becoming very popular.

A pet bear, a lovely creature, about a year old, kind and gentle, can be lead, and has been introduced on the stage, — for sale. Address the editor for particulars.

We are very much gratified to notice a sign of interest on the subject of introducing a more general attention to the study of natural history in the public and private schools in Massachusetts. It is time it was done.

Our friend Cantwell comes to the front again. He writes that he still lives but has been very busy. He sends us a number of photographs. The first represents him with his Prince Albert buttoned up to the chin, his hat reverently raised with one hand, while he sadly views the remains of a large specimen, evidently contemplating whether it is too far gone for preservation. This view is very *unlifelike*. Others represented him with the various surroundings, showing the store and workshops of C. E. Aiken, with whom he is at present connected. Surely Geo. G. Cantwell shoots the kodak as well as the gun.

The set of Yellow Palm Warblers' eggs taken by Harry Austen, and reported in the O. & O. last summer, are now in the collection of J. Parker Norris.

The eggs of the White Pelican and the St. Domingo Grebe are fluctuating in value just now.

Fur of the Skunk.—The skunk has the heaviest fur of any animal in the country, and is consequently valuable and saleable, although when dressed it is very small. About 80 per cent of all the skins taken in the United States go to Europe. C. M. Lampson has a great sale in London three times a year. At this sale there were disposed of, among other skins, 175,000 coon, 700,000 muskrat, 105,000 skunk, 85,000 opossum, 55,000 mink, and 7,000 gray fox, all of which were shipped from the United States.

THE POOR BLACK CHICKEN.

Out of the barn one morning
Old Whitey came strutting down
No common, inferior hen was she,
But a Dorking of great renown.

And after her came ten chickens,
Running with all their might;
Nine had their mother's complexion fair,
But one was as black as night.

Old Whitey looked over her shoulder
And chucked to each little pet;
But suddenly, angrily, stretched her neck
And flew at the small brunette.

All day she pecked at the chicken
Whenever she saw it near,
And Dinah, the cook, at the kitchen door,
Heard its pitiful peeps of fear.

"I'm bressed if that stuck-up Dorkin'
Don't hate yer fer bein' black!
But one cullud pusson can feel for another—
We'll pay your old mudder back."

So, laughing, good-natured Dinah
Quick lifted the little wight,
And, shaking the dredging-box carefully o'er him,
Lo! presently black was white.

Then away ran the floury chicken,
Looking like all the rest;
And silly old Whitey contentedly chucked
As it nestled beneath her breast.

Dinah nodded and laughed at the mother;
"Yer fooled, honey, sure, but den
When folks every day take appearance for trut,
Why shouldn't a foolish old hen?
—Sag Harbor Express.

John Bieney, whose place of business is at Rowe's Wharf, Boston, observed a mink for two or three days. Finally on Feb. 10, he shot it with his Flobert rifle. Boston Harbor is not a common resort for fur-bearing animals of this class.

H. D. Eastman reports from Framingham, Mass.: "A Crow was found hanging head down, with wings extended, the claws firmly clasping a limb some twenty-five feet from the ground, requiring quite a little amount of climbing and shaking to bring him down. The bird was in good condition and perfect plumage. Do you take it, that this was a case of la grippe?

According to latest advice from New Jersey the European Pheasant thrives mightily in his adopted home, but he has developed the serious fault of bad temper. It appears that the birds have multiplied rapidly, and that too many of them are of the male persuasion for the public good. A cock Pheasant is a spicy fighter wherever found, and the Jersey bird shows an inclination to slaughter his own offspring or Grouse or Quail on the slightest provocation. It is difficult to imagine how any serious damage can result, but one never knows what will come of meddling in Dame Nature's hennery. The men who invented the American-English Sparrow and the Anglo-Australian rabbit might yet feel proud of the Americanized Pheasant. —Outing.

Soak Your Pencils in Oil.—When I come across anything useful, or that I think such, I make a clipping of it. Some time ago I made one captioned "Soaking Pencils in Oils," and since have been following the instructions given. Every one knows how much easier it is to write with a soft pencil than a hard one, and how fast the former will wear away. The soaking adds to the life of the pencil nearly one-half, and still more smoothness in writing. It also adds toughnes to very soft leads, especially the large blue pencil so much in use by editors. And it does not affect the finish, whatever its nature, except to deepen the color, and make still more glossy and smooth such as are not painted. And such a simple matter. Soak in linseed oil until the wood and lead are thoroughly permeated with oil. A week or ten days is none too long. They will take oil faster if sharpened, especially painted pencils. If the lead is not filled from want of time it will absorb from the wood.—Capron.

New Publications.

Notes on the range and habits of the Carolina Parakeet by Amos W. Butler from *The Auk*, Vol. IX, No. 1, January, 1892. A very interesting compilation of the facts that Mr. Butler has obtained relative to the former occurrence of these birds in Indiana and other neighborng states.

Abstract oi the proceedings of the Delaware Valley Ornithological Club of Philadelphia, 1890–91. This organization was effected February 3, 1890, by the following gentlemen: William L. Bailey, George S. Morris, J. Harris Reed, Samuel N. Rhoades, Witmer Stone, Spencer Trotter, M.D., and Charles A. Vœlker: the primary object being the study of bird migration and kindred subjects, in the neighborhood of the city. A perusal of the records of the meetings held during the two years shows that many interesting papers were presented, together with illustrations by specimens. It is seldom that we see a report that presents such a healthy interest. They should be congratulated.

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Vol. XVII. HYDE PARK, MASS., APRIL, 1892. No. 4.

Classification of North American Birds.

(Extract from A. O. U. Code.)
With Names of Some Birds Common in Collections.

I. Order PYGOPODES. Diving Birds.

a. Sub-order, PODICIPEDES.

1. Family, *Podicipidæ*. Grebes — Western Grebe, Pied-billed Grebe, Horned Grebe.*

b. Sub-order, CEPPHI.

2. Family, *Urinatoridæ*. Loons — Pacific Loon, Red-throated Loon, Loon.*

3. Family, *Alcidæ*. Auks, Murres, Puffins, California Murre, Puffin, Brünich's Murre,* Razor-billed Auk.

II. Order LONGIPENNES. Long-winged Swimmers.

4. Family, *Stercorariidæ*. Skuas and Jaegers, Skua, Parasitic Jaeger.*

5. Family, *Laridæ*. Gulls and Terns — Western Gull, American Herring Gull,* Kittiwake,* Black Tern, Common Tern.*

6. Family, *Rynchopidæ*. Skimmers — Black Skimmer.

III. Order TUBINARES. Tube-nosed Swimmers.

7. Family, *Diomedeidæ*. Albatrosses — Sooty Albatross.

8. Family, *Procellariidæ*. Fulmars and Shearwaters — Fulmar, Greater Shearwater,* Sooty Shearwater, Leach's Petrel, Wilson's Petrel.*

IV. Order STEGANOPODES. Totipalmate Swimmers.

9. Family, *Phaëthontidæ*. Tropic Birds — Yellow-billed Tropic Bird.

10. Family, *Sulidæ*. Gannets — Gannet.*

11. Family, *Anhingidæ*. Darters — Anhinga.

12. Family, *Phalacrocoracidæ*. Cormorants — Florida Cormorant, Cormorant, Double-crested Cormorant.*

13. Family, *Pelecanidæ*. Pelicans — American White Pelican, Brown Pelican.*

14. Family, *Fregatidæ*. Man-o'-war Birds — Man-o'-war Bird.

V. Order, ANSERES. Lamellirostral Swimmers.

15. Family, *Anatidæ*. Ducks, Geese and Swans — Red-breasted Merganser,* Black Duck, Green-winged Teal,* Old Squaw,* American Eider,* Canada Goose,* Whistling Swan.

VI. Order, ODONTOGLOSSÆ. Lamellirostral Grallatores.

16. Family, *Phœnicopteridæ*. Flamingoes — American Flamingo.

VII. Order, HERODIONES. Herons, Storks, Ibises, Etc.

a. Sub-order, IBIDES.

17. Family, *Plataleidæ*. Spoonbills — Roseate Spoonbill.

18. Family, *Ibididæ*. White Ibis,* White-faced Glossy Ibis.

b. Sub-order, CICONIÆ.

19. Family, *Ciconiidæ*. Storks and Wood Ibises — Wood Ibis.

c. Sub-order, HERODII.

20. Family, *Ardeidæ*. Herons, Bitterns, etc. — American Bittern,* Great Blue Heron,* Snowy Heron, Green Heron,* Black-crowned Night Heron.*

VIII. Order, PALUDICOLÆ. Cranes, Rails, Etc.

d. Sub-order, GRUES.

21. Family, *Gruidæ*. Cranes — Whooping Crane, Sandhill Crane.*

e. Sub-order, RALLI. Rails, Gallinules, Coots, Etc.

22. Family, *Aramidæ*. Courlans — Limpkin.

23. Family, *Rallidæ*. Rails, Gallinules and Coots — King Rail, Clapper Rail, Virginia Rail,* Sora Rail,* Florida Gallinule, American Coot.*

IX. Order, LIMICOLÆ. Shore Birds.

24. Family, *Phalaropodidæ*. Phalaropes — Northern Phalarope, Wilson's Phalarope.*

* Easily obtained. See Brief Notes.

25. Family, *Recurvirostridæ*. Avocets and Stilts — American Avocet, Black-necked Stilt.*

26. Family, *Scolopacidæ*. Snipes, Sandpipers, etc. — American Woodcock,* Wilson's Snipe,* Pectoral Sandpiper, Least Sandpiper, Sanderling,* Hudsonian Godwit, Greater Yellow-legs,* Willet, Hudsonian Curlew.

27. Family, *Charadriidæ*. Plovers — Black-bellied Plover,* American Golden Plover.

28. Family, *Aphrizidæ*. Surf Birds and Turnstones — Surf Bird (rare), Turnstone.*

29. Family, *Hæmatopodidæ*. Oystercatchers — American Oystercatcher.

30. Family, *Jacanidæ*. Jacana — Mexican Jacana.

X. Order GALLINÆ. Gallinaceous Birds.

f. Sub-order, PHASIANI.

31. Family, *Tetraonidæ*. Grouse, Partridge, etc. — Bobwhite,* California Partridge, Ruffed Grouse,* Allen's Ptarmigan, Prairie Hen.

32. Family, *Phasianidæ*. Pheasants, etc. — Wild Turkey.

g. Sub-order, PENELOPES.

33. Family, *Cracidæ*. Curassows and Guans — Chachalaca.

XI. Order, COLUMBÆ. Pigeons.

34. Family, *Columbidæ*. Pigeons — Passenger Pigeon, Mourning Dove,* Ground Dove.

XII. Order RAPTORES. Birds of Prey.

h. Sub-order, SARCORHAMPHI.

35. Family, *Cathartidæ*. American Vultures — Turkey Vulture, Black Vulture.

i. Sub-order, FALCONES.

36. Family, *Falconidæ*. Vultures, Falcons, Hawks, Eagles, etc. — Swallow-tailed Kite, Marsh Hawk, Sharp-shinned Hawk,* Red-shouldered Hawk,* Bald Eagle, Pigeon Falcon, American Sparrow Hawk, Audubon's Caracara, American Osprey.*

j. Sub-order, STRIGES.

37. Family, *Strigidæ*. Barn Owls — American Barn Owl.

38. Family, *Bubonidæ*. Horned Owls, etc. — American Long-eared Owl, Short-eared Owl,* Barred Owl, Screech Owl,* Great Horned Owl, Snowy Owl, Burrowing Owl.

XIII. Order, PSITTACI. Parrots, Etc.

39. Family, *Psittacidæ*. Carolina Paroquet.

XIV. Order, COCCYGES. Cuckoos, Etc.

k. Sub-order, CUCULI.

40. Family, *Cuculidæ*. Cuckoos, Anis, etc. — Groove-billed Ani, Road Runner, Yellow-billed Cuckoo,* Black-billed Cuckoo.*

l. Sub-order, TROGONES.

41. Family, *Trogonidæ*. Trogons — Copper-tailed Trogon.

m. Sub-order, ALCYONES.

42. Family, *Alcedinidæ*. Kingfishers — Belted Kingfisher.*

XV. Order, PICI. Woodpeckers, Wrynecks, Etc.

43. Family, *Picidæ*. Woodpeckers — Hairy Woodpecker, Downy Woodpecker, Red-headed Woodpecker, Yellow-bellied Sapsucker, California Woodpecker, Golden-fronted Woodpecker, Flicker.*

XVII. Order, MACROCHIRES. Goatsuckers, Swifts, Etc.

n. Sub-order, CAPRIMULGI.

44. Family, *Caprimulgidæ*. Goatsuckers, etc. — Chuck-will's-widow, Whip-poor-will,* Nighthawk.*

o. Sub-order, CYPSELI.

45. Family, *Micropodidæ*. Swifts — Chimney Swift.*

p. Sub-order, TROCHILI.

46. Family, *Trochilidæ*. Hummingbirds — Anna's Hummingbird, Rufous Hummingbird, Ruby-throated Hummingbird.*

XVIII. Order, PASSERES. Perching Birds.

q. Sub-order, CLAMATORES. Songless Perching Birds.

47. Family, *Tyrannidæ*. Tyrant Flycatchers — Kingbird,* Phœbe, Wood Pewee, Least Flycatcher.

r. Sub order, OSCINES. Song Birds.

48. Family, *Alaudidæ*. Larks — Horned Lark.*

49. Family, *Corvidæ*. Crows, Jays, Magpies, etc. — American Magpie, Blue Jay,* American Raven, American Crow.*

50. Family, *Sturnidæ*. Starlings — Starling (English).

51. Family, *Icteridæ*. Blackbirds, Orioles, etc. — Bobolink, Cowbird, Red-winged Blackbird,* Meadow Lark, Baltimore Oriole,* Purple Grackle.*

52. Family, *Fringillidæ*. Finches, Sparrows, etc. — Pine Grosbeak, Purple Finch, American Crossbill,* Redpoll, American Goldfinch,* Snow Bunting, Chipping Sparrow, Song Sparrow,* Towhee,* Cardinal, Rose-breasted Grosbeak.* Indigo Bunting.

53. Family, *Tanagridæ*. Tanagers — Scarlet Tanager,* Summer Tanager.

54. Family, *Hirundinidæ*. Swallows — Purple Martin, Barn Swallow,* Tree Swallow.*

55. Family, *Ampelidæ*. Waxwings, etc. — Cedar Waxwing,* Phainopepla.

56. Family, *Laniidæ*. Shrikes — Northern Shrike, White-rumped Shrike.*

57. Family, *Vireonidæ*. Vireos — Red-eyed Vireo,* Yellow-throated Vireo.

58. Family, *Cœrebidæ*. Honey Creeper — Bahama Honey Creeper.

59. Family, *Mniotiltidæ*. Wood Warblers — Black and White Warbler, Yellow Warbler,* Ovenbird,* Yellow-breasted Chat, American Redstart.

60. Family, *Motacillidæ*. Wagtails — American Pipit,* (Titlark).

61. Family, *Cinclidæ*. Dippers — American Dipper.

62. Family, *Troglodytidæ*. Wrens, Thrushes, etc.—Mockingbird, Catbird,* Brown Thrasher,* House Wren, Long-billed Marsh Wren.*

63. Family, *Certhiidæ*. Creepers — Brown Creeper.*

64. Family, *Paridæ*. Nuthatches and Tits — White-breasted Nuthatch,* Chickadee,* Bush Tit.

65. Family, *Sylviidæ*. Kinglets, Gnatcatchers — Golden-crowned Kinglet,* Blue Gray Gnatcatcher.

66. Family, *Turdidæ*. Thrushes, Solitaires, Stone Chats, Bluebirds, etc. — Townsend's Solitaire, Wood Thrush, Hermit Thrush,* American Robin,* Wheatear, Bluebird.*

A Bear Story.

If old Tonoroweep hadn't met the grizzly bear that warm April morning it never would have occurred, and if I hadn't met Frank Webster it never would have been written, so whatever blame the gentle reader has can be impartially divided between Messrs. Tonoroweep and Webster. Old Tonoroweep was a Chivi Ute and lived close to the dividing line of Utah and Colorado.

In his early days the old man had been no small factor in his tribe's war with neighboring Utes, Moquis, Navajoes and Hualapais, to say nothing of horse-stealing raids from Mormons and "Mericats." But now the old man was growing old and, although nearly as active as ever, apparently, was unable to sustain exertion, as in times past.

The long, cold winter of '71 will be long remembered in Colorado and Utah for its heavy snows and late spring. March was a deceitful month, for it was unusually warm, and April commenced the same way. Southern hill slopes grew green with grass and odorous with buds, but about the twelfth of the month there came a snow-storm that buried the grass a foot deep and made the buds long for their overcoats and mittens. After the storm the April sun came forth, round-eyed and amazed at the lot of work it had to do all over again; and with the coming sun old Tonoroweep crept out from his wickiup of cedar boughs and started on a jack-rabbit round-up.

It is the nature of these long-eared innocents to excavate a shallow form on the sunny side of a snow-bank, and there dream the happy hours away. It is also the nature of their copper-colored neighbors, the Indians, to gently insinuate a forked stick in the aforesaid form and the instant it touches the dreaming rabbit a dexterous turn of the wrist fastens it in the jack's epidermis and a sudden jerk brings a very much astonished and indignantly protesting jack into a warmly welcoming hand. So Tonoroweep took his forked stick and went to seek the wherewithal for a rabbit pie. He scuffled in and out among the kanab (willows) that lined the little creek and poked out one or two rabbits, but luck was not very plentiful and so he finally left the creek bottom and browsed off into the post oak flat just above. While prowling through it he heard loud calls for help coming from a little glade in the centre of the oak patch, and running forward beheld one of his neighbors perched on the top of a stump ten or twelve feet from the ground and apparently fishing for a huge grizzly with his feet.

As Tonoroweep entered on the scene with an answering yelp the bear suspended operations to gauge his new adversary, whereupon the Indian on the stump begged Tonoroweep to hasten and bring up the tribe before the speaker's strength got so weak he couldn't hold on longer. One foot was already clawed into strings and Akobavi and Kaibabitz (two Indian braves of local note) were lying dead just beyond the stump. The three Indians had run across old Eph that morning, and although his majesty was poor from his winter fast he was too lively for them, and at the very first charge had struck down two braves and driven the third up the stump where he'd held him close prisoner for an hour, varying his grabbing at the dangling feet by going over to the corpses and breaking the gun and pounding the dead men with his big paws. Sticking in his side was the knife of the luckless Kaibabitz, and lodged somewhere

in his anatomy was a bullet from the rifle of the unfortunate Akobavi.

As Tonoroweep heard the recital his eye grew clear, his back straightened and the old hot fire ran through his veins. "I will kill him," he shouted.

"Old dotard and imbecile," screamed the treed Chivi Ute, "are you locoed (crazed) beyond redemption? Know you not, you fossilized relic of prehistoric times, that this monster will slay you also and then come back and practise on my feet some more?" But Tonoroweep, with his eyes fixed on the grizzly, slowly advanced and, while the scared Indian was still volubly protesting, took out his knife and sharpened the stick he carried, on its point. The bear watched him curiously for a moment and then, as he stopped close by one of the fallen braves, shambled rapidly toward him. The old Indian raised one end of Akobavi's blanket from the ground and, as the bear made his final quick rush for him, threw it suddenly full in his face and, slapping his nose smartly with his rabbit rod, slid gracefully to one side as his infuriated opponent plunged madly forward. The bear turned furiously and charged again. This time the cool old brave waited so long that the Indian in the tree, who had stopped his objurations from sheer amazement, sent up a dismal howling lament, and clawed in anguish of heart as he saw, in prospect, old Tonoroweep a mangled corpse and the bear practising gymnastics on his feet again. But the old Indian was no chicken, and just as the bear was tasting him the sharpened point of the little rabbit rod was plunged viciously into his left eye and old Tony slipped nimbly just beyond the bear's paw. Then commenced a sharp race that probably was one of the most grotesque on record:—the half blind bear, with all his vengeful implacable nature fully roused, bleeding from his eye and frothing at the mouth, and the old Indian, a little while before so decrepit and now so full of the fire of his youth. He sacrificed his blanket to gain one turn; threw a great snowball spat into the bear's well eye to make another; grabbed a dead oak branch and shoved it full in Bruin's face for a third sharp dodging turn, but never once let go his rabbit rod nor lost his quickness of perception. All this time he had edged his way gradually nearer to the body of Akobavi, and now, just as the bear's hot breath was warming his backbone, he stooped and threw the defunct right into the grizzly's arms; at the same moment his rod entered the bear's right eye. Just as he raised himself, however, the long right arm of the bear shot out and the claws caught the old man on the left side of his head, and stripped up the scalp so it hung down over his ear. The force of the blow sent him whirling, stumbling and falling fifteen feet away, while the bear, happy in the thought that, like Samson he was successful though blind, hugged the corpse of the deceased Akobavi to his heart and proceeded to mangle it in the most approved bear fashion.

Old Tonoroweep was not dead though, nor even badly hurt. As soon as he had recovered a little from his first stun he tore off a leg of Kaibabitz's cotton trousers and proceeded to bandage his head, laying the scalp back and twisting the cloth firmly over his crown and under his chin. After resting a few moments to recover his breath he again advanced cautiously to the attack. He went slowly just in front of his antagonist and saw with satisfaction that his eyes were unquestionably blinded; then he walked alongside the bear, opposite to where Kaibabitz's hunting-knife still stuck, with his own knife in his hand. Warily and patiently the old man watched his opportunity. The bear finally raised his head and turned impatiently toward the sting Kaibabitz had implanted, and as he did so old Tonoroweep, reaching carefully over, snatched out the useless weapon and, as the bear turned with a roar still further to that injured side, the old Indian sheathed his own knife in the tightened flesh of the neck on his side, and leaped back just in time to avoid the counter blow of his death-stricken enemy. That was a terrible blow. The tense flesh and tough hide were severed like butter as the long, sharp blade sank clear into the jugular vein. A few moments of strained lumbering galloping of the bear after an invisible spindle-shanked Indian, whose head was covered with blood and a dirty white cloth, and the battle was forever lost to the bear. A few protesting, gurgling growls that end in strangling barks and coughs, a wicked murmur of the hot life-blood that bubbles and spurts from that awful gap in the throat and makes red blotches and splashes on the trodden snow, and the great frame sways, staggers and with a reeling lurch sprawls forward, an inert mass.

His feeble antagonist comes warily forward, pokes the blinded eyes with a willow rabbit stick, and, convinced that life is extinct, proudly climbs up and seats himself on his

vanquished foe, wholly oblivious to the clamoring of his copper-tinted brother, that, with one foot dangling in shreds, is beseeching him for help to descend from his perch on the stump.

All this is tame to read about in our comfortable chairs, but some stormy night next winter go out and camp with the Chivi Utes for a few weeks and hear them, as they sit around their camp-fire, tell in their way the story of old Tonoroweep's last and greatest fight, and I'll pay all expenses if you find the story tame or uninteresting. *Honda.*

Birds of Five-mile Beach.

[Continued.]

190. American Bittern (*Botaurus lentiginosus*). Not common. A few generally shot by parties gunning the marshes after Clapper Rail. This bird is known to some by the senseless name of Donkeydoo.

191. Least Bittern (*Botaurus exilis*). Rare near the beach, but some years quite common near the main land.

194. Great Blue Heron (*Ardea herodias*). Common from April until middle of November. A few breed on the beach, but the majority resort to the main land for purposes of nidification.

201. Green Heron (*Ardea virescens*). Very common. The nest of this bird may be seen throughout the wooded portion of the beach. The majority of the nests that I have examined contained three or four eggs; only one was found with five, and none with six.

202. Black-crowned Night Heron (*Nycticorax nycticorax nævius*). Common throughout the summer. May breed on the beach, although I have not yet found its nest.

208. King Rail (*Rallus elegans*). Very rare. Have seen but one during all my trips.

211. Clapper Rail (*Rallus longirostris crepitans*). Very common on the marshes from middle of April until severe frosts set in, in fall. During mild winters like the winter of 1889–90, many remain all winter.

230. Wilson's Snipe (*Gallinago delicata*). Common on the edge of main land, occasionally seen on the beach, as well as on the salt meadows.

231. Dowitcher (*Macrorhamphus griseus*). Arrives about the middle of May and again in early August, many remaining until late in October. Generally called Gray-back or Robin Snipe by the local gunners.

234. Knot (*Tringa canutus*). Rare. Arrive late in May and again in August. Generally called Robin Snipe.

239. Pectoral Sandpiper (*Tringa maculata*). Not common, although more plentiful in fall than in spring.

240. White-rumped Sandpiper (*Tringa fuscicollis*). This species, said by some to be common on the New Jersey coast, appears to be rare here, as I have only met with one or two.

242. Least Sandpiper (*Tringa minutilla*). Common, but not as much so as its associate, the Semipalmated.

243*a*. Red-backed Sandpiper (*Tringa alpina pacifica*). Common from August until end of following May. Generally called Black-breast in spring and fall, Snipe in winter.

246. Semipalmated Sandpiper (*Ereunetes pusillus*). Very common. Arrives in May; many observed throughout the summer.

248. Sanderling (*Calidris arenaria*). Common in spring and fall.

254. Greater Yellow-legs (*Totanus melanoleucus*). Very common in spring and fall, remaining until late in October.

255. Yellow-legs (*Totanus flavipes*). Common, but not as much so as the foregoing species.

258. Willet (*Symphemia semipalmata*). A few seen in spring and fall.

263. Spotted Sandpiper (*Actitis macularia*). Very common along the creeks and ditches, from end of April until end of September. No doubt, breeds.

264. Long-billed Curlew (*Numenius longirostris*). Common during the migrations, generally keeping well up towards the main land.

270. Black-bellied Plover (*Charadrius squatarola*). Common. Arrives late in May and again in August, many remaining until the end of October.

273. Killdeer (*Ægialitis vocifera*). Rare. A few generally abound well up towards the main land. On several occasions during the winter of 1889–90, I came across this species.

274. Semipalmated Plover (*Ægialitis semipalmata*). Common in May and August.

277. Piping Plover (*Ægialitis meloda*). Not common as the foregoing species. Individuals have been observed every month in the year. A few breed on the beach.

283. Turnstone (*Arenaria interpres*). Very common from about the 14th of May until the 1st of June. They return the latter part of July or beginning of August, but are not as

numerous as in the spring migrations. The name Calico-back is the only name known here for this bird.

316. Mourning Dove (*Zenaidura macroura*). Common during May, September and October.

325. Turkey Vulture (*Cathartes aura*). Common resident. Breeds on the main land and possibly on the beach, although I have not yet been able to find their eggs.

331. Marsh Hawk (*Circus hudsonius*). Rare. Have seen but two of this beautiful species.

352. Bald Eagle (*Haliæetus leucocephalus*). Rare. I have seen but one during all my trips.

357. Pigeon Hawk (*Falco columbarius*). Rare in spring, common in fall, particularly in October.

360. American Sparrow Hawk (*Falco sparverius*). Common in spring and fall.

364. American Osprey (*Pandion haliaëtus carolinensis*). Very common from about April 10th until the heavy frosts of November set in. Some twenty pairs of these birds have their nests on the beach.

366. American Long-eared Owl (*Asio wilsonianus*). Not common. Have seen a few during the winter months. Generally seen in a cedar tree.

373. Screech Owl (*Megascops asio*). Not common. Probably breeds, as I have seen young birds on the beach scarcely able to fly.

375. Great Horned Owl (*Bubo virginianus*). Rare. I have seen but one in all my trips through the woods, and as usual, whenever I run up against Mr. Bubo. I have no gun with me.

376. Snowy Owl (*Nyctea nyctea*). Very rare. On December 20, 1890, one made its appearance. It was the signal for every gunner to venture forth, particularly so, as I offered a five-dollar bill to the one securing the bird.

387. Yellow-billed Cuckoo (*Coccyzus americanus*). Common spring and fall migrant. Does not breed on the beach.

390. Belted Kingfisher (*Ceryle alcyon*). Very common from March until late in November. Breeds on the beach.

Philip Laurent.

[To be Continued.]

A Cabinet of Birds' Eggs.

"One of the favorite pursuits of boys in the country is that of making a collection of the eggs of different kinds of birds; and, like every employment that tends to foster a taste for natural history, this deserves to be encouraged. The following hints may be useful: In selecting eggs for a cabinet, always choose those which are newly laid; make a medium-sized hole at the sharp end, with a pointed instrument; having made the hole at the sharp end, make one at the blunt, and let this last hole be as small as possible: this done, apply your mouth to the blunt end, and blow the contents through the sharp end. If the yolk will not come freely, run a pin or wire up into the egg, and stir the yolk well about; now get a cupful of water, and, immersing the sharp end of the shell into it, apply your mouth to the blunt end and suck up some of the water into the empty shell; then put your finger and thumb upon the two holes, shake the water well within, and, after this, blow it out. The water will clear your egg of any remains of yolk or of white, which may stay in after blowing. If one suck up of water will not suffice, make a second or third. An egg, immediately after it is produced, is very clear and fine; but by staying in the nest, and coming in contact with the feet of the bird, it soon assumes a dirty appearance. To remedy this, wash it well in soap and water, and use a nail-brush to get the dirt off. Your egg shell is now as it ought to be, and nothing remains to be done, but to prevent the thin white membrane, which is still inside, from corrupting. Take a wine-glass, and fill it with the solution of corrosive sublimate in alcohol, then immerse the sharp end of the egg shell into it, keeping your finger and thumb, as you hold it, just clear of the solution; apply your mouth to the little hole at the blunt end, and suck up some of the solution into the shell. You need not be fearful of getting the liquor into your mouth, for as soon as it rises in the shell, the cold will strike your finger and thumb, and then you cease sucking; shake the shell, just as you did when the water was in it, and then blow the solution back into the glass. Your egg shell is now beyond the reach of corruption: the membrane forever retains its pristine whiteness, and no insect, for the time to come, will ever venture to prey upon it. If you wish your egg to appear extremely brilliant, give it a coat of mastic varnish, put on very sparingly with a camel-hair pencil. Green or blue eggs must be done with gum-arabic; the mastic varnish is apt to injure the colors."

The above interesting and useful (?) directions, were taken from page 304, of "The Boy's Handy Book of Sports, Games, etc.," published

by Ward, Locke & Co., London, Eng. It is an elegantly bound book and is gotten up in the very best style. After reading a few pages, the old proverb, "You should never judge a book by its cover," goes rattling through one's brains and makes a person feel like dashing the confounded thing into the grate or against the head of the author. Thinking that probably the above fine specimen of the work would be rather amusing to the scientific readers of the O. & O. (as it was to me), I therefore forward it to that work for publication. I think the writer might have made his directions a little more complete and useful (?) by adding that Warblers' and Hummingbirds' eggs should be carefully whitewashed, and filled with tea-lead to keep the sides from caving in. He also forgot to say that spiders' eggs should be well sandpapered, then artistically kalsomined with a split shingle. He might also throw away his nail-brush, and use a common garden hoe to remove the *soil* which the careless birdie puts on the shell.

He can rest assured that, if he ever comes this way collecting, and giving directions to young collectors, his name will be "Dennis" and the "Marine Hospital" will have another inmate.

If any brother naturalist can suggest a more appropriate way of receiving such a learned (?) oölogist into our midst we will be pleased to hear from him.

The Young Naturalist.

Kentville, N. S.

A Spring Ramble.

The morning of the twenty-second of March, 1890, was quite cloudy; here and there were banks of snow which were rapidly dwindling away under the influence of a balmy, south-west wind. The cawing of the Crows and the screeching cry of the Bluejays in the distant woods had a peculiar sound which is only heard at the breaking up of winter. On the stone wall three Chipmunks were scampering about, playing hide and seek in the cavities between the rocks. As I crossed an open field a Yellow Hammer was calling to his mate from the naked limbs of an old elm. Entering a small grove of pitch pines, my ear was greeted with a few faint chirps which, for a second, I did not recognize, but, after waiting for several minutes gazing in the direction from whence they came, I saw several little birds hopping about among the branches searching intently for insects or other food that might be hidden in the rough bark. They were lively little creatures, hardly larger than the Hummingbird in size, and, like them and many other small people, seemed to be quite busy endeavoring to convince all observers of their great importance in the world. These little Kinglets (for such they proved to be) seem to be of a retiring disposition, rarely coming to the trees near the house but rather preferring the seclusion which the deep recesses of the woods afford. In such retreats I have met these little fellows in various parts of New England at all seasons of the year, they oftentimes being the only bird which one meets with in a midwinter tramp in the woods.

After passing them I had proceeded but a short distance, when, from the top of a tall white pine, a bird song was wafted in the air unlike any I had ever heard before. It held me spellbound, it was so full of pathos and character; it was the sweetest and most soul-thrilling melody I have ever heard a bird sing. It resembled somewhat the familiar notes of the Song Sparrow, but not so rollicking or boisterous, and more refined and subdued. Although it was low, its sweetness seemed to float out upon the air until the whole woods was filled with its harmony, when suddenly it ceased and all was quiet again. For quite a while I looked intently into the tree, trying to discover what species of bird I had listened to, and thought my ears must have been deceived as to the location of the bird. But, as I was about to turn away, I saw something move in the topmost branches and a bird flew to another position in the tree, but behind a bunch of pine needles. As I determined to find out what he was, I raised my gun and fired into his hiding place. When I reached the spot where he fell, I found, to my surprise, a fine specimen of the Fox Sparrow. I have met with hundreds of these birds in the spring and autumn migrations, but this was the first time I ever heard any song from them except the usual chirp which is characteristic of the whole Sparrow family. This bird is the largest and handsomest of the whole family to which he belongs, which inhabit eastern North America. His stay in eastern Massachusetts is limited to a few days in spring and fall, as he journeys back and forth from his breeding grounds to the more salubrious regions of the sunny South. As I went along by the edge of a meadow which had been overflowed by copious rains and melting snow,

I was attracted by numerous bright red berries that were floating in the water near its edge. Visions of turkey and cranberry sauce made my mouth water, and, although the turkey was out of the question, the thoughts of cranberry sauce was temptation enough for me to stop and gather them for dinner next day. There is something in the flavor of spring or frozen cranberries which the solid ones do not possess, and, as far as my taste is concerned, I like the spring ones best. While gathering the berries the Hyler's cry now and then piped up to tell me that spring-time was near at hand. A little way off, a pair of Hawks kept things lively with their harsh cries as they were making the necessary arrangements for housekeeping before moving in for the season. After I had gathered a quart of berries, the threatening clouds began to force me to make the best of my way home, thus putting to an end a spring ramble which will be ever fresh in my memory.

Andrew Nichols, Jr.

Asylum Station, Mass.

How to Find the Nest of the Bobolink.

The nest of the Bobolink will remain undiscovered until you know how to find it. I have had much experience with this bird, and I never found its nest until I thoroughly understood its habits.

Last year I spent part of the spring at Amherst, Mass. In one of my walks I discovered several fields where Bobolinks were breeding. I immediately set to work to discover their nests. After flushing several birds and searching over a radius of fifty or sixty feet from their point of flight I had to own up defeated. I tried this for a week, but no nest rewarded my efforts and I decided to practise new methods.

I had noticed that ninety-nine times out of a hundred the bird flushed was not on the nest, but simply feeding, and when by accident I flushed one from the nest she invariably rose quite a distance off. As I would approach these fields the birds (*mostly males*) would rise in all directions and alight on the nearest fences. After observing these facts I employed my new tactics.

Rising early the next morning I reached the fields in good time. Starting from one corner I ran all over the field shouting as loudly as possible. Of course a perfect swarm of Bobolinks flew up, and after scolding over my head for a moment flew away out of sight. I now had the whole field to myself. In the centre grew a large, solitary maple tree. Into this I immediately climbed and began to watch. After waiting about an hour I saw a single female Bobolink flying cautiously over the field: seeing nothing and believing all safe she suddenly stopped and dropped swiftly downwards into the grass. I marked the spot with my eye and, descending without noise, I walked slowly and softly toward the place I had marked.

Whirr-rr-rr! Up she flew, and I, stooping over, saw a sweet little nest with six eggs directly beneath my eyes.

I practised this method continually and it seldom failed. If there be no natural cover, build a small cylindrical brush blind with orifices through the side for seeing; but do not fail to cover the top, that no inquisitive Bobolink can fly overhead and peer in.

R. H. White, Jr.

Boston, Mass.

Unmarked Eggs of the Red-Shouldered Hawk.

On April 18, 1891, I took a set of Red-shouldered Hawk's (*Buteo lineatus*) eggs that contained an almost entirely unmarked specimen. As it lays in the cabinet no marks whatever can be discerned upon it, but by holding it close to the eye there are a few faint scratches of chestnut no larger than the point of a pin, and none exceed a sixteenth of an inch in length. It is as near an unmarked specimen as could be made without being entirely so.

One of the other eggs has a white ground color, and is evenly spotted over the entire surface with bright specks of umber and is a beautiful egg, while the other has a ground color of dirty gray, with three larger blotches on the small end, and small specks of chestnut over the rest of the surface, and they measure as follows: 2.03 x 1.69; 2.08 x 1.69; 2.08 x 1.68.

This is the first specimen that I have collected with as few marks on it, and think it quite a freak.

[Unmarked eggs of the Red-shouldered Hawk are not uncommon, but they are not as commonly found as those occurring in sets of the Red-tailed Hawk. — *J. P. N.*]

Nesting of the Great Horned Owl.

It seems a pity that such a beautiful bird as our Great Horned Owl is becoming so rare, especially in and around our more populated districts, for we, as lovers of birds, feel it more, perhaps, than anyone else, but such is the fact, especially in this vicinity. I must confess there can be no harder temptation placed before a naturalist than to see one of these fine birds within gun-shot and not try to secure him, especially if one has no specimen already: but, on the other hand, if we were better at resisting these temptations we should not witness the decrease of our birds so fast.

Often have I heard my father tell how common the "Hoot Owl," as they were called, used to be around here, and in those days it was no uncommon thing to hear two or three of them answering each other from the different woods around, especially just before a severe storm. Those days are past and gone, however, never to return with us, I fear.

To my personal knowledge there is but a single pair of these birds that breed in this locality, although there may be others who find them, but I have seen no records given. This pair is located about five miles from this city, and my first acquaintance with them was during the winter of 1887.

I had often heard a near neighbor (who is quite a hunter) say that he had often seen these birds in a large swamp of hemlocks and mixed timber, not far from my old home, but I was not familiar with that locality, and therefore did not venture there alone, for I had always heard of it as a place in which one could get lost very easily; but finally I determined to go there, so I made arrangements with a young fellow who was tolerably well acquainted with the woods to go with me to have a hunt for them.

On March 15, 1887, we started on our first visit to see what could be found, and we had a long and hard hunt, but we got there at last, and secured two eggs, but it was a close call, for if we had been a few days later they would never have got into my cabinet. After a tedious process, however, I managed to make good specimens of them.

I visited the place during the following winter and hunted my best, but could not find the birds, and since that time I have not had the time to get there again until March 5, 1891, when we paid them another visit. This time the nest was in the open woods and was not so hard to find, but the bird was very shy. We could see her for a long distance, as she was sitting on the nest, but she left it before we could get up very close. This nest contained two eggs, and was a very odd set, one being of the usual size, the other much smaller. They measured: 2.32 x 1.86 and 1.98 x 1.64. These were badly incubated but not nearly as bad as the first set.

This year I determined to be there early enough if possible, so on February 18th I gave the woods a good looking over, but could not with certainty locate the nest, as there were so many old Hawks' and Crows' nests around, but I saw unmistakable signs of the Owls, so I determined to try them again. On February 27th I went the second time and was in luck. I saw the male fly from near the nest, and the female stuck close to her eggs, but after three or four good raps on the tree she flew off. This nest contained three eggs, which is the largest set yet taken by me. They were slightly incubated and measured 2.30 x 1.88, 2.23 x 1.88 and 2.21 x 1.84.

The nests were very rudely built, and in this case not very substantial. It was a rickety affair, made of a heap of rubbish on a foundation of sticks, with scarcely any hollow in them; and they are lined with strips of bark, grass and a few feathers from the parent bird.

Two of the nests were placed in hemlock trees, the other in a chestnut; and they were from forty to fifty feet from the ground. It is a mystery to me how the bird got on and off of this last nest without rolling out the eggs, for it was so fallen over on one side that I did not dare to take out the eggs one at a time for fear the rest would roll out, but probably they know their own business much better than I did.

H. W. B.

Bridgeport, Conn.

Late Nesting of the Great Horned Owl.

On March 20, 1892, I collected a set of two eggs of the Great Horned Owl from a hole in the side of a basswood tree thirty-five feet from the ground. Incubation, fresh. There was no material in the nest except a few feathers from the Owl. This must be a second set, I should judge, from their nesting so late in the season. Their first set was probably destroyed by the Crows or a heavy storm.

James B. Purdy.

Plymouth, Wayne Co., Mich.

Bird Enemies.

Of all the enemies that beset small birds, the small boys are the worst. And right here let me say that some who have reached mature years destroy, annually, more birds and nests than all other enemies combined. Do not let me be understood as speaking against "scientific collectors," for they destroy but a small percentage of what are destroyed, for no earthly purpose but to take the sweet life that God has given.

The law endeavors to protect the birds from being wantonly destroyed; how well it is enforced I am not to say.

It is with the other enemies that I have to deal. The order of birds known as *Raptores* are freest from enemies of all the orders. But they, in turn, are great enemies of the smaller birds. Their depredations are confined mostly to adult birds, and cover all seasons of the year.

The American Crow (*Corvus americanus*) is among the greatest destroyers of small birds. He will not only catch and eat adult birds, but he will destroy every nest that he may chance to see. In 1888, Mr. Walter B. Barrows, assistant ornithologist of the U. S. Bureau of Agriculture, undertook to find out the amount of this bird's depredations. Of the three hundred and fifty persons who sent replies to Mr. B.'s enquiries, two hundred and seventy-eight attested to the vast work of destruction done by this bird. Over twenty-five species were mentioned as being subject to his attack, among these being the Blue Jay and Purple Grackle, birds, that in turn, destroy large numbers of small birds. The greatest depredations were upon the Thrush species, Robins in particular.

The Shrikes are the most merciless of all the assassins but, thanks to the "All-wise Creator," he has kept them from this vicinity almost entirely.

Red Squirrels are often great thieves, destroying nests and eggs of all orchard birds. The grays also take some nests, but, as they are more shy than their red brothers, they do but little damage.

The Weasel does but little damage beyond catching an occasional young Field Sparrow. The Mink does some damage to birds that nest near water courses.

The feline tribe destroys many birds during the course of the year, but we could not well dispense with the house cat.

The snakes are great lovers of eggs and tender young birds and often go to a great expense to feast themselves upon a rare nest. I shall never forget my experience years ago. I had climbed into the very roof of an old barn for a nest of Barn Swallow. I put my hand into the nest, but drew it out more quickly than I placed it there, for a high adder followed out and dropped to the floor beneath. A stick of timber was handy; this I pushed off, and, as it fell, it pinioned his snakeship fast to the floor. He measured four feet. The nest was entirely empty.

I have gone over a few of the worst enemies, and I hope some one may find a remedy. It behooves every ornithologist to destroy these enemies and thus protect the small birds. I would say to them, make your collection as full as possible of the Raptores and Crows, kill all the snakes that come in your way, and you will see the effects in a few years. Every Crow killed, I estimate, ensures the lives of at least ten small birds.

Wallace E. Lawrence.

Somewhere, Me.

Our Feathered Enemies.

We have read countless articles on "Our Feathered Friends," and there are many of them. Still I think that among the large number of birds which inhabit this country we may find some which may be rightly classed as enemies. We will at least glance over the list and see.

First of all, in order to treat the subject more fully, we will divide them into classes.

Class I. Birds injurious to agriculture.
Class II. Birds injurious to poultry.
Class III. Birds injurious to game birds.
Class IV. Birds injurious to beneficial birds.

Class I. Contains the Crow, Bobolink, Yellow-headed and Red-winged Blackbirds, Purple and Rusty Grackle and the English Sparrow.

We will place the Crow at the head of the list, as its well-known habit of devouring seed corn is known by all, but the corn is not its only food. In the West they do considerable damage to other cereals, such as oats, wheat, rye and barley. They are also fond of fruit, such as cherries, strawberries and raspberries.

However, it is only occasionally that they attack our fruit, as they generally find an abundance of wild fruit. There is still another way in which the Crow has proven itself an enemy to the farmer, and that is by the dis-

tribution of seeds of various noxious weeds, as sumac, poison ivy, dogwood, etc., upon whose berries they feed: it being a well-known fact that the germination of many kinds of seeds is hastened by their passage through the digestive organs of birds.

Next on the list comes the Bobolink. They do an immense amount of damage among the rice fields of the South, which they visit both in the spring at planting and again in the fall, before the harvest, and the planters have to go to considerable expense to hire people to frighten these birds off, in order to secure any of the crop.

In the West great damage is done to the fields of corn, oats, flax and wheat by the Yellow-headed and Red-winged Blackbirds and the Purple and Rusty Grackles, both at time of planting and also just before harvesting, when the grain is in the milk. Then large flocks of these birds visit the grain fields and devour and break down an immense amount of the grain.

Last of all comes the English Sparrow who, everyone knows, has a great liking for all sorts of small grain, and they manage to get, at least, their share of everything going. They are a so reported as doing considerable damage to fruit, principally the grape and apple, in some parts of the country.

Class II. Birds injurious to poultry. Here, again, we find the Crow: this time he is feeding upon eggs, when he can find them, and upon the young chickens. Many of the chicks that are missed, and charged against the "wicked Hawk," may be rightly charged to the Crow. In this class may also be placed the Duck Hawk, Pigeon Hawk, Sharp-shinned Hawk, Cooper's Hawk and Great Horned Owl, all of which are very fond of poultry, both young and old.

Class III. Birds injurious to game birds. In this class the Sharp-shinned Hawk and Great Horned Owl occupy the most prominent place as they destroy a great many of our game birds—seem to prefer them to poultry. There are others which occasionally prey upon our game, but not so persistently as the above. The Crow, too, may possibly spoil an occasional hatch.

Class IV. The birds in this class may be called the worst enemies, as they destroy a large number of the birds which are beneficial. Among their victims are many of our insectivorous friends. The Screech Owl, Sharp-shinned Hawk, Cooper's Hawk and Pigeon Hawk, also members of the Shrike family, feed largely upon small birds, while the Crow and Blue Jay devour the eggs of smaller birds; and, while the English Sparrow does neither, he belongs to this class, as he not only drives away our native birds but also destroys their nests, even breaking their eggs and killing their young; and, where Bluebird, Pewee and Wren once abounded, the *Passer domesticus* is the only one found.

There are other of our birds which at certain seasons may be injurious, and which others may think should be included in this list, still, as they are beneficial the greater part of the time, we will not class them among "Our Feathered Enemies." *S. R. Ingersoll.*

Unusual Nesting.

I have received from Mr. William A. Mastin the following, dated Williamsburg, W. Va., February 17, 1892: "I mailed you yesterday a set of Wren's eggs found in a hay mow on Cherry River on the last day of January. Is it a usual occurrence? I have the nest; will send or bring it out if you wish. . . ." The eggs undoubtedly belong to the House Wren (*Troglodytes ædon*), but average slightly larger. Mr. Mastin's address is Richmond, Nicholas County, W. Va.

I found, on blowing, the eggs were perfectly fresh. They were five in number, but two, unfortunately, were broken. *Thad. Surber.*

White Sulphur Springs, W. Va.

Death of Harry K. Jamison.

Our readers will be sorry to learn of the death of Harry K. Jamison, of Manayunk, Penn., which occurred on April 6, 1892, from consumption.

Mr. Jamison was twenty-six years old, and a man who would, if he had lived, probably have made his mark in his chosen studies of ornithology and oölogy. He contributed a number of articles to The Ornithologist and Oölogist, notably one on the nesting of the Prairie Warbler, which was the best account of the nidification of that bird that has ever appeared in print.

That he should have been cut off in his youth, when his life gave such promise, is very sad. *J. P. N.*

Remarks Concerning the Texas Wild Cat Lately Presented to the Society.

(Read February 2, 1892, before Cincinnati Society of Natural History.

The Journal of the Cincinnati Society of Natural History, Vol. XIV, Nos. 3 and 4, presents as usual many articles of interest. We notice an absence of ornithological matter, which we regret. S. S. Scoville's account of a wild cat that was presented to the society we believe will be of enough interest to our readers to give space to.

This cat was about eighteen months old at the time of its accidental death, in September, 1891. It was captured near Red River, in Wilbarger County, Texas, when but three or four weeks old, and presented to my little eleven-year-old granddaughter, Bessie Owens, then residing with her parents in the above-named locality. It was fed on cow's milk, and at first would not lap, and had to receive its nourishment from a teaspoon. It was not long, however, until raw flesh became its exclusive diet. It never, up to the time of its death, could be induced to take the smallest particle of cooked meat of any kind. It was exceedingly fond of small birds, especially the English Sparrow.

Upon the return of my son-in-law's family to Lebanon, they brought the cat and also a pet prairie wolf with them. These animals were then about four months old. Both were kept tied by means of a leather strap passed around the neck. Confinement was necessary, on account of their ungovernable propensity to nab up chickens. During the cat's life in Texas it was not confined, and was a constant associate of a common house cat, a setter dog and the above-mentioned prairie wolf. Occasionally the wild cat would steal off and prowl around the premises, but would soon return to join its companions. Almost from the time of its capture it became very playful, and was fond of being taken into the lap of some member of the family. Little Bessie was its special favorite, and from her it received the name of Joan, which, in one respect, was quite appropriate, for we know that the Maid of Orleans was an accomplished fighter. Upon its arrival at Lebanon, and up to the time of its death, it manifested this playful disposition. Nothing would please Joan better than to have a romp with children, or some animal that had the courage to approach within playing distance. But few dogs, however, would venture near her, and the domestic cat never. Her long, sharp claws often imparted to her playful pranks an unpleasant sensation, and the person who courted lively sport with the cat would often draw off, wishing that he had gone at it "with gloves." At the approach of night she would often seem lonesome, and was very fond of being brought into the house with the family. This was frequently done, to the great amusement of all present. After a general tear around the room she would go for the house cat, frightening it nearly out of its wits. And next would be a rough and tumble play with the dog, one of her Texas companions. It was amusing to see how she would manage to spring upon the dog, which was more than twice her weight, and throw him sprawling upon the floor. The dog would often get mad and become furious, while the cat would show no real temper. It could be seen, however, by the little flying tufts of hair, that the dog was being severely punished. The fracas would generally end by the dog drawing off for repairs. The cat was always disposed to continue the sport, and it was only by being taken upon the lap of some member of the family that it would quiet down.

Bessie would often carry Joan around in her arms, and occasionally lead her out upon the street, to the great delight—and sometimes fright—of the town children. She had a special fondness for the wolf, but this animal, though quite playful, kept very shy of her catship.

Judging from what I witnessed, respecting the disposition and habits of this particular cat, I am disposed to think that our opinions concerning the wild cat have been, in many respects, quite erroneous. That it can be fairly well tamed, especially when taken young, there can be no question. It has a purr very similar to the domestic cat, but not nearly so loud in proportion to the size of the animal. It never spits and "gets its back up," as does the house cat. Its cry of hunger, of suffering, or for companionship, has no resemblance to the noises made by the last-named animal. Except when mad, it utters but one sound, which is not loud, and resembles somewhat the croak of a small frog. The growl, when mad, or when disturbed while taking its meal, is loud and frightful. It is a real tiger growl, having but little or no resemblance to that of the house cat. This cat, of which I have been speaking, was wakeful, and generally on the move during the day time. It slept, as a rule, during the night. Probably this is not the habit of the wild cat in its wild state.

S. S. Scoville, M.D.

Lebanon, O.

The Ruddy Duck.

At my home at Beaver, Beaver County, Penn., (where it must be understood all the observations about to be given were made), this species (*Erismatura rubida*) is one of the most abundant and best known Ducks during the migrations, and, though small of size, one of the most highly-prized for the table, contrary to the rule among the *Fuligulinæ*. Pushing north from their wintering resorts to the southward, — though it is possible that some few do actually spend the inclement season in this locality, wandering about from place to place in search of food, — the van appears in straggling numbers on our streams sometime in March, but soon they become fairly abundant, and thus remain until about April 15th, when they disappear. Singly and in twos and threes, or more commonly in flocks of a dozen or more, they rarely miss the opportunity to alight, which the smooth water at the mouth of the Beaver affords, there to feed, rest, and recruit for the next stage of their long journey. Many a time before sunrise on a frosty March morning, peering out from my hiding-place among the willows, or sitting motionless in the stern of a drifting boat, have I watched a group of these Ducks disporting in the shallow water, swimming about from place to place, and raising themselves in the water to flap their wings. They come within range, and not seldom, — a flash, a report, and the smoke clearing away reveals one or more of their number lying dead or sorely wounded, while the remainder, panic-stricken, fly in confusion up the Beaver I may add that it is a notorious fact among the gunners here that no Duck which does this ever returns.

The line of water-fowl migration through Beaver County appears to extend down the valley of Raccoon Creek to its mouth, thence up the Ohio to the mouth of the Beaver and up this latter stream. In the fall the directions are of course reversed. At that season they arrive the latter part of October, though from lack of sufficient data the time of their departure cannot be given.

Whatever these Ducks may have to fear from beast or bird of prey, man is undoubtedly their worst enemy. What with being persecuted well-nigh unto death wherever they may attempt to settle for the winter, forced to wander from place to place in a vain search for that which is not, living in incessant fear of their lives, it is little wonder that they hasten to push northward at the first breath of spring. But the sequel shows them their troubles have but just begun, for scarcely is their presence known along the line of their path, than every owner of a "shooting-iron," from the old flint-lock musket of a century ago down to the latest improved breech-loader, is literally "up in arms" against them. Slaughtered by the score, and that, too, usually in mere sport, decimated wherever they may attempt to rest, frightened by those noisy inventions of men, railway-trains and steam-boats, baffled well-nigh at every point, still the thinned ranks keep on, only to be overtaken and driven back by storms in front. Again and again they advance, again and again are driven back, but finally, the weather having settled, the survivors are enabled to reach their breeding-grounds in the British possessions, where only may they rear their young in comparative peace. But with the approach of winter in increased numbers they must needs return and do it all over again. Ah, however humble our lot in life may be, or how much of a struggle it may be to keep soul and body together, ought we not to be thankful that we are not they?

Apropos of Ducks being driven back by storms, I would say that on April 6, 1889, occurred the most notable instance of this kind that has come under my observation. That was the greatest day for Ducks I ever saw. We had had comparatively pleasant weather for a week or so previous, so that the bulk had left, but the night before it grew very cold and stormy, and about two inches of snow fell. No doubt the storm was more severely felt farther to the northward, for that morning the Ohio was literally crowded with ducks. Flock after flock came down the Beaver, circled around for a short time and then settled. It is perhaps needless to add that the whole shooting fraternity was very busy that day, but still the Ducks kept coming, until it almost seemed there could not be room for more. It is a noteworthy fact that the Ohio marked the limit of their southward movement, for a visit to Raccoon Creek failed to discover a single individual. Nor did the Ducks alone suffer from the storm; other water-fowl accompanied them, and some migrating land birds were also driven back. As the afternoon wore away, the sun coming out warm, they began to go north again, until by evening but a very few of that mighty host remained.

The Ruddy as a diver is more expert than some of its allies, as I have found by experi-

ence, and, when wounded too sorely to fly, will always attempt to escape capture by this means, sometimes successfully. Its stiff tail is held up when swimming, "so that this Duck does not slope down behind as most do on the water." Trim and jaunty of form, and tastefully yet modestly clad in a suit of warm, brownish red, it is without doubt a beautiful bird. In the fall, however, its plumage is not so bright as at the other season.

W. E. Clyde Todd.

Dept. of Agriculture, Washington, D. C.

Humbug.

About a year ago I saw quite a number of articles in different papers about the wonderful destructive Gypsy Moth, and what damages it was doing in Malden and surrounding towns. As I am somewhat interested in entomology I thought I would like to pay a visit to the head quarters of that wonderful insect.

I called on a friend and made my business known to him, and was shown around several gardens and was informed they had done a great deal of damage; but I must say I was unable to find one single leaf that had been troubled by those $75,000 moths.

I was very anxious to procure a few specimens. After riding around some two hours we brought up at the police station and were introduced to the chief. I made my business known to him and he did not have to hunt long, but within ten feet of the station door we found them on a large cherry tree. I collected a few specimens and returned home feeling well satisfied that I had seen the greatest humbug which ever invested Malden. Some weeks after this, I saw some three or four men showering some trees in an orchard. I made inquiries as to what tree they found them on. It was pointed out to me. I examined this tree, and am sorry to say not a sign of a moth could be found.

I think if the state would appropriate a few hundred dollars to purchase insect pins, and distribute them among the school children, and offer a few dollars reward for the one that would collect the most, it would do more than all the army now in camp at Malden at three dollars a day, and roast-beef.

Entomologist.

Birds Singing on Their Nests.

In the March O. & O., I noticed an article by Mr. Henry Hales, relative to birds singing on their nests, etc. Referring to same, I will say I consider it rare with most birds but not so with the Vireo. It seems to be a trait peculiar to that family. I have observed both Cassins and the Western Warbling Vireo singing on their nest and in this way discovered them. It is nothing uncommon for a bird to sing near its nest, and by careful attention you will sometimes hear the ♀ answer from the nest.

