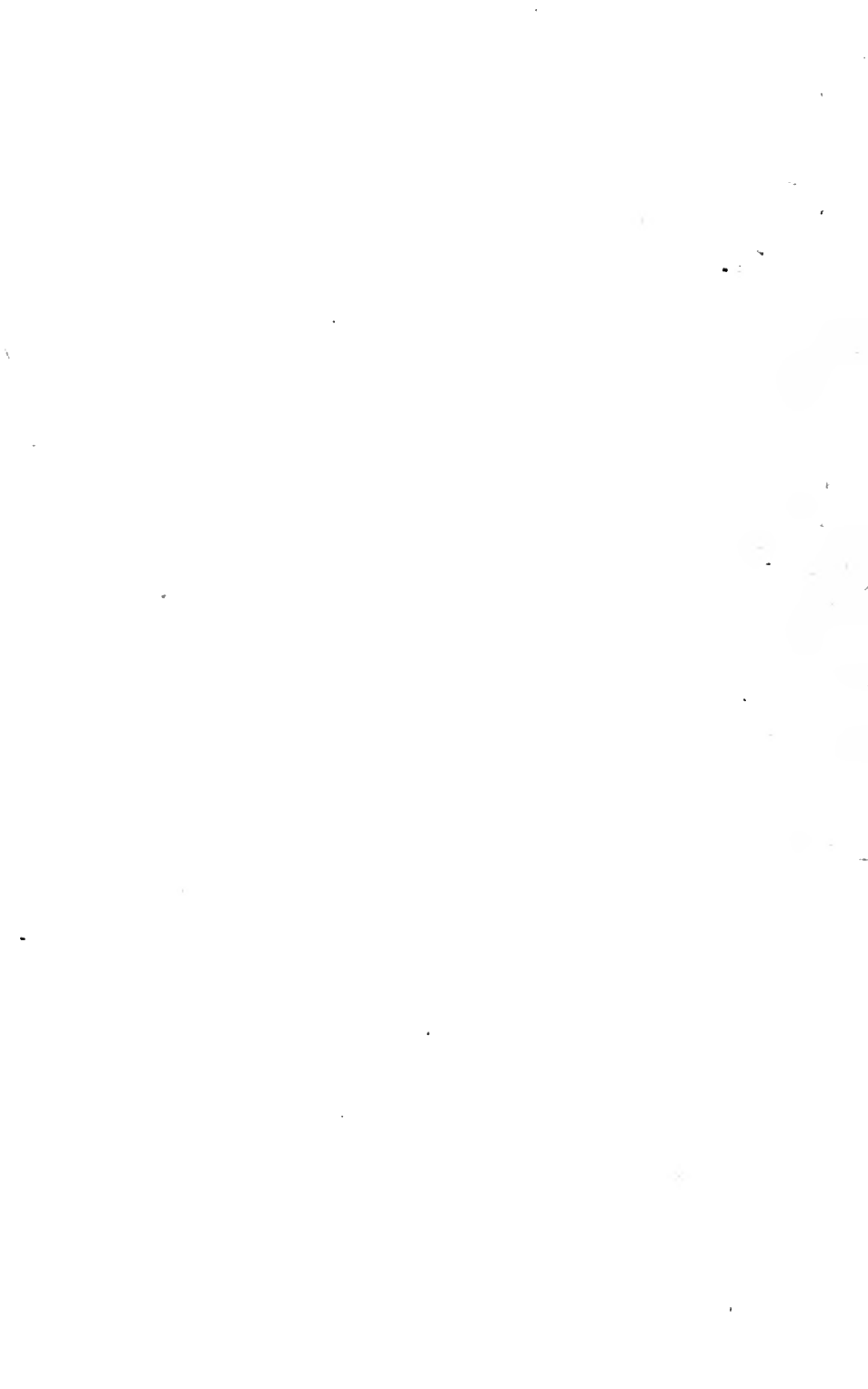


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THE OÖLOGIST.

FOR THE

STUDENT OF BIRDS, THEIR NESTS AND EGGS.

VOLUME XII.

ALBION, N. Y.

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Quartz Crystal Stick Pins	50
Brazilian Beetle Stick Pins	50
Agate Brooch	75
Crocidolite Brooch	1 00
Agate Shoe Button	75
Agate Glove Button	50
Agate, Moss Agate, Tiger Eye, etc., Watch Charms	25
Coral Necklace	35
Agate Stamp Box	75
Pearl Penholders	50, 1 00
Pearl Letter Openers	50
Pearl Shell Egg Spoon	35
Pocket Magnifier	35
Shell Napkin Ring	35
" Purse	25
" " line	75
" Ship, thimble holder with aluminum thimble	50
Shell Match Safe	50
" Brooch	35



OÖLOGIST.

Monthly.

VOL. XII. NO. 1.

ALBION, N. Y., JAN., 1895.

WHOLE No. 111

Wants, Exchanges, and For Sales.

Brief special announcements. "Wants," "Exchanges" "For Sales," inserted in this department for 50c per 35 words. Notices over 35 words, charged at the rate of one cent per each additional word. No notice inserted for less than 50c. Terms, cash with order.

"DEALERS" can use these columns at *Regular Advertising rates, only*, Strictly First-class specimens will be accepted in payment at one-half list rates. Exchange Cards and Coupons (subscription) will be accepted for "Wants" and "Exchanges" *only* and according to conditions stated thereon.

HORN HAT RACK, nicely made, 4 pair of horns; 2 pair mounted with hoofs on plush, covered back, with mirror in center, 2 feet square with gilt frame outside. Will exchange for \$20.00 worth of A. 1 eggs of Hawks, Owls, Grouse or quail. You to pay express charges. CHAS. K. REED, Worcester, Mass.

WANTED.—Cocoons of *Io* and *Luna*, also correspondence with beginning Lepidopterists desired. Local Lepid. to exchange. HENRY ENGEL, No. 153 26th Street, S. S. Pittsburg, Pa.

HOLD ON A minute! Have you 4x5, instantaneous Camera, reliable make, to exchange for Rifle, Sets, Press, Stamps or *cash*? If so please write to GEORGE GRAHAM, P. O. Drawer C., Gainesville, Fla.

LOOK!—Best Credenza Safety Bicycle, cost \$115, with lantern, stand, bell and foot-pump, sold for \$45. Used eight months; good as new. Address, KELLOGG BIRDSEYE, 151 Jorlemon St., Brooklyn, N. Y.

WANTED.—A Coue's Key or Ridgeway's Manual. Will pay cash. Write stating condition and lowest cash price. E. HARDING, Care of Foster & Glassell, Shreveport, La.

WANTED.—First-class sets with data not in my collection, and Columbian stamps for stamps from my approval sheets. Send list. GEO. W. DEAN, Wick, Ohio.

SEND, 10, 15, or 25 cents for specimen of double refraction Iceland Spar. J. L. DAVISON, 55 Waterman St., Lockport, N. Y.

WANTED.—Agricultural Dept's Bulletin on "Hawks and Owls of North America." Write stating condition and cash price. FRANK H. SHOEMAKER, Hampton, Iowa.

WANTED.—Ornithological books, especially Coue's Key, back vol's Auk. Will pay cash or exchange a collector's shot gun, United States stamps and Album, Climbers and Xylophone, mounted birds, skins or following sets: A. O. U., 11-12-27-35-42-43-59-75-76-79-90-117-120-128-190-182-208-2-1-219-267-286-325-368-375. W. LOUCKS, Peoria, Ill.

TO EXCHANGE.—A collection of choice and showy minerals, for first-class eggs in sets. PHILO W. SMITH, Jr., Mona House, St. Louis, Mo.

MINERALS, Fossils, Shells, Indian Relics, Land and Sea Curios and a few Columbians to exchange for first-class eggs in sets. Send list of eggs. ROY HATHAWAY, Red Key, Ind.

FOR SALE.—Kodak in leather case, \$7.50. Loaded for 107 pictures. \$10.00. Cost \$25.00. A. B. BLAKEMORE, 1310 St. Andrew St., New Orleans, La.

TO EXCHANGE.—For mounted birds, an egg collection with case valued at \$35.00. All letters answered. L. WILLIAMSON, Rochester, Ind.

75 RATTLE-SNAKE rattles for the best offer in lightly canceled 6c and 15c Columbian stamps. All letters answered. Rattles in fine condition. Address, VOLNEY M. BROWN, Buena Vista Ranch, Cambellton, Tex.

CALIFORNIA Bird Skins to exchange for *strictly* first-class eastern skins. Many common ones, and especially Warblers desired. Address, C. BARLOW, Box 135, Santa Clara, Calif.

WISH to exchange common bird skins, native of Pennsylvania, for skins of other parts of America. Have also a few eggs. BENJAMIN PASCHALL, West Chester, Pa.

40 PERCENT discount from our fine approval sheets. 8 varieties unused Samoa, 15c; 15 varieties Japan, 15c; 6 varieties unused Costa Rica, 15c. MEEKER-TOWE STAMP CO., Box 246, Bridgeport, Conn.

FOR SALE cheap. First-class sets of So. California eggs with complete data. Write for prices. V. W. OWEN, P. O. Box 771, Los Angeles, Calif.

FOR SALE.—A collection of Birds Eggs "sets and singles." Catalogue value \$20. Will sell for best cash offer. Send stamp for list. GEO. W. DIXON, L. Box 381, Watertown, S. D.

TO EXCHANGE.—Curios and stamps from the Bahama Islands, for Eggs, Minerals or Indian relics. Send lists. JAMES HOWE SLATER, Webster, Mass.

WANTED.—Confederate stamps, arrow heads, Confederate money, war relics, eggs in sets and singles for stamps, books, muskrat skulls, petrified wood, magazines, eggs, curios, etc. C. GRANT, Cazenovia, N. Y.

LONG ISLAND shells, old U. S. and foreign coins, also a set of Ruchenberger's Natural History, in good condition, for old U. S. and foreign stamps. WM. A. HUBBS, Box 396, Northport, N. Y.

PRINTING PRESS, 12x14, 40 fonts type, also one 6x10 and outfit; Stuffed birds, eggs, \$5000 worth Nat. History Specimens. Want Victor bicycle, driving horse, camera, real estate or Natural History Specimens. H. S. SAWYER, Garland, Me.

STAMP COLLECTORS.—Our Gem Packet contains 75 good stamps all different, price 20c. For a short time we will send with each packet a rare Confederate stamp on original envelope. THE STAMP ASSOCIATION, 2552 Greenwood Ave., Station G, Chicago, Ill.

POCKET KEY OF THE BIRDS OF THE NORTHERN UNITED STATES EAST OF THE ROCKY MOUNTAINS. Apgar. With a glossary of Terms 1893, 64 pp. Cloth only 50 cents prepaid. FRANK H. LATTIN, Allston, N. Y.

INDIANA COLLECTORS—I have fine sets of rare western birds eggs, Volume 1 *Irisconsin Naturalist*, Natural Science papers, to exchange for sets of Indiana birds eggs. Send your lists instanter. FOSTER MARIS, Annapolis, Ind.

TO EXCHANGE.—Anything in the line of Natural History specimens, relics, etc. Eggs, sea bird's skins, shells, corals, glass sponges, alcoholic specimens, insects, animal skulls, woods, minerals, deer horns, sword fish swords, sturgeon scales, old coins, bills, stamps, Indian relics, etc., etc. Have several thousand specimens. All are first-class. Will sell very low for cash. Will exchange some for stamps, or eggs in sets. Want 500,000 stamps. Enclose stamp for answer. E. F. HITCHINGS, Bucksport, Me.

WILL EXCHANGE skins, mounted birds, sets and singles, for O. and O. or Tax, publications or tools, skins, sets, camera, printing press or stamps. EDWARD WALL, San Bernardino, California.

WANTED.—To buy sets or single eggs not in my collection. Collectors having duplicates for sale cheap, will please send list to, W. R. WHARTON, Germantown, Phila., Pa.

I WANT small star fish, alligator teeth, yellow wax shells, boat deck shells, gypsum crystals and Chinese horn-tuns in 2000 lots for which I will exchange Kalamazoo hand tier extinguishers, gold filled, 11-jeweled watch, advertising space in the Farmer's Monthly or part cash. R. E. BARTLETT, Rockford, Ill.

WANTED the following first-class American sets A. O. U. 1-2-83-84-105-115-119-130-133-139-172-190-201-211-214-217-218-226-228-258a-261-278-280-286-328-329-313-383-407-409-416-417-415-479-538-546-549-550-559-561-562-591-610-620-637-648-667-675-676-683a-701-717a-718-719-726-728-751-753. For any of the above I can offer some fine sets. Among them are some Warblers with nests, also a few bird skins, pit games, wild birds, 22 cal. rifle, artificial leaves and glass eyes. A. E. KIBBE, Box 165, Mayville, N. Y.

LOOK.—30 varieties foreign stamps for every perfect arrowhead or named mineral sent me. Double value in stamps for sets of eggs with data. W. G. STUTZMAN, Kent, O.

A GENEROUS OFFER.—Postal cards are cheap. Get one and mail it to us with your name and address on it and we will send you free a sample of the December *Nidologist*, an excellent number of an excellent magazine of Ornithology and Oology, handsomely illustrated. Our annual subscription is now \$1.50, or 80c for half year; single copies, 15c. Take advantage of this last "sample" offer and then subscribe. *Six Illustrations*, elegant quality of coated paper—number pages soon to be enlarged. Our success is unprecedented. Get a sample and see for yourself. THE NIDIOLOGIST, H. R. TAYLOR, Publisher, Alameda, Cal.

SCALED QUAIL.—A pair nicely mounted under 16x22 convex glass with painted background—gilt frame, "slightly shop worn." Will exchange for \$25.00 worth A. 1 eggs in sets of any kind; also a pair of Bob-whites mounted the same for same price. CHAS. K. REED, Worcester, Mass.

EXCHANGE NOTICE.—LA FAYETTE G. DURR, 216 Gowdy St., Nashville, Tenn., offers 100 different stamps for 8c, provided you send for selection with reference of good saleable stamps at 33 1/3 per cent discount from sheets. The showiest selections sent out and the cheapest dealer in the U. S.

TO EXCHANGE.—Papers on Oology, first-class singles and sets with data, for climbing irons, shot gun or first-class sets with data. FRANK H. BOTSFORD, Lyndonville, Orleans Co., N. Y.

A FINE cabinet specimen of Petrified Moss, or two perfect Indian Arrow heads for a fine U. S. copper cent of the date 1821. ARTHUR B. ROBERTS, Weymouth, Medina Co., Ohio.

A FIRST-RATE good Coon dog to exchange for eggs in sets with full data, or first-class birds skins, or sell for cash. Write for particulars to JOHN C. RIEXINGER, Holley, Orleans Co., N. Y.

BUTTERFLIES. I have some first-class butterflies of Tennessee, in papers, to exchange for eggs, or other Natural History specimens. Send for list. WILLIAM OSBURN, 107 University St., Nashville, Tenn.

SEND \$1.00 for 3 pound basket of Dolomite, Calcite, Selenite, Iceland Spar and Quartz. J. L. Davison, 55 Waterman St., Lockport, N. Y.

\$1 BOTTLE "Tannine," (Webster's) for Vol. 11 or 12 *Ornithologist* and *Oologist*, or Cook's "Birds of Michigan," 2 bottles for set 1/2 Sharp-shinned Hawk, with original data. BENJAMIN HOAG, Stephentown, New York.

HAVE 30 good sets, wish to sell at 1/2 rates, 10 per cent discount. Among them Red Phalarope, Red-cockaded Woodpecker, etc. Write for list. R. N. WILLIAMS, Tallahassee, Fla.

COAST and winter birds for sale in the flesh, also mounted birds, deer heads and Fox skin mats. ALVAH G. DORR, Taxidermist and Fur Dealer, Bucksport, Me. J.2w

TO EXCHANGE.—A copy of Davie's Methods in the Art of Taxidermy, new, value \$10.00, for \$3.00 cash and best offer in eggs in sets, minerals, or fossils. Or will exchange it with a good offer in eggs in sets, minerals, or curios, for a typewriter in good condition. HERBERT STERZING, 91 Jacinto St., Austin, Texas.

ALIVE A ten inch live alligator sent prepaid with any address in U. S. for \$1.00. K. B. MATHES, St. Augustine, Fla.

TO EXCHANGE.—Skins, mounted birds. T perches also orders for above for coming season. Want skins, eggs, lepidoptera, beetles, showy shells foreign to Mich. Send lists with prices. A. W. HANAFORD, 139 W. Fulton St., Grand Rapids, Mich.

FOR EXCHANGE.—Bicycle, a 5 1/2 inch Columbia Light Roadster, ordinary, scarcely used, for best offer in opera glasses, rifle, shot gun, shell box or gun implements. H. S. DAY, Fremont, Ohio.

FIRST CLASS Eggs in original sets with data to exchange for same of A. O. U. No's to No. 400. G. GORDON SCHANCK, Libertyville, Ills.

FOR SALE.—A few fine Indian Stone Tomahawk Pipes, Dance Knives and Pipes. Send stamp for description and prices. Also large fossils from S. D. GEO. W. DIXON, Lock Box 381, Watertown, S. D.

TO EXCHANGE.—Fine Obsidian and Gem arrow points and common arrow and spear heads for fine cabinet specimens of minerals and curios, and rare birds eggs in sets. Send lists. GEO. W. DIXON, L. Box 381, Watertown, S. D.

SILVER and GOLD.—Something everybody wants, something all can get by securing a copy of Vick's Floral Guide for 1895, a work of art, printed in 17 different tinted inks, with beautiful colored plates. Full list with description and prices, of everything one could wish for vegetable, fruit or flower garden. Many pages of new novelties, encased in a chaste cover of silver and gold. Unusual and astonishing offers, such as Sweet Peas for 40 cents a pound, \$300 for a name for a New Double Sweet Pea, etc. If at all interested in seeds or plants send 10 cents at once for a copy of Vick's Floral Guide, which amount may be deducted from first order, to JAMES VICK'S SONS, Rochester, N. Y., and learn the many bargains this firm is offering.

MICHIGAN.—I desire correspondence with every collector of Lepidoptera and with every person, especially ornithologists, interested in faunal distribution in the state of Michigan. ROBT. H. WOLCOTT, M. D., 133 Clinton St., Grand Rapids, Mich. Temporary address till June, University of Nebraska, Lincoln, Neb.

WANTED.—To correspond with those who have a few dollars to invest the coming season in Mounted Birds, skins or eggs in sets. We are booking orders from some of the best well-known collectors in America. We will spend the months of April, May and June among the birds of N. Dakota and Manitoba. If you wish sets of Ducks eggs in their nests of down let us hear from you. Correspondence with taxidermists desired in regard to supplying fresh pliable skins of Franklin's Gull, Terns, Geese, Duck, White Pelican, etc. BRYANT & MUMERY, Davison, Mich.

FOR SALE.—The following first-class, small-holed singles with complete data: Sooty Grouse, 30c; Oregon Ruffed Grouse, 20c; Tri-colored Blackbird, 5c; Gambel's Sparrow, 5c; Oregon Towhee, 10c; Violet-green Swallow, 15c; MacGillivray's Warbler, 50c; American Dipper, 50c; Parkman's Wren, 5c; Western Robin, 5c; Western Bluebird, 5c; Mongolian Pheasant, 15c. No order accepted for less than 50c. ARTHUR L. POPE, Sheridan, Oregon.

FOR SALE.—A lot of L. C. Smith Hammer Guns, manufactured by the Hunter Arms Co., Fulton, N. Y.; for \$36 each, list price of which is \$55. Fine London Twist barrels, Walnut stocks, full pistol grip, 10 or 12 gauge, 30 or 32 inch barrel, 7 1/2 to 11 pounds. All new and in good condition. Address ELIAS BEE, Sterling, Kans. D3T

OÖLOGISTS WANTED.—I want, at once, copies of the OÖLOGIST as follows: July-August, 1886; January-February, 1887 or Dec., 1886, with the former attached; June, 1888, I also desire copies of my old 1885 "OÖLOGIST HANDBOOK." For each and every copy of the above publications mailed me not later than February 15, 1895, I will give 15c worth of anything I advertise or offer for sale, or will send credit check good for the amount. I will also allow 10c each for the following numbers, viz:—June-Sept., 1887; April, 1889. All must be complete, clean, and in good condition. Address at once, FRANK H. LATTIN, Albion, N. Y.

WAR! STAMPS! WAR! Fine sets of 6 varieties of unused Venezuela stamps only 12 cts; s sets, 25cts. 10 mixed used foreign stamps, 10 cts; 100 varieties of stamps, catalogue value over \$3, only \$1.25 var. Confederate bills, 10cts; entire 4c war envelopes on blue used, 8cts each; entire sheet of 1/2 M. unused Port Rico stamps, 25 cts. Try me once, address, J. E. HANDSHAW, Smithtown Branch, N. Y. N4T

I AM building up a general scientific collection, embracing all departments of the Natural Sciences and if you have anything truly desirable to offer in exchange for anything I may have in stock or if you have any standard books or publications that you wish to dispose of I shall be pleased to correspond with you. When writing give full descriptions stating your lowest exchange price and give me an idea of about what you would like in return. FRANK H. LATTIN, Albion, N. Y.

FOR ONLY 50 cents. \$500 Confederate Money (assorted), \$100 Confederate Bond and 6 rare Arrow Points. Catalogue 3 cents. J. F. BOWEN, Iuka, Miss.

ORNITHOLOGY and OÖLOGY.—I want to obtain a quantity of back numbers of various publications relating to BIRDS and will allow prices as follows for the same. Will accept any number of copies not to exceed 10 of the same issue. All must be complete and clean. "Bulletin of the Nuttall Ornithological Club" and "The Auk" 30 cts. per copy. "The OÖLOGIST" (published at Utica, N. Y. and Rockville, Conn., 1875-81); the "Ornithologist and Oöologist"; and "The Nidologist"; "Random Notes on Natural History" Prov., R. I. 5c per copy. "Wisconsin Naturalist"; "The Taxidermist"; I will allow 3 cts. per copy. I will allow the above amounts in payment for specimens, instruments, supplies or publications or if you prefer will send credit check for the amount. All publications must be sent prepaid (you can mail them as "second class mail matter" @ 4c per lb.). "Returns" will be sent prepaid unless otherwise specified in catalogue. I can also use the following second-hand books on same conditions at prices quoted prepaid. Must be in A No. 1 condition. Cones' "Key to N. A. Birds" \$1.50; Ridgeway's "Manual of N. A. Birds" \$3.75; Davie's "Nests and Eggs of N. A. Birds, 3d or 4th editions, cloth, 85 cts, paper 65 cts; or other standard publication will be accepted at one-half publishers' prices. This notice will remain in force until Feb. 15, 1895. After that date write what you have to offer before sending. FRANK H. LATTIN, Albion, N. Y.

NOTICE

I have a few sets of American White Pelican and Double-crested Cormorant for sale, collected at Shoal Lake (see illustration in this OÖLOGIST).

White Pelican sets of 1 and 2..... 30
Double-crested Cormorant 3 and 4.... 18

W. RAINE, Bleeker St. Toronto, Canada.

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"Several prizes will be given to contributors for 1895."

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For every one mentioning THE OÖLOGIST and enclosing a 50c money order, we will send THE NATURALIST one year and your selection of any two of the eleven photographs which will be advertised in the January number of THE NATURALIST and one dozen imitation gold pens. Address: G. B. Cheney, Box 407, Oregon City, Oregon.

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Look at these prices and then compare them with those of other dealers. Having recently purchased a large collection of curios of almost every kind, and in order to obtain the address of every *hrc* collector I am selling at *actual cost*. Every specimen guaranteed absolutely perfect money refunded.

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Atlantic Starfish, 4 in.....	\$0 14
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Skates egg.....	8
Hammer head sharks egg.....	14
Nurse shark egg.....	36
Sand dollar.....	7
Hermit crab in shell.....	19
Key hole Urchin.....	23
Sea Biscuit.....	23
Sea Fan.....	12
Club spined Urchin.....	19
Acorn Barnacle.....	9
Mammoth Cala. Urchin.....	20
Spined Urchin Atlantic.....	19
Large Tarpon scales.....	9
Florida sea Urchin, small.....	6
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Branch coral.....	18
Rose Coral.....	9
Honey comb Coral.....	18
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This new museum is located on Falls street, only a few steps from R. R. Depots—Electric car line passes its entrance—and occupies a new three story building, which cost thousands of dollars to build and fill—Among the hundreds of attractions within will be found a large and magnificent collection of Birds and the LARGEST COLLECTION OF BIRDS EGGS in a Public Museum in the State. It is a well known fact the World over that TUGBY of Niagara Falls, N. Y. is HEADQUARTERS for EVERYTHING in the CURIO, SPECIMEN, NOVELTY or SOUVENIR line pertaining to Niagara.

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BOSTON, MASS., JAN. 10, 1895.

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Nests of the White Pelican and Double-crested Cormorant. Shoal Lake, Manitoba.

From Photo by Rams,

THE OÖLOGIST.

VOL. XII. NO. 1.

ALBION, N. Y., JAN., 1895.

WHOLE NO. 111

A Rough Time Collecting at Shoal Lake, Manitoba.

Shoal Lake contains several islands on one of which a colony of White Pelicans formerly nested in great numbers. Mr. R. Hunter on the 1st of June 1878 counted six hundred eggs on a small island of about half an acre in extent,* but since that time their numbers has considerably diminished.

The second week in June last summer Mr. Edward Arnold, myself and two assistants spent five days collecting at Shoal Lake and although we visited several islands, we did not fall in with the colony of White Pelicans. As Mr. Arnold's time was limited we returned to Reaburn and he went westward to Quappelle to see his brother whom he had not met for twenty years, while I went north to Lake Manitoba. After spending a week collecting at Long Lake and Lake Manitoba, I made up my mind to return to Shoal Lake, as it had proved to be a splendid collecting ground, for we had taken a fine series of eggs of American Bittern, Holboell's. Horned and Eared Grebe, Forster's Tern, Double-crested Cormorant and several species of Duck's eggs.

So on June 17th I hired a young farmer and his buckboard and taking my canvas boat, gun, camera and provisions for three days, we drove twenty-eight miles northward reaching woodlands in the evening, and put up at the farm house for the night, and next morning we arose early and proceeded three miles further when the lake appeared glistening in the morning sun. We drove to a point on the east side of the lake near which we had been camped on our previous visit. Off this peninsula is a rocky island, separated

from the point by a shallow channel of water. We waded across to the island and found that the great wind storm of June 12th had caused the water to wash over a portion of the island destroying hundreds of eggs of the Terns which Mr. Arnold and myself had found nesting in vast numbers on our visit ten days previous. The colony of Ring-billed Gulls had also forsaken their nests owing to the waves having played sad havoc with their nests and eggs and broken eggs of Terns, Gulls and Ducks were scattered between the rocks. On the highest part of the island many beautiful young Terns in downy plumage were observed and I also flushed a Spotted Sandpiper off its nest containing four extra well marked eggs.

After taking a photograph of the island we waded back to the point and while my man unhitched his horse so it could browse, I examined the tall grass and shrubs on the peninsulas, thinking it was a likely place to find a Duck's nest, I had not gone far before a Gadwall flushed up right in front of my feet and there was its beautiful nest of down containing ten eggs, these I took and had not proceeded twenty yards or so before another Gadwall arose in front of me, and this nest contained six fresh eggs. I called my man, to come and help to look for Ducks nests and we paced over every part of this small elevated peninsula, flushing Ducks up every few minutes, and the excitement was intense for in less than an hour we had several sets each of Gadwall, Baldpate, Mallard, Shoveller and Pintail, and I was also fortunate in flushing a Wilson's Phalarope off its nest and four heavily spotted eggs.

Having examined the point thoroughly and photographed a beautiful nest of the Gadwall, containing ten eggs, built

* Thompson's Birds of Manitoba.

among the briars and white conooloulus and other vines. we proceeded to search for Grebes nests in the marsh and soon found two nests of Holbell's Grebe containing five eggs in each, which is the regular number. The nests consisted of a mass of decayed damp weeds and aquatic plants, two feet in diameter and the eggs are always covered with weeds in the absence of the female.

After dinner we drove three miles around the lake to another peninsula and were caught in a thunder storm on the way, so we took shelter at a settler's cabin, from whom we learned that the Pelicans nested on Reed Island which lies three miles out in the lake off the point.

As soon as the storm was over we drove to the end of the peninsula and could see several islands out in the lake and as the water was calm and it was only five o'clock we decided to row out to the islands. So my man hobbled the horse's four feet with a piece of rope so that he could not run away while I put my canvas boat together and taking my gun and camera we pushed from the shore. As we approached nearer the first island I saw it was white over with Pelicans. The birds remained on the island until we approached quite close, they kept perfectly motionless with their heads erect staring at us until the boat touched the island and then they arose in a mass and the noise from their wings was like the roar of a torrent. They flew above our heads with their long necks and beaks stretched out in front and then forming into a line they flew away gracefully towards Reed Island.

In a moment both of us were on the island and there a sight met our gaze that would gladden the heart of any oologist, for the ground was dotted all over with eggs of the Pelican, Cormorant and Herring Gull. The Pelicans nests consisted of mounds of sand hol-

lowed at the top and the eggs resting on a few bits of weed and small pebbles. The Double-crested Cormorants nests were made of twigs and weeds, and the nests of the American Herring Gull were large structures of weeds and moss.

I took a photograph of one corner of this small island where the nests were thickest, and then we proceeded to collect a series of eggs of the three species and all the eggs proved to be fresh, for no doubt this was their second laying, as the storm of June 12th must have washed every egg off this low sandy island.

After taking sufficient eggs we rowed across the channel to Reed Island, which we found to be about three-quarters of a mile in length and swarming with bird life. In the elevated parts of the island amongst the dry grass we found nests and eggs of Gadwall, Bald pate and Mallard, and on another elevated grassy ridge we found thousands of Forster's Terns breeding, we secured a fine series of their eggs and then after taking the eggs we had collected back to the boat, we decided to walk around the island. We found some portions very marshy and had to wade across several channels. On reaching the south end of the island and emerging from a thicket of rushes we beheld another immense colony of Pelicans on a sand bar, but on arriving there we saw no signs of any more Pelican's nests. The nests of the American Herring Gull were scattered all over the island and we only took about a dozen clutches of extra well marked sets.

As it was beginning to get dusk I looked at my watch and found it was half past nine, this caused us to get a move on for we had three miles to row to shore and a wind had sprung up and a swell had appeared on the lake. It took us nearly half an hour to reach the boat as we were heavily loaded with

eggs and had to wade across several marshy channels.

It was just ten o'clock as we stepped into the boat and pushed off the island, and it was coming dark. We found the water very choppy and as our canvas boat was heavily laden with eggs which I had put in the bow of the boat, instead of raising her bow on the approach of the waves she cut through the waves and the boat immediately began to ship water. My man was at the oars and by the time we had reached the channel of water running between the islands we found ourselves in a sad plight. I suggested we had better turn back, but my man replied "if he attempted to turn around we should at once fill with water and sink," so we kept the bow of the boat facing the white caps and by this time the boat was half full of water and it was useless to attempt to bail the water out, however, we ran the gauntlet and in five minutes we had crossed the worst part of the channel, breathed more freely when we approached the Island where the Pelicans nested.

On reaching the Island, I suggested that we remain there all night as it was nearly dark and I doubted if we could find the place on the mainland where we had left the horse and buckboard. Besides we had got over two miles of rough water to cross before we reached the point. However we thought if the water became much rougher it might wash over this low Island so we decided to risk it and pull for the mainland. So we took every thing out of the boat, tipped her over and emptied out the water and then packed all the eggs in the stern of the boat and we arranged that if the boat should fill with water and sink, each should seize an oar and swim to shore, but perhaps this would have been no easy matter with our clothes and boots on. However, we pushed off into the rough water, but were pleased to find the bow of the boat rose as she met the waves, for all the eggs were

now in the rear of the boat, so we did not ship so much water as before in crossing from Reed Island to Peliean Island. In half an hour the mainland appeared and after some difficulty we made out the outline of the buckboard against the sky; we were soon on terra firma with our clothes soaking wet. So I instructed my assistant to hitch up his horse while I packed the canoe and eggs, intending to drive back to the settler's cabin to dry our clothes and sleep there for the night.

As my man had disappeared in the darkness and been gone ten minutes I called out but got no answer. I then attempted to light a fire but the grass was wet, so I climbed on top of the buckboard and struck several matches so my man could see the light and find his way to me for he had got into a patch of tall rushes and could not find his way back in the darkness. I could hear the dry rushes cracking under his feet as he approached nearer, and soon learned that he could not find the horse, so all we could do was to remain there until morning. Unfortunately we could not make a fire as there were no trees around for miles and the grass and rushes were damp. We leaned the boat against the buckboard and spreading our rugs alongside of the boat we laid down to rest, but the mosquitoes soon found us out and came about us in myriads and we were glad to hide our heads under the rugs to escape their bites.

Just as we were dozing off to sleep it began to rain in torrents and the thunder and lightning was terrific. We pulled the boat over us and there we were crouched under the boat, feeling very miserable in our damp clothes with the thunder cracking over our heads, but this was not the only trouble for the water began to rise from the lake and threatened to wash over us, but at last the storm passed over, the

rain ceased and we fell asleep through mere exhaustion.

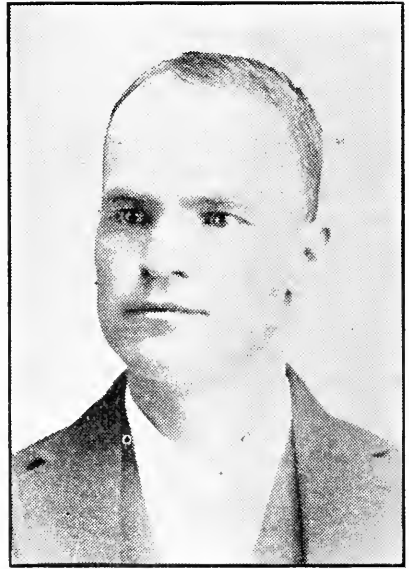
At four o'clock day broke and I was awakened by the great noise made by the birds and muskrats, the latter have a peculiar scream, while several Bitterns were pumping close to us in the marsh and all the Yellow-headed Black-birds in the neighborhood seemed to come and perch on the rushes around us and begin to whistle. I crawled from under the boat, leaving my young companion fast asleep, for the poor fellow was tired, having done all the rowing, and I spent three hours blowing the Pelican and other eggs.

At 7 o'clock I aroused my man and he mounted the buckboard and saw the horse a mile away, and while he went after him I proceeded to pack my specimens, and after refreshing ourselves with Ducks' eggs beaten up in sugar, we drove away from this spot to the farm house three miles away, where our wants were attended to by the kind farmer and his wife.

They enquired if we had seen any Moose at the Lake, for on the day previous the farmer's wife with one of her daughters was driving along the trail east of the lake when a bull Moose and female with its young one, got up out of the marsh, splashed through the water and ran off into the woods. I told her I would have paid five dollars to see such a sight. Moose are quite plentiful between Lakes Winnipeg and Manitoba.

We did not stay long at the farm but drove twenty-eight miles southward to Long Lake, talking most of the time over our disagreeable experience of the day previous, and now although I am a thousand miles away from Shoal Lake when I open my cabinet and gaze on my series of eggs of White Pelican, Cormorants, Gulls and Ducks, my memory takes me back to one of the roughest times I ever experienced in North West Canada.

WALTER RAINE,
Toronto.



P. M. SIlLOWAY, Virden, Ills.

Experience With the Young of Ruffed Grouse
and Bob-white.

PART II.

It is a lamentable fact that while the clearing of land and the tilling of the soil, for agricultural purposes, does not in itself directly interfere with the welfare of the universally beloved Bob-white, which courts the neighborhood of farm yards in winter where food is abundant and may readily be obtained, even when the fields are banked with snow; and lives in confidence and happiness among the cleared fields in summer, yet the very means of agricultural success, namely the mowing machine and self-binder, prevent its increase on every hand while the hunter—not the sportsmen—and the fox vie with one another in seeking to destroy each and every individual with which they come in contact.

When haying-time comes, here in Southern Michigan, this bird is nesting and the clover fields furnish a favorite spot for the seclusion of the sitters. The farmer is the quail's best friend, yet, love them as he may, when the clover blossoms in late June, he cannot wait longer. As the swards are raked away hundreds of nests with their top-shaped treasures of pure white, are left exposed to view and these are invariably deserted by the mother. Then again the heavy machinery makes havoc among the skulking broods. Where quails are plenty scarcely a hay field of ten acres but contains as many nests, and these are inevitably destroyed. This fact, together with the ruthless slaughter of the pot-hunter and the severe winters, with lack of shelter in the much cleared districts, renders the outlook for a long continuation of this bird in any numbers in the Northern States, a great uncertainty.

With many nests of eggs exposed each year it is a wonder that many more experiments are not carried on with the young in the care of domestic fowls. I have known a young quail, which had in some way been lost from its mother, to follow a hen turkey with her quarter grown brood and actually come at last to roost with them in the barns. The usual "boy with a gun," however finally finished it, for its trust in man, with death.

It was one of these exposed clutches of eggs, thirteen in number, which was brought from the hay field in a hat and placed under another bantam hen of the same variety as the one which hatched the eggs of the partridge in Part I. The nest in which these eggs were placed was in the top of a barrel, nearly filled with straw, over which a cover was placed to prevent the hen from leaving the nest until accustomed to the new position, where she was supposed to have a long term of sitting ere the little ones appeared.

Upon the very next morning I went

to the barrel and removed the cover to feed the hen. I did not find things in the condition in which I had expected they would be. There, in that nest, I beheld as pretty a sight as has ever been my pleasure to see. Every one of those thirteen eggs had hatched during the night and as many little, downy balls, about the size of bumble bees, were sitting about in the yellow straw and upon the hen's back and were a picture of contentment and activity.

Some crumbs of bread were placed before them and all ate readily. They seemed determined to have a taste of the hen's eyes; one after another would jump at them and also at her wattles and ear-lobes. They learned the meaning of all the "sitting hen" lore before they were taken from the nest and were as domestic as common chicks. A sudden move however, on my part or a warning note from the hen would cause all to skulk into the straw almost involuntarily, where all would remain motionless for a great length of time if continued disturbance followed.

The mother and her brood were removed to a vegetable garden where they were at once set at liberty. One of the little fellows strayed too far a way and was picked up by a favorite cat,—a very conscientious cat too, but she was attracted by the peculiar skulking run of the young bird, which looked much like a mouse as it slipped about among the herbage. The cats soon learned to regard them as ordinary chickens, and no more were molested for a long time. And so they continued to thrive and grow tame until finally they would approach and be fed as would a brood of chickens. In fact they were more tame than the hen, the latter becoming more suspicious each day. She seemed to realize that in them she was rearing a brood of very different natures than any previous, and she was perplexed and ill at ease. The quick moves of the little Quails, the elastic springs, the in-

voluntary dodges seemed to worry her into a nervous, untrusting attitude towards all animals. The young, however tame, never suffered themselves to be taken in the hand and any attempt towards the accomplishment of that end reawakened their wild natures in a twinkling.

All day long the little fellows worked for insects among the vegetables and each night the hen led them to roost in a small coop that had been placed near the garden for their use. It was surprising to note the activity of these young birds in capturing their insect food. I have seen one look up to the top of a beet leaf, at least twelve inches from the ground, and not only spy out some tiny bug or fly as it rested snugly protected from the burning sun, but jump and get it and this before the wings were at all grown out. Again, one would jump several inches from the ground at a passing insect, and I have seen them jump over each other and turn over in the air themselves in the midst of a frolicsome chase.

And now after many weeks they had grown to about one-third adult size and had become well feathered out and proud they were of their little tails, which stuck straight out from the snug little ball of mottled feathers. Now, however, came the climax. Just when I had thought all trouble over, as the little fellows had already removed with the hen to roost in the chicken house with the other fowls, they began to fly; first but a few feet, then a rod, and at last across the lawn, if startled suddenly. They would soon come back however as if nothing had occurred.

The cats, which had hitherto long regarded them as regular members of the chicken yard, now began to look with suspicious eyes towards the birds as they alighted from an occasional short flight. Finally one was missed, then two, three, four, five, six were gone. Several cats were disposed of until final-

ly one of the best behaved of the feline aggregation was seen to catch one of the remaining three. The cats were not to be blamed; they were but doing what nature had intended them to do or starve, and it was but a short time when all were gone to satisfy their appetites for flesh and blood.

Had I suspected that the outcome would have been thus, I should have arranged an inclosed yard of wire netting for their protection. This would have given them less freedom however, and the knowledge gained of their habits would have been less satisfactory.

However keen the disappointment in losing the birds, I am satisfied with the summer's study of one of our most interesting and well known game birds, the quaint, old fashioned, neighborly little Bob-white of prose and melody. My experiments are not yet ended and I hope to eventually succeed in taming if not in domesticating this cheery little table bird.

L. WHITNEY WATKINS.

North West Notes for 1894.

In comparing the dates of Hawks nests found this year, with those taken the last two years in Ontario I find that the nesting season is from two to three weeks later than it is in the east. In Ontario all the large Hawks have eggs by the middle of April and I have never found fresh eggs after the third week, while here my first clutch, a Ferruginous Rough-legged Buzzard, was not taken until the 2nd of May, and the first Swainson's three weeks later. On May 10th I drove a few miles up the river and found them still later there, every nest but one was empty, and that only contained one egg.

The only trees in the country are the Black Poplar and these are all found growing along the river banks, so that the only available nesting sites are

found in a comparatively limited area. I used to go out for a walk every day after office hours, and by simply keeping to the river I could watch closely every nest within a distance of five or six miles. Fifty miles north of this place the lack of suitable nesting places forces the Hawks to build on large boulders which project from the sides of gullies and ravines, while one hundred miles north where a kind of low shrub is abundant, I observed several nests six or eight feet from the ground.

Another noticeable feature of this district is the great number of Sparrow Hawks that build here, nearly every tree of any size had a pair occupying it, especially further up the river, I was however too early for eggs, as they do not begin nesting until June. I am quite safe in saying that fifty pairs nested along this river within a distance of a few miles. I took eight clutches quite near the town between June 14th and July 19th, the heights ranged from 11 to 20 feet.

No water birds or waders are found here as there are no pools or still water of any kind, nothing but the swift flowing river of ice water. Further north when the snow melts it forms innumerable pools and lakes, and these sloughs are the summer home of numberless Grebes, Loons, Ducks, Terns, etc. The last week in May I drove over about two hundred miles of this country and was astonished to see so many pools of water, I was told however that a number of the smaller ones dry up in the course of the summer. Several of the larger ones were simply covered with water-fowl while large numbers of Terns were flying about overhead, but as the migrations were hardly over I think that they would spread out more for the breeding season. I had never seen a Tern before and was anxious to know their name when I first saw them, the natives called them swallows, so that I was no wiser until I saw two stuffed when I found

out what they were. No Crows are found in this neighborhood so I concluded that all the nests here have been built by the Hawks themselves. Four new ones were built this year; I noticed that it took fully two weeks to complete a nest, some of the older nests are of a great size and it would be impossible to say how long ago they were built.

Rough-legged Buzzards were very plentiful this spring, these and Swainson's are the only kinds found just here. A Western Red-tail was brought to me which was shot about eight miles south, where I was told they were numerous, they are plentiful also further north, but I have not observed them in this locality. The Rough-legged Buzzards are very shy and I noticed that after taking their eggs the birds seemed to desert the place altogether. I have not seen one now for four months, the case was exactly the reverse with Swainson's which seemed to come in and fill up the space left by the Rough-legs, after having once located a claim it seemed impossible to drive them away. I took three clutches this season in the same place, two from the same nest and the third from a nest built close by. All undoubtedly laid by the same bird.

Only one pair of Am. Rough-legged Buzzards built here this year, the nest was built on an island in the river, it was placed on a limb eight feet from the bank and thirty nine feet from the ground; composed of sticks lined with small pieces of bark and tufts of grass, built by the birds themselves from a very small foundation. It was by far the deepest and most compactly built nest I have ever examined, being more on the plan of a Crow's nest only three times as large. On April 30, I crossed the river on the ice and climbed to this nest but it was not quite finished so I left it. On May 9th just after the ice went out I waded over, this time I was more successful as the female, which was very

dark colored in fact I might almost say black, flew from the nest on my striking the trunk with my climbers, fifteen minutes later I was up the tree and carefully lowering the four large eggs which it contained. This is a very handsome clutch, one egg especially having a continuous wreath of reddish brown blotches on the larger end which completely obscures the ground color, two of the others are more lightly marked while the fourth is nearly white, size 2.54 x 1.97, 2.55 x 1.95, 2.60 x 1.96, 2.55 x 1.96.

A pair of Richardson's Merlins occupied this same nest ten days later but I could not get to the place on account of the floods in the mountains making the river too high. I found these Merlins very shy unless their nesting place was intruded upon, they seemed to frequent the loneliest and most secluded spots to be found, such as thickly wooded bends of the river and islands where scarcely anybody ever goes, in fact I believe that I was the only person who passed through their haunts this season. I was fortunate enough to find one nest containing four handsome eggs, and hope to find more next year, (for full description of this clutch see July OÖLOGIST.)

Swainson's Buzzard is very numerous here, I collected eight clutches, six of three eggs, and two of two, the majority of these are nearly white or faintly marked with pale reddish brown and shell markings, eight all laid by the same bird, are however quite heavily marked for this species, being like the eastern Red-tail. The smallest of these eggs measure 2.15 x 1.67, the largest 2.26 x 1.80 average size 2.19 x 1.73.

I also took three sets of Ferruginous Rough-leg. The first containing four eggs was taken May 2; the nest was placed 27 feet up on a branch, it was very loosely put together and composed of sticks and large pieces of wood, lined with roots, about two feet of twisted

fence wire and tufts of grass. These eggs are bluish white with lavender shell markings, spotted with brown and chestnut. The second nest containing three eggs was found on May 5th, this was a large structure forty feet up and had evidently been used for a number of years. The eggs are of a dull white ground color, two are sparingly and the third quite heavily splashed at the smaller end with dark brown and chestnut. The third set was taken May 12; the nest was a small affair, placed nineteen feet from the ground, this contained four eggs, they are not as handsome as the last, but still are a very fine set, they are dull white ground color and nest stained, spotted at the larger end with different shades of brown and lilac. All these nests were more loosely put together than that of the Am. Rough-leg, the eggs also are not so heavily spotted and are smaller, the average being 2.42 x 1.93, a single egg taken May 10th is pale blueish white, unmarked, with a very granulated surface size 2.51 x 1.79.

Of the smaller birds, McCown's Longspur is most abundant, they are found everywhere on the prairie. I did not find their nests this year as they had young by the middle of June when I returned from my trip, but I expect to collect a good series next year. Western Vesper Sparrows also are very abundant, the Flicker is the only one of the Woodpecker family that I have noticed. Cliff and Bank Swallows are very numerous, both kinds mingling together in a flock and building in the same bank, the Cliff Swallows as a rule near the top with the Bank Swallows just below. Barn Swallows are scarce, I only found one nest, this was built like a Phebe's underneath a small bridge. These three are the only kinds of Swallows found here, seventy miles north I found the Tree Swallow and Purple Martin. I have not seen a Chimney Swift this year and I do not

think that they are found around here at all.

Kingbirds and Arkansas Kingbirds are very common, in three or four instances I found the former occupying old nests of the Western Robin, four eggs seemed to be the full clutch the same as in Ontario, but the Arkansas Kingbird only lays three. I counted eight nests that had three eggs in and four with three young, one nest however had five young. While walking along the banks of the river I flushed a Spotted Sandpiper from its nest containing *eight* eggs. I was surprised to see so many eggs in the nest as they were all so much alike as to leave no doubt about their being laid by the same bird. On blowing them I noticed that four were fresh while four were incubated about a week, this shows that they were two separate clutches but it seems peculiar that the bird should lay a second clutch in the nest after incubation had begun on the first. Clay-colored Sparrows are found here but are more abundant further north. I collected six clutches in one day, five containing four eggs and one of two, not complete. Two of these nests contained eggs of the Cowbird. The nests were built of grass, generally, with a lining of a few hairs, all I have examined were placed in bushes, *not on the ground*; along the margins of the numerous sloughs, they were all about one foot from the ground except one which was fully three feet up in a higher bush than the others. The eggs of this species are not unlike those of the Chipping Sparrow but are rounder and more uniform in size and shape, they also differ in point of coloration, being deep blue with brown spots while those of the Chipping Sparrow are pale blue and invariably spotted with black.

Owing to the pressure of other business I was unable to pay much attention to the study of birds after the middle of June, but next year I hope to be able

to furnish full notes on the nesting habits of all the birds found in this district.

J. E. HOUSEMAN,

Calgary:

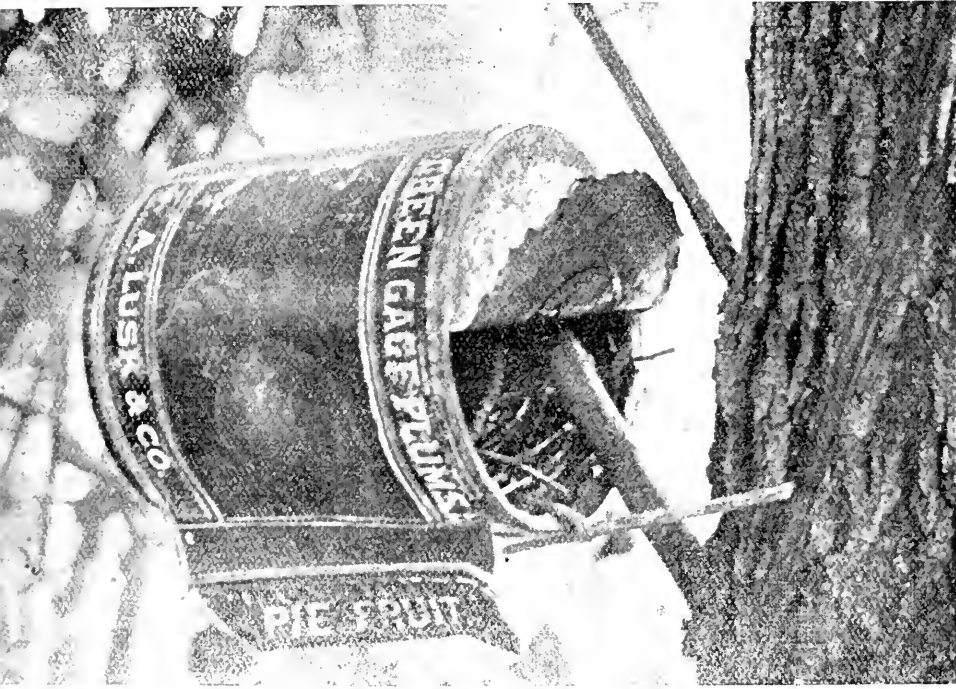
NOTES FROM AUDUBON'S BIOGRAPHY.