This subject is an interesting one and might be a help to many students of bird life, in assisting them to find the oölogical treasures.

Let us hear from others in regard to birds singing on their nests. *Clyde L. Keller.*

Salem, Oregon.

The Phœbe, North of Washington, D. C., in Winter.

It is reported in the January O. & O. that a Phœbe was seen near Washington, on December 13, 1891. On November 28 and 29, 1890, I was surprised to see one here. But I was still more surprised to see one on the 4th and 9th (and several times after that) of January, 1891. This is about twenty miles north of Washington. *Harold B. Stabler.*

Sandy Spring, Md.

EARLY ARRIVALS. — Feb. 14, Phœbe (*Sayornis phœbe*); March 5, Robin (*Merula migratoria*); March 8, Flicker (*Colaptes auratus*). A. Farmer. Amoskeag, N. H.

The flight of Yellow-rump Warblers passed here in February. W. P. Hadley, Arlington, Mass.

On Feb. 26, 1892, a black English Sparrow was taken by C. E. Brown at Beverly, Mass. It was all black except a small buff spot on each cheek. The specimen goes to the Peabody Academy of Science, Salem, Mass.

March 3, 1892, A.M. Bright, clear. Ducks and Geese have been on the move for the last ten days. This morning Bluebirds, Robins and Meadow Larks came. My dear feathered friends are returning one by one from the sunny South. Afternoon, sky overcast. March 4, Blackbirds reported moving in large flocks. Golden-winged Woodpeckers here. During the morning, raining. Afternoon, sky overcast. Carl Fritz Henning, Boone, Ia.

THE

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A Monthly Magazine of

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ESPECIALLY DEVOTED TO THE STUDY OF

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and to the

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Brief Notes.

THE AMERICAN ORNITHOLOGISTS' UNION, — A SEVEN YEARS' RETROSPECT (an address delivered by the retiring president, Prof. J. A. Allen). The proceedings of this organization is a subject that cannot fail to be of interest and importance to all our ornithologists. While the active membership, being limited, prevents it from being a true union of the American ornithologists according to our American ideas, it is to-day exerting an influence that has been unequalled, in the attention that it has attracted, and the information that it has imparted. Beginning with a sketch of its origin (and of course it could only originate from Boston, our readers will please take off their hats, and fall on their faces towards the east), he next carefully and fully explains the code and system adopted, and gives a brief and concise history of what has been accomplished. The association is extremely fortunate in having the active assistance of many of our leading ornithologists, and, in our opinion, to none is it more indebted than to him who has presided over their deliberations during the past seven years. We recommend to all our readers that they apply to Mr. L. S. Foster, 35 Pine street, N. Y., for a copy of Prof. Allen's address, and give it a careful perusal, and that we all give a good Methodist amen to his closing toast, "May the success which has thus far rewarded our efforts presage a long career of ever-increasing usefulness and prosperity!"

We have of late been called upon by a number of teachers connected with the schools of this State who have asked our advice as to what birds would be best adapted for use in instructing their pupils in ornithology, also to estimate the price of a general collection. In connection with the subject of the A. O. U. during Professor Allen's administration, we take the occasion to present to such — and our readers — the now quite popular classification of our birds, believing that while all should have the abridged check-list from which it is taken, such a consolidated extract will be of practical service. We have marked the varieties that are easily obtained and recommend them to use in beginning. Fair specimens such as Warblers, Bluebirds, Thrushes, etc., can be obtained at $10 per dozen; Ducks, Hawks, etc., at $18 per dozen and the larger birds at $2.50 and $4.00 each. This does not mean the highest grade, but birds well mounted (not distorted) and with plumage that best represents the average condition as found.

We are ready to give any required information and earnestly recommend this subject of study to all interested in the instruction of our youth.

The extermination of the *Ocneria dispar*, or Gypsy Moth in Massachusetts. Total amount expended in 1891:

By the old commission,	$ 630.95
new commission,	12,826.51
Board of Agriculture,	55,790.09
	$69,247.55

Who says that there is no money in entomology?

E. H. Forbush, P. and M. D., W. N. H. S. and W. S. S. of N. H., and A. M. A. O. U., is director of field work, and receives from the state a salary of $1500. They could not have selected a better man.

Was out yesterday looking for concretions containing remains of animals in the way of bones and teeth. These concretions are found at the base of the high bluffs bordering the Missouri River, which, in Kansas City, belong to the Loess formation. After securing a number of very fair specimens, I visited J. L. McClain's farm, in the East Bottoms. Here I found a bird house occupied peacefully by both Martins and English Sparrows. Last year the house was similarly occupied, both birds raising broods. After the Martins went south last fall the Sparrows occupied the whole of the house all winter. The Martins arrived this spring on April 2, and immediately took possession with apparently no opposition, though evidently the Sparrows had to give up their parlor and best bed-room. R. B. Trouslot.

The mounted Pheasant sent me was the finest male I ever saw. I had a pair of pet Pheasants drowned in the Thames River. I found the only nest seen last year on Fisher's Island, where a few were introduced. J. M. W.

Some sportsmen recently had great shooting at Macon, Ga. One party of sixteen bagged over 2000 Mourning Doves. Another party of four took 525. The birds must locate there in great numbers.

Troup D. Perry, Savannah, Ga., reports a set of Woodcock's eggs taken Feb. 22.

I. A. Hathaway reports a double-headed calf, albino Crow and albino Ground Squirrel.

E. A. Preble, North Woburn, Mass., and J. Alden Loring, Oswego, N. Y., have both received appointments in the Department of Agriculture, and will collect for the same. They are both good men.

F. L. Farley has started for Alberta, and we expect to have notes from him.

On March 19 I took a set of three fresh Bald Eagle eggs from a nest discovered last year at English Lake, Ind. The nest was in a sycamore tree sixty-five feet up. Jos. E. Gould, Columbus, O.

Paul Van Riper, Niles, Mich., writes that he has a pet coon. It is very tame and gentle, and one wanting a pet of that nature will do well to write to him.

I received a white mink last evening, a male, killed along the Minna river in Montgomery County, Ohio. The female has been seen, and is of a spotted color. Do you know of any freak of this kind before? I shall endeavor to get the female, though it is not for sale at present. I just write to know more of this. There is not one single colored hair on it. It has pink eyes and is as large as a regular mink. W. O. Jones.

Here are a few winter bird notes. Two Bald Eagles have been hanging around near the foot of Woodward avenue, on the river, for some time. Hundreds of Ducks and Mergansers are in the river in front of the city and can be shot from the docks. They have been driven down from the St. Clair flats by the ice. A Robin has remained here all winter, although we have had some very cold weather. This is quite unusual. B. H. Swales, Detroit, Mich.

A flock of Bohemian Waxwings visited us on March 12. A. M. Farmer, Amoskeag, N. H.

In the January O. & O. you mention an Owl of the Long-eared species being impaled on a barbed wire fence. I would like to note the fact of a similar occurrence on April 20, 1891, when I found a Great Horned Owl killed in precisely the same way. W. P. Lowe, Pueblo, Col.

Birds of all kinds that usually visit this locality during the winter have been very scarce. A few flocks of Snow Buntings were seen. Hardly an Owl reported as being seen. Last winter five Barred Owls were taken in this town. But one Screech Owl has been taken in three years. There are a number of small flocks of Quail wintering here. J. W. Jackson, Belchertown, Mass.

Birds of Long Life.—From the small island of St. Kilda, off Scotland, 20,000 young Gannets and an immense number of eggs are annually collected, and although this bird lays only one egg per annum, and is four years in attaining maturity, its numbers do not diminish. London Speaker.

Received a Bob-white last month in very peculiar plumage. The feathers are white, shaded with yellow or buff at the tail, head or throat, and sparsely spotted with more or less heavy spear or V-shaped marks of dark brown and black. The eyes and bill are dark as common, but the plumage has a peculiar white, spotted appearance. F. W. Sheldon, Des Moines, Ia.

I have just stuffed a (male) Broad-winged Hawk brought to me by a lady from East Whitman. He came into her possession in a very uncommon manner. On Feb. 29, just at noon, she heard a crash in the parlor. When investigation was made a pane of glass, thirty inches square, was found broken and this Hawk was found to be the rogue. What caused him to fly through this large pane of glass is more than I know, unless in pursuit of game. His stomach contained the bodies of what I called, by the shape of the bill and legs, an English Sparrow, and the legs of another bird too much consumed to tell what it was. Is this a rare bird, at this time of the year, in this locality, or not? C. C. F., West Duxbury, Mass.

[We usually get specimens about this time. —Ed.]

Another one of my feathered friends, the Bluebird, has come from the sunny South. Several reported to-day. Carl Fritz Henning, March 3, 1892.

I was glad to see the article in O. & O. by Dr. Strode, and hope that now, as a beginning has been made, we may have more articles on insects and shells. Many of your readers are interested in one or the other and would send many valuable notes if you would announce that you would publish them. Please give it a trial. E. J. Smith.

[Dedicated to my friend, Will C. Brownell, M. D.]

As I wander alone among the leafless trees,
  And think of the joys too pure to last,
My thoughts of you and bygone days
  Bring back sweet memories of the past.

Where your name on the spreading beech you wrote
  I note the ravages of time,
And can faintly see, on the sturdy oak,
  The scars of your climbers left behind.

But when warm spring suns shall melt the snow,
  And the Barred Owl hoots from the hollow tree,
I hope you will be here to go
  And wander through the woods with me.

When there among the gnarled old trees
  We'd view Dame Nature free from vice;
We would rather dwell among scenes like these
  Than to walk the streets of Paradise.

James B. Purdy.

Plymouth, Mich.

E. M. Hasbrouck of Washington, D. C., is engaged in making a thorough study of dichromatism and requests the assistance of all who have acquaintance with the common Screech Owl (*Megascops asio*) by replying by letter to the following questions: 1. How many specimens have come under your notice, and how many were in the red phase? 2. If you have ever observed a pair of old birds accompanied by young, state character of old birds as to color, whether both red or both gray, the male red and female gray, and *vice versa*, also the color of young. 3. Give your locality, state, county and town. Address E. M. Hasbrouck, 1610 15th street, Washington, D. C.

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A Series of Eggs of the Oven-bird.

The eggs of the Oven-bird, or Golden-crowned Thrush (*Seiurus aurocapillus*) vary very much in their coloration and size.

Set I. June 18, 1885. Nazareth, Penn. Nest on ground, near fork of tree in patch of moss; covered over. Four eggs, fresh. White, speckled and spotted with hazel and lilac-gray. The markings form wreaths around the larger ends, although there are a few specks over the remainder of the surface. This is the typical style of markings of eggs of this species, and in describing the sets below it will not be referred to, as it will be understood to be the case in each set, unless specially mentioned to the contrary. .74 x .60; .75 x .61; .76 x .63; .74 x .60.

Set II. May 25, 1879. Pelham, N. Y. Nest of dry grasses, vegetable fibre, leaves, leaf stems, and lined with the same material, but finer; roofed over, with entrance in front. Diameter, outside six inches, inside three inches; depth, outside four and a half inches, inside two and a quarter inches. On the ground, close to a bush. (I give a detailed description of this nest as it serves to describe all the others in a general way.) Five eggs, incubation begun. White, speckled with hazel and lilac-gray. The markings are dispersed all over the surface, and, although somewhat heavier at the larger ends, are not wreathed as usual. .83 x .65; .83 x .65; .82 x .66; .83 x .64; .84 x .66. This set also contains a Cowbird's egg.

Set III. June 6, 1883. Hyde Park, Ont. Nest of leaves, grass, bark, etc., among bushes, on the ground. Three eggs, incubation commenced. White, speckled with chestnut and lilac-gray: .82 x .62; .79 x .61; .79 x .58. One Cowbird's egg with this set.

Set IV. May 11, 1889. Weaverville, N. C. Nest under bunch of sage grass. Composed of leaves, grasses, fibres, etc. Four eggs, fresh. White, finely speckled with chestnut and lilac-gray: .76 x .58; .78 x .57; .74 x .59; .74 x .59.

Set V. May 29, 1886. Wellesley, Mass. Nest on ground; composed of strips of thin bark and leaves, and lined with fine rootlets. Three eggs, fresh. White, sprinkled and speckled with hazel and lilac-gray. One of the eggs has spots of vinaceous. .74 x .57; .75 x .59; .77 x .61.

Set VI. June 3, 1880. Norwich, Conn. Leafy, embryotic nest, partly domed. Three eggs, fresh. White, heavily and showily marked with hazel and lilac-gray spots. (This set was collected by the celebrated oölogist "J. M. W.," (Mr. C. L. Rawson), and proves that he can collect handsome Warbler's eggs as well as those of his beloved *Buteos.*): .83 x .63; .83 x .63; .83 x .61.

Set VII. May 28, 1887. Detroit, Minn. Nest of leaves, grasses and fibres, on the ground, by a log, at edge of a larch swamp, in heavy woods. Five eggs, incubation begun. White, heavily speckled and spotted with chestnut and lilac-gray. The markings are much heavier at the larger ends, but do not form wreaths: .79 x .61; .73 x .60; .74 x .61; .71 x .60; .74 x .58.

Set VIII. May 11, 1889. Weaverville, N. C. Nest in end of large pine log. Five eggs, fresh. White, speckled and spotted with hazel, chestnut and lilac-gray: .74 x .61; .73 x .61; .73 x .60; .72 x .61; .73 x .59.

Set IX. May 15, 1885. Granville, N. Y. Nest on side of hillock, covered over at top. Five eggs, fresh. White, speckled and spotted with hazel and lilac-gray: .78 x .57; .75 x .57; .75 x .60; .77 x .58; .77 x .61.

Set X. June 3, 1885. Saybrook, Conn. Nest on ground, among leaves, in wood. Four eggs, fresh. White, speckled and spotted with chestnut and lilac-gray: .81 x .61; .78 x .61; .78 x .60; .78 x .61.

Set XI. May 11, 1889. Weaverville, N. C.

Nest at foot of oak sapling. Four eggs, incubation begun. White, speckled and spotted with hazel, chestnut, and lilac-gray. The markings are more evenly dispersed over the surface than is usual for this species: .80 x .63; .79 x .63; .79 x .61; .80 x .61.

Set XII. June 7, 1881. Hartland, Vt. Nest composed of dried grasses and leaves, lined with soft grasses. On ground. Four eggs, fresh: .80 x .59; .76 x .60; .75 x .60; .73 x .58.

Set XIII. June 5, 1887. Chester County, Penn. Nest on hill-side. Oven-shaped, made of grass and lined with hair. Four eggs, incubation begun. This set is very beautiful, and has an additional interest from the fact that it was collected by Mr. Samuel B. Ladd, who has probably collected more Warblers' eggs than any man of his age. Although his "speciality" is the eggs of the Worm-eating Warbler (*H. vermivorus*) yet he has collected many remarkably handsome sets of the present species, and unless one has seen his series of the eggs of this bird one would never suspect how handsome they often are. White, heavily spotted with hazel and lilac-gray: .79 x .63; .79 x .62; .79 x .63; .77 x .63.

Set XIV. June 9, 1888. Weaverville, N. C. Nest under bush; composed of leaves, grasses, etc. Arched over. Five eggs, incubation begun. White, spotted with hazel and lilac-gray: .78 x .61; .76 x .61; .77 x .62; .77 x .62; .81 x .63.

Set XV. June 1, 1887. Weaverville, N. C. Nest oven-shaped; composed of leaves, etc., under small bush. Five eggs, incubation begun. White, speckled with hazel and lilac-gray: .76 x .62; .75 x .61; .74 x .62; .75 x .62; .78 x .64.

Set XVI. May 11, 1889. Weaverville, N. C. Nest under small pine. Four eggs, fresh. White, speckled and spotted with hazel and lilac-gray: .74 x .59; .76 x .59; .76 x .59; .74 x .60.

Set XVII. May 30, 1886. Chester County, Penn. Nest oven-shaped; made of grass and grape-vine bark, covered with leaves, and lined with fine grass. Under a bunch of ferns, on the ground. Four eggs, incubation begun. White, speckled and spotted with hazel and lilac-gray: .74 x .64; .74 x .62; .75 x .62; .75 x .63.

Set XVIII. June 4, 1876. New London County, Conn. Nest domed over; under edge of ground-savin, near edge of woods. Three eggs, fresh. White, spotted and speckled with hazel and lilac-gray: .79 x .61; .79 x .61; .78 x .60.

Set XIX. May 28, 1888. Chester County, Penn. Nest oven-shaped; on ground; made of leaves and grass. Four eggs, incubation begun. White, speckled and spotted with hazel and lilac-gray: .78 x .62; .78 x .62; .78 x .62; .76 x .61.

Set XX. June 4, 1885. Chester County, Penn: Nest on ground; composed of dried grasses and leaves. Five eggs, fresh. White, heavily speckled and spotted with hazel and lilac-gray. The markings are much heavier at the larger ends, and more diffused over the surface than usual, but there are no wreaths: .82 x .57; .75 x .56; .77 x .62; .78 x .62; .79 x .62.

Set XXI. May 30, 1887. Weaverville, N. C. Nest arched over, under small pine bush. Five eggs, incubation begun. White, heavily speckled and spotted with hazel and lilac-gray: .78 x .63; .78 x .62; .79 x .60; .76 x .58; .78 x .61.

Set XXII. May 23, 1890. Chester County, Penn. Nest on ground, in woods; domed over, and made of dried grass, leaves, etc., lined with horse-hair. Three eggs, fresh. White, speckled and spotted pretty evenly all over the surface, but more heavily at the larger ends, with hazel and lilac-gray. There is an unusual quantity of the latter color on this set: .83 x .66; .84 x .64; .80 x .63. A Cowbird's egg was found in the nest with this set.

Set XXIII. May 25, 1887. Weaverville, N. C. Nest of grasses, leaves, etc., lined with hair and fine grass; oven-shaped. Four eggs, fresh. White, finely and thickly speckled with hazel and lilac-gray: .75 x .61; .78 x .64; .76 x .61; .77 x .63.

Set XXIV. May 11, 1889. Weaverville, N. C. Nest of leaves, grasses and fibres. Placed at the root of a fine sapling. Four eggs, incubation begun. Remarkably small for this species. White, thickly speckled and spotted with hazel and lilac-gray: .70 x .55; .72 x .55; .73 x .55; .72 x .55.

Set XXV. May 23, 1890. Chester County, Penn. Nest on ground, in woods; domed over, and made of leaves, etc., lined with horse-hair. Four eggs, incubation slight. Light creamy white, heavily spotted and speckled with hazel and lilac-gray: .81 x .62; .80 x .62; .78 x .60; .78 x .61. This set also contains a Cowbird's egg.

Set XXVI. June 19, 1887. Chester County, Penn. Nest composed of leaves outside, but the greater part made of grass in an oven shape. Lined with horse-hair, and situated on the ground under a low bush. Three eggs, incubation begun. Light creamy white, thickly sprinkled and speckled with hazel and

lilac-gray, more heavily at the larger ends, but without the customary wreath: .77 x .63; .75 x .63; .75 x .62. This poor bird had been imposed upon by having three Cowbird's eggs laid in its nest. As a consequence its own eggs were limited to three. Does the fact of the Cowbird laying its eggs in the nest prevent the real owner from completing her set, or does the Cowbird make away with the rightful owner's eggs?

Set XXVII. June 19, 1887. Chester County, Penn. Nest under low bush, on the ground; composed of grass, lined with a little horse-hair. Five eggs, incubation begun. White, speckled and spotted with hazel and lilac-gray: .81 x .64; .82 x .63; .81 x .62; .81 x .62; .83 x .62.

Set XXVIII. June 3, 1884. Farmington, Me. Nest in the woods; made of grass and leaves. Globular, with entrance on side. Three eggs, fresh. Light creamy white, heavily and beautifully spotted with hazel and lilac-gray. A most beautiful set: .83 x .63; .84 x .62; .81 x .64.

Set XXIX. May 30, 1888. Chester County, Penn. Nest oven-shaped. Placed on ground. Made of leaves, lined with grass and a few horse-hairs. Five eggs, fresh. White, speckled and spotted with hazel and lilac-gray. The markings are heavier at the larger ends, but the wreaths are wanting: .74 x .61; .78 x .60; .76 x .60; .76 x .59; .77 x .59. This set also contains a Cowbird's egg.

Set XXX. May 30, 1877. Saybrook, Conn. Nest of leaves, bark-strips and grasses, lined with fine grass and hair; on the ground in woods. Five eggs, fresh. Light creamy white, heavily speckled with chestnut and lilac-gray: .80 x .62; .81 x .62; .81 x .62; .81 x .62; .82 x .61.

Set XXXI. June 2, 1890. Chester County, Penn. Nest on ground, near stream, in woods; domed over, and made of leaves, dried grass, etc.; lined with horse-hair. Six eggs, small embryos. Light creamy white, finely sprinkled and speckled with hazel. The markings are heavier at the larger ends, but there are no wreaths. Six eggs is an unusual number for this species: .81 x .61; .82 x .62; .80 x .63; .84 x .62; .83 x .63; .83 x .62.

Set XXXII. May 24, 1886. Taunton, Mass. Nest on ground; oven-shaped. Five eggs, fresh. White, speckled or spotted with hazel, chestnut and lilac-gray: .80 x .61; .76 x .60; .83 x .62; .78 x .59; .83 x .60.

Set XXXIII. May 22, 1890. Chester County, Penn. Nest domed over. Made of leaves, lined with horse-hair. On ground, in woods, near a stream of water. Five eggs, fresh. Light creamy white, speckled and spotted with hazel and lilac-gray. There are no wreaths, but the markings are much closer and heavier at the larger ends: .80 x .63; .79 x .60; .78 x .61; .79 x .62; .87 x .60.

Set XXXIV. June 9, 1888. Farmington, Me. Nest in edge of woods, beneath some fallen branches. Five eggs, fresh. White, heavily spotted with hazel and lilac-gray. A beautifully marked set: .85 x .61; .81 x .61; .83 x .60; .84 x .62; .81 x .60.

Set XXXV. May 22, 1890. Chester County, Penn. Nest domed over, and made of leaves, etc., lined with horse-hair. On hill-side, in woods. Five eggs, incubation slight: .83 x .66; .83 x .64; .83 x .66; .82 x .66; .83 x 66.

Set XXXVI. May 24, 1888. Saybrook, Conn. Nest on ground, in the woods. Composed of leaves, vine strips, weeds and grass stems; well covered over. Three eggs, incubation slight. White, heavily spotted with vinaceous and lilac-gray: .77 x .61; .78 x .58; .78 x .59. There are two Cowbird's eggs with this set.

Set XXXVII. June 1, 1882. Milton, Mass. Five eggs, fresh. Light creamy white, sprinkled and speckled (very heavily at the larger ends) with vinaceous and lilac-gray: .83 x .62; .81 x .62; .83 x .64; .81 x .63; .81 x .63

Set XXXVIII. June 2, 1885. Saybrook, Conn. Five eggs, fresh. Light creamy white; sprinkled and speckled with hazel and lilac-gray. The markings are heavier at the larger ends, but there are no wreaths: .82 x .61; .81 x .61; .82 x .61; .82 x .59; .83 x .61.

Set XXXIX. June 7, 1884. Farmington, Me. Nest in woods. Five eggs, fresh. White, heavily spotted and blotched with chestnut and lilac-gray. No wreaths. 80 x .61; .78 x .61; .80 x .61; .79 x .61; .84 x .62.

Set XL. May 24, 1890. Chester County, Penn. Two eggs, incubation advanced. Light creamy white, thickly sprinkled and speckled with vinaceous and lilac-gray. No wreaths. .77 x .65; .78 x .64. There are three Cowbird's eggs with this set, but what became of the other eggs of the rightful owner of the nest? The presumption is reasonable that she would not have laid any more as the incubation was advanced in these. *J. P. N.*

There are quite a number on our list whose subscriptions have expired. We continue sending the O. & O. to such, but will discontinue if desired.

A Day in the Woods.

On the afternoon of April 14, 1891, Mr. W. H. Lucas and myself, also accompanied by a companion to drive the team, started about 3 P.M. for a large swamp and woods filled with hemlocks as well as oak and chestnut, which goes by the name of Spruce Swamp. We arrived there in about an hour and found a large steam saw-mill set up in the woods and the wood choppers had made sad havoc with the timber.

On our visit to this place in early March we had found a nest of the Great Horned Owl, and we had entertained a faint hope that she might possibly lay another set of eggs, but we were more particularly after a nest of the Red-shouldered Hawk this time, for we had seen a pair of birds hovering around on our former visit, but the choppers had driven the birds out of this place, and, although the birds were still around we were unable to find the nest; so had to return to our team, when, after a drive of about half a mile, we left again for another woods, and did not have to hunt long before we discovered the nest. It was in a chestnut about seventy feet high and on a limb projecting about ten feet from the body of the tree, with the female bird on the nest. It was now quite dark and no amount of clubbing or shouting would persuade her to get off. We determined to start her, so I raised my gun and shot one barrel close to the nest to start her, and off she jumped. I let the other barrel go after her, but as I am no expert with a gun she continued on her way unharmed, so we were obliged to say good-by to her. Our next problem was, where is the fellow to climb the tree and get the eggs? I certainly was not desirous of the job, and my companion did not seem to favor the plan of his doing it, so we decided to let her rear her brood in peace, so away we started, and it was now getting pretty dark; and as we went stumbling along we suddenly came upon an old, tumbled-down stone fence. As I was in advance I put one hand on top of the fence and made a jump to clear it, and was somewhat surprised to find myself completely tangled up in one of those most desirable of fences — the barb wire. But, oh! if you could have seen those pantaloons when I finally got clear, you would have smiled. Plenty of ventilation, I tell you: but fortunately that was all the damage, so we made our way as best we could for the team, and after a drive of about a mile we reached my old home, and after putting out our horse we repaired to the house and partook of a good supper to which we surely did justice. After making a few preparations for the trip on the morrow and getting my pantaloons adjusted, we retired for the night.

Early the next morning we were stirring about making the final preparations, eating our breakfast, and we were shortly off for the woods. Nearly the first sound that we heard as we approached the woods was the note of a Louisana Water Thrush, but it was probably well aware of the distance a gun would shoot, and so thought a distant view the most agreeable, so it made good its escape. Still we pushed on through the woods until we finally saw a respectable looking nest in a chestnut tree just ahead which we thought might possibly be a Red-shouldered Hawk's, for we had heard a cry come from that direction; so I strapped on my irons and began to shin the tree, and was repaid with a large handful of rotten leaves and rubbish.

Then we struck across an opening to the wood on the other side, and soon saw a Crow sitting hard on her nest in a tall chestnut. We rapped on the tree for her to get off but she did not respond, so I shot one barrel of my gun about a foot from the nest; but this did not seem to wake her up. My companion (who by the way was rather near-sighted) declared there was no bird on the nest, so to convince him I shot the other barrel into the nest and this moved her and as she flew my companion dropped her, but as the eggs are so common and the tree a hard one to climb we did not get the eggs.

Then we started out again for another woods about a mile away, and in a short time took our first set of the day. It was that of a Red-shouldered Hawk and contained three rather dull marked eggs, and unusually small for this species. The nest was very low, not more than twelve or fourteen feet high.

We then started for our team, for it was quite a long distance to our next piece of woods, which had formerly contained a very large pair of Red-tailed Hawks, but after arriving there and spending over an hour of hard tramping we were obliged to give it up; but, as we were coming around near the nest which was occupied by them last year, we discovered that it was once more occupied, but not by a Hawk. On investigating it proved a Barred Owl: we could plainly see its head and eyes watching us as we manœuvered around throwing clubs, etc., trying to drive her off; but she stuck close.

I could not help recalling my experience of the year before, and the resolve that I made when I reached the ground after climbing to this same nest, that if ever a Hawk or any other bird had its nest in another tree like that it would not be molested by me. But this was something new to me. I had never seen a Barred Owl's nest before and had no set of their eggs in my collection, so I wished to get them very much. I tried to persuade my friend, Mr. L—, to try his hand at this one, but he would not be persuaded; so I finally decided to make one more attempt myself, but must own up beaten, for after getting over half way up my courage gave out and I had to come down again. So we were obliged to leave her, with this faint hope that next year she would take up her abode in a more respectable tree.

Next we started for the wagon again and after a good lunch, and getting rested somewhat by our short ride, we started out once more.

The first find was a Crow's nest which contained four eggs, which we took; and had not proceeded far when we saw a Hawk's nest with the bird on. We shot her when she left the nest, secured the eggs which were three in number, and then proceeded to look for another pair which had formerly been in the vicinity, but after a thorough search could not find it, so we proceeded to the next pair which we found without much difficulty, and got three eggs from this nest which we packed carefully away with the rest.

Our next move was for our team again, when after a short ride it brought us where a few days before I had found a Red-shouldered Hawk's nest, but had not had time to get the eggs. This we easily secured, which also contained three, and were the finest marked set we had taken so far; but it was now after 3 P.M., and as we were several miles from home and had several pairs which we wished to visit on our return, it was necessary for us to proceed as rapidly as possible. So we pushed on to our next piece of timber and had but little difficulty in finding the nest. It was placed in an oak, and this set made the fourth one I have taken from this same nest. It was occupied by a Cooper's one year. We secured a set of three this time, and as I was in the woods again on May 2d following I saw the bird leave the nest, and on going up secured a single badly incubated egg, which was probably the complement of the original set.

We had proceeded but a short distance when we saw a Hawk fly from a knoll and saw two nests near but could not tell for certain which nest she left, and as they were both rather high we did not feel like climbing on an uncertainty so left them, but some time afterward I secured a set of three from one of them.

Once more we started for our team, and rode some distance to get our wind, etc., and as there remained but one more pair of birds on our road this time we proceeded for them; and I was anxious to find this one as I had taken eggs from them before, and they were extraordinarily fine ones, and so was more anxious for this reason than any other. So we were fortunate this time and secured the prize set of the day. This set numbered three and as this was to conclude our day's hunt we started on our final journey to the city, arriving there just as the rain began to come down in showers, thoroughly tired and hungry, having had a hard day's tramp but feeling amply repaid for our trouble; and, further, we had a very enjoyable time, and it will leave on our minds something which in after days we can look back upon with much pleasure.

H. W. Beers.

Bridgeport, Conn.

That Big Gobbler.

Poking round in an old box of ruins the other day I came upon a long, coarse hair. Not much of a find, but what a bright panorama of recollections it brought up to the old man's mental vision. And to-night, a bright spring night, with the first Chuck-will's-widow faintly calling to me from far away, and the moonlight keeping me awake, I remember that it is a long time since I wrote to the O. & O. So, taking that hair for my text, — a hair from the beard of that big gobbler, — I again sharpen up my pencil for the benefit of my far-away friends who read my favorite magazine.

It was on much such a night as this that I waded the Fisnmycochee with a heavy pack and a light stomach, and sought a camp on the first bit of dry ground I had seen since high noon. The first pine island that I found looked too bushy for my liking, so skirting round the edge I plodded wearily along toward the next, which was clear of underbrush and seemed to have been recently burned. In the shaded side of this I stopped, leaned my pack up against a tree and began to pick up some dry sticks for a fire. Thus occupied I came to

the farther edge of the trees, and in the shadow of one of them, clearly silhouetted at my feet, was the outline of a big Turkey gobbler. I slowly raised my head, and then he was sharply outlined against the face of the moon, but only for an instant. The next moment, wings and tail spread out, substance and shadow joined each other away out in the prairie, and I watched till only a black speck disappeared into the edge of a big Cabbage woods more than half a mile away. That is just what happens to a man when he is fool enough to leave his gun in camp. Supperless I sat and smoked by my little fire and thought of that momentary vision of sumptuous fare. And when my complaining stomach allowed me to catch little cat naps toward morning it was only to see again that broad-winged shadow glide along the moon-lit prairie, meet the legs of the noble fowl as he dropped to earth, and then disappear in the palmettos away beyond.

From the last of those fitful naps I awoke with a start. The moon was low down, and it could not be long before dawn. Sleep was impossible, and I made up my mind to cross over to the Cabbage woods and try to call the old fellow to breakfast. The burnt prairie was in my favor the first half of the way for its color under the low light harmonized better with moving objects than any other in nature. But as I neared the woods the unburnt stubble made more noise than I liked. The closer I came the more gingerly I slid my feet along, trying to press down and not crack the telltale grass roots. There, in a bit of the blackest shade I could find I cautiously cocked both barrels, cleared out my pipe with a feather, and called the most enticing *pee-pee-pee* through it that my eager lips could frame. How plain the whole scene seems now, — the reddish glow in the moonlight, which is seen only for a short time before the early dawn comes on; the black shadows and trunks of the palmettos, and back over my shoulder a little vermillion spot showed where my fire was yet alive. Twice more I called and listened and then shifted my ground. Again failure, and another noise, when at once, in answer to my call, came the welcome response at least a quarter of a mile away. No more moving for me. Call and call again was answered a little nearer each time, and at last I laid the stock to my cheek and with a "Pity you, but bless my stomach," the catastrophe came.

Here is the hair. Lay it on your foot rule. Ten inches or more, isn't it? Guess how much the big gobbler weighed! *Robert Curzon.*

Collecting Around Wenham Lake, North Beverly.

In looking over my collecting equipments to-day, in expectation of this spring's pleasures in the field, I came upon my constant companion on collecting and gunning trips — my note-book. Turning to notes of May 30, 1891, I thought, as this was a good day's trip in this vicinity, that some of the western friends of the O. & O., that have only to go a little way to find more than we can here by hard tramping all day, might be interested; and I, one of the eastern readers, am always ready to hear *anything* from any of our eastern ornithologists and oölogists, (but very seldom do we hear from any). I thought they might be interested also; so I give it as taken from my note-book.

We started early on the morning of May 30, 1891, — my cousin Frank A. Brown, a thorough young naturalist, and myself, — taking the shortest cut for the lake through the woods. After going about a mile we came to what is known as "the spring," a beautiful little spring of ice-cold water always fresh and clear.

This is a model place for birds and they seem to know it, judging from the number always around and near it. Here the first birds noted were a Wilson's Thrush and a pair of Maryland Yellow-throats. The latter birds we watched carrying straw to make their nest. After close watching for some time, lying on a bed of soft moss, we noted the spot where the nest must be, and going over we found it, but so nicely hidden that if we had not seen the bird go there we should never have found it. We left it undisturbed, and about four weeks later Frank got a handsome set of four eggs from it. I also found a Catbird's nest within a short distance of the Maryland Yellow-throat's, which of course we left as we found it, after getting a good scolding from Mrs. Galeoscoptes carolinensis.

Arriving at the lake later than we expected we found that the boat we had engaged had been let, as the man thought we were not coming. But we soon secured another for a short time. We rowed straight across the lake, leaving a long trail on the glass-like surface, for this was one of the nicest days we have had this year, — calm, and not a cloud to be seen. The first nest we found was that of a Red-winged Blackbird with two eggs, which we did not take as the set was not large enough. Our next find was a nest of the Yellow Warbler with a set of three, which

we also left. We next came to a Yellow Hammer's hole. I climbed up, but, as there seemed to be no way of getting at the nest and the man stood on the opposite bank waving his hands wildly to let us know that our time with the boat was up, I slid down into it and pulled for the shore. We then started off on foot, going through a large swamp where the water was half way up our boots all the way. Here we found quite a number of nests of the Purple Grackle and Robin all together, some of the Robins' being not ten feet from the Grackles', — some of each with eggs and some deserted. Here I secured one good set of three Grackle's eggs, also one good nest, a deserted one. Frank then wanted me to go to an old stub about a mile further on where he thought there were some White-bellied Swallows nesting; but after a long walk and a hot climb by me we found all the holes deserted, so we went down on another marsh to look around, but found nothing of interest. By this time it was time to start for home, Frank taking in a fine set of *Spizella socialis* on the way. We then took the car for home. "Not a very successful trip," I hear someone say. No, but an elegant time.

C. E. Brown.

Beverly, Mass.

The Herons of Alachua Co., Florida.

[Concluded.]

LITTLE BLUE HERON.

Most common of all our Herons is the *Ardea cærulea*. Countless thousands of these birds live around our lakes and wet prairies. Here they spend the summer days wading around in the shallow water cooling their feet and legs and filling themselves with fish and frogs. They accumulate in large colonies to breed, and construct their nests much like other Herons.

The young birds at first are white and, before they begin to get their blue coat, are not easily distinguished from the *Ardea candidissima*. When the blue feathers first begin to appear the birds look quite odd. Often one-half of the wing feathers will be blue while the remainder are still white; the rest of the body at the same time will have the same general appearance.

In April, 1887, I visited a colony of Little Blues nesting in a pond at Horse Hammock. There were, at least, five hundred pairs breeding here at this time. The number of eggs in a nest was usually four, sometimes three and occasionally five were found. In this rookery were also breeding five other varieties of Herons and several pairs of Anhingas.

Another colony visited on April 8, 1890, in a cypress swamp north of Waldo, Fla., contained no other birds but Little Blues. The nests were placed around on the cypress limbs at various heights. Often six or eight nests were seen in a single tree. At this date but few of the nests contained eggs and many of the new nests were not yet complete.

GREEN HERON.

This bird becomes quite common with us by the last of March, and by the middle of April nests containing their full number of eggs are to be found. They nest in company with other Herons, sometimes in small colonies by themselves or in isolated pairs in suitable places around the lakes or marshes. Their nests are usually placed in bushes or wild willows growing in or over the water. But it is not uncommon to find their nests a quarter or even half a mile from any body of water, elevated on the horizontal limb of some old live or water-oak tree. Their nest is small and often so frail that the eggs may often be counted from under the nest. The eggs are three, four or five in number.

BLACK-CROWNED NIGHT HERON.

Quiet and secluded as it is, the Night Heron is seldom met with in the day-time unless disturbed from their breeding or roosting places; then with loud "quocks" they will flop away to a safe distance and again pitch into the tree tops.

While camping at Priece prairie in August I had a splendid opportunity to observe the habits of these birds. In the tall bushes which grew in a little shallow pond back, perhaps a quarter of a mile from the lake, thirty or forty Night Herons were found roosting. Upon firing a gun they all took wing and flew off over the woods, with the exception of a young male bird which stayed behind, "a sacrifice for the sake of science." Late in the evening while lying on the bank of the lake, gun in hand, waiting for a flock of Wood Ducks or a stray Anhinga, the Night Herons flew out over the water and in a straggling flock sought their feeding grounds at the south side of the lake. A nesting site visited April 18, 1890, was situated in a marsh. The nests were placed around on the bushes, seldom over three feet above the water; and

these nests, having been used for several years in succession, had become to be quite large affairs. The number of eggs in a nest was very often not over three, occasionally four or five, but more often only two were found. In another rookery visited a little later on the birds showed about the same habits in nesting and the same variations in the number of eggs. Sometimes they are to be found breeding with other Herons; again only a small colony will be found with no other Herons breeding near.

YELLOW-CROWNED NIGHT HERON.

Having never seen one of these beautiful birds I was somewhat surprised when, in April, 1888, my partner and I came suddenly upon one of their breeding places near Levey Lake. The place they had chosen for their nesting site was a little pond densely surrounded by tall trees and containing a thick growth of tall button-wood bushes. In these bushes, and situated at from three to five feet from the water, the nests were placed. They were thick, bulky structures, most of them having been used for a number of years. The bushes in which the nests were placed were quite tall and, the place being surrounded by tall trees, the nests were in semi-darkness the greater part of the day. No signs of bird life are visible as you first approach the place, but the moment a gun is fired they all leave their nests and with loud "quocks" fly heavily over into the trees at the other side of the rookery. They feed almost exclusively at night. At the date of our first visit (April 25), most of the nests contained complete sets of incubated eggs. The nests of last year's birds, however, contained only partially complete sets or else none at all. This lateness in nesting is doubtless due to the fact that the young birds have to build new nests, while the older ones use the same ones from year to year. The number of eggs found in a nest was generally four, sometimes only three and in a few instances six were found.

With the exception of one or two other similar places this is the only place I have ever found them nesting, and in all cases there were no other Herons found breeding with them, unless perchance a straggling Green Heron or two. Prof. Frank M. Chapman speaks of finding them nesting in isolated pairs along the creeks which flow into the Swannee River. The Yellow-crowned Night Heron, like all the other Herons, upon being robbed once will lay the second time. Complete sets of their second laying may be found at from twenty to twenty-five days from the date the first sets were taken.

F. G. Pearson.

Guilford College, N. C.

Bird Notes from Central New Hampshire, Winter of 1891–'92.

Robin, November 3d and 9th, in January and March 13th.

Winter Wren, November 25th and December 5th and 12th.

Hermit Thrush, November 9th.

Kingfisher, November 24th.

Crows have strayed all winter.

Blue Jays, plenty.

Pine Grosbeaks, quite common.

Pine Finches, very plenty.

American Goldfinch, plenty first part of winter.

Purple Finch, very scarce.

American Crossbill, quite common.

Juncos, about the same as Crossbills.

Golden-crowned Kinglet, plenty.

Tree Sparrows, common.

Snowflakes, seen occasionally.

Red-breasted Nuthatch, common.

White-breasted Nuthatch, scarce.

Chickadees, plenty.

American Brown Creeper, quite common.

Hairy, Downy and Pileated Woodpeckers, seen occasionally.

Ruffed Grouse, not plenty.

Barred and Saw-whet Owls, a few.

March 8th, shot a young male Rusty Grackle, that had been seen three times previous. It had the outer eight primaries gone, had probably been shot away in the fall, disabling the bird so it could not migrate. It does not breed here. It was singing and seemed quite happy. I have the skin in my collection.

J. H. Johnson.

Purple Gallinule in Massachusetts.

A fine female Purple Gallinule was left with me, April 9th, for mounting. Knowing this to be a rare bird in Massachusetts I thought its occurrence might be worthy of notice.

C. C. Wood.

Plymouth, Mass.

Nesting of the Blue-gray Gnatcatcher.

It seems strange that such an essentially southern species as the Blue-gray Gnatcatcher (*Polioptila cærulea*) should be so abundant as it is in this locality which is so near the limit of its northern range, if not, indeed, actually marking that limit, at least in this state and the neighboring State of Ohio, where, according to Oliver Davie, it is also quite common. But in Butler and Armstrong Counties, only some forty miles to the eastward of here, it is conspicuous by its absence, a fact in keeping with the boreal affinities of the fauna of which locality, as compared with that of Beaver County.

Its arrival occurs the third week in April, or, to speak more precisely, and by the record, on the 17th or 18th of the month, when pleasant weather has become fairly established and the orchard and forest trees are just beginning to burst into new life. Dry and rather open woods, especially if on a hill-side, are its chosen haunts, in which places the birds, although so small of size, may always be found if present by following up their peculiar filing note, *chee-e-e-chee-e-e-chee-e-e*, which cannot possibly be confounded with any other, although on the whole bearing considerable resemblance to that of the Blue Golden-winged Warbler. But this is a humble effort compared with the Gnatcatcher's true song, for it is possessed of exquisite vocal powers, though they are not often exercised, and not generally known even among professed ornithologists, its song being heard for only a week or two after the bird's arrival. Not so full and clear, indeed, as the vivacious song of its cousin, the Ruby-crowned Kinglet, which expressive, and sweeter, well-befitting such a is migrating at the same time, but more exquisitely modulated, more tender, more tiny, fairy-like bird, as, clad in a delicate blue and white, it ceaselessly pursues its minute insect prey in the tree-tops, in every motion graceful.

They are invariably paired on their arrival, and lose little time in selecting a nesting-site, which is always in the immediate vicinity of last year's, and not infrequently on the same tree. The spot having been chosen, work on the nest is immediately begun, and rapidly carried forward except in stormy weather, though the structure always requires for its final completion between two and three weeks of constant labor on the part of the female, the male, so far as I have observed, never assisting, although he always remains near at hand and takes a great interest in the work, aiding no doubt, by his cheery presence and song. The nest is occasionally let down into the crotch of an upright branch, but as a rule is saddled on a horizontal limb, preferably of an oak, at an elevation of from twenty to fifty feet, and is not infrequently so arranged as to be directly under another limb, so as to be partially protected from the disintegrating effect of rain. It is a most elegant and elaborate structure, a very model of bird architecture, and as such very creditable to its tiny owners, whose labor is so patiently expended upon it. Though reminding one strikingly of the nest of the Hummingbird, with which it even vies in elegance of design and beauty of finish, it is much larger, being, in fact, very large in proportion to the size of the bird.

A nest now before me, collected May 19, 1890, and which may be regarded as typical, is composed of the delicate stalks of certain small weeds, fine strips of inner bark, bits of dry mullen leaf, down from the thistle, milkweed, and various other plants, pieces of cocoons, etc. There is no special lining other than the regular material used for the body of the nest, but the outside is completely and neatly stuccoed over with bluish-gray lichens fastened on by a lavish use of cobwebs. The cavity is deeper than it is wide; the brim is moreover much constricted. The birds very often place their nest on a lichen-covered branch, the more to escape observation, but in any case it might readily be mistaken for a knot on the limb, so perfect is the mimicry. It is a soft and perishable structure, loosely attached to its branch, and never outlasting the season for which it is intended. Although it might naturally be supposed that it would be rather difficult to find, this is in reality a very simple and easy matter, as the birds never stray far from home and are always certain to return sooner or later, so that it is only necessary to watch them while building. When the female begins to incubate she every now and then answers the calls of her mate by reassuring notes, thus disclosing the position of her nest. When their domicile is invaded they become very bold and fearless, though so small and insignificant in size, often coming within a yard, scolding and protesting vigorously meanwhile. In a case that came under my notice this last spring, where the female of a pair which had nearly completed their nest was accidentally killed, the male in the course of a few days secured another mate, which built a new nest

at a little distance, using the material of the old in its constructions.

Certain authors have stated that the eggs are pure white in ground-color, but this is a mistake, though it is barely possible that some bleached or abnormally light-colored specimens might appear white. I have yet to see any specimens which differ appreciably, except in diversity of marking, from this pattern: light bluish-green, marked with clearly-defined spots of a light rufous color, as usual rather more thickly about the larger end. According to my experience, they are as a rule five in number in this locality, and very delicate and fragile. The young are abroad with their parents sometime in June, and these family groups are commonly to be found lingering in or near their old haunts until late in August, when they depart for their winter quarters beyond the southern limits of the United States.

W. E. Clyde Todd.

Beaver, Beaver Co., Pa.

[A fair-sized series of the eggs of this bird in my cabinet exhibits a great variety of coloration. As nearly all of them came from one locality (Mississippi) it is odd that those collected in Beaver County, Pa., and described by Mr. Todd, should show so little variation. — *J. P. N.*]

My First Set of Great Horned Owl's Eggs.

Sunday, February 16th, was a delightful day to be out of doors. In the morning I had taken an hour's walk in the southern part of town, hoping to be rewarded by seeing my first Robin or Bluebird from the sunny South, but was disappointed as they arrived six days later.

During my walk I saw hundreds of the familiar Chickadees (*Parus atricapillus*), accompanied by the pretty Downy Woodpecker (*Dryobates pubescens*) or Little Sapsucker, as they are called in our locality. Nearly every one of the restless little fellows were busily engaged in gleaning their multifarious food.

In the afternoon Arthur Farmer called and found me in my studio or, as the boys are pleased to call my room, "Fritz's Museum," busily engaged with my collection. We were content to stay indoors until we came to the drawer that contained *Raptores*' eggs. The prospect of adding another set of Hawk's or Owl's eggs to the collection made us hunt up our collecting boxes and start towards the woods south of the town.

What a delightful afternoon to be out! Sky clear and bright. Black-capped Chickadees, Downy and Hairy Woodpeckers were plenty everywhere. Occasionally a noisy Bluejay or sombre Crow would show himself. We found plenty of nests, but all proved to be last year's and empty.

It was not until we had gone about four miles south of our starting place that we found a nest that looked as though there might be "something in it." You can imagine our surprise and joy when we saw two great horns sticking up out of the nest. It was the first time that either of us had seed a *Bubo* on her nest. It is needless to say that we were excited over the two great ears, but we remained quiet. Waiting for what seemed to us a long time, and not noticing any movement, the thought struck us that we had in our excitement mistaken dried leaves for ears, and that they did not belong to an Owl at all. To satisfy ourselves we began hitting the tree with sticks, but without success; then we threw up sticks and stones and off she came, safely and swiftly winging her way westward. Now that we were sure that there was "something in it" for us, we started to climb the tree. After several attempts, with no better success than getting half way up, and all tuckered out, we gave it up and started for home, sorry that we could not take the treasure with us but determined to come after them next Sunday well prepared.

It seemed a month to me instead of a week until next Sunday came. That afternoon, three o'clock found four of us at the nest and, sure enough, the Owl was on.

I wanted to add *Bubo virginianus* to my collection, so instructed the boys to throw up snowballs while I stood off a ways, gun in hand, ready to shoot. Several snowballs fell into the nest, but the Owl would not leave. I got tired of holding the gun so long in one position and put it down against a stump, thinking there would be plenty of time to shoot when the Owl got off the nest, but I was mistaken, — the Owl got away and I got left. Now that I had lost my specimen we started to get the eggs. We had brought climbing irons and rope with us but they were of little use because the tree had heavy and loose bark that would peel off as soon as the irons struck. The result was that it was very difficult to

make much headway. Finally, my brother succeeded in reaching the nest without climbing irons, and reported two eggs.

Cautioning Adolph to keep quiet and rest awhile we started to whoop and dance around like the noble red man, happy that we had at last succeeded in getting the eggs. Brother carefully packed the eggs with cotton in the collecting box and set them down with a stout cord. They were of the usual size and beauties.

The nest was large and made of coarse sticks, lined with finer sticks, roots, feathers, etc., and placed fifty-one feet from the ground. The tree was sixty-five to seventy-five feet in height.

Since then I have secured many sets of eggs, but none that made me feel so happy as that set of Bubo eggs.

Carl Fritz Henning.

Boone, Iowa.

American Long-Eared Owl.

The Long-eared Owl is quite common in Wayne Co., Mich., but is seldom seen on account of its nocturnal habits. They prefer dark, damp woods, especially evergreen and pine. I have never found a nest here myself, but J. Claire Wood of this city has found two. The first was found April 17, 1886, situated in a beech tree twelve feet from the ground; and contained five eggs. This nest was situated in Highland Park about three miles from Detroit. The other nest was found May 7, 1887, and contained five eggs also. This was an old squirrel's nest remodeled over, and was situated fifteen feet from the ground. The eggs are pure white, rather oval, and average 1.60 x 1.32 in size. These Owls seldom construct their own nests, but usually occupy a deserted squirrel's or Crow's.

The American Long-eared Owl closely resembles the Great Horned Owl except that it is much smaller. It arrives here about the middle of February. Their food consists of mice, moles, small birds, etc. Their power of vision in day-time is not very strong, and they can easily be approached at such times. On January 17, 1891, I saw one at the top of a hollow elm, and climbed to within a few feet of him, and shot him. The young are grayish-white and can sometimes be seen sitting together on a limb in the forest. The long ears of this Owl can usually be seen protruding from the nest.

Among the other Owls of this county are the Great Horned, Barred, Short-eared, Screech, and occasionally a Snowy, and Saw-whet.

B. H. Swales.

Detroit, Mich.

Rose-breasted Grosbeak in Wayne Co., Mich.

Before 1889 I never found the Rose-breasted Grosbeak breeding in this vicinity. On May 14, 1889, however, while exploring a piece of woody swamp lying north of Highland Park, a suburb of Detroit, I found a nest new to me situated in an ironwood tree about eight feet from the ground. It was empty, but watching a few minutes I had the satisfaction of seeing a male and female Grosbeak approach the nest. On June 1st, I returned, and found the nest to contain four slightly incubated eggs. The eggs were of a beautiful green color spotted with reddish brown, and averaged 1.00 x .75 in size. I shot the male bird who was sitting on the nest. On June 12th I found my second nest, also situated in an ironwood, and this contained three fresh eggs. The nest was twenty-five feet from the ground. As I never found them breeding in this vicinity before I think it is only lately that they have done so.

The Rose-breasted Grosbeak is a very sweet songster, and can be heard to better advantage in a thick wood. The note is a clear, mellow whistle and somewhat resembles that of the Robin. They are said to sing best at night. Their food consists of berries, caterpillars, worms, etc., and they are a great help to the agriculturist. The Grosbeak's favorite haunts are low woodlands and densely wooded swamps. They arrive the latter part of April, and leave for the South in September. Sometimes you will find them in your garden in the heart of the city, but usually they are quite shy.

The nest is very fragile, being constructed of dried grasses and small twigs. The eggs can often be counted from the ground. The males do their part in incubating the eggs. The Cowbird often palms his speckled egg on this bird.

The only other species of Grosbeak in this vicinity is the Evening Grosbeak which occasionally appears here in winter.

B. H. Swales.

Detroit, Mich.

Some Spring Notes from Guildford County, N. C.

While out collecting on March 29th a bird flew past within a few yards of me and lit on a limb close to the ground and partially concealed by the overhanging cedar boughs. Uncertain as to its identity I brought my gun to bear upon it, and upon firing found that I had killed a Brown Thrasher, the first one seen this spring.

About the first of April a warm spell brought the birds from the South in great numbers. Whip-poor-wills were soon heard; Black and White Creepers, Blue-gray Gnatcatchers and Water Thrushes arrived about the 4th of the month.

Next day a Woodcock was killed and a few Snipe seen. On the 8th a ♀ Hooded Merganser was shot from a flock of eight individuals, all of of which were females. Six Mallards were seen on a mill-pond the same day.

About the 10th the Golden-crowned Kinglets, which had been with us all winter, took their leave and their place was promptly filled by the Ruby-crowned from the South. Myrtle Warblers in their black plumage now became common.

April 16th a Parula Warbler was seen, and a week later they were plentiful.

The morning of the 18th brought the first Chimney Swift, which was soon followed by others.

April 20th, while passing along a stony hill-side near a mill-pond, the uneasy actions of a Killdeer Plover led me to search for the nest which I soon found, containing four fresh eggs. The next day a Hooded Warbler and a Maryland Yellow-throat were taken and a Wood Thrush heard.

Upon looking forth on the morning of the 23d I found the sun shining and the birds singing. Almost the first sound that saluted my ears was the cheery whistle of a Rose Tanager. They had taken us by storm during the night and the trees on every side resounded with songs. A little later in the day a Catbird and a pair of American Redstarts were noticed.

The Crows ushered in the egg season on the 2d of April by a set of five fresh eggs. Two weeks later Great Carolina Wren's eggs were found, and on the 25th a set of four fresh Cooper's Hawks' eggs were taken.

T. G. Pearson.

Guildford College, N. C.

Notes on the American Bittern (Botaurus lentiginosus).

One day during the last week in August two boys drove up to my window, one of them inquiring with considerable interest if here was where the man lived that stuffed birds. With fully as much interest I assured him that such a man lived here, and at the same time put down my pen and was out to see what the boys' box contained. Just such boxes had often brought me specimens which I prized very highly, as well as many which were not so valuable.

I found the boys had a perfect living specimen of the American Bittern. They said they had found it along a creek and had stunned it with a stone, but it completely recovered after they had taken it. This bird is not very common in this (Wabash) county. I decided to keep it alive for a week and watch its habits. It was given free use of an empty room.

The commonest attitude it assumes is pointing its bill upward about thirty degrees from the perpendicular, or stealthily creeping along the floor, or like the Heron in repose, its neck drawn up, the bill pointing somewhat above the horizontal. The flashing eye, together with the streaks about it and elevated feathers, give the bird a very fierce appearance, and when compelled to do so it can use its sharp, sword-like bill to considerable effect in defending itself. However, its gurgling, blowing noise and fierce appearance do its best service, probably, in defence from its enemies.

It has a curious, steady, weaving to and fro motion when standing, stealthily looking from side to side, never making a quick motion unless compelled to do so, and only reluctantly then. Its movements are rapid enough, however, to be quite effectual when seizing its prey,—indeed they are very quick. It frequently stands for several minutes without moving in the least, except its eyelids.

The ruffled feathers greatly enlarge the appearance of the bird. It, too, appears to delight in seeming much larger than it is. Heron-like, it frequently stands on one leg for some time. When standing in this attitude it will not change the position of its feet even though it may wish to look at all points of the compass; its long neck and ready use of it enabling it to look in any direction desired without a change of position.

When on short rations it refused to eat the large potato moth I gave it, or a beetle, or

fresh beef or grass. Fish and frogs seemed the most toothsome food I furnished it. The old story was so fresh in memory that I could not resist the temptation to place the fish on a flat surface and then in water. Of course I found out, as everybody else has, that there was little or no difficulty in taking the food without the water, although I could easily imagine there was some virtue in it.

The dead fish I gave it, ranging from two to five inches in length, were scarcely torn at all before swallowing. A few hasty, hound-like gulps was all the attempt made at mastication. The live cray-fish, however, was pierced and bitten until it in some measure ceased struggling, before it was swallowed, but from the uneasiness of my Bittern I judged Mr. Cray-fish was not behaving very well after he had been swallowed.

Next a green frog (*Rana virescens*) was given it. When this luscious green morsel was spied sitting there Mr. Bittern cautiously moved towards it and instantly seized the body of the frog midway, using those sword-like mandibles to such effect that life was soon extinct. Considerable care was taken to kill this specimen. Even the legs must have the bones broken repeatedly, especially the long hinder ones. Then, with only slight inconvenience it was swallowed whole, causing a considerable distending of the æsophagus for a few minutes.

Quite a variety of common names have been applied to this bird; among them are, Indian Hen, Stake Drive, Bog Bull and I have heard it called Thunder Pumper, although this name is also applied to a fish. It was probably a confused idea of this last name which caused the boys to reply, when asked what they had, that they were not quite sure about it but they thought it was a "Pump Sucker."

A. B. Ulrey.

North Manchester, Ind.

Phoebe Bird — Pewee.

From Wade's Fibre and Fabric.

This intelligent and familiar bird can be found all over New England wherever there is an open barn, barn cellar, bridge, or any kind of a dilapidated out-house or even high rocks, on the face of which the nest may often be found built of moss and mud, with some hair for lining, and fastened firmly to the rock with mud under some slight projection. I never found a nest on a continuous shelf on a rock, but often just above or below one. This is evidently done to avoid their four-footed enemies that often pass over such runs and would destroy their eggs if they came in their way. There are some rocks where the remains of many nests can be found showing that they have built there for very many years. They will occupy the same nest for years, relining it each year unless they have good cause to desert it.

April 16, 1882, I found a beautiful nest in a deserted New England farm-house at Versailles, Conn. It was sustained on a nail against a joist in what had been the dining-room. I questioned the owner about the nest. He stated that it had been there for twenty years undisturbed, and they always got off two broods in a season.

New England barns are usually built with the under beams hewn, and are more or less rounding, giving a shoulder on which the Phœbe builds its nest.

In a barn cellar of this kind, at Rockville, Conn., I took two sets of four eggs; another party took the third set with nest and four eggs. The same pair built a new nest and laid four more eggs the same year, from which they took off four young. This was in 1878, when every pair we found that year laid but four eggs.

During 1877 we took a nest from a slight shelf on a solitary rock which stood on the level ground in a wood away from any buildings. The nest was not over three feet from the ground and in plain sight of the public road. Within a few hundred yards of this rock, at the head of Lake Snipsic, Rockville, Conn., is a bridge, the beams of which are not over four feet from the water, which is very turbulent in the spring-time. The bridge is always in poor order, and the dirt falls through and annoys the Phœbes that build their nest underneath, and yet they breed there every year, unless disturbed too much. Even then they will return another year.

Under this bridge, in 1878 (June 11th), I took a set of four eggs; May 14, 1879, I took a set of five eggs; May 15, 1880, I took a set of five eggs, which proved to be slightly spotted. This was the only spotted set I have taken, though they are not unusual. Under this bridge, which is a fair type of similar bridges, are to be found the remains of many nests.

In the summer of 1879, while botanizing with a granddaugher of Audubon, in the town of Tolland, Conn., I climbed into a window of a recently abandoned dwelling. In one

of the bed rooms the plaster was starting, ing, and on this slight shelf a beautiful mossy nest was fastened, and in which was the usual number (for that year) of five pure white eggs.

These birds are equally at home in the door yard, and in the solitude of the forest. On April 23, 1882, which was early, during a drive to entertain a friend, I took a stroll in a forest of old timber, and on the face of a cliff or steep rock under a slight projection, I found an entire new nest all built that year, the mud being still moist and the moss green. It was lined with a few horse-hairs as usual, and ready for the eggs. I could reach within eighteen inches of the nest, although it was a dangerous place. "It was so near, and yet so far," and no known means at hand to reach it, when I dropped on my hands and knees and invited my companion to step on my back, which he did, and examined the nest with perfect ease. This nest was in a wild, rocky scene, near Norwich, Conn. The rocks were nearly covered with masses of "hard ferns." I have described the above typical resting places, but I have found them in every conceivable position except on trees, shrubs, or on the ground.

Wherever a giant of the forest has been uprooted, turning the roots upward, there a Phœbe's nest will often be found; under bridges, on the beams, or on the walls or abutments, no matter if the bridge is little more than a culvert, on every conceivable kind of outbuilding, inside and outside, even under piazzas of buildings, where the occupants sit within a few feet of them. I found a case of this kind on the piazza of Alex. Temple at Broad Brook, Conn. I never saw a nest exposed to the rain from above. They are everywhere a favorite, and the farmer that will use his old revolutionary fire-arms on its relative, the King-bird, will protect the Phœbe bird, which lives entirely on insect life.

Returning once more to the nesting habits of this bird, I would state that in 1882 I found a nest far up the culvert below the waste-gate of the Norwich, Conn., water works. During that same year "J. M. W." of Norwich, found a nest in the hollow of an apple tree. He also reports finding six eggs on three different occasions, the latest being on July 10th. Our earliest record is May 14, 1879, a set of five; May 15, 1880, a set of five, from the bridge at the head of Snipsic Lake, that were spotted.

Junius A. Brand, of Norwich, Conn., informed me that he once found a nest and set of eggs on the limb of an old white oak tree. The tree was about twenty inches in diameter, and the horizontal limb on which the nest was found was about eight inches in diameter. The limb projected about sixteen feet from the body of the tree and the nest was about twenty-five feet above the water. He also reports four nests at one time on the beams in a small old saw-mill with up and down saw. This is not at all unusual, as the birds become remarkably tame during the breeding season.

The Wood Pewee is a near relative of the Phœbe bird, but it always builds in the woods and on a small horizontal limb, and lays three beautifully marked eggs. I have heard of five eggs being laid, but have no positive evidence of the fact.

Jos. M. Wade.

A RUSTIC CONCERT.

"You kan't ketch nothin' with them thar things,
With yarn fer bodies an' feathers fer wings.
You must think trout is terrible fools
Fer be ketched with such outlandish tools.

"An' look at that pole — why that won't do;
A good, big trout would bust it in two,
An' never think nothin' ov what he did,
As, quick as lightnin', away he slid.

"Well, I'll be durn, you can shoot me dead
Ef here ain't a windlass filled with thread,
An' ther littlest sort ov thread at that —
Why, man, that wouldn't hold a gnat!

"You'll find a good place over here,
Under ther rapids deep an' clear.
You'd better take worms an' er hick'ry pole,
Or you won't ketch nothin', 'pon my soul!"

. . . . . .

Sixteen beauties, speckled bright,
The basket bore ere the fall of night.
He counted them o'er on the bank of fern,
And all that he said was, "Wa'al — I'll be durn!"

—Outing for May.

THE

ORNITHOLOGIST AND OÖLOGIST

A Monthly Magazine of

NATURAL HISTORY,

ESPECIALLY DEVOTED TO THE STUDY OF

BIRDS,

THEIR NESTS AND EGGS,

and to the

INTERESTS OF NATURALISTS.

Under the Editorial Management of

FRANK B. WEBSTER, Hyde Park, Mass.
J. PARKER NORRIS, Philadelphia, Pa

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Brief Notes.

On April 13, 1892, I took my first eggs of the season with Mr. J. C. Wood. It was a set of five eggs of the Red-shouldered Hawk from a nest in an oak about fifty feet up. The eggs were smaller and rounder than the usual types. Of twenty sets taken this is the only set of five eggs I ever saw. Saw a fine male Bald Eagle April 4, near the city. B. H. Swales, Detroit, Mich.

R. H. Carr took a Blue Jay at Brockton, Mass., with mandibles crossed. He claims that it is a Crossbill.

A pure white Robin was shot April 11 by H. O. Butterfield at Stafford Springs, Conn.

A collector in this state writes us that one of his neighbors has complained of him as a nuisance because he has a collection of native snakes. We advise him to pay no attention to it. If it is pressed it will be a good opportunity to test the question, and we will head the paper to pay expense. Massachusetts collectors are not to be bluffed.

ALEXANDER WILSON. — I have just received and added to my collection of Wilson material, the receipt book of Alexander Wilson, which he carried while publishing the American Ornithologist. It contains forty-nine autographs and as many receipts for the payment of money for copper, printing, engraving, coloring plates, etc., etc.; each receipt being a historical link in his eventful career showing cost of each part in his great work.

Jos. M Wade.

Outing for March opened with a description of wild sport in Ceylon's tangled forests. Under the title of "A Marauding Leopard" F. Fitzroy Dixon gives an interesting account of the killing of a great spotted cat which had for long been a terror to the herds of the natives. Beautiful illustrations by J. Carter Beard embellish the article. The whole number is an exceptionally good one, both in text and illustrations.

Ostrich eggs, artistically painted in a prize competition, are to be a feature in the exhibit made by Cape Colony, South Africa.

Carl Fitz Heiming captured six young wolves on Easter Sunday. Wish we had been with him.

We have just received a pet skunk from A. E. Kibbe. The little animal is very gentle and is now making itself quite at home in our show windows. Hundreds stop as they pass, and many can hardly be convinced that we can keep a real skunk.

We received quite a number of snakes in April: black green and striped. They sold readily for pets. Those who could not make up their minds to take a live one indulged in a paper one.

In the last issue of Shooting and Fishing, Boston, May 12, 1892, there is a copy of a photograph of the antler or Virginia Deer that has seventy-one well developed points. This deer was killed by cow-boys about 140 miles north-west of San Antonio, Texas. It is the property of E. Dosch, who describes his collection of horns. Any person who wants to see the greatest curiosity in this line should send at once for a copy of the paper.

A Ptarmigan was shot just north of Bangor, Me., in April. It was sent to Messrs. Holt and Morrill of that city to be mounted. M. Crosby of that city had a black fox in January.

N. Vickery, who called a few days since, related the circumstance of selling a Labrador Duck a few years ago for a mere song. He did not know what the bird was at the time.

E. A. Capen left Boston for Wyoming, where he will remain a few weeks; quite likely he will do a little egging.

War-whoops from the Gypsy Moth exterminators still curdle the blood of the natives of Malden.

Will C. Colt is with them. Colt is a good collector, and is now contemplating a trip in the near future to some northern locality. If he goes he will be sure to render a good account.

There is bound to be a change in the price of birds' eggs. The cutting that has been done lately by a few small dealers can result in but one thing — a regular reduction, and the collectors will be the ones who will suffer.

Correspondence.

Editor of O. & O.:

Seeing the article by Henry Hales in the O. & O. of this month, "Bird Notes of New Jersey," in which he gives his experience with regard to birds singing while on the nest, let me add to this that both the Red-eyed and the Warbling Vireo sing while on their nests, especially the latter variety.

Also let me say that I, for one, am heartily in favor of the plan suggested by F. B. W. as to the general exhibit of taxidermy by collectors and taxidermists at the Columbian Fair, and will be glad to donate my mite to such a show. As there would have to be some one there to receive specimens and to have charge of the arrangement of the exhibit, let us hear of some plan to defray such expense. Frank Blake Webster is the man to have charge as we would then know it would be done in shape, as he has had a large and varied experience. *S. R. Ingersoll.*

Ballston Spa, N. Y.

[It would be impossible for F. B. W. to undertake it, but we are ready to help to bring about some practical arrangement.—Ed.]

Editor of O. & O.:

On February 22d there was brought to me an albino Mourning Dove. The specimen was in good feather and condition, being quite plump and fat. The feathers are not pure white, but are a bluish white. The specimen was associated with a flock of a hundred or more Doves, but was exceedingly wary. I skinned the specimen and stuffed it. Upon dissection I found it to be a female with well developed ovaries. When dissecting any birds of abnormal plumage I generally look for tape-worms, but none were in it. I have always contended that abnormal plumage was caused by the tape-worm, but in this case I cannot substantiate my theory. Are albino Mourning Doves a rarity? *W. F. Peacock.*

[This is the first that has come to our notice. — *Ed.*]

Editor of O. & O.:

On the 6th of July last, I took a set of four eggs of the Saw-whet Owl. The eggs were placed in the deserted nest of a Woodpecker, in a stub about twelve feet up and within ten feet of a travelled highway.

This was the second set from the same nest. A set had been taken a week or ten days previous by a friend of mine. He was not able to give the exact date. I was unable to visit the nest again, but was informed by my friend that the bird soon laid a third set of four, which were allowed to hatch.

In both cases when taking the eggs, the old bird had to be taken from the nest by force. Both sets were perfectly fresh, and are now in my collection.

Birds are abundant here this winter, which is quite the reverse of last season when but very few were seen.

Pine Grosbeaks are here in large flocks.

Wallace Homer.

Monson, Me.

New Publications.

Proceedings of the Rochester Academy of Sciences. Brochure II, completing Vol. I. Within the pages, which show that the proceedings cover a broad field and of the most scientific character, our eye catches the following: "Prof. H. L. Fairchild presented to the section* a letter from Mr. G. W. Hill, of Fisher's Station, in reference to a number of weasels attacking a man. According to Mr. Hill's account, John Briggen, a tenant of his, while waiting for his horse to drink at a small stream, saw on the opposite side about twenty-five to thirty little red animals of different sizes. This army of weasels, as it turned out to be, advanced across the stream and climbed up the legs of both man and horse.

They were only driven off by considerable effort on the part of the man and by the assistance of his dog coming to the rescue.

Mr. Hill concludes that these weasels were probably travelling, and states that he on a previous occasion saw as many as fifteen together, and last summer he also killed a large one that had chased and frightened a little boy.

Mr. Geo. H. Harris is also cited as having been once attacked by a weasel."

The corresponding secretary is Prof. Charles Wright Dodge, Rochester, N. Y.

Vol. VI, Nos. 1 to 4, Annals of the New York Academy of Sciences for 1891, contains a catalogue of Rutherfurd's photographic plates of the sun, moon and stars, by John K. Rees, and what will interest many of our readers, — 261 pages of coleopterological notices by Thomas L. Casey. Copies can be obtained from Prof. D. S. Martin, No. 236 West 4th street, New York.

* Zoological Dept. Org., April 30, 1890.

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Winter Bird Notes From Southeastern Massachusetts.

In compiling data which I had collected for use in the study of bird migration, I found a series of notes on the occurrence of several birds and which may throw a little light upon the status of each as a winter resident in this part of the state, and I have therefore summarized the results for publication. The notes from Highland Light, North Truro, were furnished through the kindness of Mr. Willard M. Small. Those from Taunton are the results of the observations of Mr. Bradford A. Scudder. The Naushon observer is Mr. A. D. Chisholm, and the Wood's Holl notes were collected by the writer. Unless specially stated, the period included is from December 1, 1890, to March 1, 1891.

1. *The Flicker.* This bird is ordinarily considered to be a regular winter resident in this part of the state, and the notes here given are only designed to show the actual status of the species at this season. This, and indeed each of the following species of land-birds, seems to be rather more numerous in the Cape Cod district, (Plymouth and Barnstable counties), than at more inland points, possibly on account of the dimimishing amount of snow, and the somewhat higher mean temperature in the immediate vicinity of the coast. At all events, the Flicker is a comparatively abundant bird in such localities, and the ratio of its increase seems to be more pronounced as we pass from west to east. The data shows that there were fifty-three Flickers seen at three stations during the month of December, namely, at Taunton, eight birds on four days; at Wood's Holl, seven birds on six days; and at Highland Light, thirty-seven birds on twenty-one days.

The entire number of Flickers observed at the various stations in January amounted to seventy-nine, viz., at Taunton, thirty-three birds, on nine days; at Naushon, thirteen birds, on seven days; at Wood's Holl, eight birds on as many days, and at Highland Light, twenty-five birds on eleven days.

Observations for February were not received from Taunton, but were continued as usual at the other stations. The aggregate number for the month was forty-three birds. At Naushon there were seven birds on four days; at Wood's Holl, observations were conducted on each of the twenty-eight days, but no Flickers were seen; at Highland Light, thirty-six birds were recorded on eleven days.

It is, of course, probable, that in most cases the same bird was seen on each recurring observation, and was thus counted over several times. Still, the mere fact of its presence at the same spot on successive days, may be regarded as demonstrating permanency or residence, for, as Mr. Stone once said, "great variation in numbers from day to day, and I will add, from time to time, denotes activity, (migration), while comparatively unchanging numbers denote rest, (non-migration)."

The mean or average numbers of Pigeon Woodpeckers, as deducted from the monthly sums, are seventeen for December, nineteen for January and eleven for February. Assuming that these means represent the ideal number of Flickers to be met with at any locality with ordinarily favorable surroundings during the respective months for which they stand, it may be considered in localities where the actual number of Yellow Hammers is above the average of the several stations, to denote more than ordinary favorable conditions for their existence; either on account of a greater food supply, unusual protections from the extremes of weather, or from their various natural enemies; but if the actual numbers of the birds present do not come up to the average, then the conditions of environment might be considered unfavorable. In the immediate vicin-

ity of Wood's Holl, the requirements of this bird are apparently not as perfectly developed as at points a short distance away.

Across the channel, on Naushon island, they are more plenty, and I have also noticed a great increase in the numbers of this bird about the settlements of shore houses on the branch railroad which connects Wood's Holl with the main Cape Cod line, and notably, at the villages of Wenaumet, Cataumet and Monument Beach. Upon inquiry, I have been informed that the Pigeon Woodpecker has become so abundant as a winter resident in these places, that it is classed as a "common nuisance" by people having cottages, and bounties have been offered for their heads because of their destructive habit of boring into the houses for shelter during the winter.

The avidity of the bird to select such excellent refuges, and the celerity with which the new habit is adopted, together with the extent of the new fields to conquer, naturally results in the draining of the surrounding territory and the localization of all available forces in a similar form to the Sparrow rookeries and Robin roosts, described by Mr. Norris and Dr. Brewster.

There was one Woodpecker that had excavated a home in a flag-staff, erected by the Coast Survey on an islet in the harbor, and to which he resorted nightly during the first part of the winter, but when the cold waves of February came, I missed my Colaptes from his usual haunts, and I imagine that he was obliged to find quarters less exposed to the sweeping northwest wind.

A comparison of the numbers of this bird during winter and the season of migration may prove interesting, and the following table is given to show the mean monthly numbers at either station during the season of autumnal migration, including September, October and November, and the period of rest, including the winter months already mentioned. Simultaneous notes were not received from all points previous to the first of September.

AVERAGE NO. FLICKERS SEEN PER MONTH.

	TAUNTON.	NAUSHON	WOOD'S HOLL.	NO. TRURO.	TOTAL.	MEAN.
Autumn,	107	22	23	64	216	54
Winter,	20	10	5	33	68	17

This gives the mean average number of Flickers for the months of migration, as fifty-four, and during the three cold months of winter, it is seventeen; or in other words, these Woodpeckers are likely to be one-third as plenty at that season as in autumn. At Taunton and Wood's Holl, the difference is grater, being as 1: 5, while at Naushon and Highland Light, it is only as 1: 2. I am, however, of the opinion that the effects of the migrational tide, so to speak, are very much more pronounced in the vicinity of Taunton, than in the counties to the eastward of that place, and therefore the excess over the number of actual summer residents or breeding birds, is not in the same ratio at all points, being greatest to the west and diminishing in an easterly direction.

2. *Chipping Sparrow.* A single bird of this species was observed at Wood's Holl, on December 23d. As it was not seen after that date, it may have been a very late migrant, although birds typical of the winter *avi-fauna*, namely, the American and White-winged Crossbills, the Snow Bunting, Shrike and Snowy Owl, were seen on considerably earlier dates.

3. *The Meadow Lark.* This bird is common as a winter resident in some localities, while in others it is entirely wanting. During the months of December and January, but three birds of this species were seen in Taunton, namely, one on December 1st, and a pair on January 31st. At Naushon, they were somewhat more abundant, six having been recored on January 28th, and one on the 30th. Single birds were also seen on February 3rd and 5th.- In the immediate vicinity of the Fish Commission at Wood's Holl, it was not found during the winter, but several were usually to be seen about the salt marsh fields near Falmouth and also at various points along the shore between that town and the head of Buzzards Bay. I also saw a pair at Edgartown on one or two occassions in January and February.

The North Truro record is very complete, and probably the Marsh Quail is nowhere more abundant within the limit of the State during the three winter months, than on that part of Cape Cod which forms the forearm of Massachusetts, viz., from Monomoy to Provincetown.

Mr. Small's record has a showing of one hundred-six birds in December, they being present in numbers varying from two to twenty-five on no less than ten of the thirty-one days of that month. In January, they were seen on thirteen days in numbers varying from one to fourteen, and aggregating eighty-one. Meadow Larks were present on twenty of the twenty-eight days in February, and the sum of the numbers recorded amounts to fifty. The largest number seen on any one day was six and the minimum number was one.

The following table shows the numbers of Meadow Larks present near Highland Light during each of the three months of autumn and of winter:

	1st Month.	*2d Month.*	*3d Month.*	*Total No.*
Autumn,	0	34	71	105
Winter,	106	81	50	437

A comparison of these figures demonstrates that the Marsh Quail is more common on the tip of Cape Cod in winter than at other seasons, for although it is not likely that they are wholly absent during summer, as the record for September seems to indicate, it is plain that there is a decided increase throughout the season, of southward migration, and that this increase differs from the swelling of the numbers at points on the main body of the land. This essential difference is, that the number of Meadow Larks present, remains at or near the highest point throughout the winter, at Highland Light, while at the other stations it falls away more or less rapidly as the birds pass further to the south before locating for the winter. The greater plentifulness of a number of birds in the Cape district, than at other localities in the State at this season, has already been mentioned, but this is one of the most apparent of them all. It would seem as though the arm of land constituting Cape Cod might be aptly compared to an oasis of a desert, in which many spend the winter, though surrounded on all sides by a practically uninhabitable country.

4. *The Crow Blackbird.* This bird is a rare winter resident in southern Massachusetts. A probable solitary individual wintered in the game preserve on Naushon Island, and was observed by Mr. Chisholm about the barns on several occasions, notably, on January 14th and 28th, and on February 11th and 27th, During the previous winter, a Blackbird remained about Wood's Holl and was easily indentified by its peculiar flight which was not in a straight course, but diagonally to the right, from the direction in which he was heading. The Naushon bird was, however, apparently uncrippled, and was considered to have remained over from choice.

5. *Sharp-shinned Hawk.* This Hawk is considered by many as a rare winter resident in this State and I therefore append the following notes relating to its occurrence:

A single bird was seen on four occasions in Taunton by Mr. Scudder, viz., on December 3d, 4th and 12th and on January 4th. At Naushon, it was taken in a steel trap, by Mr. Chisholm, on January 13th, 19th and 28th, and he informs me that one or two are usually taken every winter. I remember of one or two instances where a Hawk of this species took up his winter quarters in a church-yard in Taunton, and from which he conducted frequent raids on the English Sparrows of the principal streets.

6. *Cooper's Hawk.* Mr. Scudder recorded single birds of this species at Taunton on December 2d and January 1st.

7. *The Marsh Hawk.* Another unexpected fact which was demonstrated by the "Bachelder blanks," is the presence of the Harrier, as a regular and common winter resident on the Cape. Mr. Small reported three birds on as many days in December, at Highland Light eight, during January, three being seen during a single day; and nine for the month of February. Compared with the numbers recorded on the three preceeding months at the same station, the results are very satisfactory, as the following table shows:

NO. OF MARSH HAWKS IN FALL AND WINTER.

	1st Month.	*2d Month.*	*3d Month.*	*Total No.*
Autumn,	22	14	24	50
Winter,	3	8	9	20

Judging from the totals for the different seasons, as here computed, we find that the Hawks are only reduced in numbers to one third in winter time and are still left rather common than otherwise, as Hawks go, and certainly more plenty than we would naturally expect from our knowledge of this particular species as a winter resident of Massachusetts. I also suspect that the number of Harriers recorded at Highland Light during the three autumnal months is considerable above the average of most Massachusetts localities, as the following notes tend to show:

During the time that sixty Marsh Hawks were recorded at North Truro, only four were seen at Wood's Holl and none at all at Taunton, so that if we judge the abundance of that bird as a winter resident on Cape Cod, by the numbers present at other localities during the fall migration when Hawks as a class are the most common, they may really be said to be abundant. This last comparison I only give as provisional, as my notes on the comparitive abundance of the Marsh Hawk are as yet too inextensive to serve as a basis for the deduction of very accurate conclusions.

8. *The Night Heron.* This Heron is considered to be rare in winter at this point, although Mr. Brewster tells me that they spend the winter regularly at Fresh Pond, Cambridge. A Night Heron was shot at this place, on December 26th, by Mr. O. Grinnell and another was

seen by the writer on January 1st. It was also reported at Naushon on January 24th. The Great Blue Heron is said to have wintered at Wood's Holl, but it was apparently absent during the three winter months this season. At Naushon it was common in November and Mr. Chisholm noted it as late as the 22d of that month, when one was seen.

9. *The Belted Kingfisher.* It is stated in books that the Kingfisher may, on rare occasions, remain throughout the winter in Massachusetts, but I do not remember to have seen it recorded as a regular or common resident at that season. This, however, appears to be the case, at least in that portion bordering on Buzzards Bay and Vineyard Sound, although the winter notes from Taunton and Highland Light do not include this bird on the lists.

Late in the fall, the Kingfishers daily plied their trade from off the guards of the Commission Wharf and great was the demand for their skins to help out the World's Fair collection. The persistency with which they were stalked and the "dare devil" habits of the birds themselves caused me much alarm for their safety, as I was anxious to continue my notes upon them with the view of learning the exact time of their departure for the South; and when one or two of them had been secured, I would have sold out my interest at a very low figure. One bird escaped the general slaughter and remained with us, a flitting spirit of the departed and doomed to fish alone from off the iron railing, so I was correspondingly happy. But too much of any good thing is apt to wear upon the nerves, and so it was with my Kingfisher. At first, I was only too anxious that he should remain another day, but soon I became more indifferent and finally I longed to mention the impropriety of further putting off his departure. But he had not the slightest intention of leaving, and as far as I am able to judge, he has stuck to the text of "don't give up the ship," having remained on the ground, ready to welcome back his brethren which adopted the better part of valor last fall. All winter, he kept bachelor's quarters in a last year's nest situated not far from the station, and as long as the "silversides" and other small fish remained, he was ever busy about the wharf, although on account of his temerity, he served as a target for rifle practice. During the month of December, he was about the wharves on ten days, and in January I saw him on nine occasions, the last being on the 31st. In February, he seldom appeared about the station, for small fish were very scarce and especially so in the shallow water off the harbor, where the anchor ice and frost killed what few there were. But on one or two occasions, I saw him diving into the icy water of the Holl amid the floating cakes borne on the surface of the swiftly flowing current.

A pair lived all winter in a hole in a sand-bank at Hadley Harbor, Naushon, and from the reports of fishermen, I infer that at least a fourth individual resorted to similar quarters at Cuttyhunk, the outermost of the Elizabeth chain of islands. The Naushon pair were frequently seen in January, viz., nine times; but on the following month they changed their fishing grounds and were less frequently observed. I heard of them occasionally out on the Sound and near Tarpaulen Cove. It is said that here, a winter never passes without a few Kingfishers remaining over and that usually they are more plenty than during the season which has just passed, this particular scarcity being, no doubt, partially caused by the shooting last fall. On the afternoon of February 1st, I saw a single Kingfisher at Edgartown Harbor.

10. *The Song Sparrow.* I have hesitated before including this species in my notes, on account of its familiarity to nearly all observers, for it is nowhere in eastern Massachusetts a rare bird in winter. If considered in relation to the number of individuals which pass through as migrants or remain to breed, it is less plenty than other species which are spoken of in former lists, as rare or tolerably common at this season of the year, and furnishes a striking example of the inefficiency of our present nomenclature for the expression of degrees of plentifulness.

For example, during the months of December and January, eight Song Sparrows were seen about Taunton. February notes were not available. During the three winter months, only five were observed at Wood's Holl and none were seen at Naushon or North Truro. In the first named locality the number of Song Sparrows in August were 233; in September, 59 and in October, 247. Taking the two consecutive months of September and October to compare with the December and January record for the same locality, we have a total number of 306 birds or about forty times the number that are present during the winter months. At Wood's Holl, the record for August, September and October was 214, 207 and 67, respectively, or a total of 488.

Compared with the total number observed during the three winter months, five, the result shows that the Song Sparrows were about ninety-seven times more numerous during the first part of the migration, than in winter. Nearly everyone considers a Song Sparrow in January to be a more common occurence than the presence of a Kingfisher, a Marsh Hawk, or, possibly, of a Meadow Lark; yet my records of the actual numbers seen, not only prove that these birds actually outnumber the Song Sparrows, but that the difference between the comparative numbers seen in winter and summer is very much greater in the case of the latter.

11. *The Robin.* Probably no winter passes without a few Robins remaining within the State, but as their habits at that season are very different from those of other times they are seldom seen, as they keep tolerably close in the thick swamps. During the past winter they seem to have been somewhat more plenty than usual and have been reported from a number of localities. At Taunton they were only observed on one occasion, viz., on December 2d, when two were recorded. At Wood's Holl, they were observed on three days in December and on one during February, the total number being twelve. The Highland Light record, is, as usual, very complete, as they were seen on twelve days in December, two in January and seventeen in February, with a total of one hundred and fifty-nine birds for the winter months. The number seen at one time varied from one to twenty-five and averaged five.

This is another case where the actual number of individuals increases from west to east, and also of a lesser difference in the numbers of migrating birds and winter residents, than in the most western of the three counties, as demonstrated in the following table:

Season.	*Taunton.*	*Wood's Holl.*	*No. Truro*
Migration,	2545	744	298
Winter,	2	12	159
Approx. Ratio,	1.1272	2.62	1.2

Thus, we see that the degree of plentifulness increases from east to west in times of migration and from west to east during the winter months.

12. *The Great Northern Shrike.* This bird is locally distributed throughout the three southeastern counties of the State during the winter. It was apparently wanting at Taunton, and was only observed on one occasion in the latter part of November, at Wood's Holl. One bird was taken at Naushon in January and it appears to be of common occurrence at Highland Light, where Mr. Small saw it eight times in December, twice in January and the same number of times in the following month.

13. *The Yellow-rumped Warbler.* This bird is a regular migrant and winter resident in eastern Massachusetts, sometimes being abundant at that season. Usually it is most numerous late in the fall and gradually becomes less plenty as the season advances, and is frequently wanting just previous to the commencement of the spring migration. It arrives from the North earlier in the season, in Bristol County than on Cape Cod, and also disperses earlier there, than to the eastward. The following table shows the numbers recorded monthly, from September to February, inclusive, at Taunton, Wood's Holl and Highland Light:

	Sept.	*Oct.*	*Nov.*	*Dec.*	*Jan.*	*Feb.*	*Total.*
Taunton,	51	546	x	19	23	x	639
Wood's Holl,	0	311	126	37	0	0	474
No. Truro,	0	338	13	1	56	67	475

From this data it would seem that the migration was well under way at Taunton some time before it was at all apparent at the two other stations, but the height of the season was very nearly the same at each, although the greatest number were seen at the first named station. After the main body of Warblers had passed, the numbers decreased through the months of November and December, to a minimum which may be considered to represent the number of birds which would remain as winter residents. This number of winter birds gradually wasted away on the Wood's Holl ground, and from experiences of former years, I mistrust that a similar reduction occurred at Taunton, although the absence of notes for February, leaves us uncertain of the real state of things. It will also be observed that when the minimum at Highland Light was reached in December, a decided change took place, and the numbers of Yellow-rumps rapidly and steadily increased through the remaining winter months.

14. *Ruby Crowned Kinglet.* Rare in winter. One bird recorded at Highland Light, on January 15th.

15. *Winter Wren.* Rarely remains throughout the winter. Recorded at Highland Light on January 10th.

16. *Purple Finch.* Frequently present in winter. One bird was noted at Taunton, on January 6th.

17. *Common Redpoll.* A single bird recorded at North Truro, on December 13th.

18. *Mallard.* Tolerably common, and occurs on the Cape every fall and winter. One was seen at Wood's Holl on December 9th and three on January 3d.

19. *Wood Duck.* This bird is sometimes found in winter, although I am unaware of its presence near any station this year. A full plumage, adult male was taken alive at Taunton on January 11, 1888.

20. *Common Tern.* A single bird of this species was shot from off the Commission wharf by Mr. O. Grinnell on February 6th.

Concluding Remarks. Before concluding this paper, I would like to offer a few remarks on land birds, as a class, in the Cape district. By the term, land birds as a class, I mean all species, which, according to the present classifications, are considered to be more highly organized than the Raptores, and which, in the "A. O. U." check list, include the Kingfishers, Woodpeckers, etc., and all of those succeeding them, and ending with the Thrushes and Bluebirds.

The following table represents the total number of land birds as here defined, which were recorded during each month of fall and winter, at Taunton, Wood's Holl and Highland Light:

	Taunton.	*W. Holl.*	*N. Truro.*	*Total.*	*Mean No'*
Sept.	15618	1968	1578	19161	6388
Oct.	46717	1720	2751	51188	16062
Nov.		2745	3881		
Dec.	605	392	1172	2169	723
Jan.	983	331	4099	5413	1804
Feb.		91	2202		
Sums,	63923	7247	15703		
Av.Means,	15980	1207	2917	19804	6601

The South Weymouth record for December 31st, was overlooked at time of writing.

Thus, at Taunton, the maximum and minimum numbers seen during any month, are 46,717 and 605, respectively, and if the total number or sum of the several observations at that station are divided by four, we obtain the mean or average number for that particular locality, namely, 15,980. The result of this number and the two extremes, shows that there is a maximum variation during the migration of about 30,000 and a minimum variation in winter of about 15,000. The actual minimum, or, in other words, the smallest number of birds recorded in any month, sank in December, to nearly 6,000 below the mean average of the several stations, while in October, it increased to about nine times the mean average, having an excess of 40,316 birds.

In Wood's Holl, the maximum was 2,745, the mean, obtained by dividing by six, 1,207 and the minimum was 91, while the variation in either direction did not exceed 1,500 birds.

The maximum, mean and minimum monthly records at Highland Light, were 4,099, 2,617 and 1,172, respectively, with the two extremes on consecutive months, viz., December and January. Otherwise the minimum number of birds would have been recorded in September. The actual variation seems to be included within 1,500 in either direction from the mean for the station, but it is always from 2,000 to 5,000 below the mean average of the several localities.

The actual range at Taunton is about ten times grater than at Highland Light, rising much higher in autumn and falling lower during the winter. At Wood's Holl, the actual range is only about 1.17 as great as the Taunton variation.

Another very prominent difference between the extreme localities is, that at Mr. Small's station, the greatest number of birds are present during the winter months, while about Taunton, Mr. Scudder finds them much scarcer at that season than during the migrations; but as I have in progress a special work relating to this question, I will only say at the present time that this is partially due to the greater severity of the weather in the inland districts. The greater scarcity in winter at Wood's Holl, where the meterological conditions are practically the same as at North Truro, may be in a large part accounted for, when we remember that the prevailing winds, which exert more force on the birds near the coast, are either from the northwest, southwest or south, and owing to the peculiar situation of Wood's Holl, such winds, and, judging from this winter's experience, they are constant, have a strong tendency to blow the birds away from the shore and into the more sheltered inland localities. These same winds which exert a lessening influence on the winter bird life of Wood's Holl may increase the numbers at Highland Light by stranding birds which have blown from off the windward shore of Cape Cod and Massachusetts Bays. The presence of Snow Buntings and Shore Larks in large numbers on the Cape, also tends to increase the number of land birds present in winter, as they are somewhat maritime in their habits and occur much less frequently and in smaller numbers at points removed from the sea.

Harry Gordon White.

U. S. Fish Com., Wood's Holl, March 15, 1891.

The American Bittern.

The well-known American Bittern is a common summer resident in western New York, and may be found breeding along sluggish streams, ponds, and swamps often in large numbers.

In this locality the Bittern is generally known as "Stake-driver" or "Thunder Pump," receiving its names from the peculiar noises made by the bird which at times resemble that of driving stakes, then again that of pumping.

A tract of low land known as the Tonwanda Swamp, lying along the line between the counties of Orleans and Genesee, seems to be a favorite nesting place for this bird.

During the breeding season the male may be heard from morning till night at frequent intervals, his "pumping" making the swamps ring, and it may be heard a long distance.

The Bittern arrives in this locality during the first week in April, and stays until late in the fall.

The Bitterns, like the Herons, get their food in the vicinity of water, and are seldom seen to alight in fields far away from a creek. Their food consists mostly of frogs, toads, and small minnows which they are experts at catching.

The American and the Least Bittern both breed here, but owing to the retiring habits of the latter it is seldom seen, but, however, the former is far the more common. The time of the breeding of this bird seems to be very indefinite, as fresh eggs may be found from the latter part of April until late in June.

The nest of the Bittern is generally hard to find, being placed in tall, rank grass which covers the ground and hides the nest. The nest is seldom placed elsewhere than upon low ground that is covered with water part of the year, although they sometimes build in open fields after the grass has grown to a good height. When found in low places the nests are placed on the ground or upon decaying vegetation lying in shallow water.

The nest is made of coarse, dry grass and weeds that are dragged together by the birds, and lined with finer material of the same kind. Sometimes the grass and weeds overhanging the nest are drawn together above it, completely hiding the nest and eggs.

The eggs are four or five in number, generally five, and of a uniform drab in color. As soon as the eggs are hatched, the parent birds, occupy their time in carrying food for their young, and they will fly from morning until night, from some pond or creek to the nest with food.

During incubation the female will not leave the nest until nearly trodden upon, making it a rather difficult task to find the nest by flushing the bird.

The number of Bitterns that breed here depends largely upon the season. During a wet season, especially in May, they breed in large numbers in the Tonwanda Swamp, but if the season be dry and hot their numbers are greatly dimimished.

Two years ago I found my first Bittern's nest. While wandering about on a marsh, I chanced to stop within a few feet of the nest, and as I did not see the bird she did not offer to fly, but to my "good luck" when I started I went towards the nest and she flew off. I examined closely the surroundings of the nest and found signs which I thought would aid me in finding another nest.

The next year, while crossing the same marsh, I saw signs similar to those around my first nest. I began hunting at once and soon found the nest a few rods from the place where I first noticed the presence of the birds. Both these nests contained five eggs each.

Elmer J. Gillett.

Barre Centre, New York.

[My experience leads me to believe that these eggs are very commonly a set.— J. P. N.]

Nesting of the Wood Pewee in Nova Scotia.

A POINT ON SHELL MARKINGS.

While at my home in Kentville, N. S., an exquisitely marked set of eggs of the Wood Pewee (*Contopus virens*) A. O. U. 461, found their way into my collecting box. The neatly constructed shallow nest, composed of vegetable down and fine tree moss, the whole completely covered with lichen, (which made it hard to distinguish from a knot while standing on the ground), was built on top of a forked branch of a large dead spruce limb, five feet from the trunk of the tree, and fifteen feet from the ground, to the edge of a spruce wood. The eggs were two in number, of a pale buff ground color, having a faint pinkish tinge. A series of fine spots and irregular blotches of browns, shading from pale red-brown to rich chocolate, and lavenders from light to dark, circle the large end. One thing particularly noticeable in some of the lavender markings is the appearance of being

put on over some other shade, a reddish tinge showing through in the centre. This led me to try an experiment. First using a piece of white silk dipped in water, I tried to remove the lavender; a little rubbing made it appear rather darker. Not satisfied, I then took my sharpest scalpel and carefully cut off the marking. Every shave, as fine as it was, made the lavender blotch darker, until I finally cut down to a dark reddish-brown with a very dark brown spot in the centre. Still continuing the scrape, my brown began to lighten up. Thinking it about time to let up scraping, if I wanted any shell left, I laid down the scrapel and put the egg back into the box, scraped spot up, which was a plain lavender when I started to scrape, but now it had a dark brown centre with a light brown circle around it which was in turn enclosed with a lavender circle; then came the buff ground color. Taking the other egg and treating it in a similar manner the same result was obtained. Some of the lavender spots do not have brown under them.

Has it ever been proved beyond doubt how the Wood Pewee and Hummingbirds attach the lichen so tightly to their nests? I am aware that some argue that it is wound on with spiders thread; others, again, seem to think that the bird uses a sticky fluid, which is secrete, similiar to the Eave Swallow.

Any reader of the O.& O. who will furnish an article, positively from observation how and with what it is fastened to, will do me and no doubt others a great favor.

Walter D. I. Ryan.

Kentville, N. S.

Birds of Five-mile Beach.

[Continued.]

394. Downy Woodpecker (*Dryobates pubescens*). Not common; have seen a few.

402. Yellow-bellied Sapsucker (*Sphyrapicus varius*). Very common during early part of October; have not observed the species in spring.

412. Flicker (*Colaptes auratus*). Very common, particularly from middle to end of September, when hundreds are shot. Few if any remain on the beach to breed.

420. Nighthawk (*Chordeiles virginianus*). Two secured during August, 1889, is my only record of the species on the beach.

423. Chimney Swift (*Chætura pelagica*). Common. Breeds. Arrives about May 1st.

428. Ruby-throated Hummingbird (*Trochilus colubris*). Rare. Breeds on the beach.

444. Kingbird (*Tyrannus tyrannus*). Common. Breeds. The nest is generally placed in a cedar tree, and is a beautiful structure. The body of the nest is generally composed of the usnia or Florida moss, as it is here generally called.

456. Phœbe. (*Sayornis phœbe*). Not common. What few come remain to breed.

474. Horned Lark (*Otocoris alpestris*). Very common. During the fall and winter months, generally found on the meadows, but occasionally seen on the beach.

488. American Crow (*Corvus americanus*). Common resident. Breeds on the beach.

490. Fish Crow (*Corvus ossifragus*). Not common. Probably breeds as its nest has been found on the opposite beach.

494. Bobolink (*Dolichonyx oryzivorus*). Not observed during spring migrations, but often common during the fall migrations.

498. Red-winged Blackbird (*Agelaius phœniceus*). Very common. Large numbers breeding back of the beach. The nest is always placed in the bayberry bushes.

501. Meadow Lark (*Sturnella magna*). Common resident. More numerous in fall and winter than at any other time of the year.

507. Baltimore Oriole (*Icterus galbula*). Rare. My companion, Mr. H. Winzel, shot a ♀ on September 20, 1890, which is my only record of its occurrence on the beach.

511. Purple Grackle (*Quiscalus quiscula*). Common spring and fall migrant.

513. Boat-tailed Grackle (*Quiscalus major*). Very rare. Two birds of this species made their appearance in company with a number of Purple Grackles; one was shot by Samuel Ludlam who had it mounted.

517. Purple Finch (*Carpodacus purpureus*). I have observed this species on several occasions during the winter months. They were generally found in cedar thickets.

529. American Goldfinch (*Spinus tristis*). Common, particularly during the month of March. Few observed during the summer months.

541. Ipswich Sparrow (*Ammodromus princeps*). The only record of this species on the beach is a specimen shot by Mr. John Sterner, on April 3, 1889, and sent to me with a lot of other birds.

542*a*. Savanna Sparrow (*Ammodromus sandwichensis savanna*). Common spring and fall migrant.

549. Sharp-tailed Sparrow (*Ammodramus*

candacutus). Common along the edge of marsh back of the beach. More numerous in fall than in spring; not observed in summer.

550. Seaside Sparrow (*Ammodramus maritimus*). Common, from early in May until late in October or early in November.

558. White-throated Sparrow (*Zonotrichia albicollis*). Common from September until April.

559. Tree Sparrow (*Spizella monticola*). Common during the late fall and winter months.

560. Chipping Sparrow (*Spizella socialis*). Common from early in April until late in October. Their nest is generally placed in a cedar tree.

563. Field Sparrow (*Spizella pusilla*). Common in spring and fall. A few breed on the beach.

567. Slate-colored Junco (*Junco hiemalis*). Common from late in September until middle of following April.

581. Song Sparrow (*Melospiza fasciata*). Common resident. Breeding everywhere on the beach and on the small wooded islands on the marshes.

584. Swamp Sparrow (*Melospiza georgiana*). Rare. A few seen in spring and fall.

587. Towhee (*Pipilo erythrophthalmus*). Common in spring and fall. A few observed on the beach during breeding season.

593. Cardinal (*Cardinalis cardinalis*). Common resident. More numerous in February and March than at any other time of the year.

595. Rose-breasted Grosbeak (*Habia ludoviciana*). Rare. Have seen but two of these birds on the beach; both were seen on May 11, 1890.

608. Scarlet Tanager (*Piranga erythromelas*). Common during the spring migration; not observed in fall.

613. Barn Swallow (*Chelidon erythrogaster*). Common from late in April until latter part of September.

614. Tree Swallow (*Tachycineta bicolor*). Common from early in April until late in October. A hollow in a small oak tree is generally selected for a nesting-place.

619. Cedar Waxwing (*Ampelis cedrorum*). Common from late in September until the beginning of the following May. Have never observed them during the summer months.

624. Red-eyed Vireo (*Vireo olivaceus*). Common in spring and fall. A few observed during the summer months.

626. Philadelphia Vireo (*Vireo philadelphicus*). Rare. A specimen shot by Mr. H. Wenzel and presented to me is my only record of its occurrence on the beach.

631. White-eyed Vireo (*Vireo noveboracensis*). Very common. Arrives about middle of April, remaining until late in September or beginning of October.

636. Black and White Warbler (*Mniotilta varia*). Only observed on a few occasions during month of May.

646. Orange-crowned Warbler (*Helminthophila celata*). A specimen of this Warbler (rare in the east) was shot by me on October 6, 1889. It is my only record of its occurrence on the beach.

648. Parula Warbler (*Compsothlypis americana*). Common from latter part of April until late in September. Large numbers breed on the beach, the nest as usual being formed of usnia, or Florida moss.

655. Myrtle Warbler (*Dendroica coronata*). Common in spring and fall.

661. Black-poll Warbler (*Dendroica striata*). Not common. A few seen in late fall; have not observed it in spring.

672. Palm Warbler (*Dendroica palmarum*). Common in spring and fall.

673. Prairie Warbler (*Dendroica discolor*). Not common. A few seen in spring; not observed in fall.

681. Maryland Yellow-throat (*Geothlypis trichas*). Common from April until September. All the nests found on the beach by myself were placed in a hollow in the grass, the nest resting on the ground.

683. Yellow-breasted Chat (*Icteria virens*). Common from early part of May until September. Breeds on the beach.

704. Catbird (*Galeoscoptes carolinensis*). This bird, common nearly every where in the State of New Jersey, is only found in limited numbers here; what few do come remain on the beach to breed.

705. Brown Thrasher (*Harporhynchus rufus*). Common. Breeds on the beach.

718. Carolina Wren (*Thryothorus ludovicianus*). Twice I came across this species, once in spring when I secured two out of five seen, and again in September, 1890.

721. House Wren (*Troglodytes ædon*). Rare. A pair observed on several occasions during the past summer.

726. Brown Creeper (*Certhia familiaris americana*). Very common in early part of October, more so than in spring.

727. White-breasted Nuthatch (*Sitta carolinensis*). Rare. Only observed on two

occasions, both times being in the fall of the year.

728. Red-breasted Nuthatch (*Sitta canadensis*). Common in latter part of September and early October.

736. Carolina Chickadee (*Parus carolinensis*). Common. Have observed this species on the beach every month of the year except January and February. A few breed on the beach.

748. Golden-crowned Kinglet (*Regulus satrapa*). Common from September until the following April; not observed in summer.

749. Ruby-crowned Kinglet (*Regulus calendula*). Not quite as common as the Golden-crowned; not observed in summer.

758*a*. Olive-backed Thrush (*Turdus ustulatus swainsonii*). Not common. A few seen in spring and fall.

759*b*. Hermit Thrush (*Turdus aonalaschka pallasii*). Common spring and fall migrant.

761. American Robin (*Merula migratoria*). Common except during the breeding season, few if any remaining on the beach for purposes of nidification. Hundreds find shelter on the beach during winter.

766. Bluebird (*Sialia sialis*). Common spring and fall migrant. Have not observed the species during the summer or winter months. *Philip Laurent.*

Notes on the Ducks of Cohasset, Mass., 1860–92.

Although from early boyhood I have been interested in the study of birds, I have made a special study of the group, which, to an ornithologist, would be known as the *Anatidæ* and to a sportsman, as the Ducks and Geese. I have made Cohasset, Mass., the field of my labors, and, aided by my father, have taken notes there for over thirty years. The result is a pretty thorough knowledge of the habits of the Scoters and other Ducks which share in the great autumnal migration, and, not less interesting to the ornithologist, a record of many Ducks which one would not suppose of even accidental occurrence.

In presenting the list which follows, I have adopted the method proposed by you in the O. & O. of using numbers instead of Latin names. In these days when an unoffending Duck rejoices in half a dozen barbaric appellations, plain Ridgway English is good enough for me. Hoping that the following list will contain some data which will prove interesting, even in these days when it seems as if the average ornithologist "knows it all," I append my notes which include remarks on twenty-five varieties, four or five of which I have been greatly surprised to find so far from their usual haunts.

1. Red-breasted Merganser (Ridg. 130). Common during fall migration. A few stay through the winter, remaining until May.

2. Hooded Merganser (131). Uncommon. Mr. C. L. Curtis has sent me six or eight specimens shot on a small pond, late in December.

3. Mallard (132). Uncommon. Taken yearly, but in small numbers.

4. Black Duck (133). Common during the fall migration.

5. Green-winged Teal (139). Formerly fairly common, but during the last ten years rarely met with.

6. Blue-winged Teal (140). Abundant thirty or forty years ago, but lately almost as rare as the preceeding.

7. Baldpate (137). In all, five specimens have been taken since 1860.

8. Shoveller (142). One adult ♂ taken by Mr. B. C. Clark during the fall of 1863.

9. Pintail (143). Occasionally met with, usually in company with flocks of Scoters.

10. Wood Duck (144). Dr. G. G. Sears shot an adult ♂ in October, 1881 while cooting. Occasionally taken on small inland ponds.

11. Redhead (146). Rare. I have records of two or three which were taken previous to 1886. Since then none have been shot.

12. Canvas-back (147). Very rare. One taken by Mr. B. C. Clark, November, 1883.

13. American Scaup Duck (148). fairly common during fall.

14. Lesser Scaup Duck (149). Rather less common than preceeding.

15. American Golden-eye (151). Common during fall and winter, but much scarcer than formerly.

16. Old Squaw (154). Abundant during fall. A number remain until spring.

17. Harlequin Duck (155). Very rare. One ♂ taken by Mr. C. V. Bamer, November 3, 1887.

18. American Eider (160). Uncommon, and usually very shy. I have records of eight or ten specimens which have been taken during seven northeast storms.

19. Buffle-head (153). Fairly common.

20. American Scoter (163). The least abundant of all the Scoters, but during November the young of this species are quite numerous and furnish good shooting.

21. White-winged Scoter (165). Abundant during the fall. This species seems to be the least shy of the three and on this account are killed in large numbers.

22. Surf Scoter (166). The most numerous of the Ducks which occur at Cohasset. During September thousands on thousands pour by, but, unless driven in by severe storms, fly far out of reach and furnish poor shooting.

23. Ruddy Duck (167). Common during some years and scarce during others. Easily taken when plenty.

24. Canada Goose (172). Fairly common. Taken inland by Mr. C. L. Curtis almost annually.

25. Brant (173). Common, but hard to secure except during heavy storms.

C. H. E.

Boston, Mass.

Notes on the Flicker.

Spring is here again and before many weeks all our feathered friends will be hard at work with nest building and egg laying, and the collector's field will once more be free for him to roam and enjoy himself to his heart's content. The professional collector, too, will be reaping his harvest of eggs and skins, and the outlook for 1892 is favorable for all of us.

I want to tell you of some curious notes I took last summer in various parts of the country. They may not be new to some of my fellow ornithologists, but they are to me.

I was staying near Middletown, Del., a little while last summer and made observations on three pairs of Flickers. The first pair built in a live tree within ten feet of the house and the peculiarity was that the cavity was natural. It was merely a hollow about six inches deep in the top of a stump caused by a dead limb and was about ten feet from the ground. This hollow was entirely natural and had in no way been altered by the birds.

I watched them carefully and hoped to be able to discover something peculiar in the birds, but after catching both the adults and carefully examining their bills and feet, I could see nothing to cause them to depart from the regular order of nest building of their species. About a week after the young birds were hatched, there came a heavy rain-storm and on ascending to the tree, I found the nest, which as I said was a mere cup and entirely unprotected, filled with water and the young of the interesting family all dead.

Another peculiar instance in the same locality was a nest by a pair of birds of the same species in an apple tree. The hollow in this instance was fully a foot and a half in diamater and extended to the ground, the birds entering through a knot hole about five feet a bove. I noticed them entering and being unbale to reach anything, procured an axe and cut out the bottom of the trunk. The eggs were five in number and laid on the ground at the bottom of the hole. To make sure of these birds I shot the male and have him, together with the eggs, now in my possession.

I have on record another instance of this sort but it being similiar to the others I will not relate it. I should like to know if these habits have been observed in any other part of the country as they are entirely new to me.

M. C. Conwell.

Baltimore, Md.

A Strange Bird Shot.

On Sunday last, Mr. S. C. Yost shot a bird which is said to be a stranger in this part of the world, while on Ward's island. It is said to be a specimen of a bird known as the Crest in the West Indies and South America, and that none of its kind has ever before been seen in North America. There were two of them, evidently a male and female, and Mr. Yost shot both, but the female bird fell on the Missouri shore, and when Mr. Yost crossed over from the island he was unable to find it He met five fishermen in a boat, who said they saw nothing of the bird, but Mr. Yost believed that they picked it up and had it under their nets in the boat when he talked to them.

The bird in the possession of Mr. Yost is a beauty. It measures nine feet from tip to tip of its wings and six feet from neck to tail and weighs forty-eight pounds. Its body is covered with pure white feathers as soft as down, while its wings are jet black. It has short legs and four claws on each foot, and these are a brilliant red. A broad crest crosses its head, and this has given the species its name.

Mr. Yost has made arrangements to have the bird embalmed, and it is now being done. It is no doubt a rare specimen, as not a single person who has seen it ever saw a bird like it before.

Can any one identify this species?

O. C. Poling.

Quincy, Ill., March 19, 1892.

A Collecting Trip to Canada.

On the morning of June 21st, in company with my guide, I arrived in Lac Clair, Canada, which is some twenty-five miles north of the River St. Lawrence and fifty miles north-west of the city of Quebec.

Lac Clair is a beautiful lake some five miles long by three wide, surrounded by lofty mountains that are covered with heavy forests, which I found to be the home of a great many of our migrant and native birds. On my journey into camp, while passing through a small swamp, I recognized the notes of the Maryland Yellow-throat and Canadian Warblers, Chipping, Swamp and the beautiful White-throated Sparrows. Not having time to do any collecting before the next day, being busy pitching camp and other things necessary on trips of this kind, I paid but little attention to the feathered kingdom for the day.

On the following day, after eating our breakfast of fried pork, potatoes and trout, which latter we found to be very plentiful in the lake, I took my small collecting gun and started for a walk such as many of my readers would like to have taken.

My first find was a handsome male Yellow-bellied Woodpecker that was climbing up the side of a large pine. He was soon lying at my feet in answer to the report of my gun and after examining him and finding him to be an old bird of fine plumage, he went into the collecting bag. A few steps farther and a second one followed the first.

Ah! what song is that I hear off to my right? the little Wood Wren, and such a song—one that must be heard to be appreciated; and such a chase through under-brush and thickets! But at last he is perched upon that stump to sing once more, but it is his last song, for now he adorns my case at home.

While putting him away I was very much surprised to hear the note of a Scarlet Tanager, which I was not long in locating in some oak trees and a still shorter time in bringing him to my feet. It is a beautiful specimen and I prize it very much, as I have never heard of this bird being so far north before. While returning to camp, I saw several Blue Jays and Black-throated Green Warblers, but left them for another day.

On the following morning, with my guide, I started on a trip in a small birch canoe for two large lakes known as Lac Long and Lac Mauntabaun. While passing down Lac Clair, we passed several Loons which were not inclined to be friendly, and it was impossible to get within gun-shot of them. A short distance farther along and mother Black Duck with her little family was in a great hurry to make room for us to pass. Arriving at the lower end of the lake, we were obliged to make a short portage to the waters of Lac Long.

While passing through some small birches, several strange notes drew my attention, and as the guide now wished for a short rest, I went to investigate them. I was soon rewarded by locating a pair of Juncos. Knowing their nest must be somewhere near at hand and after hunting for a short time I located it in a white cedar tree about fifteen feet from the ground, containing young, some two weeks old. The nest I found to be made of small spruce sticks without any lining whatever.

While returning to the guide I took a fine specimen of Swainson's Thrush, but was unable to locate its nest, and was very much disappointed in finding that I was from one to three weeks too late to obtain specimens of any eggs in this locality.

We soon arrived at Lac Long and while going up the lake started several Gulls that I could not identify. I located one of their nests, which was made of dried grass, on a large rock. The young birds took to the water on our approach and as I had nothing but my light gun with me they were perfectly safe. While examining their nest my attention was called to a large Canadian Jay which sat watching us from a neighboring tree and a little way beyond, Mr. Raven was questioning our rights in his northern home.

Soon afterwards we entered the River Black which connects Lac Mauntabaun with Lac Long and is some five or six miles in length. As we entered the mouth of the river we started several Sand Peeps and also found King Birds, Chimney and White-bellied Swallows quite plentiful of which I took several, fine specimens. On our way up the river we passed several Ducks with their young. It is in this country, I think, where most of our wild Ducks go during the breeding season. My guide informed me that just as soon as the young birds were able to fly, they left and it was impossible to find any more during the balance of the season.