Fred W. Parkhurst.

PART VIII.

After an absence of four years Dr. Townsend returned to Philadelphia, and with a second collection, which contained many rare birds, of which he sent specimens to Audubon. Audubon did not receive them until but a few weeks before the work was to be closed, and a few were not received until several days after. Audubon decided to publish them even if every subscriber in Europe refused to take them. He would not hear of the work of his lifetime being closed when new species were in his hands, and in spite of threats from first one subscriber and then another that they would discontinue their subscription (which, indeed, several did, and refused to take the few numbers that would make their copies complete) Audubon's wish to make it as thorough and complete as possible was accomplished. All Dr. Townsend's species as well as some received through different channels were published. At London Audubon had the gratification of receiving a diploma from the Literary and Historical Society of Quebec.

And now at last the great work is completed. How often had Audubon longed for this happy moment to arrive! Many had been the time, when, resting in the deepest recesses of the western forest, he had been awakened by dreams of the dismal prospects before him and it had seemed as though it was useless to pursue his task longer: that it could never be completed. Now sickness would overtake him in the midst of his labors, and hurry him off to the settlements.



Nest of Parkman's Wren in Tin Can.

Next, grim penury would stare him in the face, and he would be forced to abandon his pencil and note-book and return once more to the cold, money-getting world to provide for the wants of himself and his family. At other times his dreams would be only of bliss and happiness, and the joy that would be his upon the presentation of his work to the world, and the hearty congratulations of his friends and well-wishers both in the Old World and the New. Audubon's deepest regret in regard to his life was that he was unable to give to the world *all* the knowledge of which he was the owner.

Audubon sums up his advice to *zealous* naturalists in the following words:

"Leave *nothing* to memory, but note down *all* your observations with *ink*, not with a lead-pencil; and keep in

mind that the more particulars you write at the time, the more you will afterwards recollect. Work not at night, but anticipate the morning dawn, and never think for an instant about the difficulties of ransacking the woods, the shores or the barren grounds."

Audubon had always been desirous of visiting the Highlands of Scotland, with its lakes and isolated crags so beautifully described by Scott; and in September Audubon and his family, accompanied by Mr. William McGillivray, set out early one morning, with a journey thither in view. At the Chain-Pier at Newhaven they embarked in a little steamer bound for Stirling. The water was smooth and the weather fair, while shoals of young herring were to be seen nearly everywhere, over which gulls of various species were hovering.



MORRIS GIBBS, M. D., Kalamazoo, Mich.

After passing many beautiful and picturesque spots the little steamer entered the narrow passage of the "Queen's Ferry," and they presently obtained a view of the distant hills. At Stirling they stopped long enough for lunch, and soon after were packed into a large postchaise, bound for the hills. It was nearly nine o'clock before they reached Callender. There they found a good house and spent the night. The following day was spent in viewing the scenery in the neighborhood of Callender. After leaving Callender they visited Loch Lomond, Loch Katrine and the famous retreat of Rob Roy, and after a delightful trip returned very reluctantly to Edinburgh.

Audubon closes his Biography in the following words:

"I have pleasure in saying that my enemies have been few and my friends numerous. May the God who granted me life, industry, and perseverance to accomplish my task, forgive the former and forever bless the latter! Now, Reader, farewell! May you be successful in all your undertakings! May you be happy abroad and at home; and may the study of the admirable productions of Nature ever prove as agreeable to you as it has to me."

Mr. Audubon returned to America in 1839, after which he resided on the Hudson River near the city of New York. In 1844 he published a cheaper edition

of his "Birds of America," and was associated with Dr. Bachman in the preparation of a work on "The Quadrupeds of North America," with plates, the drawings for which were executed by Audubon's accomplished sons, Victor Gifford and John Woodhouse Audubon. Audubon himself taught his sons to draw, and instilled in them the love of Nature which had always pervaded his own soul. How well he taught them can be seen by referring to the work in question.

Mr. Audubon lived in comfort and happiness with his family on the Hudson, until the time of his death, which took place in January, 1851, on the 27th day of the month. Audubon was seventy-nine years of age at the time of his death, and his constitution was always in perfect condition, which was one great result of his outdoor life.

[THE END.]

Water Birds of Heron Lake.

Though writing distinctively on Water Birds, I cannot forbear to speak an enthusiastic word about the Golden Plovers, the "Prairie Pigeons". Arriving *en masse*, the first of May, they flew in crowded flocks, morning and evening, skirmishing in deployed columns, in search of food, wherever a strip of prairie had been newly burned. Hearing suddenly the clear and mellow *tutee*, (as Mr. Nelson graphically calls it), one might look up and see here and there a small black cloud of them scudding before the wind, wheeling sharply with quick precision and dropping suddenly on the blackened slopes. They spent three weeks with us.

I watched eagerly for the coming of the Night Herons. The third of May an awkward squad of eight appeared. Before the middle of the month, they were present at the Lake in hundreds, going out by day to fish or grub, in

every slough and prairie hollow, but gathering back at night with many a hoarse explosive *kouck!*

Not until May 19th did we see the full van of the great army of aquatic birds. Rowing from island to island, among the rushes, through the tall cane brakes amid the coarse rank grass, hoping for a sight of the ten majestic White Pelicans that were seen a week before, we, wife, baby and I, came suddenly upon a long, low mud flat against which the waves were sweeping myriads of luscious animalcule. And there we saw a sight never to be forgotten. The waves had quickly dashed us half unheeding on the shallows close in to the rooty, mucky beach, and there and on the flats adjoining, what myriads of waders! Not ten feet away, quietly gazed at us a Semi-palmated Plover, so near that we could see the orange of his corrugated eyelids. Near by were a few White Rumps, yonder, deep wading, a solitary Wilson's Phalarope, his daintiness appearing in every motion; beyond were gnat-like squadrons of Peeps, Semi-palmates, *Minutillas*, impulsively coming and going and everywhere were Red-backed Sandpipers, outnumbering all others, five to one. (This numerical predominance has persisted, ever since, in both migrations). Jumping excitedly ashore for a close view I flushed a pair of Least Bitterns from the near-by grass. Singling out a bird of unfamiliar garb, after one shot had had brought me enough *Pelidnas* for tomorrow's (delicious) dinner, I soon had in my hand the first Stilt Sandpiper I had ever seen. (Later in the day, a flock of five whizzed by me swiftly, not four yards away).

And the Terns and the Gulls: Black Terns were darting, rocket like, into the water, for minnows, every where about us, unconcerned. The Franklin Gulls, with their somewhat labored flight, winged endlessly by in twos and tens and twenties, in search of insects,

just above our heads like the scattered, white-sailed, black-prowed ships of a mighty fleet, which, with marvellous unanimity, then and always, morning, noonday or evening, in calm, or cloud, or furiously driving storm, move ever toward the same unknown harbor, and the Forster Terns: who shall adequately describe their half sociable, half ill natured way, their noisy, eager pilfering of fish and craws, from one another, their semipiternal hatred of and fierce diving at, the clumsy, luckless Herons! Another week passes. April 26th, at the Lake, alone, with murderous intent, I scared a Florida Gallinule from her partial set of eggs, among the rushes: aroused from their nap a trio of Ruddy Ducks, one a brilliant male; sighted, for the second time a large Gull of unknown name: flushed to my surprise, a Wood Duck, (but they breed here on the ground); and vented my vexation for a fruitless day in a quick snap-shot at a solitary Godwit winging by, which proved a *fedda* and a male, (a barren runt at that!)

There was a broad, fire-swept shallow, far back from the apparent shore, the haunt of countless Waders, the hidden nook wherein the Gulls, by dozens, came at mid-afternoon to rest and sun themselves. A cemetery it was too; for in the very center lay the body of one of those ten Pelicans, whom, by his lagging I had known to be doomed to death. This spot I sought, June 2. Among the flags near by, I found two nests of the Western Grebe, that afternoon, besides a rudimentary and two-egged one of *Podiceps*. I had passed the dead body of a young Red-breasted Merganser, victim of some wanton gunner: had peered into many a nest of Coots, among the flags; and started a few Soras and Virginias from their canopied and egg-ballasted lairs, and was creeping cautiously toward my well-known flat, to see what I could see, when among the pigmy *Pelidnas*, I saw four greater

birds, with the "gray of the sky and the black of the soil upon their garbs, and with very large heads, whose poise of wary intentions contrasted sharply with the surrounding *Pelidnae* unconcern. "Black-bellied Plovers!" I ejaculated as a frantic guess. Away went discretion and a wild charge of shot, together; tangible result, feathers and one little peep! "They'll come back!" I muttered: and, drawing my boat among the rushes I seated myself on the bow, lunch before me and gun behind me. I had caught the Plover's note; and, before the lunch had vanished, (I, the while, intently watching the mud flat before me), I suddenly heard the note *behind* me, wheeling quickly I caught up the gun, and the swift flying Plover fell in a maze of rushes, *winged* of course! and find him I could not! Disgusted I drew out the boat and began to row away. But soon looking back I saw in a bare shallow just athwart the maze where my bird had fallen, my bird himself up to his knees in the water and eyeing me with the most profound astonishment. And so, have you an elegant skin of the Black-bellied Plover in your cabinet? Well then I pity you!

This fall I have added the Dowitcher and Wilson's Snipe to my list of Heron Lake waders. *Pelidnas* have been superabundant, and the Yellow-legs in both varieties fairly represented. But no period of abundance for the Yellow-legs has been so marked or so puzzling as that which prevailed from June 15th until midsummer. After a month's absence, less than that if anything, they re-appeared in flocks of ten to fifty swarming noisily and fearlessly everywhere, on the great wastes of mud-flat that were daily growing larger with the prolonged drought. The Lesser outnumbered the Greater, at this period, about four or five to one. Many causes prevented my taking and dissecting a sufficient number of birds to prove any-

thing whatever, conclusively, as to the local breeding conditions.

Oh, the mystery, the tantalizing delight, of these eccentric movements, at the greater centers of bird-life! Though the Franklin Gulls were present by the hundred all summer long, increasing greatly in number during the autumn not a nest was found. And I am told by one who collects in the Devil's Lake region of N. Dakota, (where by the way many water birds nested this year, two weeks earlier than last) that, although the Franklin's Gull is abundant in that region all the summer long, not a soul has ever found their nesting place, the Indians, however, having a tradition that they breed farther north in Manitoba.

These are the features of bird life and bird history that hold and fascinate us, with each year of more and more delighted and absorbing study. Shall we ever find Eagle wings I wonder, and learn where lurk all the rarer birds that leave us wistfully gazing, in the spring for northern homes?

P. B. PEABODY.

Spring Breeders of Western New York.

In looking over some of my notes, taken since March 1st, 1889, with the intention of noting the comparative dates of the breeding of our earlier birds, I have noticed a decided seasonal variation in the earliest dates for many species. The earliest breeder we have is *Bubo virginianus*. (Gt. Horned Owl); but it is not common enough here to afford any good opportunities for observation, and as I have never found but one nest, I do not think I can draw any important conclusions from that.

Next comes *Ortocoris alpestris praticola*, Prairie Horned Lark: My earliest record of this species is March 23, 1889. Next April 10, 1889, which seems to be the right time to look for the eggs of this species in this locality.

My next species is *Corvus americanus*, American Crow: Earliest date April 22, 1889, next April 27, 1893, while the first dates for '90, '91, '92 are May 7, 2, 20 respectively, notice 1892 shows the latest date.

Next we have *Sialis sialis*, Bluebird, with an earliest date of April 27, 1890, and a set of eight eggs April 30, 1893, part of which were frozen.

Next we have *Melospiza fasciata*, Song Sparrow, first record April 28, 1890; dates for '91, '92, '93 are May 6, 28, 17, respectively, 1892 last again.

Merula migratoria, American Robin, comes next with a record of April 27, 1890.

Next comes *Lanius ludovicianus excubitorides*, White-rumped Shrike, May 1st and 3d, 1891. These are the only sets I have taken during the spring months as this species breeds plentifully here the last of June.

Buteo lineatus, Red-shouldered Hawk, comes in here with a set May 2, 1891. Most of my sets of the *Buteo's* have been taken between May 10th and 22d showing a later breeding season than many writers give for this latitude.

Next earliest comes *Agelaius phoeniceus*, Red-winged Blackbird. First record May 3, 1889, next May 16, 1891, and the 28th, 1893, lastly June 16, 1892.

Crowding this closely comes *Sturnella magna*, Meadowlark, on May 6, 1891; 13th, 1890 and 23d, 1893.

Even closer yet comes *Sayornis phoebe*, Phoebe. First record May 7, 1890, next earliest May 13, 1891.

Pooecetes gramineus, Vesper Sparrow, shows first sets on May 15, 1890 and 1891; 23, 1893, and 28, 1892.

Quiscalus quiscula arvensis, Bronzed Grackle, can show a like record as follows: May 15, 19, 21, 23 in '91, '90, '92 and '93 respectively.

Next come three birds, properly classed as summer breeders, most of them nesting in June here. First, *Actitis macularia*, Spotted Sandpiper, May 18, 1891;

second, *Carpodacus purpureus*, Purple Finch, May 20, 1891; and third, *Ardea virescens*, Green Heron, May 22, 1890.

Between May 22 and June 10, 1890, I found seven nests of the Green Heron. Since then they have been fewer each year until last year when I only saw one nest and would not be surprised if there were none here next summer as some boys robbed the last nest.

Next comes *Chelidon erythrogaster*, Barn Swallow, on May 22, 1890 and 1893. Most of my sets of this species were taken in the first ten days of June.

On May 25, 1890, I found a set $\frac{1}{4}$ of *Pipilo erythrophthalmus*, Towhee; but this bird is too rare here to be considered in this connection.

I also find a record for *Turdus fucescens*, Wilson's Thrush, on May 25, 1890, and 28, 1892. First set in '93 on June 3d. This is the best time for their eggs.

My next is an even rarer species than the Towhee, *Icteria virens*, Yellow-breasted Chat. I took my only set of this bird on May 26, 1890.

Galcoscoptes carolinensis, Catbird, comes next on May 27, 1891 and '92. Also my only set of *Melospiza georgiana*, Swamp Sparrow, on the same date.

Habia ludoviciana, Rose-breasted Grosbeak, comes in here on May 28, 29 in '91 and '92 respectively. Most of these birds lay their eggs about this time.

Then come *Turdus mustelinus*, Wood Thrush, on the 28th, 29th of May, '91, '92.

My first set of *Dendroica aestiva*, Yellow Warbler, was also taken on May 28, 1891.

Closely following comes *Setophaga ruticilla*, American Redstart. First records on May 29, 1891 and May 30, 1890. Very few sets of this species will be taken here in May as most of their eggs are laid about June 12th.

Bringing up the rear comes the following on the 31st of May, *Spizella*

socialis, Chipping Sparrow; *Passerina cyanea*, Indigo Bunting; *Colaptes auratus*, Flicker; and *Bonasa umbellus*, Ruffed Grouse.

The last, however, with the Bob-white lays its eggs about the 20th of May. This set was far advanced in incubation.

You will notice also that I have left out one of our earliest breeders, the American Woodcock. The reason for this is my inexperience in this line. All the early broods I have found have been young birds from one to six or seven days old. You don't get your eyes on the young Woodcock from this time until they grow large enough to fly. From the date of finding such broods, I think they must lay their eggs about April 5th in this vicinity. I found one set of three eggs the first week in June, but this was either the result of an accident to the first set, or more likely a second brood.

Notice the comparatively early dates of '91 against those of '92. Did the heavy rains of the spring of 1892 delay the birds? If not what else was it? I notice a like condition among the summer breeders.

ERNEST H. SHORT,
Chili, N. Y.

The Washinton correspondent of the Chicago Record is responsible for the following:—

"The department of agriculture is advertising for an ornithologist who is expected to pass an examination in French, German, camera lucida, drawing, microscopic work, geography and practical ornithology, and for the use of all these accomplishments for eight hours a day the government of the United States will pay him a salary of \$660 per annum. At the same time ordinary messengers, colored and white, are paid \$720 and \$840 a year, typewriters and copyists \$1,000, stenographers \$1,200 and so on. This position has been open for some time, and there is no immediate probability of its being filled at that salary."

THE OÖLOGIST.

A Monthly Magazine Devoted to
OÖLOGY AND ORNITHOLOGY.

FRANK H. LATTIN, Editor and Publisher.
ALBION, N. Y.

Correspondence and Items of Interest to the student of Birds, their Nests and Eggs, solicited from all.

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Albion, Orleans Co., N. Y.

*. Articles, Items of Interest and Queries for publication should be forwarded as early in the month as possible.

ENTERED AT THE POST OFFICE AT ALBION, N. Y., AS SECOND-CLASS MATTER.

At Grand Rapids, Mich., the Kent Ornithological Club was organized Dec. 12th with 14 members: Pres. H. Stuart; V. Pres., R. G. Fitch; Sec. and Treas. W. E. Mulliken; Cor. Sec. C. C. Corbin; Lib. R. R. Newton.

H. Sayles, Jr., of Abilene, Texas, recently sent us sets of Krider's, Zone-tailed and Ferruginous Rough-leg Hawks. In the same lot was a set of Mockingbird's positively identified as Sage Thrasher's, a set of Orchard Oriole's equally as well identified as Painted Bunting's. The Hawks were, of course, equally as far from the mark, in spite of the fact that one of datas read, "Bird Shot." This valuable lot of eggs was returned with thanks. (?)

For '95 our advertising rates will be reduced from 20c to 10c per line—liberal discounts will be given to users of a large amount of space.

We are indebted to the *Naturalist* for our half-tone of the Nest of Parkman's Wren in Tin Can. The *Naturalist* is one of our most valued ornithological exchanges.

"NATURAL SCIENCE NEWS"—You may be one of the favored ones whom its publisher wishes to count among the "500."—Better accept the offer it will neither be repeated or extended

An unsolicited testimonial from two and one-half miles out in the country:

"My Dear Webb:—I have carefully and critically—very—examined the first two numbers of 'The Museum.' I am well pleased with them, and shall advise all the readers of the OÖLOGIST to subscribe. Fraternally, LATTIN."

We have the pleasure of presenting to our readers the faces of two Ornithologists whose names are familiar to all who have read the pages of the OÖLOGIST during the past year.

Dr. Gibbs is recognized as one of the most prolific ornithological writers of the day.

Prof. Silloway is the Principal of the Collegiate Institute of his city.

Ex-banker J. L. Davison of Lockport, who by the way is recognized as the leading Ornithologist of Western New York, apparently owes the Editor of the OÖLOGIST a grudge as the following note will explain. "Come on New Year's day and have a turkey dinner with us. I will meet you at the depot, and in case I do not hear from you, I will be at the depot anyway." Owing to a previous engagement we were obliged to deny ourself a possible opportunity for bagging *Nyctepus* No. 2.

More faces of well known oölogical and ornithological writers next month.

Nathan L. Davis of Brockport, N. Y., (one of Prof. Ward's World's Fair Taxidermists) is now the chief taxidermist of Webb's Natural Science Establishment.

With this issue we advance the subscription price of the OÖLOGIST to 75c per annum, until Feb. 15th, however, subscriptions and renewals will be accepted at the old rate—50c.

To the *Nidologist* we are indebted for the finely executed half-tone of Dr. Gibbs. It might be well to mention in this connection that the enterprising publisher of the *Nidologist* is not content with sending out the leading illustrated ornithological magazine but is making it a work of art as well. High grade heavy weight glazed paper and colored plates are among the latest wrinkles.

In a letter of recent date, Dr. Selah Merrill of Andover, Mass., writes:—"I have resided in the East chiefly in Palestine and my collection of birds, animals, and curiosities from the Holy Land is the largest ever yet made. In the Theological Seminary in this town there is a fine Oriental Museum which is largely my own collecting. My field is somewhat out of the way still it is a field of great interest to many persons and it may be that some of your readers will be glad to correspond with me respecting my specimens."

Among the 86 charter members of the new Michigan Academy of Science, which held its first meeting in the capitol building at Lansing on Dec. 26 and 27 '94, we find eight active ornithologists of that state *i. e.*—Walter B. Barrows, Agricultural College; Oscar B. Warren, Palmer; Morris Gibbs, Kalamazoo; L. Whitney Watkins, Manches-

ter; Newell A. Eddy, Bay City; Robt. H. Wolcott, Grand Rapids; Dr. J. B. Steere, Ann Arbor; and Jerome Trombley, Petersburg. The aim of this society is to carry forward systematic study in all and any branch of science. With above members we have little to fear for the proper recognizance of our favorite branches of Ornithology and Oology.

Prof. Geo. L. Bates left on Jan. 1st for a two years collecting trip in West Africa. We take the following extract from a letter dated Dec. 25th. "The region to which I propose going is that about the "Cameroon Mountains," on the "Bight of Biafra." The region itself is now called "Cameroons," or "Kameruns," and belongs to Germany. In the southern part of the German territory the American Presbyterians have mission stations and it is to one of these that I shall probably go. There is a forest belt also along the coast 100 miles wide, and back of that grassy highlands. The Cameroons Mountains approach the sea to the north, however, and narrow the forest belt to a point. The mountains at one place reach a height of 13,000 feet. This diversity of topographical features ought to make a rich fauna and flora." The birds and eggs as well as the bulk of the miscellaneous material secured by Prof. Bates is to be placed in the hands of "Lattin" for disposal. Special commissions for anything in the Natural History line native to that country will receive careful attention and be procured if among the procurables.

Necrology.

E. G. Sours, Rochester, N. Y.

Charley G. Albery, the only child of Dr. Thos. W. Albery, of Ovid, Ohio. Charley was instantly killed on Dec. 15 by the accidental discharge of his gun while out collecting.

DECEMBER CONTEST.

Forty-four Judges.

1. A Few Notes on the Tufted Puff-in, 179.
2. Water Birds of Heron Lake. 145.
3. The Scarlet Tanager, 143.
4. Some Queer Habits of *Urinator imber*, 74.
5. Some Experience With the Young of the Ruffed Grouse and Bob-white, 59.

The Judges' prizes were awarded as follows:

1. No. 4. E. H. Short, Chili, N. Y. who named the winners in the following order: 2, 1, 3, 4, 5.
2. No. 40. H. S. Day, Fremont, O., 2, 1, 3, 4, 5.
3. No. 7. C. Will Beebe, East Orange, N. J., 2, 1, 3, 5, 4.
4. No. 15. Harold Holland, Galesburg, Ills., 3, 1, 2, 5, 4.
5. No. 18. Reginald G. Pape, Mc Leansboro, Ills., 3, 1, 2, 5, 4.

All prizes were mailed on Jan. 15th.

You Are a Judge.

Your decision must be mailed us not later than the *first* day of February. Write on back of a postal card the five articles which *you* have decided to be the *most valuable, instructive and interesting* in this number of OÖLOGIST and mail to us. Number the articles in the order which you think the prizes should be awarded.

We give our Judges five prizes having an aggregate value of over \$5. one to each of the five whose decisions are nearest the final award of Mss. prizes.

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56	signifies your subscription expired	June, 1890
62	" " " "	Dec. "
68	" " " "	June, 1891
74	" " " "	Dec. "
80	" " " "	June, 1892
86	" " " "	Dec. "
92	" " " "	June, 1893
98	" " " "	Dec. "
104	" " " "	June 1894
110	" " " "	will expire Dec. "

We are desirous of straightening our subscription books at once and trust our subscribers will send in their subscriptions for '94 including all arrearages, at their earliest conveniences, the amounts necessary to accomplish this are as follows:

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Should you desire to discontinue your subscription to the OÖLOGIST your indebtedness to us is 5 cents more than the above amount. The figures are according to our books Dec. 15, 1894, and many renewals received since that date have been credited on our books but not on the wrapper.

To Whom it may Concern:

Notice is hereby given that the partnership formerly existing between Frank H. Lattin and Walter F. Webb under the firm name of F. H. Lattin & Co., was dissolved on the 31st day of July, A. D., 1894, by mutual consent.

FRANK H. LATTIN.

WALTER F. WEBB.

Important: Your letters must *never* be addressed to F. H. Lattin & Co., but to either FRANK H. LATTIN or WALTER F. WEBB, whichever you may wish to receive the same. All matters pertaining to the OÖLOGIST must be addressed "LATTIN". By heeding this "pointer" you may save yourself and the party you may wish your letter to reach both delay and possible unpleasantness.

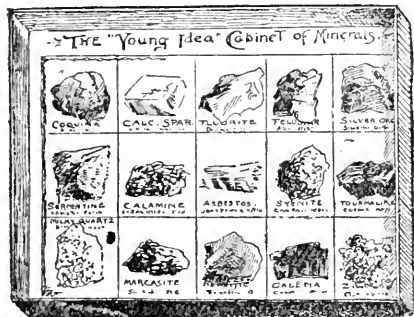
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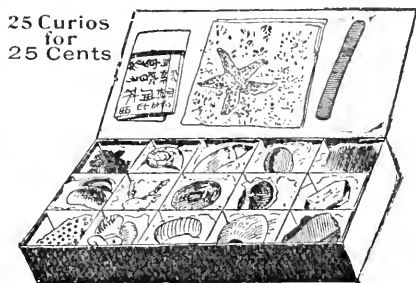


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Reliable Coin and Stamp Guide, 50 pages, giving prices paid for all U. S. and Foreign Coins and Stamps, 15c. Funny Chinese Chop Sticks, the knife, fork and spoon of the Chinamen Ebony wood, a foot long, 10c a pair. Chinese Cash Coins, 500 years old, 4 for 10c. Perfect Indian Arrow Heads, with locality, 4 for 25c, 6 for 35c, 65c per doz. Send 20 cents for Aluminum Hat Mark with engraved name. All postpaid. No, 1 no longer issue a catalogue.

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"Eclipse" Curiosity Cabinet.



Contains Chinese Poker Chip, Chinese Napkin, Chinese Lottery Ticket, Star-fish, Giant Tree Bark Cal., Red Sea Bean, Alligator Tooth, 3 Yellow Wax Shells, Marine Algae, Gypsum Crystals, Bloody Tooth Shell, Chinese Cash Coin, Flexible Coral, 3 Boat Shells, Egg of Periwinkle, Drab Sea Bean, Sunflower Coral, 3 Money Cowry Shells and Fossil Crinoid. All labeled name and locality and in partitioned box like cut. Sent postpaid for 25c.

Cheap First-class Sets.

I have decided to sell the Rippon collection off in instalments, so here is a chance to obtain first-class sets with original dates at prices that cannot be duplicated. This month I am offering Grebes, Loons, Sea Birds, and Plovers. Next month I shall offer the Rippon collection of eggs of Grouse and Birds of Prey. This is a good opportunity to fill up gaps in your collections. If you don't want sets, order single eggs. Orders less than \$2 not solicited.

Western Grebe, 2-5, 1-1.....	\$0.20	Dovekie, 1-1.....	.75
Holboells " 1-5.....	.20	Skua, 1-2.....	.30
Horned " 1-5.....	.10	Pomarine Jaeger.....	1.25
Eared " 1-5.....	.07	Parasitic Jaeger, 1-2.....	.25
St. Domingo, 1-5.....	.20	Long-tailed Jaeger, 1-2.....	.75
Pied-billed, 1-5.....	.06	Kittiwake, 2-2.....	.18
Loon, 1-2.....	.75	Iceland Gull, 1-2.....	.50
Black-throated Loon, 1-2.....	.75	Glaucous Gull, 1-3.....	.35
Pacific " 1-2.....	1.25	Vega " 1-2.....	1.00
Red-throated " 1-2.....	.25	Ring billed Gull, 1-3.....	.15
Tufted Puffin " 2-1.....	.25	Mew " 1-2.....	.10
Puffin, 2-1.....	.10	Franklin's " 1-2, 1-3.....	.15
Large-billed Puffin, 2-1.....	.40	Bonaparte's " 1-1.....	1.00
Cassin's Auk, 2-1.....	.75	Little " 1-2.....	1.00
Pigeon Guillemot, 1-2.....	.25	Sabine's " 1-1.....	2.00
Cal. Murre, 6-1.....	.12	Fulmar 4-1.....	.20
Pallas Guillemot 2-1.....	.25	Stormy Petrel, 4-1.....	.25

Always mention a few substitutes as some sets will no quick. Also Terns, Albatross, Fulmars, Shearwaters, Cormorants, Pelicans, Ducks, Geese, Swans, Plovers and Sandpipers offered cheap this month. Send 4c stamps for lists. **W. RAINE, Bleecker Street, Toronto, Canada.**

EGGS.

From the *Orient* and *Assam* (Malakka) India, Australia, Africa, etc., correctly named at moderate prices, also European and exotic Birds skins. **HERMANN ROLLE, Endener St., 1, Berlin, N. W., Germany.**

Indian Relics, Minerals, Curiosities.

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Full of Illustrations and Colored Plates of Eggs.

Cloth, \$2.50.

Card Covers, \$2.00.

A Book that delights both Naturalist and Sportsman.

Here are a few testimonials selected from several scores of others.

Order a Copy before all are gone.

Read the following opinions of well-known Ornithologists:

I have been amongst large colonies of sea birds, but it makes my mouth water to read your book giving descriptions of the colonies and great varieties of birds to be met with in N. W. Canada.
R. H. REED, Esq., M. B. O. U.

I must express the pleasure I have had in reading your book. The truth is that I have sat up much beyond my usual hour two evenings to peruse it. I envy you the trip you took through the country you describe so well.
WM. DUTCHER, Treas. A. O. U.

I have read a little of your book and find it quite original in design and very interesting in matter. I read a few pages aloud to my little boy, and every chance he gets now he begins urging me to read some more to him out of my new bird book. I consider both text and illustrations very creditable.
JOHN N. CLARK, Esq., Saybrook, Conn.

It is a treat to read your book as it is so real, wading with you through long sedge and fog, and the excitement is intense when you come across the nests of our rarest birds. The colored plates of eggs are excellent.
T. A. COTTON, Esq., Bishopstote, Eng.

I have read your book and find it very interesting. It makes me feel like taking a trip to the North West myself.
THOS. H. JACKSON, West Chester, Pa.

I have finished reading your book and I am delighted with it. I would not have missed it for double the price. The plates alone are worth the price of the book, and the few pictures are grand. Every lover of nature should read it.
J. W. BANKS, St. John, N. B.

I duly received my copy of Bird Nesting in North West Canada and I am delighted with it.
LIEUT. COLONEL, B. B. HAWORTH BOOTH, Hullbank Hall, Hull, Eng.

I have read your book from beginning to end with undiminished interest and pleasure, and wish I could have been with you in such an Oologist's paradise. The illustrations are beautiful and the colored plates of eggs are extremely well done.
E. D. WINKLE, Montreal

I have read your book and am free to confess that it has given me a great deal of pleasure not to speak of the information that I have derived from it.
THE REV. A. H. GESNER, Sing Sing, N. Y.

W. RAINE, TORONTO, CANADA.



*Our list of Egg Cases are
 well suited for the following
 Rural Birds, Gulls, Terns, etc.
 Laughing and Herring Gulls
 etc. etc. etc. etc. etc.
 Brown Pelicans, etc.*



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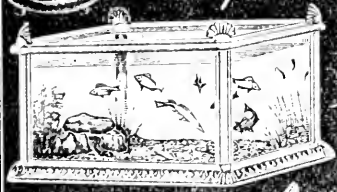
CHAS. K. REED.



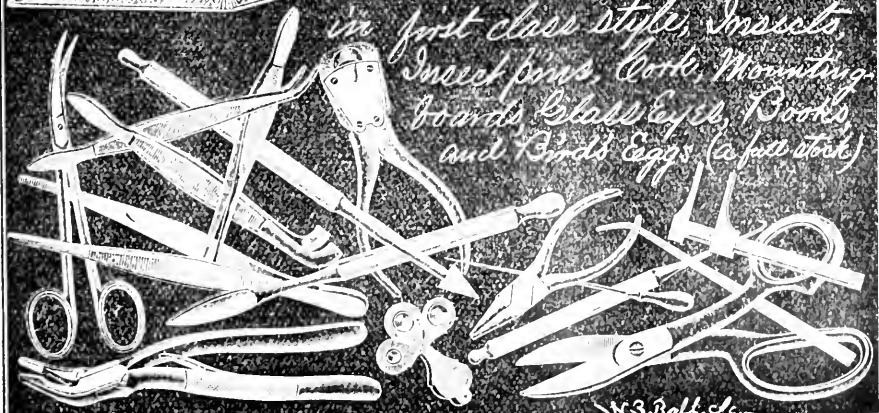
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W.S. Bell, Jr.



OÖLOGIST.

Monthly.

VOL. XII. NO. 2.

ALBION, N. Y., FEB., 1895.

WHOLE No. 112

Wants, Exchanges, and For Sales.

Brief special announcements. "Wants," "Exchanges" "For Sales," inserted in this department for 50c per 35 words. Notices over 35 words, charged at the rate of one cent per each additional word. No notice inserted for less than 50c. Terms, cash with order.

"DEALERS" can use these columns at *Regular Advertising rates, only*. Strictly First-class specimens will be accepted in payment at one-half list rates. Exchange Cards and Coupons (subscription) will be accepted for "Wants" and "Exchanges": *only* and according to conditions stated thereon.

EXCHANGE.—Lattin's strapped climbers, few first class single eggs and Indian relics. Want Hornaday's Taxidermy, eggs in sets and Davie's Key. All letters answered. E. S. CRAFTON, Plattsburg, Clinton Co., Mo.

SPLENDID Opportunity.—The following finely mounted birds for only \$3.00 or best offer in coins. Scarlet Tanager, Great Crested Flycatcher, Redstart, Black and White Creeper, Lincoln's Finch and two Cedar Waxwings, all males. Address, C. IRWIN SALTER, 1218 S. 8th St., Springfield, Ill.

FOR SALE or EXCHANGE.—One pair climbers; violin, with Coe's instruction book, case and bow; Florida sea beans and pictures from Chantanqua Co. L. R. RYCKMAN, Brocton, N. Y.

TO EXCHANGE.—Birds skins for eggs in sets with data or marine shells. Send list and receive mine. MRS. H. K. SEDGWICK, Dexter, Mich.

H. MYER'S, 611 Halsey St., Brooklyn, N. Y. Taxidermist and Dealer in Bird and Animal Skins. Correspondence solicited.

WANTED.—Microscope and medical works, to exchange for eggs, fancy pigeons and human bones. V. F. MUELLER, 201, Baltic St., Brooklyn, N. Y. From April to October at Milwaukee, Wis.

FOR EXCHANGE.—Fine perfect fossil fish from Tennessee, for sets with data or will sell cheap for cash. WALTON MITCHELL, 531 Summit Ave., St. Paul, Minn.

A SET of drawing instruments. 12 pieces in leather case, never been used, cost \$12, to exchange for an uncanceled \$2 and \$5 Columbian stamps in good condition, original gum on back and evenly centered. G. C. ROBERT'S, 1517 Christian St., Phila., Pa.

FOR SALE or EXCHANGE.—Minerals and Curiosities, old Books, Letters, Receipts, Legal Papers. All genuine. No reprints. Dates 1828-40. Write and make known your wants if you are collecting. GEO. WALTHER, Rushville, N. Y.

A FINELY Mounted Deer's Head with three prongs, 8 points for \$8.00. A Fox or Raccoon Mat for \$7.00. A mounted Fox for \$7.00 cash or will exchange for A 1 sets with data at half catalogue rates. JOHN CLAYTON, Taxidermist, Lincoln, Maine.

I HAVE several fine sets of Birds Eggs, some good Skins and specimens of Indian Pottery to exchange for Birds Eggs in sets and Mounted Birds. Send lists. W. A. OLDFIELD, Port Sanilac, Mich.

HOW to write on iron, for 10c silver or stamps I will send the receipts. You can write or engrave your name indelibly on your knife blade, gun, watch case, any iron tools or metal. A. B. ROBERTS, Weymouth, Medina Co., O.

HUMAN SKULL for best live offer in Nat. History. Will exchange for 4, 10 inch alligators, or cash offer. Also old violin, good, cost \$40. R. G. PAINE, 57 Charlotte St., Charleston, S. C.

WANTED.—Fossils, Sea Curios and Birds Eggs, for which I can give fine fossils and pet. moss. All answered. J. M. KILVINGTON, Mason City, Iowa.

TO EXCHANGE.—"Bonanza" printing press, U S. and Foreign stamps, for taxidermist tools, shot-gun, or rifle, write soon. Address J. A. Ford, Box 123 Kent, Orleans Co., N. Y.

MAKE a cash offer on a first-class 4x5 camera adaptable to instantaneous and time exposures, carrying case, tripod and 3 plate holders. They cost me over \$30. All sent express paid to highest bidder. For further description of camera address EARL HARRISON, Barnesville, Ohio.

If you don't want to get inquiries from all overcreation even to the ends of the earth, dont advertise in the Oölogist. I advertised only a small card in the query page a year ago and answers are still coming in. With the last mail I received a fine catalogue from Eng-land and a short time ago queries from the *Carlos National Museum*, Hungary; also from Madagascar and many more, too numerous to mention. F. Theo. Miller, Fredericksburg, Va.

INDIANA Collectors Only. I would like to exchange notes and specimens with collectors of this state. I think I can make our correspondence mutually beneficial. FOSTER MARIS, Annapolis, Indiana.

WANTED.—TO correspond with collectors or those that have collections of Indian Relics from the following states and territories: Wash., Idaho, Col., New Mexico Okla., La., Ver. and Mass. D. A. KINNEY, Box 73, Wasceca, Minn.

STAMPS.—50 all different, 6c; 100 all different 10c; 3 var. unused Azores, 8c; 3 var. unused Constantinople, 5c; 100 asst. N. and S. American 10c; Try our fine approval sheets at 40 per cent discount. MEEKER-TOWE STAMP CO., Bridgeport, Conn.

WANTED.—A good set of Moose horns with or without head 5-in. will give good exchange in mounted specimens or skins. JOHN CLAYTON, Lincoln, Me.

FOR EXCHANGE.—16 nickels without cents, 2 beauty Red tailed Hawk eggs, U. S. copper cent 1820, New 38 cal. Revolver, 5 chambers cost \$8. For best offer Indian relics. H. W. MITCHELL, 488 Broadway, Saratoga Springs, N. Y.

I have always received good results from my ads. in OÖLOGIST. Any naturalist who does not patronize it is behind the times. A. D. Brown, Pipestone, Minn.

NOTICE.—40 good foreign stamps for every perfect arrow head, or 50 stamps for every spear head sent me. HERBERT DAY, Mt. Vernon, Iowa.

FOR EXCHANGE.—Collection of 250 stamps and four 10c and three 5c novels for 15c and 30c Columbian stamps and 100 different tin-tags. R. W. McMICHAEL, Rockland, Maine.

A RARE lot of Confederate Stamps, 20c green and 10c blue, also all kinds of U. S. Stamps and Columbias to ex. for birds eggs. W. E. McLain, New Vineyard, Me.

TO EXCHANGE.—First class sets of Black-chinned Hummingbird, with nest and complete data; for other 1st class sets. Address EDW. SIMMONS, Box 175, Pasadena, California.

WANTED.—U. S. fractional currency and Confederate Bills. Will give 1st class sets of eggs with data, A 1 Bird Skins and a few cancelled stamps, some good Columbian. E. H. SHORT, Gaines, Orleans Co., N. Y.

FOR SALE.—One Confederate stamp, one canceled U. S. envelope of 1864 and one Confederate bill; all for ten cents. Also have some fine fossils to sell or exchange. JASPER WOOLDRIDGE, Austin, Texas.

FOR EXCHANGE.—In sets with data. A. O. U. No's 433a, 311, 313, 319, 325, 362, 368, 381, 387, 110, 119, 421, 512, 593c, 594, 706, 707, 732, 759a. THOMAS H. JACKSON, 343 E. Bidde St., West Chester, Pa.

TO EXCHANGE.—I offer stamps of domestic and foreign countries in exchange for Entomological literature or specimens, Lepidoptera preferred. C. V. BINGHAM, Stayner, Ont. Canada.

TAXIDERMISTS.—DO you want birds in the meat. Ducks for your game pieces, etc., etc? If you do send stamp for price list to W. R. BROWN, Milton, Rock Co., Wis.

TO EXCHANGE.—Fresh Marbled Murrelet skin and Birds Eggs for Confederate, U. S. and Foreign Stamps. Papers on Stamps and latest catalogues. GEORGE L. ALVERSON, Lock Box 232, Fairhaven, Whatcom Co., Washington.

WANTED.—Skins of 755 to 760. Also 47, 326, 328, 337, 362. Offer split bamboo fly rod, reel, collecting tube outfit, fly book, landing net, etc. PHIL. K. GILMAN, 1709th St., Oakland, Cal.

Eggs all gone, and letters still coming in. I should advise all collectors to use the columns of the OÖLOGIST in exchange. FREDERICK HILL, Lyme, Conn.

I get more returns from my ad. in the OÖLOGIST than any other paper. Howard M. Gillett, Lebanon Springs, N. Y.

READING matter, including *Golden Hours-Good News* worth \$2.00 to exchange for birds eggs with datuas, western pre. R. HARTFINGER, 924 Snyder Ave., Phila., Pa.

WANTED.—Ancient Indian or Mound-builders' stone mortars, pipes, spades, large hoes, large spear heads. Must be in fine condition and cheap. Will pay cash or exchange for good stamps. REV. E. C. MITCHELL, 534 Summit Ave., Saint Paul, Minnesota.

STAMPS Wanted.—For every 10 U. S. or 15 Foreign stamps catalogued above 1 ct sent me I will send post paid a complete novel in book form. THOS. H. BLODGETT, Galesburg, Ill

TO EXCHANGE.—About \$1000 worth of various kinds of Jewelry mounted and settings. The above was left over from the World's Fair and will be exchanged in lots to suit, for first-class Natural History specimens, shells preferred. Address, J. M. WIERS, 357 W. Van Buren St., Chicago, Ill. F3t

My advertisement in the March OÖLOGIST proved very satisfactory, as I received several hundred replies from same, more than from any other two publications put together. Herbert, Sterzing, Austin, Texas.

I have received splendid satisfaction from my notices in the OÖLOGIST. Will probably send you a good many this year. Geo. W. Dixon, Watertown, S. D.

WANTED.—Cheap, Central Fire, Skeleton Rifle. Will give in exchange Sets, Skins, Stamps, Climbing Irons, Drills, &c. CLARENCE H. WATROUS, Chester, Conn.

YOU want a pair of climbers that will climb any tree, "I've got 'em." What will you give for them. R. C. ALEXANDER, Plymouth, Mich.

LIVE OWLS WANTED.—A Friend desires a few live OWLS. Barred or Acadian, in pairs preferred. Write what you have, stating condition and price. Address, PUBLISHER OÖLOGIST, Abilene, N. Y.

FOR SALE.—Arsenic and shell sand, 5c lb. Not less than 10 lbs to a party. ALVAH G. DORR, Taxidermist and Fur Dealer, Bucksport, Me.

COLLECTORS.—I have a method by which you can clean your own watches and those of your friends at but a few cents expense. For 75 cents cash or \$2.00 in exchange I will send method and you will be relieved of the expense of a watch-cleaner hereafter. Warranted satisfactory or money refunded. H. L. HEATON, Parkville, Mo.

OREGON BIRDS EGGS.—I am booking orders for Oregon birds eggs and nests, to be collected the coming season. All specimens will be prepared in a scientific and tasteful manner. Price list for a 2c stamp. ARTHUR L. POPE, Sheridan, Oregon.

TO EXCHANGE.—Named beetles and birds eggs for beetles and butterflies, named or unnamed, mounted or in papers. ANSON H. WEEKS, Newport, Herkimer Co., N. Y.

EXCHANGE.—One pair of unused Latin's climbers for best offer in sets with data or books on Oology. IRA CLOKEY, Decatur, Ill.

Will someone please inform me of R. G. Gadsden's address? Formerly of 199 Whitaker Street, Savannah, Ga. And oblige J. MERTON SWAIN, East Wilton, Me.

HAVING sold my entire collection of Natural History specimens and outfit to Mr. Lattin, I shall probably do nothing in the line of Oological exchanging or corresponding for a year or two, but any parties having Natural History books or publications to dispose of will do well to write me, naming value, condition, etc., and stating wants. B. S. BOWDISH, Phelps, N. Y.

OÖLOGISTS, if you are building up a scientific collection of birds eggs and nests, I can furnish you something from this locality that will please you. Particulars for a 2c stamp. ARTHUR L. POPE, Sheridan, Oregon.

"My last adv. proved a great success." C. IRWIN SALTER, Springfield, Ills.

NOTICE.—To exchange: Two Summer Tanager for two Bush Tit or two Brown-headed Nuthatch. R. L. PAYNE, Lexington, N. C.

TO EXCHANGE.—A good file for a pair of climbers strapped ones preferred must be in good condition. HERVEY L. SMITH, Smith's Ferry, Mass.

TO EXCHANGE.—Birds eggs for first-class eggs. A 22 calibre single shot Winchester rifle, in good condition, for a No. 2 Kodak in good condition. An \$18 violin, in good wooden box with lock and clasps, a bow and "Telescope" music rack, for a Winchester repeating shot gun, model 1893, in good condition. Or will sell violin outfit for \$15 cash or will exchange it for eggs. Those meaning business, write. All letters answered. No cards wanted. J. S. & A. PYFER, Odell, Neb.

WANT hunting knife, clip blade, sheath and belt also a scalpel. Have sketching camera and fifty numbers collector's magazines. ALBERT B. FARNHAM, Benning, D. C.

FOR EXCHANGE.—A few sets of common New York eggs which I would exchange for sets of other localities. Data furnished. Send for list. L. D. LEACH, Auburn, N. Y.

PETRIFIED MOSS.—Large specimens for 4c postpaid, or will exchange for other curios. WILLARD DOBBINS, Box 22, Barnesville, O. L.

SUPERB cabinet photograph of my adult live Great-horned Owl for each set sparrow's eggs, any species, sent me. E. B. WEBSTER, Cresco, Iowa.

A GOOD THING for \$5 cash or best offer in coins. Following alcoholic specimens, 2 Lizards, 2 Piddlers, 3 Characineans, Devils Horse, Green Snake, Sea Spider, large Skimp, Garter Snake, Bottle of Turtle eggs. Address, C. IRWIN, SALTER, 1218 South 5th St., Springfield, Ill.

TILL March 15th, I will sell guns, watches, typewriters, bicycles, etc., all high grade, direct from factory, at wholesale prices. Will take part payment in second-hand shot guns or watches. Send stamp and state wants. STEPHEN J. ADAMS, Cornish, Maine.

"Please renew my ads." J. L. Davison, Lockport, N. Y.

THE NATURALIST'S REVIEW is a monthly periodical, reviewing most of the popular Natural Science magazines of the United States. Send stamp for sample copy, to SHRIEVES & DURLAND, 52 Blue Hill Ave., Roxbury, Mass.

WOULD like to have a good skin of Toco or Red-billed Toucan, GEO. A. SPAEDE, Warren, Warren Co., Mo.

STAMP COLLECTORS.—100 different stamps, 15c; 11 U. S. Columbians, (1c to 50c) \$1.20; 7 Columbia, 10c. Send references and receive our unequalled approval sheets. THE STAMP ASSOCIATION, 2552 Greenwood Ave., Station G, Chicago, Ill.

WANTED.—Packard's Guide to the Study Insects. Will pay cash. Write, stating conditions and lowest cash price, and oblige. ROSCOE C. STEVENS, 150 West 99 Street, New York, N. Y.

WANTED.—Cones' Key, latest edition in good order, have telegraph instrument, eggs in sets and singles, Minerals, buffalo horns and curios. Will give good exchange. H. A. SHAW, 413 8th Ave., Grand Forks, N. D.

TO EXCHANGE.—A 4x5 self-inking printing press, complete with six fonts of type, weighs about 65 lbs. Will take in exchange U. S. and foreign stamps confederate money or old coins. GUS RAPP, 465 8th Street, Milwaukee, Wis.

SEND \$1.00 for 3 pound basket of Dolomite, Calcite, Selenite, Iceland Spar and Quartz. Express paid. J. L. DAVISON, 55 Waterman St., Lockport, N. Y.

PLEASE do not put the ad. in the Feb. No. as the Jan. ad. brought me all the business I can attend to. Alvah G. Dorr, Taxidermist and Fur Dealer, Bucksport, Me.

WANTED.—One hundred trial orders for a fine specimen of an Indian dance knife. Handle and blade one solid piece of stone about 10 in. long and 1 1/2 in. wide, at \$1.10 prepaid. Other dealers charge \$1.75 to \$2.00 for same goods. Guaranteed made of genuine Catlinite or sacred Indian Pipestone by the Sisseton Indians. GEO. W. DIXON, Watertown, S. D.

WANTED.—Insect and egg cases. Can offer fossils, shells, minerals and sets. A bargain. 30 varieties of foreign stamps for every first-class set of eggs with data, bird skin or 5 insects. E. DAWGHT SANDERSON, 503 Hollister Bldg., Lansing, Mich.

SEND, 10, 15, or 25 cents for specimen of double refraction Iceland Spar. J. L. DAVISON, 55 Waterman St., Lockport, N. Y.

WANTED. The following first class American sets A. O. U. 1-233-84 115-115 119-130 123-139-172-180-204-211-211a-217-218-226-228-258a 261-278-280-286-328 329-333-383-407-409-416-417-415-479-538-446-549-550-559 561-562-591 610 620 637-648 667-675-676-683a 701-717a-718-719 736 738-751-753. For any of the above I can offer some fine sets. Among them are some Warblers with nests, also a few bird skins plt games, mounted birds, 2c call rifle, artificial leaves and glass eyes. A. E. KIBBE, Box 165, Mayville, N. Y.

POCKET KEY OF THE BIRDS OF THE NORTHERN UNITED STATES EAST OF THE ROCKY MOUNTAINS, Apgar. With a glossary of Terms 1893, 64 pp. Cloth only 50 cents prepaid. FRANK H. LATTIN, Albion, N. Y.