After about two hours paddling up the river, we entered the lake and found it to be a large and beautiful sheet of water. Several large Gulls and Ducks arose on our approach,

also a large flock of Crows which I found were feeding on some dead fish that had been brought ashore by some animal and partly devoured.

As it was now about time to satisfy the inner man, which I never allow to suffer if it can be helped, we landed and the guide began to prepare dinner. While he was thus engaged I went for a stroll along the sandy beach and found tracks of the bear, caribou and fox very plentiful. While thus engaged I heard the song of the Chestnut-sided Warbler in some small birches near by. I, of course, made him a call which resulted in one more specimen added to my Canadian collection. Soon after, I took a fine male Rusty Blackbird which I found has its home here. While returning I saw several Song Sparrows and took a fine specimen of the Solitary Vireo; although I was unable to find the nest of this bird, I think it breeds here. While eating our dinner of fried pork, potatoes, bread and coffee, (which I will say tasted better than any dinner I have ever eaten at either Parker's or Young's), the guide drew my attention to a beautiful little Hummingbird, but being unable to obtain him I was not able to identify.

After having satisfied our hunger and enjoyed the good old pipe, we continued our journey up the lake for a few miles, passing several Loons and Ducks on our way. Noticing some large white hemlock trees on our right and wishing to take a walk through the woods before dark, I instructed the guide to land, which he did. I soon added several Black-throated Blue Warblers to my collection, both male and female, also one "Parula" of which I saw several. The common Black-capped Chickadee I found to be very plentiful. It now being quite late, we concluded to camp here for the night. During the evening, the Barred Owl was our principal companion, with his anything but cheerful hoot and several times through the night we heard the distant cry of a bear.

The following morning I arose earlier, perhaps, than I should have done, had I not heard the note of a Rose-breasted Grosbeak almost directly over my head. I was surprised to take this bird here so far north.

We now began our return journey to camp as it would take most of the day to return, we being some twenty-five or thirty miles away. On our return trip I was successful in taking several specimens, but nothing different from what I have mentioned, excepting our common Robin. This was the first one I had seen, although I think they are quite common through this country; but the timber was almost too heavy for them where we were. We arrived at our camp on Lac Clair in due time, and I found plenty to keep me busy for sometime in preparing the specimens I had brought back.

On the following morning, I took a fine male Wood Pewee near camp. As we were both tired from our trip of the past two days, we concluded to stay in camp for the day, but while the guide went out on the lake after trout, I went out near camp and succeeded in bagging some fine birds, among which were two Rose-breasted Grosbeaks, White-throated Sparrow, Least Flycatcher (of which I saw but one) and several Yellow-rump and Black-throated Green Warblers which seemed to be very common, but the most common Warbler I saw while here was the Canadian Flycatcher. I spent the balance of the day in preparing my specimens and getting ready for a trip to Lac Louise, which lies about ten miles to the northeast of Lac Clair, through very heavy timber.

We started on the following day with a twenty-mile walk before us. Soon after leaving camp, I recognized the drumming of the Ruffed Grouse which I found to be rather scarce through this country; the winters I am told are too severe for them. I was next attracted by some strange notes among some tall spruce and hemlock trees, which I found was made by the little Golden Crown Wren. I took several specimens of this bird, but was unable to find any traces of their nests. A short distance beyond, I added another Wood Wren and several Warblers and also found a nest of the White-throated Sparrow; it was placed at the foot of a young spruce tree and made of small spruce twigs and dried grass and lined with the same.

We arrived at Lac Louise about noon and after exploring the lake and eating our lunch, we started on our return trip. As we approached the lake several Gulls arose, but as they were very wild I was unable to identify them. It was here near this lake in a small swamp, that I took the only Magnolia Warbler that I saw during the time I spent north The Golden Crown Thrush was quite common with his ringing song.

We arrived home about dark and both being tired, turned in early, feeling very well satisfied with our day's work.

Although I spent several days more in this

northern country, I added nothing more that I have not before mentioned. One day I was successful in seeing the large Pileated Woodpecker, and heard several others at different times, but as they were very wild I was unable to take one.

In one respect my trip here was not a success, I am sorry to say, inasmuch as during the entire time from June 21st to July 5th, I was unable to take a single nest containing eggs; every nest was either empty or contained young at least two weeks old.

W. P. Hadley.

Nesting of the King Rail Near Philadelphia.

I was out on the meadows on the Schuylkill River below Philadelphia, on June 7, 1892, looking for nests of the Swamp Sparrow (*Melospiza georgiana*) which breeds plentifully in that locality, when I came across a nest which amazed me.

It belonged to the King Rail (*Rallus elegans*) and contained six eggs. They proved to be fresh and the bird would have undoubtedly laid more, but I was afraid to leave them owing to the number of persons frequenting the meadows.

This is the first instance that I am aware of where this bird has bred in this locality.

Isaac S. Rieff.

Philadelphia.

Nesting of Junco hyemalis thurberi.

There are in the central portion of California, places where birds, instead of migrating north and south, move upward and downward and it is practically but a few days' journey for the sub-arctic breeders to reach a land of perpetual summer. Probably the most common of all our birds to which such unusual advantages are offered, are the Junco (*Junco hyemalis thurberi*) and the White-crowned Sparrow (*Zonotrichia leucophrys*). Their nesting habits are so nearly alike that to describe one, is practically to describe both.

Junco hyemalis thurberi arrives at its breeding grounds in the high Sierras at an altitude of about 9,500 feet about the first of June, and by the end of the month nest building has commenced. Generally the nest is placed on the ground or under an overhanging bank of a stream. In all cases it is sunk level with the surface of the earth, but even here it is not safe from being trampled upon by the cattle which are driven up to these mountain meadows to browse on the short succulent grass which they are denied on the desert at the eastern foot of the mountains.

One nest was found beneath a pine branch which had but recently been chopped off. It, like all others, was made of grass with a few fine twigs as a foundation.

Three eggs constituted a set, as was evidenced by the several nests found. At this time, the parents utter little less than a nervous chirp, though later, after migration to the lowlands, it has a note almost identical with that of *Parus gambeli*, I think that they are able to raise but one brood a season, for until the middle of June snow is on the ground, and by the middle of September the earth is again covered with a white mantel.

Fred W. Koch.

Twin Oaks, Cal.

New Publications.

List of N. A. Birds now in the museum of the University of Michigan "Ann Arbor," by Filibert Roth. The collection at the time consisted of 4,308 skins. *The generic and specific names are taken from the latest edition* of *Coues' Key to N. A. Birds.* Contributions are solicited by Prof. J. B. Steere, the curator.

Abstract of the Proceedings of the Linnæan Society of New York. All through its pages appear the names of those well known to us as ornithologists. Mr. L. S. Foster, we notice, takes a lively interest in this society as well as in the A. O. U. We quote the last paragraph: "Dr. C. S. Allen supplemented his paper of January 9th with additional facts about his dangerous pets, and thrilled those present by shaking out of a bag a large rattlesnake and a moccasin, alive, and then endeavoring to provoke them to coil and strike."

Just think of that dignified assembly sitting around Dr. Allen and really believing they saw snakes. Whew!

The University Marine Biological Association of Sea Isle City, N. J., founded for the purpose of increasing our knowledge of American food-fishes and mollusks, is an enterprise that opens facilities for study of marine life that should be known to the public. Full particulars can be obtained by applying to the above address.

THE

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A Monthly Magazine of

NATURAL HISTORY,

ESPECIALLY DEVOTED TO THE STUDY OF

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THEIR NESTS AND EGGS,

and to the

INTERESTS OF NATURALISTS.

Under the Editorial Management of

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Removal.

Looking forward to a final and permanent location for a business long established, we have located at Hyde Park, Mass. In a previous number of the O. & O. we gave a description of our main building, or museum, as we called it last season. We moved our office in Boston to more commodious quarters, but after a years' trial find that the vast stock of natural history material that we carry requires still more room. Further we find that our original plans of consolidating our entire business at one place where it can be under the *personal* supervision of the writer is demanded by the natural increase of business. So we have discontinued our Boston office and removed our entire business as above. Our works are located at the Hazlewood station, on the Providence Division of the Old Colony Railroad, seven miles from Boston, trains running hourly.

In the main building the upper floor has been fitted up for a display room, and contains many rare and valuable specimens,—also minerals, shells and land and marine curios. The lower floor is divided, one room devoted to eggs and birds' skins, and the other to naturalist's supplies.

A new building 20 x 40 is nearly completed, which is to be used for work rooms, and as is required other small buildings will be added. Each department will be so arranged that our patrons who visit us can see the goods in which they are interested to the best advantage.

As soon as we are able we shall issue catalogues of all our specimens which we have on hand, and copies will be sent to all who have purchased goods from us during the past year.

We have a large stock of stuffed birds which we propose to exchange for birds' skins.

Birds' eggs will be exchanged for others such as we require, and for birds' skins.

SUPPLIES.

We shall increase our stock in this line largely in excess of what we have ever carried so as to be able to fill all orders without delay.

PAPIER MACHE HEADS.

The manufacture of this line of goods is now being pushed so that large orders can be filled upon receipt of same.

GLASS EYES.

We shall continue to carry a full stock of glass eyes manufactured by Mr. Thomas Hurst of Birmingham, whose make has long been acknowledged the best in the world.

TAXIDERMY.

We shall increase our facilities in this department, and with the best workmen that can be employed propose to do the work at popular prices.

SCHOOL COLLECTIONS.

We shall pay particular attention to furnishing type collections at moderate prices.

Sportsmen, Naturalists, Taxidermists and Teachers are cordially invited to visit us and examine our stock.

Catalogues sent on application.

FRANK B. WEBSTER, Treas.,
Hyde Park, Mass.

EXCHANGE AND WANTS.

We propose to devote one page of this magazine to Exchange and wants of our readers. The charge will be 50 cents for one inch space. Advertisements of dealers $1.00 per inch,

Brief Notes.

Robert Dresser on May 20, took a Catbird's nest containing four eggs and one egg of the Yellow-billed Cuckoo. Is our Cuckoo in danger of imitating its English cousin?

PIED-BILLED GREBE IN MASSACHUSETTS. Geo. F. Tew found a nest of the Pied-billed Grebe

at Whitman, Mass., May 1. It contained eight eggs. Again, on May 13, he found a set of eight eggs. The nest was made of rushes and grass and was built so as to rise and fall eighteen inches with the water.

I have three litters of skunks at present, one of nine, which is a large one. Lean beef is the best meat for them, but I feed the old ones most anything. I have taken five sets of Red-shouldered and one of Red-tailed Hawks.

A. E. Kibbe.

"For Sale; Mounted Animals. What! are you retailing a cavalry regiment? Not re-tailing, but selling them, eh? *Wade.*

The Northhampton Daily Gazette reports the finding of a Duck Hawk's nest on Mount Tom, by two boys, who succeeded in climbing over the ledge and getting the three eggs. During the cold rain storm of the past week a great many of the Warblers, mostly the Redstart, have been found in barns and sheds and a number have flown into the houses and acted as if they were cold. A number of Scarlet Tanagers have been found dead.

J. W. Jackson.

Belchertown, Mass.

The Caspian Tern at Rhode Island. May 10, I had the good fortune to kill a Caspian Tern.

Claude Dunn.

Ocean View.

[From Mr. Dunn's description there is no doubt as to the identity. — Ed.]

R. H. White, Jr., says, "My skunks are doing finely. I have named the mother Violet. We would not be surprised to see skunks universally installed as pets. They make good ones."

The Observer, Portland, Conn., one of our valued exchanges, states that in two days a gang of three men killed 119,896 caterpillars and pupæ (Gypsy moth). We are very much pleased to see such statements, but it is a pity they did not knock out 104 more to make 120,000. By the way, how were they counted?

John C. Reynolds, 34 Clinton Place, Brooklyn, N. Y., asks "What bird, domestic or foreign is the swiftest on the wing, and what distance can it make in a given time?" Who can answer this?

I found a Blue Gray Gnatcatcher's nest and several Crows' nests at Coffeyville, Kan., May 21. *Arthur McDole.*

The Bulletin, of the American Museum of Natural History, N. Y., Vol. III, No. 2, December, 1891, contains articles on "New Species of Bat"; "New or Little Known Mammals of B. A. and others," by J. A. Allen; "New Species of Chipmunk, Weasel and Fox;" "Notes on Owls and Skunks," by Edgar A. Mearns; "Color Paterns of the Upper Tail Coverts in Colaptes Auratus"; "Birds Observed near Corpus Christi," by Frank M. Chapman; "Observations on Some Cretaceous Fossils from Syria," by R. P. Whitfield; "A Perfect Broadside from Heavy Artillery."

"Autobiographical Sketches and Personal Recollections," by George T. Angel, president of the American Humane Education Society, contains a general outline of the writer's work and is well worth reading. It can be had at the nominal sum of ten cents to cover postage. The publication of the Mass. S. of C. to A. reaches us regularly and is quite interesting. For particulars address 19 Milk street, Boston.

The Boston Commonwealth, weekly, 25 Bromfield street, a family paper, is one of our valued exchanges.

The Sportsman and Tourest, for May contains several very interesting articles and an account of a man swallowed by a whale and afterwards rescued is quite novel. The regular subscription rate is $1.00 per annum. We have arranged to furnish it with the O. & O. for $1.50 for both magazines for 1892 to who have already subscribed to the O. & O., we will send it for 75 cents.

The American Naturalist is now published by Binder & Kelly, 518 Union street, Philadelphia, Pa.

Dear Sir,—Will you inform me in your next issue, if posible, which are the swiftest flying birds. A friend says the Golden Eagle and I understand that the Canvas Back Duck is. Which is right? I have looked in encyclopædias and natural histories but haven't been able to find it. *James B. B. Smith.*

1 St. James Terrace, Roxbury, Mass.

One day in early June, 1891, while I was searching a small swamp near here, I discovered a nest of the Summer Warbler. The nest was situated in a fork formed by four upright twigs. After watching a few moments I noticed the constructors of this little gem busily engaged in putting on the finishing touches.

Three days later I returned in hopes of finding the eggs but I saw neither the eggs nor the birds; I went away disappointed but returned a week later, hoping that the eggs had been laid. Judge of my surprise then, to see a Red-winged Blackbird's nest built in the same fork. The nest which contained three eggs was built directly over the Warbler's little house; the side of one being interwoven with that of the other.

Undoubtedly the Blackbird, with superior size and strength, had driven the occupants of this little summer home away, selfishly appropriating this favored site to themselves.

R. H. White, Jr.

Chestnut Hill, Mass.

Mr. James T. Clark, who for several years was in our employ as one of our taxidermists, is no longer with us; we learn he is starting in business for himself. We wish him success, and while we hope to receive the patronage of our customers, we believe that any work done by him will be as satisfactory as it has been to us.

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—AND—
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Notes From Nova Scotia.

I have been so rushed with business this season that I have not been able to devote much time to the birds, but I have done a little and now beg to hand you particulars as taken from my journal and hope some may prove of interest.

April 22. Was down to Porter's Lake about sixteen miles from here and took a nest of Canada Jay containing two eggs. Nest was built on limb of a low, thick, black spruce. The ♀ was seen on and off nest; eggs were slightly incubated.

May 30. To woods all day. Yesterday saw pair of Golden-crowned Kinglets; hunted for nest all day and came home at seven in the evening, tired out with chasing the birds about and climbing a few million trees. Went at it again at half past eight this morning and at twenty minutes past one I had the nest. I was about done up, as it was hard work and took a lot of patience, (something that I do not possess to any very great extent). Nest is up about forty feet and away out on the end of black spruce limb. I did not examine it as bird was carrying stuff to it, and I take it that she has not completed the building. This makes three Golden-crowned Kinglets I have found; one on June 2, 1889, with nine eggs and one on June 14th, that contained young. I find this species is very hard to place, as they make very little noise and keep way up high on the trees. I saw a pair of "Ruby" but could not locate nest and will try it again. The ♂ Ruby is very misleading as he covers the ground for fully a mile square and the ♀ is not to be seen. I found nest of Olive-backed Thrush just about built. This was on a little spruce tree about seven feet up from the ground. Will go at the Ruby Kinglet's again to-morrow.

June 1. To woods this morning; located the ♂ Ruby that I was after yesterday and followed him about from nine o'clock until half past twelve, then gave it up. I walked about three hundred yards from where I had last left the ♂, when I heard him again just behind me, so I turned about and went back, looked at black spruce that I thought might hold nest, went up it and just as I got near the top down came the ♀ and that settled it. The nest was underneath the branch, suspended from the little twigs and to my great satisfaction, contained ten eggs. I got the whole business safe to the ground and as it was then quarter of one, I left for home perfectly satisfied with my morning's work. The nest is a fine one and the eggs were quite fresh and were blown nicely.

June 4. To the woods this afternoon. Located another ♂ Ruby and put in the whole afternoon trying to find nest, but did not succeed; but while tramping to and fro through the swamp, I nearly crushed a bird with one of my number twelve boots and looking about soon had the nest. This held five eggs, white ground, spotted with red. The bird kept up high overhead and being new to me, I left for home, got the gun, started her off nest again and then gathered her in and am sending the skin to you for identification.* The stomach of bird was full of flies and a few spiders by way of variety. I did not see the ♂. The nest was in the swamp, raised up from the wet ground and built in underneath a little hillock and right by where I found the Yellow Palm Warbler's nest last year. I also found another Olive-backed Thrush nest just built up in top of little spruce.

June 5. To woods all day after the Ruby again, and this time I succeeded in placing the nest or rather the place where the bird intends to build it, as there are now only a few little bits of moss that cannot be noticed except by aid of the glasses. The ♀ is hard at work and

* Nashville Warbler.

the ♂, as usual, puts in the time singing. This nest is fully two hundred yards away from where the ♂ led me to believe it was. I examined the Golden-crowned Kinglet's nest found May 30th and it was full of young, so I was wrong in thinking it was material that the ♀ was carrying on the 30th ult. I found a Hummingbird's nest with two eggs. Looked at Olive-backed Thrush found the 30th ult. and it held two eggs which were greenish-blue with red spots.

June 6. Ran out this evening to see how the Ruby was getting on with her nest found on morning of the 5th and was surprised to see it completed on the outside, which shows how hard the bird must work and with what rapidity they build their nests. Also found nest of Summer Yellow Bird just about built.

June 7. To woods all day and worked hard. I left home at eight o'clock; on way out found Redstart's nest just built; kept on and hunted up another Ruby and stayed with him until five in the evening, but do what I could, I could not place the nest, although I went over and over the ground and climbed tree after tree. One of the big black spruces that I went up, I was surprised to find way up in the top out on one of the limbs a Myrtle Warbler's nest with four eggs. This nest was up fully forty feet; eggs were slightly incubated, but were nicely blown. I took nest of Song Sparrow found on the 5th with three eggs; to-day it held five, all fresh.

June 8. Off to woods again all day; put in whole day trying to locate the Ruby nest that I looked for all day yesterday, but it was a failure. I hunted the ground for a mile around but had to give it up. I found a nest up on one of the black spruces, out on one of the limbs, with one egg in it that looks very much like a Bay-breasted Warbler's, but I could not see the bird, so left it. Took the Olive-backed Thrush nest found built May 30th and that held two eggs on the 5th; to-day it held four. I shot the ♀ as it is the second nest of this species that I ever found and I wanted to be certain of identity.

June 9. To woods this afternoon; took nest of Song Sparrow with four eggs. Looked at Thrush nest found the 4th; it held two eggs to-day. Watched the ♀ Ruby found building on 5th. She is now carrying feathers and lining the inside of her nest. Took six eggs of Golden-winged Woodpecker.

June 12. To woods all day. Took Thrush nest found built the 4th, which held two eggs on the 9th; to-day it contained three. I saw the ♀ on the nest. She was quite tame. Had a look at Ruby found building on the 5th and nest is now complete and she is on it. I looked at nest found on 8th with one egg. Went up tree carefully and watched ♀ on nest and saw that it was, as I suspected, a Bay-breasted Warbler; scared her off and took the nest, which held five eggs so the bird has laid four since the 8th. The eggs were quite fresh, are nicely blown and a fine set. I put in three hours trying to locate the Ruby nest that I looked for on the 7th and 8th, but could not find it. On my way home I found another Bay-breasted Warbler's nest that the ♀ is just about completing as she was carrying materials and placing them in the nest. I located a pair of Olive-sided Flycatchers which I will look after later.

June 13. Out to woods this afternoon with our mutual friend, Morse of your place, and showed him the Ruby Kinglet's nest found building on 5th, also a Bay-breasted Warbler's nest. At same time I found nest of Black-throated Green Warbler with two eggs. This is up about fifteen feet, on a large black spruce and way out on end of limb.

June 16. Out for an hour this afternoon. Found and took Redstart's nest with four eggs; also found nest just built on limb of black spruce, which I suspect is a Bay-breasted Warbler's, as I noticed a pair of the birds around.

June 17. Ran out this evening and examined nest mentioned above; it now contains one egg; did not see ♀, but am certain it is as I thought, a Bay-breasted Warbler. I took the Black-throated Green Warbler, found on 13th; it held four eggs; ♀ seen on and off the nest; eggs were fresh.

June 18. Out this afternoon and examined for first time the inside of Ruby Kinglet's nest found building on 5th, and that the ♀ was lining with feathers on the 9th. This held one egg to-day. This bird appears to me slow and late. Found and took some kind of a Vireo's nest; can't make it out, unless it is the Blue-headed. I describe it fully, so you can assist me. Eggs are ¾ of an inch in length and 1¾ inches in circumference; the markings form a ring around the larger end of a reddish-chestnut; very fine specks and eggs are quite pointed at the smaller end. The nest outside is composed of fine strips of birch bark woven in and out, and inside is lined with very fine, dry grass and fine reddish colored stalks of some kind of grass or swamp moss. Outside of nest measures 10 inches in

circumference by 3 inches in depth; inside depth is 1¾ inches by 2¼ inches across the top on the inside and 3 inches across the top on the outside. Nest is cup like and pensile, and was up about ten feet from the ground attached by the rim to a dry, forked spruce branch, while bottom of nest rested and was also attached to a dry limb that ran out underneath. I saw the ♀ on the nest and shook branch hard once or twice before she would vacate the nest. She was quite tame, coming right close up to me and uttering a quivering kind of harsh, quick, jerky sounds like quee, quee, quee. The bird was more stoutly built than the common Red-eyed Vireo and had a white line around the eye; belly was whitish and quite yellow or sulphur colored on the sides. I did not have my gun or should have gathered her in; eggs were slightly incubated.

I also found nest in an old stump; entrance was by a small hole in the side about eight inches from ground. I tore away the opening and about six inches down was the nest; it held five eggs, but as I could see no bird about that would fit the nest, except a Black and White Creeper ♂, I hid and watched for nearly two hours and no bird showing I fixed up stump and left for home. I went back again after tea and watched until dark, and with no better success, so left it for the night.

June 19. To woods most all day. I made for nest in the stump and on the way found and took a Bay-breasted Warbler's nest with five eggs. This was out on end of branch on big, black spruce, about twenty feet up. ♀ was on nest; watched her for a while and then took it. Nest is composed of dry hay, small twigs of the fir tree and roots, and is lined with hair and pine needles; eggs slightly incubated; they have a blue shade, spotted and blotched with reddish-brown, principally at large end and here and there are streaked and dotted with black. I examined the other Bay-breast found on the 16th, which held one egg on 17th and there were three eggs in it to-day. I left it for birds to complete the set. When I got to the stump, no bird was there and eggs appeared to be damp and cold, so I took them and the nest and herewith give description so you can help me out. Eggs have white background and dotted pretty near all over with very fine reddish dots, being more thickly placed at larger end. The eggs are small, being 1½ inches in circumference at largest part and ⅝ of an inch in length and are sharply pointed at smallest end. The nest outside is composed of fine green moss; inside is a thick wool like felt; it has no grass, feathers or hair in its makeup and I am inclined to think it is a Hudsonian, as I noticed the birds about there on the 9th, inst. Eggs five in number; incubation begun. Nest, depth outside, 2¼ inches; depth inside, 1½ inches; circumference outside, 9 inches; across top outside, 3 inches; across top inside, 1½ inches.

I also found close by, a Magnolia Warbler's nest with four eggs; ♀ on the nest. This was on a low spruce tree; eggs slightly incubated. I had another hunt for the Ruby Kinglet that I looked for all day on 7th and 8th and found it. Strange to say, it was on a black spruce that I had gone up and looked over time and again. Nest was out on end of a beastly thick branch that hung down at the end and hid the nest. The nest was right in the thickest part and was fastened by the sides to the little twigs and was suspended. I could not see eggs as the nest was hard to get at and the opening of nest was covered over completely with feathers and lined with feathers all the way down on inside and bottom and the eggs were hid from view. First I have ever seen like that; but I could feel the eggs with my finger, so I took nest and on arrival home found it contained six eggs all of which were incubated, but I succeeded in blowing them finely. Am glad I found this as I had worked hard for it. This was a good day for Yours very truly,

Dartmouth, N. S. *H. Austen.*

Nesting of the Louisiana Water Thrush.

The Louisiana Water Thrush arrives at Raleigh from the twenty-fifth of March to the first of April according to the forwardness of the season. While it cannot be called common yet it is of regular distribution, being found wherever suitable breeding grounds occur, but as a general rule only one pair will be found inhabiting each small stream suitable for their nesting site.

The nest is built in the steep bank of a small woodland stream usually on the outside of a curve and is usually directly above running water, being placed among tree roots in the side of the bank or among drift trash at a height of from six inches to four feet above the water. A foundation of wet, dead leaves is first placed on a root or in a depression in the

bank, and then the nest composed of leaf stems, grass stems, weed stems, etc., is built on this and lined with finer material, the nest exclusive of its foundation being not unlike that of a Chat, the foundation, however, being not infrequently nearly as large as the nest proper. In this nest, which, like that of most small birds takes about ten days building, and which is usually sheltered from the weather by the projecting bank above. The Louisiana Water Thrush lays her four or five eggs provided no one looks at the nest or walks by it in the branch; if that occurs she usually forsakes the nest and starts another, one bird this year having forsaken two successive nests but I got a set of four from the third which was found with eggs in.

The natural date for fresh sets is from April 26th to May 10th and only one brood is raised in the year. Of course when the Louisiana deserts her nest, or the first set is taken, she builds another nest and so gives us sets of eggs much later than the above dates; but I am convinced that unless the nest is deserted or destroyed, the set is almost invariably completed by May 7th, in fact I have found hardset eggs on May 4th.

Although the nest is built on the bank of a small branch usually half a mile or so from its mouth, yet one seldom sees the birds along the branch, their feeding grounds being in the low grounds of the creek or river into which it flows sometimes nearly a mile away and there the loud, vigorous song of the male may be heard or the loud chirp of both sexes as they run about in the mud or on the edge of pool and stream looking for their grub in more senses than one.

The distribution of this bird may, perhaps, be better understood when I say that for some seven or eight miles from the mouth of Walnut Creek up stream, I know of only seven tributaries (branches) of Walnut Creek they breed on and usually only one pair on each, though on two occasions I have known two pairs on a branch, yet every branch is not used every year.

The young appear in June and July and linger on into August sometimes, and I have noticed that when the young are in good feather the adults are usually moulting and worthless as specimens.

The Louisiana is more active and strong of wing than the Common Water Thrush and to my taste is better looking. Cynics say that is because he is worth more. But there is no doubt as to his superiority on one point, viz., his better taste in selecting his feeding grounds, he not being found in such awful thickets of mud and briers as his transient cousin delights to frequent.

C. S. Brimley.

Raleigh, N. C.

An Adventure.

For nearly two weeks I had watched that Fish Hawk's nest and I was determined to have either the eggs or a pair of young birdlets.

At last the female began to set and at the end of the usual time the eggs hatched and I then was in a dilemma as to how long to wait before capturing the young ones. Finally, when I would see them stretch their necks over the side of the nest, I decided not to delay operations any longer for fear I should lose my game. So one bright morning I started out, minus the usual outfit of climbing irons and rope for they would have been useless.

Tall, straight and without a twig for nearly twenty-five feet, and then such a growth of scrubby, gnarled and tangled branches as I hope never to encounter again — such was the tree that I was preparing to climb. After half an hour's hard work and many trying "backslides" I managed to grasp the lowest branch and climb into the tangled mass of small growth above me.

It took me one whole hour to reach the nest, or rather to get underneath it, for as usual it was placed on a rotten stub at the top of the tree. Here the fun began; the female seeing her offspring in danger and probably not desiring them to go to increase my collection of live specimens, began to cavort around my head in a manner at once impressive and astonishing. But I kept on and at last, crouching directly under the nest, found a comfortable position and began to meditate on my expected capture.

Just at this juncture my thoughts were interrupted by hearing a hoarse scream in the distance and, looking, saw the male bird coming as fast as his wings could carry him. The female flew to meet him and together they made a dash that nearly unseated me, so I started to get my birds. The nest was the largest I have ever seen and stuck out on all sides of me like a huge umbrella.

Twisting my legs around the trunk, I worked cautiously out under the edge of the nest, dig-

ging my hands deep in its rotten material and startling dozens of Sparrows that had built their nests in the interstices between the sticks. On I kept, slowly but surely, until I could just see over the edge of the nest and take a look at my prizes, two in number and just the right age.

Sustaining my whole weight by the muscles of the back and thrusting one hand deep into the decaying sticks, I reached in and took my first bird. He gazed at me with an expression of mingled curiosity and astonishment which I would have liked to have studied had not the muscles of my back been fast giving away under the severe strain imposed upon them by my perilous position. So with a gentle swing I tossed him out and flapping his little pinions he lit on mother earth for the first time with an excellent grace.

I was so much interested in the young birds that I totally forgot the old ones and just as I had tossed out the second bird the parents left a neighboring tree in the rear, from which they had been silently watching the pilfering of their nest, and, coming at me with a rush, one caught me on the back of the neck while the other hovered above me for a second and, dropping swiftly down, clinched his sharp talons in my beloved physiognomy.

Human nature couldn't stand such an attack as this and so with a final and a futile slap at *Pandion* I let go my hold and fell, and this saved my countenance from utter demolition, for although fearfully lacerated it could be patched up and restored to its former beauty once more.

The very branches which I had thought a nuisance were the means of saving my life for when, nearly two hours later, I regained consciousness I was stretched across the "tangled mass" about fifteen feet below the nest and hardly able to move. But I got down somehow or other and at last reached terra firma and began to look about for my birds. I found them and started on my homeward journey and the amusing experiences (to others) that I went through before I got there would fill a volume.

M. C. Conwell.

Baltimore, Md.

Some Spring Arrivals at Pueblo County, Colorado.

Mexican Bluebird, *S. mexicana*, March 1.

Western Meadow Lark, *S. M. neglecta*, March 3.

Killdeer Plover, *Æ. vociferа*, March 10.

Sparrow Hawk, *F. sparverius*, March 12.

Say's Phœbe, *S. saya*, March 17.

Intermediate Sparrow, *Z. intermedia*, March 18.

Mourning Dove, *Z. macroura*, March 25.

Turkey Vulture, *C. aura*, March 28

Western Savannah Sparrow, *A. S. alaudinus*, April 1.

Western Grass Finch, *P. G. confinis*, April 4.

Rock Wren, *S. obsoletus*, April 7.

Spurred Towhee, *P. M. megalonyx*, April 16.

Audubon's Warbler, *D. auduboni*, April 21.

Lark Sparrow, *C. grammacus*, April 23.

White-throated Swift, *M. melanoleucus*, April 24.

Mockingbird, *M. polyglottos*, April 25.

Western Wood Pewee, *C. richardsonii*, April 25.

Bullock's Oriole, *I. bullocki*, April 27.

Cowbird, *M. ater*, April 28.

Long-billed Curlew, *N. longirostris*, May 2.

Cassin's Tyrant Flycatcher, *T. vociferans*, May 3.

Broad-tailed Hummingbird, *T. platycercus*, May 5.

Green-tailed Towhee, *P. chlorurus*, May 6.

Blue-gray Gnatcatcher, *P. cærulea*, May 6.

Audubon's Hermit Thrush, *T. A. auduboni*, May 6.

Violet-green Swallow, *T. thalassina*, May 7.

Cliff Swallow, *P. lunifrons*, May 8.

Yellow Warbler, *D. æstiva*, May 8.

Spotted Sandpiper, *A. macularia*, May 8.

Arkansas Tyrant Flycatcher, *T. verticalis*, May 8.

*Lark Bunting, *C. melanocorys*, May 9.

Yellow-headed Blackbird, *X. xanthocephalus*, May 10.

Barn Swallow, *C. erythrogaster*, May 11.

Kingbird, *T. tyrannus*, May 12.

Louisiana Tanager, *P. ludoviciana*, May 13.

Lazuli Finch, *P. amœna*, May 13.

Orange-crowned Warbler, *H. celata*, May 16.

Ash-throated Flycatcher, *M. cinerascens*, May 30.

Olive-sided Flycatcher, *C. borealis*, June 5.

*It is strange and singular, too, that this the most abundant of our summer birds should this year be conspicuous by its absence. A large number passed through during the migration though scarcely a pair have remained to breed.

Willoghby P. Lowe.

Pueblo, Col.

Nesting of the Blue-headed Vireo in Massachusetts.

As with a number of other birds, the Blue-headed Vireo (*Vireo solitarius*) has become more and more common every year. Although we had found several nests of this bird containing young, we never, until this year, found one with eggs.

Our first find, which resulted in a set of eggs, happened in this way. On May 18th we took the train for Islington. We had set out for the purpose of finding a nest of the Marsh Hawk, but, after tramping through a large tract of marsh and finding nothing but a nest of the Song Sparrow, we decided to go and see what a Cooper's Hawk was screaming about in a neighboring grove of pines.

We were not kept long in doubt, for, ten minutes after entering the grove, the female flew from a nest which was placed about twenty-five feet up in a pine. The nest was built the same as usual and contained three eggs which were about one-third incubated. On the ground below, and in a spider's web on the bottom of the nest, there was a large quantity of Cooper's eggshells that at first led us to think that the nest contained young. We continued walking through the grove for fifteen or twenty minutes when we heard a Sharp-shinned Hawk screaming in a decidedly suspicious manner.

We then separated, but were brought together again by my brother calling out that he thought he had found the nest. I hurried to him, and on coming near said I guessed he was about right, for the tail feathers of the bird were plainly visible over the edge of the nest. We could not drive her off until one of us climbed up. The nest contained five eggs, which were about one-third incubated. Two of them closely resembled the eggs of the Sparrow Hawk only being of a browner red.

Now to the point. When within three miles of home we heard a Blue-head singing. Thinking that he might possibly have a nest we went to interview him, and, on nearing the place where we had located him, we saw him fly into the trees and begin to catch bugs in so very unconcerned a manner that he overdid it. Looking where he flew from, we found the nest which he was building. It was about eight feet from the ground, in a small dead pine, and so close to the trunk that a week later, when we collected the nest and a set of four eggs, we were obliged to saw off the tree above and below the nest. It is built of dried grass, bark, dried leaves and caterpillars nests, and well trimmed with green lichens and a little wool. It is pensile like all other Vireos, and is lined with dried grass and pine-needles.

The eggs measure as follows: .77 x .56, .78 x .56, .76 x .57 and .75 x .56. They are white, having a tinge of flesh color with a ring of reddish-brown spots on the larger end and a few on the sides.

Another nest, also containing four fresh eggs, found on June 9th, was about eight feet from the ground in the lowest branch of a thirty-foot live oak. This was in a grove of other oaks of the same size. This, we think, is an exceptional case, as all our other nests were built in coniferous trees. This nest is much the same as the other, differing only in being a trifle shallower and having birch bark and paper in its construction. The eggs are much the same in color, having, perhaps, a few more spots on the sides. They measure: .78 x .57, .78 x .58, .79 x .57, .77 x .58.

As far as the locality of the nest is concerned the bird's other name (Solitary Vireo) does not seem to apply very well, as only one out of the five nests found by us were more than forty or fifty yards from the main road, one being within twenty feet of it.

A nest that we found in Dublin, N. H., on June 10, 1891, had young just hatched. It had much thicker walls than any other nests we have seen, and, as is usually the case with nests up there, was patched very thickly with birch bark.

None of our nests were in swampy places or near water.

C. W. and J. H. Bowles.

Ponkapog, Mass.

Oological Notes.

In the May number of the O. & O., while reading the very interesting description of "A Series of Eggs of the Oven Bird," by Mr. J. P. Norris, I noticed in Set XXVI, three eggs of the Warbler and three of the Cowbird, the query, "does the fact of the Cowbird laying its eggs in the nest prevent the real owner from completing her set, or does the Cowbird make away with the rightful owner's eggs?" As far as my observation goes, the depositing of the Cowbird's eggs does, in most cases, prevent the owner from completing her set. For instance, on May 29, 1886, I found a nest of the Chestnut-sided Warbler containing two eggs,

and upon visiting the nest in the afternoon of the same day, I found a Cowbird had deposited an egg with the others. The Warbler immediately began setting. The nest was left undisturbed for three days, when, concluding no more eggs would be laid, I collected the set.

Also on May 19, 1891, I found another Chestnut-side's nest. She began laying May 22d and had deposited three eggs when a Cowbird also laid one in the nest. She then began setting, but I left the eggs until May 28th when as no more were laid I took them. I could recite several other instances similar to the above, of various species of birds, thus proving that the depositing of the Cowbird's eggs does prevent the real owner from completing her set.

I have in my collection a set of Oven Bird's eggs smaller in number than any described by Mr. Norris, it being a set of two without any Cowbird's eggs. The nest and eggs were found May 31, 1884, but were left until June 5th for a larger set, without avail. Upon blowing the eggs, I found that the owner had been setting for at least one or two days before I discovered the nest. It is the smallest set I ever saw, the usual nest complement in this locailty being five eggs. They measure .83 x .64 and .82 x 62.

I collected a set of six eggs of the Yellow-shafted Flicker, June 9, 1892, which is remarkable for the fact that it contains one runt egg that is the nearest to a spherical egg of any I have ever taken. It measures .80 x .75. The other five measure respectively, 1.06 x .87 ; 1.08 x .88 ; 1.10 x .88 ; 1.10 x .88 ; 1.16 x .88.

G. L. H.

Bethel, Conn.

A Set of the King Rail.

On June 1st, a colored man brought me four fresh eggs of the King Rail from a nest he had mown down in a meadow, which I reluctantly took, more to encourage him than for any other reason. On June 2d, he flushed the old Rail from near the site of the old nest and secured another egg and on June 3d he got the sixth, again near the old nest. On June 5th, another man found the same Rail and this time she had one egg in the poorest apology for a nest he had ever seen ; this in the low bushes and briers on the edge of the meadow. The next day she had built up the nest some more and had laid another egg and she kept on laying one egg each day and building up her nest till on June 9th she had five eggs in the nest making eleven she had laid in all, the usual number here I think.

There was only one pair of Rails in this meadow which was only an acre or two in extent and there is no doubt that the old bird simply kept on laying till she had completed the set.

C. S. Brimley.

Raleigh, N. C.

Nesting of the Virginia Rail (Rallus virginianus).

On June 21, 1892, I went out to a small inland swamp several miles north of St. Clair to see if I could collect some Blackbird eggs. I found several nests of these and two fine sets of Swamp Sparrows, but was rather disappointed. I waded out to a large log thickly covered with underbrush and crept along for quite a way only to come face to face with a large, black snake. It would have required a good stop-watch to determine the seconds it took me to get off that log and endeavor to get a stick, but his snakeship didn't relish the meeting any more than I did and quickly swam away. Close by her were several clumps of flags and out of one of these I startled a bird. Stooping eagerly down I found a nest full of eggs. It was a compactly built nest, slightly hollowed and made of dead flags. The eggs were ten in number, creamy white dotted with fine specks of reddish and lilac-brown, averaging 1.25 x .96 in size. I soon saw the bird and recognized it as the Virginia Rail (*Rallus virginianus*). The female would not fly till almost stepped on and would then fly quickly in a straight line and dive quickly into the underbrush where she would rapidly move away until out of sight.

As I had never found any other but the Common Sora and occasionally a King Rail's nest, I felt very much elated over my find. The eggs were badly incubated, but after half an hour's labor I succeeded in saving them.

B. H. Swales.

1220 Woodward ave., Detroit, Mich.

A Trip on Utah Lake.

Being encouraged by your kind invitation to write an account of some collecting expedition I will tender a description of a trip I have recently taken on Utah lake in which we were amply repaid for our trouble, and which, I think, may prove of interest to the lovers of bird life.

Early one beautiful morning some two weeks ago, my friend, Captain Eastmond, a young Mormon boy and myself set sail in the yacht "Sea Gull" to explore a locality called Powell's Slough some twelve miles from American Fork. We carried a skiff with us and with light hearts and a good breeze soon anchored off the mouth of a small creek, or "slough" as it is locally called, and soon were in the small boat exploring the devious windings of the stream through the almost impassable rushes or tules. Our first find was a set of eight fresh Mud Hen's eggs which were in a nest built of dead tules actually floating on a calm tributary to the main stream. Soon we observed a great number of small, ball-like nests, evidently Tule Wrens and obtained many beautiful sets of the same. We were next startled by nearly running over a Mud Hen's nest containing nine eggs, also placed on the surface of the water. Yellow-headed Blackbirds were abundant and we took some twenty sets. Birds were abundant and we thirsted for rarer eggs as we saw rarer birds. Terns and Gulls flew about continually, Rail and Snipe were seen and a couple of Mergansers flew overhead. Diligent search having failed to produce other than some more Mud Hen's eggs and a storm approaching we hurried to the shelter of the yacht where we were soon snug and eating supper, though under difficulties, as the yacht was rolling and pitching with a heavy squall blowing over.

After supper we prepared for bed but sleep was next to impossible for me. The storm had cleared and it seemed that the swamps were alive with feathered friends. The American Bittern's boom was heard on all sides and answered by the Loons and Divers peculiar whistle out on the lake. The Blackbirds kept up a chatter all the time and the Herons would quack as they flew over.

The next forenoon we intended to visit an island about ten miles out in the lake and said to be the breeding place for Gulls and Terns, but we were prevented by heavy weather and high seas and concluded to try our luck again in the swamp. This time we were successful in finding many fine eggs among which were Sora Rails, Bitterns, Snipes and Blue-winged Teals.

About noon we got under way and sailed for home with the yacht plunging at every sea and and careening to the wind. On the way a flock of big White Pelicans with black wings flew over and we shot one which fell near the boat and was secured. In course of time we anchored off the resort and were soon home. This trip I consider to be one of the most enjoyable I have spent.

H. C. Johnson.

Brief Notes From Raleigh, N. C.

Among other captures this spring have been Traills Flycatcher ♀, May 14th; Canadian Warbler ♂, May 13th; Wilson's Warbler ♂, May 13th; Cape May Warbler ♂, April 7th; ♀, May 9th; Short-billed Marsh Wren ♂, May 4th and Black Rail ♂ and ♀, June 8th. We have also taken Turkey Vultures, Green Herons, King Rails and Killdeer in the down. The Green Herons were ugly.

Of eggs we have taken the following worthy of note: one set of King Rail; two sets each of Black Rail, Louisiana Water Thrush, Woodcock, Yellow-throated Warbler and Crested Flycatcher, and three sets of Prairie Warbler.

The spring was backward, though the first Warblers came a few days earlier than last year, but there were very few species that occurred in any numbers till May. Blackpoll Warblers passed through in very large numbers and the last one was seen on May 31st, unusually late for any kind of migrant except a Sandpiper, in this locality. There were more shore birds about this spring than in any year since 1889, but not a third of the number we saw that year.

C. S. Brimley.

Raleigh, N. C.

On May 21st, while examining Bank Swallows' nests in the rain I found twelve Swallows in one hole. Two flew out and I had to pull the others out. I never heard of anything of the kind before. Is it unusual?

Arthur M. Farmer.

Amoskeag, N. H.

The Color Phenomena of the Little Screech Owl.

Much has been written, more has been said, and more than both combined has been the unexpressed speculation in the minds of nearly all American ornithologists on the still mooted and undecided color phenomena, occurring in the Little Muttering or Screech Owl. I have thought much on the subject in days that are past and gone when I was active as an ornithologist and whenever I would chance to see one of these stupid, grewsome little birds, my first observation always would naturally be,—its color.

Not long ago an incident occured which enabled me to make some pretty accurate observations and deductions on this point. This spring, I think it was toward the latter part of May, I went on a brief visit to my old home in Wayne County, calling on my old friend Mr. J. B. Purdy, together we went for a stroll in some neighboring woodland. Following my friend close in a thicket, well guarded from the direct rays of the sun, were discovered several young of the foregoing species. They were just able to leave the nest and were perched on the lower branches of small bushes but a few feet from the ground. I think four of the young were discovered in all, and all were in the gray phase of coloring. Soon our attention was directed to a peculiar low cooing sound, alternating with the sharp snap, snap, of the beaks of the parent Owls, made apprehensious by our close proximity to their young. Our immediate thought was to discover the old birds, and determine also their color. With small trouble they were found, as soon they came quite close, uttering all the while, that wired coo, coo, coo, snap, snap; first one bird, then the other. I noted no variation in the warning note of the male and female. Both were in the gray phase. Soon one of the birds flew to a stub hard by and dodged into a small natural cavity near the top and there it sat, its head alone visible and although it soon ceased its cry, never for a moment did its eyes wander from us, wondering, perhaps, in its dumb instinctive way, what the probable results of our discovery would be regarding the ultimate safety of its offspring.

Soon a flock of small birds, Tanagers, Nuthatches, Gnatcatchers, etc., collected about this stub, where the Owl sat so statue like, and set up a great din, seeking no doubt, to frighten the "squaller" away. Not daring to offer any direct violence, I thought of the simile it presented to human birds; the early settlers, those brave, hardy men, who, braving and daring all, went westward and established themselves at Boonesborough, and, not withstanding the continued threatenings of the savage hordes who swarmed in the unbroken woodlands Those dusky men who feared not to plunge deep into the vast solemn solitude of the mighty forest, but, brave and savage as they were, they have, one and all, succumbed to the unresisting advance of enlightment and civilization. First the red man, than the white man, white man forever.

The Owl was but one; the small birds were many, but the Owl was wise, was fortified, and as well might the Indians have hoped to dislodge Boone and his sturdy followers by shooting wooden and reed arrows at a strong log lodge, as the small, noisy birds to dislodge the Owl. He may have been vexed and worried at their attempts, but the idea of capitulating never entered his head, probably.

The above observations may throw some light on this subject. Some have regarded the variation due to sex alone, some to age, others to seasons of the year or locality, while others claiming, and I believe rightly, that it is simply the nature of the bird. Some to be gray, some to be red, although Mr. Purdy informs me of all the young he has ever examined, all have been gray. I once took six young Owls of this species from the nest, and all were gray. They were yet in the downy plumage. Why there should be a deposit of pigment in some and not in others, is to us a mystery, as is many another fact occurring in nature.

I should be pleased to see in the columns of this valuable medium the results of other observers' observations and their theories, for by individual testimony much of a valuable nature may be added, and by this we may be able more readily to arrive at precise and definite conclusions. I see a certain gentleman of Washington, D. C., is making some direct and scientific experiments, seeking a solution that way. My wish for him is success.

W. C. Brownell, M. D.

Morrice, Mich., June 17, 1892.

Early in July, we mailed notices to all whose subscription expired. Many have responded promptly. We find that there are still quite a number to hear from.

Notes from Beaufort, N. C.

I spent a few days at Beaufort, N. C., in the early part of June of the present year, and I give the following brief notes in connection therewith.

June 4. Spent half a day on extensive salt marshes up the sound. Willets numerous: eight specimens secured. One bunch of Curlew seen; also a Raven and an unknown Sandpiper. Little green and brown Lizards, with red throats, not uncommon on the fences but would not be caught.

June 6. On the town marshes in the morning, I found Boat-tailed Grackles plentiful. Green Herons pretty common and a few Seaside Sparrows were seen; one procured. Up the sound in the afternoon, several Turnstones were collected; others seen. Least Sandpipers not uncommon on the shoals, and several good bushes of Curlew on the marsh. The Turnstones were simply chunks of soft grease. With lots of patience and corn-meal, I made two fine, clean skins, but it took from 8 to 12 P.M. to do it.

June 7. The shoals provided a Wilson's Plover in the morning, and the marshes a few Boat-tailed Grackles after dinner. The females skinned over the head readily but the males wouldn't skin worth a cent. I finally skinned their heads through a cut in the back from the outside. The Wilson's Plover is the first published North Carolina record, I think, but there has been very little systematic study of our coast birds and they (Wilson's Plover) may be common for all I know to the contrary.

June 8. On the marshes and beach in the morning. The former provided a Sea-side Sparrow and the latter a Sooty Shear-water. The Shear-water was riding the swells, outside the surf, and allowed me to wade out within easy shot. Two heavy loads, apparently, laid him out, and I went ashore to strip off and retrieve. He revived, and I had to again wade out and give him a couple more shots. Then I undressed and secured my game. The specimen was in fine condition to put up, but very emaciated and stomach empty. Although I was working in a good light and the bird's intestines and body were clean and unmutilated, I could not determine the sex, although I think it was a male. It makes a beautiful skin. First North Carolina record. I was much struck with the exceedingly long, narrow wings. Extent, forty inches, width of spread wing, measured parallel with secondaries, three and one-half inches. Wing bones very light and very elastic. Double-crested Cormorants were common on the sounds and evidently breed near by, as bunches of fifteen or twenty would leave the harbor towards evening, always heading the same way, and about 8 o'clock in the morning they returned from the same direction.

I found mink tracks on the salt marshes and plenty of rabbit signs on the edge of the marsh and beach. Ravens not rare. Crows (Fish and Common) common. Purple Martins very plentiful, and a few of the following seen: Orchard Oriole, Mockingbird, Red-winged Blackbird and Great Blue Heron. Clapper Rails heard, but none seen. Bank Ponies quite a feature on the beach and marsh. They roam and breed at large, take to the water like Ducks and are only handled at the "pennings" when the colts are banded and selections made for sale.

H. H. Brimley.

Raleigh, N. C.

A Day in Texas Woods.

On the evening of May 6, 1892, I made my preparations for an all day tramp in the woods of Travis County.

I intended to go to sleep early, but the low, sweet song of a Mockingbird and the melancholy notes of a Chuck-will's-widow kept me awake till nearly midnight.

I awoke in the morning, just as the sun was rising over the post-oaks in the east, and one of the first sounds I heard was Jack, my Mockingbird, practising in a minor key, the Chuck-will's-widow's cry, but when he heard me, he stopped as if ashamed of himself and broke into a wild succession of Scissor-tailed Flycatcher notes that would have driven their originator frantic.

On my way out as I walked through the University campus, a Western Lark Sparrow (*Chondestes grammacus strigatus*) rose from the tall grass and perched on a chaparral bush (*Berberis trifoliata*) in which his mate was patiently incubating her eggs and listening to his morning song. Near by a Nonpareil (*Passerina ciris*) in the top of a sycamore tree sang his loud, clear song, almost like a Cardinal's, until a jealous Mocking-bird (*Mimus polyglottos*) rushed at him and forced him to beat a hasty retreat to a cedar bush

where he chirped angrily but stopped when his late pal looked toward him.

As I wended my way nearly due north, through the thinly settled suburbs, a flock of Bronzed Grackles (*Quiscalus quiscula æneus*) flew swiftly eastward to their distant feeding grounds and near by, hidden in the dense foliage, Orchard Orioles (*Icterus spurius*) quarrelled in the trees that border the grass-grown lane.

Farther on, in the post-oak woods, Painted Buntings (*Passerina ciris*), Blue Jays (*Cyanocitta cristata*) and Crested Flycatchers (*Myiarchus crinitus*) were feeding together, a Red-bellied Woodpecker (*Melanerpes carolinus*) hammered away at an old, live oak stub and a low, moaning sound came from a dense elm thicket to the right. When I approached the thicket the sound died away and a male Road Runner (*Geococcyx californianus*) dashed off through the trees, leaving the female to protect her eggs or run as she felt inclined. She chose the the latter course and taking a flying leap from her nest she reached the ground thirty feet away and quickly disappeared in the underbrush.

The nest was an old Mocking-bird's, repaired and enlarged to suit its present owners. It was in an elm tree, eight feet up and contained only one egg so I left it for a complete set.

Just in front in the mesquite thicket that borders the prairie, the merry, jumbling song of a Bell's Vireo (*Vireo bellii*) directed my steps to where the pretty, little pensile nest was swinging in the fork of a horizontal mesquite limb. It contained three eggs, faint pinkish white, irregularly speckled with reddish-brown.

To the north the prairie stretches out as far as the eye can see and trees are few and far between. Scissor-tailed Flycatchers (*Milvulus forficatus*) and Orchard Orioles have taken possession of most of the nesting places and some of the former have commenced to build their nests. Dickcissels (*Spiza americana*) were perched on the barbed wires and their monotonous notes, chip-zerp, zerp, zerp ,chip-ip, zerp, zerp, zerp, zerp. were pleasing though somewhat harsh. Turning westward, I made my way through the tall prairie grass towards a group of live oaks, behind which the cedar-clad, limestone hills rose one behind the other, until they were lost in the hazy distance. At my feet a muddy, sluggish creek bordered by high, rank weeds, flowed lazily through the rich, black, waxy, prairie soil. Among the bright green weeds and water grasses that bordered it and marked its course from a distance, Western Blue Grosbeaks (*Guiraca cærulea eurhyncha*), Indigo Buntings (*Passerina cyanea*) and Field Sparrows (*Spizella pusilla*) were conspicuous. A single Solitary Sandpiper (*Totanus solitarius*) standing by the edge of a marshy pool looked the embodiment of silence and thoughtfulness. Overhead a flock of Dwarf Cowbirds (*Molothrus ater obscurus*) were wheeling, and, borne by the cool north wind, the mellow notes of the Red-winged Blackbirds (*Agelaius phœniceus*) were wafted down from the willow grove at the head of the creek.

In the hackberry trees which grew at irregular intervals along side the fences, Kingbirds (*Tyrannus tyrannus*) were numerous, Scissor-tailed Flycatchers and Dickcissels hovered over abandoned fields overrun with Johnson grass, while countless Cliff Swallows (*Petrochelidon lunifrons*) skim over the prairie in search of insects.

As I entered the live oak grove that borders Shoal Creek, a Mississippi Kite (*Ictinia Mississippiensis*) sailed slowly away, two Yellow-breasted Chats (*Icteria virens*) held an animated conversation right in front of me, but prudently kept out of sight and a Baird's Woodpecker (*Dryobates scalaris Bairdi*) was searching for insects high up in the knotty trunk of the oak tree. The rocky sides of the creek were lined with hundreds of Mourning Doves (*Zenaidura macroura*), who had come for miles to enjoy the shade and water. Before I came in sight they took alarm at the indignant chirping of Cardinals (*Cardinalis cardinalis*) and noisily flew away in company with a Green Heron (*Ardea virescens*) that stood on one leg in the water for hours. I took a drink from the clear, limestone spring that bubbled up close by the side of a deep, still pool, and walked on through a field of corn where Texan Bobwhites (*Colinus virginianus texanus*) and Western Meadow Larks (*Sturnella neglecta*) were whistling merrily. In a telegraph pole by the side of the railroad, Plumbeus Chickadee (*Parus carolinensis agilis*) had its nest, but to my disappointment it contained young birds. Deep in the recesses of thick, low cedar brakes, Cardinals and Summer Tanagers (*Piranga rubra*) were numerous, but a rarer bird is here and its low, sweet notes, cher-weasy, weasy, weah, were heard on every side. Slipping up to a tree where one was singing, I took careful aim and brought him down. As he laid on his back with his wings half spread, the rich golden-

yellow cheeks, black throat and white breast with irregular black marks at the sides, showed him to be a Golden-cheeked Warbler (*Dendræca chrysoparia*), and an old nest in a tree close by encouraged me to search for his home but I did so in vain.

In the deep, shady cañon between the mountains Texan Tufted Titmice (*Parus bicolor texensis*), Cardinals, White-eyed and Black-capped Vireos (*Vireo noveboracensis* and *Vireo atricapillus*) were always in sight, but their nests were not so noticeable.

Following the course of the trickling stream that ran down the cañon to the west, birds were few, Cardinals were chirping in the underbrush and several Chuck-will's-widows (*Antrostomus carolinensis*) were flushed from the darker thickets. A group of cattle, mavericks and strays, gazed wonderingly at me for a moment, then turned and dashed away through the thick cedars, pausing occasionally to watch me, but starting on as I came near.

After a long, hard tramp over hot limestone mesas, made hotter by a dense covering of mountain cedars, the cool shade of elm and pecan trees growing at the junction of Bull Creek and the Colorado River are very pleasant. Here Mockingbirds, Nonpareils, Orchard Orioles and a few Crows (*Corvus americanus*) were feeding; from yonder gray cliff marked with long lines of green, where maidenhair ferns have obtained a foothold on water-bearing strata, the clear, full notes of a Cañon Wren (*Catherpes mexicanus conspersus*) came rippling down, to be repeated again and again by countless echoes until they died away in the distance.