FOR ONLY 50 cents. \$500 Confederate Money (assorted), \$100 Confederate Bond and 6 rare Arrow Points. Catalogue 3 cents. J. F. BOWEN, Iuka, Miss.

I AM building up a general scientific collection, embracing all departments of the Natural Sciences and if you have anything truly desirable to offer in exchange for anything I may have in stock or if you have any standard books or publications that you wish to dispose of I shall be pleased to correspond with you. When writing give full descriptions stating your lowest exchange price and give me an idea of about what you would like in return. FRANK H. LATTIN, Albion, N. Y.

WANTED.—To correspond with those who have a few dollars to invest the coming season in Mounted Birds, skins or eggs in sets. We are booking orders from some of the best well-known collectors in America. We will spend the months of April, May and June among the birds of N. Dakota and Manitoba. If you wish sets of Ducks eggs in their nests of down let us hear from you. Correspondence with taxidermists desired in regard to supplying fresh pliable skins of Franklin's Gull, Terns, Geese, Duck, White Pelican, etc. BRYANT & MUMERY, Davison, Mich.

COAST and winter birds for sale in the flesh, also mounted birds, deer heads and Fox skin mats. ALVAH G. DORR, Taxidermist and Fur Dealer, Bucksport, Me. J.2w

TO EXCHANGE.—New Cedar Cabinet, 100 drawers with 3,000 trays. \$100 worth of first-class sets, bird's skins, climbing irons, drills, &c. Wanted, a first class bicycle, skeleton rifle, sets of eggs, Indian relics. CLARENCE H. WATROUS, Chester, Conn.

Agassiz Association Botanical Courses:

Elementary Botany, Ferns and their Allies,
Composite Flowers, Common Trees.

With 24 to 45 specimens. Fees, \$2 00. Circulars,
Address ALEX. E. WIGHT, Wellesley Hills, Mass.

FOR SALE. Formula for the making of a liquid that petrifies all organic objects immersed in it. Many very curious petrifications can be made which will sell readily. Price \$1.00.

W. H. TRASTER, M. D., Summitville, Ind.

RUDY'S PILE SUPPOSITORY is guaranteed to cure Piles and Constipation, or money refunded. 50 cents per box. Send two stamps for circulars and Free Sample to MARTIN RUDY, Registered Pharmacist, Lancaster, Pa. No Postals Answered. For sale by all first-class druggists everywhere, and in Albion, N. Y., by George W. Barrell.

EGGS.

From the *Orient* and *Assam* (Malakka) India, Australia, Africa, etc., correctly named at moderate prices, also European and exotic Birds skins. HERMANN ROLLE, Emdener Str., 1, Berlin, N. W., Germany.

Wonderful Try what 10 Cents sent H. Harte, Jeweler, Rochester, N. Y., will bring.

ORNITHOLOGY and OÖLOGY.—I want to obtain a quantity of back numbers of various publications relating to BIRDS and will allow prices as follows for the same. Will accept any number of copies not to exceed 10 of the same issue. All must be *complete* and *clean*. "Bulletin of the Nuttall Ornithological Club" and "The Auk" 30 cts. per copy. "The OÖLOGIST" (published at Utica, N. Y. and Rockville, Conn., 1875-81); the "Ornithologist and Oöologist;" and "The Nidologist;" "Random Notes on Natural History" Prov., R. I. 5c per copy. "Wisconsin Naturalist;" "The Taxidermist;" I will allow 3 cts. per copy. I will allow the above amounts in payment for, specimens, instruments, supplies or publications or if you prefer will send credit check for the amount. All publications must be sent *prepaid* (you can mail them as "second class mail matter" @ 4c per lb.). "Returns" will be sent prepaid unless otherwise specified in catalogue. I can also use the following second-hand books on same conditions at prices quoted *prepaid*. Must be in A No. 1 condition. Coues' "Key to N. A. Birds" \$4.50; Ridgeway's "Manual of N. A. Birds" \$3.75; Davie's "Nests and Eggs of N. A. Birds, 3d or 4th; editious, cloth, 85 cts, paper 65 cts; other *standard* publication will be accepted at one-half publishers prices. This notice will remain in force until Feb. 15, 1895. After that date write what you have to offer before sending. FRANK H. LATTIN, Albion, N. Y.

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Faithfully,

FRANK H. LATTIN.

Remember, Lattin's Hand-Book will be the "Standard" and should you desire such a one, do not be induced to accept any other as a substitute.



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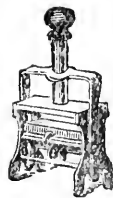
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THE OÖLOGIST.

VOL. XII. NO. 2.

ALBION, N. Y., FEB., 1895.

WHOLE No. 112

Notes on the Blue-headed Vireo in Massachusetts.

The Blue-headed, or Solitary Vireo (*Vireo solitarius*) may safely be placed among the first of our woodland songsters, for his note is far richer and fuller in tone than any of our other Vireos, once heard it can never be mistaken.

The larger number go to the northern New England states to breed where, in New Hampshire for example, the nest is by no means a rarity. In Massachusetts it is a common migrant and is found most often in pine and oak woods where it spends its time in spasmodic bursts of song, occasionally eating an insect if it happens upon one, but seldom making a systematic search for food. It breeds in Massachusetts much more commonly than is generally supposed, being, unlike the other Vireos, always extremely partial to a secluded pine grove for the purpose of nidification, and is, I think, one of those birds that, like the Crested Flycatcher, is yearly becoming more common in Massachusetts, although it is probable that the distribution of both birds is somewhat local.

It is the earliest of our Vireos to commence house-keeping, almost always having its nest nearly finished by the end of the third week in May, in fact I took one of their nests on May 19th which contained four fresh eggs. Despite its habit of early breeding, I feel convinced that it seldom, or never, has a second set unless the first is taken, when it at once builds another nest, close to the old spot, and rears another brood. How often this would be repeated I do not know, as I am not an advocate of unlimited collecting.

I consider it to be the tamest of our

birds, as it will never leave the nest without being tilted off by ones finger or a stick, and even then it does not exhibit the slightest fear, either by its actions or in those surest of tale-tellers its eyes.

The nest, which is pensile, is placed in the crotch of a pine, oak or walnut limb, usually about eight feet from the ground, but varying from seven feet to twenty. It could scarcely be mistaken for that of one of the other Vireos, being much less neatly constructed than the Red-eyed or the Warbling (besides being in a very different situation), and resembling only those of the Yellow-throated which does not, at least in my experience, make a rule of nesting in a pine grove. It is usually built of pine-needles and grass, being roughly lined with pine-needles or fine grass, and is patched on the outside with almost anything it can find, but particularly with a kind of dark brown plant down that I find in no other nests. I once found its nest by seeing some six inches of a broad strip of white cotton cloth which, waving from the bottom of it, made a strong contrast to its dark pine-wood background, and also made it very easy to find. This nest was ruthlessly carried away, probably by some cruel boy, before the eggs were laid, but, happening to pass the place two weeks later, I saw the bird sitting on a new nest that was placed on the same branch as the first. It is the equal, and superior in point of beauty, to the first, being thickly patched with long green moss and suspended from the crotch by the same material; the walls are from half an inch to an inch in diameter, and the lining is of pine-needles, all pointing the same way, with the small ends all

protruding over the edge of the nest. A more beautiful nest, being so roughly built, I have never seen. Its complement of eggs, four in number, are also particularly handsome. In New Hampshire the nests are very artistic, being patched with streamers of the outer bark of the white birch.

The number of eggs which make up a "full set" is, I believe, always four, and, like the nest, they vary from those of other Vireos, being white in ground-color (not the dead white of the Red-eye's egg, nor the creamy white of the Yellow-throats') and marked with rather fine red spots, most thickly at the larger end. Like most other eggs, they are subject to considerable variation in size, the largest of a good series (all taken by myself from first sets) measuring .80 x .60 inches, the smallest .76 x .53 inches.

In conclusion I will add, as a hint to brother scientists, that this bird has a seemingly unwarranted liking for the society of the Cooper's Hawk. Of all the nests of the latter that have come under my notice, there has invariably been a pair of Blue-heads nesting in the immediate vicinity. In one case; while sitting at the foot of a pine from which my brother was taking a set of Cooper's eggs (I am famous for my aversion for high climbs), I found myself under the curious inspection of a female Solitary Vireo who was sitting on her nest, in a small hickory, not twenty feet from where I sat.

J. H. BOWLES.

A Few Notes from Shoal Lake, Manitoba.

The winter of 1893 Mr. Walter Raine and myself arranged to spend a few days at Shoal Lake, Manitoba, in the month of June, 1894, in hopes of finding something new in the line of birds and eggs.

Early in June I arrived at Reaburn, a station on the line of the C. P. Ry.,

about 35 miles west of Winnipeg, and spent a few days at Long Lake awaiting Mr. Raine's arrival when we were to drive to Shoal Lake.

The few days at Long Lake were profitably spent collecting sets of Gadwalls, Shovellers, Pintail, Mallards, Red-heads, Teal (Blue-winged and Green-winged), Prairie Sharp-tailed Grouse, Prairie Chickens, Bratram's Plover, Western Meadow Larks, Western Savanna Sparrows, Leconte's Sparrow, Grebe's, (Horned, Eared and Pied-billed) Sora Rails, Coots, Red-winged Blackbirds, Yellow-headed Blackbirds. Of some of the above named birds I collected several sets; of others I could find but one nest. All of the above named birds were plentiful around Long Lake, and if I could have remained a week or more, no doubt I would have discovered many more nests.

Mr. Raine arrived at Long Lake the afternoon of June 7th. The morning of June 8th we were up bright and early.

After several hours of preparation Mr. Raine and myself accompanied by two boys started with a team and wagon for Shoal Lake, a distance of about twenty miles from Reaburn. We had a canvas canoe and tent and several boxes of provisions and a camera. The weather was rather warm, nevertheless, we enjoyed the drive very much. On the way we saw an old deserted house, the eaves of which were filled with nests of the Cliff Swallow, (*Petrochelidon lunifrons*) most of the nests were empty, several contained single eggs. The season was evidently a little early and I succeeded in getting but one set of three eggs. A little further on a Blue-winged Teal flew out of the grass on the side of the ditch close to the road. She, no doubt, had a nest close by, but we were unable to find it. We arrived at Shoal Lake about six o'clock, as we left Reaburn about ten o'clock a. m.



REV. P. B. PEABODY, Wilder, Minn.

The time we made was quite satisfactory. We drove across the marsh to a point of elevated ground near the edge of the Lake and close to Rock Island, where a huge colony of Forster's Terns (*Sterna forsterii*) had hundreds of their nests and eggs lying around in the gravel and weeds, a great many of the nests contained one, two, or three eggs and a few had as many as four eggs.

I collected about sixty fresh eggs and could have taken five hundred had I wished so many. The eggs are very handsome and show quite a variation, the ground color varying from white to a dark olive, some are blotched, others highly colored with brown, black and violet spots. Mr. Raine shot two rare Sandpipers and took their nests and eggs, but unfortunately broke the four fresh eggs and allowed the skins to spoil from lack of time to skin the birds.

On the edge of the marsh I found a nest of the Canvas-back (*Aythya valisneria*) containing seven eggs almost

incubated. I left the eggs in the nest and the next day the young ducks appeared. The nest was a beauty and was built in the tall flags on the ground and was entirely surrounded by water. The bird flew around in great distress while I was examining the nest and eggs.

While we were driving across the marsh the horses almost stepped on a Prairie Chicken (*Tympanuchus americanus*) and her nest of six eggs, lightly incubated. The nest was simply a hole scratched in the ground and was surrounded by short prairie grass.

I also found near the edge of the marsh a nest of the Red-head (*Aythya americana*) containing one egg. It was now getting dark and we returned to our tent, which we had pitched near the edge of the marsh.

The mosquitoes bothered us a great deal and our sleep was broken by the pests. We had to drink the bog water which was very dirty and at last I was driven in desperation to partake of the alkaline water from Shoal Lake. I found the taste not unpleasant and drank quite a lot of it whenever I felt thirsty. I have since suffered a good deal from the effects of it. Shoal Lake is a large body of water and is so shallow in many places that one can wade three-fourths of a mile from shore. The locality is wild and very sparsely inhabited, making it a fine place for wild game to bring forth their young unmolested.

On Rock Island I found a nest of the Canada Goose, (*Branta canadensis*) the young birds had evidently been hatched in it before our arrival.

June 9th, I was out early on the lookout for Grebes nests. I soon found a nest of Holboell's Grebe (*Colymbus holballii*), containing five fresh eggs. The nest was built near the edge of the marsh grass in about 3 feet of water, and was composed of dead vegetation with a few flags and a little grass mixed in. The eggs were covered. I after-

wards found three more sets of five eggs, one set of four, and one set of three eggs of the same bird, also one set of four eggs and one set of six eggs of the Horned Grebe (*Colymbus auritus*, one set of ten eggs of the American Eared Grebe (*Colymbus nigricollis californicus*. Mr. Raine also found a number of sets of the same birds.

I brought the Grebe's eggs back to camp and after an hours' work blowing them, I set out to find a few sets of American Bittern's (*Botaurus lentiginosus*) I soon returned with a set of five eggs. I flushed the bird off the nest at my feet, not 100 yards from our tent. After blowing this set I started out again and in five minutes I was back again with a set of six fresh eggs of the same bird and soon after returned with a set of four more eggs.

The three nests were within a radius of 100 yards, and there appeared to be a colony of them nesting close together.

The nests were all similar, simply a few pieces of flags and grass flattened into a platform and all placed in dry situations. The bird is a very close sitter and will let you almost catch her before leaving the nest.

I started a Wilson's Phalarope (*Phalaropus tricolor*) out of the grass. The bird feigned lameness and evidently had a nest close by. I searched carefully for it but I was unable to find the eggs. This bird is almost as wary about the nest as the Killdeer.

E. ARNOLD,
Battle Creek, Mich.

Rails in Captivity.

Upon entering the conservatory of Lincoln Park at Chicago one is confronted by a pool of water the banks of which are of a porous rock on which run trailing plants. In the pool is a species of floating plant and on the banks grow ferns and other vegetation. Back of this is a mound of rich mold,

covered by a sparse growth of a moss of the genus *Selaginella* of the Club-moss family, on which grow banana trees and various palms and other tropical plants. There is a dirt walk around and between this and another mound bordered on the outside, against the glass wall by a narrow strip of soil thickly planted with the denizens of the green-house. But for the glass roof overhead one might imagine himself in a tropical garden.

Amid these surroundings dwell two Virginia Rails and at least a half-dozen Sora or Carolina Rails. It is intensely interesting to observe these usually very retiring birds which here have become accustomed to man and will go on with their various doings in full view and often scarcely two yards away from the vulgar gaze of the bird-crank vouchsafing now and then a glance accompanied by a curious little nod and a twinkle of the eye. Their main care seems to be to fill their little stomachs and to keep up a respectable appearance. A vain little fellow will stand upon a slightly submerged rock jutting out from the bank and dipping its head and breast deep, send a spray of water over its back all the while ruffling its feathers and flapping its wings in apparent ecstasy. The bath ends with a preening and adjusting of feathers. They run about in search of food, they swim in the pool, the feet moving rapidly are held close together as are the toes; except, when the bird stops, the toes spread and feet extended apart as if to balance the owner; occasionally they will make a short, straight flight.

There is a well marked difference in the manner of the two species. The Sora is very active and seems constantly on the move. It runs about over the whole space that is available picking up a morsel here and there varying the diet with an occasional mouthful of greens from the leaves of some plant. Over the mound, amongst the smaller



G. VROOMAN SMITH, Schenectady, N. Y.

plants, along the walk, across the pool they go. Now and then there is a swift chase and a low chatter of voices when some individual asserts his power or when one has caught an unwary worm that has ventured too near the surface of the protecting mold. A rich source of food are the bread crumbs cast into the pool for the gold-fishes. And in the morning when the attendant lets in the water, which is pumped directly from the lake at the park, minnows fall on the stones and are devoured by the birds.

The statlier Virginia Rail is more sedate in its demeanor than its cousin, the Sora. From some rock at the surface of the water it makes occasional sallies to again return to its favorite nook. Nor does it seem to wander far. While it has much the same bill of fare as the Sora and takes it wherever found, the long bill comes into convenient use. It may be seen on the mound back of the pool probing the soft mold

especially around the bases of plants. As it walks along it runs its bill straight down or pries away some clod, and when an earth worm is discovered it is speedily brought too light and is swallowed with a series of sharp backward and forward jerks of the head, much in the manner of a chicken. The probing is an interesting process; as the bill descends into the ground it is opened slightly, probably to allow the tongue to feel for worms; the effort causes a convulsive shudder of the bird's head and entire body. Whenever some Sora makes itself too noticeable by its presence the Virginia immediately proceeds to scatter the individual, and there is a short, sharp chase, two streaks of bird; they run as never chicken ran. Although they pay little attention to the gold-fishes all of the birds keep at a respectful distance from a bull-frog, the monarch of the pool. Whenever a bird unwittingly gets close to this fellow there is a craning of the neck, a jerking and twisting of the head in order to get each-eye alternately focused directly on the horrible beast. Then there is a strutting away and a last inquisitive look. Such actions are usually accompanied by a bobbing of the tail, a trait less noticeable in the Virginia than in the Sora.

Our friends roost above the ground; if they did not the rats would make short work of them. That was the case with some birds last year; only one of each species survived. These had their regular roosts. One spent the night in a Love-tree, *Philodendron deliciosum*, a specimen of which rests against an iron column for the support at the roof at either side and just back of the pool; the other took up sleeping quarters in a palm on the other side of the conservatory. The excrement on the Love-trees shows where some of the birds roost this year. At dusk one may see them flying up there with rather laborious flight. I saw a Sora fly from one

of the Love-trees into a wire basket suspended by a wire from above in which grew a species of fern. This basket hangs midway between the two columns and directly over the rear bank of the pool and forms the safest kind of a retreat. It is a matter of conjecture whether or not this entered into the thoughts of the Rail.

The birds are caught while they are stopping for the day during migration. They are easily caught when discovered. A man told me that he caught one in his back yard; it simply ran into a corner and hid. Thus they are not cage bred; you may have a set for which one of these birds is partly responsible.

JOHN LARSEN.



Harry R. Taylor!

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Golden Eagle eggs! The two terms are synonymous! No doubt more than one collector has asked himself "Where do all the sets of Golden Eagle come from?" He might go the rounds of a majority of collectors who sorrowfully would plead "not guilty." And it is with a sense of pleasure that we are en-

abled to present the readers of the Oölogist a half-tone of Harry R. Taylor, one of the few "guilty" ones in this connection. To a large majority of North American collectors Mr. Taylor needs little introduction. He is a son of the illustrious missionary of Africa, Bishop William Taylor, and it was beneath Africa's tropical sun that he first saw the light.

Mr. Taylor came to California with his parents when he was but a year old and has remained in the Golden State ever since seeking out the nesting sites of *Aquila chrysaetos*, among other things. He attended the University of the Pacific at San Jose, and afterwards took a course in law at a prominent Law College. He has the make-up of a journalist and has done excellent service on several of the prominent San Francisco dailies, and for some time was editor and proprietor of the Alameda "Lantern," whose rays reflected the scintillations from his pen.

In September 1893 he began the publication of the *Nidiologist*, which has gained for itself a reputation of which any one might feel proud. Mr. Taylor has contributed many articles to scientific papers in years past, among them *The Oölogist*, *Ornithologist and Oologist* and others. Several months since a valuable and entertaining article from his pen on the California Condor appeared in the *San Francisco Chronicle*.

But amid his literary labors Mr. Taylor finds time for recreating himself in his "Eagle country" and elsewhere. At the present day there is probably no collector in America who annually collects as many sets of Golden Eagles' eggs as does the subject of this sketch. While other and less fortunate collectors hie themselves weekly around the circuit of Eagles' nests, some of which have withstood the storms of years, and return emptier than before going, this lucky personage spends a week collecting his annual "rents," his tenants awaiting his visits with resigned fate! Other equally desirable species have come under the hand of his "searching gaze,"—among them the White-tailed Kite. In 1893 Mr. Taylor with complete paraphernalia made a journey into the mountains inhabited by the California Condor but his efforts were unrewarded as the rugged cliffs and precipices made "naviga-

tion" a difficult matter. Still he lives in hopes!

To those who have had the pleasure of his friendship Mr. Taylor is one of those genial, whole-souled, ever-pleasant bodies who gladdens the nature of any who may cross his path, and the most interesting and homelike places in his hospitable house is his "den," and in whose home is *not* this mysterious room the same? But the curios of his "den" are supplemented by the many odd, interesting things which drift the way of the editor. The suggestive cabinet in one corner holds a wealth of those gems which sparkle beneath the eye of the ardent collector and several cases of mounted birds invite inspection.

Mr. Taylor is a member of the Cooper Ornithological Club and was recently elected President of that organization for 1895. The accompanying photograph which the subject permitted to be taken at an unguarded moment is before us, wearing perhaps a little more serious an expression than is natural, which may be ascribed to the fact that it was made on the morning succeeding a 3.30 a. m. session of "egg-trading," a very commendable thing in itself!

Mr. Taylor is no "closet" naturalist and will no doubt acknowledge that "trading" eggs is a perfectly legitimate and enjoyable diversion. And to which we will all respond "Correct!"

But as the Editor of the *Nidiologist* has gone East you will know the rest, so we desist and subscribe ourselves.

XYZ.

Wise and Otherwise.

At this season of the year it is eminently proper to review the experiences of the past campaign, and to take an invoice of stock preparatory to the approaching season. In recalling the various adventures incident to last year's collecting, the thought most forcibly



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impressed on my mind was that it makes a vast difference from what standpoint a thing is viewed. On a bright morning of last March, I discovered a Screech Owl cosily domiciled in a cavity apparently about eighteen feet from the ground in a silver maple in a neighbor's dooryard. As I stood at the foot of the tree, after I had buckled on my new climbers and was prepared to ascend to the cavity, the distance seemed comparatively nothing and I congratulated myself on having found a nest of the Screech Owl so easily reached. After I had set both spurs firmly in the bark, however, and was clasping the trunk with both hands and had the caudal portion of my body bent out from the tree so that I resembled a letter V with the opening toward the trunk, I was positive that it was at least thirty feet to the nest. When I reached the coveted position at last, and had sunk the spurs their full length

into the wood to guard against falling while I explored the empty recess, as I ventured to glance to the ground I wondered how I could have been so deceived as to the distance, which was now not less than fifty feet and rapidly increasing. I enjoyed the descent, however, more than enough to counterbalance the depressing effects of the ascent. Occasionally the spurs would refuse to give up their deep-seated attachment to the trunk, and I would hang with my knees in the pits of my arms, vainly tugging at my firmly anchored feet. Gradually I worked my way down until within a few feet of the ground, when I concluded to slide down the remaining short distance. I had not yet learned the perversity of a pair of spurs on the feet of an inexperienced climber, for they took hold of the uneven bark, and before I could grasp the tree with my hands, my upper parts were describing the circumference of a circle of which my feet formed the center.

Having begun to form a collection of birds' eggs only last season, though I have been an observer of bird-ways for many years, I made several visits to a grove northeast of town to secure a set of Crow's eggs, and as this was after the experience recorded above, I took along with me a venturesome fellow-crank to do the climbing. We went after working hours and darkness began to settle over the grove when he made his last ascent, the objective point being a nest about forty feet from the ground and about ten feet out on an obliquely ascending limb. As his first few climbs had not resulted to our satisfaction, his expectations were not at the highest when he reached the nest. He slid his hand up into the structure and called out exultantly, "seven eggs!" Our collecting box was a pasteboard baking-powder box, and into this he packed the set while I offered numerous bits of advice and congratulated myself on thus securing a set which would be

the prize of my infant collection. I had read that Crows sometimes lay seven eggs, but I knew if it was true it was in Florida, Michigan, or California, while I lived in Illinois and hence never expected to find so large a set, but here were the eggs being lowered to me by my companion. I stretched up to receive the box, fearing lest some accident might happen to deprive me of my treasure. How much to be pitied are you veteran collectors who can no longer rejoice in the finding of a fine set of eggs so common as those of the Crow. At last the box swung into my hands and I gently untied the small rope by which the eggs had been lowered, and then carefully placed the box on the ground in front of me, telling my friend to drop the ball of rope to me before he began his descent. He dropped the ball fairly into my hands, but though I have been the catcher of the Virden Reliables, the crack team of the county for several seasons. I muffed the ball, which bounded out of my hands and dropped fairly on the box with a dead thud which thrilled through my entire being. Two eggs survived the catastrophe, and I am still on the search for a set of seven eggs of one Crow's laying, though I am satisfied that Illinois Crows do sometimes lay that large a complement.

Later in the season I had a piece of good luck in connection with the nest last mentioned. While rambling in the grove in May, as I approached the tree containing the nest, a Cooper's Hawk made an angry dash at me, uttering the clacking notes characteristic of the species, and I immediately ascended the tree to ascertain the cause of his demonstration. Finding only one egg I left it and awaited developments or rather *undevelopments*, returning a week later with my climbing friend: he found three eggs, and at my suggestion began to pack them in another box similar to the one previously used.

These boxes open at both ends, but my friend forgot this fact in his eagerness to lower our first set of Cooper's for the season, and having packed two eggs he was pressing the cotton down more firmly, when the bottom fell from the box, and to my horror the egg nearest the bottom came down through the air with incalculable rapidity. I instinctively leaped backward to escape being spattered with the contents of the egg and uttered a cry of anguish at the seemingly inevitable disaster, but the egg struck a deep bed of dead leaves, rebounded into the air and then sank unharmed upon the soft cushion where it had fallen. If William Henry desires it, I will forward an affidavit to support the foregoing story.

I now congratulate myself that I deferred the formation of a collection of eggs until last season, or until I reached the mature years of my present age. I can still have the pleasure of finding all the common species and to me everything is still a prize, for as a collector I am only an unlearned beginner. To many of those whom I am boring by this production, most of the species catalogued by the A. O. U. have ceased to be rarities, and nothing short of a large series of the eggs of the Golden-toed Haskaree, A. O. U. No. 1001 or related species can satisfy the unresting soul. Our ornithological and oological journals receive with disdain the articles of us amateurs on common everyday birds, and yearn for communications upon some hitherto unknown sub-sub-species hovering on some *non-come-atibus* crags of the uninhabited waste. I, however, shall spend some of my time during the ensuing season in searching for a nest of the Chipping Sparrow, which I have not found in the last ten years of my rambles about this neighborhood, though formerly they were to be found in every piece of low, young hedge. Thus I feel that I am fortunate in having the best of my oological life

before me and the familiar birds of my native region can yet yield me a store of delightful experiences. One of these occurred in last June, while I was rambling along the bank of the Illinois river near Havana. A sudden shower came up unobserved by me as I searched the dense undergrowth for the nest of a Vireo which I heard singing in the tangle. I took refuge under a large, spreading sycamore whose long drooping boughs almost touched the ground, and crouching against the trunk while the rain dashed upon the foliage overhead and soon came dripping through upon me. I swept my eyes around to survey my shelter. Ten feet in front of me, glued to the side of a drooping twig, was a bit of moss-covered material which caught my gaze and jauntily riding on this swaying craft was a Hummingbird, not the least disturbed by the watery dash, for directly above her and not three inches from the nest was a leaf larger than my hand completely roofing the structure. She eyed me closely and inquiringly during the twenty minutes I remained imprisoned by the shower, and I assure you that it was a pleasure to watch her behavior, as she evidently wanted to leave the nest because of my proximity but dreaded to venture out into the pelting rain. After the shower had passed, when I approached the nest, she left with a whirr of her tiny wings which quite startled me, and while I examined the cottony fabrication she came humming about my head in a really pugnacious manner. The nest was only six feet from the ground and was placed obliquely against the side of a perpendicularly hanging twig about twelve inches from its extremity.

It would be in order here for me to ask if this nest was not situated in a peculiar manner, but I have concluded that my experiences are not much unlike those of other observers, and therefore I refrain from this threadbare query



CHESTER BARLOW, Santa Clara, Cal.

It is a common fault of inexperienced observers to imagine that their discoveries are quite out of the usual line. I recall the elation I felt many years ago over the discovery of a nest of the Green Heron in the woods near my home and how I seriously considered the advisability of writing up an account of the nest and eggs for the Nuttall Bulletin, which I had seen mentioned as the leading magazine on ornithology. I had never heard of the species, but on consulting the pages of a cyclopedia and identifying my find I was surprised to learn that I had found only the nest of a "Shitepoke." And while I am in the mood for confession, I remember that no later than two summers ago, while in the vicinity of Quiver Lake, Illinois, I found my first nest of the Hummingbird. It was placed far out on the end of a branch of a small birch tree, but by means devised only by us egg cranks I secured the treasure,

though I was not forming a collection at the time. I had not then become a reader of the OÖLOGIST, and I only knew that I had made a great find, and could now furnish to some famous institution a veritable nest and set of eggs of the far-famed Ruby-throat. I had previously corresponded with the Smithsonian Institution concerning the Reports which are frequently sent out, but had been informed that back reports could not be furnished me. I now felt that I held the key to the situation, for I would immediately write them proposing the exchange of the nest and eggs for the reports I wanted. No joke intended, Mr. Editor, for such was my lamentable ignorance two years ago in regard to desiderata. However, I am happy to say that I received light on the subject before the learned gentlemen of the Institution heard from me.

Before beginning this article, I wrote my subject, Wise and Otherwise, intending to give the most of my attention to the first division of the topic, but I feel assured that long ere this most of my kind friends of the OÖLOGIST have decided it to be largely otherwise.

P. M. SILLWAY.

Destruction of Birds.

The life of the birds is constantly exposed to many dangers. Very few of them die a natural death, or even live out half of their allotted days. These perils are especially numerous during the life of the birds as unhatched embryos or helpless fledglings. The infancy of the birds is cradled in danger; not a day nor night elapses, from the time the eggs are laid until the young are flown, but that the chances are in favor of the nest being pillaged and its contents destroyed. The households of the birds are exposed to many enemies, cats, squirrels, skunks, crows, jays and other predaceous birds and animals against which the helpless

feathered creatures can offer no defense except concealment. When at length the nestling launches upon the ethereal depths, sustained by their own pinions and dependent upon their own exertions for sustenance and safety, then it may be said that they have paried fully half of the dangers incident to the life of a bird.

We know very little of avian epidemics; what proportion of the deaths of birds may be ascribed to disease it would be impossible to tell. There must be plagues and diseases among bird-kind, as well as among the other forms of animal life, but the mortality caused by disease is, I believe, comparatively slight. We must look to other destructive agencies to see the means whereby nature maintains its balance.

If these destructive agencies were removed we would witness a phenomenal increase in the number of birds, as we have seen in the instance of that avian pest, the English Sparrow. About a quarter of a century ago the English Sparrow was introduced into this country, their numbers have multiplied until now they overrun almost the whole country east of the Mississippi and are quite extensively distributed in localities west of that limit. If the Passenger Pigeons had been permitted to increase as they did prior to the advent of civilized man, the flocks of the days of Audubon and Wilson would be much smaller than the mighty aggregations which in these later days would infest the land. Travelling in such incomprehensible numbers their track would be a scene of desolation: But they waned before the advance of civilization; the forests in which they were accustomed to lodge and breed have been laid low, busy marts and populous cities line the thoroughfares they followed in their bi-annual migrations; on the vast prairies, over which they held their stately pilgrimages, now bows the farmer's harvest and grazes

the ranger's herds; where once their mournful love-notes murmured on the breeze, now the school-bell's peal or the whistle's clarion reverberates in the air. These changes alone have decimated the numbers of the Passenger Pigeons, as draining the swamps will drive to other spots the Heron or the Egret, or felling the forest will destroy the home of the woodland songsters. These are the inexorable demands of civilization, man's pleasure and man's comfort are paramount.

What mishaps and calamities would be revealed in the chronicles of a single nesting season if the same were in print. The nest of this Prothonotary Warbler, built too low in the stub, is over-flooded and the eggs destroyed; the Black Tern building by the side of the neighboring pond has its young swept away by the flood. The Blue Jay skulks through the trees and, in the absence of the parent birds, devours the contents of the nests it finds. A skunk, squirrel, weasel, or darkest tragedy of all, a snake, searching for the dainties the nests afford, discovers the secreted treasures and feasts upon them; or perhaps that mid-night marauder, the owl, snatches the parent bird from the nest, or devours the eggs or young.

Has any one ever seen a Blue Jay robbing the nest of another Jay? Although I have never witnessed such an act, yet I will venture to say that there is no honor among thieves even among bird-kind, that the Jay will rob the nest of its fellow just as well as that of the Robin or the Thrush.

Many species of birds when their nests are robbed will endeavor to rear a second brood, but their time is limited to the few short months of spring and summer. The Chimney Swift, a bird so devoted to its young that it will dash into a blazing building where its nest is placed and perish with its offspring, in response to that mysterious instinct which impels migration of birds, will

abandon its half-fledged young to depart for its southern home when the time for migration arrives.

To me it seems that the safest-place for a nest would be where the Bobolink or Meadow-lark builds, in the broad fields where neither bush nor weed nor other growth—unlike the general mass could mark the site, where all is uniform and monotonous, where the only concealment is the concealment the great affords the little, as the desert hides the pebble. Let the simple structure be placed in the midst of this vastness and harmonize in color with the surroundings and chances of detection are very slight. The trees are searched by rats, weasels, squirrels, jays, crows, hawks and owls, and other predaceous birds and animals. In the field most of these dangers would be avoided. An occasional skunk or squirrel, prowling about in the grass could possibly find the nest, or perhaps some sharp-eyed urchin, whose aimless rambles would lead him across the nest, would see the silent brown bird slip from her nest, but all in all the chances of the nest being discovered by an enemy are small. The Larks of our western plains maintain their numbers, while the Bobolinks of the north, although multitudes are killed during their migrations, prosper and hold their own, and their sweet music does not diminish in our northern meadows. Yet many of these nests are destroyed by the cattle trampling upon them as they feed on the grass among which the nests are placed, or the mowers may come along earlier than the parent birds anticipated and wreck the humble household.

The Pewee and the Chimney Swift are subject to peculiar dangers. Their nests being fastened to the side of a wall or chimney when wet by the rains lose their adhesive qualities and are dashed to the ground below destroying the eggs or young.

Many of the birds which secret their



H. M. GUILFORD, Minneapolis, Minn.

ests in the low foliage and thus escape the squirrels, rats, snakes, owls and jays, etc., have yet another enemy to contend with. It is the parasitical Cowbird. The Cowbird finds these nests which have escaped the eyes of the other enemies. It may be seen searching anxiously through the foliage for a suitable nest in which to deposit its egg.

Some birds when they discover the presence of the parasitical egg will abandon the nest or build another nest over the one containing the illegitimate egg. Every Cow bird is reared at the cost of at least two song-birds. It is a large price to pay. The Cowbird usually selects the nest of a bird smaller than itself so that when the young ones are hatched the young Cowbird either consumes all the food the old birds can gather, or else it eventually jostles its smaller companions from the nest to starve or freeze to death. One day I

was wandering along the out-skirts of a Michigan wood when my course lead across the nest of an American Redstart. The beautiful little birds were busily engaged in carrying food for the young. In the nest was a young Cowbird which over-reached and over-rode the young Redstarts and monopolized the attentions of the parent birds. As I approached it opened wide its mouth and cried for food, but I grabbed the squaking intruder by the head and hurled it far into the depths of the tangled wood, and if it was not killed by coming in sudden contact with a limb it certainly did not survive long its precipitous flight through the air.

The dangers of the nesting period only exceed in number those of the migration season. The young birds of the season usually lead the flight to the south. Wonderful, indeed, is that instinct which guides a young bird, without either experience or the help of its parents, across vast expanses of land and water to its winter home; or, stronger than the devotion of motherhood, impells the older birds to abandon their callow brood to take part in this mysterious pilgrimage. The diminution of the supply of proper food is one, but not the only cause of migration, for in the spring when the journey northward begins the birds not infrequently leave a sunny southern land teeming with desirable food. Perchance these sensitive creatures are unable to withstand the intense heat of the southern summers or the vigors of the northern winters, and hence come and go with the seasons, living in a clime of perpetual spring.

Storms not infrequently over take the birds in their migrations and sweep them from their course. The little creatures waste their strength in battling with the elements until they become so feeble that, when the wind subsides, they are dashed to death upon the earth below. When the birds pursue

the coast line in their migrations a severe storm may drive them from their course and far out over the water so that they are unable to return to the land and perish by thousands in the depths. This too occurs on the Great Lakes, where great numbers of birds loose their lives by being over-whelmed by the storms.

In the Spring, an early warm wave will awaken the insect life and attract northward multitudes of birds. A sudden fall in the temperature will destroy the supply of food and the birds, weakened by loss of food, chilled by the cold winds and rains, and without the protection of the foliage, will perish in great numbers.

The birds which feed upon the fish that frequent the shallow waters of the shores of the Great Lakes or the Ocean, often perish on account of the storms driving the fish upon which they prey to deeper waters where the birds are unable to reach them.

The following incidents illustrate the peculiar manner in which birds may meet their death. A young Bobolink lit upon the back of a turtle thinking possibly it was a stone, and was caught by the turtle and would doubtlessly have been killed except for the interference of the observer. A Screech Owl in pursuit of a mouse had its foot caught beneath a batten on the side of a barn and both were frozen to death. A Sparrow Hawk, reconnoitering about a weed beating burrs, became entangled in the prickly burrs and was unable to escape. A Song Sparrow was found dead a foot or so away, entrapped in a similar manner. The observer liberated the hawk before death resulted. A Robin was found killed by a barb of a wire fence. A Meadow-lark was found killed in the same manner. A Woodcock flew against an electric light in Mt. Union, Ia., and was instantly killed. A female Rose-breasted Grosbeak gorged itself with certain seeds which be-

came swollen by the digestive juices and choked the bird to death. Frequently birds are caught by strings or horse hairs that they use in building their nests, and are either strangled or, being unable to escape, starve to death. Several Ducks were killed by coming in contact with some wires stretched across a street in Waverly, Iowa. Traps set for animals quite frequently catch birds, as in the instance of a Barred Owl being caught by a trap set for a wild-cat at Clinton, Ark. Ravens have been known to attack sheep, their feet being caught in the wool they were easily dispatched by the attendants. One of most peculiar fatalities is that related by Mr. L. W. Watkins, of Manchester, Mich., of a Brown Pelican catching a cat-fish, which erected its horny spines while in the pouch of the bird, with the result that the bird could neither swallow nor reject the fish, and was slowly starving to death with food in its mouth. The foregoing incidents were called from the OÖLOGIST during the past few years.

The operation of the various natural causes keeps the birds in check and maintains the balance of nature. These losses, however they may excite our sympathies, must be viewed philosophically as one of the wise provisions of nature. It is to be remembered that, although the proportion of birds slain by man may be small compared to those cut off by these natural causes, yet those he destroys are in addition to those cut off at nature's demand, and this artificial destruction disturbs the balance of life, and tends to the extinction of the birds. Among the worst enemies of our birds are the "plume hunters" and milliners. It is a cruel fashion that requires thousands of our most beautiful birds to be butchered in order that persons may adorn themselves with the scalps of the murdered songsters. These bird highwayman work most assiduously during the breeding season,



L. WHITNEY WATKINS, B. S.,
Manchester, Mich.

for then it is when the birds are in their most beautiful plumage. Every bird killed during the breeding season represents two or more young left to starve to death in the deserted nest. Some species, like the Paroquet, have been almost exterminated by these hunters. Whole heronies have been depopulated, and our woodlands robbed of many a songster. This work should be stopped by proper legislative enactments in the various states, or else the day must come when our forests are voiceless and our fields are silent, when no minstrel attunes its song to the murmur of the stream, and no Heron stands guardian by the side of the meadow-girt pond.

No one is more careful than the genuine ornithologist in sacrificing bird-life. The true collector seldom takes the life of a bird unless it is necessary for the purposes of identification, nor does he engage in wholesalenest robbery, for every egg taken destroys in

its germ so much of the life and music of the field and the wood. Collections should be made only for scientific purposes and I should be guided by no mercenary or selfish motive. Science has measured, weighed, and described the birds, their nests and eggs. Upon these points there is but little more to learn, and all true naturalists will pursue their studies with a considerate heart and sparing hand.

HARRY C. LILLIE.

Odd and Unusual Nesting Sites.

☞ Thumbing over the pages of one of my journals, a book scribbled full of bird lore, I notice an entry concerning a queer bird's nest found a number of years ago. The nest in question was no other than that of a Wren, a common House Wren, but its unusual site was the feature that attracted my attention. An old, deserted shoe, lodged in the branches of an apple tree, perchance by the hands of a thoughtless urchin, became the home of this pair of Wrens. I have seen their nests in all manner of odd positions, a coffee-pot, paint-bucket, tin-can, glass-jar, old basket, rubber boot, water-spout, brush-pile, in fact anything the builders take a notion to.

On the top of a deserted Jay's nest, a pair of robins built their nest and reared their young, and also on the top of a stump in an orchard another pair built. A rail of a snake-fence is sometimes used or a ledge under the roof of a porch is often chosen. A pair built their nest in the corner of a wind-mill frame. The nest rested partly on a wire, the other end of which was tied to the pumping-rod. At every stroke the nest was rocked like a cradle, but the birds seemed but little annoyed, and succeeded in raising a brood of healthy youngsters.

Nests of the Brown Thrasher on the

ground and in brush piles have certainly been found before, but one does not stumble on them every day.

The aborigines of the present Martin race were said to have nested in holes of trees. Perhaps some of them do so still, but I am not the fortunate discoverer. Nevertheless, I found a deviation in their mode of nesting the other day. While passing an electric light tower, the lamps of which are 125 feet from the ground, I saw numerous Martins flying in beneath the shades of the lamps. Had there not been a penalty for climbing the tower, I would have made the ascent. As it was, I was positive they nested in the shades, and a day or so later was told that they did by one of the company's men.

The English Sparrow long ago adopted the lamp shades as a nesting site, and although repeatedly their nests have been torn out, they still persist and a few manage to stay. The bright glare of the lamps at night, and their swinging in the wind does not disturb them in the least. These birds are getting so exceedingly numerous in the city, that they are spreading out into the country, and not a farm-house is without them. They are now to be found nesting in company of the Tree Swallow, Crested Flycatcher in the woods, and Woodpeckers, and many invade the domain of the Barn and Cliff Swallows, appropriating some of their nests and building their own therein. I know of one instance in which the owners of a large colony were driven away and instead of a colony of Cliff Swallows, it is now one of English Sparrows.

Changing the subject, I ran across a nest a few years ago of the Crested Flycatcher, built in the corner of a dancing pavilion under the roof. Nearly every day crowds of picnickers filled the place but perhaps not one in ten knew that nest was there.

The Mourning Dove has always been

to me an interesting bird. It deviates from its natural mode of nesting more than one would naturally suppose. Frequently I have stumbled on one of their nests in the middle of a grain field. The top of a high stump, is often chosen, but I have always wondered what possessed that bird to lay her two white eggs in with those of a Robin.

One often sees Night-hawks sailing over the city, but little suspects that they lay their eggs on the hot graveled roofs of the highest buildings.

The Towhee Bunting seldom leaves the ground to build her nest, but once I discovered a nest and four eggs in a crab tree, five or six feet from the ground, but, strange to say, it was deserted shortly after.

While driving along a country road, I flushed a Field Sparrow off her nest, which was built within a few inches from the edge of the road. This reminds me of a Meadowlark's nest found in a peculiar place out in Kansas.

Many of the more isolated prairie roads in Kansas and other prairie states are nothing more than two well beaten paths, lying parallel, and separated by a ridge of sod, the grass on which has grown to a goodly height. This is due to the fact that nearly every one drives a team, and a single horse conveyance is comparatively but little seen. In fact, when one is driven over one of these roads, the poor animal has a hard time between trying to keep his balance on the top of the ridge, and trotting a speed pleasing to his unappreciative driver. Presumably some of the readers have seen such roads; where I once lived, they were styled "two-horse roads." Driving along one of these Kansas highways, a Meadowlark was flushed from beneath the horses' feet and upon getting out and searching, I found her nest and speckled eggs. The nest was built in a bunch of grass growing on the ridge of sod in the middle of the road, appar-

ently a dangerous position, but really as safe a place as could be found. Not being a devotee to egg collecting at the time, the nest remained undisturbed. A few days later, while diving over this same road the hawk was not flushed, but upon approaching upon foot, the bird fluttered out. After that she was seldom startled when a team and conveyance passed over her, and I think she reared her brood in perfect safety.

It has always seemed to me that a Woodpecker on the plains was as bad off as a duck out of water. I am a Jay-hawker, so they say, born in the prairie and windy State of Kansas, and yet the Red-headed Woodpecker is one of my oldest acquaintances. Fortunately for him and others of his tribe, that trees, fence posts and telegraph poles were introduced into this state. A farmer was once telling me of a strange bird that destroyed his fence posts, and made holes in the roof of his house: "a red-headed critter that crawls up my posts and leaves holes in 'em," he explained. In certain portions of the country wherein trees are scarce, this species delights to alight on the roofs of houses and drum on the shingles, much to the dismay of the inmates, who frequently sally out with a gun, and either destroy or frighten the offender. The telegraph poles are also a favorite resort, and I have seen a pair nesting in a cavity of one.

The good people of a certain village in this notorious state, had built themselves a church, one with a wooden steeple, green blinds, and painted a beautiful white. Shortly after its completion, a host of Red-heads, wearied from constant digging into dry fence-posts and telegraph poles, took possession of that wooden steeple and to the chagrin of the elders and deacons, bored it so full of fine round holes that nothing was left of it but a resemblance to a honey-comb. A stranger in town made inquiry about this strange

steeple, and received the information that it was only a bit of fancy-work, a new idea of the builders by which the church was given perfect ventilation, but of late the Pigeons had taken possession on the steeple and gained entrance through the numerous holes. Probably the stranger thought different as he saw a Red-head emerge from a hole and drum lustily on the gilded ball, high above the old wooden steeple.

W. E. LOUCKS.

Nest and Eggs of *Geothlypis maagilliorayi*.

Locality, Northern Idaho, on an eastern mountain slope. In a pine forest. The trees, in some places were too thick for underbrush. In other places dense clumps of brush thrived. Then again the woods would be open and the ground carpeted with coarse grass. The nest was located in a little canyon that cut through such a part of the woods as the last mentioned.

The nest was placed in the fork of a bush. It was about twenty inches from the ground. The nest was composed of light colored grasses. The dead stems and blades were loosely woven together. The structure was lined with fine black roots. Among these were a few black hairs. The outside diameter of the nest was 3.8 in.; the outside depth, 3.3 in.; the inside diameter, 2 in.; the inside depth 1.9 in.

The nest contained four fresh eggs. In color they are creamy white, with an inclination to pinkish (they were decidedly pinkish before preparation for the cabinet), everywhere spotted with pale lilac; the spots being larger and grouped in a ring about the larger end; also everywhere spotted with reddish brown, lighter or darker; in a few places the brown is more thickly applied and the result is a brownish black blotch or scrawl. The eggs measure in inches, .77x.58, .78x.57, .71x.58 and .76x.56.

The bird was taken and her identity carefully determined.

J. O. SNYDER.

THE OÖLOGIST.

A Monthly Magazine Devoted to
OÖLOGY AND ORNITHOLOGY.

FRANK H. LATTIN, Editor and Publisher.
ALBION, N. Y.

Correspondence and Items of interest to the student of Birds, their Nests and Eggs, solicited from all.

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FRANK H. LATTIN,
Albion, Orleans Co., N. Y.

. Articles, Items of Interest and Queries for publication should be forwarded as early in the month as possible.

ENTERED AT THE POST OFFICE AT ALBION, N. Y., AS SECOND-CLASS MATTER.

Guilford College, N. C. has one of the finest Museums in the State. T. Gilbert Pearson is Curator.

A Friend asks—Where can I get a high grade camera with rapid Rectilinear Lens for exacting work?

Remember that the OöLOGIST is now 75 cts. a year and that subscriptions and renewals will be accepted at the old rate (50c.) until Feb. 15th only.

Blenn R. Bales, Wilson, Alabama, reports killing an albino Robin on Jan. 2d. Pure white except a few red feathers on breast.

"NATURAL SCIENCE NEWS" is the name of our new weekly Journal devoted to Natural History in all its various branches. You have heard of it. You have doubtless received a sample copy, and may have already sent in your subscription for it—if not we trust you will do so by return mail. Should you receive an extra copy, place it where it will do us the most good.

A boomerang in the hands of an American has never yet proven an effective instrument for killing "big game." It might answer on "a review" or dress parade but even then it would be advisable for the "boys" to keep away from behind the source whence it emanates.

The publisher of the OöLOGIST has on two or three occasions during the past ten years been made the object of unwarranted attacks by journals having an "immense circulation" and which assured the public they had "come to stay." Correct. By reference to our copious notes bearing on the subject we find that *all* have "staid."

The Northwestern Ornithological Association.

The Northwestern Ornithological Association was organized at Portland, Oregon, Dec. 28, 1894. The following officers were elected: Pres., Arthur L. Pope; 1st vice pres., Wm. L. Finley; 2nd vice pres., G. B. Cheney; Sec., D. Franklin Weeks; Treas., A. B. Averill. All persons in the Northwest who are interested in our birds are cordially invited to correspond with the Secretary, 720 Front St., Portland Oregon.

As there has been comparatively little work done in ornithological science in the Northwest it is expected the new association will bring to light some interesting facts regarding the birds of that section.

My Introduction to the Canada Jay and Three-toed Woodpecker.

We have all met with disappointments, haven't we? I know I have, but one of the worst is contained in the following: Some of my readers will recognize as "just their case exactly."

It was a light day in fall, about thirty-six miles back from Georgian Bay. I was slowly wandering along ostensibly for Ruffed Grouse, but keeping my eye open for other of our bird friends. It was along an old lumber road, such is are common in a new district just left by the lumbermen and still showing the fierce ravages of the axe and fire. To the right and left of me was a wall of second growth birch and poplar well guarded by *chevaux de fuse* of dead tree-tops and breast-works of fallen logs. I had tried to force these defenses and, wearily came to the conclusion that there was no game along the road.

As I paused a moment to watch some Slate-colored Juncoes I heard, away over somewhere, a maniacal laugh, perfectly fiendish in its tone and enough to make one's blood run cold.

What's that? I mentally asked, and the dog looked up and then turning to me seemed to say, "Shall we go and see?"

Not much through that jungle.

Much puzzled I went along my way until I reached higher ground and came to a "slashing," where hemlock had been cut for tan-bark and thin, white, bleached trunks lay about piled over each other like huge jack-straws.

Sitting down and watching some Kinglets playing in a small cedar clump I was attracted by an unknown guttural note uttered near me. My heart flew to my throat; there, on a log, and quietly tapping as if nothing unusual had happened was the bird I had been looking for for three years—the American Three-toed Woodpecker. How

often had I heard that familiar rat-tat and quietly stealing up in hopes of finding him saw a Hairy or Downy bird, here he actually was right under my hand, or gun, rather. All this and much more flashed through my mind while I was raising my gun. When horror of horrors, he flew—but towards me and lit on the other end of the log I was on. I slowly rose and, keeping an eye on him backed off to insure there being enough of him left to mount after I shot. Dear reader, you know how it is, every log for miles around came and lay in my way. The dog got under my heels, but I remembered the fifth commandment and didn't say a word. Mr. Woodpecker seeing how things stood, flew on a tree at just a good range, but on the opposite side. Then I changed my tactics and began a retrograde movement to get in the rear of my enemy; keeping my eye on him every second except once while getting over a log. But that once was enough, I did not see him go, but he went,—and I—well, I won't say what I said. The dog crawled under some logs and all the rest of the day acted ashamed for me.

I will pass over what happened for a while after that in deference to my readers, who, I think will sympathize with me if they are collectors.

An hour or so after as I came into some better cleared land I heard that awful laugh again proceeding from an isolated clump of bushes and I crept forward. The fiend flew—coming right over my head and I fired. He stopped suddenly and dropped in rather a disjointed way. When I picked him up I saw who he was. He was slate-blue under and lighter beneath with a suggestion of rufous, he wore a nice little black cap, and his whole plumage had a peculiar looseness and fluffiness—in fine he was a Canada Jay.

Proceeding I came to a little lake lost in the woods. Peering cautiously forward I saw three ducks dabbling about and every now and then diving, show-

ing as they did so their silvery under parts. Then began a long detour to strike the lake near where they were. At last I saw I had come out in the right place for there they were totally unaware of the presence of a gun.

I was about to shoot when a whirr of wings over my head made me look up and I heard the same hoarse call I had heard in the "slashing," and there, with his golden coronet, was my woodpecker. No chances this time, so I fired. The ducks got up with a splash and frantic beating of wings. The woodpecker hung for a second and dropped.

Thus ended one of the most enjoyable bitter-sweet days I have known for a long time. I walked on air all the way home admiring my two prizes. After this these birds became quite common but these were the first ones I took as I had never stayed so late in this country on my vacation trip before. Tais accounts for my never having seen birds which, in the late fall and winter, are quite common there.

In closing, let me say that I hope that in all their like disappointments, my readers will have a like ending to them that turns them into a rather pleasant experience; instead of a disagreeable remembrance of "what might have been."

P. A. TAVERNIER,
Guelph, Ont.

JANUARY CONTEST.

Ninety-four Judges.

1. A Rough Time Collecting at Shoal Lake, Manitoba, 453.
2. Northwest Notes for 1894, 314.
3. Water Birds of Heron Lake, 306.
4. Experience with the Young of Ruffed Grouse and Bob-white, 164.
5. Spring Breeders of Western New York, 84.

The following ten Judges named the winning articles in their exact order and among these ten the Judges prize was equally divided:—

Berton A. Garrett, Balston Springs, N. Y.

L. G. Woodruff, New York City.
W. A. Johnson, Galesburg, Ills.
Geo. Miller York, Pa.
A. L. Blanchard, No. Yarmouth, Me.
Millard Van Wagner, Gretna, N. Y.
C. C. Smith, Decorah, Iowa.
L. B. Gilmore, Blooming Valley, Pa.
L. R. Kirk, Jr., Wayne, Pa.
Hervey M. Hoskins, Newberg, Oregon.

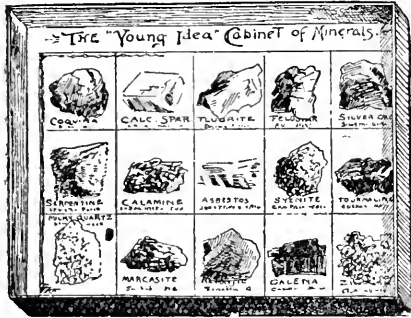
All prizes were mailed on Feb. 9th.

We have been too busy during the past year to take the time to inform the readers of the OÖLOGIST what the prizes were which we were awarding each month for Mss. and to the Judges. For the best Mss. each month as determined by our judges we give a credit card which entitles the holder to his selection of \$10 worth of specimens or \$7.50 worth of instruments, supplies or publications or \$5 CASH. For the 2d prize \$5 worth of specimens; \$3.75 in instruments, supplies or publications; or \$2.50 CASH. 3d \$3 in specimens, or \$2.25 in instruments, supplies or publications, or \$1.50 cash. 4th, \$2 in specimens or \$1.50 in instruments, supplies or publications or \$1 cash. 5th, \$1 in specimens or 75 cents in instruments, supplies or publications or 50 cents cash. During 1895 the Judges prize will be awarded as follows, viz: Each month it will consist of \$6 in specimens or \$4.50 in instruments, supplies or publications or \$3 cash. This prize will be awarded to the Judge who names the winning articles and in there *exact* order. In case more than one Judge names them correctly this prize will be equally divided among the number. This month ten, name the winners *exactly* hence, each of these ten are entitled to 60 cents worth of specimens or 45 cents worth of instruments, supplies or publication or 30 cents cash. On this plan during the past year at three different times this prize would have remained unawarded. Four times it would have been secured by a single Judge, once it would have been divided among two, twice among three and once among eight.

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the money. Nearly 10,000 sold in the past three years. Neat, novel and instructive for study.

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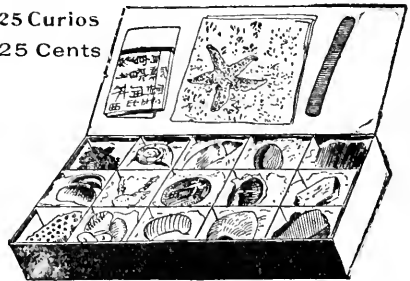
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The above box, 16 packages of vegetable seeds, mailed for only 25 cents and a 25 cent check put in each box.

10 trial packages choice flower seeds, our selection, 10 cents.

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All of the above for 60 cents by mail postpaid. Catalogue of seeds free.

Address, J. J. Bell, Binghamton, N. Y.

ALBION

IS a Village of nearly 5,000 inhabitants, it is the County Seat of Orleans County; It is the centre of one of the most wealthy, populous, and prosperous farming and fruit-growing districts in the *World*.

The Post Office at ALBION receives the mails for a district having a population of perhaps, 8,000 people.

According to the report made by the Postmaster of Albion, for the month of January, 1895, that month was a *Record Breaker*, and showed the *greatest* amount of *business* ever transacted in a single month, since letter postage was reduced to 2c and undoubtedly since the office was established.

This report does not show it—but it's a fact, nevertheless, that *one-fifth* (possibly, if not quite one-fourth) of this entire business can be attributed to one,

FRANK H. LATTIN,

(who resides "two and one-half miles out in the country"). This "LATTIN" makes no pretensions at being a "Natural History Dealer," although he does do a little "jobbing" along that line.

From a business or professional standpoint he might be classed as a "Publisher" or "Naturalist," although some of the boys do, familiarly, call him a "Yankee," and a "rustler."

On January 10th, this LATTIN addressed a circular to his friends headed:

"TO MY FRIENDS AND PATRONS"

Every statement in which was to his best knowledge and belief, the truth, and as he has been well-known to the Collectors of the United States for the last fifteen years, there is no reason for thinking that they accepted it as otherwise. The direct results from that circular and accompanying letter and printed matter, exceeded his most sanguine expectations, and the letters he has received since has averaged *over* 100 (one hundred) a day and on one day by actual count they numbered two hundred and thirteen (213). He has also received as high as seventy-eight (78) pieces of other mail matter in a single day. This same "LATTIN" has received more letter mail and more P. O. Money Orders during the past month than the combined mails and orders received by the next ten heaviest patrons of the Post Office at Albion.

It's not the coat that makes the man. The rarest and most valuable specimens are oftentimes obtained from sources having the roughest of exteriors. Hence, "LATTIN" is aware that collectors care but little whether his place of business is in a hovel or marble palace—as long as he attends strictly to business and cares for his patron's trusts in strict accordance with the golden rule.

As a matter of *fact*, however, "LATTIN" occupies *three* buildings, viz:—1st, a store house, (formerly used as a barn); 2d, a shop or office, *never* used for any other purpose); 3d, his "Museum" or the building which is devoted exclusively to his private collections and which is fitted up with cabinets and cases made expressly for that purpose. These collections are now being arranged and it is hoped that they may be ready for visitors to inspect not later than May 1st.

Last but not least the "sanctum" is located in his residence.

A certain dealer states that (Lattin) "secures the specimens of me to fill orders with"

As an actual fact I have secured of this party between the dates of Aug. 1, 1894 and Feb. 1, 1895, *less than* \$160 worth of specimens and supplies, to balance this amount I presented a debit account, and *less than* \$50 in cash, and secured for same received bills in full to date.

During this same period my business has *exceeded* \$5000 and nearly, if not quite, approached \$6000, or \$1000 per month, for which, were the above statement in quotations a true one would I have had made an outlay of only \$50?

Faithfully,

FRANK H. LATTIN.

N. B. "Lattin" was born and reared in the town in which he now resides, and is known or has been "heard of" by all the leading public and business men—even the P. M. of Albion—and from them it would be a very easy matter for interested parties to learn whether his statements are reliable or not.

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FRANK H. LATTIN, ALBION, N. Y.

METHODS IN THE ART OF TAXIDERMISTRY,

BY

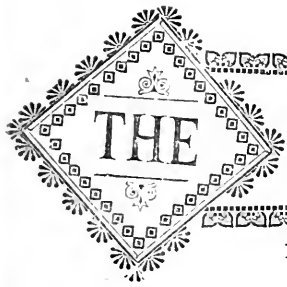
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FRANK H. LATTIN, ALBION, N. Y.



OÖLOGIST.

Monthly.

VOL. XII. NO. 3.

ALBION, N. Y., MARCH, 1895.

WHOLE No. 113

Wants, Exchanges, and For Sales.

Brief special announcements, "Wants," "Exchanges" "For Sales," inserted in this department for 50c per 35 words. Notices over 35 words, charged at the rate of one cent per each additional word. No notice inserted for less than 50c. Terms, cash with order.

"DEALERS" can use these columns at *Regular Advertising rates, only.*

Strictly First-class specimens will be accepted in payment at one-half list rates.

Exchange Cards and Coupons (subscription) will be accepted for "Wants" and "Exchanges" *only* and according to conditions stated thereon.

TO EXCHANGE.—West Indian grasses. Jamaica seeds. Garfish head, war bullets: Wanted flint arrows, spears, and bird skins. GEO. HARRIS, Box 111, Fulton, Ohio.

TO EXCHANGE.—15 cloth-bound story books and five, all in good condition for eggs or clumbers. W. B. CUDLIP, 2006 8th St., N. W., Washington, D. C.

CAN procure California Murre eggs the coming season for sets, and birds in meat; many common specimens wanted. Everything sent A-No. 1; same expected in return. T. E. SLEVIN, 2413 Sacramento St., San Francisco, Calif.

STAMP COLLECTORS.—Packet C contains 1000 foreign stamps; fine bargain, for 60 cents. Packet D contains 100 varieties rare foreign stamps for 35 cents. Packet E contains 500 rare foreign stamps, worth \$, price 50 cents. D. CHAPMAN, South Bend, Ind.

ONE HUNDRED first-class skins for Sharp-shinned Hawks, Am. Ospreys, Owls or Warbler's eggs in sets with data. J. B. CANFIELD, Box 890, Bridgeport, Conn.

WANTED.—Dr. Fisher's Bulletin on Hawks and Owls. Write stating condition and lowest cash price. Address, A. A. BRADLEY, 152 West 99th St., New York City.

FOR SALE.—American Ornithology, by Alex. Wilson, 8vo. \$7; Our Own Birds, by W. L. Bailey, \$1.25. All fully illustrated, entirely new. PAUL L. SCHAEFFER, Addison, Ills.

WANTED.—Agricultural Dep't Bulletin on Hawks and Owls of North America. Will give good exchange or cash. Write stating what you want. J. S. ALLWOOD, Taxidermist, Hecla Works, N. Y.

FOR SALE.—Finest pansies 36cts. per doz. Mammoth verbenas 50 cts. per doz. Double hollyhocks \$1 per doz. Double dwarf zinnia, splendid bedder, continually in bloom, 60 cts. per doz. Chrysanthemums 60 cts. per doz. White jessamine (climber) 20 cts., postpaid. FRANK B. EASTMAN, Easton, Md.

I WILL give an original first-class set with data, of the Prairie Horned Lark, for Davie's Nest and Eggs. W. S. COLVIN, Osawatomie, Kansas.

WANTED.—To hear from all who would like to exchange eggs with me this coming season. Send for list. Have old money also. ORLANDO SHEPPARD, JR., Box 16, Edgefield, S. C.

TO EXCHANGE.—Fine sets of eggs with data for hunting knife with sheath. Also good sets for same. PERCY D. GETTY, 301 N. Main St., Bloomington, Ill.

WANTED.—To exchange first-class sets with data of sea and inland birds' eggs the coming season, after April, for large, rare singles and sets. M. T. CLECKLEY, 457 Greene Street, Augusta, Ga.

TO EXCHANGE. 89, 45 Winchester centre-fire cartridges, for the best offer in eggs with data. JAS. PAINTIN, JR., Coralville, Iowa.

WANTED.—A pair of good climbing irons for stamp album, containing 375 stamps, worth about \$4.50. Write at once. L. JAEGER, 532 East 4th St., Chicago.

I HAVE a collection of stamps, 668, value about \$15, to exchange for old manuscripts, fossils, minerals, Indian relics, etc., or war relics. All answered. JULIAN O. TIFFANY, Box 411, Mason City, Iowa.

FINE sets with complete data to exchange for equally fine sets not in my collection. Send lists and receive mine. F. E. NEWBERRY, 157 Westminster St., Providence, R. I.

WANTED.—Birds' eggs. Will pay cash or exchange old coins, stamps etc. P. H. PARKER, Box 61, Washington, Tazewell Co., Illinois.

WANTED.—Mounted birds, bird skins, eggs in sets, weapons of warfare, especially a U. S. cavalry sabre and scabbard. Can offer photographs, eggs, minerals, a few curios and classified and unclassified shells and insects. W. F. MONTAIGN, 19 Walnut St., East Orange, N. J.

FOR SALE. Davie's Nests and Eggs, \$1; Model Natural History 70c; Birds of Bermuda, 10c; Manton's Taxidermy, 30c; Nidologist, Vol. I, \$1; Auk, Vol. XI, \$2.75; Oölogist, Vols. IX, X, XI, \$1.25; 15 odd numbers OÖLOGIST with others, 45 cents; 1 copy Auk, Jan. '91, 5¢ cents, and one water-color outfit, 50 cents. No cards answered. L. W. BROKAW, Carmel, Indiana.

TO EXCHANGE.—New copies of O. & O. Semi-annual and Wilson's Quarterly, for scientific books or publications. State what you have. LYNDIS JONES, Oberlin, Ohio.

LOOK! \$10.00 worth of cloth-bound books in first-class condition, to exchange for printing press or revolver, and rare coins. PAUL TEVIS, Keota, Iowa.

LOOK HERE!—Wishing to dispose of my entire collection of stamps, I will send 75 all different, for 25c silver. This is a rare opportunity of which every collector should avail himself. JAMES H. WHITE, Le Roy, N. Y.

TO EXCHANGE.—A collection of showy minerals for first-class Hawks' eggs in sets. JOHN THOMAS, Lock Box 198, Sharon, Pa.

WANTED.—Not less than six large trap-door spiders, commonly called tarantulas, together with nests. If possible specimens must be mounted first class. W. J. PARKES, Box 1731, Green Bay, Wis.

TO EXCHANGE. A 32 cal. nickel-plated, rubber handled, 5-shot, single action, "Defender" revolver, for caliber square, climbers or common eggs in sets. D. CURRIE, 1505 West Lake St., Minneapolis, Minn.

WANTED.—Rubber stamps, foreign coins and bank bills, confederate bills, etc.; broken bank notes, fractional currency, colonial bills, cigarette pictures, tickets, albums. Will give good exchange or cash. F. L. ENGLEBERT, Nictown, Philadelphia, Pa.

WANTED. All kinds of United States stamps except 1 and 2 cent, especially desire Columbians. Have first-class sets of California eggs to exchange. O. W. HOWARD, Los Angeles, Calif.

WANTED.—A Kodak in first-class condition. Will give in exchange, your choice of first-class eggs in sets from my private collection. Write full particulars to EDWIN C. DAVIS, Gainesville, Texas.

COLLECTORS LOOK HERE!—Send me He in stamps and I will send a fine cabinet specimen of 50 per cent black copper ore. Will exchange minerals and Indian goods for good watches and books. W. F. STONE, Junction, Lemhi Co., Idaho.

ANN ARBOR. Would like to hear from some one interested in Oology and Ornithology in Ann Arbor. B. H. SWALES, 11 South State St., Ann Arbor, Mich.

AIDS TO COLLECTORS.—Nothing will aid you more than a fine bird dog to find nests. I have the Pointer and English Setter puppies to trade for birds' eggs or skins, or cheap for cash. J. H. BROWN, 178 Grand Ave., Davenport, Iowa.

WANTED of oölogists. Books on Ornithology and Entomology. I do not want live cocoons and old United States or Columbian stamps. Have nicely prepared sets of California eggs to exchange for the above. O. W. HOWARD, Los Angeles, Calif.

TO EXCHANGE.—1st class eggs with data, sets or singles, of this locality for 1st-class sets with full data. Many common sets wanted. L. J. PICKETT, care of Citizens Bank, Wahoo, Neb.

WANTED.—A collecting gun and outfit. X-L. or pistol preferred, in good condition. Can offer some good bird books, or cash if cheap. Give all particulars. JAS. O. DUNN, 360 E. 39th St., Chicago, Ill.

COLORADO.—Bird skins carefully prepared, full data. Live Eagle to exchange. Wanted, auxiliary barrel, reloader, etc. History of Birds of Kansas. H. S. REED, 1320 Gaylord St., Denver, Colorado.

TO EXCHANGE.—The following receipts: How to write on metal, How to clean watches, and How to petrify organic objects, for Davie's Nests and Eggs. OLLIE MCKEE, Vancouver, Wash.

WANTED.—Eggs in sets, curios, minerals, and stamps, for Polyphemus and Cecropia Cocoons. What offers for a first-class No 1 Kodak? R. V. N. DAVIS, 55 Park St., Rutland, Vt.

FOR SALE.—A first-class fiddle. Write for terms. Also an African Ostrich's egg for \$1.25. BAILEY BURRITT, Chili Station, N. Y.

TO EXCHANGE.—I will give 35 var. of foreign stamps for every U. S. stamp valued at 10c or 50 var. for every U. S. stamp valued 15c. LAWRENCE APPLETON, Haddonfield, N. J.

TO EXCHANGE.—A 44 cal. British Bulldog revolver in good condition, for telegraph sounder and key. Write stating resistance of sounder if possible. CHAS. H. JONES, Box 103, Redlands, Calif.

FOR SALE CHEAP. One fine specimen of each, Tarantula, Scorpion, Centipede, Horned Toad, and Trap-door Spider, neatly mounted in cardboard box and name printed under each specimen both common and scientific, only \$1.75. Also live Telega Cocoons, 3c each. Send stamp for full list of curios. O. W. HOWARD, Los Angeles, Calif.

FOR SALE.—1,500 birds' eggs in sets and 500 singles at one-fourth standard price. Fine California bird skins at one-half rates to be collected this year in Southern California. Write for lists. Money *must* be sent before eggs are shipped. Eggs or skins not satisfactory *must* be returned at once or no notice will be taken of the same. When eggs or skins are not satisfactory money will be refunded or satisfaction given. Parties wanting eggs or skins from Southern California send lists of what you want and I will guarantee them to be first class if collected. Rates from one-half to one-third. W. B. JUDSON, 631 E. Eldorado St., Pasadena, Calif.

TO EXCHANGE.—Horraday's Taxidermy, Autograph, revolver, educational books, magazines, type, microscope, for stone relics, minerals or Columbian stamps. Send arrow point or Columbian stamp above five cents for two varieties of U. S. revenues. Correspondence solicited. H. B. FRANKENFIELD, Dublin, Bucks Co., Pa.

WANTED. A No. 4 Kodak, or a No. 4 Kodak Junior. Will give a new \$5 Boehm Flute and balance in cash, books on Ornithology and Oology, or choice sets of birds' eggs. DR. MARTIN, Wellington, Kan.

I HAVE 14 months of the Poultry World, by Stoddard, as good as new; will exchange for skins or natural history specimens. C. CLIFF, Murray, N. Y.

TO EXCHANGE. 1,000 foreign stamps, all different, a coin silver watch with Waltham works and \$12 worth of sets with original data. C. B. HODGE, Sterling, Kansas.

WANTED.—A double-barreled, breech-loading shot gun. Will give mounted deer or Jack Rabbit heads; mounted Bald Eagle and Wild Cat rug for cash. W. C. PELTON, Taxidermist, Dickinson, N. Dk.

FOR SALE.—A twelve dollar typewriter for \$5. Address immediately. C. WHEATON VAUGHN, 47 West 83d St., New York City.

FOR SALE OR EXCHANGE.—Collection of U. S. stamps (Catalogue value \$17), several rare ones. First-class sets with datas wanted. CLIFFORD WHITE, 1229 East Monroe St., Springfield, Illinois.

TO EXCHANGE for birds' eggs in sets with data. Goodrich's Natural History, 600 pages and 1,400 engravings of birds. 2,300 tobacco pictures, also books on taxidermy and eggs of this locality, for eggs of other localities. All letters answered. GEORGE GARVIE, Goddard Ave., Bridgeport, Conn.

TO EXCHANGE.—Brand new Winchester repeating rifle, 28-55, with case and reloading tools, for good 4x5 hand camera of standard make. N. G. BUXTON, Stanford University, California.

TO EXCHANGE.—Sets and singles of this locality for eggs of other localities. Write for particulars. All letters answered. C. W. PRIER, Appleton City, Mo.

WANTED.—A few persons in each state to cultivate and report upon a new seedling potato, which in this vicinity is found far superior to all other varieties heretofore grown. Price of seed for testing, 30 cents per pound, 4 pounds for \$1, postpaid. JOHN A. MORDEN, Originator, Sherman City, Mich.

WANTED.—Good 4x5 camera. "Detective" preferred; pair extra strong marine glasses. I have \$40 collection of U. S. adhesives, \$25 collection of foreign stamps, \$15 collection of eggs, \$15 Steyens' rifle, new; 30 cal. Colt's revolver; 32 S & W. hammerless, (perfectly new). E. E. LEE, Covington, Ga.

NOTICE.—All persons desiring A-1 specimens of Oregon birds, in skins or mounted form and eggs in sets, correctly identified in exchange for Eastern and Southern specimens, both rare and common, or for camera, microscope, field glass guns or printing outfit, will do well to correspond with me at once, enclosing list and wants as I shall secure only such as are ordered.

Specimens must be A-1. If not so they will be held for postage and charges for repacking and shipping. A. G. PRILL, M. D., Seaside, Linn Co., Oregon.

WANTED.—Camera: cash or part cash and part exchange in eggs, skins, photos, 4x5 roll holder, fine focusable lens, or exchangeable, high grade, up-to-date camera. Fair price, perfect working condition, at once. For sale: sets, photos, of eggs and nests in situ, of Miss. Kite, Broadwing and Krider's Hawks, and other rarities. Fresh skins, Waders and Swimmers. Low price, fine preparation. Stamp for list. P. B. PEABODY, Wilder, Minn.

MAKE me an offer in sets for Manton's Taxidermy, also snakes and lizards from this locality, either alive or in alcohol. SAM R. TAYLOR, Palestine, Tex.

WANTED.—Old guns, pistols and daggers complete, or incomplete for my private collection. Will pay cash or exchange minerals, shells, birds' skins, eggs, works on Natural History, all branches. Have two old "grandfather's" tall clocks, 7½ ft. tall, perfect order to sell or exchange for above mentioned arms. E. P. CLARK, M. D., Morrisville, Madison Co., N. Y.

FOR EXCHANGE.—The following sets with data: A. O. U. Nos. 51a 1-3, 75 1-1, 86 1-1, 106 1-1, 120c 1-1, 191 1-4, 221 1-4, 273 1-2, 316 1-2, 320a 1-2, 385 1-3, 410 1-4, 420 1-2, 428 1-2n, 429 1-2n, 452 1-4, 456 1-4, 477 1-4, 498 1-4, 501b 1-3, 508 1-5, 519a 1-3, 52½ 1-4, 540 1-3, 593c 1-4, 591b 1-3, 596 1-3, 602 1-3, 613 1-5, 622a 1-4, 622b 1-4, 652 1-3, 671 1-1, 706 1-3, 713 1-5, 725 1-2, 758 1-4, 736 1-2, 627 1-3, also a number of rare singles. C. ALLEN ELY, Perrineville, N. J.

SEND 35 cents with cabinet photo and receive 12 minnet photos, prepaid. For \$1 I will send 50. Send 2c stamp for sample of work to PAUL MCGINTY, Athens, Ga.

NATURAL SCIENCE NEWS.—I want *at once*, copies of Nos. 1 and 2, (Feb. 2d and 9th.) for each copy returned I will send a copy of either the YOUNG OÖLOGIST or OÖLOGIST. I have some very interesting copies of the former —10 years old—you could nearly consider them as relics. Send as many as you can spare and I'll see that you do not receive duplicates in return. Should you prefer I will send you a credit card, good for 5c per each copy returned. FRANK H. LATTIN, Albion, N. Y.

A FILLED case, Elgin movement watch in good condition, cost \$35 for camera 4x5. "Premo" preferred—or if you have camera for sale cheap write me. CLIFTON W. SEARS, Delaware Ohio.

WANTED.—A fine first-class single with full data, of Canada Goose, Wood 1 uck, Wild Turkey. Will give in exchange first-class singles with full data, from this locality. A. L. BLANCHARD, No. Yarmouth, Maine

I WILL send you postpaid an all steel embryo hook for any of the following: Four Columbian postage stamps excepting the 1c and 2c ones; two perfect arrow heads with locality; set of eggs with data; or 25c worth of any kind of specimens. GUS RAPP, 455 9th St., Milwaukee, Wis.

COLLECTORS having rare birds' eggs, singles or sets, either end blown, or 1st class specimens for sale cheap. Reptiles eggs also wanted. Please write to W. R. WHARTON, Germantown, Phila., Pa.

TO EXCHANGE.—A Quackenbush air rifle, shot's w'c'l, cost \$8, and first-class sets and bird skins. Want Ridgeway's Manual, chiblers, callipers and other instruments. A. P. GODLEY, Le Grand, Iowa.

TO EXCHANGE. Two Winchester repeating rifles, one 22 calibre long, and case, cost \$13; one 28 calibre and case, cost \$5, with globe peep sights. Both new; Tarpon rod with two tips, new, cost \$8; Ven Hote reel, new, cost \$9; also Lieutenant's sword and Springfield rifle with bayonet, used at Pittsburg mts., 1877. Want good camera and outfit. Taxidermist instruments and chiblers. J. GORDON CRAWFORD, Daboy, Va.

TO EXCHANGE.—Vol. II, Gentry's Birds of Eastern Pennsylvania; The American Annual of Photography. Wanted: eggs in sets with complete data from other localities. For particulars address FRANCIS R. COPE, Jr., E. Washington Lane, Germantown, Pa.

HELLO! Will collect eggs of this locality. (Southern Minnesota), especially Water-fowl and waders, this coming season, cheap; also have fine specimens of petrified moss. JOHN C. KNOX, Jackson, Minn.

FOR best cash offer, stamp collection, 640 stamps, catalogued at \$50.50 (Scott's '95 edition) C. H. AGAR, 502 Clinton Ave., Brooklyn, N. Y.

TO EXCHANGE.—50 back numbers of THE OÖLOGIST and YOUNG OÖLOGIST. I want Wood's Natural History eggs 1 sets, or pair climbers. WYLIE C. SMITH, Denton, Texas.

STAMPS! STAMPS!! 150 foreign stamps for 10c. or for every good arrow head or shell sent me. WM. F. SHAW, Lock Box 30, Ithaca, Mich

NOTICE.—For \$2 in sets or \$1 cash I will send a receipt for taking the wild nature from any birds you have or any captured. ARTHUR V. CLIFTON, Athens, Ga.

TO EXCHANGE.—A No. 1 Baltimorean Press, chase 2½x4, for best offer in stamps of any kind. THE DIXIE STAMP & NOVELTY CO., Nashville, Tenn.

WANTED.—Old coins, shells, and stamps in exchange for Canadian and foreign stamps and eggs. CHARLIE BARTLETT, 525 Dufferin Ave., London, Ont., Canada.

I AM building up a general scientific collection, embracing all departments of the Natural Sciences and if you have anything truly desirable to offer in exchange for anything I may have in stock or if you have any standard books or publications that you wish to dispose of I shall be pleased to correspond with you. When writing give full descriptions stating your lowest exchange price and give me an idea of about what you would like in return. FRANK H. LATTIN, Albion, N. Y.

WANTED.—To correspond with those who have a few dollars to invest the coming season in Mounted Birds, skins or eggs in sets. We are booking orders from some of the best well-known collectors in America. We will spend the months of April, May and June among the birds of N. Dakota and Manitoba. If you wish sets of Ducks eggs in their nests of down let us hear from you. Correspondence with taxidermists desired in regard to supplying fresh pliable skins of Franklin's Gull, Terns, Geese, Duck, White Pelican, etc. BRYANT & MUMMERY, Davison, Mich.

RUDY'S PILE SUPPOSITORY is guaranteed to cure Piles and Constipation, or money refunded, 50 cents per box. Send two stamps for circulars and Free Sample to MARTIN RUDY, Registered Pharmacist, Lancaster, Pa. No Postals Answered. For sale by all first-class druggists everywhere, and in Albion, N. Y. by George W. Barrell.

FOR EXCHANGE. Single barrel, unused, Shattuck gun, 25 brass shells and loading tools complete, for best offer of rare eggs in sets. Raptors preferred. *Especially desiderata* A. O. U. Nos. 43 and 32. THOMAS H. JACKSON, 43 E. Biddle St., West Chester, Pa. 5w1

OÖLOGISTS WANTED.—I want, *at once*, copies of the OÖLOGIST as follows: July-August, 1886; January-February, 1887 or Dec., 1886, with the former *attached*; June, 1888. I also desire copies of my old 1885 "OÖLOGIST HAND-BOOK." For each and every copy of the above publications mailed me not later than February 15, 1895, I will give 15c worth of anything I advertise or offer for sale, or will send credit check good for the amount. I will also allow 10c each for the following numbers, viz:—June-Sept., 1887; April, 1889. All must be *complete, clean*, and in good condition. Address at once, FRANK H. LATTIN, Albion, N. Y.

SILVER and GOLD.—Something everybody wants, something all can get by securing a copy of Vick's Floral Guide for 1895, a work of art, printed in 17 different tinted inks, with beautiful colored plates. Full list with description and prices, of everything one could wish for vegetable, fruit or flower garden. Many pages of new novelties, encased in a chase cover of silver and gold. Unusual and astonishing offers, such as Sweet Peas for 40 cents a pound, \$300 for a name for a New Double Sweet Pea, etc. If at all interested in seeds or plants send 10 cents at once for a copy of Vick's Floral Guide, which amount may be deducted from first order, to JAMES VICK'S SONS, Rochester, N. Y., and learn the many bargains this firm is offering.

TO EXCHANGE.—About \$1000 worth of various kinds of Jewelry mounted and settings. The above was left over from the World's Fair and will be exchanged in lots to suit, for first-class Natural History specimens, shells preferred. Address, J. M. WIERS, 357 W. Van Buren St., Chicago, Ill. F3t

POCKET KEY OF THE BIRDS OF THE NORTHERN UNITED STATES EAST OF THE ROCKY MOUNTAINS. Apgar. With a glossary of Terms 1893, 64 pp. Cloth only 50 cents prepaid. FRANK H. LATTIN, Albion, N. Y.

FOR ONLY 50 cents. \$500 Confederate Money (assorted), \$100 Confederate Bond and 6 rare Arrow Points. Catalogue 3 cents. J. F. BOWEN, Inka, Miss.

ORNITHOLOGY and OÖLOGY.—I want to obtain a quantity of back numbers of various publications relating to BIRDS and will allow prices as follows for the same. Will accept any number of copies not to exceed 10 of the same issue. All must be *complete and clean*. "Bulletin of the Nuttall Ornithological Club" and "The Auk" 30 cts. per copy. "THE OÖLOGIST" (published at Utica, N. Y. and Rockville, Conn., 1875-81); the "Ornithologist and Oölogist;" and "The Nidologist;" "Random Notes on Natural History" Prov. R. 1. 5c per copy. "Wisconsin Naturalist;" "The Taxidermist;" I will allow 3 cts. per copy. I will allow the above amounts in payment for specimens, instruments, supplies or publications or if you prefer will send credit check for the amount. All publications must be sent *prepaid* (you can mail them as "second class mail matter" @ 4c per lb.). "Returns" will be sent prepaid unless otherwise specified in catalogue. I can also use the following second-hand books on same conditions at prices quoted *prepaid*. Must be in A No. 1 condition. Coues' "Key to N. A. Birds" \$1.50; Ridgeway's "Manual of N. A. Birds" \$3.75; Davis' "Nests and Eggs of N. A. Birds, 3d or 4th editions, cloth, 85 cts., paper 65 cts.; other *standard* publication will be accepted at one-half publishers prices. This notice will remain in force until Feb. 15, 1895. After that date write what you have to offer before sending. FRANK H. LATTIN, Albion, N. Y.

ANNOUNCEMENT.

I desire my friends and patrons to bear in mind that in the future I intend to devote my time and energy to the publishing business and the few spare moments that may accumulate will be expended in the study of the Natural Sciences.

As you may already understand I have a large general assortment of curios and specimens left on my hands—which I am rapidly closing out at prices in which cost cuts no figure. I want to unload and am going to, too, within the next few months. I will sell in small lots or entire stock “way down” for CASH.

If there is *anything* you want write me and if I have it on hand I will quote “right” prices. If I cannot furnish your wants I will refer you to some RELIABLE dealer who can.

Until I can close out my stock I shall for the benefit of my friends carry a full line of all leading Supplies, Instruments and Publications for the Collector and Naturalist. And can furnish at the regular rates of any reliable dealer or at prices given in any of my old catalogues—I have no new ones and do not intend to issue one.

Let me hear from you early and often.

Faithfully, FRANK H. LATTIN.

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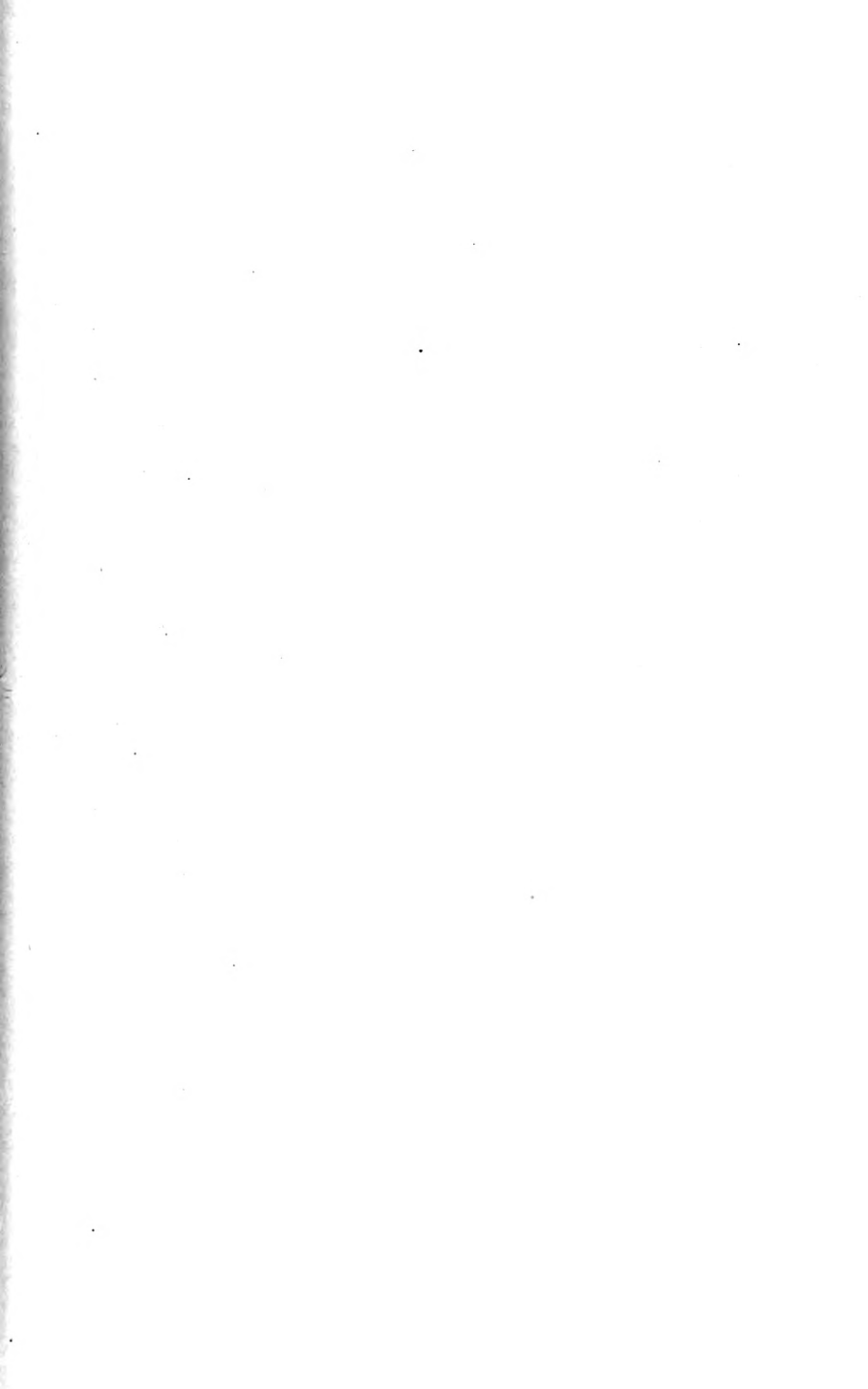
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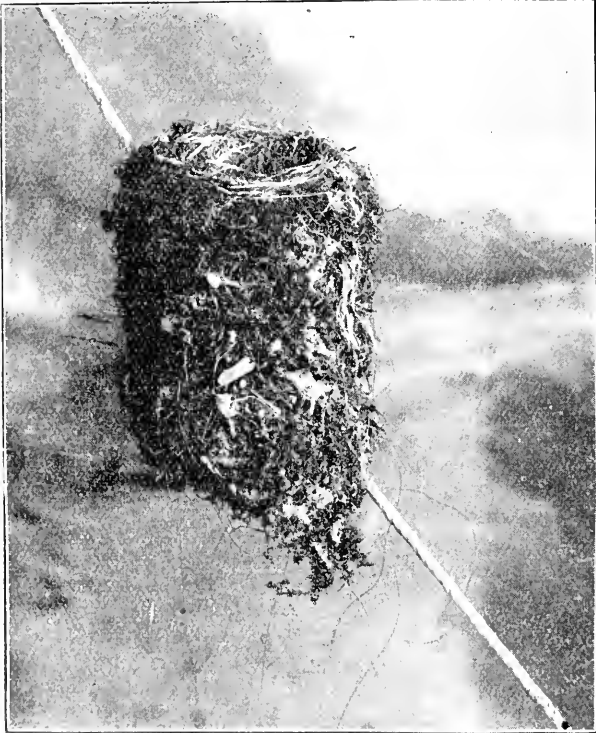
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Terms Cash. Best of references
317 C. LITTLEJOHN, Redwood City, California.





From a Photo by Sau'ers.

An Unusual Nest Site of the Phæbe.

THE OÖLOGIST.

VOL. XII. NO. 3.

ALBION, N. Y., MARCH, 1895.

WHOLE NO. 113

An Unusual Nest Site of the Phœbe.

The Phœbe or Pewee *Sayornis phœbe*. LATH. is perhaps more interestingly various in its habits of nidification than most birds. It teaches us how plastic is that degree of mind which we call instinct, in the hands of environing conditions; or, in other words, it shows how capable birds are of making themselves at home in peculiar and even unusual circumstances. It would be an interesting study in avian psychology to observe the variation and range of one bird in nest building, the Pewee for example. For it is only by noting the attitude of a mind toward its surroundings that we can come to any conclusion as to what place it occupies in the scale of mind, no matter whether the mind be that of a man, "beast," or bird.

The nest of the Pewee is an interesting piece of workmanship; so artless, or should I say so artful?—is it as to escape discovery by an inobservant person. It ever amounts almost to a surprise to the initiated in such matters even. Might it not have been a thing of natural growth there on the rough face of the ledge, its wet moss so fresh and green? It is in perfect unity with the cool, dripping, romantic rocks splashed with mosses and lichens, where the shadowed air of the ravine is scented and always cool, and the voice of the Pewee is like a pensive spirit brooding over the place, the mere memory of some recluse mellowed and softened by time into this gentle flower of song. Lowell's sweet little poem, "Phœbe" comes to you in such a place:

"It is a wee sad-colored thing,
As shy and secret as a maid;
That, ere in choir the robin sing,
Pipes its own name like one afraid.

It seems fain prompted to repeat
The story of some ancient ill,
But Phœbe! Phœbe! sadly sweet
Is all it says, and then is still."

What naturalist or oölogist does not remember the delight wherewith he discovered his first Pewee's nest! Away down the road perhaps, under the bridge near the old mill it was that the barefooted novice found the dainty affair plastered on the side of a hewn beam. He can recall the picture yet and the enthusiasm of the moment; although he does not go barefooted now, neither does he go into ecstasies over anything so cheap as a Pewee's nest. The more is the pity. Nevertheless some of the old feeling comes back to him with the memory of the pool with its reflection of the nest and bridge and the shadow of the leaving bird and the boy standing knee-deep in water contemplating the white gems to be carried home and added to the jewels in that casket so precious in the eyes of a wild sweet boy—a box of birds eggs. It is somewhat worth while to have been a naturalist or oölogist to have such memories; to have your dreams of the past so tangled up and woven in with the seasons and phases of nature. To grow green and young again from spring to spring as old Earth does, and add another green growth to your eternal rind.

It is worth while to have lived—I should say, in spite of the nest-robber,—reformers—if you have been a boy-naturalist.

This is something of the proper fruit a life should yield; such clusters as we would not sell, and such perhaps, as nobody would buy, yet, something at least and at last in these days of dollars whereof money cannot reckon the value. If a lover of nature cannot

make new discoveries, and we cannot all do that perhaps, he can at least fill the world with the rainbows and silver and golden mists of memory and association. Now I know some will say this is mere sentimentality: But he who retains the pictures of youthful days up there in the private art galleries of his memory especially if they be framed in sunshine and happiness will think not so.

Lest we consume too much space and time let us proceed to examine this unusual nest site of the Pewee. Four words which I will use a number of times in speaking of the nest must be borne in mind: right, left, front and back as you look at the illustration.

This nest was found in May of 1894 in a sugar house, built on a $\frac{3}{4}$ inch cotton rope which was stretched at an angle of 42° by exact measurement. The half-tone is from an excellent photograph taken by F. J. Sauters of Salem, O., and represents the nest at the proper angle on the identical rope exactly as I found it.

Beside its unusual size its elegant shape and proportion at once impress our judgment. Although it was a decided departure and a doubtful undertaking, yet the result is certainly not that of a bungler.

The following measurements will more clearly and forcibly bring this out.

The greatest height is 7.50 inches, to the right in front. On the right side where the rope enters, which is two inches back of the height just given, the nets is 7.00 inches high; while to the left where the rope comes out the height is 6.00 inches. The cavity is one inch deep, 2.50 inches wide from front to back and 2.25 inches from right to left, thus conforming with the shape of the top which is 3.75 inches across from right to left and 2.50 inches from front to back. At the widest place near the top, 1.25 in. from the top, it is 4.25 from

right to left and 4.25 from front to back. At the widest place below it is 4.75 inches wide from right to left, and 4.50 inches from front to back. To the back at the top the nest is built 2.50 inches farther beyond the rope than it is, in front; while below, the reverse is true. $2\frac{1}{2}$ inches more of the bulk being on the front.

So perfectly was it thus balanced that I could take the rope between my thumb and forefinger and twirl it smartly without causing the nest to swing through an arc of any dimensions. And it quickly regained its equilibrium. When the mother bird alighted upon it, it scarcely moved.

To prove how finely it was balanced I must mention that a little quantity of mud and moss which was plastered on the front right side of the nest, forming a loose and curious fringe was broken off in moving it to the photographers, and although this mass detached would not make more than a small fraction of an ounce, the nest does not now hang quite "true."

Was this nice balancing of the nest the work of "accident" or "chance," or is it a display of "instinct" elevated to the borderland of "Reason?"

Those who are anxious to discuss the old question "Instinct versus Reason" might here find a very fitting "bone of contention."

I acknowledge I cannot imagine how a nest could be thus nicely poised by accident, yet I am not wont to give birds credit for so much judgement. Yet, in examining such unique nests we must not forget several points, namely—that birds always have enough judgement to make their nests symmetrical and plumb and level across the top; and that these anomalous nests are built under the reign of the same laws which govern ordinary cases and might be explained if we were a little better versed in the ordinary habits—judgment of the birds. So we may explain

it thus: In following usual methods—that is obeying its native judgment the bird attained a result which we might more easily attribute to abstract reasoning. Yet I am not prepared to offer any explanation of the steps whereby the nest came to its present shape and appearance, as conclusive. That it was the result of much patient and persistent labor I knew from the quantity of mud and moss which was wasted and lay on the floor below. The dangling ends of more than a score of horse hairs hung from the nest, a number below hung over a foot and several over two feet beneath. The fringe of mud and moss of which some still adheres as will be seen by the illustration was attached to the horse hairs and dropped down several inches on the front right side. No one was there when the foundation of that nest was laid: pity it it is, 'tis true, for I did not discover it till near completion.

I said at that time and will stick to it yet, that I would rather have been there when the foundation of that Pewee's nest was laid, than present at the dedication of the corner stone of any building I can think of. How did the bird start about the building of this nest? Where did it begin? How came so unusual an idea into its small head which is supposed to be packed only with "hereditary instincts?" How did it ever succeed in building the nest so square, with such a mass of material beneath the rope? These are questions I will not try to answer for you. You will have to sit down with the picture before you and try to imagine how it ever was done. How much was the work of chance, how much of reason, how much of instinct. I endeavored to educate my bird, offering her conditions a little more difficult, after taking her first nest away. But she evidently had no inclination for such a course of training and shortly she disappeared. I would like to have forced

her to build several more nests, trying to bring about a psychological evolution in one bird at least, and as birds return to old locations, I have some hopes of seeing some trace of the peculiar departure in the nest of 1894, should the bird again appear at the sugar house.

Goethe says, "Nature reveals her secrets in monsters." And the final conclusion which I draw from this Pewee's nest is, all animals are endowed with enough innate intelligence to be equal to any circumstance in which they may be placed.

This nest now hangs in the writers museum, his most curious and interesting specimen of bird architecture.

ERNEST W. VICKERS,
Ellsworth, O.

Breeding Time of Our Birds in the Extreme Part of Western New York.

The very interesting article of Mr. Ernest H. Short, of Chili, N. Y., tempted me to jot down a few of my observations in the same direction, and should you find them worthy of space in the OÖLOGIST, then they are welcome to you.

The Great Horned Owl seems to be our earliest breeder. I have taken a fine clutch of three eggs, March 9, 1891, incubation at least eight days. The following year I had no chance to visit the same place but on the 9th of March, 1893 I took one egg from the same nest, perfectly fresh.

March 8, 1894. The same pair of Owls had changed their nesting site into the next wood where I found one egg in nest, which I did not take, but on returning on the 10th I found a fine set of two fresh eggs. A friend of mine found an Owl's nest also on the 10th, with two eggs one-third incubated. Their breeding time can safely be placed at from the 1st to the 10th of March.

I had occasion to shoot a Wilson's

Snipe on the 20th of March the past season, perhaps as early as we have a record here of them. On the same day I found a Prairie Horned Lark's nest with four eggs.

A day or two later a heavy snow storm set in covering the fields with from one to two inches and in some exposed places with 3 inches of snow. This may have destroyed a great many clutches of their eggs, for I found nests on April 29th and 30th, May 13th, June 24th and 30th.

Next in order is the Red-tailed Hawk. I have taken fresh clutches from April 1st to May 3rd, and highly incubated eggs and young much later. They build mostly very high; sometimes impossible to get, as in one instance where the nest was placed in the top of a shellbark hickory where the bark for upwards of eighty feet had to be peeled off. I tried it for thirty feet and then gave up. I find in my memorandum book under April 25, 1892; Red-tailed Hawk's nest in Kenmore wood, in elm tree, seventy-one feet high, slightly incubated set of two eggs. Go there the next year, one week sooner. April 9, 1893, same locality, but in different tree, several hundred feet away, seventy feet from the ground, a nest of Red-tailed Hawk with three eggs, perfectly fresh; April 28th, from same pair of birds, nest in a different tree, sixty-four feet from the ground, one egg. You can see that these three clutches have been laid by the same bird, they are very large and finely marked. Since then the Electric Street Railway Co. has extended its line past this wood, which is almost entirely cut down and the Hawks have disappeared. Really too bad! I have also taken, April 1, '94, a set of three Screech Owl's eggs. The Owl occupied a deserted Nuthatch nest.

The eggs of the American Woodcock was taken here, April 7, 1894; April 11, 1892 and April 17, 1864. All three sets were perfectly fresh.