Passing on through thistle patches, where sometimes in the spring and fall, Mexican Goldfinches (*Spinus psaltria mexicanus*) come to eat the seed, I followed the road that wound along between the river and steep cañon walls, that rose almost from the waters edge. In the rocks and thick brush Rock Sparrows (*Peucæa ruficeps eremæca*) were flitting here and there seemingly without rest. High up on the side of the cliff a Phœbe (*Sayornis phœbe*) was laying the mud foundation for his nest, while above him in a tuft of grass, a Boucard's Sparrow (*Pucæa ruficeps boucardi*) sat on her four eggs, unmindful of the hot sunshine that beat on the stone around her and withered the grass that protected her nest.

As the sun neared the western horizon, Turkeys and Black Vultures that had wheeled over the country in broad circles all day, sought roosting places, the smaller birds took shelter in the thick bushes, the tree frogs began their weird chorus, and as the sun went down Texan Screech Owls were heard on every side. Occasionally the ghostly cries of a Western Horned Owl awoke the echoes through the dim cañons and flying away, left the woods still as death. But gradually the usual night sounds began and continued until they were interrupted again.

Western Nighthawks were circling overhead in quest of insects as I entered the city. The town clock struck nine when I arrived home, tired, without having collected anything of importance, but well satisfied with my tramp. *J. H. Tallichet.*

Austin, Tex.

The Water Ouzel.

Mr. Bliss of Carson City, Nev., an acquaintance of mine, has made several trips into California. During these trips he has noticed particularly some interesting habits of the Water Ouzel. He says:

"I have taken three nests of the Water Ouzel. One, which I take as an example, was constructed as follows: the nest was placed on a flat rock side of a rushing mountain stream. It was built of moss and neatly lined with leaves and was shaped like a dome having a small opening in the side. The striking thing about the nest was the freshness and greenness of the moss. Wondering at this, I determined to discover the cause. After watching a short time, I saw the Water Ouzel hovering over the spray caused by a plunging cascade. When the little bird had become literally dripping with moisture it hovered over the nest shaking the water completely over the moss."

Mr. Bliss gives the following reason for this singular irrigating tendency.

The Water Ouzel says to itself, "In a short time with no moisture, the moss will become gray and parched, consequently conspicuous to man and beast; by shaking water on it, it will continue to be fresh and green and so become hardly distinguishable from the surrounding verdure."

This reason of Mr. Bliss' is a good one, though perhaps a little doubtful. Still the instinct comes singularly near to reason.

R. H. White, Jr.

Chestnut Hill, Mass.

Oyster vs. Kingfisher.

Some years ago I lived in the little city of Annapolis, Md., a great place for the oyster and its numerous enemies. During a walk along the shores of one of the three creeks that surround the place, I witnessed an incident that I had read of but never before seen, of the oyster's many adversaries. The Kingfisher, in this locality, isn't the least, by any means. Many a fine oyster falls victim to the rapacious appetite of this king of fishers during the sunny hours of a summer day.

Walking along the shore looking out for anything that might turn up, I noticed something black fluttering and screaming on the shore opposite me across the water. Failing at that distance in finding out what it was, I procured a boat and crossed over. I was surprised to find a full-grown Kinfisher, evidently hurt, lying on the sand. I ran up to it and attempted to pick it up, but found that it was attached to something in the sand. Closer examination discovered its bill held fast between the shells of an oyster. I soon liberated it and found the tongue quite black from non-circulation of the blood, which showed that it must have been held prisoner for some time. This rogue was evidently caught thus:

At flood tide the oyster opens up to receive its food brought up by the rising water to the shore, and at the first sign of the ebb, closes promptly. Our rogue went to work just a little late and found the oyster in the act of closing up for the night. The bird was quite weak from its struggles to free itself and rested for some time in my hand before it took advantage of its timely rescue.

H. C. Hopkins.

Baltimore, Md.

Late Nesting of the Great Horned Owl.

Mr. Purdy's note as to late nesting of the Great Horned Owl makes the notes I have for this season of probable interest. On March 14th, from an old nest in an isolated wood near this locality, I took a set of eggs of the Bubo. At the first rap on the tree, a gray squirrel left the nest, followed almost immediately by Mamma Bubo. The nest contained three eggs, one slightly stained by the blizzard of March 11th, the others immaculate. This set I note both for the unusual number and for the small size of the eggs, viz.: 2 x 1.69; 1.93 x 1.62; 1.93 x 1.62; incubation, 1-6 to 1-4. Mr. Purdy's late date is March 20th; but on March 31st in Polk County, Wis., my brother, discovered a Bubo's nest in a black oak thicket near the top of a thirty foot oak, a very unusual nesting site. The nest was a bulky one, built by the Owls, and undoubtedly the first work of the season. The nest contained three eggs which were but slightly incubated, one egg, at least, being subsequently blown by the boy, through a hole into which the tip of the blow-pipe could easily be inserted. The sizes of these eggs are 2.1 x 1.75; 2.1 x 1.75; 2.1 x 1.69, the eggs being "larger" says Mr. Helme (to whom they now belong), "than any I have taken in the East."

One mile from the thicket where this nest was found is a tamarack swamp where the Bubos used to nest. For several years, up to 1888, a set from this swamp was regularly brought to me. Of late the swamp has been thinned out and I failed myself, on the 19th of April last, of finding any nest though a pair of Owls were there. *P. B. Peabody.*

Owatonna, Minn.

The Red Phalarope.

About the twenty-first of May, a large flight of these birds while passing Cape Cod were driven in and quite a number secured. The plumage was full. Captain Gould says, "There was a large flight yesterday (21st) and I collected quite a number. I never saw as many. They were seen along the beach in all directions. The government telephone wire was certain death to many, numbers being killed between here (Chatham) and Monomoy. We found over forty within four hundred yards of the station, but they were useless, being torn and wingless from flying against the wires. The following day not one was seen."

This bird is very hard to obtain, not on account of its being rare, but because it flies outside, beyond the reach of the collectors. Another party sent us in some twenty-five, a part of a lot that he had received from Provincetown. There were a very few of the Northern Phalaropes with them.

The proportion of males in the entire lot was about three to one and there were but two in the white plumage. The birds were not as fat as is usually the case. Reports were received of single specimens being taken along the coast. *F. B. W.*

THE

ORNITHOLOGIST AND OÖLOGIST

A Monthly Magazine of

NATURAL HISTORY,

ESPECIALLY DEVOTED TO THE STUDY OF

BIRDS,

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and to the

INTERESTS OF NATURALISTS.

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The O. & O. is mailed each issue to every paid subscriber. If you fail to receive it, notify us.

The Labrador Duck.

The specimen that was advertised a short time since in the O. & O. has been sold and as we predicted went into a European collection. It created quite an interest among our subscribers and we regret that we are not authorized to announce the purchaser. It is lost to America.

An annoying typographical blunder appeared in Mr. Norris' editoral note to Mr. Gillett's article on the American Bittern in the June number, (p. 87). Mr. Gillett stated that the eggs were "four or five in number, generally five." Mr. Norris added in the note, "my experience leads me to believe that *three* eggs are very commonly a set," but the printer made this read, "my experience leads me to believe that *these* eggs are very commonly a set," which, of course, was nonsense.

A CORRECTION.—In my article on the Blue-gray Gnatcatcher in the O. & O., p. 74, ninth line from the top, instead of "diversity," read "density." *W. E. Clyde Todd.*

Washington, D. C.

Brief Notes.

LATE MIGRANTS.—On June 3d, while out for a drive, I noticed a pair of Horned Larks flying over a newly plowed field. As I have never seen the birds here later than the 29th of March, the question comes up, Do they occasionally remain and breed this far south? *S. R. Ingersoll.*

I notice in the April issue, a reference to the occasional catching of birds on barbed wire fences. This calls to mind the finding of a Crane which in alighting upon a sandbar had become entangled in a fence, remaining there until dead. I have also found a snipe in a like condition and think that such accidents may occur not unfrequently. *E. A. Miller.*

I would like to know what is supposed to be the earliest breeding date of the Crow in New England? I took a set of six on April 17th that had been set on four or five days. *A. M. Farmer.*

To the list of birds that sing on their nests may be added the Black-headed Grosbeak. *W. P. Lowe.*

Pueblo, Col.

Your last issue informs me that you are to devote one page to exchange notices. I hope that advanced oölogists will avail themselves of the privilege. *Frank Craig.*

Dealers as a rule, do not care to encourage exchanges among collectors. The O. & O. being a magazine devoted to the collectors, proposes to open its columns to anything that will be a benefit to them. This would have been done before, but we have never been requested to.

Mr. Samuel B. Ladd, of West Chester, Pa., has returned from North Carolina, where he went on a collecting trip after eggs and skins. He was remarkably successful and some of the eggs he found there were a great surprise to his friends; notably the sets of Canadian Warbler (*Sylvania Canadensis*) and Black-throated Blue Warbler (*Dendroica Cærulescens*). But then Mr. Ladd is such a wonderful collector that he can find eggs that others have not been able to.

He has promised to write an account of his trip for the O. & O., and we can promise our readers a treat. *J. P. N.*

We are indebted to Harry Piers for an extract from the Transactions of the Nova Scotian Institute of Science, containing "Notes on Nova Scotian Zoology," read by him March 14, 1892. It contains a number of ornithological notes of interest.

Now, that the collecting season is over, is the time to send us notes of what you have done.

Remember, in sending communications, that Hyde Park is our only place of business.

"We do not care to probe into that mighty mass of dead tree, brown and porous as a sponge, for already it is a mere semblance of a prostrate log," writes Stanley in his book.

Within, it is alive with minute tribes. It would charm an entomologist. Put your ear to it and you can hear a distinct, murmurous hum. It is the stir and movement of insect life in many forms, matchless in size, glorious in color, radiant in livery, rejoicing in their occupations, exulting in their fierce but brief life, most insatiate of their kind, ravaging, foraging, fighting, destroying, building and swarming everywhere and exploring everything. Lean but your hand on a tree, measure but your length on the ground, seat yourself on a fallen branch, and you will then understand what venom, fury, voracity and activity breathes around you.

Open your note book, the page attracts a dozen butterflies, a honey-bee hovers over your hand, other forms of bees dash for your eyes, a wasp buzzes in your ear, a huge hornet menaces your face, an army of pismires come marching to your feet. Some are already crawling up, and will presently be digging their scisssor-like mandibles in your neck. Woe! woe!

And yet it is all beautiful—but there must be no sitting or lying down on this seething earth. It is not like your pine groves and your dainty woods in England. It is a tropic world, and to enjoy it you must keep slowly moving.

"Locked horns are becoming quite a fad with the swells at the metropolis," said a gentleman the other day, "and some of the Adirondack hunters and guides are making nice little sums by occasional sales of the curiosity that is demanded. You see the old story about the bucks that fall to fighting, and in some manner get their horns locked so they can't get apart and then starve to death, has taken a strong hold upon the romantic natures of many people, and if they can only get a set of locked horns mounted, they are happy.

"So the hunters select nice horns that correspond as to size and by the use of a twisted cord and case, spring them together as if locked in their death embrace by the maddened thrusts of fighting bucks. Then, on account of their great rarity and the difficulty of finding them, they are sold to the rich curiosity hunter for a big price. His friends look in wonder and envy at them while he recounts the story told him by the guide who found their skeletons held together by the horns and the earth all trodden down around the place so solidly that vegetation had not grown there in years, etc., and the guide goes back to the woods and fixes up another pair for the next curiosty seeker."

In the June number of the O. & O. there is published a brief note entitled "A Strange Bird Shot." This is taken from a clipping of a Quincy paper and so amused me that I cut it out and wrote on the back "can any one identify this species?" As it appeared in this journal one might infer that I had seen such a bird when in reality I saw no such bird and know nothing of the party or the occurrence and merely sent the clipping for the amusement it might afford. *O. C. Poling.*

Quincy, Ill., July 8, 1892.

I took a set of Cardinal Grosbeak in the neighborhood of Detroit, and thinking it would prove of interest to Michigan collectors, I thought best to write you, so they could be reached through your paper, the O. & O.

On the 19th inst., the set was taken. Three badly incubated eggs constituted the clutch, with dimensions as follows: one egg .95 x .75; two eggs 1.05 x .80; color, a pale, yellowish-green, dotted and blotched with different shades of brown and lilac principally at the large end. The nest was made of weed stalks, grape-vine bark and cedar bark, lined with fine, round grass, and placed in brier bush a few feet over a ditch which ran alongside of the road. Bird was seen and so identified. Took set of Cerulean Warblers same date.

W. A. Davidson.

On June 12, 1892, I found the nest of the Phœbe containing six incubated eggs. The nest was situated in a boat house on the lower rafter hardly a foot above the water of the St. Clair river. The parent bird would sit here unconcerned about the swells from passing steamers and hard winds. This was certainly the most perilous spot for a nest I ever saw and is the only set of six eggs taken for some time. *B. H. Swales.*

1220 Woodward Ave., Detroit, Mich.

Smelling Powers of the Turkey Buzzards.

While camping last summer on Hogback Mountain, in this state, between Jackson and Transylvania Counties, I made an experiment with the Buzzard.

Western North Carolina is not the home of this bird, but it is occasionally seen flying high in the air, going from one state into another. While on Hogback, five thousand feet above the sea, we often saw these birds passing over at a great height. I had heard of the very acute sense of smell possessed by the Buzzard, and proposed to verify the statement by actual experiment. We had the day before bought a good fat sheep of a neighbor, and after the cook had dressed it, I took the skin, head and entrails, and carrying them away from the cabin, entirely covered them with an old sack. The Buzzards went on their way until the seventh day, when about nine o'clock in the morning, we saw two circling about far above the mountain top. We knew by their movements they were hunting for something. We watched them all day, and before five o'clock in the evening they were both roosting on the fence within ten yards of their long sought meal. They surely could not see what they were looking for and found it only through the sense of smell. *E. P. Jenks.*

Asheville, N. C., July, 1892.

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NOTICE TO OOLOGISTS.

Your correspondence is solicited for the exchange of first-class sets, with data, of eggs of North American birds.—FRANK CRAIG, No. 622—23d St., San Francisco, Cal.

FOR SALE OR EXCHANGE.

Eggs and nests of the Ruby-throated Hummingbird; also (A. O. U.) Nos. 118, 194, 388, 219, 197, 200, 756, 339, 390, 627, 428, 595, 608, 622, 756, 488, 703, 729 and others. Will exchange for sets (with data) not in my collection.—J. B. HINE, East Onondago, N. Y.

JAMISON'S COLLECTION FOR SALE.

Isaac S. Reiff, of 853 North 13th street, Philadelphia, Pa., has the collection of the late Henry K. Jamison for sale, and any one sending him a two cent stamp will receive a list of the same. Mr. Jamison's reputation as a collector makes any eggs from his collection very desirable as specimens.—J. P. N.

FOR SALE.

A Hammond Typewriter. Only used a short time. In perfect condition. Cost $100. Will sell for $60. Apply to "W.," care Ornithologist and Oölogist.

FOR SALE.

Nests of Trap Door Spider, 60c.; Trap-door Spiders, 75c.; Tarantula, $1.00; Horned Toad, $1.00; Centipede, 75c.; Scorpian, 75c. By mail post paid at above prices.—FRANK B. WEBSTER COMPANY.

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Large Sea Beaver, (Bahama) 50c.; Large Sea Urchin, flat, bleached, (Bahama) 40c.; Large Sea Urchin, round, bleached, (Bahama) 40c.; Small Sea Urchin, bleached, (Turks Island, 10c.; Small Sea Urchin bleached, (Nova Scotia) 10c.; Sea Fan, (Bahama) 35c.; Horse-foot Crab, small, 10c.; Horse-foot Crab, five inches in diameter, 20c.; Fiddler Crab, 10c.; Hermit Crab, 10c.; Star Fish, 10c.; Sea Urchin with spines, (Massachusetts) 15c.; 1 Cotton Pod, 5c.; 1 Tube Sponge, (Bahama) 25c.; This entire collection sent by express for only $1.50.—FRANK BLAKE WEBSTER CO.

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Eggs of Snakes, Turtles, Alligators. Also Skins of A. O. U., 766a, 753, 750, 737, 725a, 679, 677, 675a, 672, 666, 658, 651, 650, 641, 634, 620, 590, 530b, 517a, 492, 491, 485, 484c, 484b, 484a, 481a, 480, 479, 478c, 478b, 478a, 478-1, Coast Jay, 476, 469, 441, 440, 438, 425, 406.—FRANK BLAKE WEBSTER COMPANY.

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15 Nuts and Beans from Brazil and Central America, 25c; 10 Assorted Shells from Caymann, 20c.; 1 Tarpon Scale, 5c.; 1 Sea Horse, 35c.; 1 piece Pink Coral, 25c.; 1 piece Rose Coral, 10c.; 1 piece Kidney Coral, 15c.; 1 Clay Stone, 5c.; 1 Pyrulan Egg Case, 10c.; 1 Cod-fish Head Stone, 5c.; 1 Chiton, (Bahama) 25c.; 1 Emerald Humming-bird Skin, (S. A.) 75c. The entire lot by mail for only $1.25.—FRANK BLAKE WEBSTER CO.

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Bird Notes at Sea.

All summer I have been cruising off shore on a pilot boat. I expected to get material for a long article for the ORNITHOLOGIST AND OOLOGIST, but find myself much disappointed. Species are few and well known and incidents almost entirely lacking. Our cruising ground is off the coast of South Carolina, never extending much beyond Cape Romain on the north, or Tybee on the south. The greater part of the time we are out of sight of land, but occasionally have to come ashore for provisions and water. Weather for about three-fourths of the time squally, with a high sea. One heavy storm we dragged both anchors and went ashore in the night, but were helped off again early next morning by a passing steamer.

Our boat is a comfortable forty-ton schooner, and one of the fastest on the coast. We have had some lively races with our competitors, and leave them no victories to record so far. There are three boats working against us, so we are seldom hove to, but spend our time either beating to windward in a heavy head sea or rushing down with slack sheets and topsails all up as soon as a speck of sail breaks the horizon line. With this view of my surroundings it will be readily seen that it has not been easy to make full notes upon the habits and manners of the few birds that I have seen.

When once we strike out into the blue water the Wilson's Petrel is seldom out of sight. I have only seen them once or twice in shore, when the water gets a dull tinge from the wash of the land. Their seemingly confiding ways are not so innocent as would seem to be the case. They never come within reach of a cast net, and utterly refuse to take a baited line. All my efforts to capture one alive have failed.

Early in June there were a good many Shearwaters pretty well out beyond Cape Romain. There was a heavy sea on and great quantities of gulf weed floating about. Among this they seemed to be feeding, dipping down into the hollows of the waves and rising with a graceful, gliding motion over the white crests. I could not determine the species, but think there is no doubt but it was the Dusky. The weather came on very squally and we were close-reefed for two or three days, during which time the Shearwaters kept round us. But as soon as it cleared up they all disappeared. I have seen a few since off Martin's Industry in July, weather much the same. At such times I often see flying fish. Their motion closely resembles the flight of some of the smaller Sandpipers, and indeed the first I saw I would have taken for birds if I had not seen them drop into the sea.

Early in July we had some calm nights, and I began to hear the notes of small birds migrating overhead. The night of the 8th, with a gentle southerly wind, I could hear their faint voices almost con-

tinuously all night. And once or twice there was quite a lively twittering overhead, and I caught sight of their little fluttering forms playing about our masthead light.

The next day was a dead calm and we were in the Gulf Stream to the eastward of Hilton Head. During the very hottest part of the day one of the crew brought me a male Least Bittern that had fallen from aloft into the skiff. I kept him all night and the next day he flew off, making directly for the island.

Cormorants are seldom seen, except before a storm. Whenever the glass begins to fall rapidly I am pretty sure to see a few of them flying towards shore. At such times also the Royal Terns seem to take longer flights to sea.

The other Terns all seem to keep close under the shore. Especially does this seem to be the case with the Least and the Short-tailed, which scarcely ever go beyond the flats and sandbars.

Pelican Bank is a long spit of sand in St. Helena Sound, which I have passed several times of late. The birds from which it takes its name are numerous here. It also seems to be a favorite feeding ground for the Royal Terns. The last of July the whole upper end was covered with half-fledged young, not yet able to fly. Here I secured one specimen of the Sandwich Tern. *Walter Hoxie.*

The Olive-backed Thrush.

Never shall I forget my first experience with the Olive-backed Thrush. It was during that delightful period of my ornithological experience when any bird at all out of the common in occurrence, habits, or coloring, was exceedingly "rare." What was my delight, then, when late in July this species literally forced itself upon my notice. On opening the door early one morning the first object that presented itself to my gaze was a little half-grown bird placidly sunning himself on the warm boards, while his wiser or more experienced mother was vainly striving to impress upon his youthful mind a more fitting fear of man. The youngster, as all youngsters are apt, thought he knew more about it than anyone else. He not only refused to leave, but submitted to handling with the utmost equanimity. Having examined him to my heart's content, I threw him into the air; at once the old bird was by his side, guiding him into the less exciting but safer confines of the wood. How anxiously did I watch the brood, hoping that they might remain until grown, that I might procure a specimen. They vanished in two days, but my disappointment was alleviated by the capture of a fine old male.

Since that long-ago experience this species has become perfectly familiar to me from four summers' observation on Mackinac Island.

The Olive-backed Thrush arrives in Kent County from the fifth to the tenth of May. Never common, a specimen or so may always be found during an afternoon walk. Unlike his brother, the Hermit Thrush, this bird prefers woods either entirely dry or of a swampy character surrounded by high-wooded hills. During migrations, however, this bird is not essentially woodland. Flocks of two or three may often be surprised in the city orchards.

Wherever found he attends strictly to his own affairs, neither obtruding himself upon your notice or exhibiting unnecessary shyness. A short *chip* is his only note at this period; his song, abundant song, too, as you shall see, is reserved for his summer home. His stay is short, except in some favored localities, where he sometimes lingers a week beyond his time. The twenty-first of May sees the last one off.

We again strike acquaintance on Mackinac Island about the first of July. Here the Thrushes frequent the steep bluffs covered with evergreens, in which the nests are built. Here by far his most striking characteristic, his singing power, is developed.

The song of the Olive-backed Thrush begins low, ascends by two steps of two notes each, and ends with several sharp notes. The first note of each step is higher than the second, and the second of the next is about the same as the *first* note of the first step. Occasionally the whole is preceded by a sharp *chuck*. The notes have the swelling beauty of all thrush songs, while the metallic ending "rings" like a little bell. The song always says to me, *gurgle gurgle ting che che che*.

As far as my experience goes, the Thrush never sings *steadily*, except in his chosen tree. In fact, for two years one has selected for his perch a small evergreen near our cottage, and it was from him that I procured the following data.

I am about to state what to most of you will seem incredible. Please remember that each of these statements has been verified again and again through successive seasons, and that I have not attempted to over rather than understate the case.

He sings on an average nine and one-half times a minute with extreme regularity. During the song periods of morning and evening his constancy of purpose is remarkable; except to seize a passing insect, he never breaks the recurrence of his song. From a long series of records it is found that he begins on an average at about 3.15 A.M., sings *steadily* (of course I mean ten times a minute with slight intermissions, not *constantly*) until about 9 A.M.; is nearly silent till noon, after which he sings occasionally for a minute or so; begins again about 4.30, and only ceases to retire for the night at 7.30 P.M.

This is a wonderful record, and were it not verified by long experience I should myself be inclined to consider it exceptional. Why, just take your pencil and figure out how many songs he must utter in a single day!

Expressing the time in round numbers, allowing him but eight a minute (he may have soldiered while I was not looking, you know) and we have —

Time of singing, one day,	500 min.
" " occasional song,	20 "
Total,	520 "

520 min. at 8 per min., 4160 songs.

His song ceases entirely about the 25th of July, although for five days before that date vocal effort is somewhat relaxed, about half the usual time being spent in its pursuit. However, as he must arrive by the first week in June, certainly it would not be unfair to allow him at the very least six weeks of vocal effort, 42 days at 4000 per day, 168,000 songs in a season, a record excelled probably by the Vireos alone.

His alarm note is now *chu-ree*, with a strong vibrating nasal sound on the last syllable. Often, as with other thrushes, a soft low whistle is uttered, *pee-o-o*.

One of his characteristics is that, when singing, it takes a great deal to frighten him. One can stand almost directly under his tree, but he will continue to sing on, seemingly oblivious of your presence.

After the young hatch, little time is lost before beginning the southward journey. While very abundant on the island during autumnal migrations, I have observed but a few stragglers in Kent County during that period. *Stewart Edward White.*

Many of our readers will be pained to learn that James M. Southwick, the Rhode Island naturalist, has been confined to his bed during the last ten weeks. We all wish him a speedy recovery.

My Experience with Visitors.

We had company from a distance. They were good old family friends of years' standing. They came from a long distance, "to spend a few days." Of course everyone, including myself, were delighted with these good old-fashioned people, jolly and courteous. My big collection of eggs was arranged in a heavy cabinet that occupied one end of the "sitting room," protected in front by glass slides. I took pride in showing my collection, and, as it was really an ornament, my father also delighted in telling our friends about the eggs from all over the world, and his especial pleasure was to get out my Ostrich and Emu eggs and grasp them an egg in each hand like a couple of stones and clink them together, "just to show how thick they were, you know." Well our company had done as we expected them to, uttered their wonderment at the novelties and expressed their delight at the collection. When we came down to a more minute examination of some of the rarer and odder specimens, I noticed that the lady of the party was just itching to get her hands on the eggs, and I thanked my stars that glass stood between her fingers and my treasures. Well father had clinked the Ostrich eggs to everyone's amusement (including my own), and then we reached my Black-chinned Hummer's eggs and nests. You all know what beautiful little downy puffs of nests they are. I had just purchased a series of them, with eggs, and unfortunately had left them in a drawer, not as yet having time to arrange them in the cabinet. I shook with apprehensions as father very confidentially handed out a nest apiece for inspection. All at once an exclamation from one of the party caused me to look with a start just in time to see one nest and its contents completely demolished, and in the scramble to repair any possible damage another and still another followed the first to utter destruction, while I struggled to gather a very sickly smile about the lower end of my face, as I declared through lips that were parched and dry that the damage was inconsiderable, and for them to pay no attention to it, etc., and I frantically endeavored to draw everyone's attention to some inanimate and interesting objects several thousand miles away from that egg case. The moral may be summed up as follows: Six broken Humming-bird's eggs, three demolished nests, one cracked Ostrich egg, and fifteen swears, the latter I added afterward when they had stepped out. Don't ask anyone to look at your eggs, unless you have them under heavy French plate and the doors all locked, "friends or no friends." I give utterance knowing whereof I speak. Experience is a good teacher. *W. C. B.*

Plymouth, Mich.

Breeding Habits of Junco Hyemalis carolinensis, Br.

On July 5 of the present year, in company with my friend Dr. Henry Skinner, I left Philadelphia for the mountainous region of North Carolina, our principal object in the ornithological line being to investigate the breeding habits of the Carolina Junco. We received good accommodations at Cranberry, Mitchell County, and from this point, which lies 3200 feet above the level of the sea, we made trips to the surrounding hills and mountains. Our longest trip was that to Blowing-Rock, distance from Cranberry 32 miles. Part of the journey was made in wagon and part on horseback. During my two weeks' stay, with the aid of the doctor, I located and examined 46 nests of this sub species of Junco. Forty-two of the nests were placed in natural depressions in the bank of wagon roads, two were

found in same situation in a railroad cut, one in a crevice of an old tree trunk, and one was placed on a ledge of rocks. Sennett in the *Auk*, vol. 4, p. 243, speaks of having also found the nest in balsam trees. I was unable to find any nests in such situations, and no doubt, like the nest I found on a ledge of rock, it is the exception and not the rule for the birds to select such situations for purposes of nidification. From the observations made I am led to believe that the full set of eggs is generally four, never five, but very often three; three nests found each contained four young; two nests also contained four eggs, while two nests contained three young and three nests contained three eggs each. The other nests were empty or only contained one or two eggs. The bulk of the nest in the majority of cases was constructed out of small rootlets; a few of the nests had considerable moss used in their construction; one or two leaves were also noticed in a few of the nests. The majority of the nests were lined with hair; in fact every nest had more or less of this material used as a lining, but in some considerable hay and fine grasses had been used. The eggs vary both in size, shape, and markings. The average measure of two sets of four eggs was, set 1, .77 x .59, set 2, .72 x .60. The average measure of three sets of three eggs each was, set 1, .82 x .60, set 2, .88 x .63, set 3, .76 x .56. Mr. Brewster in the *Auk*, vol. 3, p. 108, speaks of *Carolinensis* as averaging larger than *Hyemalis*. The six skins, 3 ♂ ♂ and 3 ♀ ♀, that I secured give an average measure of length 5.94, extent 9.54, wing 3.10. Six specimens of Junco *hyemalis* is in my collection, 4 ♂ ♂ and 2 ♀ ♀, give an average measure of length 6.05, extent 10.30, wing 3.12. Perhaps if a larger series was examined the greater difference might be found on the side of *Carolinensis*. Thirty-six species of birds were observed during our two weeks' stay, all of which were no doubt breeding here in the mountains. The only species worthy of special note was the Song Sparrow (*Melospiza fasciata*). Around a brush heap near our house I came across three of them; on several occasions afterwards I noticed them in the same place. This species was not noticed by either Messrs. Brewster or Sennett during their summer collecting trips to these mountains. (*Auk*, vols. 3 and 4.) The Song Sparrow probably prefers a lower altitude than the mountains of North Carolina for purposes of breeding.

Philip Laurent.

Illinois English Sparrow Law.

I thought it would be of interest to the readers of the Ornithologist and Oologist to know that Dec. 1, 1891, there went into effect the famous English Sparrow Law passed by our legislature. This law provides for a bounty of two cents each on all English Sparrows killed during the months of December, January and February of each year. Already every small boy has some sort of a "fusee," waiting the coming of the appointed hour, when to slay a sparrow means two cents gained. This bill is undoubtedly a move in the right direction, and in a few years a sparrow of this pestiferous species will be as scarce as hens' teeth in the great prairie state. I know of no other state paying any bounty on them at this time, but hope the law will become general throughout the Union, and, if it does, the question of what to do with *P. domesticus* will be solved speedily and satisfactorily; he will be exterminated. Ornithologists hereabouts are strong supporters of our Sparrow Law. *R. M. Barnes.*

Lacon, Ill.

H. O. Havemeyer, Jr., secured one of the skins of the Red Phalarope mentioned in July O. & O. He was awake to the desirability of a recorded specimen.

Samuel B. Ladd's Collection of Eggs of Warblers.

JULY 25, 1892.

A. O. U.'s Nos.	Ridgway's Nos.	Names.	Total No. of Sets.	Total No. of Eggs.
636	74	Black and White Warbler, 1/3, 1/4, 11/5, 1/6	14	68
637	75	Prothonotary Warbler, 8/5, 16/6, 1/7	25	143
638	76	Swainson's Warbler, 1/4	1	4
639	77	Worm-eating Warbler, 1/3, 22/4, 41/5, 3/6	67	314
641	79	Blue-winged Warbler, 1/3, 12/4, 12/5	25	111
642	81	Golden-winged Warbler, 3/4, 5/5, 1/6	9	43
645	85	Nashville Warbler, 1/3, 1/5	2	8
646*a*	86*a*	Lutescent Warbler, 2/3, 1/4, 1/5	4	15
648	88	Parula Warbler, 11/4, 5/5	16	69
652	93	Yellow Warbler, 20/4, 3/5	23	95
654	94	Black-throated Blue Warbler, 4/3, 5/4	9	32
655	95	Myrtle Warbler, 3/4, 1/5	4	17
656	96	Audubon's Warbler, 2/4, 1/5	3	13
657	97	Magnolia Warbler, 19/4, 2/5	21	86
659	99	Chestnut-sided Warbler, 8/4	8	32
661	101	Black-poll Warbler, 4/4, 2/5	6	26
663	103	Yellow-throated Warbler, 2/4	2	8
664	104	Grace's Warbler, 1/3	1	3
665	105	Black-throated Gray Warbler, 1/3	1	3
666	106	Golden-cheeked Warbler, 1/4	1	4
667	107	Black-throated Green Warbler, 11/4, 1/5	12	49
671	111	Pine Warbler, 1/3, 12/4, 1/5	14	56
673	114	Prairie Warbler, 2/3, 13/4, 2/5	17	68
674	115	Oven Bird, 19/4, 22/5, 3/6	44	204
675	116	Water Thrush, 3/4, 1/5	4	17
676	117	Louisiana Water Thrush, 2/4, 3/5, 1/6	6	29
677	119	Kentucky Warbler, 1/3, 8/4, 11/5	20	90
680	121	Macgillivray's Warbler, 1/4	1	4
681	122	Maryland Yellow-throat, 25/4, 9/5	34	145
681*a*	122*a*	Western Maryland Yellow-throat, 1/4, 1/5	2	9
683	123	Yellow-breasted Chat, 1/3, 12/4, 1/5	14	56
683*a*	123*a*	Long-tailed Chat, 3/4	3	12
684	124	Hooded Warbler, 17/4	17	68
685	125	Wilson's Warbler, 2/5, 3/6	5	28
685*a*	125*a*	Pileolated Warbler, 2/4	2	8
686	127	Canadian Warbler, 1/4, 1/5	2	9
687	128	American Redstart, 10/4	10	40
			449	1986

Nests with nearly all of above.

Big Birds at the Philadelphia Zoo.

Observing visitors to the Zoological Garden were impressed by an extraordinary condition of affairs in the houses of the great birds of prey. The big shed below the pretentious dwelling place of the carnivora shelters some of the finest specimens of the carrion-feeding family in captivity. There is an immense South American Condor with wings that would overspread a Corktown palace, and feet that would do justice to a Lombard Street belle. Her associates are gigantic Vultures and Buzzards, whose reddish and brownish coats are in the latest spring styles. Several huge Eagles of the bald and golden types possess roosting places in the same area, but they hold themselves more or less aloof from the carrion-eaters, as becomes the lofty seekers of live prey. Flanking the big shed are Eagles and Hawks in less imposing quarters.

These wondrous inhabitants of the garden, sitting about in listless, indifferent manner, as if wholly lost to all interest in existence, have been familiar objects to Zoo visitors for years. There are no newcomers among them. What impressed the big crowds of the initial Sunday of the season was the change in their manner. They no longer seemed lazy and indifferent. They were as busy as it is possible for imprisoned Vultures and Eagles to be.

In the big shed the ground was strewn with logs, branches of trees and bark, which Vultures and Eagles were breaking and trimming and carrying about the room. It required but a moment to see that they were building nests of a kind not heretofore known to civilization. The great Condor's was particularly remarkable. It was fully completed and covered the entire top of the apartment, in one corner, reserved for keeper's utensils. It was built of big and small branches and bark arranged with singular precision. In the midst of it, observable only to the keepers who mounted their step-ladder, was an egg as big as a Philadelphia cobble-stone. Smaller nests were the proud property of eagles. Some were in the earlier stages of construction. One or two of them contained eggs.

It was something to cause a genuine sensation among the attaches of the garden as well as of all students of zoology. For the great carrion-eaters and birds of prey to mate and nest in captivity was never known before. Even head-keeper Byrne, with his robust ideas of the possibilities of feathery captivity, had hardly hoped for fresh-laid Buzzard eggs and Eagle eggs.

Interest naturally centered in the movements of the great Condor. She had been the centre of admiration of the entire Buzzard throng for a week or two and finally selected as her mate a huge cinereous Vulture captured in Africa. She seemed to take the greatest pride in the nest and its big egg. A large part of her time was spent in watching it, the African Vulture stationing himself upon a near-by perch meanwhile as if to keep off any intruders. As soon as the Condor would leave her precious charge her zealous spouse would spring upon the side of the nest and stand guard until her return.

A strange thing about this singular intimacy is the fact that for ten years the Vulture and the Condor have lived in the same shed without displaying any further interest in each other than the coldest platonic friendship. Some philosophers have observed that all true love is grounded on esteem, but head-keeper Byrne accounts for this case in another and more prosaic way.

"The secret is this," he said. "The nearer you approach a state of nature the better it is for birds in every way. In that state the first thing Vultures and

Eagles do when they pounce upon their prey is to cut into the head and dig out and devour the brains. The birds had always been fed here, as they have everywhere else, on horse-meat, but during the past month we have made arrangements with poultry and fish dealers by which the heads of poultry and fish dressed for market and all those that are a little damaged are brought up here and thrown into the birds. It was a welcome change from horseflesh and the birds have been ravenous for it. They are now devouring their natural food in their natural manner, and are just that much nearer their natural state. They became less sluggish and took more interest in each other. It wasn't long before they were billing and cooing like turtle doves. I came out here one morning and found an Eagle's egg in the ground near the wire screen. Some small boy pounded it with a stick. Then another one had the same fate. So branches, sticks and bark were thrown in to the cages as an experiment, and, surely enough, the Vultures and Eagles began to build nests and lay in them. I believe we shall be raising young Vultures, Condors, Buzzards and Eagles like chickens and ducks in a short time. Never before in captivity did these birds ever make any pretence of laying or making nests. We shall give them their chicken and fish brains all summer. Brains are needed in every business, and this is what they have accomplished with these birds."

Although all the Vultures in their common gallantry helped to build the great Condor's nest, none but the favored African is now permitted to be near it. An intruder is set upon by both birds with a ferocity that proves fatal. During the week the Condor and her mate have killed two red-tailed Buzzards, a Turkey Vulture and several Hawks that ventured to gratify their curiosity by examining the great nest they helped to build. Several Buzzards have decided to nest again in other parts of the room.

A great Griffin Vulture of Africa, that sat disconsolately in a corner of the shed, in contrast with the wide-awake air displayed by the others, attracted some attention. Mr. Bryne explained that this unfortunate Vulture laid an egg so near the wire screen that it fell a victim to the ever-present small boy, and since that time the bird has seemed completely discouraged, for the Vulture lays only one or two eggs during a season.

A spotted Eagle of Europe in a cage by herself has also performed the happy feat of laying an egg, which it contemplates throughout the day with an air of profound satisfaction while her mate, now in an adjoining cage, keeps up a congratulatory cackle. A man is employed to watch the cage in order to keep urchins from poking sticks into the nest. As in the case of the Vulture and the Condor, these two Eagles had dwelt together in cold-shouldered acquaintance merely for years before the head-keeper's inspiration in the way of diet awakened their latent affections. It now seems probable that the Zoo will be able to produce enough Vultures, Condors, Buzzards and Eagles of all species to supply any demand.

Philadelphia Times.

Western Vesper Sparrow.

This species, like its congenere of eastern North America, is peculiarly a bird of the prairie, the meadow, or the grass field. I first noticed it at Carberry, in Manitoba, where I remained a few days on my way to the Pacific Coast in the first week of May, 1891. There, out on the wild, unbroken prairie as well as in the grain-sown fields, in the early morning as well as in the twilight of the evening, amid the heat of the noonday sunshine as well as in the bitter frost of the morning hours, its song, differing but little from that of

the "Bay-winged Bunting," with which I had long been familiar, fell upon the listening ear, and appeared to come from all parts of the seemingly boundless horizon, and at various stopping places, till we were ascending the "downs" of Alberta, its presence and its song were still noted as an effecting feature of the landscape. In the comparatively older and more prairie-like settlement near Fort Langly, on the lower Fraser, I first added this species to my list of the *avi-fauna* of British Columbia, but it was afterwards noted in some cultivated fields, on the margins of the river, further down that stream.

It evidently does not like to frequent the margins of the woods or partially cleared places. Out on the open prairie, standing on a Gopher mound, a sod, or even the level sward, it will sing as cheerily as in the more wooded regions, where it finds a post, a fence, or the lower branches of a tree on which to perch while venting its simple music. But the grass-grown field is its peculiar home from early spring till the frosts of autumn begin to end the growth of vegetation and herald the approach of winter, and nowhere else is so much effected by its existence.

Though there is not much variation in its song, yet it is distinguishable from the true Vesper Sparrow, and this distinction is doubtless more notable if the two are heard, as they sometimes are, in the same vicinity. Nor is there any distinction in the plumage by which, at a short distance, it could be identified, but I believe the bay-color on the wings is of a deeper hue, and the plumage in general darker than that which adorns our modest songster of the evening twilight. But at a short distance the same plain garb seems to clothe the resident of the prairie and the shores of our sunset Province as is assumed by the "Gray bird" of my early years, and with which I have been so long familiar in the undulating fields of Central Ontario. And, so far as I could learn, its general habits and the number and coloring of its eggs are much the same. It always nests upon the ground, mostly in a grass or grain-sown field; and under the side of a sod or among the growing vegetation is with it a favorite place for the cradle of its progeny. The foundation for the nest is always sunk in the soft mould, the bird making a little cavity for that purpose and then collecting round the sides bits of weed stalks, stubble and coarse grass, the inside being formed with fine, dry grass and different kinds of hair and rootlets. The set of eggs is mostly four, sometimes five, but occasionally three are incubated. These are of a grayish-white hue, variously marked with reddish, brown, purple and lilac. *W. L. Kells.*

Albino Eggs of Long-billed Marsh Wren.

I thought it would be of interest to readers of ORNITHOLOGIST AND OOLOGIST that on June 10, 1891, I took three sets of albino Long-billed Marsh Wren eggs. The eggs were white, without any spots whatever, and were properly identified, as several were found with the darker kind. One set of four were all pure white without any markings. I also found several nearly albino ones.

B. H. Swales.

Detroit, Mich.

We want brief newsy notes on natural history. We have many lists of birds sent in; and while they are of value, we find that the majority of our readers are not particularly interested in them.

Engineer Daniels, on his trip from New York to Boston, while passing through Pomfret, Conn., had a Red Screech Owl fly in between the engine and tender. The bird lived only a short time.

A Large Set of Eggs of the Bob White.

What do you think of a set of Quails' eggs (Bob White) 38 in number? The nest was found by my young friend, Amon Shearer, Gilbert, Iowa. When found it contained 27 eggs. He took out part of them, and last Sunday, June 5, when I was at his home, the nest contained eggs to make 38 in all. They were laid by one bird. They are beauties. Twenty-seven is a large set, but 38 beats the record. *Carl Fritz-Henning.*

Boone, Iowa.

[If some of the eggs were removed, and the bird went on laying, they cannot strictly be called a "set."—J. P. N.]

Birds of Wayne County, Mich.

As I have never seen any account of the *avi-fauna* of Wayne County, Michigan, in the ORNITHOLOGIST AND OOLOGIST, I thought I would try and give the little information I possess on it. Wayne County is an excellent place to observe birds, as both water and land birds are abundant.

The Thrush family is well represented by the Robin, Catbird and Wood Thrush as the most abundant. The Brown Thrasher, Wilson's and Hermit Thrushes are not so common, while the Olive-backed Thrush is rare. All breed except the two latter species. The Bluebird is an abundant summer resident, arriving early in February. The Chickadee, White-bellied Nuthatch, Brown Creeper, and both Kinglets are common as winter or half residents, while the Red-bellied Nuthatch is occasionally seen. The Tufted Titmouse is not very abundant.

Of Wrens we have the House and both Marsh Wrens as summer residents, and the Winter is seen in fall and early spring. The Long-billed Marsh Wren is a very common breeder in the swamps along the Detroit river.

The Warblers, of which many species occur here either as migrants or summer residents, include the Yellow, Magnolia, Redstart, Ovenbird, Chestnut-sided, Myrtle, Golden-crowned, Prairie, Black-throated Green, Nashville, Black and White, Maryland Yellow-throat, Canadian and many others.

The Vireos send the Red and White-eyed and Warbling as representatives, with the Yellow-throated as a rarer visitor.

The Great Northern Shrike is seen here occasionally in winter, but the White-rumped breeds here. The Cedar Waxwing is abundant and breeds in late July.

Of our Swallows the Barn, Bank, Cliff, Tree and Purple Martins are the most abundant.

The Sparrows (summer residents) are the Song, Chipping, Vesper and Field, and our migrants include the White-throated, White-crowned, Tree, Fox and Lark, of which the Tree Sparrow exceeds in abundance.

The Scarlet Tanager is fairly common, and a few breed.

The Snow Bunting is less common than formerly, owing to the absence of the former amount of snow, but the Junco, Redpoll and Pine Siskins are still common in fall and spring. The Goldfinch is very abundant and breeds. The Purple Finch is occasionally seen, and the Rose-breasted Grosbeak is a summer resident and breeds. In March, 1889, the Evening Grosbeak, 300 strong, paid us a visit, but have not been observed since. I saw my last one on November 16.

The Chewink, Bobolink, Cowbird, Red-winged and Rusty Blackbirds, Meadow Lark, Baltimore and Orchard Orioles and Bronzed Grackle are common.

The Crow is abundant and many breed in April. The Blue Jay seldom breeds

here. I found one nest, May 26, 1886, with six eggs.

The Prairie-horned Lark is common, and some breed in April.

Our Flycatchers are the Kingbird, Wood Pewee, Phœbe, Crested and Traill's, with a few Acadian and Least. The Traill's are not as abundant as formerly, owing probably to the relentless search for their eggs by the "small boy."

The Ruby-throated Hummingbird is abundant after May, but its nest is seldom seen. The only one I ever found was in 1885 in an oak tree. The Chimney Swift is a very abundant summer resident, as is the Nighthawk, who breeds on the flat roofs of buildings or in pasture lands. The Whip-poor-will is rare, but occasionally nests. A friend of mine found one on Belle Isle in 1887 with two eggs.

The Red-head is our commonest Woodpecker, followed by the Downy, Flicker, Hairy, Yellow-bellied, Red-bellied, and sometimes the Pileated; but the latter is nearly extinct here.

The Belted Kingfisher is common, and a few breed on the St. Clair and Detroit rivers.

Both the Cuckoos are summer residents, but the Black-bill is the rarest.

Owls are rather scarce, but our list includes the Great Horned, Barred, Long and Short-eared and Screech.

The *Raptores* are well represented by the Red-shoulder, Red-tailed, Cooper, Marsh, Sharp-shinned, Sparrow, Broad-winged and Pigeon. The Bald Eagle is very rare, but can sometimes be seen. The past winter two hung around the river in front of the city, feeding on the wild duck that were driven down from the flats by the ice. A pair is said to breed on Dickinson Island.

The Mourning Doves are rather rare. Quails and Ruffed Grouse are on the increase. The former were nearly exterminated.

The Great Blue Heron is our most abundant one, but the Green, American and Least Bittern and Night Herons are summer residents.

The Virginia, Sora and King Rails breed, as do the Coot and Florida Gallinules.

The Plover, etc., include the Killdeer, Spotted Sandpiper, Woodcock, Yellow-legs, Wilson's Snipe and several other varieties.

Canada Geese can be seen migrating every year, but they seldom light.

Of the Gulls there are several varieties, but as I am not very familiar with them I shall not endeavor to name them.

The Black Tern is very abundant and breeds in immense numbers along in the marshes. The Forster's and Common Terns also occur.

The Loon is rare, but sometimes breeds.

The Pied-billed Grebe is the most abundant, but the Horned Grebe is a summer resident, and both breed in the river marshes.

Of the birds which occasionally appear the Turkey Buzzard is one. They sometimes come in August. A farmer in Highland Park, near Detroit, saw a flock and secured one, which he has in a pen.

B. H. Swales.

Detroit, Mich., Aug. 1, 1892.

Fletcher M. Noe, Indianapolis, Ind., reports that he received a ♀ White Pelican, killed at New Castle, Ind., May 20, and says that it is a rare catch for the locality. Mr. Noe made us a call while east a few days since. He makes a specialty of relics.

A tame Red-tailed Hawk at our work shop is quite a convenience. He watches anxiously for the bodies of all the small birds that are skinned. He is by no means fastidious in his tastes.

THE
ORNITHOLOGIST AND OÖLOGIST
A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS,
AND TO THE
INTERESTS OF NATURALISTS.

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Montague Chamberlain's New Work.

In the November issue a brief allusion was made to a new edition of Nuttall's Ornithology by Montague Chamberlain. In his introduction the author states that this work is practically an edition of "A Manual of the Ornithology of the United States and of Canada," written by THOMAS NUTTALL, though only as much of the original title has been retained as seemed consistent with the changed character of the text. He has taken Nuttall's biographies and inserted notes relating to the facts of distributions and habits that have been acquired by our ornithologists, also rewritten the description of plumage in a manner that can be readily understood by all. A description of the eggs of each species has also been added.

The nomenclature adopted is that of the "Check-List" of the A. O. U. The sequence of species is that arranged by Nuttall. A careful perusal of the work shows that the plan has been to present in the most comprehensive manner a condensed description, such as is required by students, both old and young.

The author some time since promised a number of his Canadian friends that he would prepare a work on Canadian birds, and has kept the promise by giving in this edition *an account of every species that has been found within the Dominion east of Manitoba plains, together with their Canadian distribution.* This cannot fail to make it a leading work in the estimation of our Canadian friends.

Referring to the Study of Bird Life we quote the author: "If this science (classification) has advanced far beyond Nuttall's work, the study of bird life, the real history of our birds, remains just about where Nuttall and his contemporaries left it. The present generation of working ornithologists have been too busy in hunting up new species and in variety-making to study the habits of birds with equal care and diligence, and it is to WILSON, AUDUBON and Nuttall that we are indebted, even to this day, for what we know of bird life." In this one sentence Mr. Chamberlain strikes the key-note, which should furnish food for much reflection.

The work is well illustrated, the cuts being useful ones and such as are recognized at a glance, many of them being from drawings by Mr. Ernest E. Thompson of Toronto.

Mr. Chamberlain is well known to our readers as one of the leading ornithologists of the day, one whose name does not appear as often as some others; but when it does, it carries with it a weight such as can only originate from one who is a careful student, who speaks from an honest conviction and is broad in principle.

He is the author of several ornithological publications of importance. The work is from the press of Little, Brown & Co., Boston, well-known as the publishers of "The History of North American Birds," by Baird, Brewer & Ridgway.

No comment is necessary. We earn-

estly recommend Mr. Chamberlain's work to all.

"A Popular Handbook of the Ornithology of the United States and Canada, based on Nuttall's 'Manual,' by Montague Chamberlain. Vol. I., Land Birds; Vol. II., Game and Water Birds, with colored frontispieces and numerous illustrations in the texts. Two volumes, crown 8vo., cloth, extra, gilt top, $8.00; half calf, extra, gilt top, $12.00; half-crushed Levant morocco, gilt top, $16.00. Little, Brown & Co., publishers, 254 Washington street, Boston, Mass." Circular with specimen pages furnished upon application.

Brief Notes, Correspondence, and Clippings.

TO MY SUBSCRIBERS: Over four hundred subscribers are now recorded for my work on Taxidermy, lacking probably eighty names of making the full five hundred, which was the number asked for when the drawings for the work were considered complete.

The date of publication depends on the length of time required for the engravers to execute their work, and this I am assured is being pushed as rapidly as is consistent with obtaining the best results. There is therefore *positively no date set for the appearance of the book*. Instead of fifty-four full page plates, with figures illustrating every procedure in taxidermy, the work will now contain *seventy-five* to eighty. Many special plates on special subjects have been added and the text has been greatly augmented.

It should be clearly understood that it will be a thoroughly *illustrated work on Taxidermy*, minutely illustrating the best methods employed in the art. Subscriptions for the work are now recorded from every State and Territory in the United States, from the Dominion of Canada and from Great Britain.

After publication, the price of this work will be $10 net. I desire to tender my sincere thanks to each subscriber for the encouragement kindly given in the undertaking, and as soon as the mechanical execution of the work is completed due notice will be given each subscriber as to when the book will be ready for delivery.

OLIVER DAVIE.

Columbus, O., August, 1892.

Subscriptions for this coming work will be received at the office of this publication.

In her castle at Craig-y-Nos, Mme. Patti has a $6000 parrot which she cherishes and pets as if it were a child.

One day there went to interview Patti a young man who had travelled long and far to view the beautiful Craig-y-Nos palace, says the *New York World*.

"Mme. Patti will be here in a moment," said the door attendant.

Just at that moment there was a rustle of skirts, and Mme. Patti swept into the room adjoining.

In a minute the most beautiful, birdlike notes rose upon the air, unmistakably from Patti's throat.

"She is singing for me," said the delighted listener to himself, "and she is too modest to come in here and sing directly before me. She wants me to hear her as she sings at home. Oh, what a joy to have this privilege!"

At this moment the heavy draperies were pulled aside and the attendant said:

"You may wait upon Mme. Patti now. She has been giving a short lesson to her parrot. She teaches him every day This way, sir, if you please."

Taking his size into consideration, the mole is the strongest animal we know. Whatever he does, too, he does with all his might. One can see the reason of the comparison "blind as a bat;" but why folks should ever say "blind as a mole" is incomprehensible to me. Watch him

as he runs about in the bright sunshine, after a spell of underground work, and tell me whether you think those eyes of his, small though they are, do not serve him in good stead. And that beautiful coat never shows any dirt upon it, no matter how clayey the soil may be among which he works. — *Pall Mall Budget.*

Dear Mr. Delsarte!
Since you've taught us that art
Must replace Mother Nature's injunctions
And teach us anew
What we really should do
With our various physical functions.

We beg you will add
To the lessons we've had
About walking and breathing and posing,
Other hints that will make
All our doings partake
Of a grace more perfection disclosing.

We'd be taught, if you please,
How to gracefully sneeze,
How to snore in symmetrical manner,
How to get out of bed,
How to drop when we tread
On the cuticle of a banana.

How to smell, how to wink,
How to chew, how to drink,
How sublimely to shake an ash-sifter;
How to step on a tack,
How to get in a hack,
How to toy with a heated stove-lifter.

How to hiccough with ease,
How to groan, how to wheeze,
How to spank a night-howling relation:
In short how to mend
The mistakes that our friend
Dame Nature mixed in our creation.

Oological Note. — From a scientific point of view, my collection of oological specimens for 1892 has been the most valuable of those yet taken in any single season, including as it does fine full sets of Sharp-shinned Hawk, Winter Wren, Yellow-bellied Fly-catcher, Maryland Yellow-throat, Canadian Warbler, two species of Woodpecker, Hermit Thrush, and others to the number of over thirty species. Some valuable books have also been added to my library, and many notes, which will yet interest the student of Canadian ornithology, have been dotted down. *W. L. Kells.*

Listowel, Ontario, Can.

One of the interesting objects met with on our coast is the Horse Foot Crab, *Limulus polyphemus*. It is found from Maine to Florida. The breeding season in New England is during May to August. The eggs are deposited in the sand. They are very small and said to resemble seed pearls. The young crab swims from the start, and its tail appears after the first moult. Many of them become entangled in the floating seaweed and as the tide goes out are left high and dry, when the sun dries them up and bleaches them at short notice. The delicate shell, which is all that is left, is wafted by the wind up on the beach, where they are secured in large numbers by specimen hunters. They vary in size from one half inch to four inches diameter. It is seldom that large ones are found in a perfect condition. When the old crabs get stranded they decay rapidly and drop to pieces. At Monomoy Island we have seen the bay shore lined with the old fellows, who would measure ten to fifteen inches in diameter.

The small ones are very interesting to those who do not live on the coast. They can be had at ten cents each postpaid. We have seen some painted to resemble a face, and are quite grotesque.

The sling was one of the earliest inventions in the way of a weapon, and was itself an improvement on the stone thrown by hand, which was the rudest and most primitive method of fighting. — *Harper's Young People.*

F. C. Kirkwood, 115 Concord Street, Baltimore, Md., is working on "The Birds

of Maryland" for the Maryland Academy of Sciences. On June 2, he succeeded in securing a pair of young Bald Eagles, which he presented to the society. He writes that they are now as fine a pair of birds as one would wish to see.

Mr. Enoch Pratt recently purchased the building of the Maryland club at a cost of $30,000 and presented it to the above-named society.

Mr. Kirkwood would like the address of all interested in ornithology who reside in his state.

He sat at the dinner table
With a discontented frown:
The potatoes and steak were underdone
And the bread was baked too brown:
The pie was too sour, the pudding too sweet,
And the roast was much too fat:
The soup so greasy, too, and salt,
'Twas hardly fit for the cat.

"I wish you could eat the bread and pie
I've seen my mother make:
They are something like, and 'twould do you good
Just to look at a loaf of her cake."
Said the smiling wife: "I'll improve with age —
Just now I'm but a beginner:
But your mother has come to visit us,
And to-day she cooked the dinner."

A mysterious ringing of electric bells in a Swiss house was traced to a large spider, which had one foot on the bell wire and another on an electric light wire.

Consumption in Earthworms. — It is now the humble earthworm, exalted by Darwin to the position of the soil-tiller's benefactor, that is destined to become the dread of nervous folk. Pasteur showed about a dozen years ago that the bacterium of charbon may be taken up from corpses by these creatures, and carried for a considerable time in their bodies. Two other French biologists, Lortet and Despeignes, have since experimented on the line thus suggested, and have satisfied themselves that these animals can become the hosts for months of the tubercle bacillus, which loses none of its virulence by its change of abode. It is thus possible that earthworms — so universal and so active — may become the means of spreading one of the most terrible scourges of mankind. The work of these experimenters has a further interest in being the first recorded demonstration of the "tuberculization" of the invetebrate.

I've got a good New England taste
For ev'ry kind of pies,
But huckleberry's best, because
You cannot see the flies.
— *Exchange.*

Unnecessary Evidence. — Smith: You needn't tell me that dogs don't know as much as human beings. I took Ponto to church with me last Sunday.