The eggs of our Common Crow have been taken by me from April 13th to the middle of May.

A fine set of two eggs of the Barred Owl was taken by me April 15th. Had no time to leave the nest undisturbed for a few days or I might have had a full set.

The Bronzed Grackle is quite common from April 25th to May 1st.

Fine sets of from two to five eggs of Red-shouldered Hawk were taken by me from April 24th to June 24th. Some are handsomely marked.

April 29th, May 13th, June 18th, 24th, and July 10th, are the dates that I have taken Killdeer eggs in sets of two to five.

Perfectly fresh sets of the White-rumped Shrike eggs were taken by me April 29th, May 16th, and June 7th.

May 1st is the time for the Hairy and Red-bellied Woodpecker.

The Sparrow Hawk has quite a wide range. Finely marked sets were taken May 6th, 13th, 24th, 27th, and 30th. Very likely they breed twice if their eggs are taken in the early dates. Also a fine set of five Great Crested Flycatcher awarded my search on the 6th of May.

May 7th was the day I found a Blue Jay's nest with four eggs.

On the 8th, 17th, and 29th of May I took handsome sets of from seven to nine Nuthatch's eggs.

Beautiful sets of Ruffed Grouse's eggs awarded my searches on May 11th and 21st.

The Mourning Dove breeds here from May 12th.

Several fine sets of Cooper's Hawk were taken May 14th, and 16th.

A most welcome set of five American Bittern's eggs greeted me on the bright morning of May 19th.

The quite abundant Brown Thrasher commences incubation May 21st.

Our swampy places have been explored by me for the fine clutches of the

Carolina and Virginia Rail, with good results from May 24th to June 13th and from May 25th excellent sets of Red-winged Blackbird were taken.

The restless Spotted Sandpiper have been taken by me in fresh sets from May 23rd to June 30th.

The Golden-winged and Red-headed Woodpecker, and Grassfinch commence incubation on the 23rd of May.

Several years ago a friend of mine shot a splendid specimen of King Rail, and made me a present of it. I skinned it to save the skin, and found that it had a fully developed egg within which is now in my possession. This somewhat confirmed my idea that this splendid bird breeds in this locality, a fact unknown by our Ornithologists' and to confirm my idea, I was lucky enough to find in the Pt. Abino swamp, on May 30, 1894, a nest containing ten splendid eggs. Proof positive.

Wood Thrush commence incubation on the 25th of May, and the Long-billed Marsh Wren have their several nests ready for breeding purposes from May 27th to June 2d.

The Belted Kingfisher, Downy Woodpecker and Maryland Yellow-throat, start breeding in this locality from May 30th to June 2d, and fresh eggs have been taken by me of the Meadowlark from May 30th to July 10th, which proves in my mind that under favorable circumstances they raise two broods.

June 1st seems to be a lucky date for me. Have taken Least Bittern from 1st to 19th. One fine set of Chestnut-sided Warbler, a splendid set of Bobolink. From June 1st to 8th, sets of Green Heron, and from 1st to 8th, American Redstart, and in quite abundance, the Purple Martin, in fresh sets from June 1st to 23rd.

I have had the pleasure to find on the 4th, 10th and 19th of June, large and fine sets of the Florida Gallinule. In the same period the Yellow Warbler commences to breed in its downy nest.

Have taken fresh sets of Wilson's Thrush Rose-breasted Grosbeak and Purple Finch, on June 7th.

Between June 10th and 14th, I have found fresh sets of White-eyed and Red-eyed Vireo, Barn Swallow, and several large and nice sets of Marsh Hawk.

The best find was on a bright spring morning, June 15th, where I was successful enough to locate, sixty feet from the ground, on a small twig of a great elm tree, the nest of a Cerulean Warbler. After a hard climb I brought down the nest with four beautifully marked fresh eggs. We occasionally see the Warbler, but to my knowledge no one living in Buffalo ever found the nest. About the same time I found in the centre of a small wood, on the outer branches of a beech, the artistically built nest of our Ruby-throated Humming Bird containing two tiny white fresh eggs. It is quite an ornament in my collection.

June 16th is the day for Bank Swallow, and the Kingbirds, and Chimney Swifts to start breeding.

Fresh eggs of the Cedar Waxwing were taken by me on the 18th of June. Only once have I been fortunate enough to take a fine set of the Scarlet Tanager, and on the 21st of June, in an unoccupied quarry, on the bare rock a fine set of two eggs of the Nighthawk greeted my eye, and on the 10th of July, a very hot summer day, in a swampy meadow, with small underbrush, 1½ feet above the ground, in young maple sapling, I found an artistically built nest of the Hooded Warbler, containing two almost full-fledged young and one egg, which is now in my collection.

EDWARD REINECKE.

Buffalo, N. Y.

Birds and Storms.

On June 10th, last, a companion and myself, were bathing in a small lake a few miles distant from Minneapolis. It

was just at sunset and toward the west a heavy bank of clouds lay piled up in masses, from which we could see the lightning play and hear the distant rumble of thunder. They were of that shade of color which betokens the severest storms.

We were surprised at the sight of a flock of eight, or perhaps ten Crows, which flew hastily by at no great elevation from the lake. They were followed by another flock, and later yet, by another, while last of all came a single bird, lumbering along as fast as a pair of very ragged wings could carry him.

This is the season when most Crows are paired and nesting, and as far as my experience goes, are not generally flocked as these were. The best way we could account for it, was the probable supposition that they were trying to get out of the path of the storm.

As I have said, the storm was in the west, and betokened more than usual severity. Its apparent direction was toward the northeast, making it likely that we might catch one end of it. The Crows were flying at a right angle to its path and it would have been but a few minutes before they would have been out of its track altogether. Of course, one cannot say that these were not chance flocks of Crows winging over the country, but I never shall believe it was so.

It certainly falls without the bounds of instinct, and comes within the domain of reason, for a bird to judge of the direction in which the clouds are moving, and take action, as did these Crows. This is not the only time I have seen birds endeavoring to avoid a storm.

Early in June, two or three years past, I noticed large numbers of Nighthawks flying swiftly before some green-tinted clouds. The clouds were of limited area, but unlike the Crows, the Nighthawks floundered rapidly before them, as if in fear, and the only way of

escaping was by precipitate flight. This was also in the season of the year when these birds were breeding and many nests must have been deserted.

Again towards the end of a very oppressive day in August, 1886, we noticed large numbers of Nighthawks high in the air. They were all flying rapidly toward the east and were not cutting leisurely about as Nighthawks usually do. There was then not a cloud in the heavens, but in a short while afterward our attention was attracted by a low, rumbling sound from the west, like the sound of a distant train of cars. Soon after a storm had passed which left many trees prostrate and otherwise caused much damage.

These birds doubtless have cause to fear these storms, though I have never noticed dead or wounded birds lying about after one had passed. On the contrary, when the winds have gone they seem to sing as cheerily as though nothing has happened.

It is strange what prevents so light an object from being beaten mercilessly before a heavy gale, unless they take shelter behind tree trunks or in hollows on the ground.

One would think that the nest of the Vireo, built as it is, on the end of a small limb, would suffer from being tossed by the wind. After a hard blow I visited a nest that I knew about. I found it intact and the bird sitting upon it. From its position it must have been violently twisted, and lashed back and forth, and unless the bird had remained upon the eggs during all the storm nothing could have kept them from being thrown out.

In a volume written by Henry Schoolcraft, the discoverer of the source of the Mississippi, I find the following, which tells another tale of the vicissitudes of the Wild Pigeon.

Speaking of Lake Michigan he says: "In walking along some parts of the shore I observed a great number of the

skeletons and half consumed bodies of the Pigeon, which in crossing the lake is often overtaken by severe tempests, and compelled to alight upon the water and are thus drowned in entire flocks, which are soon thrown up along the shores. This causes the shores of Lake Michigau to be visited by vast numbers of Buzzards, Eagles, and other birds of prey. The Indians also make use of these Pigeons as food, when first driven ashore, preserving such in smoke as they have not immediate occasion for. Vast broods of young Gulls are also destroyed during the violent storms which frequently agitate this lake."

It is from the heavy rains that the birds suffer most here in Minnesota. We read in the papers when the hunting season comes, that the Prairie Chicken is not plentiful in such-and-such a district; and that the spring rains are responsible for the failure of large broods. What is true of the Prairie Chicken is true of all the ground birds—and there are many of them. In a down pour the little rivulets that thread every hillside must tear away some nests, the filled hollows must cover some, and during a protracted rain many eggs must become chilled when the ground is well soaked, or when the bird leaves her nest.

I have always noticed a great difference between the abundance of Water Rails on a moist and on a dry year. Last autumn and the autumn before last, they were abundant near Minneapolis, while on years, when there was a rise of a foot or more of water in the lakes and marshes, they were not very numerous. The nests had been flooded as had the eggs of all those birds building fixed nests in close proximity to the water.

The birds may build again but it is not probable that all will do so, as is evidenced by the difference in numbers on the different seasons. I have known the Least Bittern to immediately build second nests. I visited a colony

of these birds one summer, after we had experienced heavy showers. The water had raised until it had touched or had slightly flooded the domiciles of some of the members of the colony. These had been abandoned and at the height of a foot and a half or thereabouts and very close to the former nests they had builded again. At the time I was there the water had receded somewhat, leaving the eggs settled in the deserted structures and I was able to collect a number of eggs without robbing the birds.

Sometimes here in Minnesota winter may return on its tracks after a period of warm spring days. On the 20th of April, year before last, a snow storm came and covered the ground to the depth of six or eight inches. It is extremely rare that so great a depth should fall at this time, but often a lighter snow falls during this month. The Prairie Horned Larks were breeding at the date mentioned and I visited a nest I had previously come across. I found the young birds frozen to death, and the old birds standing mournfully about as though grieving over the loss.

April 20th is at the height of the season for the nests of this species, and many and many a bird probably suffered the loss of eggs or young.

H. M. GUILFORD,
Minneapolis, Minn.

Winter Birds of Linn County, Oregon.

It perhaps will be of interest to your readers to know of the host of winter residents which frequent this county.

The county is long and narrow, extending from the Willamette River, (which is in the center of this great valley,) to near the summit of the Cascade mountains.

Thus presenting a diversified climate and vegetation, in which many forms of bird life are found.

During the winter season the valley is free from snow, while gradually extending backward the snow line appears, and finally the snow capped peaks of Mt. Jefferson and Three Sisters, appear in the distance.

Near the summit bird life is not plenty. The Northern Shrike, Oregon Chickadee are however often seen. A little further down the White-winged Cross-bill is found in countless numbers, together with the Varied Thrush. This Thrush is found in large flocks, numbering thousands and generally are found feeding in the dense fir thickets.

In the vicinity of Sweet Home, may be found the beautiful Mountain Quail, Oregon Ruffed Grouse, Sooty Grouse, Pileated Woodpecker, American Raven, California Crow, Western Red-tail Hawk, and an occasional Bald Eagle is seen. Only a few days ago, it was my pleasure to see a fine adult Eagle flying towards the mountains.

In this vicinity may also be found the Steller's, Blue-throated and Oregon Jay, the latter is however rarely seen.

The former are abundant, and we can hear their noisy cries at any time of the day.

The Western Horned Owl, is also abundant here, and Cal. Screech Owl, are also seen but the latter is hard to find on account of its small size.

The Western Robin is a common species, and is seen in large numbers leaving their roosting places early each morning, returning to the same locality again at dusk, to spend the night.

A little below Sweet Home, is found a large swale or slough, known as Noble slough, where during this season, the Green-winged and Blue-winged Teal, and Mallard spend the winter.

Along the Santiam river, the American Dipper, Fish Hawk and an occasional Blue Heron are seen.

The Oregon Towhee, White-crowned Sparrow, and Horned Lark, have been noted in this vicinity during the entire

winter, as have also the Western Blue-bird, Wilson's Snipe, Kingfisher, Western Meadow-lark. The latter can be heard most any morning, singing its clear and beautiful song, as it perches itself upon some fence rail, or flying back and forth over the meadows.

The Red-shafted Flicker is found in all localities and the imported Ring Pheasant is scattered over the entire county and valley, except in the higher altitudes.

Rarely is seen an American Magpie, but several have been secured in the vicinity of Sodaville, while in November a fine specimen of the Yellow-headed Blackbird was secured near Sweet Home. This is the first specimen to my knowledge, secured in this county at least and I have never seen any in this valley. They are abundant east of the Cascade mountains, but this one was alone and among a flock of Brewer's Blackbirds.

Rarely a Snowy Owl, is captured in this vicinity, and soon graces the cabinet of some taxidermist.

During December and January I have also observed several specimens of the California Purple Finch, which I have not seen before until this season.

The Turkey Buzzard can often be seen on a clear day, sailing high over the village in quest of their prey, and the day after our election I counted twelve at one time over this city, and it was a general supposition that they were looking for Democrats.

We must not forget to mention the small and lively West. Winter Wren and Golden-crowned Kinglet, which are found everywhere, the latter generally in company with Oregon Chickadees.

Brant and several species of Geese, spend the winter in the sloughs and marshes of the valley, and many a fine days sport can be had among them.

One specimen of the Kittiwake Gull was secured by me along the Santiam river on Dec. 16, '91.

The American Sparrow Hawk is also found in the valley.

Harris's Gairdner's and White-headed Woodpeckers, and Williamsons Sapsucker, are met with in the dense fir groves, and dead and fallen timber.

The Oregon Junco is seen at this season in large flocks, and is one of our most interesting birds.

The diminutive Pygmy Nuthatch is found in the dense fir woods but being so small often escapes notice, and may be found in company with the Chestnut-backed Chickadee.

It will thus be seen that some fifty-one species are round and about us during the season, when active collecting is not resorted to.

Some species no doubt have escaped my notice, and some I have as yet not identified.

In looking over this list I count 38 species which are constant residents, and which breed in this county, to which we must also add the Killdeer, as a common bird.

As will be seen, when east of the Cascade range to the Atlantic coast is covered with snow, and with but few birds, we on the Pacific Slope are well supplied, and if due advantage is taken of ones opportunities, a vast amount of useful information can be brought together in this line.

A. G. PRILL, M. D.

The Vireos Found Nesting near Berwyn
Chester Co., Penn.

Red-eyed Vireo, *Vireo olivaceus*. Possibly some of the readers of the OÖLOGIST may think I owe them an apology for bringing this exceedingly common species to their notice, but it has occurred to me that there are many traits and peculiarities, especially in reference to the nidification of this bird, that have never received the attention they deserve; also like almost all of our birds

of wide distribution, their habits vary according to location.

This Vireo arrives regularly about the last of April or first of May, seemingly filling the woods on all sides with their music. They are the most tireless of birds, moving amid the branches and leaves in the middle of the hottest Summer day. There can be no question but that they are of inestimable value to forestry. Numberless and continually active though they be, they are absolutely unknown to nine-tenths of the people at large.

Nidification commences the last week in May or more commonly the first week in June. I have found incubated sets as early as June 7th and as late as August 5th, June 16th being the average date for fresh and complete sets. Young oak, dogwood, beech, maple and chestnut trees appear prominently amongst the favorites from which to suspend the cradle of the prospective brood. The nest ranging from three to ten; usually four or five feet above the ground.

A cursory examination would lead one to believe that there is little or no variation in the composition, but a more careful comparison of a series of nests proves otherwise. Bark fiber of silvery grey, light buff, brown, or their intermediate tints form the body, with a scanty or plentiful mingling of skeleton leaves, bleached and rotten bits of wood, fragments of paper from hornet's nests, or a chance piece of printed paper glued or bound to the forks with the silk from the web of the Geometrical Spider *Speira diademata*, (with which our woods abound) or that from the nest of the tent caterpillar, *Glisocampa americana*, or less commonly with a light ochreous colored silk, popularly supposed to be a plant down, but which I believe has been gathered from a peculiar cocoon, often noticed attached to the underside of forest leaves.

The exterior may be without ornamentation showing one tint of bark

fibre, be studded with bits of silken disc-like covering of the eggs or young of some insect, have pieces of hornets' nests bound about it, or the gosamer-like fragments of spider or caterpillar silk may be clinging to all parts. It is almost invariably lined with shreds of wild grape-vine bark, rarely fine grass stems are used. Those built late in the season are often very slovenly put together, the birds showing such haste as to dispense with the customary silk as a binder, in many instances also leaving the loose ends of the scanty lining sticking out above the rim. The average dimensions are: Diameter—inside—2.25, outside—2.85. Depth—inside—1.50, outside 2.50.

Probably few Eastern birds suffer more from the imposition of the Cowbird than this Vireo. While they seldom desert the nest on that account, the deposition of the parasitic egg effects the number of eggs in a set to a marked degree. The Vireo will seldom deposit another egg after this has occurred, but will immediately commence to incubate. Twice I have found the female sitting on a single egg of her own and one of the Cowbird. I have never found more than three eggs of the owner with that of the Cowbird, and in the latter case almost invariably found one of the owners' eggs broken by the clumsy feet of the intruder.

Three eggs constitute a set in most instances and two occur about as often as four. I have found but three sets of the latter number in ten years collecting.

One peculiar and to me, vexatious trait of this bird, is that of *throwing out* her eggs and deserting the nest after it has been discovered and she has been flushed. It appears to make no difference whether the nest has been touched or not or whether the eggs are fresh or highly incubated. It is sufficient to the bird that she has been discovered, so out they go at once on the retirement of the investigator. There appears to be some in-

dividuality in this species, for I have sometimes ran across a pair of an opposite disposition, whether they are socially inclined friendly to original investigations, or loath to change their quarters, I could not determine, but they continued to lay or incubate although disturbed a number of times. Such individuals are greatly in the minority however.

In a set the eggs run very evenly in size, but not so in comparison of sets. Ranging from .75 to .89 in length and .57 to .63 in width. Twenty-two eggs averaging .81 x .59.

Although the coloration of the typical egg is so well known to all oologists, I cannot forbear adding the description of of an exceedingly odd and beautiful set taken by me on the 18th of July '87. Four eggs, pure white, spotted with deep vandyke and seal brown. Three eggs *splashed* and dotted with a light brown closely resembling Ma's brown, some of those blotches measuring .10 x .15. All marking confined to larger ends. .89 x .61, .89 x .61, .89 x .60, .86 x .58.

Warbling Vireo. *Virco gilvus*. This species is not at all common as a breeder or as a migrant. I once found its nest pendant from a branch of a cherry tree in a yard. It was within a few feet of a path where probably a dozen persons passed daily. It contained three eggs when discovered and although unmolested in any way, the bird deserted it after throwing out the eggs. It was not until June 1, '89 that I succeeded in taking a set of their eggs. The circumstances are particularly interesting and furnishes a short but delightful chapter to nesting in relation to climatic conditions. May was an unusually wet month, rain falling almost daily during the latter half. The reader will recall, with a shade of sadness, the great flood on the 31st which nearly swept Johnstown out of existence. I had found many nests containing eggs or young, (particularly those of the Thrushes) watersoaked, forlorn and deserted, the

eggs discolored or broken, the young dead from exposure. The old birds seemed utterly unable to protect their nests from the elements. Self preservation compelling them to seek shelter. The nest in this instance was placed but six feet above the ground, hanging between the forks of a dogwood sapling. The female slipped quietly out of her neat and compact little basket and refused to go more than a few feet from her treasures, protesting all the while at the top of her little voice. A leaf growing from near the point where the forks diverge was found drawn across the top of the nest and the apex bound securely to the opposite rim, a twin leaf held down by the former, formed a trap door for entrance or exit. Thus the bird protected her eggs from the dripping world outside, and deserved better treatment than I gave her for I took the nest and four highly incubated eggs. They measure: .71 x .53, .71 x .52, .70 x .53, .72 x .53.

Yellow-throated Vireo, *Virco flavifrons*. A rare Summer resident. I secured a set of three eggs on June 11, '85. Nest wholly of grape-vine bark glued together with silk from spider and caterpillar nests, without ornamentation of any kind on the exterior. The eggs measure .78 x .61, .78 x .60, .78 x .59. What oölogist who has been a field collector, has not one or more sets of eggs in his cabinet which seem to reflect certain scenes indelibly impressed upon his mind, and calling up recollections of the circumstances of the find? The picture here reproduced to me is that of a swaying nest from a branch of a white oak, on the southeastern slope of Valley Forge-hill, right below the Washington retreat and directly over the old camp road. "Mount Joy" it is called (but it must have been anything else than a mount of joy to the poorly clad, half famished band of patriots of the Continental army, as they paced the bleak and frozen hills or shivered

around smoky fires during the dismal winter of 1777-8.) This was my first year collecting and my first important find. Can you wonder why it possesses so great a value to me now?

White-eyed Vireo. *Virco noveboracensis*. Tolerably common as a migrant and less as a summer resident. I have found it breeding on but one occasion. June 10th '88 I found its nest in a black oak bush, three feet above the ground. The nest is not so neat as the average Red-eye's, but rather baggy, appearing rather bulky for the bird. It was composed of fine strips of grape-vine bark, a quantity of pieces of hornets' nests and silk from the caterpillar. It contained four eggs of the owner and one of the Cowbird. Measuring .77 x .56, .77 x .56, .77 x .56, .74 x .55.

FRANK L. BURNS.

A Talkative Crow.

It is related that one of the leading men of the Southern States,—I believe General Wade Hampton—had a very talkative Crow. It is said among the many other things said of this remarkable bird, that one day this Crow decided to pay a visit to a large flock of his black relations, and settling down upon a limb, he very politely exclaimed "How do you do?" The effect of such politeness was tremendous as these Crows were not at all used to it, and they fled at once leaving the polite Crow all alone.

Some two years ago I met a Crow that was also a remarkable linguist.

He was owned by a family by the name of Best, residing southeast of Inlay City, Mich., near the home of the friends I visited. It was vastly amusing to hear this Crow talk. One day two wood-choppers called at my friends while Mr. Crow was rattling off a great string of words, varying the lingo by prolonged fits of laughter. This rather disconnected talk attracted the attention

of the wood-choppers and I informed them that they were listening to a Crow. They refused to believe it until Mr. Crow varied his speech by going back to his native tongue "Caw, Caw, Caw," many times repeated, and our backwoods callers admitted that they heard a Crow.

This Crow had perfect freedom, going where it pleased. At night it retired to a little house, and when one went near, it would become very angry, bristle up and scold in a very lively manner, seeming to know just what words to use for the occasion.

Mr. Best had a large family of children, mostly boys. Sometimes he would be in the field and he would hear as he supposed, one of the boys call "Pa! Pa! Pa! Papa," until he went to the house. Reaching there he would find that he had been called by the Crow. When shut up in the granery at one time, he called "Let me out! Let me out! Let me out!" It would go up to a person and inquire "What do you want?" Sometimes it would get very impudent and exclaim "You are a fool! You are a liar!"

Sometimes this Crow would visit my friends. Perched upon a limb of an apple tree it would call out to my young friend Newman Steele, "Newman, how do you do!" Soon it would—perhaps offended because Newman mocked it, exclaim "Newman, you lie! Shut up! You lie! You are a fool!"

This Crow, like other pet Crows, would occasionally steal, and had his hiding place, but he was a great favorite for all that. As I have said he had his liberty and went where he chose, but usually did not go far from the house, spending much of his time in the orchard. One day a pair of the sports that infest the country in passing through the orchard saw the Crow and shot him, much to the regret of his owners.

This Crow was indeed a very remarkable bird. Its vocabulary was indeed

large, and it seemed to use its words understandingly, at times expressing itself very aptly. It certainly possessed a high degree of intelligence.

Right here I am reminded of an incident that occurred at a fair. A parrot was on exhibition at the fair and a large crowd of children were gathered about its cage. One of the girls took a stick and poked at the bird. For a long time it begged, whined, moaned and teased. Suddenly to the great amusement of all near by, the parrot straightened up its neck turned its head, and looking its tormentor squarely in the face it exclaimed, "Go off! Go off! Go off! Go off!" For a moment the girl stared in amazement, and then turned away and left the bird alone, while the crowd cheered and roared with laughter. No one else ventured to torment it after this. Soon its mistress came to it, and by word and action, it testified its affection for her in the strongest possible manner, and showed how glad it was to see her in that great crowd of strangers. Here was another evidence of intelligence in birds.

WILFRED A. BROTHERTON,
Rochester, Mich.

Notes on the Bob-white.

As this beautiful bird is so well known I will not attempt to describe it. It is distributed over a greater portion of the United States, and although it is about extinct in some localities; it is still very plentiful here in Nebraska and Kansas.

The nest of the Quail is very easy to find, as they build on the ground. It is usually a hollow scratched in the ground well lined and arched over with grass; with an entrance on one side. I remember very distinctly the first Quail's nest I found after I began to study birds. I was looking for nests too; but did not know that a wad of

prairie grass, which looked like the rest of the grass around was a Quail's nest, until I stepped on it and heard the eggs pop. That was the first and only nest I ever stepped on, to my knowledge.

Their nests with fresh eggs may be found from April to July, and one of their favorite places to build is in the ridge of an old road where the grass has been left standing. Both birds assist in building their nest. The material of which it is composed is gathered close at hand, and I have seen the female in the nest, seemingly fixing things to suit herself, while the male was on the outside carrying the material within reach of his mate.

When the birds are disturbed during the process of building, they will abandon the nest.

After the female begins to deposit the eggs, she usually lays one egg every day; sometimes a day will be missed; it may be she dropped the egg before getting on the nest; as they have a habit, it seems, of dropping or scattering eggs around; it may be on account of having no nest or by accident. I have known of one instance where three days sometimes intervened from one deposit to another and then two eggs were deposited in one day.

Sometimes before all the eggs are deposited, the entrance to the nest may become somewhat closed or damaged, so that it does not leave a clear entrance; in such cases the birds will be very apt to leave the nest and make another one.

The eggs vary in number. I have found a great many nests, ten eggs were the least, and twenty-seven the most found in one nest, fifteen to twenty are the usual number. The eggs being of such a pure white color, are very easily stained, and it is very seldom a full set can be found without a number of stained ones.

I have found two runt Quail's eggs; they were both in the same nest, and one with a projection of about an inch

on small end; projection was soft-shelled while the rest of shell was hard; egg same size as rest of set. I have always seen the male, on nest during incubation, it may be female was relieved so as to get food about the same time of day. I rather think the female assists in incubating the eggs, for as soon as young are hatched both assist in taking care of the young brood. I remember one nest where the male did all the incubating for I was trying to catch him on the nest. He was a close sitter and although I had the grass all trampled down around nest and had a box ready to tip over him and repeatedly nearly had him still he would go back and actually hatched the eggs. I never saw the female during the time of incubating. This happened when I was a small boy.

The young have a peculiar peep similar to a young turkey and usually utter two or three peeps in succession. When disturbed while quite young they will give several loud peeps when the old ones will fly about the intruder and run around with their feathers ruffled up and their wings down making a cackling noise.

The flock will stay together if not disturbed during the whole winter. When roosting they sit close together in a bunch with their heads outward and when disturbed they start from the bunch in a flutter in all directions. In the spring they disband and mate; at this time may be heard the cheerful notes of Mr. Bob-white while perched upon a fence post.

AMOS PYFER,
Odell, Neb.



Prairie Warbler in Wayne Co., Mich.

My first introduction to this Warbler took place May 27, 1894. I flushed the bird from the nest which was located in a thicket. After leaving the nest the bird remained concealed for some time,

but after waiting patiently I was able to take the markings for identification. Leaving my wife in the neighborhood, I went in search of a Yellow Warbler's nest to replace the two eggs which the nest contained. I was successful and soon had the eggs under cover. Returning three days later I found the eggs gone, as were the birds. I took the nest, however, which with the two eggs are in my collection.

The nest is made of grasses, lined with finer grasses, and deeply cupped. Dimensions of nest, inside diameter, 2.10; inside depth, 1.50; outside diameter, 3; depth, 1.90. The eggs appeared a dull white before being blown, marked with spots and blotches of chestnut and umber with lilac cloudings, the marks being in the form of a definite wreath at the large end. Dimensions of eggs, .68-.50 and .65-.50

NOTE. Same day, took a set of four of the Golden-winged Warbler.

W. A. D.

United Ornithologists of Maine.

At the annual election held Dec. 28th the following board of officers was elected: Pres., Stephen J. Adams, Cornish; Vice-Pres., Chas. B. Wilson, Waterville; Sec., Wm. L. Powers, Gardiner; Treas., Ralph H. Rockwood, Orono.

This society is in a prosperous condition with 15 active members and more applications pending. It is proposed to issue a working list of our Maine birds together with as much information as is possible concerning their range. A prize valued at \$1.50 is offered to the member obtaining the greatest number of new members prior to April 1st. Dues are 25 cents and all observers of Maine are eligible. I also offer a special prize valued at \$1.00 for the best plan for Martin houses, giving all the details as to situation, &c., open to the world.

STEPHEN J. ADAMS, Pres.

"Birds of Pennsylvania."

HASSISBURG, Jan. 17.—The bill providing for the printing of 24,000 copies of the "Birds of Pennsylvania" compiled by Dr. C. H. Warren, of West Chester, the state ornithologist, passed the house finally today with but five opposing votes. There was a great demand for the reprinting of this book. The Grangers, Farmers' Alliance and other agricultural organizations sending petitions by the hundreds, but what interest the farmers can have in the book, outside of the pretty pictures, is beyond comprehension. It is one of the costliest books ever published, but that "cut no ice" with the average legislature or the fact of popular demand for it. Dr. Warren will revise it and bring it up to date, and it is estimated that the 24,000 volumes will be distributed at a cost of about \$40,000. The beautifully colored pictures are the costly feature of the book.—*Scranton Republican*.

Breeding Dates for Southern Michigan.

In reading Mr. Short's article upon "Spring Breeders of Western New York" in the January OÖLOGIST, I was struck by the difference between the nesting time of some species common to that section of the country and also Southern Michigan. Below are some of the dates at which I have secured sets, which I have no reason to believe were the first of the season:

Bluebird, Detroit, Mich.,	April 8, 1893.
Am. Crow " " "	" 15 "
Catbird " " "	May 21, 1892
Red Sh Hawk " " "	April 22, 1893
Phoebe at " " "	are taken by April 20th.

In the above five species there is an average difference of 15 days between Southern Michigan and the dates given by Mr. Short for Western New York.

E. DWIGHT SANDERSON.

Birds Who Sing on the Wing.

BY DR. MORRIS GIBBS.

The species of birds which sing when flying are very few. Of course if we embrace all birds which utter a sound on the wing, as singing birds, we shall have a large number on our list. And strictly speaking, as songs are the expressions of the feelings, sentiments, if we wish to so call them of the birds, then the vocal efforts of all species, especially during spring are songs. Admitting this, then there are over one hundred species of Michigan birds which sing as they fly to my knowledge.

All of the Hawks and other rapacious birds that I am familiar with utter their discordant and defiant screams upon the wing, the Red-shouldered, Marsh and Cooper's Hawks are especially noisy in season. I have also heard the Screech Owl complaining when on the wing, and the Barred Owl occasionally flies as it gives out its mysterious yet (to my ears) pleasing notes. All of the Herons so far as I know utter their guttural notes when on the wing, although the more difficult effort of the American Bittern is not uttered flying.

The smaller waders give utterance as they fly, and most Ducks have been heard, while the Geese are notorious gobblers during migrations. Sandhill Cranes issue their notes as they sail, sometimes out of sight. Nighthawks make their only efforts while on the wing, as we would expect in a species which earns its living while flying. Its near relative the Whip-poor-will sometimes flies singing through the woods in spring.

The Woodpeckers are a noisy set, and without an exception issue the clatter which answers in the nature of a refrain on the wing. All hunters have heard the *scap* of the Wilson's Snipe, the single song note of the flying Woodcock and the agreeable efforts of the

Killdeer, Spotted Sandpiper and the Upland Plover and many others of the small waders.

In the *Rasores*, however, we have a silent list of birds when on the wing, although the Mourning Dove and Bobwhite and some others are at least noisy at times on the perch.

According to classification the true singers are confined within the division *Oscines*, while all others are considered non-musical. According to this system constructed from anatomical relations, the sweet refrain of the Wood Pewee cannot be called a song, as it belongs to the screamers.

Among the birds which are acknowledged singers the following six musical species are presented as birds which I have heard sing while flying. The Bobolink is the acknowledged leader in flight song, in fact his rollicking, jingling medley is about equal in excellence with any bird with which I am acquainted. The common Bluebird is a charming exponent of flight singing. It occasionally flutters upward and pours forth its soft warble in a most enchanting manner just after arriving from the south.

The Warbling Vireo, rarely, in a transport of bliss, during the mating season, launches into the air while yet singing, and apparently forgetful of custom, strives to make us, mundane creatures, as happy as its happy self. This agreeable songster is one of my favorites, and no one who is a lover of bird melody can remain indifferent to its ecstatic warblings.

In May and June we sometimes hear the loud gushing song of the Rose-breasted Grosbeak as the gaudy male flits through the foliage near his prospective home. Even with this undignified flyer, who generally progresses by undulating vigorous dashes, we can detect a hesitating flutter when the bird sings on the wing.

Another bird that sometimes sings on

the wing, is the White-rumped Shrike. It is not generally known that this Shrike, or for that matter, any other, has a song. I have heard the song several times and can testify to a series of very agreeable notes nicely modulated. We cannot call the song really melodious, but it is still possessed of uniqueness, as it is essentially unlike the notes of any other bird of my acquaintance. I once heard this Shrike sing as it flew in the characteristic manner of flight singers, on fluttering wings.

The true love song of the Golden-crowned Thrush or Oven-bird has been but rarely referred to by writers, in fact, the best musical efforts of this species have only been described in comparatively recent times. The common loud clanking notes, so often heard, have been listened to by all observers, but a superior strain, apparently only occasionally uttered, has been listened to by but few intelligently. I feel safe in saying that no bird among us which is so well known, has eluded the observers of bird songs as this one has done.

I listened to the love song of the Oven-bird for the first time in 1880. A burst of melody reached me in a dense piece of low woods, well filled with underbrush, and the delightful notes were surprising and doubly pleasing to me in this location.

At first on hearing the song the idea presented itself that a species new to me was singing, and my extreme care in reaching the glade in hopes of securing a shot, secured me a chance of witnessing a most singular performance. Crawling through the brush I came to a partial clearing, over which a bird, evidently in the highest transports of joy was fluttering in irregular flight. It is not surprising that I failed to recognize the performer in this, to me unusual aspect, for there was not one feature in its notes or movements in which it resembled its ordinary and understood habits.

Observing another bird, evidently a Golden-crowned Thrush, and its mate, perched on the ground near, and which appeared to be the center of attraction to the delighted warbler overhead. I quietly awaited the movements of the pair. Never had I heard this song before and never had I witnessed such a scene. This was indeed, making love with a spirit not often witnessed among our warblers.

The song was almost continuous, that is, together with the interruptions of the more subdued call or conversation-notes, and the common chattering-notes, so well known, and described by Coues as a harsh crescendo, and was largely of the most melodious strains.

The energetic, unconscious fellow was in the meantime constantly flying above his inamorata, describing nearly every form of flight except sailing. First dashing to the edge of the glade, then rising to the tops of the bushes he would flutter almost directly upward as we have often seen the European Sparrow or House Wren do, and reaching a height of twenty feet or more, would half flutter toward his mate, or dash about the clearing in varying evolutions, almost constantly singing. She in the meantime sat silent, and probably interested in the performance. The appearance of a third party on the scene, undoubtedly, also a lover, caused the ecstatic singer to dash into the brush.

A number of species of birds embraced in the systematic division of singers, aside from those spoken of, are known to utter their notes on the wing, and from the Crow to the Martin, which is the nearest to a musician among the Swallows, there are many which give their best efforts when flying. But these attempts, although they answer the purposes of their possessors, are not musical, or at least not in the sense of appreciation of man.

It will be observed that a tremulous

motion of the wings, almost invariably accompanies efforts of song on the wing. We may maintain, then, that the quivering of the wings as an accompaniment to the song is a strictly seasonal feature. All have noticed the loss of the song synchronously with the skyward flutter in the case of the Bobolink, when he assumes his summer dress and becomes the plebian Ricebird. I have never yet heard a bird sing on the wing in the autumn.

KALAMAZOO, MICH.

Ornithological Potpourri. HASH.

A sweet *blue-eyed warbler*, daughter of *Major Puffins*, sat singing in a *minor* key to attract the *spruce* Mr. *Bob O'Lincoln* who was *shoveller* on a *man o'war*, but now on a vacation as he was afflicted with a *pectoral* trouble which threatened to *kill deer Bob*. However, although the trouble was due to too many *larks*, and eating too many *pies*, still the *laughing, bronzed* fellow was just *jay* enough to keep *whooping* her up, and often got *red-headed* when in *Baltimore* or *Savanna*, for it was one of his *cardinal* virtues, the big *goose*, to fill up on *red-eye* and then to *gamb(e)land thrasher* round. Later this *night hawk* would be *mourning* for his *golden eyes* and wish that the last (*h*)*owl* had been *barred*. Then he would get to *raven* with notes like a *caliope* and continued *railing* against *swift* living and consult a *prothonotary* to get his long *green back*.

Long before *snow flakes* fell *Bob* was at *logger-heads* with everyone. He left the *sea side* and visited a *hermit*, a *solitary fox*, and also *Pick Sisset*, who lived in a *swamp* intermediate between *orchard* and *meadow*, among the *myrtles*. *Bob* was a *hummer* and soon fell in with a *squa* (pronounced *squaw*) and hitched to her although she was nearly related to the *gull* family and he did not owe them all a good *tern*.

He was now *spurred* on by his *squa*,

and rapidly felled *trees* and tilled *fields* though the soil was of *clay* and adjoined a *marsh*, and he still *hawked*. There was in a neighboring *wood* a *chippy* named *Phoebe Ann Hinga*, who though a *pygmy* was beautifully *hooded* and attracted much attention from the *bald pates* who seemed on *stills* when *buzzing* her. "Say," said *Ridgway*, "If *Trail* or *Hammond* were here they would not get left. They are *cuckoos*, and very *fly* as *catchers*"

I saw *whet owl* eat *grasshoppers* in *Digo* near *Cape May* and then as an *accensor* he began to *screech* about *brotherly love*. *Al Cyon* belted himself and said he could *whip-poor-Will*, but *poor Will* and old *Centrocerus* the referee, who looked *sage*, grabbed the *green backs* and were *passengers* on a *kite*, though you may not *swallow* the story. *Whisky Jack* went west and married *Black Bill's* daughter *Mag Pie*, who led him an awful chase before he *coopered* her.

A *Crow* sat upon a *bust* of *Pallas* and had a *royal* time dwelling on *roscale* projects but *bridled* up when called a *booby* and replied that the accuser was an *old squaw*. *Columbianus* did some fine *whistling*, while his near relative acted as *trumpeter* and the *piper* joined in *Crepitans* was there with his *clapper* also, and a *nut cracker* added to the entertainment, and when *butcher* pounced upon an *English Sparrow* everyone chirped, "let her

FLICKER."

Errata.

In the article in November, OÖLOGIST, under the heading of "The Ornithology of a Church Yard," page 333, 2nd line, last word read, "nestling." Page 334, 11th line, 2nd word read, "and," 30th line, 6th word read "hold," 36th line, 3rd word read "erullant." Second column, 9th line, last word read "ezultawl," 34th line, 4th word read "The."

THE OÖLOGIST.

A Monthly Magazine Devoted to

OÖLOGY AND ORNITHOLOGY.

FRANK H. LATTIN, Editor and Publisher,
ALBION, N. Y.

Correspondence and items of interest to the student of Birds, their Nests and Eggs, solicited from all.

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Your decision must be mailed us not later than the *tenth* day of April. Write on back of a postal card the five articles which *you* have decided to be the *most valuable, instructive and interesting* in this number of OÖLOGIST and mail to us. Number the articles in the order which you think the prizes should be awarded.

During 1895 the Judges prize will be awarded as follows: viz: Each month it will consist of \$5 in specimens or \$1.50 in instruments, supplies or publications or \$3 cash. This prize will be awarded to the Judge who names the winning articles and in their *exact* order. In case more than one Judge names them correctly this prize will be equally divided among the number.

FEBRUARY CONTEST.

Ninety-six Judges.

1. Destruction of Birds, 341.
2. A Few Notes from Shoal Lake, Manitoba, 291.
3. Wise and Otherwise, 251.
4. Notes on the Blue-headed Vireo in Massachusetts, 210
5. Rails in Captivity, 149.

This has been the "evenest" contest since we have been awarding our writers in this manner. The valued article, "Old and Unusual Nesting Sites" secured 145 credits and it was only until the final "counting up" that one could have "guessed" the result with any degree of certainty. Although the Judges in this contest numbered more, with a single exception, than any previous one, none of them, however, named the winning articles in their *exact* order—hence the Judges prize remains unawarded.

Prizes were mailed the winners on March 14th.

Kent Ornithological Club.

On December 12, 1894 at Grand Rapids, Mich., a society named the Kent Ornithological Club was formed. It had a charter membership of fourteen. The following officers were elected: President, W. H. Stewart; Vice-president, R. G. Fitch; Secretary and Treasurer, W. E. Mulliken; Corresponding Secretary, Chas. B. Corbin; Librarian, R. R. Newton; Executive Committee, R. G. Fitch, chairman, A. W. Hanaford and A. B. Durfee.

The object of the society is the promotion of the scientific study of Ornithology and Oology in all their branches. The society would like correspondence with like bodies and individuals for that purpose. All communications should be addressed to the Kent Ornithological Club, No. 55 N. Union St., Grand Rapids, Mich.



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98	"	"	Dec. "
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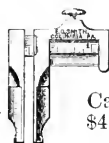
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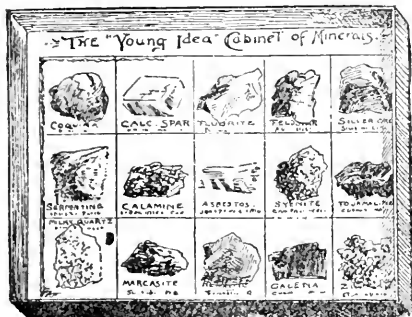
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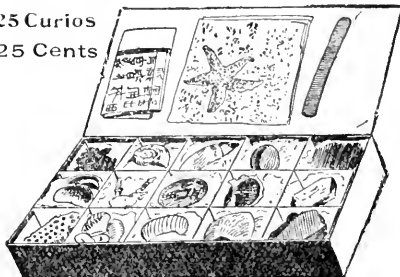
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THE OÖLOGIST.

Monthly.

VOL. XII. NO. 4.

ALBION, N. Y., APRIL, 1895.

WHOLE NO. 114

Wants, Exchanges, and For Sales.

Brief special announcements, "Wants," "Exchanges" "For Sales," inserted in this department for 50c per 35 words. Notices over 35 words, charged at the rate of one cent per each additional word. No notice inserted for less than 50c. Terms, cash with order.

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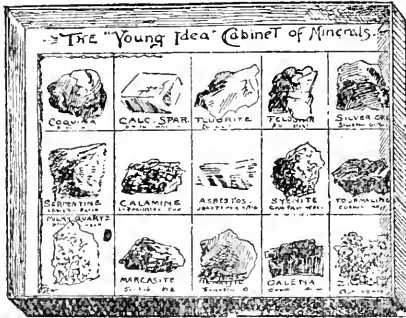
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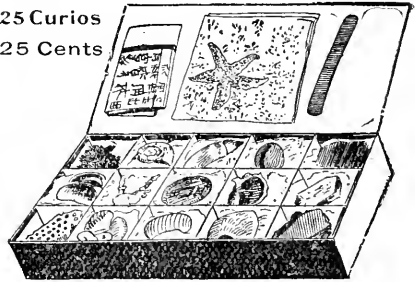
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JOHN JAMES AUDUBON.
[1850.]

THE OÖLOGIST.

VOL. XII. NO. 4.

ALBION, N. Y., APRIL, 1895.

WHOLE NO. 114

The Last Portrait of Audubon, Together With a Letter to His Son. *

BY DR. R. W. SHUFELDT AND MISS M.
R. AUDUBON.

It is the celebrated artist Cruikshank to whom the honor is due for having made the first published portrait of America's well-beloved ornithologist—Audubon. The naturalist at that time was about forty years of age, and the picture now destroyed by fire, was a miniature. Inman also succeeded in obtaining a fine portrait of him, which is the one that was reproduced in his Biography. His son John secured still another, one of the most valuable now in existence, it being a full-length with his favorite dog at his feet. These three portraits have been published and republished as engravings at various times and in various places, so that they are now well-known to all the many readers of Audubonian literature. A thus far unpublished and another greatly cherished portrait of the naturalist has been described in *Scribner's Magazine* for July, 1876 (p. 335). This, too, was painted by the fond hand of the same son who painted the full-length picture, to which we have referred above. Finally, by the aid of a mirror, Audubon made a small oil painting of himself, and this picture has already been reproduced in the pages of the present magazine, with a description of it. By those who have seen it, and by members of the family, his immediate descendants, this last has been pro-

nounced an excellent likeness. The original is the property of Mrs. E. C. Walker, Baton Rouge, La., and is the earliest portrait of the naturalist known to us.

It is now the aim of the authors of the present contribution to bring before the many readers of *The Auk* what proves to be a portrait of Audubon heretofore not given to the world. In one way at least, it is of greater value and interest than any of the other portraits extant.—priceless as they really are. The special superiority claimed for it lies in the fact, that it is a *camera-portrait*, and consequently portrays its every line true to life. It was not so very long ago when one of the writers of this article discovered in the possession of Professor T. W. Smillie, the well-known photographer of the United States National Museum of Washington, a daguerreotype of Audubon, that belonged to Mrs. Grimshaw, a daughter of Mrs. Nicholas Berthoud, and a niece of Mrs. Audubon's, who had placed the treasure on deposit in the above named institution. Mrs. Grimshaw kindly consented to our having a photographic copy made of this daguerreotype, which was accomplished through the consummate skill of Professor Smillie, and with the courteous permission of Doctor G. Brown Goode, the distinguished officer in charge of the National Museum. From this excellent photograph has been made the admirable plate which illustrates the present paper. A picture so fine as this one surely requires no comments on the part of its contributors to *The Auk*; it has but to be seen by any of its readers to be admired. From all that we have been able to gather, it would seem that this daguerreotype was taken by Brady of

* This valuable article and portrait of Audubon appeared in *The Auk* Vol. XI, No. 4, October, 1894, and it's through the kindness of Dr. Shufeldt and the editors of *The Auk*, that we are enabled to present the same to the readers of the OÖLOGIST.—Ed.

New York City some time during the summer of 1850. As the Naturalist was born, as near as we have been enabled to ascertain the date, some time in May, 1780, and died on the 27th of January, 1851, this picture must have been obtained when he was in the seventieth year of his age, and at a period only a few months prior to his death. With the view of obtaining as full a history of it as possible, we recently placed ourselves in communication with the Rev. Dr. A. Gordon Bakewell of New Orleans, La., one of the most charming of the old school divines of the Episcopal church, who is a son of Thomas Bakewell, and was a favorite cousin of the late John Woodhouse Audubon, the father of the co-author of the present article.

Dr. Bakewell writes us that Mrs. Gordon, one of Mrs. J. J. Audubon's sisters, just before her death, presented the daguerreotype to Mrs. Grimshaw, and that the former received it direct from the wife of the naturalist. "It was the last picture taken from life shortly before Mr. Audubon died, and it certainly is very like him, when I last saw him toward the latter end of his earthly journey."

These quoted words of Doctor Bakewell's complete, in so far as facts go, all we have been enabled to gather in regard to the actual history of this portrait. In placing it here, we not only give ourselves great pleasure, but we do more, for we add still another to the list of the published portraits of that one of this country's celebrated naturalists whose fame augments *patri passu* with the march of time.

Standing next in value to published Audubonian portraits are published Audubonian letters, and we feel that it hardly requires any apology from us, when we say that we know of no more fitting way to conclude this article than by adding to it a hitherto unpublished letter of Audubon's, addressed

to his son John W. Audubon, 4 Wimpole street, Cavendish Square, London. It will be seen upon perusal that this letter is brimful of interest, both of a personal and an historical nature. It reads as follows:—

"EDINBURGH, JULY 1ST, 1838, SUNDAY.

"My Dearest Friends:—Your joint letter of the 27th, Wednesday, did not reach me until yesterday afternoon, probably because the steamer which brought it did not leave London on that evening on account of the coronation etc. Here the festivals were poor beyond description, and although scarcely anything was to be seen, the whole population was on foot the entire day, and nearly the whole night, gazing at each other like lost sheep.—No illuminations except at two shops, Mr. Henderson's and another close by him.—The fireworks at the castle consisted merely of about one hundred rockets, not a gun was fired from the batteries. MacGillivray & I went to see the fireworks at 10 p. m., and soon returned disgusted.—His museum (College of Surgeons) and the Edinburgh Museum were thrown open *gratis*, and were thronged to excess. Upwards of 20,000 in the first, and about 25,000 in the other; all was however quite orderly. The day was showery, cloudy and dismal at times, but the evening was clear and fine. Mr. Hill's father died on the morning of the 27th and I have not seen Alex. H. since. Many thanks to Maria for her bunch of letters, and the few lines of her own to me, I hope that everything will go on well with you all.

"We begin printing *tomorrow 2d of July, 1838!!* remember that Mesdames et Messieurs! and I intend to proceed with all possible despatch and care. *All* the birds in rum will be inspected as far as internal or digestive organs, trachea &c are concerned, and as I am constantly present in the dissecting room, I think I shall know something

about the matter anon.—I am almost in hopes to see Victor tomorrow night but cannot be sure. There are somewhere at home the nests of the birds found on the Columbia by Nuttall and Townsend, I believe that of Bewick's Wren is among them; send them *all*, very carefully packed. I want the journal of my first trip to the Floridas, which was cut out of my large leather journal, previous to going to Labrador, also a letter on the habits of the Yellow-billed Cuckoo, by a gentleman at Charleston. If it cannot be found perhaps Maria will recollect his name, being a friend of John Bachman, if so send me that, *in full*, if possible. It is the gentleman in whose garden I procured the small and large cuckoos in the same nest.—

“I have written 44 articles for my appendix and will continue whenever I am not otherwise engaged, so as to save time at last.—I am sorry for the death of poor Wickliffe but glad that his brother was with him at New York previously, and that we at least, have done all we could for him. MacGillivray is quite well, and works very hard, poor fellow—I am glad of John's repainting the head by VanDyke, two copies of such heads are valuable to him, besides his improving by so working—When Victor has left for this place, John must pay much attention to the colourers and call also on the book binder. Havell ought to exert himself in having some 4th vols: delivered as soon as possible.