Jones: Yes?

Smith: Well, sir, he slept through the whole sermon. — *Life.*

Katy Did.

I had sent a note to Katy and was waiting her reply:
But the carrier went his several rounds, and always passed me by.
The shades were gathering thicker and the sun hung very low,
I was lying in the hammock, and was swaying to and fro:
And I asked myself the question, "Did she answer me or no?"
And in the leafy maple a little insect hid,
And declared as though he knew it,
"Katy-did."
And she did.

I finally received it, and I grasped it with a start.
Did it contain an arrow or a dagger for my heart?
I hastened to my chamber, very nervous, I confess.
I tore the letter open and beheld the fond address.
But I burned to know her answer. Did she tell me "Yes?"
And in the leafy maple a little insect hid,
And declared as though he knew it,
"Katy-did."
And she did.

— *Jay Kaye in Overland Monthly.*

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ISAAC S. REIFF, of 853 North Thirteenth St., Philadelphia, Pa., has the collection of the late Henry K. Jamison for sale, and anyone sending him a two-cent stamp will receive a list of the same. Mr. Jamison's reputation as a collector makes any eggs from his collection very desirable as specimens. — J.P.N.

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Nesting of the Black-throated Blue Warbler in Buncombe Co., N.C.

Altitude regardless of latitude seems to fill all the requirements of this species as far as their nesting site is concerned. Although many believe the Black-throated Blue Warbler to be strictly a northern breeder, we found them breeding sparingly in the Craggy mountains at elevations ranging from 4000 to 6000 feet. Their favorite abodes are among the rank weeds and ferns which spring up between the rocks and fallen trees in the more heavily timbered ravines, and almost invariably these localities are known to the natives as rattle-snake dens. Mr. John S. Cairns has collected a number of their skins in seasons past, and was satisfied from their presence during their breeding season that they bred in the Craggies. While collecting with him from May 5 until May 26, we together worked pretty thoroughly a spur of these mountains running probably seven or eight miles, and succeeded in taking eight nests with eggs, four sets containing four eggs each and four containing three each. I will say here that the word "*worked*" is hardly strong enough to describe a collector's labor in these mountains, for he finds no prairie where he may get his "second-wind."

These birds do not necessarily build on swampy or low ground, as we found nests ranging from two feet to five hundred yards from water. Occasionally a nest will be placed in rhododendron shoots and laurels, but apparently they prefer a weed known here as the rattle-weed, an annual that shoots four branches from the stalk; the leaves are trifid and lanceolate, but they do not flower this early and the material preserved will not identify them. *Ridgway's Manual* says "nest on high trees 20–50 feet or more from the ground," but we found none higher than three feet and one only ten inches from the ground. Judging from timber and suitable shelter here offered, I do not believe they ever breed in the higher trees.

Their nests show little variation in their construction, and a description of one will be representative. Exteriorly it is composed of strips of bark of rhododendron or grape-vine interwoven with pieces of birch bark, moss and spiders webs, lined with the fibrous part of *Tillandsia usnoides*, long moss, the same as is used by upholsterers. This long moss is probably the same material described by Rev. C. M. Jones and others as fine black roots and hair, as the fibre very closely resembles curled hair or rootlets.

Their eggs in coloration and shape are as variable as those of any of the Warblers. Some are well rounded, one specimen measuring .61 x .52, while some are quite elongate, one measuring .68 x .49. Ground color, greenish-white, and buffy-white. Some are heavily blotched with reddish-brown and lilac-gray in a wreath around the larger end, while others are marked over their entire surface with madder-brown and lilac-gray.

I am indebted to Mr. Benjamin M. Everhart, our eminent mycological botanist, for the identification of the nest lining as above. *Samuel B. Ladd.*

West Chester, Pa., Aug. 22, 1892.

Since writing the above Mr. Everhart has identified the weed mentioned as the rattle-weed to be *Cautophylum thalictroides*, better known as blue cohosh or pappoose-root. *S. B. L.*

A Spring Morning Ramble.

I woke up this morning and looked out of the window on one of the finest spring days we have had this season. Jumping into my clothes and eating a hasty breakfast I started off, taking the horsecar to Beverly Cove, and from there started off through a field toward "the Park."

It was a beautiful morning, and on entering the field I noted a large flock of Robins hunting on the yet frozen ground for their breakfast. I stopped for a few minutes on the bridge spanning the "dividing line" brook, listening to the gurgling waters as they rushed along over the rocks, making tiny waves that danced merrily along in the bright sunshine. After staying here a little while I continued my walk through the park, seeing nothing of note until I got nearly out, when I discovered a last season's Hawk's nest, which I marked to visit later with the expectation of finding it inhabited.

Coming out near a hedge that is a favorite resort for small birds both winter and spring, I suddenly heard the songs of several Song Sparrows that I did not hear at all until I made my appearance, when, as if of one accord they commenced to sing as if to greet me, each one waiting until the other finished his song, then seemingly trying to outdo him.

After the many walks we have taken this winter by this brook and along this hedge when all bird songs were hushed, how sweet these little songsters sounded. And this morning the hedge seemed to be alive with them and a flood of melody came from every bush from the *earliest* of spring songsters. These birds were evidently new arrivals from the south, as they were in flocks. We have a few stragglers that stay with us all winter, although I have never heard one sing before the first of March.

Here also was heard the cry of the Yellow Hammer from several different places and a Hawk, evidently the Red-shouldered, was seen sailing around a favorite breeding ground of that species. Here I sat down on a pile of pine boughs in a nice warm, sunny spot, to watch the flock of Song Sparrows and hear their songs. They seemed quite tame, and notwithstanding I was in plain sight, they jumped around hunting for food, and every little while one would jump up on a branch and bracing back, dropping his wings, spreading his tail and throwing back his little head, would send forth music that would put to shame any opera singer; then jumping down and shaking himself would look over to me as much as to say, wasn't that done nicely. As I sat here I noted a pair of Juncos, a flock of Robins and another of Bluebirds. The Robins looked as if they had just arrived from the south, large, plump and in fine condition. A pair of Bluebirds came and lit in the tree over me and warbled their low, sweet song.

I next went through a strip of woods where a Red-shouldered Hawk builds every season and where a fine set of eggs was taken last year. As I emerged into the opening I saw that "cowardly" Red-shoulder that was sailing so majestically a short time ago making the best time possible in his vain endeavor to get away from a solitary Crow that was chasing him. It is a wonder to me that he did not turn about and with one or two "digs"

with those powerful talons end the life of his tormentor.

By the side of this brook I again threw myself down on a mound covered with pine needles and watched for more birds and smelt the fragrant pine trees. Here the birds were not so plenty, and instead of the song of the Sparrow and the warble of the Bluebird I heard only the soughing of the wind through the tree-tops, occasionly intervened by the familar sound of *chick-a-dee-dee-dee-dee*.

On my way home I noted a flock of Juncos and heard another Yellow Hammer calling from an old oak stub, which I approached from the opposite side and got almost directly under him before he discovered me. But when he did he was in a great hurry, and flying to a tree some 100 yards away he alighted again and commenced his song, if such it can be called.

Before closing this article I want to add my testimony for the Great Northern Shrike. On dissecting one yesterday I found his stomach filled with *caterpillars*; nothing else, although there was plenty of small birds around near where he was shot. *C. E. Brown.*

Beverly, Mass.

Belted Kingfisher.

First observed this year on April 4. Became common April 26. On May 2 a pair had dug a hole in about four inches. On the tenth as the men were going to work at the bank I dug it out. Hole was six feet long and ready for eggs.

On May 13 the hole (a new one, ten feet from the first) had been dug in a little over two feet. On the 20th I dug it out. It was three feet long and contained two eggs.

On the 22d I found that the birds had started a new hole near the others, in fact, between the two, and had dug in about eight inches. On June 2 I dug this hole out. The hole went in just four feet and contained three eggs.

On the 6th of June I dug out the fourth and last hole. It was about one hundred feet from the others and was just ready for eggs. This hole went in a few inches over six feet.

Between the second and third holes the birds dug another hole a few inches deep, but struck a rock and had to try again.

Arthur M. Farmer.

Amoskeag, N.H.

The Rose-breasted Grosbeak in Oakland County, Mich.

The article in the July, 1891, ORNITHOLOGIST AND OOLOGIST regarding the Rose-breasted Grosbeak in Washtenaw County, Mich., puzzles and surprises me.

The northwest corner of Washtenaw County is some thirty miles southwest of my residence in eastern Oakland County and Ann Arbor some fifty miles, both distances *in a straight line*, Washtenaw County bordering Oakland County on the southwest, and the Huron River, mentioned in the article just noticed, one of the rivers that flow from some of the 350 lakes found in Oakland County.

A great range of hills (geologically called a morraine) rising from 600 to 1200 feet above the sea level crosses southeast Michigan, passing through both counties. I am on the eastern slope of that range and Huron River rises on the same slope.

The article above noticed conveys the idea that the Rose-breasted Grosbeak is very rare in Washtenaw County, even in the north. This is news to me, for in eastern Oakland County and in Macomb County it is one of the most common birds, and a peculiar change in the habits of this bird and the Scarlet Tanager was noticed by me in the OOLOGIST for April, 1890, that of leaving their forest haunts and taking their abode in villages and

cities, nesting about dwelling houses, and also the fact that both these beautiful birds are very fond of the Colorado potato beetle.

This species is certainly rapidly increasing in numbers here, and has put away much of its former shyness. Except for one thing I would much admire it. That one objectionable feature is its very sharp and disagreeable *cheep*. No one not familiar with this species would believe that the female belonged to the same species as the male, as the sexes are wonderfully different in color.

Query: Does this bird prefer to enter Michigan from the southeast, keeping on the eastern side of the morraine, or does it prefer the hills and vales, forests and fields, lakes, rivers and streams of Oakland County to any other portion of the state?

Should think this bird ought to be common at Ann Arbor, for it is also on the eastern slope of the morraine.

Is this the only locality in the state where this bird is abundant? What is its geographical range? Will some of the readers of the ORNITHOLOGIST AND OOLOGIST give us more facts regarding the geographical distribution of this species?

Wilfred A. Brotherton.

Rochester, Mich.

Nest of the Maryland Yellow-throat.

On the 8th of June, 1892, I collected for the first time a set of the eggs of this species. It is only in comparatively recent years that this bird has made its advent in this locality, and only in one vicinity have I as yet observed it, or heard its song; and not until this season was I certain of its identity, though I knew it, at least the male, as a distinct species for several years past; and, having read that it was a bush building bird, had searched in vain for its nest.

On the day previous to taking this set of its eggs, I was crossing the burnt swamp on the back part of "Wild Wood" when a small bird flushed out of a patch of dry swamp grass a few feet ahead of my path. Her actions indicated that she had left a nest, and after a little search on my part this was discovered, containing three beautiful fresh eggs. I saw at a glance that this nest and eggs were new to me, but for a time I devoted my attention to the bird and her actions, in order to identify her, as her appearance was much like that of the female Mourning and Yellow Warbler, but I thought from the site of the nest that she was not that species. In a few moments, however, her chip-like notes brought her mate, who had been warbling his *whitidy*-like song among some bushes near by, into full view and only a few yards off, and then by his deep black face and other markings, I identified the species as the Maryland Yellow-throat. The nest itself was deeply hid among a patch of dry swamp grass and so well concealed that if the bird had not flew out it would have been passed by undiscovered. Its foundation was rather suspended among the grass than placed on the ground, though it was several inches deep by about two inches across in the inside, and was composed wholly of fine dry grasses. The eggs were of a clear white color, with a ring or wreath of reddish-brown spots towards the larger end and a few dots of the same hue on other parts of the surface. Next day, when another egg had been deposited, I took the set.

On the 24th of the same month I found another nest of the same species not far from this, and placed in a tuft of dry grass about a foot from the ground, composed also of fine dry grass and containing two eggs of similar size, color, and marking. After four days, as no more eggs were added and no birds were seen,

I collected these, but I found the yolks so hardened that they could not be extracted.

W. L. Wells.

Listowel, Ontario, Canada.

Bird Notes from Hull, Iowa.

Owing to lack of time I have not been able to spend as much time in collecting as I wished to have done, but for all that have been able to add quite a number of specimens to my collection. One point I found, new to me at least, was yellow spots on wing coverts, four on each wing, of a male Scarlet Tanager. All the Tanagers I collected in Vermont did not have any such markings. Has any one else noticed such points?

A lady asked me one day to come out to her place and shoot a Flicker. It had cut a hole through the side of their house and was building a nest there. Of course the bird had to be shot, but no nest was found. I found one Flicker's nest in a fence post close to the road on one of my drives, just finished, but no eggs. I heard from it one day through a friend of mine who was working near that spot. He said a little girl came to the house one evening with her apron full of young birds taken from that nest. She was told to take them back, but can't say as she did.

Had the good luck to kill an Arkansas Kingbird, a male bird. Are they not rare in this section of the country? This is the first one I ever found here.

I must relate a remark I heard. I was carrying a Bittern I had mounted to the room where I have my collection, and as I was passing a certain house I chanced to hear the following dialogue between two ladies:

First Lady — See that bird; what is it?

Second Lady — I don't know, but think it is a species of Wren.

Just think of that! Perhaps I didn't smile. But I find it generally the case that people have no idea as to names of our most common birds. For instance, last winter a man told me he had shot some kind of a Hawk and had intended to bring it to me, but had neglected to do so. I asked him to look over my collection and see if he could find anything like it. He did so and pretty soon he said, "Here it is." I went to him and found his Hawk was a Pine Grosbeak. I could go on and name plenty more just such instances. The Cuckoo here was and is called by many Rain Crow. In what respect it resembles a Crow I am unable to say.

A. A. J.

Some of my Best Finds to June 8, 1892.

April 22. Took a set of three Red-shouldered Hawk from a beech tree 49 feet from ground.

April 26. Took a set of four Red-shouldered Hawk from a birch tree 62 feet from ground, also a set of six Horned Lark.

April 27. Took a set of three Red-shouldered Hawk from a beech tree 56 feet from the ground.

May 2. Took a set of four Red-shouldered Hawk from a beech tree 54 feet from ground, also a set of five Horned Lark.

May 5. Set of four Killdeer.

May 6. Set of two Red-tailed Hawk from a hemlock tree 78 feet from ground.

May 10. Set of four Killdeer.

May 11. Set of seven Kingfisher.

May 16. Took a set of two Red-shouldered Hawk from a beech tree 69 feet from ground.

May 18. Set of five Meadow Lark.

May 23. Set of five Cooper's Hawk from a beech tree 65 feet from ground.

June 1. Set of four Bobolink and a set of three and one Cowbird of Purple Finch.

June 3. Set of five Bobolink.

June 7. Took three sets of Chestnut-sided Warbler, four in each set, also two

sets of four each of Purple Finch, one runt egg, full smaller than the Hummer.

June 8. A set of four Hooded and a set of three Chestnut-sided Warbler.

I had to do some hard climbing and a great deal of walking to accomplish this.

A. E. Kibbe.

Mayville, N.Y.

A Few Notes on the Gallinules in North Carolina.

On June 11, 1892, a man who brought me some eggs of the King Rail told me about another larger kind of Swamp Chicken he had seen two years previously, whilst working in some brickyards near here. They were larger and had a bright red comb, and were mostly bright red in color he said; they stayed about the brickyards some time, and raised a brood of young which were black in color and about two dozen in number. The men killed the rooster he said by "chunking" rocks at it, but he thought the rest survived.

Divested of exaggeration and reduced to cold facts I thought this might be an instance of one of the Gallenules nesting here; so I brought him a Florida Gallenule in the meat, which was then in the house, and asked him if that was one of the Swamp Chickens he referred to; he said it was exactly like it, except in color, the bird he had seen was red and had a larger comb he thought he also thought it was somewhat larger, otherwise there was no difference between the two.

There would seem to be little doubt, then, of this being an instance of the breeding of the Purple Gallenule here.

The only record of the Purple Gallenule at Raleigh is one taken June 6, 1887, but I have had the bird described to me several times by people who had killed one at some previous time.

The Florida Gallenule above mentioned was found by a gentleman in his yard one morning after a rain, about June 6, in Bertie County near Windsor.

C. S. Brimley.

A Life Risk for Eggs.

"I have my little 'fad' as well as other people," said a prosperous, fat and jolly commission merchant the other day, "but I dare say you would guess a long time without hitting on it, so I will confess it without putting you to the trouble. It is my collection of birds' eggs. The making of that collection gave me many hours of rare sport when I was an adventurous young fellow and had none of this load of fat to carry about, and the chief use of it now is to recall pleasant memories of those days that will never come again. When you're old you'll know how that is yourself," and the old gentleman took a strong pull at his cigar and let the smoke out in a long and noisy sigh.

"I was a traveler in those days for a big export house which was pushing into Mexico and South America for trade, and so it came about that most of my eggs are those of birds of those countries. Tell you about some of them? Don't mind if I do. Well, for want of knowing which one to pick on, I'll tell you how I came to capture the biggest though not the rarest one in the collection. It is a Vulture's egg. I was in Mexico when I got that egg, and I thought once or twice while I was securing it that I would never get out of Mexico again.

"Vultures are shy of mankind, and their nests are exceedingly hard to find, and so when I met a hunter who knew where one was I hired him, with a couple of assistants, to show me it and help me get the eggs. We arrived at the spot about noon, and I almost wished I had not come. The guide pointed out to me a precipitous and beetling cliff, which looked to me to be about 500 feet high, overhanging a deep lake. About 100 feet from the top of the

cliff there was a rent or hole, which from where we stood looked as if it had about as much room inside it as an empty flour barrel, In there, the guide said, the Vultures had their nest, and the only way to reach it was to let me down from the top at the end of a long rope.

"It was a perilous descent, but making a sort of chair at the end of a stout rawhide rope I swung myself over the cliff and two men lowered me slowly while the third lay on his face and peered over into the abyss watching me. When I got about twenty feet below the hole in the cliff I signalled them to stop. The hole I found was as big around at the entrance as a barn door; but the top of the cliff projected so that I hung fully twenty feet away from the face of the rock. Nothing daunted, I began to swing myself, slowly at first, and with gradually increasing force, till my body at last swung in against the face of the cliff and finally into the hole itself. Catching a projecting corner of rock, I gained my feet, and was nearly knocked off them again by the horrible stench which greeted me.

"The floor of the hole was strewed with decayed flesh and fish and feathers and bones, and in the middle of it all lay the nest of long grass and as dirty as any pigsty and in it two young vultures and one unhatched egg. The egg was a grateful sight, but the youngsters were an unpleasant surprise, for they at once threw themselves on their backs and began to scream like mad. I secured the egg, but not without getting a couple of bad scratches from the sharp claws of the young birds, which were about as big as hens. I was wrapping the egg in my coat and the young birds were filling the air with their clamor when suddenly there was a whir of wings, the entrance was darkened, and I got a blow on the head that knocked me down in the unspeakable filth and filled my eyes with blood.

The old birds were upon me. I recognized that fact in an instant, and having nothing to defend myself with, I expected to be knocked down the cliff or at least have my eyes pecked out. I was always pretty ready of resources, and in this bad plight the thought flashed through my mind that these unusually timid birds were only fierce because they thought I wanted to harm their young. Quickly unrolling the egg from my coat, I threw the garment over the squalling brats, and their sharp claws striking into the cloth at once tangled them inextricably in it. Guarding my eyes from the old birds with one arm, I dragged the coat with the two young ones attached to it to the mouth of the hole, only a step or two, and hurled them far out and down into the lake.

"As I expected, the old Vultures followed their young at once and their efforts to lift them out of the water were so ludicrous that I laughed aloud. My laugh was quickly shut off, however, for in the next moment, as I thrust the egg into my bosom and gave the rope a tug as a signal to my men to pull me up, the rawhide came down from the top of the cliff with a run. Great Scott! How was I to get back? What had those stupid fools at the top done! I did not know that they had watched me disappear into the hole, had seen the old Vultures follow me, and had then seen what they thought must be me, as they distinctly recognized my coat, come flying out again and fall into the lake, pursued by the two Vultures, whom they could see pecking at me in the waves.

"They let go the rope and hurried away around and down to the lake's edge to rescue my mangled body from being entirely eaten up by the birds. After some tedious hours of climbing they found out their mistake and proceeded to climb back again. By this time it was growing dark, and as I sat hour after hour in that foul

hole, between heaven and earth, not knowing what had happened, you can imagine my feelings. Just as I was in absolute despair, I saw a stone tied to a thin cord swing down in front of me. I clutched at it with ecstasy and nearly fell over the edge in my eagerness. Tying the end of my rope to the cord, I gave a pull and away it went up the cliff again. After due time I gave a pull on the rope, and finding it taut, I swung myself out of that infernal hole and was drawn up to the top rejoicing, with my precious egg still in my bosom."—*New York Tribune.*

Camping Out.

June 27 of the present year found my camp established on a small brook in the northerly part of Hillsboro County, N.H. I had arrived in the forenoon, with Mr. D. B. Bartlett of Manchester, in search of new specimens for my collection and new items for my note-book. The rest of our first day we spent in camp splitting firewood, and thinking of what a fine time we would have on the morrow with the birds, but we were doomed to be disappointed for it rained all the rest of the week except one day.

We returned home on the afternoon of July 2d with our enthusiasm slightly *dampened*, but having enjoyed ourselves immensely.

Although it rained so much, we observed quite a number of birds, of which the following is, I think, a full and correct list:

Ruffed Grouse, very common.
Mourning Dove, one individual seen.
Sharp-shinned Hawk, one pair.
Broad-winged Hawk, one pair.
Great Horned Owl, three observed.
Black-billed Cuckoo, common.
Whippoorwill, common.
Nighthawk, common.
Chimney Swift, two were observed.
Kingbird, several pairs noticed.
Phoebe, two pairs nesting under bridges.
Wood Pewee, one individual.
Least Flycatcher, fairly common.
Blue Jay, pair with four young.
Crow, common.
Grassfinch, common.
Savanna Sparrow, several.
White-throated Sparrow, one individual.
Chipping Sparrow, a single pair.
Field Sparrow, but three noted.
Song Sparrow, tolerably common.
Towhee, several heard.
Rose-breasted Grosbeak, two males.
Indigo Bunting, one pair observed on the way to camp.
Scarlet Tanager, two pairs observed. The males sang near our camp every morning just before sunrise and every evening just after sunset. I have never in this locality heard the male utter a series of notes while the sun was shining as I have the Tanagers in Iowa.
Purple Martin, several were observed flying about during the rains.
Barn Swallow, fairly common.
Red-eyed Vireo, tolerably common in the hard-wood forests.
Yellow Warbler, one pair seen by the brook.
Chestnut-sided Warbler, a few noted.
Black-poll Warbler, I thought I caught a glimpse of a male through the brush but could not get a shot.
Prairie Warbler, quite common.
Ovenbird, a few noticed.
Catbird, pair were breeding.
Brown Thrasher, saw one individual.
Wood Thrush, very common. At times the only sign of bird life we would have would be the song of this species.

In all we observed thirty-six varieties.

Arthur M. Farmer.

Amoskeag, N.H.

Bird Notes of Northern New Jersey.

Scarlet Tanagers were unusually abundant this spring. Several pairs bred in the locality of Ridgewood. They were unusually tame. I frequently saw them on low bushes by the roadside in their gorgeous dress. A pair of Flickers (*Colaptes auratus*) excavated and built in a telegraph pole both last year and this year, on a very public highway and very near

a railroad—a singular place for them to select. It is probable they were influenced in this choice by the condition of the wood for excavation. A fine young Bald Eagle was found alive with a broken wing, by a brook; a neighbor keeps him in a cage built for him. He is not very particular as to diet. He eats rats, mice, moles, fish and dead chickens, being neither dainty nor scrupulous as to its freshness. As I have noticed for many years the Gold-finches (*Astragalinus tristis*), which had been plentiful all winter and more so with the addition of the spring migrants, disappeared in early June and this year not many returned at their breeding time. They are very scarce this summer. I also noted the absence of the Rose-breasted Grosbeak and Bobolink. Not one made its appearance on my meadows as usual; a few years ago they made these meadows jubilant every spring with their matchless music. *Henry Hales.*

The Maryland Yellow-throat at Raleigh, N.C., in Winter.

On February 7, 1889, I killed my first winter specimen, a ♀. As this was the coldest day since Christmas, it could hardly have arrived from the south, and the occurrence puzzled me.

Next winter I shot at one December 6, 1889, in a thicket on the creek, and from January 14, 1890, till the migrants came, heard or saw one every time I chose to go by a certain marsh or swamp which is sheltered from the wind by rising ground on every side except the south.

Next winter (1890–91) I again noticed them around the marsh and killed a ♂ on January 8. As the whole marsh is from one to four feet deep in water and the Yellow-throats stayed in the heavy growth of bulrushes and cattails that grew in the water, it was only occasionally one could a shot. The last two winters being milder than usual, I was curious to see if the Marylands would stay through in a cold winter and so watched them with renewed interest last winter (1891–92), but they stayed right on the same as before although the weather was much colder, and now I consider them as of regular occurrence here in winter, though not common.

C. S. Brimley.

Cerulean Warbler.

On the 19th of June I took a set of four eggs and nest of this rare Warbler. The nest was built in an oak tree forty-five feet from the ground and six feet out on a small limb, and is made of very fine twigs and grasses and lined with grass and horse hair, the outside stuccoed with lichens held in place by spider webs. Dimensions of nest, external depth 1⅞ inches, width 2⅞; internal depth 1 inch, width 2, 1–16. The eggs are a light cream, spotted and blotched with various shades of brown and lilac over the entire egg, forming a wreath at the large end; three eggs measure .65 x .50, and one .60 x .50.

W. A. Davidson.

Detroit, Mich.

Large Set of Flicker's Eggs.

On the 21st of May, 1892, I made preparation for an all day tramp through the woods of Philadelphia County.

I had not gone very far, when I saw a Flicker fly out of a hole in a cherry tree. The hole was about ten feet from the ground and contained five eggs. Three days later I visited the nest again, and was surprised to find three more eggs deposited.

I went to the hole day after day until it contained seventeen eggs. On the night of the seventeenth day it rained, and the next morning the hole was filled with water. Is this not an enormous set of eggs for a Flicker? *M. C. C. Wilde.*

Camden, N.J.

Eggs of Warblers in Collection of H. W. Flint,

SEPTEMBER 1, 1892.

A. O. U. Nos.	Ridgway Nos.	Names.	No. of Sets.	Total No. Eggs.
636	74	Black and White Warbler, 1–4, 3–5	4	19
637	75	Prothonotary Warbler, 1–5	1	5
639	77	Worm-eating Warbler, 9–5	9	45
641	79	Blue-winged Warbler, 6–5, 2–6	8	42
642	81	Golden-winged Warbler, 1–4, 1–5	2	9
645	85	Nashville Warbler, 3–4, 2–5	5	22
648	88	Parula Warbler, 1–3, 4–4, 1–6	6	25
652	93	Yellow Warbler, 3–4	3	12
654	94	Black-throated Blue Warbler, 1–4	1	4
657	97	Magnolia Warbler, 1–3	1	3
658	88	Cerulean Warbler, 1–2 + 2 Cowbirds	1	2
659	99	Chestnut-sided Warbler, 2–3, 26–4, 1–5	29	115
661	101	Black-poll Warbler, 1–4	1	4
667	107	Black-throated Green Warbler, 1–2, 7–4, 2–5	10	40
671	111	Pine Warbler, 2–4	2	8
673	114	Prairie Warbler, 1–3, 3–5, 27–4	31	126
674	115	Oven Bird, 7–4, 8–5	15	68
676	117	Louisiana Water Thrush, 6–5	6	30
681	122	Maryland Yellow-throat, 15–4, 2–5, 1–3	18	73
683	123	Yellow-breasted Chat, 1–3, 19–4, 3–5	23	94
683*a*	123*a*	Long-tailed Chat, 1–4	1	4
684	124	Hooded Warbler, 2–3, 4–4	6	22
685*a*	105*a*	Pileolated Warbler, 1–3	1	3
687	128	American Redstart, 6–4	6	24
			190	799

Nesting of the Great-crested Flycatcher in Eastern New England.

The Great-Crested Flycatcher (*Myiarchus crinitus*), as is the case with many other birds, is becoming more abundant every year. As lately as three years ago I considered myself lucky if I found two sets of eggs in a season, but now their nests are in almost every orchard. Arriving by the second week in May, they frequent the woods and orchards in search of food until the latter part of the month, when the nest building begins. The nest is usually placed in a decayed limb of an apple tree, the birds scraping out the decayed portions until they are satisfied. Sometimes the deserted nest of a Flicker is used or a natural cavity in the body of the tree. The hole usually varies from one and a half to two and a half feet in depth, but one which I found was scarcely eight inches.

The nest is composed of straw, grass, feathers, cast off snake skins (always), cedar bark and fur. It is completed and the set of eggs laid from the fourth to the ninth of June. Incubation lasts about ten days; but, as the bird is on the nest only about two thirds of the time, the nest usually contains one or two addled eggs when the young leave. The number of eggs in a set varies from five to six. Five eggs are most often found and six are very rare.

The ground color of the eggs is a creamy yellow, which is marked, as if done with a pen, with lines of brownish-purple and here and there a blotch of the same color. Some eggs are evenly marked over their whole surface while others have a thick ring around the larger end, leaving the rest of the surface thinly marked. A few eggs that I have found were spotted with no scratches, but I think these are very seldom found. The measurements vary from .606 inches to .701 inches in width by .807 inches to .905 inches in length. I think that the reason this Flycatcher's nest is not more often found may be accounted for by the fact that whenever a person comes within sight of the bird it silently disappears.

I have but once heard it complain or seen it appear while its nest was being examined, which contrasts greatly with the actions of the Kingbird, Wood Pewee and other Flycatchers.

I have heard them use but one note, a harsh, loud whistle, which they utter at intervals from the time of their arrival till they leave, which is usually in the first or second week of September. I have never heard of any really good reason for the use of snake skins in their nest. Some nests are full of them, others have a few small pieces; but I have never as yet found a nest without at least a small piece.

I think that the theory of frightening away unwelcome visitors is not correct, as in several cases that I have seen the skins were completely hidden by the rest of the nesting materials.

Can anyone give a good, substantial reason? *J. H. Bowles.*

Owl Acquaintances.

When a youngster of ten or twelve I had given me a pet, that I have always held in the tenderest remembrance and regarded as the most knowing and altogether charming pet I have ever possessed. Always on the lookout for anything in the pet line, I heard one day that a lady living a few blocks from me had an owl she wished to dispose of. This was quite enough to send me off immediately in search of that charitable woman who was willing to delight the heart of some pet-loving little boy like myself, with the presentation of that most desirable of all pets—an owl.

The owl I had held, like the Romans,

in the greatest veneration, an animal only to be met with in the poems I had read and in the pictures I had seen of broken-down castles and ivy-covered walls. But here was a chance to become the owner of one of these mysterious and much be-legended animals, and I hastened to be the first to hand in an offer of adoption. I didn't find the good lady's house crowded with eager inquirers as I had expected, but found that I was the only one who was "cranky" enough to want to relieve the present owner of a very disagreeable pet. I didn't look at it in that way at all, and marched off rejoicing with the much coveted prize.

When I got home I produced my pet amid exclamations of delight at his quaint and knowing expression.

From that moment to the night of his death he held a warm place in the hearts of every member of the family, who were all great lovers of pets. "Bobby," as he was christened, would sit on the table and look into your eyes with such a pathetic expression that one was constrained to say, "Bobby, what is it? Are you hungry?" And Bobby would answer with a plaintive little hoo-o-o, and then we knew he wanted his little bits of raw meat that were fed him. Very soon after his arrival Bobby had found out and regarded as his own every dark corner in the house from bottom to top. There was a particularly dark spot in a back garret room, which he finally settled upon as his permanent roost, where he dreamed away the long, dreary sun-lit hours. At dusk I would go to the foot of the stairs on the first floor and call, "Bobby, Bobby!" and away up stairs a faint hoo-o-o could be heard, and pit-pat Bob would come down, step by step, and hop into my hand with a welcoming chuck, chuck.

Bobby's quaint ways suggested the making of a miniature bonnet and dress, which he wore patiently and sedately on occasions when our merry moods got the upper hand. That little cap is still preserved in a desk drawer as a sad memento of the lost pet. One night, by accident, Bobby was shut in the kitchen, where the deadly rat held undisputed sway. That night I slept as soundly as ever I did, wholly unconscious of the tragedy being enacted beneath me in that dark death-trap. Next morning poor Bob was found decapitated — the work of the felon rat. A hearty cry ended that day of bereavement and deep grief for me, and though years have passed scarcely am I over it yet. *H. C. Hopkins.*

Baltimore, Md.

While collecting at Ipswich Beach on August 26, I succeeded in obtaining a fine specimen of the Black Tern ♂. This bird is quite rare in this locality, and was probably driven here by the severe north-east storm which was raging at the time. I noticed several more of the same species but was unable to obtain them. I presented this bird to the Salem Museum, for which I am collecting. This museum, by the way, has lately obtained two fine additions, one a Marbled Godwit, and the other a set of two eggs of the Sanderling. The latter was collected on May 22, 1892, by J. H. Sears, and named on his authority. They were collected at Ipswich Beach on the sand, and are probably the only eggs of this species taken in this county, at least. *Frank A. Brown.*

"The propagation of mice, in comparison with that of other animals, is very remarkable both for quickness and profuseness. A pregnant female was shut up in a chest of grain; in a short time a hundred and twenty individuals were counted."—*Aristotle History of Animals, Book VI., Chap. 37.*

And they are just as active to-day.

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Captain Bendire's Life Histories of North American Birds.

The first portion of Captain Bendire's long expected work has lately been issued,* and it far surpasses the expectations that have been raised concerning it. Captain Bendire is the highest recognized authority in this country as an oologist, and his position in the National Museum, as Honorary Curator of the department of Oology, has afforded him unusual advantages which he has embraced.

For many years students have looked forward to the publication of a work on North American Oology which would be commensurate with the importance of the subject, and now that the first portion of Captain Bendire's book has appeared it has shown that it will fill this long felt want. Not only has the work been especially desired, but no one else was so competent to write it.

In the introduction Captain Bendire states that the work is based largely upon the collections in the U. S. National Museum, but he has not hesitated to also avail himself of the experience of many collectors.

The text is full and satisfactory, and will be found to be of the greatest interest. Another charm about the book is the simple and unpretentious manner in which it is written. Captain Bendire's experience in the field as a collector, especially in the West, while stationed with the U. S. Army, afforded him the amplest opportunities for studying the breeding habits of the birds of that locality, and his contributions to their history are of the greatest interest and value.

Another very valuable feature of the work are the copious extracts from the manuscripts of R. Macfarlane, who knew more about the nesting of birds in Alaska than any other writer.

The portion that has now been published embraces the GALLINACEOUS BIRDS; family *Tetraonidæ*, Grouse, Partridges, etc.; family *Phasianidæ*, Pheasants, etc.; family *Cracidæ*, Curassows and Guans; PIGEONS OR DOVES; family *Columbidæ*, Pigeons, and BIRDS OF PREY; family *Carthartidæ*, American Vultures; family *Falconidæ*, Vultures, Falcons, Hawks, Eagles, etc.; family *Strigidæ*, Barn Owls; family *Bubonidæ*, Horned Owls, etc.

Each species is separately and fully treated, the details concerning their nesting habits are very elaborate; and the descriptions of the eggs the best that have ever been given. The propriety of giving the measurements of the eggs in millimeters without giving their dimensions in decimals of inches may well be questioned however, as so many writers prefer the latter, and the reduction of millimeters to inches giving considerable trouble and annoyance.

The illustrations are very fine and en-

*Life Histories of North American Birds with Special Reference to their Breeding Habits and Eggs, with Twelve Lithographic Plates, by Charles Bendire, Captain, U. S. Army (Retired), Honorary Curator of the Department of Oology, N.S. National Museum, Member of the American Ornithologist's Union. Washington: Government Printing Office, 1892.

tirely satisfactory in every respect, and equal the best European plates. It is especially gratifying to find them so good, as an egg is an exceedingly difficult subject to figure correctly.

The water color drawings were made from the eggs by Mr. John L. Ridgway, and he deserves great credit for his success. The chromolithographic plates are produced by the Ketterlinus Printing Company of Philadelphia, and Captain Bendire tells us they faithfully portray Mr. Ridgway's drawings. *J. P. N.*

Editor of the O. & O.:

Dear Sir,—Your letter received and noted. Much obliged for your information. What you say in regard to "dead" accounts is true, as I have found out long ago. I think if dealers would stand together, and not send goods to parties without cash with order, it would be better all around. Still when a party who has been buying goods and always paid promptly, writes for goods on credit it is hard to refuse him—and then you get stuck. Out here several of us curio dealers have stopped that business by keeping each other posted each month as to who has failed to pay. In that way we have headed off a great many parties. Only this month I saved a dealer a large amount by letting him know promptly about a party who was N. G. Another good way is to print a list of every one who owes you and send a copy of it to all of them and state that if it is not paid by a certain date that you will publish it in the O. & O. If they don't come to time, publish it. You will find that it will bring a good many of them to time. Did Dr. —— ——, ——, Ill., ever get you for any goods? He is a rank fraud and owes everybody he can get trusted by. He and our friend, who is now in the employ of the State, —— ——, would make a good team.

Such people ought to be published by all means.

Yours truly,

A Dealer.

We have been called upon many times to publish the names of certain parties who have succeeded in swindling dealers and others, and who have practiced deceit in their dealings in specimens, &c. The question of small uncollectable accounts has become so serious that we have practically discontinued giving credit, believing it to be the only remedy. Losses through misfortune can be overlooked, but the systematic and deliberate swindler should be shown up.

We have a list of individuals who are known to us and others as *dead beats*, and invite any regular dealer in good standing to unite with us in organizing for mutual information.

Brief Notes, Correspondence, and Clippings.

W. O. Emerson has returned from abroad, as he writes, "to the land where the eagle screams."

Do not forget that Oliver Davie's new work on "Taxidermy" is promised before Christmas. Subscription price, five dollars. After it is published the price will be advanced to ten dollars. Now is the time to send us in your subscription. We have placed an order for one hundred copies with Mr. Davie, and nearly all are already subscribed for.

Joseph M. Wade's paper, "Fibre and Fabric," is the leading one of its nature in the country. The "Factory Girl" department is very interesting.

There are two farmers of Milltown, Pa., who have gone into the business of extracting the poison from bees. They catch the bees, and either immerse them for eight days in a bottle of alcohol,

having previously enraged them, so as to cause the poison to exude from the poison sacs, or else they kill them and squeeze the virus into a glass tube. The virus has a local repute as a cure for dropsy, chill and fever and all kinds of insect stings.

THE CRICKETS' MIDSUMMER NIGHT'S SONG.

Krick, krick, krick, krick,
Isn't it hot! Isn't it hot!
Krickety-krick, krickety-krick,
Whether you're well, whether you're sick,
Whether you like it or not;
Isn't it hot! Isn't it hot!

Kricky, kricky, kricky, krick:
Krick, krick, krick, krick,
No breath of a breeze
Bestirring the trees
Or blowing on cradle or cot!
Kricky, kricky, kricky, krick,
Isn't it hot! Isn't it hot!

The locusts chirr, the tree toads cheep:
Too hot to sleep! Too hot to sleep!
We sing it, too,
The long night through:
Now high, now low,
Now quick, now slow,
Egad! Egad! Egad!

Kricky, kricky, kricky, krick:
Krick, krick, krick, krick,
Whether you like it or not:
Isn't it bad!
Isn't it sad!
Isn't it hot, hot, hot!

—*W. D. Ellwanger in New York Sun.*

In writing on the common mouse, John D. Gorman in *American Natural History* says:

"One evening, in the month of December, as a few officers on board a British man of war, in the harbor of Portsmouth, were seated around the fire, one of them began to play a plaintive air on the violin. He had scarcely performed ten minutes when a mouse, apparently frantic, made its appearance in the centre of the floor near the large table which usually stands in the ward-room, the residence of the lieutenants in ships of the line. The strange gestures of the little animal strongly excited the attention of the officers, who, with one consent, resolved to suffer it to continue its singular actions unmolested. Its exertions now appeared to be greater every moment. It shook its head, leaped about the table, and exhibited signs of the most ecstatic delight. It was observed that in proportion to the graduation of the tones to the soft point the ecstacy of the animal appeared to be increased, and *vice versa*. After performing actions which animal so diminutive would at first seem incapable of, the little creature, to the astonishment of the delighted spectators, suddenly ceased to move, fell down and expired, without evincing any signs of pain."
—*From Barton's Medical and Physical Journal.*

E. A. Capen, while on his trip to Wyoming this spring, procured some fine specimens of birds and eggs.

A TRAMP PELICAN.

G. K. Hurlburt, the taxidermist, was exhibiting to his friends yesterday a large bird measuring eight feet from tip to tip, which was shot near Dorr, Allegan county.

The bird is a genuine American pelican. It is larger than the swan, and remarkable for its enormous bill, to the lower edge of which is attached a pouch capable of holding many quarts of water. It is the only instance where a bird of that species has been found so far from the sea. They are very common along the coast of the Mediterranean sea and millions of them inhabit the rock bound coasts of the South sea islands.

The bird probably wandered from Newfoundland along the St. Lawrence river, until it came to the great lakes, and then found its way to the place where it was shot.—*From a Grand Rapids paper.*

It is quite evident that the pelican is a new find for some of our Detroit friends; but it is hardly fair to announce him from this part of the country.

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1 inch, three times	1.20
Dealers' Advertisements — 1 inch	1.00

NO VARIATION.

EXCHANGE.

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Jamison's Collection for Sale.

ISAAC S. REIFF, of 853 North Thirteenth St., Philadelphia, Pa., has the collection of the late Henry K. Jamison for sale, and anyone sending him a two-cent stamp will receive a list of the same. Mr. Jamison's reputation as a collector makes any eggs from his collection very desirable as specimens. — J.P.N.

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	Davies', paper	1 25
	Maynard's, cloth	1 75
	Capen's, colored	15 00
BIRDS —	Coues' Key	7 50
	Ridgway's Manual	7 50
BUTTERFLIES —	Maynard's (N.A.)	1 50
	Maynard's (New England)	6 50
	French's (Eastern U.S.)	2 00
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	Harris' Insects, colored	6 50
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Sunset with the Night Hawks.

It was at night I saw them, after a long day of pickerel fishing, and I was returning with a heavy bag of forty bright yellow bellies. When I started in the morning it was cloudy and occasionally raining, wind just right; but later it cleared and the wind "hauled" to the north.

The sun was just going down, apparently into the ocean, as I stopped on top of a low hill to admire the beauty of it, and rest my weary self.

I stood there some time and was just starting when something almost brushed the back of my neck. Turning as quickly as possible I caught one glimpse of a bird as it flew behind a bush, but not enough to see what it was. Dropping fish pole, I ran around behind the bush, only to be disappointed, as the bird had gone completely.

Before me, stretching away in a gradual slope a hundred yards or more, was a field of huckleberry bushes, with here and there a scrub pine. At a distance of two hundred yards was another knoll.

I stood where I could view the whole of the little valley. Seating myself I waited about one minute, and had the satisfaction of having two birds fly past me so close I could feel the wind from their almost noiseless wings.

For one-half hour I sat there, scarcely moving as they flew around back and forth never seeming to notice me, only busy getting a supper of flies, which were very numerous around the above mentioned pines.

They kept up a constant chuckle-like sound—a sort of guttural laugh, so to speak, very much like the note I have often heard the Chuck-Will-Widow make in Florida when in a like occupation.

I watched them dart back and forth until it became too dark to see them. Then I shouldered my pole and fish and started for home.

Gunners have been generally disappointed, for most of the birds which have migrated were in a great hurry and would not stop long enough to hold even a whistling conversation.

The best bag I have heard of in one day was six Golden Plover and two Eskimo Curlew.

From my note book:

August 26. Saw two Yellow-legs (*Totanus melanoleucus*), Turnstones and several varieties of shore birds.

August 27. Bad rain storm. Large flight of Golden Plover and Eskimo Curlew in the night. Very few stopped. Saw only two Plover and one Curlew.

August 28. Saw gunners' bags with Eskimo Curlew, Golden and Black-bellied Plover, Knot, Yellow-legs, Turnstones, and "Peeps." Fishermen report flocks of several hundred of "Bank Birds" (Phalarope), but as none were taken and it blew a gale I did not find out the variety.

September 1. Saw six young and one old Herring Gulls. *Frederic L. Small.*

Provincetown, Mass., Sept. 8.

Notes from Dartmouth, N.S.

The last time I had this pleasure was on June 19, and now I beg to submit notes for balance of the season, and trust they may prove of interest to your readers.

June 21. To-day being a holiday, I started for the woods about 9 A.M. It was raining pretty hard, but I kept on and borrowing a long ladder carried it out to the Bay-breasted Warbler's nest that I had found building on the 12th. This was up about twenty-five feet and placed way out on the end of a very long branch of a very big black spruce, and was impossible to secure without the ladder. The ♀ was scared off the nest on my going up, and I was delighted to see that it held six eggs; so the bird has completed the nest and laid the six eggs since the 12th, which left nine days for her to do it in. The eggs were fresh.

I then went and took the Bay-breasted Warbler's nest that I found built on the 16th and looked at on evening of the 17th, when it held one egg, and also looked at on evening of the 19th, when it held three eggs, and to-day it held five eggs. This nest was out on end of a black spruce limb, about fifteen feet up from the ground. I shot the ♀; eggs fresh. It still raining hard, I left for home, changed my clothes, had a bite to eat, and started out again, and was very glad I done so, as I found and brought back a Cat Bird's nest, with three eggs. I saw the old birds over in the swamp about a week ago, and seeing the ♂ again to-day, I laid down gun and fishing basket and went to work, and in about half an hour I had the nest. The ♀ was on it, and I stood and looked at her for some little time, then scared her off. The nest was up about seven feet, on a thick black spruce limb, and is quite a bulky affair, and is composed of leaves, dry grass, roots, bits of the fir tree and lined with fine black and white roots. The eggs were incubated, and of a plain, bluish-green color. This is the first Cat Bird's nest I have ever taken in Nova Scotia, and I did not think that they bred in this vicinity. The birds are not plenty by any means, as I have noticed very few of them during my trips through the various parts of the country. I did not disturb the old birds, and have decided never to shoot another specimen, unless it is an unknown species and absolutely required for the sake of indentification.

On my way home I took nest of Junco, with four eggs.

June 24. Ran out before breakfast this morning to look at Ruby Kinglet's nest that I found building on 5th and that held one egg on the 18th (when it was examined by me for the first time), and to my surprise it still held one egg, which was cold, and the inside of nest damp, and I could see, for some reason or other, that the birds had deserted it, and I was sadly disappointed. However, still hearing the ♂ singing close by, I was satisfied the ♀ was not far off and had built another nest, so I went to work, and in one hour and ten minutes I had it, and this time it was up 20 feet, near the top of a tall, slim black spruce, and contained six eggs. I did not take it, as I wished to see if set was complete. On my way home, I found a Hudsonian's nest with four young, all feathered and ready to fly.

June 25. To woods all day. I started out to look for Olive-sided Flycatcher's nest, as I had located a pair of the birds on the 8th. After I got on the ground I started in, and in just three hours I had the nest. (I always time myself to see how long it takes.) It took me a long time to get at the ♀ and a longer time to locate the nest, for the simple reason that I was looking for it way up on the big high spruces where I had found them last year, whereas this particular nest was up about 15 feet, out on the limb of a small

black spruce situated in a swamp. I passed the nest on going up the tree, and saw it on the way down. The nest is the finest I have ever taken, being a fine large one, well and compactly built, and is very deep, and is composed of limbs of black spruce and fir, and completely lined with long gray moss that hangs from the dead limbs. It held three beautiful eggs of a creamy white, spotted at larger end with a ring of chestnut, red and brown spots. The old birds kept flying about me while I was taking the nest, but I did not disturb them, and trust that they may build again and rear their young in peace.

I also found another nest of the Ruby Kinglet, which was full of young, and I was pleased that the old birds had managed to hide it so well, as I had been after it a good many times before, and the comical part of it is that it was on a black spruce that I had gone up *twice* before, but had failed to see it. I also found a Myrtle Warbler's nest, with four young, and took a nest of the Black-throated Green, with four eggs, but regret to say they were so badly incubated that I could not save them, and the same sad fate attended another set of the same species; so from this out I shall be very careful what I take, as it is bad enough to take the nests, but sad in the extreme when the eggs and young are destroyed.

June 26. Looked at Ruby Kinglet's nest to-day that I found on 24th. It still held the six eggs, so I concluded the set complete and gathered it in. The eggs were slightly incubated, but came out all O.K. This is the *second* nest built by the same bird this season. I then went and took the first nest that this bird had built and which held one egg, but unfortunately trod upon it while on the ground and broke the egg. I felt very sick then and left for home. After dinner I went out again, and found a nest of the Yellow-bellied Flycatcher. This was built in the thick bushes about four feet up, situated in a swamp, and right by where I took them last year. The nest held only one egg, so I did not disturb it. I also found another nest of the Olive-backed Thrush, with four eggs, blue spotted with red; eggs well incubated, but came out all safe. The nest was up near the top of a little spruce. I saw the ♀ leave the nest. I also found and took a Black-capped Chickadee's nest with six eggs, but they were badly incubated and I could only save four, which I will use in my cases, with the old birds. I also took nest of a Flycatcher, with three eggs. The nest was out on a limb of a fir tree. The eggs appear to be slightly larger than the Least Flycatcher, and are white with exception of one, which shows a few red spots. The bird was larger than the Least, and showed a crest, nest is the same size as the Least and made just like it, but all other Least Flycatchers I have taken have been way up in crutch of white birch trees. What would you call this?

June 27. Off to the woods this morning; was after another pair of the Olive-sided Flycatchers that I had noticed about last week, but they had moved away, and were not to be found. I went over a good many miles of ground in search of others, but saw none. This species are rare and their nests hard to find in this vicinity.

I found another Black-throated Green Warbler's nest, with four young, and had a look at the Yellow-bellied Flycatcher's found yesterday. It now holds two eggs.

On my way home I heard the ♂ Ruby Kinglet singing, belonging to the ♀ whose nest I found building on the 5th and which held one egg, which she deserted and built another that I found on the 24th, with six eggs, and took on 26th with same number, and I was very much surprised to find the ♀ busily engaged in carrying materials for her THIRD nest for this season. This time the nest is way up in a

very large black spruce, and out on the end (underneath) of one of the long limbs, and will be hard to secure.

June 29. Started for woods this afternoon with intention of taking the Yellow-bellied Flycatcher's nest, but to my disgust I found the boys had destroyed it. These youngsters are a nuisance, and destroy great numbers of nests, eggs, and young birds simply for pure devilment.

On my way home I found a Myrtle Warbler's nest with two eggs. This is up about 15 feet in a small black spruce, and placed close to body of tree. Before returning, I went up over the ground where I found and took the Ruby Kinglet's nest on 19th with six eggs, and hearing the ♂ about, I went to work and in three hours and seven minutes I had located the spot on which the ♀ had commenced to build her *second* nest. I saw her working at it, and she has been at it for but a short time, as I can just make out the bare outline of the nest.

July 2. To woods this afternoon; found and took nest of Song Sparrow on a low spruce tree, with five eggs; also took nest of Junco, with four eggs. The Myrtle Warbler's nest found on 29th, with two eggs, I find the boys have destroyed. The Ruby Kinglet nest found building on 29th looks to be finished now, but the one found building on 27th I see the ♀ is still working away at.

July 3. Found Cedar Bird's nest with three eggs. This was up near top of little spruce; took this next day, the 4th, with four eggs.

July 5. To woods this morning, found four nests of the Red-eyed Vireo, three with three eggs each, one with three young. All these nests were on beech trees up seven and ten feet, out on the end of the limbs and suspended. I only saved one set out of the three, as the eggs were very badly incubated. I examined inside of Ruby Kinglet's nest found building 29th, and it now held three eggs.

July 7. Out to Preston to-day; took nest of Olive-sided Flycatcher, with two eggs. This was found building on 18th by my friend Morse, of Sudbury, Mass., and was examined by him on 25th before leaving for home, but it held no eggs. So the ♀ has had twelve days to complete nest and lay the two eggs, and as they were badly incubated I concluded the set was complete.

July 9. Went out this evening and took the Ruby Kinglet nest found building 29th and that held three eggs on the 5th. To-night it held seven eggs, so I took it, as I thought set complete. The ♀ was on the nest; nest was up about 12 feet, out on limb of black spruce, underneath the limb, and suspended. This is the second nest for this ♀ this season and was distant about 45 yards from where I took the first one on June 19, with six eggs.

This completes my notes and collecting for the season. Next year, if I am spared, you will hear from me again.

H. Austen.

The Birds' Christmas Dinner.

Almost Christmas, and no snow to speak of. I wondered what the birds would have for a Christmas dinner, and so I concluded that, as experience is an able teacher, I would visit their haunts and find out for myself.

The subject of food supply of our winter birds is one I had always thought of as worthy of attention, and I have had vague ideas and doubts as to the efficacy of Dame Nature as a winter housekeeper; but as year after year the birds remained along through the cold months and always seemed in good spirits when spring came, I concluded that they knew her secrets better than I, and that when the "spirit moved" I would investigate more thoroughly. The spirit has moved, just as I hope it will sometime with the man who is going to give us the "Botany of Birds'-

nests;" and that accounts for what I have to say further on.

The staple articles of diet among the Fringillidæ are the seeds of the golden rods, wild sunflowers (the seeds of which are widely known in Massachusetts as Devil's Pitchforks), red alder berries, mullen, wild peppergrass, burdock and the milkweeds, chiefly because these plants constitute a never-failing crop, and are nearly always accessible, for even the deepest snow never covers them all; the tall stalks of the plants bearing the seed-vessels aloft and ever in reach of the hungry multitude.

Then, too, there are all the grasses, too numerous to mention, and are invariably liked by all seed-eating birds, and there are many other plants to which single or a few species resort.

The Pine Finches, when they are here at all, and the Thistle Birds are both fond of the seeds of our pine and fir trees, and during the winter of 1887-88, when the former bird was especially common, the seeds of these trees and the burdock constituted its main food.

The Crossbills, never very numerous, also feed largely on coniferous seeds, and a year or two ago I shot one which was eating the seeds of wild rose tips, and I have seen the Pine Grosbeak feeding on the same article.

The Grosbeaks sometimes come in great numbers to feed on the seeds of the hackmetack trees, of which they are very fond, and seasons when they are with us they are always to be found in their immediate vicinity. They eat any grain that is exposed to them, and also devour great quantities of maple buds, visiting indiscriminately trees in the heart of the town or in suburban villages, and I am sorry to say that the Purple Finches and Thistle Birds sometimes keep them company.

Robins and Blue Birds, too, are sometimes seen at this season, and are sometimes accompanied by the Wax-wings while feeding on barberries, the fruit of mountain ash, "horse" brier berries, and those of the cedar and juniper, while with Blue Jays and Partridge Woodpeckers, they sometimes frequent the "wild" apple trees and the orchards, in search of any frozen fruit which may have been overlooked at fall picking.

The Yellow Rump Warbler, nearly always a common winter resident, feeds on a number of different seeds, and eats barberries and birch buds quite extensively.

There seems to be two ways of feeding among the Finches, the Linnets, Redpolls and Goldfinches preferring to cling to whatever they feed upon, while the Snow Birds, Song Sparrows, and Tree Sparrows like to remain upon or near the ground, and eat whatever seeds have fallen or are within their reach; consequently their articles of diet vary slightly.

A flock of birds consisting of representatives of each of these species may be feeding in company, yet they do not greatly interfere with each other. Those of the former group, though occasionally on the ground, keep mostly to the tops of the swaying weeds and are often seen clinging, back downward, to the hard-pack and mullen stalks, or opening dexterously a stray milkweed pod or belated thistle.

Their companions, meanwhile, give their attention to seeds of grasses and wild peppergrass, or the seed of goldenrod or other high plants, which may fall from the shaking which their companions give, higher up among the dry dead stalks.

All these birds, and epecially the ground feeding ones, are very partial to all the cultivated cereals when they can get them, and for some years I was in the habit of keeping a grain board, — an elevated platform out of reach of stray cats

etc., — on the premises, where many Snowbirds, Tree and Song Sparrows spent their loafing time in winter, and could be seen at any hour of the day, while Finches and Linnets resorted to some sunflower stalks, which had been left standing for their especial benefit; but finally the practice was discontinued on account of the "dog in the manger" habits of the English Sparrows.

The winter food of the Crows is multitudinous, for they eat anything from dead mice to acorns, and in severe weather visit the tide waters of bays and rivers by thousands, for crabs, clams, and anything the sea may wash up.

His gaily-dressed cousin, the Blue Jay, also, I suspect, partakes, although perhaps more sparingly, of the same varied bill of fare, and it will be unnecessary for me to refer at any length to the larder of the various hawks and owls which "stay through."