“My last letter which was written last Sunday, was put too late in the office, which closed on that day at two o'clock, and did not therefore leave this till four o'clock on Monday afternoon; this one will have a better chance, for I will take it myself to the general office. I have seen no one hardly since my last, I am indeed as busily engaged as ever, and rarely go to bed before eleven—being with Mr. MacGillivray until generally past ten, describing etc.

I rise at four or earlier, he at ten; but I go to bed at eleven, he at two. I discovered that he was adverse to the examination of the intestinal canals etc., because many of my birds which are common to both countries will be published before his 2d vol., can now possibly be; but as soon as I told him that I had already said in my introduction; that the anatomical structure was declared to be *his*, he was much pleased and began on the instant.

“Today is very dismal, and it will rain probably until night; I wish we had here some of the warm weather of which dearest Mamma speaks. I have had but one walk to Arthur's Seat, but now and then I stroll to the meadows which are close to me, and now look well.—From the window of my sitting room I overlook the garden of Mr. Frazer our printer, and now and then speak to him there, I have not yet however visited him.—I will recollect the Queen's farthing when next I see Professor Wilson, but doubt much if he will recollect the least idea of it. Has Chorley written or said anything to Victor about the review of the work; remember me to Healey.—

“I suppose that the crown of England sits very quietly down, and that all was very superfine. I have not so much as seen a paper since I left you.

“God bless you all, dearest friends, take good care of Mamma and Maria.

“Ever your firmly attached father and friend

“J. J. AUDUBON,

“No 7 Archibald Place, Lauriston.”

Up to the present time there has been no personal letter of Audubon's published which so clearly shows, as this one does, the precise relations between MacGillivray and himself. Although it testifies to the fact that the former is entirely responsible for the anatomical descriptions of “The Birds of America,” it likewise goes to show that Audubon took a lively and person-

al interest in a great many of those dissections, and, in all probability, was often at MacGillivray's side while they were being made,—not as a mere looker-on, but to follow him with that keen intelligence during their progress which characterized his every undertaking in the science he loved so well, and in which he has made a name as enduring as the great truths in the foundation upon which modern ornithology itself is reared.

Notes on the Blackburnian Warbler.

With the possible exception of the English Sparrow (*Passer domesticus*), not one of our birds can be called ill looking. The Song Sparrow (*Melospiza fasciata*) is of the same general coloring, but the coarseness and plebeian vigorosity, as one might say, of the European is entirely lacking, so that *M. fasciata* is really a very handsome little bird.

Among the fishes, the perch is unquestionably handsome, but it has not the gracefulness, and beauty in form and color, of the trout. In just such a way the Sparrow is not the equal of the Warbler. To the latter family nature has been exceptionally partial in her allotments of apparel, for scarcely one of its members can be classed otherwise than as a gem. But perhaps the most beautiful is the Blackburnian, or Blackburn's Warbler. In color it closely resembles the Black and White Warbler (*Mniotilta varia*) except for the orange on the top, sides and front of the head, and on the throat (where it is richest), and breast.

During migration, it arrives in Massachusetts early in May and returns in September, when it leaves the taller trees to haunt the birches and cedars in company with the Myrtle Warblers (*D. coronata*). It is an irregular bird, being very scarce in some seasons and very plentiful in others.

From what I can learn, its extreme breeding range is from North Carolina northward, and westward to the plains. Audubon mentions seeing it in June, on the Magdalen Islands, in the Gulf of St. Lawrence: both Brewer and Minot found its nest in Massachusetts; Merriam mentions it breeding in Connecticut; Cairns calls it a rare summer visitor in North Carolina, from which I conclude that it may breed there; and J. W. Preston took its nest and eggs from the wilds of Minnesota. In New England it is most common in the three northern states where it remains to breed, although many go still farther north. In the three southern New England states it must be considered as an extremely rare summer resident.

In New Hampshire and Maine it is by no means a rare breeder, the difficulty lying in the location of the nest. What I consider as a fairly typical specimen was found by my brother and myself in southern New Hampshire, on June 8, 1890. We had been trouting, and having battled for several hours with myriads of blackflies and mosquitoes, and a decided scarcity of trout, were glad to come upon a small, country cemetery, through the center of which ran a line of perhaps a dozen giant hemlocks. Hardly were we seated than the notes of a bird, unknown to us at the time, fell upon our ears. Every eastern ornithologist knows the song of the Black and White Warbler, and I can best describe that of the Blackburnian by calling it the exact reverse of *M. varia*. A short search disclosed the singer in the topmost branches of a sugar maple, but apparently not liking our looks, he at once disappeared over the tree tops accompanied by his mate. A careful survey of the grove revealed nothing but a bunch on the end of a limb some sixty feet from the ground (this always seems remarkable to me, as shortly after we found a number of other nests). As the sky could

be seen through it, and bunches are very common, we decided to call again next day. Sure enough he was there in full song, and our feelings may be better imagined than described when he rose with a hovering flight, his orange throat seeming to draw a line against the dark hemlocks, and dropped directly into the bunch we had seen the day before.

Given: A nest sixty feet from the ground and seven feet out on a limb, together with the wind blowing "half a gale," and the problem is not easily solved. But by connecting the limb with the one above it, and then cutting it off, my brother drew the nest and its contents into safety, alias the egg box. Meanwhile I had been of inestimable assistance in "coaching" his movements from the ground. To make sure of identity, for "people will talk," we collected the male bird as he was the one that lit in the nest at first.

The eggs, which were five in number, were about one-third incubated, but in 1891 we found a nest in the same tree that was not completed until June 15th. They show very little variation in size, shape or color being greenish-white in ground color, dotted and blotched all over, though most thickly on the larger end, with different shades of purple and brown. The measurements are, .68x.53, .67x.54, .67x.54, .67x.53, .67x.53 inches.

The nest, which was set into a thick cluster of small twigs, is composed of hemlock twigs, rootlets, a few pine needles and bits of *usnea*, all woven rather loosely together, and thinly lined with horse hair. While cutting off the limb, the birds were very tame, often alighting on the shaking branch, (this is the hardest part for the oölogist, but we console ourselves by knowing that in ninety-nine cases out of a hundred, the bird will have another nest and set of eggs in two weeks' time.)

This varies excessively with the de-

scription given by Audubon, who says his nest was built five feet from the ground and lined with feathers, hair and down. The eggs of Minot and J. W. Preston resembled those of the Chestnut-sided Warbler (*D. Pennsylvanica*) having a white ground. Minot's egg measured .65x.50 in. Nuttall gives them as .70x.50 in., the ground color white and often tinged with green. Maynard gives the ground color as pale greenish white, size .44x.63 to .45x.65 inches. The different writers give the number of eggs to a set as "three or four," none mention five.

From the above the following conclusions may be made: Number of eggs in set, from three to five; size of eggs, from .44x.63 in. to .50x.70 in. and .54x.67 in., color ground of white or greenish white, spotted and blotched with different shades of purple and brown. Nests composed of hemlock twigs, bark, etc., with and without a lining of feathers, but always of horse hair; height from ground, from five to sixty feet.

I will conclude by agreeing with Mr. Burns in the Nov. Oölogist where he implies that a church yard is a more than ordinarily good place for birds. In the same cemetery with the Blackburnian, we found nests and eggs of the Chipping Sparrow, Olive-sided Flycatcher, Blue-headed Vireo and Myrtle Warbler, while I am positive that a pair of Redstarts and Black throated Green Warblers were breeding there, although we failed to locate the nests.

J. H. BOWLES,
Ponkapog, Mass.

Norway's Bird Islands

Translated for the Oölogist from Dr. Brehm's
"From the North Pole to the Equator."

West of Norway in the Atlantic, and extending far up into the Arctic ocean there is an archipelago of almost countless rocky islands, the Lofoden Islands.



WM. H. FISHER, Baltimore, Md.

In their general aspects these islands strongly resemble the neighboring mainland of Norway, abounding in steep cliffs, rocky promontories, and deep bays and inlets. Some of them are merely great jagged rocks rising from out the water, while others are larger and are inhabited.

The inhabitants of these rugged islands beyond the Arctic circle are not degraded savages, but civilized men. Their civilization may, indeed, lack some of the refinements found in more favored localities, but still it is a Christian civilization, and the hardy islanders enjoy as large a measure of prosperity and content as the people of other lands.

The houses are built of wood, are covered with sod and prepared to keep out the Arctic cold. They are not surrounded by orchards and fields of grain, there is little room for farming on these stony islands, and a little garden plot

is the most that the richest islander can expect.

The houses on the more southern islands are mere huts and the inhabitants, though free from want are very poor, but as you proceed farther and farther into the bleak polar regions you find houses that are larger and better, and people who are more prosperous.

This is the direct opposite to the conditions we generally find in other parts of the world, for it usually happens, especially among civilized men, that whenever soil and climate prevent the growing of crops, poverty and want begin. The Lofoden islander, however, does not gather his harvest from the land but from the sea, and winter is his harvest time.

In the autumn when our days and nights are of equal length, the sun, which has shone on those islands for six months without setting, gradually sinks from sight, and after a few days twilight the long Arctic night and winter begins.

The islands that at other times are lonely and forsaken are now visited by numerous fishing and trading vessels and take on the appearance of active industry.

The teeming life of the tropic seas is wanting in these waters at other seasons, but in the winter all the fish that have been hatched here obey an irresistible instinct and return to their native bays and fjords to deposit their spawn.

Bays, gulfs, sounds and inlets, usually almost uninhabited, now swarm with finny visitors and nets are filled to the bursting with the catch. Fishermen gather in their prey by the boat load, every bare ledge and rocky promontory is covered with fish that have been cut open and spread out to dry in the keen, salty air.

Traders are busy bartering their cargoes of merchandise for fish, and there is a rapid exchange of the products of the south for those of the north.

No ray of sunlight illumines these scenes, but the stars shine with a splendor never noticed before, the aurora sheds a rosy twilight glow over the northern heavens, and the moon seems to turn night into day.

When at length the stars fade, and the grey sky and reddening horizon give notice that the night is over and the sun is soon to rise again, the fish that have escaped capture, having deposited their eggs in their native waters depart again to their usual haunts.

The fishing season is over, the well laden vessels sail or steam away to their native ports, or to their markets in various parts of the world, and the Norsemen are left alone upon their islands.

Are they to remain idle, then, and without means of gaining a livelihood for the rest of the year? By no means, for though the fish are too scarce to pay them for casting their nets there is another harvest coming that is to yield them a good income.

Those islands are the breeding places of various kinds of sea birds whose instinct prompts them to return to the same place year after year to deposit their eggs and rear their young. A sea bird may spend its life in the waters and seldom visit the land, but there are two occasions on which it invariably returns to the place where it was hatched. One of these is the nesting season, and the other is at the approach of death. Whenever a bird feels that it is about to die, no matter what part of the world it may have wandered to, it always hastens back over hundreds, perhaps thousands, of miles of ocean to end its life at the place where it was begun.

When with each returning spring the mating instinct reawakens, the birds return to lay their eggs on the island where they themselves were hatched. Swimming or flying they approach the islands in constantly in-

creasing flocks until it would seem that the feathered creatures over the whole ocean were gathering at one spot.

The shy and unapproachable birds that usually dart out of sight at the first appearance of a ship are now so dominated by the one overpowering instinct that they forget their fear of man, and approach their nesting places by thousands, or perhaps, by millions, undeterred by the sight of the human inhabitants.

Each species of birds has its favorite nesting place. Some choose the beetling crags that overhang the surf, others choose the islands towering like mountains of rock above the waves, and nest only in the clefts and fissures inaccessible to man, but the most valuable birds, the Eider Ducks, are content with the low islands with gently sloping sides. In fact it would be impossible for them to ascend a very steep slope for they are the most aquatic of all the water birds, being scarcely able to fly, while their walk is the most helpless waddle imaginable.

Water is their native element and they seldom, if ever visit the land, except at the nesting season. It is in the water that they display all their skill and adroitness in eluding pursuit or in taking their prey. They can stay under water for five minutes, which is a long time even for a Duck. They can dive to a depth of 160 feet and as their food consists mostly of mussels and other animals found on the bottom they rarely visit waters deeper than this.

Arriving at their island they waddle slowly and laboriously over it, searching through every drift of sea weed, every hollow and cluster of dry twigs for a suitable nesting place. The presence of the Norseman does not disturb them for they are, for a time, as tame as domestic fowls and will invade his premises and even make their nest in his house.

When a Duck has found a suitable

spot she proceeds to dig a hollow with her flippers and beak, and to smooth it out by turning around in it. Then she partly fills the hollow with twigs and moss, anything she can find, and at last it is ready for the lining. Recklessly plucking off her own feathers, which are lighter and softer than those of any other bird, she makes them into a downy pad which completely lines the nest and has a border wide enough to cover the eggs when she is away.

All this time the Norseman has been kind and considerate towards his aquatic visitors, digging hollows suitable for their nests and supplying them with turf and other building material, but as soon as the nest is completed, and has the usual six or eight dirty gray or pale green eggs laid in it, the courteous host becomes a robber.

Ruthlessly taking away both the eggs and the precious lining of the nest he leaves the poor bird to recover from her disappointment the best she can.

After this robbery the Duck returns to her mate upon the sea, to come back again in five or six days, to waddle about the island seeking another nest as if nothing had happened. Carefully avoiding the location of her former nest she selects a new spot, hollows it out, inlays it with twigs, and it is ready for the lining. Anxiously she searches her body over for more feathers, but in vain, she has used them all in making her first nest. In this extremity she goes back to the water, and finding her mate takes him to the nest and strips him of his down to complete the structure. When that is done the drake leaves her and goes out upon the sea to be absent for several months, a desertion that is excusable after the treatment he has received.

Almost hidden by the twigs, moss and down the mother bird sets upon her nest with admirable patience, scarcely taking time to search for food. When she does leave her nest for a

brief swim and hunt in the waters near by she carefully covers up her eggs, knowing well that her neighbors in the nests near by are watching for a chance to rob her. If on her return after a hasty meal of mussels she finds that some of her eggs are gone she pretends not to notice it, but watches her chance and steals them back again from the Duck near by.

During the period of incubation the Norseman does what he can to protect the birds and guards them from the attacks of predatory Falcons, Hawks and Sea Eagles, for their prosperity is his. After the young birds are hatched many of them would perish on their way to the water were it not for his assistance, for he then goes about over the densely crowded bird city, carefully gathering all the down from the nests in one basket and placing the ducklings in another. When his baskets are filled he goes down to the beach, closely followed by the waddling, anxious mothers, and empties the little ones out into the water. Then there is a great scramble among both young and old birds, for the mothers cannot tell their own ducklings from those of their neighbors and each tries to gather as large a following as possible.

When at length the families are divided up and all are satisfied they seek the quiet waters of some shallow bay, where the mothers are soon busy diving and bringing up food for their hungry broods.

The young birds are far better adapted to life on the shore than the old ones are and they often wander out on the beach and run about like young partridges. They can swim as soon as they are hatched, but still need the watchful care of their mother, who allows them to climb upon her back and outstretched wings to rest when they are tired. As there is food in abundance for all of them the ducklings grow rapidly and soon get to be as large as the old ones.

In the feathers of the Eider Duck, the famous eider down, are mirrored all the colors of the northern ocean. Red, black, ash gray, ice green, brown, yellow and white are all blended and vary with the changing light.

This down brings a high price and constitutes the chief wealth of the islanders. A man who owns the ground where a thousand pairs of these birds nest is considered well to do, and as a thousand pairs often build on a single hill, some of the inhabitants of these all but forsaken islands enjoy incomes as large as those of our largest land owners.

Many other sea birds visit these islands and the rocky cliffs are often hidden by them. When a boat approaches the Gulls rise in dense clouds and wheel, in rapidly lessening circles, about the intruders, screaming and flapping their broad wings defiantly, until a gun shot or some other alarming sound frightens them, then, like a sudden snowfall, they drop into the water to bob about like balls of down or to sink beneath the waves leaving only their black heads above the water.

When the broad red disc of the mid-night sun approaches the watery horizon the Gulls all settle down to rest upon the rocky island peaks. A traveler who has watched them from the deck of a Norwegian mail steamer says that the huge rocks covered with strange groups of white birds looked from a distance like mighty blackboards which some giant's child had covered with a fantastic scrawl.

ANGUS GAINES,
Vincennes, Indiana.

My First Find of 1895.

February 12th I started out with a friend, Mr. Corwin, of Vicksburg, Mich., to try and locate a nest of the Great Horned Owl, *Bubo virginianus*.

I had all the paraphernalia for climbing the huge trees that are found in this vicinity, Kalamazoo Co., Mich., and as we knew several swamps where the birds had been seen we had hopes of locating a nest. The snow was about two feet deep on the level and as we had to walk about three miles to the swamp and then through it the task was no easy one.

After several hours of hard work we had to turn our heads homewards, minus any eggs. We saw no Owls and I have since learned that a certain party shot the Owls that we had hoped to locate.

However we saw three Robins, numerous Tree Sparrows, Chickadees, Downy and Hairy Woodpeckers, Flickers and White-breasted Nuthatches; also shot two Horned Larks from a flock of a dozen or more.

Feb. 19th I started out again with S. R. Eaton, of Battle Creek, carrying the gun, and I the climbing tools. This time Calhoun County was the locality. My friend soon got tired out and returned to the station. After a three hours' unsuccessful tramp through the deep snow in several swamps, I returned to the station to find my friend, on his back, soliloquizing on my foolishness in wasting so much time and energy after a couple of eggs which I did not get!

March 2d was a bright, cheerful day, snow all gone, walking good. I could not resist the temptation, so I started for my friend Corwin and this time we started south from Vicksburg, Mich., for a tamarack swamp. I felt sure success would crown our efforts this trip.

After a walk of about six miles we saw two male Great Horned Owls and followed them through the woods.

Pretty soon I spied a large nest on top of a dead tamarack in a swamp close to the foot of an elevated ridge of land. I felt sure this nest was occu-

pied, as the boys put it, something in my bones informed me there were eggs in the nest. I stationed my friend at the top of the ridge of land, where he could get a good view of the nest and asked him to look out for old *Bubo's* ears as soon as I struck the tree with my spurs. I had an idea she would not leave the nest and would simply stick up her ears as soon as I struck the tree.

I walked down to the tree and struck it a vicious blow with my spur. Old *Bubo* floated out as noiselessly as a cloud and sailed away about 400 yards to witness the spoilation of her 1895 home.

The exultation an enthusiast feels in seeing a bird leave her nest and eggs, especially the first find after a hard cold winter, came over me and I was all anxiety to climb the tree, and add the prizes to my cabinet which already contains over 150 Owls' eggs, 300 Hawks' and 6000 of other species.

I soon had the spurs securely strapped on, slung a small satchel on my shoulder, containing a ball of twine to lower the eggs, and started for the nest. The climb was a hard one as I had to break a lot of rotten limbs off on my way skyward. The nest was 72 feet up.

However I was soon up to the nest which was a large one, four feet in circumference, made of large and small twigs and sticks lined with leaves, bark and feathers from the breast of the parent bird, quite a cosy nest and well hollowed out.

The nest contained two very large eggs, globular shaped, much resembling an egg of the Bald Eagle in my cabinet, incubation about one week so the eggs were probably laid the latter part of February, during very cold weather. I hope to take one or two more sets from this same nest to find out how long an interval there is between the laying of successive sets.

The evening was far advanced, so I

had to give up looking for another set, which I feel satisfied this swamp contains.

I arrived at Battle Creek at 7:30 p. m. and the eggs now are numbered and are part of my collection and will no doubt be handled a number of times in years to come and each time bring back recollections of a tamarack swamp and a hard but delightful tramp and climb in early March.

E. ARNOLD,
Battle Creek, Mich.

Standard Datas.

And similar ideal, things, through the writer's brain, on sleepless nights, and bid him speak. One first, of other things, for example the blowing of eggs.

How many thin-shelled eggs have crumbled in our hands, and how many frail-shelled eggs have "blistered" on one side where a mass of unremoved yolk had congealed, or at the blow hole, whither the albumen had gathered, in the draining of the egg, had contracted and cracked the edges of the shell! There are two remedies to be used in consecution: First thoroughly rinse the egg; second, rinse it thoroughly the second time. Not only does the shell of an unrinsed egg become brittle, but its uncleanness and its harboring of vermin make it an object of disgust.

Why do not more oölogists make use of a lamp, in the drying of eggs, after the rinsing? I used a lamp for several years before learning, to my surprise, that the idea was a new one to some. In no other possible way can the unremoved clots of yolk, adhering to the inner walls, be detected, in eggs of dark and heavy markings,—and no other way drives out the moisture so rapidly. But, be wary!—that dainty shell will burst, of an instant in the lamp's heat, if a clot of yolk ran foul of the blow-hole, or if a film of albumen have dried across it.

And again, a plea for more accurate and reflective observation, with a field glass if possible. Many observers need to cultivate a deeper appreciation of what a certain argus-eyed veteran in our favorite science has meant by the comprehensive title, "Life Histories." And, about field glasses. When will some bright optician manufacture and put on the ornithological market, an instrument especially fitted to our needs, with the price brought within the limits of the slender purses that some of us are carrying about with us these days?

As to observations and field-notes: I am a little chagrined to hear, to see nothing more as to the wonderfully handy $8\frac{1}{2}$ by $3\frac{1}{2}$ inch note-books referred to in a not long remote issue of the OÖLOGIST. These bank books are interleaved with absorbent paper. You jot down your notes in ink, always *in ink*, and close the book, unblotted. There's a column for the date, and a space for the particulars and any meteorological or other pertinent notes may be written on the bibulous paper, two sets of notes in the same book, and side by side, just where one wants them, and all for a *song*. Why not two or three hundred of us sit right down, just as soon as this copy of the OÖLOGIST is read from cover to cover, and overwhelm the editor with an order for half a dozen copies, each of the Model Field Book?

A final attack on the question of "Standard Datas." The accompanying form represents, (for my purposes and tastes at least), the summing up of the best qualities to be found in twenty or thirty different forms, occurring among hundreds of datas in my collection. The datum "situation" I venture to add, on my own responsibility, though the facts that it should involve are lacking in most descriptions, while yet they are of deepest interest to the true lover of ornithology and nidiology. The up-

per left hand corner arrangement, in which I especially delight is, I take it, largely the idea of a big-hearted ranchman and ornithologist of Denver, widely quoted and still more widely known. Its beauty and utility are seen in the fact the given arrangement brings closely together on the data just the markings which should be found on the eggs. The "date" and "incubation" details are placed together and on the first line because if accurate, they tell us exactly what we wish to know about the nesting date. Special attention has been given to the reserving of abundant space for "particulars." What a host of delightfully interesting informalities do some of our most accurate and enthusiastic field workers manage to crowd overflowing into such a space as this!

The data has been made as large as it could be and still fit, *without folding*, into a No. 6 envelope. The big square datas that must be folded, and the ragged edged stub-datas are equally an abomination. Wherefore, buy of Uncle Sam a package of No. 6 stamped envelopes, to forward your datas without folding, and provide yourselves with field books for recording data complete for each set, and allow the wretchedly inadequate "stub" to desuetudinize. The form presented herewith, and recommended for use, is filled out with an actual record from my '92 field book, to give some indication of its possible and proper use. If any pertinent suggestions occur to any one, we shall all, surely be grateful for them; and if any thing touching this form has been left obscure, perhaps our obliging Mr. Lattin will give space in the next issue, for a few words of added explanation.

Here goes the inevitable moral: Throw away your old and blunted drills, and buy sharp ones—scorning the cheapest sorts. Drill the hole on the least finely marked, or on the stained

COLLECTION OF P. B. PEABODY, WILDER, MINN.

A. O. U. 6 | Set Index } Name:..... *Kridars' Hawk*

No. 337a | 2. No. in Set. } *Buteo borealis kriderii*

Date:..... May 2, 1892..... Incubation,..... *Two thirds*.....

Identification,..... *Female well seen*..... Locality,..... *Owotanna, Rice Co., Minn.*.....

One-fourth mile from meadow-bordered river, in narrow, short, deeply wooded and field-girt ravine.

Situation,..... *In triple crotch of many-croched elm, 40 feet up*.....

Particulars,..... *An old nest repaired, deeply cupped, of sticks, lined with bark-strips and grass,*.....

...adventitious down. Eggs slightly nest-stained. Female left nest reluctantly; perching 30 rods...

away. The male circled, screaming, further away, restlessly alighting, now and then. On May 2,

1893, these birds were relining the nest......

Collector,..... *P. B Peabody*..... (From Field Notes.)

side of your eggs. Drill steadily, gently and *not* too long, blow carefully, using, if incubation is far advanced, larger holes and a solution of caustic potash—strong for large eggs, and weak, always, for the small ones,—administering the solution with that little black rubber syringe. Rinse thoroughly and dry adequately by the heat of your midnight lamp, keeping a soft cotton cloth always by you for wiping eggs. With a soft pencil and a steady hand mark each egg in *small* figures, near the opening, with “A. O. U. number,” “set index;” and “No. in set.”

And lastly or rather firstly, sit right down and order at least 500 “Standard Datas”; and, if purses permit, buy those printed on linen paper, now and always.

P. B. PEABODY,
Wilder, Minn.

To All Michigan Observers.

In December last, the ‘Michigan Academy of Sciences’ was instituted at Lansing, with eighty-six charter members. Departments were formed, and a sub-section of ornithology for the advancement of study among our birds was organized.

The honor of chief of the sub-section of ornithology, was conferred upon me, as a centre of communication for observers in the state, and it is hoped and expected, that by our combined efforts, we shall gather much valuable information and which will be published in the transactions of the Academy.

There are many observers in Michigan who have not yet joined our ranks, and to these, an invitation is extended, as all lovers of the sciences are welcome. Others, who are extralimitary in their residence, are also eligible; those living just over the border in adjacent states, or the Dominion, are especially desired for our work.

The initiation fee of \$1.00, and annual dues of \$1.00, may be sent, together with application for membership to Prof. E. A. Strong, Ypsilanti, Mich.

Our State possesses such a large number of observers, that personal letters would involve much labor, and it has been thought best to issue this communication. All observers, whether members of the ‘M. A. S.’ or not, who are willing to undertake observations, will please to communicate with—

Yours Respectfully,
MORRIS GIBBS,
Kalamazoo, Mich.

Notes on the Passenger Pigeon in Michigan.*

BY CHAS. W. GUNN.

Many persons not intimately acquainted with the habits of *Ectopistes migratorius* are often astonished at the regularity of their habits, especially so, about the nesting season. The main colony visits Michigan every *two years*. This I know to be the case from personal observations during the past ten years. This is due mainly to the abundance of shack one year, and the scarcity the next. During the month of April I visited the nesting place situated near Crooked Lake, Emmet Co., Northern Michigan. There are three separate colonies nesting near this lake, two on the north bank, respectively three and twelve miles in length by three in width, the third on the south bank eight miles in length by two in width. Three flights are made by the birds during the nesting season every day; at the break of day the males fly out to feed, returning about eleven o'clock; at two the females feed and the cock birds sit on the nest. One visiting the nests during this flight would scarcely see a single female bird, at three they return, their mates feeding in advance of this. The nesting is conducted on the "free love system," it is confirmed by old pigeon hunters, who have studied their habits for years, that the female may sit on one nest in the forenoon and another in the afternoon, the birds never knowing their own young.

* The notes on the habits of the Wild Pigeon, here given, were written by Chas. W. Gunn, of Grand Rapids, Michigan, in 1878 or 1879. Mr. Gunn has been dead a number of years. He was a very careful observer, a hard worker and a very enthusiastic ornithologist. If he could have lived he would doubtless have been a naturalist of high standing. Mrs. Gunn (his mother,) recently presented his books and manuscripts (which were of great value) to the lately organized Kent Ornithological Club. These notes were read at the meeting of that Club on Wednesday, Jan. 2nd, 1895. I am not positive, but I think they have never been published before. I thought they were of enough value and interest to now be brought to light. —R. G. FITCH.

The woods selected by this colony is mostly pine, intermingled with a few beech and maple. Nearly every tree contains one or more nests. At the nesting two years ago near Shelby I counted as high as 36 nests in a single tree. The nests are composed of small sticks, half the size of one's little finger, being very loosely constructed as a general thing, but I have seen several nestings where nearly all the nests were quite closely compacted and lined with smaller twigs. The number of eggs laid vary from one to two, the usual number being one. You may visit a nesting and examine thousands of nests, and not ten in every thousand will contain two eggs, at least I have found it so.

I have been informed by old pigeon hunters that a few days before the young are ready to leave the nest, the main colony leave the young and commence a new nesting. These hunters can always tell when the pigeons are about to leave as the birds mount to an immense height in the air, so that the notion of their wings is just perceptible; in their regular flights to and from the nesting, they fly through the woods, or just above the tree tops. A few male birds remain with the young, and on the second day it is a grand sight to visit the nesting and see the old birds pushing the young from the nest. Falling to the ground they assemble in flocks of many hundreds, and led by a few old birds, soon learn to secure their own food. About three days after leaving the nest the young have worn off all their fat and are able to fly.

The Yellow Rail in Orleans County, N. Y.

On the 21st of April, 1894, my friend Macomber and myself started for a snipe hunt. Just north of the famous Ridge Road at Sandy Creek we found the Snipe quite plentiful and as we were crossing an open meadow that had

here and there a marshy spot, one of the dogs came to a stop. We waited a little while but no bird flew up, though the dog still said there was one there. After the dogs had searched a few moments one of them made a jump and caught a bird in his mouth. To our surprise we found it to be a Yellow Rail and a fine one too. Later we found another which acted in a similar manner. They don't take flight very readily. I walked almost onto one where the grass was not a foot high, but could not see him nor did he run out. This spring I am going to search for more of them, and I will try to watch them more.

C. CLIFF, Murray, N. Y.

[This is I think the first record of this species being taken within our county. —Ed.]

Wholesale Slaughter of Wild Fowl.

Mr. W. Allen, who was at Clear Lake, the past week, tells us about some shooting done there last Friday and Saturday by two gentlemen from Garner. The flight of geese and ducks during those days was something phenomenal—larger than ever before known: this caused by the scarcity of bodies of water elsewhere. The ice had not broken up in the lake and the birds alighted on the ice to rest. These parties went out to the middle of the lake, cut out blocks of ice and built an ice house for a blind, then placing their decoys out on the ice, they began the slaughter, and at the time Mr. Allen saw them they had nearly 400 geese, brant and ducks. Such shooting has never been known at the lake.—*Waterloo, (Ia.) Reporter.*

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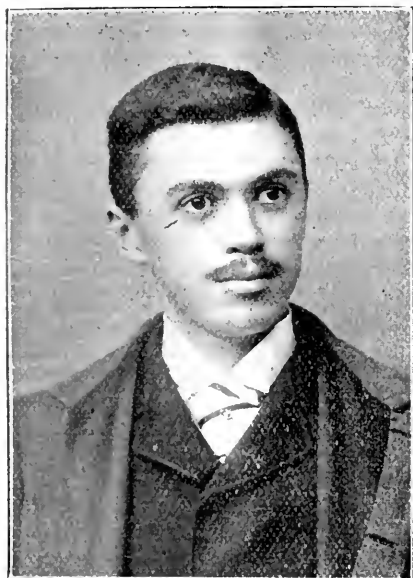
* Articles, Items of Interest and Queries for publication should be forwarded as early in the month as possible.

ENTERED AT THE POST OFFICE AT ALBION, N. Y., AS SECOND-CLASS MATTER.

You Are a Judge.

Your decision must be mailed us not later than the *tenth* day of May. Write on back of a postal card the five articles which *you* have decided to be the *most valuable, instructive and interesting* in this number of OÖLOGIST and mail to us. Number the articles in the order which you think the prizes should be awarded.

During 1895 the Judges prize will be awarded as follows, viz: Each month it will consist of \$6 in specimens or \$4.50 in instruments, supplies or publications or \$3 cash. This prize will be awarded to the Judge who names the winning articles and in their *exact* order. In case more than one Judge names them correctly this prize will be equally divided among the number.



Harold H. Dodge.

Was born in Lawrence, Mass. in 1867, and moved to California in 1882. He explored the Golden State in many parts, being especially attracted to the wilder and mountainous sections. In his researches the Yosemite region was carefully studied.

His tastes were those of an observer, and all subjects were of interest to him, but nearer his heart were treasured longings for communion with Nature's wondrous creations, and as with the majority of modern observers, his chiefest delight was with the birds, "the winged gems and favorites of creation." His was a sunny life; for communion with the creatures of his surroundings exalted him, and the inspiration and delight of association with Nature's marvelous handiwork, elevated his standard in intellection, as well as the moral attributes which govern our deeper feelings.

Mr. Dodge passed from this earth at Mentone, California on May 9, 1894 aged twenty-seven years.

Interested readers may recall articles from his pen, and among others, the one on 'Dove Life in Arizona,' which appeared in the OÖLOGIST last July.

His brother collectors can say: "WE MOURN OUR LOSS."

Our Rev. Brother Peabody has once more let himself loose on the "Standard Data" question. While we may not all fall in with Brother P's. ideal, it is really high time that one was adopted and if you will mail a sample of *your* ideal *at once* to the editor of the OÖLOGIST he will have the most suitable presented in May OÖLOGIST, from which we can by vote or otherwise select a "standard."

If you will write the names of six ornithologists and oölogists of national reputation on the back of a postal and mail to the editor of the OÖLOGIST; not later than May 1st, he will endeavor to induce the ones receiving the greatest number of mentions to send him their photo which will in due season be half-toned for the OÖLOGIST. Write *today*.

On March 5th ye Ed. recorded a most welcome "transient visitor", L. Whitney Watkins of Manchester, Mich. Brother W. is an ornithologist of the true type and one from whom we may well expect to hear in after years.

New York might most appropriately be called the State of Ornithological Publications. We now have *The Auk*, *The Nidologist* and THE OÖLOGIST—a truly valuable trio in which it may not be considered immodest for us to say that the little OÖLOGIST is more cosmopolitan than either of its more pretentious sisters. By the way, the good old *O. and O.* was a New Yorker by birth.

March issue of *Popular Science News* is of more than ordinary interest to the OÖLOGIST's readers. Among others Dr. Shufeldt's valuable article on "Auks and Their Allies" and Dr. J. Hobart Egbert's "Analysis of the Brain," with half-tone of the author, especially attract our attention.

Early in January twelve ornithologists received special requests to send the editor of the OÖLOGIST their photos. As fast as received half-tones have been made and it has been with no small degree of pleasure that ye editor has been able to present them to the readers of the OÖLOGIST. Biographical sketches or introductions were deemed unnecessary as all were well known to our readers by their writings. Should you happen to write a 1st prize article (or 2d prize one, if the writer of the 1st has previously been presented) for the OÖLOGIST it might be well to bear in mind that you are "booked." It was from this standpoint that the original twelve ('94 writers) did penance.

An Unusual Visitor.

It may interest the readers of the OÖLOGIST to know that on Feb. 11 an American Herring Gull was shot on the river here. It was with a flock of Mergansers and seemed rather tame. Another bird of the same kind was seen but could not be secured. As our station is more than two hundred miles from this Gull's nearest haunts, it is hard to find a reason for its occurrence here. Both its stomach and crop were entirely empty, showing that it had been without food for some time. Probably it was driven out of its course by one of the winter storms.

WILLARD N. CLUTE,
Binghamton, N. Y.

An Eccentric Flicker.

Last summer I observed an incident which is, to my knowledge at least, unparalleled. I had found a Mourning Dove's nest in process of construction, on a limb of an oak tree, near a path which I used daily.

Imagine my surprise a few mornings later at seeing a female Flicker sitting sedately on the nest. Resisting temptation I passed by, and returned at noon to investigate the matter.

The female Dove was on the nest when I climbed the tree and did not fly until I had almost touched her. The nest contained her own set and on the edge of the nest, which was larger than is usual, was a cracked egg of the Flicker.

WALTER DRAPER,
Baraboo, Wis.

Good Authority.

MR EDITOR:—I am so much pleased with the February number of the OÖLOGIST that I cannot forbear congratulating you upon your success in this line. The steady improvement in the general tone of the contents, from volume to volume is so great as to cause one to speculate upon the probable time when the limit must be reached.

Before closing I desire to call your attention to an error in Mr. Harry C. Lillie's otherwise superior contribution entitled "Destruction of Birds." His assertion that "young birds usually lead in the flight to the south" is in direct opposition to the oft expressed opinion and actual observation of the great body of working ornithologists. It is quite probable that the young of the year of a few species do migrate before their parents and it would be interesting to know what species do so.

F. L. BURNS
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The February Nidiologist

contained a comprehensive article on the 'Habits of the California Condor' or Vulture, among other interesting things describing a perilous expedition after the eggs, with half-tone illustrations of old and young Condors; another striking feature of this article being the story of a

CONDOR HUNT

graphically told by the hunter, himself.

In the March Number

the taking of the California Condor's egg (now owned by H. R. Taylor) is described by the collector of it, furnishing valuable information, hitherto unknown, about this extremely rare bird. This narration, from its very uniqueness is far and away the most interesting, to the Ornithological world, of anything which has appeared for a long time. An excellent half-tone illustration accompanies this article.

OTHER ILLUSTRATIONS and articles in this number more than sustain the reputation of the magazine.

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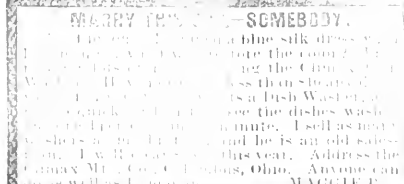
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THE OOLOGIST,
Monthly.

VOL. XII. NO. 5.

ALBION, N. Y., MAY, 1895.

WHOLE NO. 115

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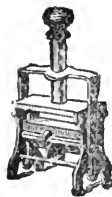
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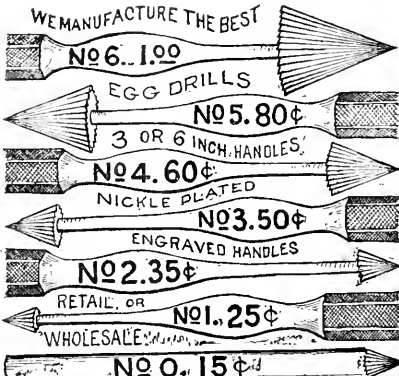
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

















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A gentleman of a methodical habit, who had adopted the practice of retaining a copy of every prescription issued by his family physician, became interested as time went on to note that the same ingredients were pretty certain to be prescribed at some point of the treatment of every case. For a poor appetite, or a sore throat, for restlessness which disturbed the baby's sleep, and for troubles which beset the aged grandparents, the favorite remedy was always turning up, although slightly modified from time to time and used often in conjunction with others. His family physician had ever been a successful practitioner; and when another was consulted, care had always been taken to obtain the services of some one eminent for skill and reputation. Still the frequent recurrence of the favorite formula was a marked circumstance. One day our friend happened to observe that the formula of a certain advertised remedy was identical with the latest prescription he had received from his own physician, and in some surprise he stated the case to him. The family doctor, after listening to what he had to say, replied: "The case is about this way: Whenever there is a disturbance of the functions of the body, no matter of what nature, it is pretty certain to be accompanied by a derangement of the digestive organs. When they are all right the patient gets well. That particular formula that you have observed me to write more and more frequently is the result of an age of careful experiment, and is pretty generally agreed upon now by all educated physicians who keep up with the times. The discovery of the past few years of a means of reducing every drug to a powder and compressing the powders into little lozenges or tablets, or tabules if you prefer, which will not break or spoil, or lose their good qualities from age, if protected from air and light, is the explanation of how it has come about that this prescription is now for sale as an advertised remedy. It is as you say, however, and is all right. It is the medicine that nine people out of ten need every time they need any, and I have no doubt that making it so easy to obtain, so carefully prepared, and withal so cheap, will tend to actually prolong the average of human life during the present generation."

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THE OÖLOGIST.

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ALBION, N. Y., MAY, 1895.

WHOLE NO. 115

Rhoderick Dhu.

It is not of Scott's hero that I am going to tell you, but a namesake which, whether rightly named or not, once filled a prominent niche in my life. I made his acquaintance one damp day in April, (the 22nd,) 1889. My brother and I had been hunting all the morning, he after birds, I their eggs. It was about eleven a.m. and we had tramped nearly though the third piece of timber, a low swampy tract bordering both sides of Mill Creek, a small stream flowing through the western half of Monroe Co., N.Y., to a point near my home, where it joins Black Creek in its course to the Genesee river. My brother had secured no game, and I only one incomplete set of the Crow. Needless to say we were both getting discouraged. The swamp was nearly covered with water from a few inches to several feet in depth as the spring freshet had not subsided. We were keeping close to one edge and made many trips out in the fields to avoid ditches or *rins* as we called them which had swelled to dimensions that made fording impossible in many cases. It seemed as if both of us saw the nest at the same instant. Out in the middle of the swamp stood a large elm, the largest of them all and almost in the very top was an *immense* nest. Well, we don't have eagles nests in these parts and it was big to us. I know that some oölogists can tell us of nests that would dwarf this one but they can *not* find them in my vicinity. Over the top stuck up two little tufts of feathers, I had seen specimens of the Gt. Horned Owl before and I recognized the owner of those two ear-tufts and only the oölogist who remembers his first nest of this large Owl can guess how excited I was.

Jumping from tussock to log and from stump to stump we made our way toward the tree. When about 200 ft., from the nest Mrs. Owl left, much to our chagrin, as we had hoped to secure her, but 200 ft. away and 75 ft., high is too far for such shot as we had so she got off all right. Now I had not been a subscriber of the OÖLOGIST long at that time and was a very "*green*" oölogist, I *thought* there were eggs in that nest. Of course you experienced collectors who get out your climbing irons in February and take a circuit through the haunts of this bird, gathering in your annual fee as you go, will laugh at this. Enough said; I can afford to *no.v.* I had a poor pair of home-made climbers and with these I started up to the nest, my brother standing guard at the foot of the tree with the hope that the Owl would come back and he get a shot at her. How I got up I don't know now. Mr. P. M. Silloways experience as published in the February number of the OÖLOGIST describes most of my difficulties better than I can, but I had to work my way around three large crotches to get to the nest. Then I could neither see nor reach over the edge. It seemed an age before I worked my way arround on the lower side of that limb and, finally, into the nest. Then what a sight met my gaze. No eggs of course, but, in the midst of balls of fur, bones, etc.: the remains of rabbits, squirrels and pole-cats, the scent of which saluted my nose in a very *forward* and disagreeable way; sat a young Owl, perhaps a week old, possibly two. I could not carry him down with me and I did not like to leave him behind. Happy thought, directly under me the water was several inches deep, so, shouting to my brother to "take it out of the water quick" I dropped the young bird

over the edge. Soon came the answer from below. "It's all right." Well, I came down out of that tree in less time than I went up. Everything went "*lovely*" until I reached the last crotch which was so shaped that I could not get below it. At this crisis, while trying to get my legs and arms both below that swell, one of those poor irons, I spoke of, gave out entirely and,—well, there was a sensation of motion and darkness followed by a feeling that my feet had been driven through me, and then oblivion.

The next winter this tree was uprooted in a great wind. I found by actual measurement, that it was 70 feet from the stump to the nest, and 35 feet to the crotch from which I fell. Very few nests are placed as high as that in my vicinity. The nest was 3 feet wide and nearly as high, made entirely of dead sticks, some of them large enough to remind one of the description of those used by the Osprey. It was not hollowed out much and had no lining whatever. If it was ever used by any Hawk the Owls had certainly altered it beyond recognition.

It is my advice to all who contemplate any climbing to send to "Lattin" and get a pair of his climbers which don't "give out." I didn't get home until four that afternoon and to this day I feel the effects of that fall.

But to come back to my subject, I cannot tell exactly how we came to fasten that name on him, but Rhoderick Dhu he was christened and called Rhoderick for short. He grew rapidly, eating all the fresh meat that came his way. Even when quite small (a ball of down about 6 inches high with two fluffy ear-tufts) he would swallow mice and small birds whole and at two months he would swallow a rat, leaving the tail outside until he could stow it away. He always swallowed his food head first, if any head was to be found. We had many opportunities to watch him

eject the little balls of fur and bones. He would select a broad, flat perch, a beam in the barn (we often carried him there before he could fly) suited him best, stretch his neck and lean forward until the tip of his beak touched the beam or other perch, and then would follow the most comical contortions you could imagine and the ball would roll to the floor. Rhoderick would then blink his eyes several times as he settled in shape on his perch and look around in a knowing way that was laughable.

Soon the wing quills came out and he found that they assisted him in hopping so at once he began to use them. Before this his manner of locomotion was most laughable. It consisted of a number of long hops, a resting spell and then another series of hops. As he experienced much difficulty in keeping his balance when hopping, he made a most ludicrous figure. He would hop all the way from the barn to the house, a distance of 150 feet, get over the sill into the kitchen where the women were at work, and with the help of his wings, at first very laboriously but later on with the greatest of ease, place himself in a chair where he would sit contentedly for two hours.

No joke intended, for in spite of their solitary reputation this Owl certainly liked company.

One morning when we went to feed Rhoderick he was not to be found. Finally my father spied him perched on the ridge of the house. Then the truth flashed over us, Rhoderick could fly! My brother went up on the roof but Mr. Owl gave a flap of his wings as if to say "No you don't," and flew across the garden, but his flight was weak and he soon came to the ground where he was found and taken back, never to take another long fly, for as we did not wish to clip his wings we shut him up in a room fitted for his accommodation.

Presto! What a change! From this time our Owl became more and more like his wild brothers and sisters. As long as he had plenty of food he was perfectly silent, except for a snapping of the beak when disturbed. But let him get real hungry and what a racket. I woke up one night with the impression that a cat-fight was in progress directly under my window, but finally recollected that Rhoderick had not been fed and then understood it all. At other times he would hoot in genuine Owl style. I wonder if Owls ever hoot except when very hungry.

At first my brother could go in the room and sit down when Rhoderick would come to him with a series of short flights and hops and perch on his knee, allowing him to stroke his feathers without protest. He could turn his head sideways so quickly that it seemed to go all the way around on a pivot. He never held his ear-tufts entirely erect unless surprised or at the prospect of food when very hungry. At other times they were carried semi-erect unless very angry when they laid flat on the head. He took daily baths in the most approved bird fashion, shaking and preening himself like smaller birds. But he had to have a twelve-quart pan for a bath-tub. Perhaps all Owls bathe in the night; who knows? All live animals when placed in the room with him showed extreme fear and no disposition to fight him, except woodchucks and cats and even the cat was afraid but would show fight if Rhoderick came very near. A rat would make the most violent efforts to escape but never turned on him as they will on a human being when hard pressed. It was comical to watch him when a woodchuck was placed in the room. He would start for his game as usual but never get his talons into Mr. 'Chuck to my knowledge. Certainly he never killed one. He would eat one after we killed it however, and, for a time, really seem to be satisfied.

Finally he became unruly and one morning when I entered his room with his breakfast he flew at me and drove his talons through my hat and into my scalp. If anyone wants to know how that feels just try it some time. I know of nothing else just like it, though a cat's scratch will give one some idea of the sensation. As a result of that exploit he is now one of the ornaments in our parlor and a big one too.

In size he exceeds any wild specimen I have ever seen and there is just enough of his baby down left to give him a fuzzy appearance. His whole life was less than five months.

ERNEST H. SHORT
Chili, N. Y.

Winter Birds of the Orange Mountains, in
Essex County, N. J.

Observations were made in the months of December, January, February and March.

Bluebird, pair noted in December.

Robin, three seen in January during severe snow storm.

Kinglet, Golden-crowned, seen in company with Chickadees during early part of December.

Chickadees at all times abundant.

Tufted Titmouse, pair seen during rain in January.

White-breasted Nuthatch, at times plentiful, but generally few and far between.

Winter Wren, ten seen in December, and only one observed during the three other months.

Northern Shrike, one seen in March.

Cedar Waxwing, one flock of seven seen in February; very plentiful last winter.

Fox Sparrow, more or less numerous in February and March but none noticed before.

Song Sparrow, several seen in company with Tree Sparrows in February.

Slate-colored Junco, common.



Stephen Van Rensselaer, Jr.

Tree Sparrow, very plentiful at all times.

White-throated Sparrow, only three or four seen during entire winter, while last winter were common.

White-crowned Sparrow, one shot in January, only one seen.

Snowflake, January 16th, flock of about fifty seen, from which I shot several. According to the Geological Survey these are rarely seen, only two specimens mentioned.

Redpoll, one seen in December.

American Goldfinch, flock of fully 150 seen in January, and few since. Last two winters could always be obtained.

American Crossbill, flock of seven seen in February, this is the first time I ever noted them in this locality.

Purple Finch, abundant during February and March, but only a few seen earlier.

Blue Jay, quite common during December, but few seen later.

Crow, plentiful at all times.

Flicker, only one seen after November 29th.

Red-headed Woodpecker, rarely seen in this locality, but one specimen shot by the writer in ten years, plentiful in Morris County, near the Passaic River.

Yellow-bellied Sapsucker, few seen after November closes, but in September are common.

Downy Woodpecker, can always be obtained.

Hairy Woodpecker, three only seen and at different times and in different places.

Belted Kingfisher, none seen this February, last year several were seen on the 22nd by the writer.

Screech Owl, only ones met with were in a hollow tree within 25 yards of writer's house, where they have been for years. No others seen within three years.

Saw-whet Owl, none seen but I understand there was one killed in East Orange in March.

Barred Owl, but one specimen procured, only one ever seen.

Long-eared Owl, met with occasionally, two shot this winter.

Sparrow Hawk, one shot in March.

Red-shouldered Hawk, quite plentiful.

Red-tail, moderately abundant.

Cooper's Hawk, most plentiful of all excepting next.

Sharp-shinned Hawk, abundant.

Marsh Hawk, seldom seen in the winter.

Ruffed Grouse, a few met with.

Bob-white, none seen or heard for three years by the writer.

Woodcock, one seen March 29th.

On the Reservoir in Essex county, there are at times many varieties of Ducks, several of Grebes, Ospreys, and occasional Geese, but as shooting is forbidden I cannot name the species individually.

These notes were taken generally

Saturdays and Sundays from personal observations.

STEPHEN VAN RENSSELAER, JR.,
29 Broadway, N. Y.

The Spotted Sandpiper.

This species, one of the most interesting birds of the family that we have in the Great Lake Region, is also known as the Tip-up, Teeter and Wag-tail and also bears, in company with several others of the smaller Sandpipers the common names of Peet and Peet-weet. It is well known to all collectors in the localities which it inhabits, and is also recognized by gunners as a fair mark as a wing-shot when larger game is not to be had. I can attest to the superior flavor of a well cooked Tip-up, taken in the autumn, but will say in favor of the vivacious little bird that it should not be shot, as it is too small to be considered as game, and moreover is undoubtedly of value to the community in which it dwells.

The Teeter is found in suitable sections throughout Michigan where the writer has taken notes, and evidently breeds wherever it summers. It arrives in Southern Michigan in early April, and often in March in early seasons, but the main part of the birds reach us about the middle of the month of showers. Remaining till October and sometimes till the first week in November, it becomes a familiar bird spring, summer and autumn to all visitors to its haunts.

Partial to marshy or boggy tracts, it is rarely found in sections far removed from low lands, and though the nest is often found in dry fields, it is never found at any great distance from moist quarters, and when the bird is seen in spring and summer it is certain that water course, lake, pond or boggy ground is near at hand. No better spot is desired by the Tip-up than the edges

of a mill pond or the shores of a muddy shelving-shored stream. It is not rare to find a pair nesting in an elevated field, and where there is apparently no feeding ground for them, but in these cases the pair find their food in a swale hard by, or on the shores of a pond perhaps fully a hundred rods away.

Soon after arrival the birds may be seen flying about in twos and threes or even fours and in their actions much resemble the Chimney Swifts in their courting movements. The Swifts fly high in air, circling about in fluttering flight and with noisy clatter, while the Tip-ups wheel just above the field and pond uttering their vehement but pleasing notes. These notes which may be called their love song, are best described by the syllables "*ca tweet ca tweet ca tweet.*" Sometimes the notes are run together when the bird is very much excited and are uttered almost continuously for many minutes at a time, but generally only three or four times. The same notes are given excitedly when the young are molested, and it appears that both old birds utter the same notes. Still another utterance of alarm is an almost continuous *peet* or *tweet*, given either when on the wing or running through the grass or over the bogs. There is also a conversational chatter uttered on the ground, which cannot be described.

One other note, probably a call note uttered when the bird is flying so far as I am able to judge, and never continuous like the last, is *pe tect*. This later call is given every few seconds as the bird circles about and is common both spring and fall, while the notes of excitement are heard almost entirely in spring and early summer. I have carefully studied the utterances of the Spotted Sandpipers for years, and many times have thought a new note was discovered, but have decided that the above notes constitute the Sandpiper's entire series. With bird songs and call

notes, it is extremely difficult to accurately describe them on paper, and many cannot be described by this means.

Nest building begins in late April in rare instances, but generally not till after the middle of the following month, and eggs are not often taken before May 20th. Have taken a set of incubated eggs May 14th, but still, June 1st to 15th may be considered the height of breeding season.

The nest is small, flat and an exceedingly shiftlessly built structure, and so poorly put together that it will nearly always fall apart if removed from its position. It is usually composed of coarse dead grass, and sometimes there are weed stalks and even twigs in its make up. Sometimes nests are exceedingly scanty and I am informed that eggs have been found without any nest.

The complement of eggs is invariably four, I believe, for the first setting, but as three are not rarely found later in the season, it is reasonable to suppose that the birds were disturbed in their first attempt at nesting, and that three eggs is not infrequently the number in second sets. It is fair to consider the Sandpiper as a one brood a season species, as the other members of this family are looked upon: still the finding of fresh eggs in July causes observers to wonder if two broods is not a possibility.

The eggs are pear-shaped and spotted with brown of different shades in various specimens. These spots often black or even reddish are from the size of a pin point to large blotches, and are mainly at the larger end. The ground color is given as a creamy, buff or clay color by Davie and other writers. This nicely describes the eggs after they have been blown and placed in the cabinet for a month or more. For they lose their original surface color, and the greenish tinge entirely

disappears; fading out shortly after the contents are removed.

Unless the bird is flushed, the eggs are very difficult to find, and it takes patience to secure a set on the gravelly shores of a lake. The old bird leaves the nest by sneaking when the eggs are fresh while the collector is at a distance but when the eggs are well incubated she sets closely and barely leaves when pressed, feigning lameness and employing every device to lure the stroller from her treasures. When the eggs are about ready to hatch or there are very small young birds in or near the nest the actions of the old bird are very pathetic and interesting.

The young are precocious, as in the case with all members of the family, and are even specially advanced in leaving the nest and running about. These downy fairy bits of bird-life quickly learn the ways of the shore and field, and skip about, and patter in and out among the stones, drift-wood or tussocks of grass. They run with surprising swiftness for such little things and soon learn to assist in escape by the use of their developing wings. Not only can they run but they can swim and dive as well, and will quickly escape from a pursuer by the water. In fact, I believe all of the smaller waders swim when occasion requires it. Not long ago the question was asked 'Do wading birds swim?' I do not recall the writer nor paper, but if the questioner had been rambling with me one day he would have been fully satisfied on that point.

Passing near the shores of a small pond I saw a young Spotted Sandpiper, about three-quarters size, and in the spirit of frolic chased the active bird. It ran to the water boldly waded to its length of legs, and then swam away from the shore. Thinking to change its course, a club was thrown beyond it, when, much to my surprise, the Tip-up dove like a flash and came to the



Nathan M. Moran,

San Luis Obispo, Cal.

surface fully five feet away. It then stood up on a floating lily-pad and characteristically perpendicularly wagged its tail and viewed the surroundings. Upon dislodgement by another missile, it again struck out for deeper water, dove and disappeared among the lillies.

Once a Sandpiper, which fell in the water with a broken wing from a shot, swam to shore and escaped. Again I witnessed an interesting sight as we were floating on the river. An aggressive Red-wing, who had a nest in the reeds at the edge of the stream, pounced down on the back of a Sandpiper as it was skimming over the river. The force knocked the Peet-weet into the water, a foot or two above which it had been flying. We expected to see a fine exhibition of swimming and diving. Judge of our surprise when the bird in-

stantly arose from the swift current and flew away uttering its cheerful notes. The act of rising from the water was marvelous, and was performed much more quickly than could possibly be done by a Duck, and with no splashing. In fact it was done as gracefully as the act could be performed by a Gull or Tern and even quicker.

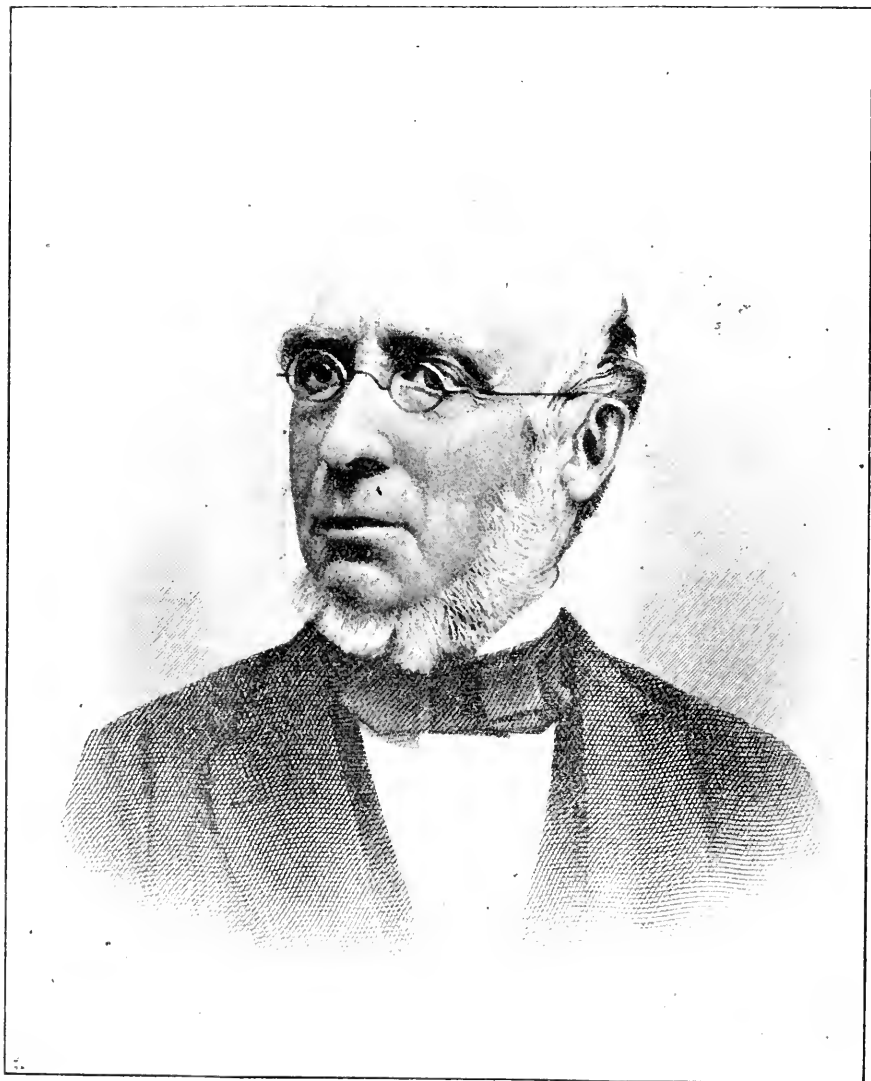
We may well doubt if this species ever intentionally seeks the water; but when wounded, or when there is a choice of methods of escape, the Tip-up not infrequently seeks this avenue. It is said that the Phalaropes swim gracefully and often intentionally take to the water, where they move about, looking like minature swans as they float on the surface. If Phalaropes can swim, there is not much doubt but that all of the smaller waders can swim.

I have found Sandpiper's eggs within a yard of the edge of a lake, on a small gravelly island not over six inches above the water in its highest part. Another queer situation was on a pile of drift wood and debris, while another nest was on a log and quite a foot from the ground.

A great many nests of this species have come to my notice, but the most peculiar instance was the finding of two equally incubated sets in nests not over four feet apart. Eleven nests of this species were found in one field next to a mill pond by two boys during May June and July.

Peet weet feeds on worms, aquatic insects and small mollusks, and is undoubtedly beneficial. It is too small be looked upon as game. But though beneath the notice of upright gunners it still offers attractions to observers who are interested in a study of our birds, and I know of very few of our feathered associates who offer a better opportunity for investigation than our little acquaintance, Tip up.

MORRIS GIBBS,
Kalamazoo, Mich.



Geo. N. Lawrence.

George N. Lawrence.

MR. GEORGE N. LAWRENCE, one of the Founders and an Honorary Member of the American Ornithologists' Union, and for some years a member of its Council, died Jan. 17, 1895, at his residence in New York City, in the eighty-ninth year of his age. Mr. Lawrence was especially known as an authority on the birds of tropical America, to which his attention was chiefly given during the long period of his scientific activity. As a writer on North American birds he will be mainly remembered for his association with Baird and Cassin in the authorship of the famous 'IX Volume' of the Reports of Explorations and Surveys for a Railroad Route from the Mississippi River to the Pacific Ocean, published in 1858, to which Mr. Lawrence contributed the parts relating to several orders of the Water Birds; and for his well known 'Catalogue of Birds observed on New York, Long and Staten Islands, and the adjacent parts of New Jersey, published in 1866. He was an intimate friend and scientific associate of the late Professor Baird, and also of Audubon. During the later years of his life, the infirmities incident of age greatly lessened his activity in scientific research, but in no way diminished his interest in the science to which he had devoted so many years of his life, his ornithological publications covering a period of fifty years. His high standing as a specialist in his chosen field is well attested by the honorary membership conferred upon him by many of the leading scientific societies and academies of not only his own country but of Europe. His amiability of character endeared him to a wide circle of friends, so that in his death his scientific associates mourn the loss of a personal friend as well as an esteemed fellow-worker.

In order that proper respect may be shown by the Members of the A. O. U.

as a body to the memory of deceased members, the following resolution was adopted at the Tenth Congress of the Union:—

Resolved: That on the decease of any Active Member of the Union, the President shall appoint a Committee of One to prepare a suitable memorial of the life and work of the deceased, to be read at the first Stated Meeting of the Union, and to be published in 'The Auk' as an expression of the sense of the Union."

Mr. Lawrence is the first deceased member coming within the scope of this resolution since its adoption, and, in accordance with its provisions, the President, Dr. Coues, has appointed Mr. D. G. Elliot as the memorialist of Mr. Lawrence—a selection singularly fitting, inasmuch as to no member of the Union is the life and work of the late Mr. Lawrence better known than to his long intimate associate Mr. Elliot. The eulogy will be read at the next Annual Meeting of the Union and published in 'The Auk' for January, 1896.—*The Auk.*

 Owls and Their Nests.

Charles Waterton, the naturalist, says that he never heard of but one song in which the Owl was praised and that was a ditty sung to him in his infancy by his nurse. He repeats the first two stanzas of it for us, they are as follows:

"Once I was a monarch's daughter
And sat on a lady's knee;
Now I am a nightly rover,
Banished to the ivy tree.

Crying Hoo, hoo, hoo, hoo, hoo, hoo,
Hoo, hoo, my feet are cold!
Pity me for now you see me
Persecuted, poor, and old."

Praise of the Owl is very rare in song or elsewhere, and yet the fancy that she is a disguised princess is very old, older even than the "Arabian Nights."

Perhaps this aristocratic origin may account for her lack of skill in house-keeping, for her nest is carelessly thrown together and is maintained in a most slatternly style. Night rovers, birds of prey they must shun the light, and pass the day in some gloomy hiding place where their many enemies cannot find them.

Many of them find safe retreats in the lofts of barns and other out buildings, where they pay a generous rent to the owner by riding the premises of mice and rats. One species in particular shows such a marked preference for barns as hunting grounds and places of residence that it has come to be generally known as the Barn Owl.

A more natural site for an Owl's nest, however, is the hollow in some old tree, and as the birds stay carefully hid in the day time their nests would be difficult to find were it not for a very singular habit which Owls have. They subsist exclusively on animal food and are so very greedy that when they catch a mouse or a little bird they do not pick it to pieces before eating but swallow the little victim, bones, skin, fur or feathers and all. When their prey is too large for even their capacious throats and cannot be bolted outright they tear off large pieces and swallow them down, without ever thinking of picking out the good from the bad, and leaving nothing but the very largest bones. I once saw an Owl in a cage swallow a head, beak and all, which had been cut from a large hen.

Now bones, fur and feathers are not very digestible, especially for a bird like the Owl, which is not provided with a tough gizzard for grinding up hard food. The indigestible matter must be disposed of in some way, and the Owl is equal to the task. When after a night's successful hunting he has eaten a hearty meal he retires to his home in the hollow tree and takes a quiet nap to aid digestion. Waking up after a time he

stretches up his neck and thrusting his head out of his doorway quietly throws up all the refuse matter eaten in his last night's feast. Skin, bones and feathers, all perfectly dry, and having all the meat digested off of them, are dropped down outside rolled up in little balls. These little balls are called Owl pellets, and although they may be found anywhere in the woods they often indicate that there is an Owl's nest overhead, or somewhere near.

These are not sure signs to follow, but they indicate the place where an Owl has been, and that is better than climbing trees at random and examining every old hollow in the woods.

One morning late in April I was passing through an old orchard on my way to the woods when I noticed Owl pellets beneath an apple tree. A nest, I thought, I must find and examine it for it was about the right season for young Owls. Walking around the tree I looked critically up at it, but it was sound with no place for a nest, so I turned to the next tree in the row, and there at its foot I saw not one but a dozen of the tell tale pellets. Directly above them, not over eight feet from the ground was a rough scar where some great branch had been broken off by a storm.

Catching hold of a low limb I silently drew myself up. Yes, as I had expected, the shattered wood had decayed around the blighted spot and a hole had rotted deep into the trunk and the cavity was certainly inhabited. Wrapping my handkerchief around my hand, for Owl's beaks are sharp, I reached in and brought out a beautiful little Mottled Owl. Dazed and startled at being so unexpectedly lifted off her nest she gazed stupidly about with her great staring eyes, pecked two or three times at my hand but did not struggle as much as a common hen would on being caught.

Peering down into the hollow I found it filled with grass, leaves, moss and a

few feathers thrown promiscuously together in a loose heap without any attempt at arrangement. Half buried in this rude nest I found one large, glossy, pure white egg, almost spherical in shape, and measuring, perhaps one and one third inches in diameter.

Handling the egg of a song bird ruins it as completely as breaking the shell, and merely to touch the nests of some birds would be quite as cruel as to destroy them, for most birds will never return to a nest which has been molested. My little Owl, however, was not so fastidious and when I put her back in the hollow she settled down with a quiet chuckle, terribly afraid of me, no doubt, but still more afraid of the bright sunshine.

After that I visited the little Owl whenever I passed near her tree, and although I am sure she would rather have been let alone, she never took any serious offense at my visits, and probably never thought of deserting her nest on my account. Sometimes I found her alone, and sometimes her mate was with her. One evening just as the gray of twilight was making objects indistinct but not invisible I was passing near the old apple tree without intending to stop, when a weird, doleful scream startled me and made me hastily look around. It was the respectable head of the Owl family just emerging from his door to begin his nightly hunt for mice and sparrows, and he was exercising the peculiar vocal powers which have gained him the common name of Screech Owl.

Perched just outside his doorway he was a sight to behold, puffed up to more than twice his natural size, every feather standing on end, his glaring goggle eyes dilated, he seemed, in the uncertain light to be almost as large as a turkey. Again he began that strange, wild scream, but in the middle of his cry he caught sight of me, and instantly the piercing "screech" was broken off and died away in a gurgling cluck. Drop-

ping his feathers and drawing himself down very small the apparently huge monster of a moment before became quite a little bird and retreated backwards into his hole, a ridiculously sudden change from ostentatious greatness to a humble wish to escape observation.

When the mother Owl had completed her set of four eggs she brooded upon them and hatched and reared a fine family of Owlets, disturbed, though not seriously distressed by my visits, and duly appreciative of occasional small presents of scrap meat.

I once knew some boys who kept a Screech Owl in a cage. Their father sometimes poisoned rabbits with strychnine to keep them from nibbling his young apple trees, and the boys would bring in the dead bunnies and feed them to the Owl. The bird would eat both flesh and fur in his peculiar, Owlish way, and, strange to say, was never injured by the poison.

The night cries of the Screech Owls, which I always listen to with delight, are very disagreeable to some people, yet no one ever harms the birds, for it is well known that they subsist mainly on mice and rats, yet there is another Owl which is heartily hated by most of his acquaintances. This is the Great Horned Owl, or Cat Owl, a large bird which is often called the Hoot Owl from its peculiar cry. This cry, very different from that of the little mottled Screech Owl, is not really "hoot!" but sounds more like "who-o-o-o!"

These large Owls not only destroy a great many Quails and wild Pigeons but are said to make frequent raids on badly closed hen-houses, and to show no mercy to the poultry which roosts in the trees near farm houses. It is probable that they deserve their evil reputation, and I regret to say that I have found them guilty of still another crime.

Rambling along the side of a wooded hill on the first of March I caught sight of a large rude nest near the top of a

great beech tree which stood on the opposite hillside and determined to examine it. Crossing the intervening hollow I had some difficulty in finding the right tree again, for the woods were thick and the site of the nest so well chosen that it was not visible from beneath. The tree when found was not hard to climb, for although it was very large its branches, as is usual with the beech, commenced near the ground and grew very close together so that climbing the tree was simply twisting back and forth and squeezing upward between the thick tangle of branches.

Near the top of the tree I found the nest, a rude structure of sticks and twigs clumsily put together, and lined with leaves grass and moss. Leaning over the nest to examine the three yellowish white eggs, which were fully two and one quarter inches in diameter, and, like those of all other owls, nearly spherical in shape. I inhaled an odor so strong and offensive that it almost knocked me off my branch. It was the odor of the common skunk, a very useful animal in spite of its dreadful smell, for it subsists on grasshoppers and other injurious insects, and also destroys mice. Its smell protects it from many of its foes but not from the Great Horned Owl, for the odor which clung to their nest seemed to indicate that the owner ate at least three full meals of skunk meat every day, or rather night, for night is the time of both Owls and skunks.

Ought I to destroy the nest and eggs of this devourer of skunks and suspected robber of hen roosts? I looked at the unhappy bird which had flown from her nest at my approach and saw her trying to hide in a thorn bush. The shrill scream of a Jay gave notice to the birds in the surrounding wood that their enemy was in distress and almost helpless in the glaring sunlight.

Flocking out from hazel thicket, hedge and tree top they surrounded their hated foe, piped, whistled and screamed,

and apparently called her all the bad names known in bird language. Skipping and circling about they drew closer and closer to her, growing bolder all the time as they found that in the light she was too awkward to defend herself. Darting forward the boldest Jay gave her a fierce peck and escaped before she could turn her head to strike. Others followed his example and the poor Owl, badly punished, uttered piteous cries of distress and struggled frantically, to hide from her tormentors among the dense clusters of last year's leaves which had caught in drifts in a thorn bush.

As I watched this unpleasant scene I remembered a story I had heard of a man who tied a captive Owl to a stake and hid near by to shoot the Jays and Crows that gathered to torment the common enemy. From what I had seen I was satisfied the Owl would make an excellent decoy.

The poor bird certainly had her faults, but she also had troubles of her own, and enemies enough without my joining them and molesting her farther, so I climbed down and left her eggs and foul smelling nest uninjured.

I did not visit the nest again, one smell being quite enough, but another time I was surprised at finding the nest of another Owl in an unexpected place.

During the previous spring I had watched a pair of Red-shouldered Hawks building their nest in the top of a large dead tree in the edge of a clearing. It was a curious family. The female would sit quietly on a branch, while her mate circled about, high overhead, screaming loudly all the time, and clearing away all other Hawks that ventured in sight, and only visiting her perch occasionally.

Their nest was a great rough bundle of dry sticks, enough apparently to fill a half bushel basket, and was, doubtless, lined with dry grass, for that was the only soft material which I ever saw them carry in their beaks. I was never

able to reach their nest, for the dead limbs were brittle and made climbing unsafe.

A few days after my discovery of the nest of the Great Horned Owl I chanced to think of the old Hawk's nest and wondered if my Red-shouldered family occupied the same residence this year. Approaching the tree I was surprised to find that the wild grape vines which the year before covered only the lower boughs had spread rapidly and clothed the whole top of the tree with a thick matting of slender, tangled branches making climbing comparatively safe and easy for a light man. I wore no coat and had nothing to remove but my shoes, and was soon ascending the largest vine hand over hand. As I approached the nest dry branches cracked ominously, and the vines, being of new growth, seemed thin and weak and I was obliged to proceed cautiously.

At length I reached the nest and found that although it had been built in an exposed situation, as if to give the owners a good view of the surrounding country and of approaching foes, it was now shaded and well hidden by the luxuriant growth of vines, which were just budding, for it was April 15th.

There were two eggs about as large as Hawk's eggs in the nest, but I saw, to my surprise, that they were not the eggs of a Hawk. They were globular in shape and almost pure white in color, while those of the Red-shouldered Hawk are oval, slightly pointed at one end, and are marked with blotches, lines and dottings of yellowish brown and slate color on a ground of yellowish white.

At that time I could not conjecture who the new owner of the old nest might be, but on my next visit I found the owner at home, and saw that she was a Barred Owl, a beautiful bird, as beauty goes among Owls, and a good mouse catcher who stays with us all winter, as indeed most of our Owls do.

One of the most attractive spots in my neighborhood is a steep cliff which overlooks the river, the highest point for miles around. A colony of Cliff Swallows have for years held possession of its steeply sloping face and have honeycombed the hard sand with their burrows.

It is a curious sight to see these delicate, dainty looking little birds toiling away and pecking at the stubborn bank, like Woodpeckers beating on an old tree. They would dig a hole eighteen inches or more deep and then widen out a cavity at the end in which to build a nest of soft grass and feathers. When watching them one summer skimming about over the river or across rich meadows, almost touching the waves or the grass with their airy wings, I would often catch sight of a larger bird hunting for food in a very different way.

This was a Belted Kingfisher sitting upon some convenient perch and keeping a sharp lookout for possible victims. When at length he would secure a good dinner he would return at once to the Swallows' cliff where he had a hole of his own, very much like theirs but larger and deeper to accommodate his greater size. Sometimes I would reach in after him, not to harm him, but merely to find out what kind of a house he occupied, and found that the hole wound around and around in the bank like a corkscrew and was apparently of interminable length.

The next summer I noticed that the Kingfisher frequented the same perches but avoided the cliff, having evidently changed his residence. Climbing up to the hole he had formerly occupied I reached in hand to find what the trouble was and had one of my fingers sharply nipped. Seizing my unexpected assailant I dragged him out and found that he was a Saw-whet Owl.

Was he a bold robber who had driven away the Kingfisher, the rightful owner

of the hole, or had he merely taken possession of the place after it had been deserted by its former tenant? I never knew.

Of one thing I am certain however, and that is that he never ate any of the other cliff dwellers for he could never have caught any of those active little fellows when on the wing, and he was far too large to enter their holes after them. Several times I found that he had been eating Chipmunks, or Ground Squirrels, as they are sometimes called.

Now the Chipmunk comes out of his burrow only in the daytime and the Owl hunts only by night. How then did this Owl catch his Chipmunks?

Perhaps he did not catch them alive, but occasionally found dead ones, or possibly they might have entered his burrow when egg hunting.

ANGUS GAINES,
Vincennes, Ind.

The Mountain Partridge in Captivity.

Having always been much interested in the beautiful little Mountain Partridge, I concluded, about three years since, that I could learn much more about them by having some of them in confinement.

I therefore obtained the help of a good carpenter and procured some 1x1 inch lumber nicely planed, of this he soon constructed a frame, 16 feet long, 4 feet wide and 4 feet in height, with supports of same material, about 5½ feet apart across top and bottom and up sides, that it might be firm and also light, so that it could be moved from one place to another, in order to have a fresh run for the birds, quite frequently.

Then there was a neat door frame made and hung in one end, then it was ready for covering, which we did by tacking 4-foot wide galvanized wire netting on sides, ends, top and door, leaving the bottom free.

I had this aviary set in the dooryard, where the grass was abundant; then I placed in one end of it some fir brush, a pan of dust, a supply of gravel and a small board shelter some two feet square with two sides sloping to the ground, the other sides being partially open and part of the bottom having a floor.

This shelter excludes the sunshine and heat of summer letting the air pass through freely, also keeping the rain, snow and cold winds of winter from disturbing them.

I have found that they cannot stand great exposure either to the hot sun or from excessive cold rains, for it is their habit to seek shelter from these when wild.

Having my aviary ready I now proceeded to secure my birds, which proved no difficult task, they being quite plentiful in my locality, and knowing their habits and the places which they frequented, I proceeded to set some small box traps, and soon had quite a number.

This was in the fall, at which time or in the winter, they are much easier caught, as they are then in bands and also many of them are then young; the young being not only more easily taught, but also much easier tamed.

In the first place I placed about a dozen birds in the aviary, which were healthy and happy; but in the breeding time, although they made several nests and laid eggs, they had no opportunity to hatch them, as their curiosity was so great that each of the flock, both male and female, would examine every new laid egg and roll it over and over and disturb it, till it could not possibly hatch. Some three or four laid in one nest, while only one laid in another.

I gave a pair to a friend near Newberg last spring. The hen laid fourteen eggs, set on them and hatched every one.

They did nicely for some time, run-

ning in and out of the aviary, until one day the family discovered that a domestic fowl was devouring one of them. On examination it was found that this was not the first, but the last of the fourteen, which had all gone the same way.

The Mountain Partridge is an elegant bird, about 12 inches in length, much larger and more beautiful than the Bobwhite. They are found in Oregon, Nevada and California. The plumes on the head of this Partridge are usually about three or four inches in length, but the plumes of one I had in my aviary were 5½ inches which is an unusual length.

The general color of adult, male and female alike, is slate and olive, marked along sides, inner secondaries of wings, and sides of the neck, with white.

The Mountain Partridge become quite tame if they are much in the company of anyone, and show quite a difference if it is a stranger, instead of one of the family, that goes near them.

I have had them so tame that I could go in the aviary and they would come to me and eat out of my hand and light on different parts of my body. The ones I have at present are not so tame as I have not been about them so much.

I have learned that the Partridge does not feed at any and all times but mostly in the early morning and late in the day.

A change of food is much appreciated by them, not only a change of grain, but apples, lettuce, bread and even watermelon is quite acceptable to their bill of fare.

At pairing time the males are quite given to fighting, not only those in confinement, but their mating call brings outsiders.

Sometimes there were three or four males around the aviary, doing their best to get in, and also trying to fight those inside through the wires. At such times they get so angry that they

lose their fear to such an extent that they pay but little attention to lookers on, and I have sometimes seen them strut after the manner of the Turkey gobbler. They become mated and ready to nest much sooner, if an even number of males and females are confined in the enclosure. When ready to nest a place is selected under the brush or in the tallest of the grass, where they scratch out a hollow and line it scantily with withered grass and leaves.

The number of eggs varies from 6 to 16, and are mostly of a reddish cream color, unmarked, but a few that were laid by my pets were speckled, all but one, with a deeper red color, and this one quite profusely with fine white dots.

Although the Mountain Partridge is so gentle in appearance and generally so in disposition, they at times are quite vicious.

I noticed at various times last spring when the little domestic chicks entered the aviary they were sure to get a sound pecking for their trouble, and if they failed to get out in pretty quick time they would be followed by the Partridge and pecked on the head until lifeless. Strange Partridges placed in the aviary were treated in a like manner, especially if young ones. I have had a young male Ring Pheasant in the aviary with them for about three months. Toward him they acted quite different. For a while they paid no attention at all to him, but now seem on the best of terms. I find great pleasure in studying the habits of the little creatures; and the care of them is as nothing, compared with the amusement and entertainment they afford. I, at one time, liberated quite a number that I had had in confinement for some time. Some of them left immediately and never returned, while some staid around the yard for a long time and tried to get in the aviary again. One was so tame that it would come to me

and continued to do so until caught by a cat.

The ones I have at the present time, a pair, have been in captivity about two years and are in excellent condition with good appetites and plumage at its brightest and best.

ELLIS F. HADLEY,
Dayton, Oregon.

Notes on Nidification of the White-breasted Nuthatch.

On April 5th of this year it was my good fortune to discover a pair of White-breasted Nuthatches, *Sitta carolinensis*, LATH., in the very midst of the activities of nest building. It was in sugar making time and I was engaged in those duties of sweetness for which those little shanties scattered about in maple woods like so many Thurau huts are set apart as sacred. The knot-hole was up a ruin beech some 30 feet, which tree stood about 60 feet from the house.

From time to time I left my work to keep a chair down around back and watch the birds through a telescope which I had fixed on a tripod. The female was collecting bark from a sugar-tree not twenty feet from the prospective nest tree, when I first noticed her. She pecked off bits of bark working very assiduously. For some time she loosened and disposed of one piece a minute, with but very little variation. The pieces were half an inch square, frequently much larger, just as they happened to come off.

In the morning, it was 10:30 or thereabouts when I first observed her, she was laboring alone; but in the afternoon the male helped and work went on very rapidly. They sometimes brought bits of moss or lichen, I could not tell which, stopping to strike it from side to side against the bark, either to dust it or fray and soften it. The female did most of the work how-

ever, the male only working by spasms and haphazard.

I could quite readily tell Mrs. Nuthatch by her superior activity; she also had a blue feather on her shoulder broken so that it was ruffled up—evidently a tare caused by her house-wifely efforts. She was the busiest little bird you ever saw. For a time Mr. Nuthatch collected the bark while his wife bustled back and forth from him to the hole and from the hole to him again. He kept her incessantly at it. I could hear him “acking” away and hammering at a distance, coming out after having disposed of a fragment Mrs. would wait till he called her looking quickly and gracefully here and there like a perfect little bird coquette, and then dart off.

By and by he seemed to get ahead of her, for they both brought bark and lichen—though little of the latter. Though what they wanted with so much bark I do not know. This was the first time I ever had the opportunity to study the nidification of this bird. Whether it is a common practice or not I do not remember reading of it.

When he came with his load he was in and out again in a twinkle, evidently throwing it down for her to dispose of when she arrived; and I suspicioned he was not very choice in his selection of material—poor fellow he had never studied the practical and artistically mechanical side of matrimony—the fabrication of the all-important cradle. Once I noticed he had a large piece of curled bark taken from some dead limb. Mrs. Nuthatch happened to be inside when he went in with it, and she sent him out with it in a hurry. “Do you think I want such a rough thing as that? A piece of bark that will stick up in spite of all I can do—an inconvenience to myself and a painful thing to the young ones. Take it right out again.”

It was interesting to notice that these

birds collected their material from the live trees, pecking away so violently that I thought they would each end with a violent headache. There was plenty of fallen bark and bits of all kinds on the ground. Why all this unnecessary work? Probably they wanted only material which was clean and dry, knowing that a nest in a hole in a tree becomes damp and ill-smelling soon enough. Then the large majority of birds are neat and clean by nature—their lately built nests looking like “brand-new” baskets—never being made of second grade material.

Once the male flew to the tree with some delicate morsel, made a soft, sweet, cooing sound, whereupon Mrs. Nuthatch came out and received it out of his bill. The way they treated each other was pleasant to see. One might almost say to some people: “Go to the Nuthatches thou unlovely one.”

It was surprising how much bark they gathered and how the work still went on even into twilight. The male quit work before sunset however—showing which side of the labor question had his sympathy.

How well Mrs. Nuthatch was acquainted with the trees about, was proven by the directness with which she flew to the tree when she had just culled some material for her nest—straight to the nest in and out again and straight to the tree with scarcely a pause.

I visited the nest three days later. The pair were laboring industriously as ever. When I visited the place again on April 11th all was quiet, save my Lord Nuthatch, who was calling away in the woods after his peculiar manner—that contented call as of a bird with its mouth full.

Nidification was evidently over at last. Did the birds have to fill up a cavity before building the nest or was the nest composed almost entirely of bark? When I went that way on the

eighth they were still collecting bark.

After sufficient time had elapsed for the full setting of eggs to have been laid I went out to obtain the eggs if possible. The bark was rotten so that it fell off when I struck it with my climbing irons. When I reached the hole, which was in a bulging knot and led to the interior of a cavity of some dimensions, I very soon found the set was not destined for my cabinet. The nest was visible, but the part which contained the eggs was around out of sight. The tree was too large and thick and the position of the hole made it too great a piece of work to chop or saw.

So I climbed down; glad after all in the poetic region of my mind that the collector side had failed. For if ever industry and patience on the part of birds deserved to reap the reward I thought my Nuthatches did.

ERNEST W. VICKERS.

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 To All Michigan Observers.
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In the April OÖLOGIST, and also in the NATURAL SCIENCE NEWS, reference was made to the formation of our Michigan Academy of Sciences, and an invitation extended to those disposed to join.

Many responded to the request for observations on our State Birds, and we are promised aid from all quarters of the State, though of the many observers in Michigan, a number have not complied by letter, as yet.

It is now time to begin observations, and the following suggestions are offered to those who wish to gather Michigan notes, and materials for the “M. A. S.”

General observations on arrivals and departures are solicited and which are to be kept after the manner of the observations for the Government Department at Washington. But in addition to general notes, it has been suggested that a special family should be studied in a thorough manner. After delibera-

tion it has been decided to give our principal attention to the Warblers.

There are thirty-six species of warblers known in Michigan, and one variety. The listing of the Yellow-throated Warbler, *Dendroica dominica* (L.) in Cook's Birds of Michigan, 1893, was an error.

Of these representatives of a most interesting family, twenty-eight are common and well known to all advanced collectors, and twenty two are abundant. Twenty-one are known to breed in the state, and the nesting habits of seven are known to nearly all observers. Four species are stragglers only. Seven or more are locally distributed, and not found in many sections. Five are thought to pass north of our boundaries to nest. Seven are known to remain in the state in summer, yet are not known to breed.

Notes should be taken at each station as follow:

1. Date of arrival of first male and female. Date when common. Date at which last specimen of those who pass north was seen. List of summer sojourners.

2. Date of first song. Description of songs and call notes, expressed in syllables. Preferred time of singing. Date of cessation of song.

3. Date of earliest nest building. Date of completion. Complete description of nest; dimensions; exact situation; with name of tree or bush, description of locality, wood, or field, marsh or highland. Full notes on material of nest structure, outside, inside and lining. Weight of nest (*avordupois*.)

4. Date of first egg deposited. Date Position of the first full set. Position of the eggs. Number of the eggs. Date of hatching of brood. Take careful note of date of deposition of egg of Cowbird, and length of period of incubation of Warbler and Cowbird.

5. Date when young leave the nest, with special mention of the time when the young Cowbird leaves.

6. Habits of old bird during incubation and care of young. Food of the young. Food of the old birds.

7. Description of eggs.

8. Date of departure, with remarks on changed appearance from moulting. Date of appearance of northern transients.

9. Other notes which will be suggested to thoughtful observers by the birds.

These observations, if generally and systematically taken, will secure to us a better understanding of the Warblers of Michigan than has been our fortune thus far. This State has not received the attention from thorough workers which its interesting avi-fauna would seem to invite, and no concerted systematic work has ever been accomplished.

Systematic observations cannot fail to be of interest to each worker in a locality, while the value of a compilation of these notes will be of the greatest assistance in future research. To those who wish to study other families or groups of birds, and to all collectors of skins and eggs, we would say that the Academy will be pleased to receive your observations, as well as specimens which you may wish to offer.

Michigan Academy of Sciences,

MORRIS GIBBS, M. D.,

Department of Ornithology,

Kalamazoo,

Michigan.

[These suggestions are so good, that we cannot do better than to advise collectors of other states to follow them in concerted action and later secure compilation of the season's efforts. It is only by this means that our best work is accomplished.—*Ed.*]

In September will be solemnized the wedding of Dr. R. W. Shufeldt to Miss Florence Audubon, a daughter of John Woodhouse Audubon, the second son of J. J. Audubon, the famous author of the "Birds of America." May the wedding, so happily appropriate, be ever appropriately happy!—*Nidologist*.

THE OÖLOGIST.

A Monthly Magazine Devoted to
OÖLOGY AND ORNITHOLOGY.

FRANK H. LATTIN, Editor and Publisher.
ALBION, N. Y.

Correspondence and Items of Interest to the student of Birds, their Nests and Eggs, solicited from all.

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You Are a Judge.

Your decision must be mailed us not later than the *twelfth* day of June. Write on back of a postal card the five articles which you have decided to be the *most valuable, instructive and interesting* in this number of Oölogist and mail to us. Number the articles in the order which you think the prizes should be awarded.

During 1895 the Judges prize will be awarded as follows, viz: Each month it will consist of \$6 in specimens or \$4.50 in instruments, supplies or publications or \$3 cash. This prize will be awarded to the Judge who names the winning articles and in their *exact* order. In case more than one Judge names them correctly this prize will be equally divided among the number.

In accordance with the logic of a contemporary the only *fair* way to decide a question upon which *you* are right is to submit it to your opponents attorney and abide by his decision.

If you have not learned "What Has Become of the Bluebird" you should read the late issues of NATURAL SCIENCE NEWS.

There is a bare possibility of making the next issue of the Oölogist a "Souvenir Edition"—if you wish to "catch" it send in your advs. as early as possible. Forms will close on June 10th, at latest.

The *Nidologist* for April and May are by far the best numbers issued to date—we are inclined to give the April issue the "bakery," however—although the May issue is of special interest to oölogists. All friends of the "Nid." will be delighted to learn that Bro. Taylor has secured Dr. R. W. Shufeldt as an associate. In announcing this truly great acquisition, by the way of a collaborator, the Ed. of the "Nid." aptly remarks:

It would be an impertinence to formally introduce Dr. Shufeldt to our subscribers, for as one of the *founders* of the American Ornithologists' Union, and in years of active scientific investigation in Ornithology, as well as in many other fields, his name and works are known and felt not alone in America, but the world over

—To which we might add the fact that Dr. Shufeldt is also one of the foremost writers on matters relating to Ornithology from a popular-scientific standpoint of the day, and in this manner is unquestionably doing as much, if not more, to popularize Ornithology than any other living American Ornithologist.

Important to Illinois Ornithologists.

A bill has been introduced in the house which will be hard on the Ornithologists and Oologist if it passes as it now stands.

It is a proposed game law and may pass as the sportsmen and game wardens are working hard for it. According to a daily Chicago paper, one clause says that a person shall be fined \$10 for each bird or nest he takes. A license to collect birds, or eggs, costs \$20 and unless a person has a license he is liable to be fined. Why the fee was made such an unreasonable amount, I cannot understand unless the pinch be that the collectors will be unable to take out a license and can be fined heavily for any birds, or nests they may have with them. The list of birds, which cannot be collected without a license, will cover about all the birds in the state and one or two that are not found on this side of the Atlantic as Bullfinch, Canary and Linnet. Let every collector in Illinois write to his representative in the House at Springfield, and ask that this part of the bill be changed, so the license will be given free or on payment of a small sum, as fifty cents, upon the person proving that he is collecting for a strictly scientific collection.

I do not believe the sportsmen of the state will object, although the game wardens may, if this part is changed, for it was evidently made to fill the pocketbooks of the game wardens. If it passes, collecting without a license can not be done very well without detection, for the game wardens are making a large number of arrests now for shooting game out of season, and for shooting small birds for fun. Write *at once* or the bill may pass, and we are lost. Don't delay a minute.

JAMES O'DUNN,

Chicago, May 12, '95.

MARCH CONTEST.

Sixty-six Judges.

1. An Unusual Nest Site of the Phoebe, 268.
2. Birds Who Sing on the Wing, 200.
3. The Vireos Found Nesting near Berwyn, Chester Co., Pa., 164.
4. Breeding Time of Our Birds in the Extreme Part of Western New York, 149.
5. Birds and Storms, 109.

Two of the Judges, H. Gould Welborn, Lexington, N. C., and Albert H. Wallace, Montclair, N. J., named the winning articles in their *exact* order. Hence in accordance with the plan given in the Feb. OÖLOGIST (page 40) the Judges prize was equally divided between these two gentleman. As an item of interest, we might also add that Mr. Wallace named "Winter Birds of Linn County, Oregon" as a sixth article—which was the correct one.

All prizes were mailed on April 18th.

APRIL CONTEST.

Forty Judges.

1. Norway's Bird Islands, 170.
2. The Last Portrait of Audubon, Together with a Letter to His Son, 152.
3. Notes on the Blackburnian Warbler, 111.
4. Standard Datas, 81.
5. My First Find of 1895, 44.

Two of the Judges, N. Hollister, Delevan, Wis., and C. R. Stockard, Columbus, Miss., named the winning articles in their *exact* order and between them the Judges prize was equally divided.

In the April OÖLOGIST a number of the Judges seemed to question whether they should vote on *all* of the articles or whether two or three of three of them were barred from the contest or not. Had we informed them to vote on *all* the result might have differed slightly from the verdict rendered.

The second Mss., prize we expect to send Dr. Shufeldt "in September" scientifically labeled—"Compliments of the Readers of the OÖLOGIST,"—all other prizes were mailed on May 15th.

H EART DISEASE, like many other ailments when they have taken hold of the system, never gets better of its own accord, but **Constantly grows worse.** There are thousands who know they have a defective heart, but will not admit the fact. They don't want their friends to worry, and **Don't know what to take for it,** as they have been told time and again that heart disease was incurable. Such was the case of Mr. Silas Farley of Dyesville, Ohio who writes June 19, 1894, as follows:

"I had heart disease for 23 years, my heart hurting me almost continually. The first 15 years I doctored all the time, trying several physicians and remedies, until my last doctor told me it was only a



question of time as I could not be cured. I gradually grew worse, very weak, and completely discouraged, until I lived, propped half up in bed, because I **couldn't lie down** nor sit up. Thinking my time had come I told my family what I wanted done when I was

gone. But on the first day of March on the recommendation of Mrs. Fannie Jones, of Anderson, Ind., I commenced taking **Dr. Miles' New Cure for the Heart** and wonderful to tell, in ten days I was working at light work and on March 19 commenced framing a barn, which is heavy work, and I hav'nt lost a day since. I am 56 years old, 6 ft. 4½ inches and weigh 250lbs. **I believe I am fully cured,** and I am now only anxious that everyone shall know of your wonderful remedies."

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MAYNARD, CHAS. J. Manual of Taxidermy.....	1 25
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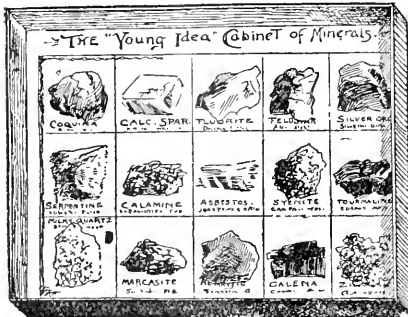
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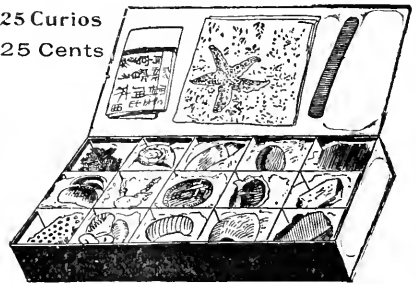


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THE
OÖLOGIST.
Monthly.

VOL. XII. NO. 6-7. ALBION, N. Y., JUNE-JULY, 1895. WHOLE NO. 116-117

Wants, Exchanges, and For Sales.

Brief special announcements, "Wants," "Exchanges," "For Sales," inserted in this department for 50¢ per 35 words. Notices over 35 words, charged at the rate of one cent per each additional word. No notice inserted for less than 50¢. Terms, cash with order.

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TO EXCHANGE.—Egg drill for every 15c in eggs sent (Lattin's list). Davie's Naturalist's Manual for sets, best offer. OTIS TROTTER, Hillsboro, Ill.

TO EXCHANGE.—Webster's Original Unabridged Dictionary, new, 9 by 11 in., 4 in thick, for Davie's Nests and Eggs, or offers of Natural History works. W. PAUL STORMONT, Sterling, Kans.

BIRD SKINS WANTED. I will exchange anything advertised in my catalogue or pay cash for such species of land birds as I can use. Complete list of species wanted for stamp. No postals answered. JAMES P. BABBITT, 10 Hodges Ave., Taunton, Mass.

I WANT a first-class pair of Opera Glasses (small size preferred). I will give in exchange the following first-class Hawks and Owls eggs with data. A. O. U., 33a, 339, 340, 371. Also a few eggs to exchange. All answered. J. K. AUMACK, Box 907, Ballston Spa, N. Y.

AROUND THE WORLD in Eighty Days, King Solomon's Mines, and, A Trip to the Moon. These three popular novels, all complete, will be sent postpaid, as long as they last for only 16 cents. Address, ACME PUB. CO. Austin, Texas.

DESIRABLE specimens, crystalized minerals, ornamental shells and Indian stone relics taken for back Nos. of papers for naturalists. See my ad. in another part of this paper. R. KRIETE, 406 E. Twelfth St., Kansas City, Mo.

CALIFORNIA A 1 sets to exchange for sets from other parts. Cones' Key and Photographice works. Rapture especially wanted. Many singles at ¾ rates for sets. H. R. PAINTON, College Park, Cala.

TO EXCHANGE.—A 3A 4a font of pica rubber type with four line holder and self-inking pad for \$4.00 in eggs in full sets with complete data. All kinds of rubber stamps to exchange for eggs. ARTHUR L. POPE, Sheridan, Ore.

OREGON EGGS For sale and exchange. Send stamp for list. ARTHUR L. POPE, Sheridan, Ore.

TO EXCHANGE.—6 numbers of "The White City," containing 24 plates each 14x17½ inches, cost \$1 20 for a large polished specimen of Petrified or Agatized Wood. THOS. C. HORNE, Dover St., Milwaukee, Wis.

CONE IN CONE.—A good specimen for two perfect Arrow Points, two good old cents, or for three foreign coins. Will exchange for curios. E. J. GARLOCK, 1602 20 St., Des Moines, Ia.

LOOK AT THIS!—Fla. Screech Owl, 15c; Fla. Blue Jay, 10c; Anhinga, 10c; Black Vulture, 25c; Fla. Bobwhite, 5c; Red-bellied Woodpecker, 8c. Also have many others equally cheap. Parties desiring fine, fresh sets at very low prices will do well to address F. C. ELLIOT, Tallahassee, Fla.

FOR SALE.—A human skull in good condition. Will sell it for best offer in cash. No exchange. HERBERT STERZING, Austin, Tex.

RATTLE SNAKE SKINS:—A few skins for sale at these prices, i. e. from 60c to 75c each; Snake rattles of from 25c to 40c per doz. Lignum Vitae beans 40c per lb., postpaid. VOLNEY M. BROWN, Campbellton, Tex.

FOR SALE.—A magnificent copy of Studer's "Birds of North America," colored plates, full morocco binding. Regular net price \$22.50, will sell for \$15. Slightly scratched on back, otherwise as good as new. Address FRANCIS R. COPE Jr., East Washington Lane, Germantown, Pa.

TO EXCHANGE.—A recipe for canning fruit without heating or sealing for \$1 worth of first class sets with data. W. A. STONG, Tulare, Cal.

NOTICE!—I will give a set of ¼ Cal. Screech Owl for a set of ¼ Am. Osprey. Also a few other sets. CLAUDE FYFE, 44 Minna St., San Francisco, Calif.

FOR SALE.—Florida curios, sea shells, Orchsids, air plants, Spanish moss. Over 500 sorts of fancy sea shells, made into jewelry, to sell or exchange for advertising space. W. M. COLLIER, Oceanus, Banana River, Fla.

WANTED:—Old U. S. or rare foreign postage stamps. I have duplicate sets of first-class rare and common bird eggs, books and journals on microscopy, histology, physiology, natural history, etc. Also 100 slides of named Diatoms mounted by H. L. Smith. Lists exchanged. HENRY FROEHLING Jr., Box 921, Richmond, Va.

CHOICE SETS of this year's collecting for sale at $\frac{1}{2}$ standard prices. Type and cuts wanted for sets. (F.D.) care of GEO. GRAHAM, P. O. Drawer C., Gainesville, Fla.