Apropos the habit of the Butcher Bird of hanging its victims about in conspicuous places, the custom has its uses after all, as the Chickadees, which are really quite carniverous little chaps, often make a dinner from the remains, and it was this habit which suggested a plan for providing entertainment for them in the winter garden parties which I used to give the birds. My plan was to hang scraps of pork rind and pieces of beef to the branches of the trees and shrubs on the grounds, and it was not long before all the Chickadees and Kinglets found it out. The Creepers and Nuthatchers sometimes came, too, but only in the capacity of lookers on, and I never saw either touch the meat, although the Nuthatchers would sometimes take a bit of cracked corn.

The Downy Woodpeckers would, however, eat the meat, but only in small quantities and at long intervals. They are inquisitive birds, and seemed merely to try it to satisfy their curiosity.

These Sapsuckers are very fond of frozen fruit, however, and one year when we had a few grapes and pears which were frozen on the vines and trees, they and the Flickers made quick work of them, and even tried scratching about the roots of the vines for fallen grapes.

The Partridge Woodpecker is very fond of nuts, and manages to secure a good many of them even after the snow has fallen, digging out of old stumps and from under the bark of fallen trees. When there is no snow, which is the greater part of the winter here in eastern Massachusetts, he confines his operations mostly to ant-hills, and manages to do considerable execution, if the contents of his stomach is to be relied upon.

There is still another recourse, especially for insectiverous birds, which I have as yet hardly mentioned.

No inconsiderable portion, if not the lion's share, of the food of Chickadees, Creepers, Golden-crowned Wrens, and the Nuthatchers consists of the minute eggs and larvæ of the various insects which deposit them, or frequent the bark of trees, and which fall to the toils of these sharp-eyed searchers. If one takes the trouble to pull the bark off a decaying stump in January, he will be in poor luck indeed if there are not two or three kinds of ants, as many species of beetles and icneumon, and perhaps a newt or two, and in deciduous growths snails are also to be found, all of which are food for the multitude.

In the woods the twin-berry (commonly called "partridge berry") and the bright red fruit of the winter-green or checkerberry (known as box-berry and winterplum on Cape Cod), furnishes food for all, when they chance to be exposed, and the Partridge (Ruffed Grouse) and Quail, (Partridge) are very fond of them. The former is an expert at collecting them by burrowing under the snow, and I strongly suspect that Bob White does the same.

The Partridge is not only fond of the fruit of the winter-green, but enjoys the tender leaves of this plant; while towards spring, when the berries are scarcer, he indulges in quantities of buds of the alder and white birch.

The few sources of the food supply here mentioned is very far from being complete, but it shows that Nature has no lack of material, and can get up quite a feast for our feathered friends' Christmas dinner.

Harry Gordon White.

Gloucester.

In Good Greenwood.—I.

When I was a youngster I probably made more different kinds of a fool of myself than most youngsters do; and when I didn't do it myself I let somebody else do it for me. The following story shows how I did it once, and the sequel explains fully why I do not give dates and locality.

I was trailing a deer. It was getting late in the day and he seemed to be feeding along, so I sneaked as quietly as I knew how, and I knew how to do that part of the business better than most boys, old or young. It was pine sapling growth, with low spots of grass and scrubby bush, and the buck backed and filled through these places and bothered me a good deal. I was passing round one of these feeding spots when I heard some Jay Birds scolding a good bit of a ways off and concluded that the deer must have made a jump or two and agitated their feelings; so I made a break toward the noise, and sure enough there was his trail again among some higher saplings and making toward a big bay gull beyond. Here were a lot of hog tracks, too, scattered in confusion and all running away from a place where somebody seemed to have been raking pine trash. I would have passed it right by if the track I was on had not gone directly through it and I saw it had been raked over since the deer passed. As I puzzled here a minute I noticed flies swarming about the heap of pine trash and at the same instant my eye fell upon some panther tracks. That settled it. The buck was free now; for under the heap of trash was a fresh killed hog and I knew the panther could not be far off. A wide circuit round the spot showed me where he had gone off into the same bay gull the deer had entered, so I chose a favorable spot to leeward of the dead hog and sat down at the foot of a small tree with a bush in front of me and both barrels cocked. I had a few serious thoughts over the situation at first, but as the hours wore on I began to lose all ideas of any accident and was only afraid that the game might put off his coming till it was too dark to see to shoot. It was only a few minutes before sundown and I was scratching little squams and coons in the sand with a stick when I heard a noise, and there was the old panther pawing the trash from her buried prey and two young cubs boxing with each other like a pair of kittens—kittens about a yard long. Now these same kittens complicated the affair a bit, for I wanted them, too, if possible, and had only one shot for both. The old lady offered a tempting side shot but the children were eight or ten feet apart. I waited several minutes for a favorable change of position, and at last they grappled and rolled over and over in a close embrace, but the mother was back to me. As she raised her head the young ones parted. Then she turned her side again and the two joined in another tussle, so I gave her the right barrel just back of the bone of the fore leg and she went up in the air screeching like forty devils. Then I found out mistake number one; the smoke hid the cubs. Mistake number two was in not giving the old one the second barrel, which I had ample chance to do after they had left. So I had to camp on the trail. In the

night a storm came up and it rained steadily for two days, not a dripping rain nor even open-and-shut sort of weather, but a regular young deluge. So I had to give it up and go back to the fort. Three days after a settler brought in the three scalps. He killed one cub at his calf pen and followed the other and got it along side of the dead old one. Her hide was too far gone to save, but I got the head and claws.

Now for the sequel. Of course I claimed the old one's scalp, and that led to a very practical argument between the other fellow and I. He got in the first two shots, but I took off two fingers and a thumb and broke his jaw. And though I patched all up nicely myself and left him two nice fingers on his right hand, and didn't charge a cent for the job, his family and friends kicked up such a row over it that I had to leave that part of the country for good and all. I don't think I was much of a fool for doing that. I think they would have been more lenient if I hadn't got the scalp. Any way I sold it too as soon as I finished stitching him up. For we shook hands — left hands — after I had him arranged all comfortable; but he went right off his nut again when he heard the hard dollars ring down on the counter and saw me scoop them in. Age brings sense, and I think I have got better sense now than to run the risk of lining a panther's belly with my precious old bones.

Robert Cargan.

The Rose-breasted Grosbeak in Michigan.

I noticed in the September number of the ORNITHOLOGIST AND OOLOGIST a piece regarding the range of the Rose-breasted Grosbeak. I will say that is very abundant in this locality.

One day this summer I entered a small patch of woods on a stream called Plaster Creek. Off in the corner I could hear the song of this bird. Hurrying in that direction, I soon discovered him in an oak tree. A shot from my gun settled him and he was soon in my bag. He was hardly fixed when I heard the same song in two different directions, and in a few minutes two fine males found their way into my bag.

I then went over to a small hill covered with oak shrubs; here I secured three males and two females.

Again, when I had left my gun at home, I saw six of these birds.

This summer I found a nest; it contained an egg and I left it, thinking to return in a few days and get it when the set was full, but when I called it was gone.

By this you will see that the Rose-breasted Grosbeak is quite a common bird in Kent County. *W. E. Mulliken.*

Some Notes of the Winter of 1889-1890.

Dec. 6, 1889. Saw one ♂ Maryland Yellow-throat; about 15 each Purple and Rusty Grackles; also heard some Towhees and one Pine Siskin.

Dec. 7. Saw two ♂ Towhees and three Thrashers; one of the latter using his bill instead of his feet to scratch among the leaves with.

Dec. 10. Heard a Siskin and a Towhee. Purple and Rusty Grackles still about.

Dec. 13. Saw a flock of 30 Killdeer.

Dec. 14. Saw 150 Purple Grackles, 20 Rusty Grackles, 2 Thrashers. Robins have been very abundant so far this month, feeding on dogwood berries. Quite warm up to date.

Dec. 16. Some 25 Rusty Grackles in woods; no Purple Grackles and less than one-fourth as many Robins. Saw a ♀ Towhee and heard one or two others. Somewhat cooler.

Dec. 18. Saw four Cedar Birds.

Dec. 20. Saw 15 Purple Grackles today and on several days previous.

Dec. 21. Saw or heard one or more Towhees every day since the 16th except yesterday. Saw one ♀ Towhee and one Thrasher today. Saw about a dozen Wilson's Snipe to-day and yesterday. Robins scarcer, about one tenth of former numbers. Weather still quite mild, no break so far.

Dec. 22. H. killed a ♂ Mallard, I killed ♀ Bewicks Wren.

Dec. 23. Killed a ♂ Sharp-shinned Hawk with a Bluebird in its claws; when the Hawk fell the Bluebird flew away. A few Killdeer every day now. Robins have almost disappeared.

Dec. 30. H. caught an extra large ♂ Mink, L. 26¾; T. 10½; weight 3½ pounds. Towhees about up to date. Cold wave to-day, weather breaking up.

Jan. 7, 1890. Killed a ♂ Southern Hairy Woodpecker.

Jan. 14. Shot at a Maryland Yellow-throat on the creek.

Jan. 23. H. caught a King Rail in one of his muskrat traps.

Jan. 30. Saw two Maryland Yellow-throats and one Long-billed Marsh Wren in a cat-tail swamp. Cedar Birds have been abundant since the 10th.

Feb. 4. Killed a ♂ Maryland Yellow-throat.

Feb. 13. Killed a Yellow-palm Warbler. Have heard a Maryland Yellow-throat and Long-billed Marsh Wren every time this month I have been near the above-mentioned cat-tail swamp. Thrashers and Towhees present in small numbers every day. H. killed a Red-shouldered Hawk.

Feb. 15. H. killed a ♂ Great-horned Owl.

Feb. 24. Six Yellow-palm Warblers seen, one killed, but no good, as all pin-feathers.

Feb. 27. Killed a full-plumaged Red-headed Woodpecker.

Feb. 28. Chipping Sparrows arrived. Heard a Siskin.

March 3. Killed a Red Screech Owl and a Purple Grackle.

March 6. Killed a Yellow-palm Warbler.

March 14. Killed my first Pine Siskin of the year, while on the lookout for Pine Warblers building.

March 17. Small flocks of Siskins in the pine woods now; they are feeding on the seeds of the yellow and loblolby pines and the trumpet vine.

March 19. H. took three young American Woodcock in the down; I took a Red-breasted Nuthatch and a Siskin.

March 18. Killed a ♀ Blue-headed Vireo which was in company with another that was not secured. *C. S. Brimley.*

Raleigh, N.C.

Rose-breasted Grosbeak.

Doubtless some readers of the Ornithologist and Oologist know as little of the Rose-breasted Grosbeak as I did, and as last summer I had a chance to make a slight acquaintance with them, I think I should pass my scraps in.

I arrived at Shin Creek, in the extreme north of Sullivan County, New York, about the middle of June. By that time the birds must have been hatched, for I found young ones ten days later. My first bird was an adult male. I saw him on June 17 at the top of a thicket, eating the green tips of the new shoots and catching a few caterpillars and worms.

I shot him, and hunted faithfully for the nest that I hoped was there, but it didn't materialize. Before I shot him I watched and listened. He hopped restlessly from ground to branch, and branch to top, "warbling" in a hurried, interrupted way in a clear but squeaky voice. Then he would vary it by a series of *kuchks*, in a hoarse, grating voice. I was very much disappointed, as I had heard of their beautiful song.

A couple of weeks later, July 1, when

near a deserted house, I was startled by a series of clear, mellow whistles, *whoit, whoit*. I followed it up, and saw a bird I recognized, by description, as a female Rose-breasted Grosbeak. She had a big fat caterpillar in her beak, and was calling her young one, who I saw in a tree near by; as he refused to fly, she flew to him, calling again. I looked over my binoculars, and they fell. Unfortunately, the young one fell on a stone, and the head splitting open let out a mixture of brains and eye water. Her stomach contained a large dragon fly, several caterpillars, and a mess of flies and green vegetable tips.

That mellow, rich whistle quite opened my eyes, and I was prepared, when I followed a glorious song, to find a ♂ Grosbeak singing. Their voice has a peculiar "human" quality. It is more like human singing than the Cardinal's whistle.

Many times after that, as I whipped the Beaverkill in a golden sunset glory, did I hear that wonderful song and see the flash of the musician as he flitted along the bank. *Mushkodasa*.

Nest of the Winter Wren.

As my observations and impressions regarding the nesting and other habits of this species (*Troglodytes Hiemalis*), in former years, have already been recorded, I will on the present occasion confine my notes to my experience on this subject for the season of 1892.

I first heard the pleasing melodies of three individuals of this species on the morning of the 7th of April, though it is probable, as the weather had been favorable, that it had made its advent in this vicinity a week earlier. When first noticed, it was in full song, and was common afterwards, though the different individuals were continually shifting their places of habitat. Now one was heard on the margin of the clearing; then, in a short time, its thrilling notes came from the middle of the deep swamp, and may be an hour afterwards its music rose and fell in the centre of the highland wood. And I noticed several mornings, when I had remained out all night in the sugar-bush, that the species was the first, as day began to dawn in the eastern sky, to greet the coming day with its charming melody. As the season advanced I was on the look-out for the nesting-places of the species, and was pleased to find, not far from each other and in my vicinity, several newly formed nests, giving me expectations that I would afterwards collect therefrom one or more sets of their eggs, but in all these early "finds" I was disappointed; for none of them were finished. As previously remarked in other articles on this subject, I believe that this nest-making on the part of the Woodland Wren is the work of the male bird, who leaves it in a certain stage of completeness, and then, if desirable on the part of the female, she puts in the lining preparatory to depositing her eggs. By the first of June I had given up all expectations of collecting any of the eggs of this species, but on the 12th of that month I was taking a last look at some nesting places of other species, and had just secured a fine set, 1–5, of the Canadian Warbler, when, on approaching the margin of a little woody dell, on the northeast corner of wildwood, and near where I was often at work, in a new clearing, the song of this species rose near by. I thought I would take a look. Beneath a large hemlock root that, after the trunk had been sawed off, had fallen back to about two feet off the ground, as I stooped down, so that I could get a view beneath, a Wren darted out of its nest close to the entrance and flew away. Judging from the time, my first impressions were that here was a nest containing either young or eggs in an advanced state of in-

cubation, but on inserting a finger I found that it was not even lined; so I then thought that like the others it would be forsaken; but some days after I found that it was being lined and on the 17th I noted that it contained one egg; then I feared that having touched it the bird would desert it, but three days afterwards I found the bird "at home" and as well as I could tell three more eggs were added. On the 22d, as I concluded that the full set had been deposited, I removed the nest, and found that it contained five eggs. The nest itself was placed in the "roof" of the "turn-up," mostly kept in position by a number of small rootlets, so that the front, sides and part of the bottom were suspended and pretty thick, while the top and back were but little separated from the mould of the "root." It was mostly composed of moss, with a few small brambles and a lot of the dry stalks of hemlock leaves in the front, especially around the entrance hole.

This "find" considerably changed my previous ideas regarding some of the habits of this species.

It now appears that the bird does not desert her nest on account of it being touched by the human hand, but if she has decided to occupy the skeleton nest that the male has formed, she will do so whether it has been touched or not, if she is not otherwise much disturbed. It also appears to nest more than once in the season, as I have reasons to believe that this nest was the second for that bird that season; and its time of commencing to nest in the spring appears also to vary several weeks. Five appear to be the general complement of eggs deposited in each set. This is the number found in the three last nests, of which I have taken particular notes, and the last two of which are now in my collection. The first of these three sets was taken on the 18th of May, the second on the 25th of that month, and this one on the 22d of June. The eggs in this set, to the naked eye, appeared to be pure white, with a pinkish tinge, but this latter hue disappeared on the contents being extracted, and then, when held up between the eye and the light of a lamp, a number of small dottings of a reddish hue appeared over the surface, especially towards the large end. I may here remark that I prefer to "blow" small eggs in the light of the lamp, because, by holding up the specimens between the eye and the light, it can the better be seen if all the contents are extracted; and if not by holding the egg hole side downward over the heat the remainder of the contents ooze out.

William L. Kells.

Nesting of the Hermit Thrush.

This Thrush has not until the present year been known to breed in this (Hillsboro) county. Therefore it is with great pleasure that I am able to announce, through these columns, the taking of two sets the past season. The credit of taking the first set belongs to Mr. Dinsmore, of this place, who is a most thorough collector and field naturalist.

The second set, which I collected myself on July 8, is now in my collection.

This set I found accidentally while walking through a blueberry patch a few rods from a swampy stream.

The bird left the nest when I was but three feet distant and flew about thirty feet to a small tree, where she perched for some time watching me examine the nest. Finally she flew away to some thick growth and disappeared.

The nest was built in a small depression in the leaves, and composed of leaves, grass, and weed stalks with a strip of thin bark about the outer edge. It was lined with pine needles and horse-hair. The nest measures in depth outside 2.5 inches.

Inside 1.25 inches; the width outside is 4.5 inches; inside 2.5 inches.

The nest contained three bluish green eggs, the average size of which is .67 x .94 inches. *Arthur M. Farmer.*

Amoskeag, N.H.

Sand Hill Cranes in Michigan.

Several miles back from the more populous districts of Shiawassee County, Michigan, is a large swampy, woody tract of State land, embracing about two and one half land sections, about which little is known other than its general dismal, low, wet character. Being a "hollow," modern drainage is impracticable and many years at least will pass away before crowded population will raise the value of land in this State high enough to make it a paying project, to institute a more extensive and expensive system of drainage in order to reclaim it from its present wild state.

It was my fortune to be called in a professional capacity to attend a family living on a farm on the outskirts of this marsh the past summer, and it was through that that my first introduction to the above-mentioned birds was procured. Hitherto I had no knowledge of the occurrence of Sand Hill Cranes in Michigan. I always supposed from reading of them that they were a bird of the western plains, inhabiting the more extensive swamps and marshlands of the southwestern States. My attention was first drawn to them by hearing their loud, discordant cries. It was a new bird note to me, and upon inquiry I was told what they were. Curious to see so rare a bird in its native wild state I prevailed upon the gentleman to whose house I had been summoned to accompany me back to the border of the swamp in quest of them. He readily complied. Being an intelligent gentleman, he was able to furnish me with many undoubted facts regarding the domestic habits and nidifications of the birds.

Not far from the wooded margin of the marsh was a bare sand knoll, covering perhaps an eighth of an acre of ground and rising at the summit some fifteen feet from the land level surrounding it. On the very top of this knoll was perched an old male crane. At our approach he stood erect and tall, eyeing us carefully for a minute or so, when all at once, as if assured of our friendly intent, he began to go through a regular dancing step, flourishing and curvetting in a manner most ludicrous, and to the evident admiration of several of his fellows who were arranged about the knoll. Anon the veteran dancer would give a shrill war-like yell, throw out his pinions on either side and leap ten feet into the air, when he would again alight and go on with his strange, wierd dance.

Since then I have made many excursions to *Sawyer Marsh*, studying the habits of these birds, once in company with my old naturalist friend of other days, Mr. J. B. Purdy, who came from his home at Plymouth to study them with me. Many years have they made the marsh their home, till a large flock assemble there each year and breed. Another spring I shall endeavor to secure sets of their eggs, and if successful will give my experience in the pages of the ORNITHOLOGIST AND OOLOGIST. If Michigan readers know of the Sand Hill elsewhere in the State, would be pleased to read an article from some one in regard to them.

Dr. W. C. Brownell.

Morrice, Mich.

The following new arrivals are reported at Roger Williams Park, Providence, R.I.: A pair each of Leopards, Jaguars, Striped Hyænas and Panthers, the latter being two months old, "little beauties." The interest in this department at the park is indicated by the increased number of visitors.

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AND TO THE
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The subject of the trouble of collecting small accounts from parties scattered over the country has caused quite an interest, we should judge, from the letters that we have had come in since our last issue. We have replied to many that we have now adopted the plan of spot cash — and only send goods when the requisite amount accompanies the order. We do not see that any other way of dealing with strangers should be expected.

It is natural to wish to do all the business that one can, but any one had far better have their goods on hand than an unpaid account against at least about fifty parties now on the black list at our office.

ANOTHER CASE.

F. B. W. Co.:

Gentlemen, — We return herewith your claim against R. —. —— as worthless and uncollectable. Debtor is a worthless sort of a fellow and never pays when he can help it. We see no way of collecting it.

——— ———, —— Ohio.

Sept. 16, 1892.

This "worthless fellow" wrote to us in a very winning way and was so honest that we trusted him.

Result, $0, but WISDOM.

Brief Notes, Correspondence, and Clippings.

Those of our readers who are fond of shooting with shotgun, rifle, or revolver; who ride a bicycle; who class themselves as fishermen; who fence, box, play base ball, cricket, or lawn tennis, or who indulge in any form of outing or field sports, should write SHOOTING AND FISHING, of Boston, Mass., the old established sportsmen's journal of New England, for the remarkable Fall premium list they have issued, a copy of which has just reached us.

Many a shooter would love to own a good gun or rifle but can't afford it. They will not own a *cheap* gun, and they are not able to spare the money for an expensive one. SHOOTING AND FISHING makes a present of as fine a gun, rifle, or revolver as money can buy, on conditions which any bright young sportsman can easily comply with. On the same conditions, it offers any one of the popular makes of bicycles (from the lowest to the highest priced), also shooting coats, gun cases, rifle cases, pleasure and hunting boats, ammunition cases, fencing foils, fishing rods and reels, photographic cameras, hunting boots, boxing gloves, base ball, cricket, and lawn tennis outfits, and an hundred other valuable articles belonging to a sportsman's equipment.

We have seen many premium lists offered, but none so complete and generous in their conditions as the ones before us. The full list, with instructions as to how any of these handsome premiums may be obtained, without the cost of a dollar to the sportsman, will be mailed to any of our readers, on application to SHOOTING AND FISHING, 20 Devonshire

Street, Boston, Mass. Our readers who write for the list will favor us by mentioning the name of our paper.

A flock of about one hundred small hawks passed over us at Amoskeag, N.H. about September 21, flying southwest.

A. M. Farmer.

In ORNITHOLOGIST AND OOLOGIST of September, received this day, I see the announcement of Oliver Davie's new book on "Taxidermy." As it is only the second time any later news has reached me, would be pleased to be one of the subscribers. Do you want the $5.00 now, or when the book is out? Please let me know at once, as such things should not be missed. If it is anything like his Nests and Eggs, it will be as near perfect as can be had. Hoping to hear from you soon, I remain, Yours truly,

ALF EASTGATE.

We call the attention of our readers to the fact that the price advances after the work is published.

We receive subscriptions now at $5.00 per copy. One dollar in advance, as we have to place our orders in advance, and the balance to be paid when the work is ready for delivery.

BIRDS AND EGGS FROM THE PEARY EXPEDITION.

At Mr. Norris' request, I send the following notes on the birds and eggs collected on the recent Arctic expeditions sent out by the Academy of Natural Sciences of Philadelphia, under Lieut. Peary and Prof. Heilprin, more extended accounts of which will be found in the *Proceedings* of the Academy: —

The West Greenland Expedition which escorted Lieutenant Peary to McCormick's Bay and returned to Philadelphia in September, 1891, procured the most extensive ornithological collections, about 150 birds representing 21 species, together with large series of eggs of a few species being obtained.

The Greenland Eider Duck, a species quite distinct from the American Eider and more nearly related to the form inhabiting the north of Europe, was found breeding in abundance at Duck Island, lat. 73 deg. 57 min. N., and fine specimens of the male and female birds, together with a number of sets of their large green eggs, were secured by Dr. Hughes, the ornithologist of the expedition.

Brünnich's Murre was also found to be common and specimens of the birds and the peculiar pear-shaped eggs, with their varied markings, were collected.

Little Auks were obtained in large quantities in full breeding plumage, with jet black head and neck, as well as Maudt's Guillemot, Black Guillemot, the three species of Jagers — Pomerine, Parasitic and Long-tailed — Ivory, Kittiwake and Glaucous Gulls, and Fulmar Petrels, the latter exhibiting both the white and dusky phases of plumage.

A few specimens of the handsome King Eider were also obtained.

The only waders collected were the Northern Phalarope, Purple Sandpiper, and Ring Plover, a species closely resembling the Semi-palmated Plover of our eastern coast, and which supplaces it in Europe.

Besides the Greenland Ptarmigan, Gyrfalcon and Raven, the only land birds observed were the Snow Buntings, Lapland Long Spurs and Wheatears, the former being the most abundant. The specimens of the Snow Buntings brought back by the expedition show all stages of molt, from the black-backed breeding bird with its pure white head to the buff and black plumaged bird that visits the United States in winter, as well as the interesting gray plumage of the young. Nests and eggs of the Snow Buntings were also collected.

The collections made by Lieut. Peary's

party during their stay and those brought back by the relief expedition do not differ materially from those of the expedition of 1891, a few species of water birds being added and larger series of the others being secured.

Although but little egg collecting could be done by the expeditions, owing to the late date at which they reached the Greenland coast, some well authenticated oological specimens were obtained from the authorities at Disko, which included eggs of the Sea Eagle, Little Auk, Greenland Ptarmigan, Arctic Tern, Glaucous Gull, etc. *Witmer Stone.*

As little Richard Barnard, aged 14 years, was in swimming last July at Crescent City, Fla., he little knew that he was the object of interest from a source that would have tended to make the strongest grow pale.

Completing his swim, as he was drawing himself out on some logs his leg was seized with a vise like grip. His cries for help were fortunately heard by Mr. Simons, who running, seized the boy and succeeded in rescuing him from a large alligator. Twenty-eight tooth marks, requiring 52 stitches, was the result, and it is feared that Barnard will be permanently injured. J. R. Hill shot the reptile, which measured 11 feet 3 inches long. *E. L. W.*

Through a lack of support, the *Ornithologist and Botanist* of Des Moines has been discontinued. So writes R. E. Bagley.

On October 2 I received of P. R. Davidson, of this city, a beautiful nest of the Chimney Swift.

It was taken from an empty freight car that had been side-tracked for some time. It is made of sticks glued together (as all people know) with the spit of the bird; it is shaped like a half cup and is 1¼ inches deep. *W. E. Mulliken.*

Grand Rapids, Mich.

I thought I would let you know about our tame Red-shouldered Hawks. They were taken out of the nest in May, 1889. Mine I called "Sullivan" and H. Allis called his "Whiskers." All summer we left them at liberty in a spacious yard, first taking the precaution to keep their wings clipped. They were very tame and would perch on our arms or sticks and take meat or birds from our hands without the least fear. They were the terror of every cat or dog of the neighborhood after the latter had made the acquaintance of their sharp talons and beak. Twice somebody stole them and once we rescued poor "Whiskers" from a Polish family by doing the sneak act while the other talked to the matron of the house.

B. H. Swales.

St. Clair, Mich.

Notice.—Will each ornithologist and oologist in the state of Illinois, who is willing to help in some ornithological work and further the knowledge of our Illinois birds, please send me their address on a postal card. *W. E. Loucks.*

Peoria, Ill.

Field Sparrow in Michigan.

August 2, 1892, I found my second nest of the Field Sparrow (*Spizella pusilla*), containing three badly incubated eggs. The nest was situated in a small thorn tree, three and a half feet from the ground, in Senck's woods and was composed of fine dried grass. The eggs averaged .70 x .53. The only other set I ever took was in May, 1886, while out with W. and H. W. Tracy. I found a set of four, situated in the hole made by a cow print. This bird seems to be a rare breeder here. On August 12 I saw an adult male Bald Eagle flying down the St. Clair river. *B. H. Swales.*

St. Clair, Mich.

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Vol. XVII. HYDE PARK, MASS., NOVEMBER, 1892. No. 11.

Nest of the Yellow-bellied Flycatcher.

One of the most interesting nests and set of eggs that I discovered, and added to my collection, in the season of 1892, was that of the Yellow-bellied Flycatcher (*Empidonax Flaviventris*).

On the 14th of June I was doing some work on a piece of new fallow, on the northeast corner of Wildwood adjoining a swamp composed chiefly of balsam, cedar and black ash timber, when, as my team was resting, I thought I would take another look at the nesting site of the Sharp-shinned Hawk from which on the 25th of May I had taken a most beautiful set of eggs; and also at the small turned-root of a balsam, in a cavity of which some swamp frequenting bird had nested the previous year, as I have observed that when an old nest is removed, the same or some other species often reoccupy the same premises.

Now I found that the cavity in the root had not been occupied, and as the day was hot, I was stooping down to take some of the cool water from the small pool below, when a small bird flew out past my face and disappeared in the surrounding underwood. In a moment I saw the nest from which the bird had glided, and from its composition, and the color of the four fresh eggs that it contained, I at once inferred that it was new to me; but supposed that it was that of some rare warbler, whose identity I was then desirous to discover, so I sat down near by to await the bird's return.

For several minutes no bird either approached the nest or gave a note near by. Then the mournful refrain of a little bird, which I took to be a species of Flycatcher, sounded among the balsam tops, a little distance off, and on discovering the actor itself, I for awhile watched its movements as in true Flycatcher style it darted to and fro after insects, at the same time giving vent to its *to-weep*-like lament. But not being certain that this was the owner of the nest, I left the place, and in less than an hour afterwards returned and found the bird seated on the nest, where she remained till I was within a few feet of her, when she again flew off and I fully identified her as the female Yellow-bellied Flycatcher.

The nest was placed in a kind of cavity made in the soft mould in a corner of the "turn-up," and about two feet above the small hollow below. It was formed almost wholly of moss, lined with fine dry grass and a few pieces of vines. The four fresh eggs were white, with a yellowish tinge, and all more or less spotted with orange-brown. The spotting is nearly altogether on the large end, some being much more spotted than others; one or two have the end nearly covered, others are ringed, and there are but a few small dots towards the centre. Inside the nest is about two inches across by one in depth. This species has been but rarely noticed in Canada. In its general appearance it

would be difficult to distinguish it, even at a short distance, from either the Least Flycatcher, or the *trallii*, but its habitat and notes are different, and its nesting modes more so. The habitats of both the other species of this genus above-mentioned, are easily discovered by their song notes, which in the early summer season are continually repeated, but so far as I am aware this species is songless, and owing to the wild places that it frequents, and its habits of darting off into deep concealment on the approach of human kind, it would scarcely be known to exist were it not for its simple lament uttered when the environs of its nest is invaded.

William L. Wells.

A Few Notes which I have Noted.

On reading Mr. Brotherton's article in the September number of the ORNITHOLOGIST AND OOLOGIST on "The Rose-breasted Grosbeak in Oakland County, Michigan," I thought that my observations might throw some light upon the subject. The Rose-breasted Grosbeak is one of those peculiar birds which does not appear in every locality throughout its entire geographical range, but visits only its old haunts and breeding grounds, where perhaps it was reared and has bred for years, and while it may be abundant in one locality, yet but a few miles from there it may be seldom if ever seen. Such is the case where I live at Plymouth, Michigan. Although we have inviting forests, swamps and ravines, yet I have never seen a Rose-breasted Grosbeak on an average of more than once in two years, and never found a nest in a radius of three miles around my place, and I have kept the ground well canvassed; and yet only four miles east in the township of Levonia, they nest every year quite abundantly; and while on a collecting trip in this same locality in company with my friends, Albert and Elmer Durfee, they led the way to what they called their "Timbered Forty," and there for the first time in my life I heard the Wilson's Thrush. They were sending forth their ringing notes on every hand and we were not long in finding three nests. But I do not expect to live long enough to ever hear one of these birds or find one of their nests in Plymouth; and I know where there is a little narrow strip of marsh grass bordering a small stream where there is a small colony of Short-billed Marsh Wrens breeding every year, and although my friend, Mr. W. A. Davidson of Detroit, tells me that they breed quite abundantly in the marshes along the Detroit river, yet this is the only place where I have found them nesting myself, and although there are hundreds of places which would seem more inviting, yet they cling to the place where they have been hatched and reared for years; and so it is with many others of this class of birds. They nest only in certain localities, while the Robin, the Bluebird, the Meadow Lark, the Song Sparrow and many other varieties are more evenly distributed, and are found breeding in every orchard and meadow and on every farm throughout their entire range. The above notes I believe to be correct, for many a pair of boots I have worn out and many a suit of clothes I have torn out wading through the deepest swamps and quagmires, climbing steep hills and wandering through valleys and tearing my way through thick-tangled underbrush to make these observations, and yet there is a great deal to be learned about bird-life that will never be known, for when a young bird leaves its nest it may never see another one like it until it builds one for itself, and then it uses the same material for its foundations, fashions it in the same form, and uses the same kind of material for its lining that its ancestors have used for generations before. I think I hear some one say, "That is in-

stinct." Yes, it is an instinct that no human intelligence can analyze or the most learned philosopher can ever explain.

James B. Purdy.

Plymouth, Wayne County, Mich.

In Good Greenwood.— II.

You can make a pet of most anything, but getting them real tame is another thing. A poor little prisoner soon gets to know its jailor and in time ceases to a certain extent to pine for freedom if the jailor is kind and supplies its wants in a sensible fashion. But the kind of pets I had in mind when I wrote the above lines are free and unconfined. I remember a Mink that used to visit one of my camps every morning, and we came to such a good understanding that he would catch the scraps I threw to him. And when he had eaten enough we would have a regular game of pitch and toss with a bit of stick. Last summer I had a pet Lizard that came to me for flies, and even tried to call me out by scratching on the window. One of the most fascinating woodland acquaintances that it was ever my good fortune to cultivate were a pair of young Otters. Their home was in a hollow tree that stood in a dense, swampy thicket, and when I first peered in at them they were both curled up fast asleep and looked for all the world like two large grey puff balls such as are often seen in old fields or by the roadside. Indeed the resemblance was so complete that I very nearly passed them carelessly by, only I wanted to see what kind of puff balls grew inside of hollow trees, and the warm, furry little animal that my hand touched was a geniune surprise. They exhibited no aversion to being handled, but wriggled about in my lap and were in a sleepy self-satisfied sort of way for nearly an hour. I had half a mind to take them home but thought better of it, as the locality was quite close to the house and certainly until their eyes were open they would be cared for best by their natural parent. So I visited them nearly every day, and in about a week their eyes were beginning to open and they showed signs of recognition at my approach. I soon found that all my rambles either began or ended at Otter Corner, as I named that part of the swamp, and my little friends learned to come and meet me when I whistled. All this time I had never met the old mother, and I have come to the conclusion that Otters are in the habit of leaving their young to themselves during the middle of the day. I have often found young ones but never but once saw the mother with them, and on this occasion it was very early in the morning.

My new acquaintances had begun to have lively frolics with each other and once in a while something very like a fight. I found they appreciated highly the presents I made them of small fish. So one day, to try their tempers, I put a good sized mullet on the ground between them and awaited results. Both scrambled up to the prize and fell to with the very best of table manners. Not a growl or a grumble from either, only little contented murmurs and sounds of satisfaction. Nay more, they evidently assisted each other at the repast, for one would hold on "with tooth and toe nail" while the other tugged and worried to bite off a tough morsel. I never tried to make them quarrel after that.

As summer advanced and they grew in size and strength, my little Otters often followed me part way to the house, but always stopped inside the woods. The bright sunlight of the open field that surrounded my house seemed to be a drawback to their further progress in that direction. Late one cloudy afternoon, though, they followed me clear across and examined the whole house in the same cautious and

circumspect manner that a young kitten will go through the same operation. Everything seemed to be satisfactory to them. I had no dog then and have never fallen so low as to keep a cat, and they were in undisputed possession. In the morning they had gone back to their own premises, but all summer long we continued our friendship. I called on them every day and they returned the visit every night. In the fall, when I began to have a fire, they showed a keen enjoyment of the heat and gamboled uproariously before the blaze, until a singed paw or tail was the result of an incautious movement. I have never seen anything in the way of animal motions so bewitchingly beautiful as their play. Not only was every movement and pose the acme of grace and beauty, but the whole motif was caressing and kind. One night they did not come as usual. I sat at the door and whistled a long time, and at last went clear down to the hollow tree in their corner, but it was empty. I haven't seen them since. It's always so with pets. Something is sure to happen and we lose them. The house seemed lonesome and I went into camp for a long time. Even to-day it gives me a bad sort of feeling to write about them. I guess I need a smoke.

Robert Cargan.

Macgillivray's Warbler.

This species (*Geothlypis macgillivrayi*), known also as Tolmie's Warbler, came under my notice during my rambles in the vicinity of Port Kells, and out along the way to Langley prairie, but at the time I failed to identify it. But I well remember that there were numbers of different species of the Warbler family giving vent to their varied and pleasing melodies, among the lower brush wood, at medium elevations and high up among the taller timber, which for the time were new and strange to me, but as I carried no death-dealing weapon into the wilds of this sunset land, its feathered residents were little disturbed by my advent among them. I have since entertained no doubt that among the members of the avi-faunian race whose melody fell upon my ear, in that wild, strange land, and of whose forms and plumage I caught occasional glimpses, as they flitted to and fro among the foliage and blossoms of its peculiar woods, were many specimens of the Macgillivray's Warbler. Mr. Fannin, in his *List of British Columbia Birds*, records this species "as a common summer resident through the greater part of the province, breeds on Vancouver Island, a bright, active little bird, continually on the move, darting here and there among the low shrubbery." Mr. Townsand, who in 1839 published a work on the birds of the Pacific coast, and by whom several species of the birds resident in that region have been named, first describes this species under the name of Tolmie's Warbler, in honor of Dr. Tolmie, then of Fort Vancouver. Mr. Ross, in his "Birds of Canada," describes this bird as being "five inches long, the wings less than two and a half inches, the head and neck, ash, a narrow frontlet and space around the eye, black; the feathers of the forward underparts really black but appearing gray from the ashy tips of the feathers; the rest of the upper parts dark olive green, and of the lower, yellow." Speaking of the birds of Colorado, Mr. Morrison says regarding this species, "One of our most common Warblers. Although very shy when the nest is approached, the female will glide off, and flying close to the ground is soon lost from sight, and also from the nest as long as the safety of the eggs will allow; when without seeing the bird you will very likely find her on the nest, where she has stolen perhaps the only moment your eyes were taken from her. Nests in juni-

per bushes, four to six feet off the ground." In describing the eggs and nest of this species, Mr. Davie says, "Pinkish white, marked and spotted with purple, lilac, reddish brown and dark brown approaching black. The complement of eggs is usually four, size .75 by .50. The bird breeds in abundance in Utah, Montana, Idaho, Oregon, Washington, and probably also in northern California, and is said to breed through its United States range. The nest is placed usually in low underbrush or thickets, is cup-shaped, loosely constructed, of slender strips of bark, decayed stalks of plants and grasses, lined with fine materials of the same. Habitat, Western and Middle provinces of the United States north to British Columbia."

William L. Kells.

Listowel, Canada.

NOTE.—A female Ruby-throated Humming Bird, apparently a young bird of the season, was captured here in a dwelling house, which it had entered after flowers, on the 15th of October. This is the latest date that I have known this species to be seen in this country, as they usually leave by the 20th of September.

The Bald-headed Eagle in Fulton County, Illinois.

To-day a school teacher of this county brought me a fine Bald-headed Eagle, with the following history: On Friday evening, November 4, a farmer was out "Coon" hunting on a stream called "Sugar Creek." He had just captured an Opossum, and crossing over the creek had gone but a little distance when a large bird spread its wings a little ways in front of him. Not being able to discern just what manner of varmint it was by the dim moonlight, he hissed his dog on it.

The dog sailed in valiantly, but quickly had enough of the fight, and came back howling to his master. Nor did he come alone, for the great bird with outspread wings was hopping close after him. The hunter was frightened nearly out of his wits, but, when the Eagle was nearly on him, made a wild blow at it with an axe that he was carrying.

Luckily the blow fell upon the bird's head, stunning it, and repeating the strokes he soon dispatched it. The teacher that brought it to me said that on the afternoon previous to its capture it had perched on the fence near his school house for two hours. This fact, and the circumstances of its capture, would lead a naturalist to surmise that the bird was an escaped pet Eagle. And this idea was further strengthened when an examination showed that the left leg had at some time been broken just above the knee. This wound was entirely healed, but there was a considerable enlargement at the point of fracture, and the limb was much curved.

The plumage, however, did not show any cage worn condition and the gray head indicated that it was not a bird of the year.

From tip to tip it measured 7 feet and 3 inches. The Bald Eagle is not uncommon in Illinois, especially in the fall season along the Illinois river and its lakes, where a few of them may be found as long as the seine fishing is continued, the dead fish being the line that draws them to this locality. *Dr. W. S. Strode.*

Lewiston, Ill.

I have reason to believe that the rat is a transmitter of some of the most dangerous diseases which afflict humanity — diseases that have for ages baffled the skill of the ablest scientists in the world. — *Dr. S. E. Weber's Lecture.*

An American Egret was shot at Ipswich, Mass., November 22. It has been preserved by N. Vickary the well known Lynn taxidermist.

List of Warblers' Eggs in the J. P. N. Collection,

NOVEMBER 1, 1892.

Ridgway's Nos.	A. O. U. Nos.	Names.	Sets.	Total No. Sets.	Total No. Eggs.
74	636	Black and White Warbler,	2–4, 12–5	14	68
75	637	Prothonotary Warbler,	3–4, 21–5, 34–6, 15–7, 2–8	75	442
76	638	Swainson's Warbler.	8–3, 2–4, 1–5	11	37
77	639	Worm-eating Warbler,	2–3, 6–4, 10–5, 3–6	21	98
79	641	Blue-winged Warbler,	1–3, 2–4, 3–5	6	26
81	642	Golden-winged Warbler,	4–4, 5–5	9	41
83	643	Lucy's Warbler,	1–3	1	3
85	645	Nashville Warbler,	1–3, 4–4, 1–5	6	24
86*a*	646*a*	Lutescent Warbler,	1–3, 2–4, 1–5	4	16
88	648	Parula Warbler,	2–2, 9–3, 22–4, 14–5, 3–7	50	210
93	652	Yellow Warbler,	16–3, 50–4, 27–5	93	383
94	654	Black-throated Blue Warbler,	1–3	1	3
95	655	Myrtle Warbler,	3–3, 1–4, 2–5	6	23
96	656	Audubon's Warbler,	1–3, 2–4, 1–5	4	16
97	657	Magnolia Warbler,	3–3, 54–4, 1–5	58	230
98	658	Cerulean Warbler,	1–4, 1–5	2	9
99	659	Chestnut-sided Warbler,	4–3, 31–4, 2–5	37	146
100	660	Bay-breasted Warbler,	1–6	1	6
101	661	Black-poll Warbler,	1–3, 6–4, 11–5	18	82
102	662	Blackburnian Warbler,	3–4	3	12
103	663	Yellow-throated Warbler,	1–3, 2–4	3	11
104	664	Grace's Warbler,	1–3	1	3
105	665	Black-throated Gray Warbler,	1–4	1	4
106	666	Golden-cheeked Warbler,	7–4	7	28
107	667	Black-throated Green Warbler,	11–4	11	44
111	671	Pine Warbler,	18–4, 2–5	20	82
113*a*	672*a*	Yellow Palm Warbler,	1–4	1	4
114	673	Prairie Warbler,	9–3, 39–4, 4–5	52	203
115	674	Oven-Bird,	1–2, 10–3, 30–4, 45–5, 1–6	87	383
116	675	Water-Thrush,	2–4	2	8
117	676	Louisiana Water-Thrush,	2–4, 9–5, 1–6	12	59
119	677	Kentucky Warbler,	1–2, 5–3, 19–4, 27–5	52	228
121	680	Macgillivray's Warbler,	1–3, 2–4	3	11
122	681	Maryland Yellow-throat	3–3, 25–4, 4–5	32	129
122*a*	681*a*	Western Maryland Yellow-throat	6–4, 1–5	7	29
123	683	Yellow-breasted Chat,	1–2, 33–3, 99–4, 1–5	134	402
123*a*	683*a*	Long-tailed Chat,	1–3, 6–4	7	27
124	684	Hooded Warbler,	6–3, 18–4	24	90
125	685	Wilson's Warbler,	1–5	1	5
125*a*	685*a*	Pileolated Warbler,	1–3, 2–4	3	11
127	686	Canadian Warbler,	1–5	1	5
128	687	American Redstart,	5–3, 24–4, 1–5	30	116
				911	3757

Eggs of Warblers in Collection of Isaac S. Reiff,

OCTOBER 27, 1892.

A. O. U. Nos.	Ridgway Nos.	Names.	No. of Sets.	Total No. Eggs.
636	74	Black and White Warbler, 1–5	1	5
637	75	Prothonotary Warbler, 1–5	1	5
638	76	Swainson's Warbler, 2–3	2	6
639	77	Worm-eating Warbler, 2–4, 2–5	4	18
641	79	Blue-winged Warbler, 6–5, 1–6, 1–7	8	43
642	81	Golden-winged Warbler, 1–5	1	5
645	85	Nashville Warbler, 1–4	1	4
646*a*	86*a*	Lutescent Warbler, 1–4	1	4
648	88	Parula Warbler, 1–3, 2–4	3	11
652	93	Yellow Warbler, 2–4	2	8
657	97	Magnolia Warbler, 1–4	1	4
659	99	Chestnut-sided Warbler, 1–3, 1–4	2	7
661	101	Black-poll Warbler, 1–4	1	4
663	103	Yellow-throated Warbler, 1–3	1	3
666	106	Golden-cheeked Warbler, 1–4	1	4
667	107	Black-throated Green Warbler, 1–4	1	4
671	111	Pine Warbler, 2–4	2	8
673	114	Prairie Warbler, 5–4, 1–5	6	25
674	115	Oven Bird, 3–5	3	15
675	116	Water Thrush, 1–4	1	4
676	117	Louisiana Water Thrush, 1–5	1	5
677	119	Kentucky Warbler, 2–4	2	8
681	122	Maryland Yellow-throat, 2–3, 2–4	4	14
683	123	Yellow-breasted Chat, 1–3, 3–4	4	15
683*a*	123*a*	Long-tailed Chat, 1–3	1	3
684	124	Hooded Warbler, 1–4	1	4
685*a*	125*a*	Pileolated Warbler, 1–3	1	3
687	128	American Redstart, 2–4	2	8
			59	247

Where the Mississippi Kites Fly.

"Dear Mr. Peabody: The Mississippi Kite breeds in Barber and Comanche Counties [Kas.] along the wooded streams and their tributaries. I expect to visit that region in May and June next, in search of the Black-capped Vireo. Should I be so fortunate as to find any eggs of the Kite, I shall be glad to remember you.

"Very truly yours,"

Thus wrote Col. Goss but three weeks before all those who had ever seen his genial face and talked with him were shocked at the tidings of his sudden death.

But the letter filled me with a great desire, not only to visit the breeding grounds of the Kite, but to discover, if possible, the nests and eggs of the Black-capped Vireo among the wooded gypsum hills along the Cimmarron River. Many lions in the way killed this part of my plan. But the 26th of May last found me en route for Kansas, through South Minnesota, Iowa and Northwest Missouri.

But what delays! One day, at the start, through a young ticket seller's stupidity; another day, at Wellington, Kas., the news of whose appalling cyclone disaster reached us two hours after the stroke as our long Pan-Handle train took on a score of jolly Odd Fellows at Ottawa; a day's delay through the tearing up of the track and its blockading with shattered box cars at Harper, forty miles from Wellington, a delay which I improved, or desecrated, by viewing such sights of Nature's awful destructive fury as I hope never to see again.

But Attica is reached at last and I leave the Pan-Handle train to board the dingy little stub that is to transport me to Medicine Lodge. Ah, here is a colony of prairie dogs beside the little station,—promise of unknown things to delight a nature-loving heart. Another delay! Through my failing to reach Medicine Lodge in the morning, the stage to Sun City, twenty miles away, has gone on without me, and it is now Saturday night.

Never mind. My traps go to the hotel; and I, travel stained, seek a clean spot on the river bank for a bath-house. As I cross the flats there sweeps down from the trailing horizontal branch of a cotton wood a dark Red-tailed Hawk, to my very great surprise.

A ticklish climb to the ridiculous height of twenty feet secured me from the flat, much-feathered nest, laid atop the horizontal lower branch, a one-third incubated set of two eggs, of which one was but faintly and palely marbled, the other immaculate. This set must have been deposited three months later than the earliest nesting date (March 1).

Early Sunday morning, having packed the heaviest of my belongings and left them for the stage to bring, I set out on foot for my destination, twenty-four miles away, climbers, collecting box, rope, gun, saddled to me, clinging to me somehow. A stern walk was before me that hot May morning; but who could not rest and rejoice, even as he walked, in such a region, on such a day! Before me a smooth, winding red road; to the left in front, and winding up to the northwest, glimpses of the yellow stream, with its unbroken fringe of drooping elms and white, spire-like sycamores; beyond, to the south, rolling prairies and red fields; and far beyond the abrupt terraces of the gypsum hills, gleaming with red of clay and white of gypsum, and green-seamed with their wooded cañons; overhead, the bluest of skies, suffused everywhere with foamy heaps and masks of cloud; and all glorified by more than a suggestion of that luminous atmosphere whose perfection grows as one nears the Rocky Mountain range.

As I went, fresh traces of the recent storm, so awful at its centre, were seen everywhere; a wagon blown far afield, a

granary twisted to discord with the points of compass; glimpses of the yellow, foaming bank full river; tiny walks and terraces of fine dead grass and pebbles on every hillside among the flowers, where the sheets of water had poured down the slopes, the holes of the prairie dogs, funneled high, on the uphill side; for, "them little critters knows better than to get drownded," dryly explained an old settler, "and so, before it rains, they just makes a dyke around their holes."

But now all is peace. A Goshawk floats overhead, brilliant in his pied coat of drab and white; the flowers nod as if they had never been lashed with cruel wind and cut by fierce hail; and the great fat mother prairie dogs, asquat with fluttering tails, beside their holes, unceasingly pipe and shriek for the scattered litter of half-grown young to come and be safe from the terrible monster that is passing by. At noon I pass a grim hunter with his pack of stag hounds, out after wolves and the twenty-five dollars bounty offered by the ranchmen. Farther on, as I pass a high ravine bridge that is sinking into the pit recently made by the washout of the clay, I see my first bird carrying nest material; a soft, gray bird bearing a long streamer of something trailing far behind. But it gives forth a strange note; and I look sharply and learn my mistake,—the trailing thing is a tail, and its bearer a Scissor-tail.

It is Sunday, and my only arsenic is salt; but I must have that bird. It is shot, measured, and skinned at once, for the sun is very hot. An hour before sundown, I see the roofs of Lake City just ahead, and I have made twenty miles. After a refreshing bath in a clear pool, grass fringed, in a newly broken field, while the little hyles blow out their bubble throats at my very toes, with piping loud enough for bullfrogs. I press on, and pay seventy-five cents for a twenty-five cent lodging at the one hotel, after wading the eighty-rod bed of the two-inch stream, for the Medicine here is Platte-like in its course. Next morning I pick my way onward through the mud engendered by last night's hard rain. A mile or two out, as I cross, barefoot, the sandy gypsum-stream bed of a tributary stream, a man drives up in the meagrest road cart imaginable: "Is the stage coming soon?" I ask: "*I* am the stage," he quietly said. "Well," with a glance at the scant accommodations slung between those two light wheels: "Well, I guess you needn't bring my grip. You won't be able to carry it and me when I go back."

Still northwest. There is a newly broken "claim," and the road changes, "STREIGHT WEST" says the sign. Over on the field lies a carcass with four vultures gorging themselves upon it. Beyond is an immense prairie-dog village of eighty or a hundred acres in extent. I cross a difficult ford; away yonder is a score of motley buildings, weather-scarred, new, ancient and modern. And soon I am THERE! And so are the Kites. Over a high table land north of the town a flock of twelve is steadily sailing, sailing, looking for food. Instantly I am shaking hands with the quiet, whole-souled ranchman previously unknown to me save by a brief correspondence and for eight unblown Kite eggs, ready to hatch, sent me last season.

"No, you don't want to go to any hotel. You'll stay with us while you are here. After dinner we'll see about the Kites." And we went, on broncho back, two miles to the heavy timber along the Medicine.

An occasional Kite skims overhead on the wind, making my heart thrill with anticipation. In fifteen minutes I sight my first nest, in a small leaning elm among the heavy timber, quite well out on a semi-horizontal branch, quite flat, of small

sticks, about twenty feet up. An eager climb, without spurs, and I find that the nest contains two twigs, freshly plucked, in soft green leaf. Later discoveries prove this to be a typical location and an average nest.

"I thought we'd come out here this afternoon," remarked my host as we galloped homeward, at sundown, having discovered five fresh but empty nests, "and then go out to-morrow to where the Kites really breed. It is seven miles and more from here."

Now this was, I confess, a "stunner." All along the trip, I had said to myself, "Now if Mr. D. is busy, I'll just go out alone among the timber, explore Col. Goss' colony, and when I have secured, say, ten sets, I'll go home." *Work* lay before us, on the basis of a ranchman's thorough knowledge of every square mile of this portion of the watered and wooded gypsum hills. Before my trip was ended I said to myself, "What madness for a tender-foot to think of coming out here alone after Kites' eggs."

"To-morrow" we explored all the available territory inhabited by the Kites. On the way out, riding up a steep cliff to the edge of a crag honeycombed with small caves, where surely vultures breed, I was delighted to find that the lone tree which formed the pinnacle of the crest, and whereon a vulture sat, was a live red cedar. "These cañons were all heavily fringed with them once," my friend explained. "When I was a trader here, in the early days, cedar posts were legal tender. I've had as high as fifty thousand on hand at once. When the buffaloes stampeded, the hunter used to cut posts. I used to trade provisions for posts, the posts for corn, and the corn for money."

Riding on, we spent the day in exploration. A gale of wind blew all day. The Kites were settled, a pair here, a single bird there, among the trees, to escape the blow; but they were very wild. Many wing shots failing, I had to commit a deliberate murder to secure the one fine male that was to supply my cabinet.

Some ten or a dozen fresh nests were found, and several old ones. The nesting was all of ten days late, and I have missed the keen satisfaction which it would have been to take from the nest with my own hands an egg so rare as that of the Mississippi Kite.

But that day's adventure had its compensations, though it ended in a seven mile gallop home through driving rain. Prominent among the satisfactions of the day was the taking from a high red clay bank, stratified with gypsum and bearing several thousand nests of the Cliff Swallow, distributed in colonies from top to bottom of the cliff, several sets of eggs, and a beautiful nest cemented to a plate of the crystalline gypsum. And greater still among satisfactions was that of bringing these and other specimens safely home, on horseback, by stage, by rail, all these hundreds of miles.

Although the Kites would not lay for *me*, they did for my collector, who sent me in August, nicely blown and safely packed, a large series of eggs. Of the nests, all but one were in elm trees, by preference, evidently, in trees that were ivy-grown. Nesting height, from fifteen to forty feet. Locality, the remote, wild, wooded cañons.

Desiring to reimburse myself, in part, for expenses of collecting, I made a proposition to an eastern dealer, who was kind enough to offer me per egg just what I pay my collector, and who added to his offer this caution, "and they must not be Marsh Hawks, either, at that price. You probably know they can be substituted."

Now this astonished me, although on comparison of several non-typical Kite eggs with Marsh Hawk's eggs of unusual shape and color, I could detect a resem-

blance, but it was a *resemblance* only. The typical egg of the Mississippi Kite is *pointed subspherical* in shape, is blue-greenish white in color, when fresh, and measures, within a tenth of an inch, 1.53 by 1.25. The texture of the shell is finer than that of the Marsh Hawk. But all this I did not accurately know when, gritting between my teeth the discipline of a great disappointment, I packed and started for home. Straight north by the Burlington Route I came, across the monotonous miles of flooded Iowa bottoms. At Omaha, unluckily, I took the Minneapolis convention delegate laden express, wherein was standing room only, in coach and sleeper. But in the early morning we tapped the "Northwestern" at Kasota, and I went flying home in a half empty train, through the sweet but dusty June morning air, three days earlier than I had been expected. Half dead for want of sleep, I plodded homeward across lots, with the lightest and most precious of my luggage. I opened the dining-room door and stood expectant. There was a rustle of skirts, a sound of hurrying feet, a vision of two bright eyes, and the sound of a voice, "*Well*, you dear, dirty old—"

P. B. Peabody.

Singing Mice.

A four-footed creature that sings is certainly curious enough to have its existence doubted; and many people do not believe that such a thing as a singing mouse has ever been seen, or, more correctly speaking, heard. It has, though; and in a certain house beloved of mice generally, what sounded like the voice of a very small bird was often heard in the wall. A trap was set for the uproarious ones that kept up a constant squeaking and gnawing, beside nibbling every viand that they could possibly get at; and one night the dainty bits of cheese lured into captivity a mouse that looked like other mice and acted like a Wren. Such a quivering, musical little warble could scarcely come from any other throat than that of the tiny bird.

But it soon proved beyond a doubt that mousie did it himself, and that he must be the very singer who gave the mysterious wall concerts, so the next thing was to make him a cage. It was quite an uncommon one, as uncommon as he was himself—a glass globe covered with netting. A warm nest was arranged in it, and the curious little performer took very kindly to his luxurious quarters. He had, of course, the best cheese to nibble at, and he evidently considered himself in clover. He put on airs, too, and seemed to know when he was being watched. At such times he would raise himself up, and try with all his small might and main to act like a canary. Sometimes he would hold up one paw, and then he was a full-fledged prima donna, sending forth such loud notes that it was almost startling to hear him.

But an easy life did not seem to agree with the amusing little rodent, and possibly he pined for the home in the wall, with its boundless freedom, where he may have left "his young barbarians at play." In a few days he died without any apparent cause, and the experiment of caging a singing mouse was altogether unsuccessful.

Other four-footed warblers have been kept in good condition for a much longer time, giving abundant opportunity to make some very interesting discoveries in regard to their musical organs. They do not, it appears, sing with their throats like other songsters, but with their noses. Their vocal chords are vibrating folds of the skin at the outlet of each nostril, and the performer can vary the tone from high to low by using more or less force in expelling the air. When quite by himself, the sound produced by the singer resembles that of an Æolian harp; but in a cage, when the small prisoner is often singing for effect, the notes are much bolder.

A cat purs very much in the same way as a mouse sings, and both are signs of comfort and satisfaction. But the mouse's song, unlike that of the cat, has given rise to many absurd superstitions, and houses have acquired the bad reputation of being haunted because of singing mice in the walls. The soft wailing sounds which the song then assumes is said to come from the uneasy spirits of those who have been murdered; and the servants who are frightened of the singing mouse could never be made to believe that the continual picking and stealing from the pantry are done by the singer himself and his near relatives. For although it seems as if so delicate a creature should be above such a mean thing, he is really no better than his common-place companions.

Harper's Young People.

Broad-winged Hawk in Hillsboro County, N.H.

Before this spring I have always considered the Broad-wing as one of our very irregular visitors. But this year they seem to be more plentiful than usual, as I know of at least four pair that have undoubtedly nested in this county the past season.

To begin with, the first one noted this year was on April 8, on which day I was collecting Hawk's eggs along Black Brook. While eating my lunch I discovered a pair of Broad-wings and soon found their nest, which they were just finishing up ready for eggs.

The female was a handsome specimen, but I did not molest her, because they are so rare here that the destruction of a single pair would make quite a gap in their ranks.

After this pair were noted I observed several scattered individuals, and later on another pair. They were flying about East Turn Hill and upon searching I found their nest, just completed. Seeing that this species had appeared to be so plenty this year so far, I thought that I would be justified in collecting a set, inasmuch as I had never taken any before. I returned May 17 with Mr. Dinsmore, who desired to examine the nest. Just as we stopped beneath the tree the bird left the nest, which contained two nearly fresh eggs.

The nest was placed fifteen feet from the foot of a small oak tree that grew out over the edge of an out-cropping mass of rocks that formed a steep cliff.

No. 1 is of a dark cream color heavily blotched with umber and a few lines of black.

It has several small feathers adhering to the larger end on one of the black lines, from which I infer that they are unnatural markings. This egg measures 2.14x1.72.

No. 2 is dirty white in color and sparsely lined about the larger end, with brown and black. This egg is not so rounded in form as No. 1. Size 2.11x1.58.

As the set now reposes in my cabinet, it does not look so beautiful in my eyes as it did when I first examined it, but nevertheless I am glad that I took it.

Arthur M. Farmer.

Amoskeag, N.H.

Notes from Danbury, Conn.

A. E. Betts writes that "George Dickerman of this place found a nest of the Barn Swallow on September 3, with five eggs slightly incubated." Unfortunately they were accidentally broken.

November 9 a Great Blue Heron was seen and on the 13th a Fish Hawk.

THE
ORNITHOLOGIST AND OÖLOGIST
A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS,
AND TO THE
INTERESTS OF NATURALISTS.

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An Iniquitous Duty.

The defeat of the Republican party in the late election is without doubt due to the McKinley bill more than any other cause.

While very few question the advantage of a moderate protection, when it is overdone to the advantage of a few and the disadvantage of the masses it is time to cry "Halt!"

Whatever may be our political affiliation, we are emphatic that a duty of 60 per cent on any line of goods is a gross outrage and shoud be rectified.

Let the taxidermist stop and think: $600 duty on every $1000 worth of glass eyes that are imported! *To be paid by them, not by the foreign manufacturer.*

The great hue and cry of "Protect American industries," tooted by McKinley and his backers to cover schemes to enrich a few at the expense of many, should be effectually silenced by the 8th of November verdict.

We do not believe that an industry that requires over 20 per cent protection is worth nursing.

It now remains to be seen if the Democratic party will do a little paring down.

Brief Notes, Correspondence, and Clippings.

Manly Hardy, of Brewer, Me., has a very complete collection of the North American birds, nearly all mounted by himself. It is seldom one sees so many of the rare specimens in a private collection.

H. H. Brock, of Portland, Me., has added the Waders to his already large collection. The doctor gives evidence of a great deal of skill as a taxidermist, and of being an observer of nature.

Way up in Skowhegan, Me., is a taxidermist who is giving a great deal of attention to the mounting of large animals. All over the town are scattered pieces of his handiwork. As we rode up to the principal hotel the first thing that met our gaze was the piazza adorned with stuffed Caribou and Deer. A large Moose was seen occupying the centre of one of the stores, while in the various windows were Bear, Timber Wolf, Lynx, Wildcat, Beaver, etc. It was quite a surprise to us to find the extensive manner in which Mr. Gifford had gone into the heavy work.

S. L. Crosby, at Bangor, Me., is another busy body. His store was packed with heads of Deer and Moose, trophys of a good season for the visiting sportsman.

Mr. Crosby succeeded the late lamented E. S. Bowler, who was one of the first to order eyes from A. L. Ellis & Co. when they started business in Pawtucket. Crosby said, "We can stuff heads equal to any one in the country," and handed out the cigars. What could we do but say, "Right you are," and try the cigars? Holt & Morrell, of Bangor, were also found ready to stuff any head that came their way.

But when we got back to Portland and settled down in Linc Daniels', trap-

per, guide, taxidermist, sportsman, and good fellow, then we were at home.

Linc told some pretty good stories, but he got one setback that made us smile. He had a very large Gray Squirrel that he had just completed and stuffed for all it was worth. He had barely called our attention to it and we had remarked that it was as large as a cat, when in walked a lady. Walking around and admiring the various things, her eye fell upon Linc's Squirrel. "Oh, my!" she exclaimed, "isn't it a beauty? *But I have got one at home twice as large.*" A deep silence fell upon the scene.

Carl Fritz-Henning during the summer made a trip up and down the Mississippi river from Clinton, Iowa, to St. Paul, Minn.

He writes that the scenery is grand and bird life was abundant.

While in Minnesota he visited and remained several days at lake Minnetorka.

During the fall he made a trip down the Illinois river from Hennipin to Peoria.

On October 24, he reports thousands of Crow Blackbirds near Boone, Ia., ready to migrate.

Oliver Davie writes that he is working hard to have his work out by January 1. We have a very few samples of plates that we will send to any one who really wishes to subscribe.

Mr. Davie will publish in the work the names of all who subscribe up to 500, the limit. We have received quite a number of new names. Seventy-five to eighty full-page plates means quite a work, and the price at which it can now be secured, five dollars, is very low.

Mr. Davie is preparing a collection of birds for the State of Ohio, that are to be exhibited at the Columbian Exposition. He writes that he has just completed a private museum, and the birds will be exhibited there before sending to Chicago.

MUSKEGET ISLAND.

Muskeget Island, thy name is blest'
With pleasant memories of peace and rest.
Safely ensconced in old ocean's bed,
Alike to life's cares and sorrows dead.
To thy barren shores we gladly fly,
And bid the bustling world "good-bye."

From this lonely isle, wet with ocean spray,
The white-winged Seagull bears away
The only message to the outer world
Of pitiless storms against it hurled.

But nightly billows and tempestuous winds,
Fraught with peril to all mankind,
Make no injuries on thy shifting sands
As they onward move to less favored lands.

No blades of grass or budding trees
Herald the coming of a warmer breeze.
To Winter and Summer alike thou art dead,
Serenely calm in thy watery bed.

And yet what pleasure is in store
For those who yearly seek this shore.
In its sheltered bay the sportsman finds
Ducks and Geese of various kinds,
Who unsuspicious of the death that awaits
Their sojourn here in search of mates.

In the balmy days of an early spring
Peace and rest thy solitudes bring.
Merchandise venders are something unknown,
Brokers can't reach you by Bell Telephone,
Stocks and bonds may advance or decline,
Clearing-house rates to the dogs we consign,
Political wars no progress make,
Religious belief no parson can shake.
Freedom of action is ours to enjoy;
The business man once more is a boy.

If wind and waves thy praise could sing,
A silent tribute each day would bring,
Though memory fades, hearts ne'er can forget
The pleasures — peace of Muskeget.

Gordon Plummer.

While at Linc Daniels' a specimen of the Hutchins Goose, that had been shot in Maine, was brought in to be mounted.

James M. Southwick is again able to attend to business.

The British Guiana Museum will make an exhibit of the mammals of that country at the Columbian Exposition. The contract for mounting them came to Hyde Park, Mass.

Have Mice an Ear for Music?

Some time ago there was a hen-coop on our place very much infested with mice and rats.

One day I happened to be in there playing upon a harmonica when all at once I saw the head of a tiny mouse peering from an opening in the wall, as though he were listening.

Further and further he advanced, until — with a whisk he was gone. I stopped playing.

Then I commenced again, and after awhile on looking carefully about I beheld in the wall four holes and the heads of two mice at each hole.

Slowly they came toward me and crouched upon the ground, listening. The music stopped and the mice were gone.

As I started the music a mouse crept from the opening in front of me, and approached.

He crept to my very feet and looked into my eyes, all the time keeping up a "Squeak! Squeak!"

He held this position for about five minutes, then turned and ran into the wall again.

Folks laughed at me until I invited three or four into the coop. There the mice went through the same actions as previously. Day after day it continued the same, until the little animals and I grew quite friendly.

Once a rat advanced toward me, but soon turned and went back again.

But at last the hen-coop was altered and my small friends disappeared.

The question is, did those mice like music, and were they attracted by it?

C. P. T.

Wakefield, Mass.

A Barred Owl was shot within about five minutes walk of our place, December 1. A dangerous locality for such visitors.

To the Ornithologists of Illinois:

The results from the short notice I placed in the October ORNITHOLOGIST AND OOLOGIST, for your help in some work on the birds of the state, have been far from satisfactory. Only a few have responded so far.

The general distribution of probably the majority of the Illinois birds has been sadly neglected by our most prominent writers. In fact, Illinois, compared with some other states, has had very little systematic and scientific research among her birds. To partially remedy this and advance our knowledge of the Illinois birds, Mr. A. C. Murchison, of Kewanee, Ill., and I have decided upon a plan, to be accomplished only by the combined help of all Illinois workers.

This state has many ornithological students in the field, and by bringing their observations together and combining them very satisfactory results could be obtained. It is desired to make a thorough investigation into the distribution, nesting, arrival and departure of the birds throughout the state; to publish the results and to give due credit to each observer. Therefore all Illinois ornithologists and those who are able to identify our native birds are invited to help and to send in their names at once in order that circulars may be sent. We need your aid, and unless a sufficient number of stations be established, the work cannot be carried on. It is intended to commence work by the first of January, 1893, and your early and prompt reply will oblige.

William E. Loucks.

Peoria, Ill.

One more issue will close this volume of the ORNITHOLOGIST AND OOLOGIST. If the subscribers who intend to renew will notify us at once, it will save us a great deal of labor.

We hope to hear from you all.

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ISAAC S. REIFF, of 853 North Thirteenth St., Philadelphia, Pa., has the collection of the late Henry K. Jamison for sale, and anyone sending him a two-cent stamp will receive a list of the same. Mr. Jamison's reputation as a collector makes any eggs from his collection very desirable as specimens. — J.P.N.

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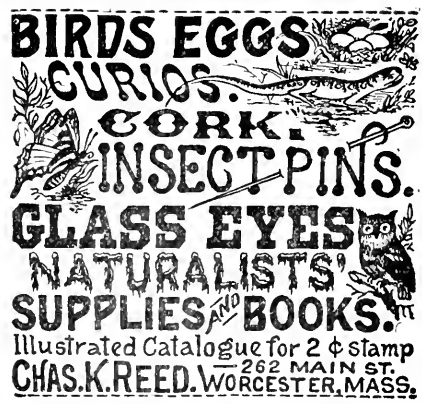

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Legends and Folk Lore Relating to Birds in Various Countries.

Of the many superstitions relating to birds, the most numerous are those connected with the domestic fowls which have longest been in familiar association with man. Next comes those birds which, though not domesticated, are looked upon with favor by mankind and which have their haunts near the homes of human beings, birds which, for certain reasons, are not only tolerated but have also been protected through unanimous consent for ages, as the Stork, Robin Redbreast and some others. Following these come those birds to which the attention of man has been attracted by the peculiar notes to which they give utterance or by some peculiarity of action.

The fact that most of the superstitions and folk lore connected with birds relate to such as belong to the Old World shows that these notions are of very slow growth and are the traditions of ages. The superstitions we have in America in regard to birds relate only to those of species found in the Old World, or so like as to have been given the same names. For superstitions connected with the birds of America we must go to the myths and traditions of the aborigines of the country, or to the negroes transplanted on the continent as savages from the wilds of Africa. Doubtless many of the superstitions relating to birds in the Old World originated when the white race was still in a savage or semi-savage state. It is a curious fact that educated and enlightened people never originate any such stories in regard to birds and beasts nor endow them with such attributes as are given them in the folk-lore of the nations, though still pleased with the poetical ideas embodied in many of them.

THE COCK AND HEN.

As among the oldest of the bird superstitions are those relating to the common Cock it would seem to indicate that the species have longer been associated with man in a state of domestication than any other of the fowls of the poultry yard. In the most ancient times, as far back as written history reaches, cocks were closely watched and studied by the Greek and Roman augurs, and their crowing, account being taken of time and place, interpreted for good or evil. In the Bible the Cock appears when Peter denies his Master. The Cock not only lifts his voice in warning to the living but also to the dead; at his first crow in the morning all ghosts that are scouting abroad in this upper world must hasten back to Hades.

Mahomet reported seeing in the first heavens a Cock so large that his crest touched the floor of the second heaven. The crowing of this celestial bird arouses from sleep every living creature except man; he alone hears it not. When this big Cock ceases to crow the day of judgment will be at hand.

The Cock seen on the spires of churches is to remind men not to deny their Lord.

In Persia there are lucky and unlucky hours for the crowing of Cocks, and the Cock that crows at an unlucky hour is instantly killed, for there, as in many other countries, men and poultry "roost" in the same dwelling. In Ireland the fate of the Cock that crows out of hours is not so bad. He is supposed to prophecy some event affecting the family, and the mistress of the house hastens to feel his feet. If they are cold a chill strikes her heart, for she knows that he predicts a death; if warm she rejoices, as she is well aware that the prophet of her home and hearth sees good fortune coming and has raised his voice to proclaim it.

In one place in Ireland, however, no Cock is ever heard to crow. That place is Ballyfay. The reason is this: The last night that St. Columba was in Ireland he lodged in Ballyfay. He informed the mistress of the house that he must positively leave her at cock-crow in the morning. The woman's Cock crowed very early in the night, awakening St. Columba, who departed wearily, and as he went he cursed the town in the following words:

"Oh, luckless Ballyfay,
Deprived of Chanticleer,
Evil to drive away,
And morning light to cheer!"

Since that day no Cock has ever been heard to crow at Ballyfay.

There are ten thousand stories in which the sagacity and prophetic powers of the Cock play an important part, but all are too long to be mentioned here. We of the present day are fortunate in that the Cock has given over his ancient practice of laying eggs. That fearful creature, the Cockatrice, was produced from a Cock's egg hatched by a serpent. It was a monster with the wings of a fowl, the tail of a dragon and the head of a Cock. The very look of this creature caused instant death. The Cockatrice is mentioned in the Bible, and Isaiah speaks of a time when even the "weaned child shall put his hand on the Cockatrice's den." The word "Tsepha" or "Tsiphoni" occurs five times in the Bible; three times it is translated as Cockatrice and twice as the adder.

The Hen is not so highly honored as the Cock, and her crowing is generally looked upon as a thing not to be tolerated. The old adage asserts that —

"A whistling maid and crowing Hen,
Are good for neither God nor men."

The crowing of a Hen is thought to be unlucky, and in many places is looked upon as foreboding death. A whistling maid means a witch, who whistles like the Lapland witches to call up the winds; they were supposed to be in league with the devil.

The Hen, however, is not always punished for crowing. In Ireland the Cock is believed to be well aware of the reason for rejoicing at Christmas-tide, since for nine nights at that season he crows all night long. In the village of Carrigan county, Donegal, lived a family who possessed a Hen of a disposition so pious that on Christmas eve she imitated her rejoicing lord and crowed vigorously.

"Whist, you villain of a bird!" cried the mistress of the house from her bed, "just wait till to-morrow and I'll wring your unlucky neck."

"Deed you will not!" cried the master, "you'll no stir thou Hen, for she has more wit nor many a Christian."

THE GOOSE.

Although the very name of the bird is the synonym for silliness, yet the Goose has been highly honored by some people. In Rome it was a sacred bird, as was the Ibis among the Egyptians. There is a tradition that, when the Gauls invaded Rome, a detachment in single file climbed up the hill of the captial so silently that the foremost man reached the top without being challenged; but when he was striding over the rampart, some sacred Geese, disturbed by the noise, began to cackle

and awoke the garrison. Marcus Manlius rushed to the wall and hurled the venturesome Gaul over the precipice. To commemorate this event, the Romans carried a golden goose in procession to the capital every year.

In the Isle of Man a fairy and wonderful beauty, whose singing was so sweet and fascinating that fishermen were constantly being enticed to follow her into the sea, where they were drowned, to the deep sorrow of the Manx maidens left pining on the shore.

At last there came forward from among the young men of the island a champion with heart and soul duly steeled by prayer and fasting upon whom the charms of the Manx siren had no effect. He had determined to destroy the fairy in order to insure the safety of his countrymen for all time, but just when he thought he had her in his power she took the form of a Wren and made her escape. The champion then cast upon her a spell which compels her to reappear in the form of a Wren once a year; for this reason the Wrens are hunted — it is hoped that one of those killed may be the wicked fairy.

MAGPIE SUPERSTITIONS.

The mischievous Magpie is a bird of both good and evil omen. We are told by Grose that it is unlucky to see one Magpie and afterward several others; but if two Magpies are seen it is a sure sign of a wedding soon to come; three means a prosperous journey, and four good news will be received. An old Scotch rhyme sums up all these Magpie signs as follows:

"One's sorrow, two's mirth,
Three's a wedding, four's a birth,
Five's a christening, six a dearth,
Seven's heaven, eight is hell,
And nine is the devil his ane sel."

In "Macbeth" Shakespeare says:

"Augurs and understood relations have
(by Magpies, and Choughs, and Rooks) brought forth
The secret'st man of blood."

In England in 1822, at Stogumber, a thing occurred that showed Shakespeare was not far wrong. A servant who was entering a field had his attention attracted by a Magpie, which appeared to have escaped from a neighboring house. The bird spoke so uncommonly plain that the man was induced to follow it. "Cheese for Marget, cheese for Marget!" was its continual cry as it hopped forward, till it stopped behind a hay-stack and began to eat. On inspecting a number of hams, a quantity of cheese and other articles were found in sacks. The finding of the plunder led to the arrest of four men wanted for a murder.

MANY NOTIONS ABOUT THE RAVEN.

The Raven, a bird related to the Magpie, being of the family Corvidæ, owing to its harsh voice more than to any harm actually done by it, is classed among birds of evil omen. There are an almost infinite number of superstitions and legends of various kinds connected with the Raven. More than almost any other bird it is mentioned in the Bible, and also much is said of it by the ancient writers of all nations.

A Raven was sent out by Noah from the ark to see whether the waters were abated. Ravens were the means, under divine command, of supporting the prophet Elijah at the brook Cherith. They are expressly mentioned as instances of God's protecting love and goodness, as in Job: "Who provideth for the Ravens his food? when his young ones cry unto God, they wander for lack of meat." Also see Luke xii., 24, and Psalm cxlvii., 9. The Raven is enumerated with the Owl, Bittern, etc., as marking the desolation of Edom (Is., xxxiv., 11). "The locks of the beloved" are compared to the glossy blackness of the Raven's plumage. The Raven's carniverous habits, and especially his readiness to attack the eyes are alluded to in Prov., xxx., 17. To the fact of the

Raven being a common bird in Palestine, and to its habit of flying about restlessly in constant search of food to satisfy its voracious appetite, may perhaps be traced the reason for its being selected by the Saviour and the inspired writers as the special object of God's providing care.

The notion of the bird being of ill omen and that it forebodes death and brings pestilence is probably much owing to its habit of following armies in time of war. For this the bird is not to blame, as its so following armies is merely evidence that it possesses sufficient wisdom to know that when armies are afoot death is also abroad; and as for the pestilence, it naturally comes after the slaughter.

The Ravens were once as white as the Swans, and not inferior in size; but one day a Raven told Apollo that Coronis, a Thessalian nymph, whom he passionately loved, was faithless, and the god shot the nymph with his dart; but, hating the tell-tale bird,—

"He blacked the Raven o'er,
And bid him prate in his white plume no more."

Jovianus Pontanus tells of two skirmishes near Beneventum, between Ravens and Kites, which prognosticated a great battle. Battles are said also to have been thus foreshadowed in many cases by fights between armies of Ravens and Crows. Many stories are told of deaths being foretold by Ravens flying into dwellings or alighting on their roofs. Ravens fluttering about the dwelling of Cicero warned him that the hour of his death was near, and it is related that a Raven entered the chamber of the great orator the very day of his murder, and pulled the clothes off his bed.

The "fatal Raven," consecrated to Odin the Danish war-god, was the emblem on the Danish standard. It was embroidered "in one noontide" by the daughter of a great war-chief, with magic spells which gave it a sort of life. If the Danes were to be victorious in a battle the Raven stood erect and soaring, but if they were destined to defeat, the bird hung his head and drooped his wings.

The two Ravens of Odin were called Hugin and Munnin (Mind and Memory). They sat on his shoulders, and each whispered into an ear of the god of all things either of earth or heaven.

In Christian art Ravens are emblems of God's providence. St. Oswald holds in hand a Raven with a ring in its mouth; St. Benedict has a Raven at his feet; St. Paul, the Hermit, is drawn with a Raven bringing him a loaf of bread.

PELICAN LEGENDS.

The Pelican is several times mentioned in the Bible. Of Edom it was said that the "Pelican and the Bittern should possess it." The same words are spoken of Ninevah. The Pelican was probably used as an emblem of mourning and desolation, because of its general aspect as it sits in apparent melancholy mood, with its bill resting upon its breast.

St. Hieronymus gives the story of the Pelican restoring its young ones destroyed by serpents, and his salvation by the blood of Christ. The "Bestiarium" say that "Physiologers tell us that the Pelican is very fond of its brood, but when the young ones begin to grow they rebel against the male bird and so provoke his anger that he kills them; the mother returns to the nest in three days, sits on the dead birds, pours her blood over them, revives them, and they feed on the blood."

In Christian art the Pelican is the symbol of charity. It is also an emblem of Jesus Christ, "by whose blood we are held."

The Goose is not mentioned in the Bible, though it was probably known to the Hebrews, it being common in Egypt. The notion of silliness which attaches to the Goose is very ancient. In the old Egyptian hieroglyphics the emblem of a vain, silly fellow is a Goose.

In regard to the custom which prevails in Europe of having a roast Goose, at Michaelmas, our legend says that St. Martin was tormented with a Goose, which he finally killed and ate. As he died from the repast, good Christians have ever since sacrificed the Goose on the day of the Saint.

ABOUT THE PEACOCK.

The Peacock is mentioned in the Bible, but it was not known in the Holy Land until Solomon's ships brought home from Tarshish specimens of the bird, together with Apes and other curiosities. Elian relates that Peacocks were brought into Greece from some barbarous country, and says they were held in such high estimation that a pair were valued at Athens at 1000 *drachmæ*, or over $160. Their next step might be to Samos, where they were preserved about the temple of Juno, being the birds sacred to that goddess. In ancient times Peacocks' crests were among the ornaments of the Kings of England. The pride of the Peacock when in full feather is proverbial. The fabled incorruptibility of the Peacock's flesh, caused the bird to be adapted as a type of the resurrection. "By peacock" was at one time an oath esteemed as sacred.

Peacock feathers are again condemned as unlucky. There was such superstition in old times, but it faded out, and during the first part of the present century Peacock feathers were again in high repute; however, the old superstition has been revived and there is now no sale for the feathers.

A year or two ago, in order to prove the folly of this superstition, Daniel Hodnot of Long Branch, brother-in-law of the late Daniel Liddy, brought home from Europe a screen made of Peacock feathers. He told his wife of the prevailing superstition and said they would disprove the commonly received notion. She said the superstition did not disturb her. Since then Mr. Hodnot's house has several times marvelously escaped destruction by fire; a valuable dog of his died without apparent cause; burglars have entered the place and stolen valuables, and both Mr. Liddy and Mr. Hodnot have died. Finally there was a lawsuit to contest Mr. Liddy's will. In the neighborhood of Long Branch Peacock feathers are now no more popular than before the test was made.

PIGEON LEGENDS AND SUPERSTITIONS.

The Pigeon or Dove having been associated with man from the earliest times, there are many legends connected with it. We read of the Dove in the time of Noah. Two black Pigeons are said to have taken their flight from Thebes, in Egypt; one flew to Libya, and the other to Dodona in Greece. On the spot where the former alighted, the temple of Jupiter Ammon was erected; in the place where the other settled, the oracle of Jupiter was established, and there the responses were made by the black Pigeons that inhabited the surrounding groves.

Mahomet had a Pigeon that was taught to pick grains of wheat from his ear, in order that it might be thought that the bird brought him communications from heaven.

There was an old superstition that one sprinkled with the blood of a Pigeon would never die a natural death. This notion is said to have originated as follows: A sculptor carrying home a bust of Charles I. stopped to rest on the way; at the moment a Pigeon overhead was struck by a Hawk, and the blood of the bird fell on the neck of the bust. The sculptor thought this ominous, and after the king was beheaded the incident was given a place among the popular superstitions of the time.

As regards the Dove there is no end of popular superstitions and an abundance of folk lore.

THE ROBIN.

In regard to the Robin Redbreast there is a tradition that, while the Saviour was on his way to Calvary, a Robin plucked a thorn out of his crown, and the blood which issued from the wound falling upon the bird dyed its breast with red.

A popular notion long prevailed that the Robin will cover with leaves any dead person whom it may find, and we see this superstition made use of in the story of the "Babes in the Wood." An old rhyme says:

The Robin and the Wren
Are God's Cock and Hen.

THE WREN A PERSECUTED BIRD.

The poor Wren, however, does not find that protection in Britain, outside of England, that is almost universally accorded the Robin. In Ireland the Wren is relentlessly hunted down by more than half the people. Every Catholic among the lower classes kills a Wren whenever he gets a chance. They do not often give a stranger the true reason for the animosity they cherish against the bird, merely saying: "The Wren has a drop o' the diel's blood in it."

According to the best authorities, the real reason for the rage against the Wren is found in the legend that relates that in one of the rebellions a party of Protestant soldiers, overcome with fatigue, lay down in a deep glen and soon sentinels and all were sound asleep. The rebels had been on the watch and soon were creeping forward to surprise the sleeping men. At the critical moment, however, a Wren tapped three times with its beak on the Protestant drum, awakening the drummer-boy, who sounded an alarm, when the assailants were smitten "hip and thigh" and ignominiously routed.

In the south of Ireland, on St. Stephen's Day, boys carry a Wren about in a furze-bush, which is decorated with ribbons. They shout, sing and dance as they pass along. Later in the day, when they have killed the Wren, they knock at all the doors in the village and neighborhood, saying the Wren is in its coffin, and they want money to bury it.

Curiously enough, the Wren is hunted in the same relentless way in the Isle of Man on St. Stephen's Day. When a Wren has been caught it is carried about on a pole and several curious ceremonies are performed. At last the bird is killed and buried in the village churchyard. A feather taken from a Wren killed on one of these occasions is thought to be a sure charm against shipwreck and drowning, and good for twelve months. Formerly no Manx fisherman would think of putting to sea without his Wren feather.

At the first glance one is unable to see why the fisherman should look for protection in the feather of a Wren. Just here, however, comes in a legend which doubtless affords the explanation. The story is that at one time there dwelt

THE SACRED BIRD OF THE EGYPTIANS.

The Ibis, the sacred bird of the Egyptians, is the avator or incarnation of the god Thoth, who in the guise of an Ibis escaped the pursuit of Typhon. It was said to drink only the purest of water, and its feathers to scare and even kill the crocodile. It is also said that the bird is so fond of Egypt that it would pine to death if taken elsewhere. It was reported to destoy the eggs of the Crocodile, to devour serpents and kill all manner of noxious reptiles. The Egyptians made it death to kill one of those birds, even by accident. They say its plumage symbolizes the light of the sun and the shadow of the moon, its body a heart, and its legs a triangle. The bodies of tens of thousands of these birds are found as embalmed in ancient times. The Egyptian name of the bird was "Hip." The Ibis is still found in Egypt. The Arabs call it "Abou-mengel"—Father of the Sickle. In Lower

Ethiopia, where Bruce found the bird, it was called "Abou-hannes"—Father John. In ancient times the Ibis was so venerated and was so free from molestation that it entered even the most sacred temples with impunity.

THE STORK.

The Stork is mentioned in the Bible in several places. It is in various countries regarded as a sacred bird. It was among the ancient Greeks and Romans, as among the Hebrews, a type of paternal and filial attachment. It was believed that the young repaid the care of their parents by remaining with them through life and tending them in old age. In proof of this there are many stories. In some countries the Storks are believed by the children to bring all the little babies from heaven.

According to the Swedish legend, the Stork received its name from flying around the cross of the crucified Redeemer, crying "Styrka! Styrka!" (Strengthen! strengthen!) This sounds well, but the fact is that the Stork has no voice. The only sound it makes is by snapping its bill castenet fashion. We have all seen pictures of the strong young Storks carrying their aged parents south on their beaks in order that they might still have the benefit of a warm summer climate in their old age.

THE SWALLOW.

The Swallow, according to Scandinavian tradition, was also at the crucifixion. It is said to have hovered over the cross of the Saviour, crying "Svala! Svala!" (Console! console!) whence it was called "Svalow," the bird of consolation.

It was a Roman superstition that it was lucky for the Swallow to build about one's house. Aelian says the Swallow was sacred to the Penates or household gods, therefore to injure one would be to bring wrath upon your house.

The Swallow is said to bring home from the seashore a stone that gives sight to her fledglings. This curious fact in natural history is thus mentioned by Longfellow in "Evangline:"

"Seeking with eager eyes that wondrous stone
which the Swallow
Brings from the shore of the sea to restore the
sight of its fledglings."

ABOUT THE SWAN.

There are many legends and superstitions relating to the Swan. It is said that Flonnuala, daughter of Lir, was transformed into a Swan and condemned to wander for many hundred years over the lakes and rivers of Ireland till the introduction of Christianity into that island.

Erman, "Travels in Siberia," says of the Swan: "This bird, when wounded, pours forth its last breath in notes most beautifully clear and loud." Another writer says, "Its note resembles the tones of a violin, though somewhat higher. Each note occurs after a long interval. The music presages a thaw in the cold northern countries, hence one of its greatest charms."

In "Othello," Emily says: "I will play the Swan and die in music." And in ancient times every knight chose one of these birds, which was associated with God, the Virgin, and his lady-love in his oath.

CUCKOO LORE.

In regard to the Cuckoo the folk-lore and superstitions are inexhaustible. In England, once the Cuckoo arrives, it must eat three meals of cherries before it ceases its song. Then it is said —

"The first cock of hay
Frights the Cuckoo away."

After St. John's Day the Cuckoo turns into a Hawk. Gamekeepers are deadly enemies of the Cuckoo for this reason, and shoot them on sight. It is also supposed that the Cuckoo sucks the eggs of other birds to make her voice clear. If a

man desires a good fortune, he turns whatever money he has in his pocket on first hearing the Cuckoo. The Cuckoo tells the length of life, and also can inform maidens how many years they will remain single.

The farmers have many Cuckoo proverbs, such as—

"When Cuckoo calls on the barel horn
Sell your cow and buy your corn."

And—

"Cuckoo oats and woodcock hay
Make a farmer run away."

Naturalists say the Cuckoo, in depositing her eggs in the nests of other birds, first lays them on the ground, then carries them in her mouth and places them in the nest to be hatched by the stranger bird.

OF THE EAGLE.

The Eagle is frequently mentioned in the Old Testament. At least four distinct kinds of Eagles have been observed in Palestine, among which are the golden, the imperial and the spotted. It is also supposed that the Griffon Vulture was sometimes spoken of as an Eagle, as in passages like "Enlarge thy boldness like the Eagle."

The Eagle is emblematic of St. John the evangelist, because, like the Eagle, he looked on the "sun of glory." The Romans used to let an Eagle fly from the funeral pile of a deceased Emperor. Dryden alludes to the custom in his stanzas on Oliver Cromwell, after his funeral, when he says, officious haste "did let too soon the sacred Eagle fly."

"Thy youth is renewed like the Eagle's" is a saying founded on the superstition that every ten years the Eagle soars into the "fiery region," and plunges thence into the sea, where, moulting its feathers, it acquires new life.

BIRDS OF EVIL OMEN.

Crows are considered unlucky if seen on the left of the observer; and where one flies over a house, at the same time croaking thrice, it is said to prognosticate the death of one of the inmates. The hooting of the Owl is in some countries considered an omen of evil, while in others, where Owls abound, the hoot of the bird means nothing worse than a change of weather. For a white Pigeon to enter a house is in many places looked upon as a warning of a death in the family, and it is the same when the Pigeon comes and flutters at a window.

There are superstitious notions and legends connected with many other birds, but space forbids pursuing the subject further at this time.—*Dan De Quille in "Salt Lake City Tribune."*

Late Nesting of the Bob White.

During the fall and winter of 1891-1892 the ORNITHOLOGIST AND OOLOGIST contained several records of late nesting of the Bob White.

I agree with Mr. P. B. Peabody, in regard to his statement, "Nobody has touched, as yet, the bottom mark as to latest normal nesting date of the Bob White." In fact, I said the same in substance in my article in the January, 1892, ORNITHOLOGIST AND OOLOGIST.

My cousin W. F. Hoag, of Blue Rapids, Marshall County, Kansas, again sends me eggs, with data of two instances of late nesting of the Quail. One of them beats his 1889 nest, recorded by me in the January ORNITHOLOGIST AND OOLOGIST, by several days.

Nest No. 1. Found September 22, built in a corn-field, at the foot of a hill of corn, contained ten eggs of the Bob White and one of the domestic hen, incubation about two thirds advanced. The nest was about ten rods from a farm house, which explains the presence of the hen's egg.

Nest No. 2 was found September 23, built in the prairie grass, and run over by the mower before discovered, which

crushed all the eggs excepting four. As near as could be ascertained, the set consisted of fifteen eggs. Incubation postively not over one third advanced. Allowing twenty days to be the period of incubation, the chicks would not have left the shells before October 6 at least.

Benjamin Hoag.

Stephentown, New York.

In Good Greenwood.—III.

Like all hunters who have grown gray in the good greenwood, there are some little spots which are dear to my heart. This is not always on account of any deed of prowess or particular streak of good luck that has happened them, but an undefinable something makes them seem particularly my own. There is Alligator Head Pond, for instance. I first came to it in the winter. There had been a good deal of rain, the pond was tipping full away up among the bushes on the bank and the water had the black-red, mysterious deep look of woodland ponds after a rain. Not a ripple marred the surface. A black Vulture on one dead stub and a Kingfisher on another were all the signs of life. I waited about an hour hoping for some Ducks to come in, but I was disappointed and went back to camp before dark. All night long, as I smoked and dozed over my fire, the little pond would keep picturing itself to my mind's eye.

The next time I went there was in the spring. There had been a long drought, and only a few little reeking pools were left full of green slime and young Alligators. The stub—a dead cedar—where I had seen the Kingfisher was covered with Snowy Herons and I went home with nine of them. That year I often visited it, with varying luck. Sometimes it was the Snowys that rewarded my patient watching. Then it would be other Herons, Teal, Wood Duck, a Rabbit or a Coon. Later in the season the great wood Ibis congregated there in the afternoon, and I spent many delightful hours watching their uncouth gambols and studying positions for future taxidermal work. The Gallinules and Rails also proved excellent and instructive subjects for observation, and so did a big old Alligator that took his siesta of a hot day about twenty feet in front of my favorite hiding spot. Once I skulked round the back of the pond and took a shot at a big Egret. As the gun went off my Alligator rushed for the water, knocked me and my gun both promiscuously in with him and got off scot free. I remember the expression of his eyes as he watched me afterwards while I was wiping off the gun and scouping mud from my own person. He really seemed to be enjoying the joke he had played off on me and I was so mad I would have killed him if I could have found any shot suitable for his tough hide.

Another beautiful picture was furnished me here the next winter on a deer hunt. The pond was still dry and I had been trailing slowly for about an hour when the two or three big jumps that the buck made from a slow track told me that he had taken up his bed not far away. I had been keeping the dogs in all the time and they were very eager, so I sent them round the far edge of the pond in charge of old driver Joe and took my stand right at the head. Soon they opened—first Dora, then Damon and Cora, and down they came with a rush—Jack, the bull pup, close behind, and a pretty buck was close on me before I saw him. I whooped and turned him for a side shot, but he was in the cover when the gun cried, and I could not tell whether I had touched him until the dogs had him down. Both his hind legs were broken at the hip joint, but he sat there with his back in a thick bush and knocked the beagles about with all the ease in the world. But little Jack was of

different stuff, and though he got slatted about in the hardest fashion, he never let go the ear that he fastened until I got in with my knife and settled matters down to peace and quietness.

These three little black and tan hounds, with the bull pup, were as smart a pack as I ever handled. Faster ones I have often had, but truer or stancher never. Jack ran with them till the day of his death and was a famous assistant. His favorite hold was the ear, but failing in that he would stick his teeth anywhere. I have seen him dangling for a dozen rods on a doe's tail. A bull pup running with beagles I think is something unique in the annals of deer hunting.

This is enough I suppose about Alligator Head Pond. I hope I may see it again. And if, as many people believe, our ghosts love to visit the places that have been dear to us when we were on the earth, I know that mine will often float over Alligator Head Pond and listen to the wind whispering in its bordering grasses.

Robert Cargan.

Notes from Delta Co., Michigan.

Noticing W. C. B.'s article in October ORNITHOLOGIST AND OOLOGIST about the Sand Hill Cranes in Michigan, I would say that I have observed 12 of these birds in this and Schoolcraft County. Two of these are now on wires. Evidently they breed here, as they have been with us all summer.

The Great Blues are common here; they breed.

I have observed ten or twelve Golden Eagles here; they breed.

On September 20 I saw eight of these birds, two Bald Heads and about fifty or sixty Ravens around a dead deer. I drove up and stopped, but none flew away far, merely flying up on stubs and trees, whichever happened to be handy. It was the prettiest bird show I ever saw. The next day I had very urgent business in the same direction, only I had a three-barreled Charles Daly with me for company. My collection is three specimens better for the trip.

The Bald Heads breed here. I peeped into three of their nests this last season. One set of two was too far gone; of one other set of two eggs one was saved and one broken; the third nest another collector had shot and stuffed both birds before any eggs were laid.

I only know of one nest of the Golden Eagle. I have not explored that yet, but intend to next season. Did not learn of its whereabouts until too late this year.

Ravens are abundant here; they breed.

Spruce Partridge are quite common; they breed.

Saw a small flock of Evening Grosbeaks last February; secured one ♂ and two ♀, which I mounted.

Pine Grosbeaks are not rare in winter, but not abundant.

Am. Crossbills are abundant, reminding one of the English Sparrow, as they sit on boxes, barrels and trees around the lumber camps, at least in numbers if not in song and color. They are so tame that the men often catch them in their hands and they occasionally are shut in the camps and caught that way.

In the winter of 1890 there were plenty of Redpolls. Last winter I observed none whatever.

The Canada Jay is an occasional visitor and will fly down and eat the scraps of fat salt pork with as much relish as a Robin would a nice fresh cherry. When time permits, I will give you a list of birds observed in this peninsula.

Ed. Van Winkle.

Van's Harbor, Michigan.

THE
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A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS,
AND TO THE
INTERESTS OF NATURALISTS.

Under the Editorial Management of
FRANK B. WEBSTER, . . . Hyde Park, Mass.
J. PARKER NORRIS, . . . Philadelphia, Pa.

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MUSEUM AND NATURALISTS' SUPPLY DEPOT
OF THE
FRANK BLAKE WEBSTER COMPANY,
INCORPORATED,
HYDE PARK, MASS.

The O. & O. is mailed each issue to every paid subscriber. If you fail to receive it, notify us.

The compliments of the season to you, one and all. May 1893 be a year of happiness and prosperity.

A great many subscriptions expire with this issue. The names of those whom we do not hear from before the January's issue is ready will be dropped from the list. A notice will be sent to all this month, and we hope for a general response.

It is safe to say that "Hornaday's Taxidermy" was the event of 1892, and that Oliver Davie's will be of 1893. The names of these two authors will never be lost to the American naturalists.

Can any of the readers inform me how young alligators are fed when in freedom? Last winter I had a pair that were about ten months old, and all the winter and spring I had to feed them by scraping raw beef, and putting the scrapings down their throats myself, which, of course is something the mother cannot do. *A. B.*

"Hornaday's Taxidermy," price $2.50. We have sold more copies of this work during 1892 than any other work excepting Davie's "Nest and Eggs." We find that many of the old standby taxidermists are buying it, and subscribing to Mr. Davie's forthcoming work.

Louisiana Tanager taken at New Haven, Conn.

Since I wrote to you I have made one of the best captures that I ever obtained,—a Louisiana Tanager, Jun ♂, on Dec. 15. It was unmistakably a wild bird, unusually active and noisy. It was shot on the outskirts of the city here. It is rather smaller than the Scarlet Tanager, measuring as follows:

Length, 6¼ in., extent 9½ in., wing 3¾ in. tail 2½ in., tarsas and toe and nail 1½ in.

Bill is orange color below, dark above; leg bluish. Two well marked bands across wings, upper one pale yellow, lower yellowish white. I exhibited the bird to several friends, while still in the flesh, as positive proof of its actual occurence here. This adds a new bird to this state, and I think the only other New England record is the specimen taken at Lynn, Mass., January 20, 1878.

W. H. Flint.

New Haven, Conn.

Phoebe Nesting in Bank Swallows' Burrows.

On May 22 of the present year, as my friend Mr. H. Dinsmore and myself were walking along the bank of the Piscstaquog river, we observed a Phoebe fly suddenly from under our feet. We investigated the matter and found an old deserted Bank Swallow colony, which I should judge, by the condition of the tunnels, to have been vacant for several years. In one of these holes about a foot from the entrance was the nest of the Phoebe, containing two young, just hatched, and two eggs.

Arthur M. Farmer.

Amoskeag, N.H.

Vol. XVII. JANUARY, 1892. No. 1.

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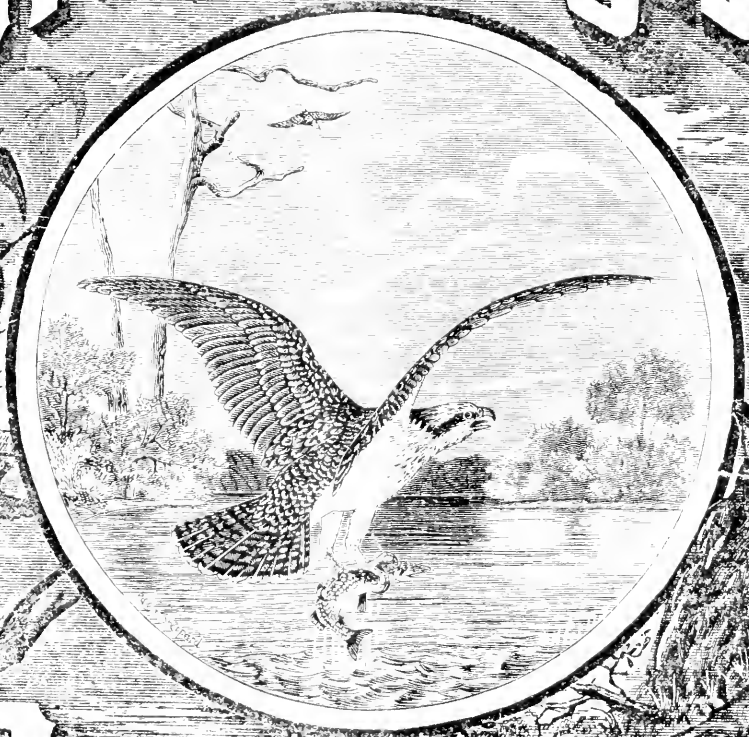

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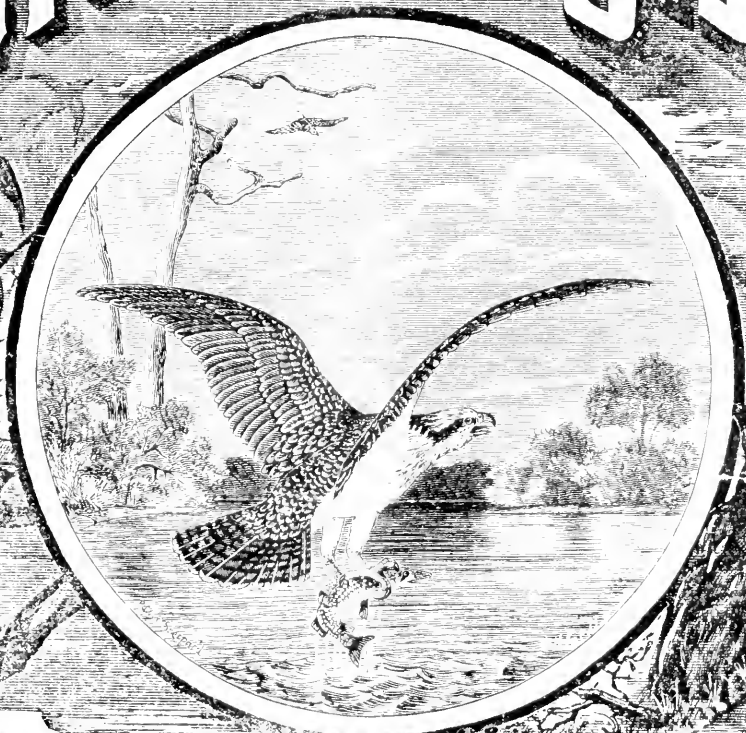

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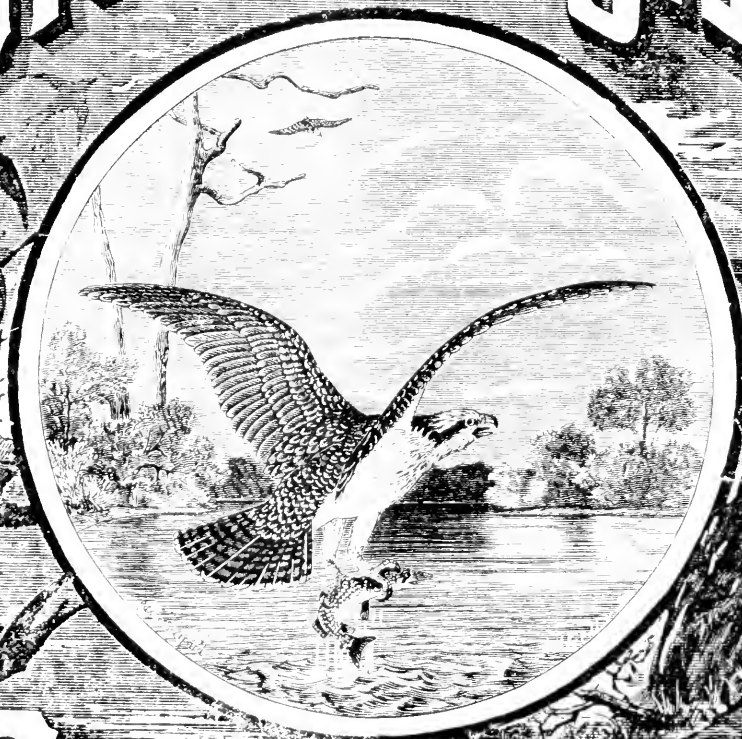

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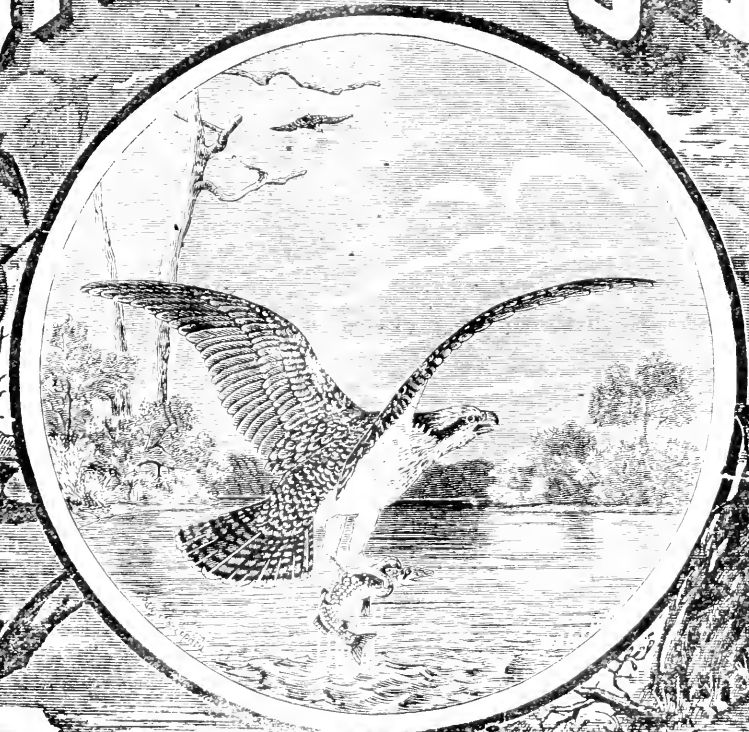

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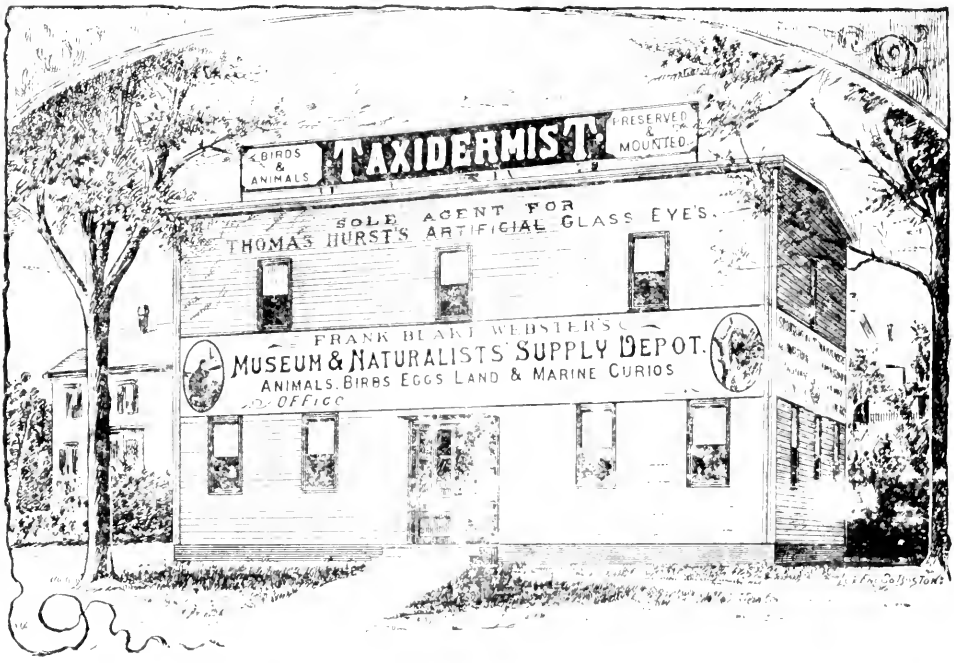

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ESTABLISHED 1875.

ORNITHOLOGIST
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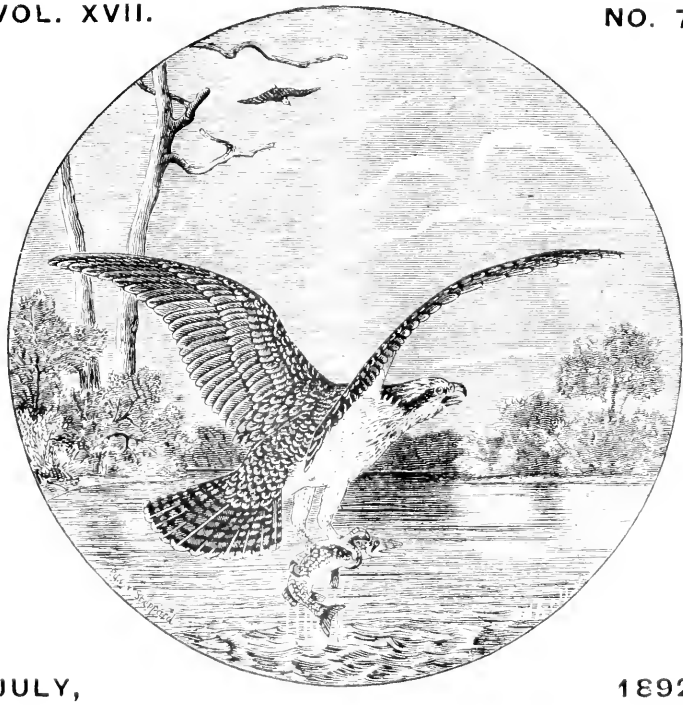
VOL. XVII. NO. 7



JULY, 1892.

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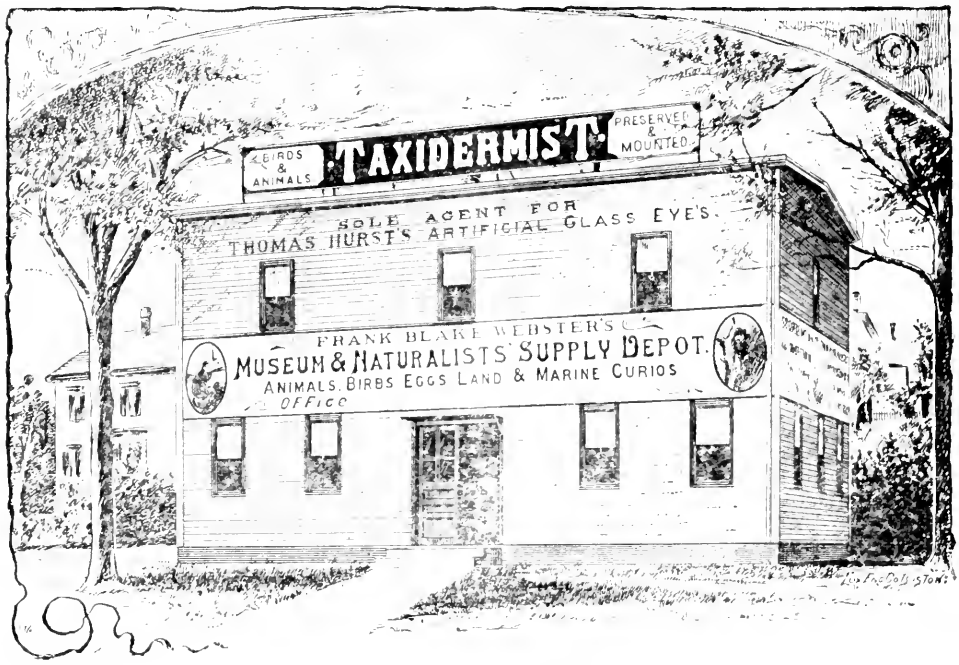

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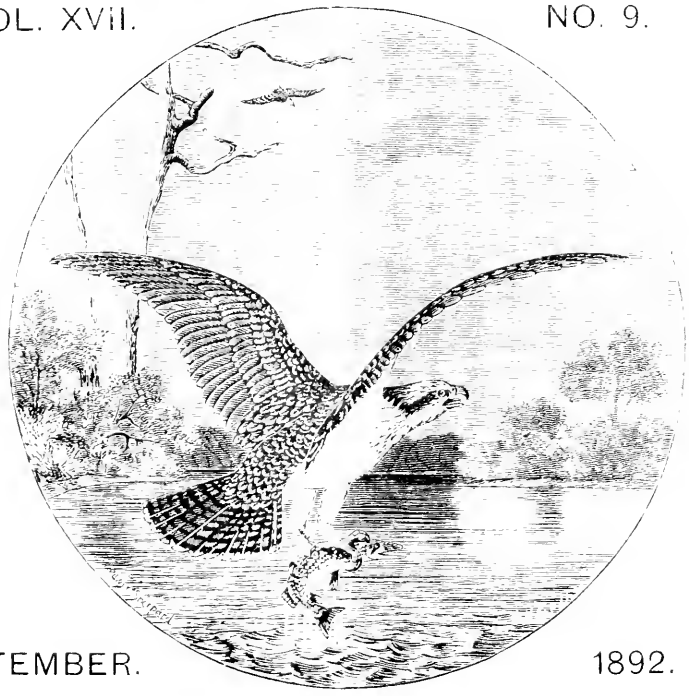

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English Goldfinch	1.50 to 2.50 each	Rabbits, black and white	.75 pair
African Finches, variety	2.00 to 5.00 pair	Rabbits, gray and white	.75 pair
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