TO EXCHANGE.—U. S. Geological survey of Montana, Idaho, Wyoming and Utah, 2 vols., 1382 pages, illustrated; and Smithsonian Report for 1870, 538 pages, illustrated, for other works on natural science in any branch. B. S. BOWDISH, Phelps, N. Y.

MAGPIE. W. Robin. Black-headed Grosbeak in exchange for eastern species: Robin, Phoebe, Song Sparrow and other Fringillidae especially desired. Complete sets with data furnished and expected. P. L. JONES, Beulah, Colorado.

DURING the next 60 days I will send fine Indian Stone Tomahawk Pipes (both handle and head of stone), at \$2.50 apiece. They are of the finest workmanship, and lovely in color, being handsomely spotted, speckled and variegated; fancy carved all over. Guaranteed genuine pipestone and Indian work. GEO. W. DIXON, Watertown S. D.

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WANTED.—Parties having large and beautiful moths to exchange for first-class eggs in sets. Please correspond with C. STARK, No. 1 Sycamore St., Buffalo, N. Y.

FOR EXCHANGE.—Bird Nesting in North-west Canada (cloth bound) complete file of OÖLOGIST, Birds of Michigan, Bird Life in Labrador. Will exchange any or all of the above for first-class sets, also other sets to exchange for same. Address, PAUL P. MCGINTY, 120 Lumpkin St., Athens, Ga.

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EXCHANGE EXTRAORDINARY. A \$75.00 case of birds, in fine condition, for \$50.00 worth of new, galvanized, woven wire fencing or barbed wire. C. E. PLEAS, Clinton, Ark.

THEY ARE ALIVE. What? Those new Mexican Horned Toads I have for sale? They are clean, entirely harmless, easily domesticated, require little attention and are a rare curiosity in the northern states. Pair by express \$1.00; single specimen 75c. P. P. FODNA, Grand Island, Neb.

WILL GIVE good exchange for full original sets with complete datas of 331, 339, 360, 366. If you have any collected by yourself write me. H. C. HIGGINS, Cincinnati, N. Y.

FOR EXCHANGE.—Sets and singles of N. Carolina birds Eggs in exchange for sets not in my collection. Nests furnished when desired. Full data given and expected. JOE H. ARM-FIELD, Jamestown, N. C.

WANTED.—A lady's silver watch, new or good as new; Elgin or other good works. Can offer minerals and curios and perhaps some cash. Write W. S. ROOT, Albion, N. Y.

I WANT AT ONCE a few eggs of each N. W. Crow, Fla. Grackle, Plumbed and Scaled Partridge, Prairie Sharp-tailed Grouse, Sharp-shinned Hawk. Sets or singles, cash or exchange. Write quick. FRANK H. LATTIN, Albion, N. Y.

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\$.50 WORTH for nothing.—I will give \$1.50 worth of minerals, fossils or Indian Relics, well selected and labeled, postpaid for 17 6c Columbian Stamps unused. Send for price catalogue L. W. STILLWELL, Deadwood, S. D.

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WILL exchange by mail, first class medical advice with medicine, if desired, for natural history specimens, eggs preferred. Have also many medical journals for specimens. DR. E. F. GAMBLE, Union Mills, Indiana.

84 VARIETIES of 1st class eggs in sets and singles to exchange for sets with data. Enclose stamp for list. Lattin's Standard Catalogue basis of exchange. CARRINGTON C. BACON, Imboden, Lawrence Co., Ark.

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TO EXCHANGE. New book, "Spanish Self-Taught" for Indian arrow or Spear heads, or other relics, with locality.—HARRY SPALDING, Campaign, Ills.

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Send 15c stamps and you will receive my new **Normal Catalogue** of all European-palaearctic bird eggs, in over 600 numbers, with prices and number of sets for each species. Send \$5 bill by registered letter and you will receive, by return steamer, a fine collection of **European Birds Eggs**, including *Falco tinunculus*, etc., etc.

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Discount on Eggs are the same as in "Lattin's June Bulletin," viz:

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Western Grebe 1-4.....	\$ 50	Hairy Woodpecker 1-5.....	50	Violet-green Swallow 1-5.....	40
Loon.....	1 50	Downy Woodpecker 1-5.....	20	Cedar Waxwing 1-4.....	10
Murre 1-1.....	20	Baird's Woodpecker 1-5.....	1 00	White-rumped Shrike 1-7.....	08
Razor-billed Auk 1-1.....	25	Red-headed Woodpecker 1-5.....	08	Red-eyed Vireo 1-3.....	10
American Herring Gull 1-3.....	20	Golden-fr'ted Woodp'r 1-4.....	50	Yellow-thr'ted Vireo.....	25
Ring-billed Gull.....	30	Flicker 1-9.....	03	White eyed Vireo 1-4.....	15
Laughing Gull.....	20	Red-shafted Flicker 1-8.....	10	Bell's Vireo.....	15
Caspian Tern 1-3.....	50	Chuck-will's-widow.....	1 50	Least Vireo 1-3.....	75
Royal Tern.....	40	Texan Nighthawk 1-2.....	40	Worm-eating Warbler.....	75
Cabot's Tern.....	40	Chimney Swift 1-1.....	12	Yellow Warbler 1-4.....	05
Roseate Tern.....	15	Black-chinned Humming- bird n-2.....	50	Ch'tnut sided Warbler.....	15
Sooty Tern.....	25	Costa's Hummingbird n-2.....	75	Prairie Warbler 1-4.....	30
Bridled Tern 1-1.....	1 00	Anna's Hummingbird n-2.....	50	Louisiana W't'r-Thrush.....	50
Noddy Tern 1-1.....	50	Rufous Hummingbird n-2.....	75	Yellow-breasted Chat 1-4.....	08
Manx Shearwater.....	1 00	Scissor-ta'd Flycatcher.....	10	Long-tailed Chat.....	15
Double-crested Cormorant.....	25	Kingbird 1-3 1-4.....	03	Hooded Warbler 1-4.....	50
Farallone Cormorant 1-4.....	50	Cassin's Kingbird 1-4.....	25	Pileolated Warbler 1-4.....	75
Baird's Cormorant 1-3.....	25	Crested Flycatcher 1-5.....	12	American Redstart 1-4.....	15
Am. White Pelican.....	35	Ash-throated Flycatcher.....	25	White Wagtail.....	10
Calif. Brown Pelican 1-2.....	1 00	Phoebe.....	04	Mockingbird 1-5.....	03
Mallard.....	20	Say's Phoebe.....	15	Catbird 1-4.....	02
Blue-winged Teal.....	20	Black Phoebe.....	15	Brown Thrasher 1-5.....	02
Shoveller.....	30	Wood Pewee.....	12	Sennett's Thrasher 1-4.....	15
Pintail.....	30	Western Wood Pewee 1-3.....	20	Curve-billed Thrasher 1-4.....	15
Canvas-back.....	1 25	Western Flycatcher.....	20	California Thrasher 1-3.....	20
Am. Golden-eye.....	1 25	Little Flycatcher.....	25	Carolina Wren.....	10
American Eider.....	25	Least Flycatcher 1-4.....	15	Lonita Wren 1-5.....	75
Ruddy Duck.....	35	Prairie Horned Lark 1-4.....	15	Bewick's Wren 1-5.....	25
American Flamingo.....	1 00	Blue Jay 1-5.....	04	Baird's Wren 1-5.....	25
Roseate Spoonbill.....	1 00	Florida Blue Jay.....	20	Parkman's Wren 1 6.....	15
Wood ibis 1-4.....	1 00	Blue-fronted Jay.....	20	Long-b'd Marsh Wren.....	05
American Bittern 1-4.....	75	California Jay.....	25	White-br'ted Nuthatch 1-6.....	35
Least Bittern 1-4.....	20	American Crow 1-5.....	05	Brown-h'ded Nuthatch 1-5.....	25
Green Heron.....	12	Starling.....	10	Black-crested Titmouse.....	75
King Rail.....	20	Bobolink 1-5.....	25	Chickadee.....	12
Virginia Rail 1-9.....	20	Cowbird.....	03	Oregon Chickadee 1-7.....	35
Corn Crane 1-8.....	25	Red-winged Blackbird 1-4.....	01	California Chickadee 1.5.....	50
Purple Gallinule.....	25	Meadowlark 1-4.....	40	California Bush-Tit.....	12
Red Phalarope.....	1 50	Orchard Oriole.....	06	Blue-gray Gnatcatcher 1-5.....	20
Am. Woodcock (poor).....	75	Baltimore Oriole.....	05	Western Gnatcatcher 1-4.....	50
Bartramian Sandpiper 1-3.....	35	Hooded Oriole.....	1 4 50	Wood Thrush 1-4.....	06
Spotted Sandpiper.....	15	Bronzed Grackle 1-5.....	03	Wilson Thrush 1-4.....	12
Killdeer 1-4.....	20	Great-tailed Grackle 1-3.....	07	Russet-backed Thrush 1-5.....	15
Ring Plover.....	20	Boat-tailed Grackle 1-4.....	10	Hermit Thrush 1-4.....	30
Bob-white 1-12.....	10	Purple Finch 1-4.....	15	American Robin 1-4.....	03
Texan Bob-white.....	10	Chestnut-collared Long- spur 1-3.....	35	Bluebird 1-6.....	02
Mountain Partridge 1-10.....	75	McCown's Longspur.....	1 00	Mountain Bluebird.....	12
Chestnut-bellied Sca le d Partridge 1-10.....	35	Vesper Sparrow.....	05	English Sparrow 1-5.....	02
Valley Partridge 1-17.....	20	Savannah Sparrow 1-4.....	1 10		
Sooty Grouse 1-3.....	85	Grasshopper Sparrow 1-5.....	20		
Oregon Ruffed Grouse.....	40	Western Lark Sparrow.....	04		
Prairie Hen.....	20	Western Chipping Sparrow.....	03		
Prairie Sharped-ta ille d Grouse 1-11.....	50	Field Sparrow 1-4.....	03		
Chachalaca 1-3.....	75	Black-thr'ted Sparrow 1-1.....	35		
Red-billed Pigeon 1-2.....	1 00	Song Sparrow 1-5.....	02		
White-crowned Pigeon 1-2 1.....	03	Swamp Sparrow 1-4.....	12		
Mourning Dove 1-2.....	20	Texas Sparrow 1-4.....	50		
White-winged Dove 1-2.....	20	Towhee.....	10		
Mexican Ground Dove 1-2.....	50	Spurred Towhee.....	20		
Cooper's Hawk 1-5.....	30	Oregon Towhee 1-4.....	25		
Sharpshinned Hawk.....	1 00	California Towhee.....	10		
Harris's Hawk 1-3.....	60	Cardinal 1-3.....	05		
European Buzzard.....	35	Gray-tailed Cardinal.....	40		
Lapwing.....	15	Texan Cardinal 1-4.....	35		
W. Red-tailed Hawk.....	60	Rose-br'ted Grosbeak 1-4.....	10		
Red-shouldred Hawk 1-3.....	35	Black-h'ded Grosbeak 1-1.....	15		
Red-bellied Hawk 1-3.....	1 00	Indigo Bunting 1-4.....	08		
Am. Sparrow Hawk 1-5.....	20	Lazuli Bunting 1-4.....	20		
Short-eared Owl.....	1 50	Painted Bunting.....	10		
Florida Banded Owl.....	1 25	Sharpe's Seed-eater n-3.....	1 00		
Screech Owl 1-3.....	50	Lark Bunting 1-4.....	25		
California Screech Owl 1-2.....	50	Scarlet Tanager.....	25		
Groove-billed Ani.....	1 00	Summer Tanager 1-4.....	25		
Road-runner 1-5.....	25	Purple Martin 1-7.....	12		
Belted Kingfisher 1-6.....	20	Barn Swallow 1-5.....	05		

*FOREIGN EGGS.

Jay 1-5.....	12
Song Thrush.....	06
Yellow Bunting.....	05
White-throat.....	05
Garden Warbler 1-4.....	10
Pied Flycatcher n-4.....	15
Redpoll n-4.....	35
Bullfinch.....	10
Golden-cr'ned Knight n-2.....	15
Greenfinch.....	05
Redstart.....	10
Chil Bunting.....	20
Hedge Sparrow.....	10
Brambling.....	25
Siskin.....	1 00
Blackbird.....	10
Wren.....	10
Willow Warbler.....	10
Meadow Pipit.....	10
Tree Sparrow.....	10
Partridge.....	15
Mooren.....	10
Capercaillie.....	60
Pheasant.....	25
Mongolian Pheasant.....	35

Address ERNEST H. SHORT, Albion, N. Y.

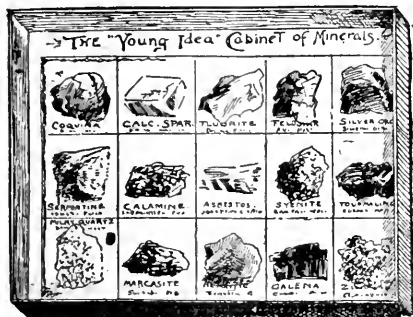
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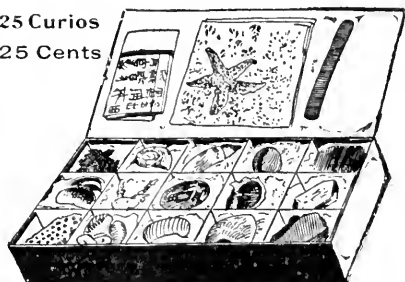
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Reliable Coin and Stamp Guide, 50 pages, giving prices paid for all U. S. and Foreign Coins and Stamps, 15c. Funny Chinese Chop Sticks, the knife, fork and spoon of the Chinamen Ebony wood, a foot long. 10c a pair. Chinese Cash Coins, 500 years old, 4 for 10c. Perfect Indian Arrow Heads, with locality, 4 for 25c, 6 for 35c, 65c per doz. Send 20 cents for Aluminum Hat Mark with engraved name. All postpaid. No, 1 no longer issue a catalogue.

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Contains Chinese Poker Chip, Chinese Napkin, Chinese Lottery Ticket, Star-fish, Giant Tree Bark Cal., Red Sea Bean, Alligator Tooth, 3 Yellow Wax Shells, Marine Algæ, Gypsum Crystals, Bloody Tooth Shell, Chinese Cash Coin, Flexible Coral, 3 Boat Shells, Egg of Periwinkle, Drab Sea Bean, Sunflower Coral, 3 Money Cowry Shells and Fossil Crinoid. All labeled name and locality and in partitioned box like cut. Sent postpaid for 25cts.

Collectors Attention!

As many have expressed their regret at not being able to avail themselves of the unprecedented offers in Mr. Lattin's "Special June Bulletin" on account of the short time allowed I have decided to extend the time through the month of July on everything therein, except on birds eggs and scientific shells of which a new list will be sent all applicants.

Remember, this offer absolutely expires Aug. 1st, and will not be extended. Orders under 50c must contain 5c extra for postage and packing.

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R-I-P-A-N-S

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I have on Exhibition and For Sale a
 \$200 Mineral Collection,
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These Collections are richly worth \$200 each, but I want to sell them and will sell at a BARGAIN.

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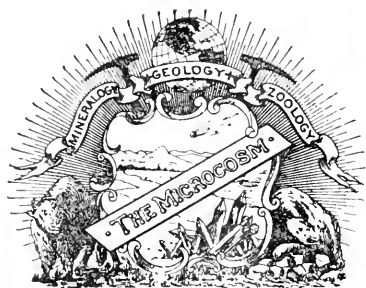
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- No. 10. Sanitary Tampons, for local female weakness, falling, leucorrhœa, apathy, etc., \$1.00.
- No. 11. Magnetic Cramp Tablets, for wind colic, cramps, "bowel complaints," painful periods, 50c.
- No. 12. Magnetic Cough Tablets, for coughs, colds, nervous headaches, neuralgia, fidgets, etc., 50c.

ALSO several original mechanical devices for SELF-CURE of Old Eyes (far-sight.) Croup, Phimo-sis, Rupture (pneumatic pads), Varicocele, Hemorrhoids, etc., and several Sanitary Soaps

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"Health Helps" containing "100 pointers" for common ailments.

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Exchange Extraordinary!

I want, at once, the following eggs, either set or singles - A. O. U. Nos.

All eggs must be strictly *first-class* in every particular. If they are not I will take out eggs to *five times* the actual cost of return postage for same and trouble, and return the balance.

This offer expires AUGUST 15th, and will not be repeated. Pack your eggs carefully and send to

ERNEST H. SHORT, ALBION, N. Y.

4, 6, 7, 13, 27, 29, 30, 30a, 32, 49, 53, 58, 59, 70, 71, 72, 74, 86, 106, 119 to 128, 132, 139, 140 to 159, 167, 172, 183, 184, 190, 194, 197, 199, 201, 225 to 272, 275, 278, 280, 281, 300, 305, 310, 320, 325 to 384, 393, 394, 416, 417, 420, 423, 428, 447, 448, 461, 464, 465, 478 to 487, 494, 497, 510, 515 to 539, 549, 597, 603, 608, 610, 611, 617, 620, 627, 628, 630 to 651, 653 to 681, 684 to 702, 706, 707, 710, 713, 719, 724, 727, 731, 751.

For these I will allow full rates (Latin's '93 Standard Catalogue) in exchange for the Specimens and Supplies mentioned below at the prices quoted. All others taken at 1/2 rates. For full sets with complete data I will allow 10 per cent extra.

No exchange of less than \$1.00 will be accepted unless 10 cents extra is enclosed for postage and packing.

I also want many foreign species. Write what you have and wish in exchange.

SUPPLIES.

Small egg drill.....	\$ 05
Medium egg drill.....	15
Large egg drill.....	20
White metal blowpipe.....	25
Nickle-plated embryo hook.....	25
6 checking lists.....	15
Bottle of cement.....	15

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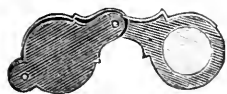
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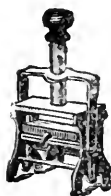
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Faithfully,

Frank H. Lattin,

Albion, N. Y., July 1, 1895.

THE OÖLOGIST.

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ALBION, N. Y., JUNE, 1895.

WHOLE NO. 116

In the Haunts of the White-tailed Kite.

What a flood of varied and pleasing memories does this bring to the mind of the writer, who, through a fortunate chain of circumstances has been permitted to spend considerable time during the present season in the localities favored by these beautiful birds. The handsome sets of eggs which help to form a part of a series of raptures, represent to the collector many long morning tramps through the woodland still sparkling with the dew of the early hours, and walks through clover-grown fields whence comes the fragrant odor of Nature's breathing,—everything seemingly in harmony with the nature of the gentle Kites.

Imagine if you can a field of waving grain dotted through out with the sturdy, beautiful live oak from which come the varied pleasing songs of the smaller birds and you have a typical home of the Kites. In this portion of the United States we have no handsomer representative of the raptures than the White-tailed Kite (*Elanus leucurus*) and though its flight ordinarily is not as that of the dashing Falcon, none can surpass it in point of elegance and beauty. When seen in the early morning hovering over the tree-tops or gracefully sailing about the fields, its black shoulders in contrast to its light mantle make it an object of admiration. I believe that this Kite is usually resident wherever found, remaining throughout the year near its nesting ground. Occasionally stray birds are met with in winter, skimming over the marshes where they presumably go in quest of food.

From personal observations and comparisons I believe that in the past ten

years this bird has decreased materially in this portion of California, partly through civilization encroaching upon its breeding grounds and again at the hand of the so called sportsman, to whom it falls an easy prey, as its flight ordinarily is even and quite moderate. That this bird is beneficial to the agriculturalist there can be no doubt for its food is made up almost entirely of lizards, field mice, gophers and other small rodents and occasionally a squirrel, though it is probable that they seldom attempt to prey on the latter owing to its size. Mr. H. Ward Carriger of Sonoma noted the body of a ground squirrel partly eaten lodged in the tree beneath a nest and as it was freshly killed it had no doubt been captured by one of the Kites. I have never had an opportunity to determine just how the young are fed, but a fact which I have noted in connection with several nests leads me to believe that the young birds disgorge the skin and other indigestible portions of their food. I have examined several old nests of the Kite in which young had been raised and in every instance they were strewn with small pellets resembling in appearance the shrunken remains of a small mouse, and as these were noted in all old nests I have attributed the fact to the young ejecting them as do the owls. I have never found these pellets in nests containing eggs.

The Kite searches for food in a manner very similar to the Sparrow Hawk, often hovering for some time over its prey before descending upon it. During the heat of the day they will sit for long intervals on some tree-top motionless and uttering not a note. This is especially so with the male when he is on guard duty, while his mate is in-

cubating the eggs. Upon the approach of a person to within several hundred yards of the tree containing the nest the male will leave his perch and utter a sharp whistling note, at which the female will sometimes leave the nest immediately and after a detour be noticed at some distance from the tree. But when incubation has begun the female sits very close and will remain on the nest until it is almost reached by the collector. Frequently I have visited a nest when the male lookout was not to be seen and were the nest not known, the presence of the birds would not be suspected. I think that ordinarily the Kite utters no note, but upon first alarm the birds will begin their low musical "whistle" which is continued while the nest is being inspected. The Western Meadowlark possesses a note very similar to the whistle of the Kite. It is uttered by the lark when it is about to take wing and has deceived me more than once for the call of the Kite.

The nesting dates vary from the early part of March through May, though the eggs laid in the latter month are doubtless second sets or at best late ones. The weather seems to have little effect upon their nest-building for an early set taken this year proves that the nest must have been constructed early in March at which time the weather was more or less rainy. Mr. Carriger has noted his earliest set as March 15, 1890 and the latest as May 17, 1891. The former consisted of three slightly incubated eggs and the latter of three fresh eggs, which were probably a second set.

The Kite seems to prefer the live oak as a nesting site and usually the nest is in the highest possible part of the tree and though it cannot be seen at a distance the bird while on her nest commands a view of the entire vicinity. On March 17th of this year I thought to visit my haunts of '94. A high south wind was blowing and a darkened sky

made prospects anything but propitious and as I entered the domains of *Elanus* after a long ride I watched diligently for the appearance of the birds among the trees. But the Kites came not and a search at random was necessary. Finally an old nest was discovered in a small oak about 15 feet up. As I had taken a set of three eggs from this pair of birds on April 19, 1894 I have no doubt but that this was their second nest. At the time of taking the set I attempted to remove the nest but owing to its loose construction I was unsuccessful. A few stray sticks remained to mark the site of the nest and when I went under the tree this year I was much surprised to discover a new nest placed in the identical spot as the one of '94. It was but the work of a moment to make the climb and four handsome eggs were found in the nest. As they were warm I concluded that incubation had begun and subsequently found the eggs to contain very slight embryos. This nest was situated 25 feet up in a live oak in the extreme top. It was about 12 inches in diameter with a depression of about 3 inches in the center. It was as usual composed of small oak twigs and lined with dry stubble from a field near by. The situation of the nest was such as would make an ideal summer home for the young Kites. There in the tree-top gently rocked by the zephyrs the nest commanded a view on all sides, with a sea of vari-colored tree tops of the budding oaks. I descended with the eggs in my hat and was some distance from the locality when a Kite flew rapidly by toward the nest. No doubt it was the female who after her morning exercise was to resume incubation. She hovered over the nest as if to alight, but discovering the loss she alighted on a white oak near by where she remained as long as I watched her. This set of eggs is one of the most evenly marked of any I have taken this year.

Two of the eggs are marked on the small end and one on the large end with large blotches of rich brown and chestnut while the fourth has heavy streaks of brown lengthwise over the entire egg giving a handsome effect and almost obscuring the back-ground. Mere descriptions are inadequate to properly convey an idea of the beauty of the eggs of this bird. The four eggs of this set measure as follows: 1.75x1.28, 1.72x1.25, 1.72x1.27 and 1.73x1.29 inches.

I was somewhat surprised at finding the Kite nesting at this date so a week later, March 24th, found me in the field bright and early in hopes of locating another pair. The country was favorable and after a short search I was rewarded with a last year's nest in a small live oak about 20 feet up. However no birds could be found. I had spent several hours in the locality and had given up hope and was searching for a Barn Owl's nest when a Kite's shadow passed along the ground and looking up I beheld a bird flying straight towards a cluster of oaks about half a mile away. Aroused with fresh enthusiasm I followed it and on approaching the place saw the bird sitting on the top of a lofty white oak 100 yards away. Taking this as a favorable indication I began a search of the numerous live oaks, making a detour of the field and taking in the more distant trees first. The Kite remained in the same position for almost half an hour when he flew to another live oak a short distance away. Finally upon going under a small black oak I was rewarded by seeing a dark mass among the foliage at the top, and feeling sure it was the coveted nest began the ascent. When half way up the female left noiselessly and a moment later I was in the tree top and to my delight saw five heavily marked eggs reposing in the nest. This nest was the largest and bulkiest I have seen of this species,

being about two feet across from the extreme edges. It was also much deeper than any nest thus far located. The lining was of long dry grass, apparently pulled up by the roots and the nest was liberally lined. One large tuft extended from the center of the nest to beyond the edge. Greatly to my surprise I found the eggs advanced in incubation, three of them being about to hatch. Allowing several days for the construction of the nest it will be seen that nest building must have begun the later part of February. After leaving the nest the female flew over and around me a few times and was presently joined by the male, both flying near and uttering a raspy, clacking note which I had never heard before. This no doubt was giving vent to their anger. Now and then the short, sharp whistle characteristic of the bird was uttered. Soon the female flew to an oak a short distance away and the male took up the battle in earnest. Soaring away perhaps 100 yards he came swiftly toward me almost on a level with my head until within about ten feet when he would switch upwards. Then he would soar up and swoop down at lightning speed, always changing his course before reaching me. The rush of his wings was plainly audible. Again he was joined by the female but after a few attacks both flew to near-by trees where they remained till I had departed. This is the only pair of birds which made an attack, and it was no doubt due to the advanced incubation of their eggs. The nest was about 20 feet from the ground and very easy of access. This set of eggs is of the common dark phase and all are evenly marked though they had lost their brilliancy. The average measurements of the set are 1.80x1.31.

Now we come to that portion of our story of which some of us may hardly approve, namely, the taking of second sets. After seriously considering the

matter as well as the vacancy in my cabinet I decided to yield to the temptation in case my birds should again deposit their eggs. On April 5th I visited my first nest and saw both birds resting on a tree a short distance away. I climbed to the nest and found three fresh eggs. Expecting a larger set I left them undisturbed. April 9th I returned and this time neither bird was to be seen. However as I climbed into the first crotch of the tree the female left the nest with a slight rustling of wings and did not appear during my stay. Upon reaching the nest I was rewarded with a set of *five* eggs. I had not expected such a number as a second set from a pair of birds which had laid but four at the first setting. The nest had not been added to before the second set was laid. This set of eggs shows remarkable variation, each egg being almost totally different from its mates. One is marked heavily about the large end, the second is evenly blotched throughout, a third is thinly marked with a bright reddish brown, the fourth is very peculiar being of a coffee color with a few dark marks lengthwise on one side while the fifth egg is pure white with a few small specks of brown at the small end. This white egg as also the bright red one were laid fourth and fifth in order. The measurements are 1.77x1.25, 1.79x1.26, 1.71x1.23, 1.76x1.26 and 1.80x1.25 from which it will be seen that the eggs average somewhat larger than those of the first set. Incubation had begun and 23 days had elapsed between the taking of the two sets.

My second pair of birds deserted their old nest and removed half a mile away to the place where they had nested in 1894. On April 13th I visited the locality and but one bird was observed sitting in a white oak. It quietly took wing on my approach alighting some distance away. After a short search I located a new nest which was placed in

the tree holding their '94 nest, but on the opposite side and about 20 feet from the ground. It was very shallow having been apparently hastily constructed and held three eggs, which I left. The parent bird showed no concern, remaining at a distance. On the 15th I again visited the spot and observed the female to leave the nest when I was some distance away. The male was not seen. The nest now held four eggs and incubation had evidently begun. Two of the eggs are of the usual dark, mottled phase, the third is entirely white with the exception of one small speck of brown at the small end while the fourth egg is the handsomest I have yet taken. On each side of this egg is a large bright reddish blotch, and they run together leaving only a little of the background visible near the large end. There are no dark markings of any kind. This handsome egg was laid last. The eggs of this set average 1.77x1.30, from which it is seen that they are a trifle smaller than those of the first set of these same birds. With these two instances it would seem that the stage of incubation of the birds' first sets did not cut any figure in the matter of time required to produce a second set. The first pair of birds having nearly fresh eggs the first time, had laid a second set of five in the same nest in 23 days while the second pair having badly incubated eggs, constructed a new nest and had laid four eggs in 23 days from the time of being robbed of their first clutch.

I am hoping that at least my first pair of birds will lay a third time in order that they may raise a brood for the season and shall make a visit to the locality soon to ascertain if they have done so. I am inclined to think that when the first two layings are taken early in the season that they will lay a third set and an instance cited by Mr. A. M. Ingersoll of San Diego tends to prove it. A set of two eggs, incuba-

tion commenced, was taken March 24, 1890, and a second set of five in which incubation was advanced was collected April 25, 1890. On visiting the nest a few weeks later Mr. Ingersoll found it occupied by a Long-eared Owl. The Kites were constructing a new nest in the top of a vine-covered willow but this nest also was appropriated by a Long-eared Owl and the Kites perseveringly began another nest but deserted it before completion owing to the place being turned into a picnic ground. From this it would seem that the birds intended laying a third time.

April 13th of this year I was successful in locating a third pair of Kites in a new locality. After a long search an old nest was found and almost immediately after a Kite appeared near by. A search of the next tree revealed a nest among the dense foliage in the top, and after a climb of 35 feet the nest revealed a set of four eggs in which incubation was about two-thirds advanced with the exception of one egg which was infertile. This latter egg was of a dirty white color unmarked, while the other three were evenly marked. Both birds remained at a distance and made no resistance. The nest was smaller than the average being 10 inches across and lined with dry stubble and Spanish moss with which were mixed a few feathers from the parent bird. This set of eggs is smaller and decidedly more round than any I have seen. They offer the following measurements: 1.66x1.29, 1.64x1.25, 1.71x1.30 and 1.66x1.31.

On May 5th I visited this nest again but it had not been used a second time and the birds were not to be seen. I have never found the Kite nesting in any but live oaks though they occasionally build in white oaks, sycamores and willows while Mr. Carriger records a nest placed in the topmost branch of a laurel tree where grape-vines intertwined.

C. BARLOW,
Santa Clara, Calif.

Hawk Notes From California.

Early one morning in the Spring of 1892 I boarded the train for a station in this county where I had heard there were nests of the Western Red-tail.

A more pleasant morning could not have been asked for. As the train whirled along, past orchards laden with clusters of fruit and the perfume of blossoms, I thought of other trips I had taken, and saw no reason why this should not be as successful.

Leaving the station I walked to a ravine and found one of the nests that had been described. It was on a slender limb near the top of a tall sycamore and was evidently a last year's nest which had not been repaired. I was not surprised at this as a man was plowing in his young orchard almost underneath the tree. Striking off into a side ravine and walking about a mile I came to another nest which appeared to be occupied. A Sharp-shinned Hawk dashed up frightening the Blackbirds and House Finches from the tree and perched in a wild walnut tree near by. Taking my rope I drew it over a limb with a string as a Desert Sparrowhawk flew out of one of the hollows, then driving some spikes into the trunk I climbed up about 30 feet, when in some way my foot slipped and not having a strong hold on the rope I started to slide down. Once started there was no stopping and I reached the ground with my clothes torn and a large part of the skin off my hands. If it had not been for the rope I should have fallen backwards on a stump at the foot of the tree and not be writing now. As it was I was too weak to stand up and had to lie down on the ground for some time. I then tried again but did not have enough strength left to reach the nest. Pinning my torn clothes as best I could I walked to the station and took the first train back.

On telling my friend H. about my

trip he decided to try his luck at the same place. So on April 12, '92 he did so with the result that he secured four sets of two, and one of three eggs, of the Western Red-tail, and five sets of the Desert Sparrow Hawk. None however from the nest I had so unsuccessfully tried to climb too, as he did not go far enough along the side stream to reach it. All the eggs he found on the main stream below where I had been, and he told me he might have secured still more if he had not come to a part of the stream fenced in, and containing a herd of wild looking cattle that he did not care to meet.

On March 28, '93 we both started for this place, but on buying our tickets found that the train would not stop at the desired station and we would have to get off at one about five miles this side, and walk to it collecting on the way. We carried out this program except that instead of walking directly from one station to the other, we walked south from the station, where we left the train, until the stream was reached, then up it to our usual station.

Soon after reaching the stream we found a large nest 60 feet up, near the end of a sycamore limb, and a bird's tail projecting over the edge. She was soon frightened off and seen to be a Western Red-tail. Flying over she lit on a lone sycamore in the field near by, from which a good view of our movements could be obtained. On climbing to the nest H. found it to be lined with dry grass, and to contain four very large dirty-white eggs, so advanced in incubation that later he found it very difficult to blow them. After lowering the eggs to me in a small canvas bag, he was soon on the ground, and as I had the entry made in my note book, and the eggs packed, we started off for lower down the stream to make sure we would leave nothing behind us before ascending it.

Finding a large nest in the top of an

immense sycamore H. climbed to it and found a lot of broken egg shells. No one had climbed the tree as there were no scars on it, so they were either broken by birds or by some one shooting into the nest.

Retracing our steps we were making our way up stream when I saw a nest in the top of a sycamore which could be seen over a hill around the base of which the stream curved. We heard some Hawks in a side canyon so I started to see if I could find their nest while H. climbed to this one. After walking over the hill I located the Hawks and had hardly done so when they sailed away and circled over the tree H. was climbing, showing that they were the owners of the nest. I then examined the trees in sight but could find no nests, so going back over the hill I called out to H. and asked how many eggs there were. He answered one, but on reaching him I found the bag contained four very large, unmarked eggs. He said that if he had told me there were four I would have hurried back without looking carefully for other nests.

We walked up stream some distance before coming to the next nest. It was 70 feet up in a very large sycamore, the highest of any, and was lined with dry grass and green sycamore leaves. The three prettily marked eggs it contained were soon packed away, and we were off once more. One of these eggs is almost the exact counterpart of an egg of the Imperial Eagle now in my collection.

Our next find was a nest in the top of a slender sycamore which leaned from the bank over the stream. After a hard and shakey climb, we found it to be lined with dry grass and feathers, containing two nicely marked, fresh eggs. Following up the stream we frightened an owl which disappeared around a bend so suddenly we did not see it well, but it was probably the Long-eared.

In one place the stream is quite deep and narrow as it flows between the rocky sides of the ravine. I was walking in front stepping from boulder to boulder and carrying the climbers, while H. carried the egg basket. Taking a step forward I paused, when H. thinking I would keep on, started to place his foot on the same boulder I was standing on. There was not room. He discovered it too late and not being able to regain his balance, took an unintentional seat, partly in the water and partly on a boulder, holding the basket of eggs above him. None were broken, and he was soon on his feet again, not very wet.

Close to this place is a small waterfall, so standing on the edge of the pool it makes, we enjoyed the cooling effect of the mist floating over us. About a mile further up we reached the side ravine and following it up came to the nest I had tried to climb to in '92. The Hawk flew off and joining its mate circled overhead. All the nests which we found during the day had the birds on except one. This one was where we secured the second set of four. The cloudy day may have caused them to remain at home. In all but one case the bird on being disturbed circled overhead. The exception was where we found the first set of four when the bird perched near by. The set was more badly incubated than the others and I think the bird had grown more sluggish from setting longer so did not circle around.

But to come back again to our last nest 65 or 70 feet up in a sycamore over a small stream. H. was soon up to it and lowered me the three eggs. They had a greenish tinge on the outside of the shell adding much to their appearance. It faded greatly after blowing and may possibly have been caused by the green oak leaves with which the nest was lined. In shape, texture of the shells, and lack of markings, they

greatly resemble a set of the European Buzzard now in my collection. Adding these Hawk's eggs to the ones already in the basket we now had sixteen all of the Western Red-tail and walking over to the station we took the train back to Los Angeles, very tired but pleased with our success.

In '94 we were unable to visit this collecting ground, but on March 27, '95 we did so, getting off at one station and walking to the other the same as before except that we reached the stream higher up the second time. We were approaching the stream when I saw a nest on the slender limb of a sycamore in a side canon. In crossing the main stream to go to it, H. looked up and saw another nest in the same place where we found the second set of four eggs in '93. Not much time being lost in getting up to it we found it deserted, overgrown with barley, composed of sticks, rubbish, a dead rat, and contained two eggs of the Western Horned Owl. One of the eggs had a very small puncture through the side of the shell but not through the inside skin, so the egg did not grow stale. The other had two punctures, was stale, and had been almost entirely eaten out by white worms. The day had been cloudy and a little rain had fallen, but now the rain came down in earnest and kept it up without an intermission for the remainder of the day and part of the night.

The other nest about 65 feet over a stream, now drew our attention, and as the Red-tail flew off our doubts about trying to climb to it vanished. Half way up against the tree trunk was an old Owl's nest. H. found it no easy matter to take the single egg from its bed of fibrous bark and green sycamore leaves for the small limb swayed under his weight, the birds circling overhead as he did so uttering their cry of alarm as usual. On blowing this egg which is now in my collection, it was found to contain a small embryo,

and is the largest Red-tail's egg which I have seen measuring 2.60 by 1.97 inches. After coming down from the tree we decided to go up on the side of the hill and investigate some dark objects which looked like nests and while H. was doing so I went down the main stream below where we had struck it to see if there were more nests. After walking about half an hour the same nest came in view from which we had taken the first set of four eggs in '93. On throwing a stone into the tree the bird flew out of the nest and lit in the tree near by. Although I walked some distance further down stream there were no more nests to be seen.

On returning to find H. he was nowhere to be seen and although I looked around the base of the tree where I thought to find him, could see no sign showing where he had gone. So starting over the hill whistling and calling but seeing nothing of him was about to return when I heard him call and going to the hill saw him coming towards me, at first I wondered what it was he had on which gave him such a droll appearance, looking like the head covering of a Bedoin of the desert, but a closer view showed that it was a potato sack, which by removing his hat and then putting it on over the edge of the sack it was held in place, shielding his back from the rain.

H. told me that the black objects on the hillside were knots in the trees, that he had found a new Hawk's nest with the bird on it but on climbing up discovered that no eggs had been deposited. He thought from the length of time I had been gone that I had already returned and gone up stream, so he did so himself until he came to a house where partly drying himself by the fire he secured his sack and left the climbing irons which he had been carrying, not as a deposit for the sack however. As it was he took a sandwich in his hand, another in his pocket,

and went back getting the climbers, when we both went to the nest I had located. The bird flew off perching in a tree near by as usual. Although the nest was near the end of the limb, H's. clothes soaked through, and the tree thoroughly wet and slippery, in thirteen minutes I was admiring the set of three eggs on the ground. Two of them are handsomely blotched with brown on the small ends, while the third is lightly marked with irregular lines at the larger end. The nest was lined with fibrous bark, green sycamore leaves and a partly eaten mouse. On unpacking the eggs at night I found that one of this set was piped, and it was only after drilling half inch holes in all three that I succeeded in removing the embryos, if they could be so called.

While on our way back up stream we came to some cattle, when H. proposed that we go up the bank and around so as not to meet them, but not fancying this additional labor I went through the fence toward them. Not hearing H. behind me I turned around and saw him watching to see what reception I would meet, before venturing in.

We kept on walking until coming to an overhanging rock, we crouched under it where we were protected from the rain and finished our lunch. Just before reaching the nest from which our last set of three eggs was taken in '93 we were surprised to see that there was not a trace of a nest. Having had enough of black objects on the hillside we did not stop to look after one nearly two miles off, but started for the station near by. H. discarding his sack as it had become soaked through; we looked badly enough without it and had become as wet as possible. If the persons who saw us walking through the rain without protection thought us escaped lunatics, I think they were entitled to do so.

Results of the day as above: Four

Western Red-tail's eggs, two of the Western Horned Owl, and the resolve on the part of H. that he would never again go collecting when it looked like rain. I hope the readers of the OÖLOGIST have chosen fairer days for their trips this season.

M. L. WICKS, JR.,
Los Angeles, Cal.

The Prothonotary Warbler in Dry Weather.

The birds evidently have their seasons of hard times as well as more rational beings. For birds which seek the vicinity of water to rear their young and for species which haunt the sloughs and marshes, the prevalent dry weather has meant hard times and changes of living to agree with the new conditions. Many of the lake-swamps bordering the larger water-courses of the Mississippi Valley have not received their annual renewal of water, and hence the breeding area of many of the water birds has been materially reduced. The large regions of swamp woods, overgrown with the willows and water-soaked stubs which afford nesting sites for the Warbler whose name heads this paper, were submerged or overflowed only for a few days in the early spring or else not even covered by the low stage of water. The Swamp Warbler has hence found the present season one of different conditions than its normal habits are accustomed to, and in our study of this species this year, we are given an opportunity to know something of this Warbler in dry weather.

When the Prothonotary Warblers made their regular migration up the great waterway where they are found in such profusion, and spread out along the smaller tributaries to find summer residences wherever the conditions were favorable and their fancy led them, they doubtless found the willow grounds high and dry at the time of their arrival. The dead and rotten

stubs which usually were damp and water-soaked by the stagnant overflow in which they commonly stood, were now dry, and the moss which the birds love to pull green and damp from the water-logged bark, was now blackened and dry as tow.

It appeared to me that this lack of standing water on the grounds frequented by this Warbler had a depressing effect on the well-known vivacity and bouyancy of spirits so much admired by those who have met the Prothonotary Warbler in its watery haunts.

The same old pugnacious disposition would manifest itself, though I was inclined to notice a less degree of fierceness than I had observed in the former mid-air battles over the green-scummed and moss-covered water. The old inquisitive spirit of curiosity was there also, yet I thought I could detect a sort of resigned air about the somewhat tardier movements of the birds as they visited the cavities they chanced to find in their wanderings.

Their songs rang out as clearly and as vibratory as in former seasons, yet to my ear there was the lack of that sweet sympathetic depth of feeling upwelling from the breast which finds everything congenial and is therefore perfectly contented.

In short there seems less of spontaneity of exuberant joyousness, of real happiness, and of that wonderful vivacity of manners which have ever characterized this Warbler, and the observer was led to feel that some chord was out of unison and that all was not right in the life which should be perfect sunshine and harmony.

Most writers and observers of the breeding habits of the Prothonotary Warbler agree that the usual nesting sites are in cavities situated in stumps and trees standing in water or so located that the nest is over water, or in the immediate vicinity of water. It was my fortune to examine about fifty-five nests

of this species in the latter half of May, and while the sites of all these nests were on the banks of river and fluvial lakes, no site found was in water or over water! All of these nests were in stubs and tree-trunks on the dry ridges between the river and the swamp lying alongside, in most cases on ground the Warblers had never seen overflowed this year, and in other instances as near as five feet to the edge of the water. Then the heights of the sites surprised me. From what I had read of the nesting habits of this species (I had never visited the haunts of this Warbler during the breeding period) I had inferred that most of the sites were very low, and so nearly of the same height that a rise of the water for a very few inches would destroy many nests. My notes, however, record only two nests below five feet from the ground, and in the majority of instances the sites were about nine feet from the ground, the actual heights being found and recorded in my notebook. The distances from the ground varied from four feet eight inches to fourteen feet. If the stub or trunk inclined, the cavity was always on the under side, this, however, being the work of the Downy Woodpecker or Chickadee which excavated the cavity.

Most of the nests were in recently excavated, unused cavities, begun by the builders in the preceding fall and finished during the winter and early spring. They were always in rotten wood, so decayed that the surrounding parts could be easily torn away with the fingers, though one nest, the one fourteen feet from the ground, could only be exposed by cutting away the wood with a hatchet. The cavities were usually made obliquely into the trunk, so that the nest was placed just within the bark or behind a thin layer of wood. The entrance was ordinarily a hole about one inch and a half in di-

ameter, its appearance suggesting a probable Chickadee's nest.

The usual depth of the cavity was between five and seven inches, the most of them being nearer the less number, and the cavities averaged about three inches in diameter, though the cavity was commonly longer than wide, three and a half by two and a half being the usual measurements. Very few nests were found in cavities having rough or irregular or broken entrances, the small subcircular entrance above described being the favorite in the regions we visited. In one instance, while the entrance to the cavity was unimpaired, the cavity was so split that the bird sitting on her eggs could be plainly seen as I approached the nest.

In another instance, the bird had built her nest in the upper part of a long slit in the stump, the nest being held in place by irregularities on the inside and there being nothing to hide the structure from observation. With these two exceptions, the sites were all as above described, though some writers state that the rough and irregular cavities are the favored nesting sites.

It is especially in its nidification that the dry season most affects this Warbler. Their nests have been praised for their beauty, and I confess that I was disappointed when I tore open the cavity containing the first nest of this Warbler I had ever found, and saw only a flimsy affair of dark and dried material. The prettiest part of the nests, was the foundation, which was ordinarily composed of small pieces of dark green tree-moss, varying to a thickness not exceeding two inches, depending on the size of the cavity. On this moss was laid a layer of fibrous roots, skeleton leaves, dried leaves and weed-stems, averaging less than an inch in thickness. The nest was finished with fine dried grass and a few horsehairs. In some instances the moss was almost entirely lacking, and in

other cases the intermediate layer was very scanty, but such was the typical nest, with few variations to show individual taste. Very few of the nests in position stood three inches high.

A single rap on the stub containing the nest will cause the bird, if she is within, to dart from the entrance and drop almost to the ground, where she flutters along with outspread tail, stopping now and then on a handy weedstalk or dead branch, softly twittering, with tail spread in fan-like fashion and slightly quivering wings. This is when she appears to best advantage, showing a white band near the tip of her steel-blue tail, and displaying the dark blue of her wings as she slightly lifts them while she softly twitters her protests at the spoilation of her home. Scarcely has she alighted, however, before another form darts along beside her, and both hop among the foliage and branches about our sides and above, both earnestly chirping and scolding at the intrusion we make so rudely upon their affairs. If we have despoiled the home, it is interesting (to us) to observe the actions of the pair at the ruin we have left behind us. The female will flit to the site of the nest and cling to the side of the ruin, gazing into the cavity for a time without word or comment, as though at a loss to know what has happened to her home. Then she will creep into the now enlarged cavity, make a tour of inspection, and after emerging, fly out to where the male is still chirping or perhaps now making the air vibrant with his notes. Perhaps another visit to the spot will be made, followed by the same curious looking into the cavity with the same appearance of wonderment, for I cannot call it sorrow, though doubtless there is sorrow in the breast of the outraged Warbler.

The eggs of this Warbler have been described too often for me to enter into details concerning them. As most

students of bird life well know, there is a great variation in both size and coloration, though there is a certain amount of resemblance in the eggs of any set which generally reveals their relationship. However, the eggs of any particular set frequently show wonderful degrees of difference, and different styles of markings will often be found in one complement, though as I have said, there is ordinarily only one style of markings running through the same complement. In one style of coloration the eggs appear to be miniatures of the eggs of the Towhee, having finer dots of light reddish brown rather evenly and scantily distributed, barely becoming more numerous at the larger end. Then there is the style of markings which causes the eggs to resemble the eggs of the House Wren on a larger plan, the small dots of reddish brown being so thickly distributed and so evenly that the eggs have nearly that color. There is also the regular Prothonotary style of markings, the ground of china white having large irregular blotches of cherry and walnut, with dark lilac shell marks, the first colors being so confluent at the larger end that they form comparatively large areas. These are handsome eggs, which cause the eyes of the oölogist to stand out in excusable exultation as he draws them toward him and carefully examines his treasures.

Then there is yet another class of coloration, eggs which have a ground like cream which has been poured over strawberries and become tinted with the color of the berries, with the large and confluent marks of the last described types,—these are the beauties which delight the eyes of us egg-cranks. When fresh, all these types have the ordinary rosy tinge of eggs of this class. As suggested, they are only types, and the eggs usually vary to show all possible gradations of one type into another.

On May 16, '95, the first complete sets of six eggs was found, and for the next ten days nests were found every day, though few fresh eggs were found after the 20th, and only heavily incubated eggs were found after May 23, some of these being small sets of three and even two eggs. Of the sets we took, there were twenty-three sets of six, eleven complete sets of five, five complete sets of four, six complete sets of three and in three nests we found young birds recently hatched. Dead, rotten willow stubs, from six to fifteen feet in height, afforded the nesting sites most in demand. The nests were all found near Havana, Ill.

P. M. SILLOWAY.

Breeding of the Prairie Horned Lark in N. E. Ohio.

On April 17th of this year I went up to examine a nest which my father had found the day before a little more than half a mile from home. It proved to be as I had concluded from the description of the birds that of the Prairie Horned Lark, *Otocoris alpestris praticola*, the first I had ever seen and probably the first recorded for north-eastern Ohio.

The day before the nest contained two young just hatched and one egg. When I visited it the remaining egg had hatched. The young were clad in a very long, fluffy, dark colored down which ran up the backs of their necks and on the tops of their heads, giving them a very quaint appearance.

This early hatching would bring the period of nidification, which must of necessity from the severity of the season and simplicity of the nest, into the second or third week in March at least. It is interesting to note in this connection the cold days which must have intervened between the time of nidification and hatching.

The following taken from my weather notes show to some extent the hardihood of this species.

March 20, +12°.

“ 21, +8°.

“ 27, +21°.

April 1, +28°.

“ 3, +8°.

“ 10, +29°.

“ 11, +20°.

On April 22d I visited the nest to note the progress; and was surprised by the growth of the nestlings. I scarcely recognized them. They were no longer the lean, lank, little oddities in slate colored down but plump little birdies pretty well thatched with yellowish-brown-gray feather-sprouts. They were asleep and the old birds were away when I began my visit. I made a squeak through my teeth and straightway three little heads shot up on their slender stems bursting open with an internal yellowness reminding me of so many suddenly bursted buttercup buds.

Upon April 24th I visited the nest again. The young had grown very fast. The tail feathers were a quarter of an inch long, dusky with cream-brown and white mottlings, which same coloration more or less strongly pervaded the entire plumage.

I am sure from examining these fledglings that it was a young Prairie Horned Lark which I found dead in April of 1894.

I took the young out of the nest. They tried to run off into the grass, showing considerable muscular development already. They made the clear shrill cry 'treep' in answer to the same cries of the distressed parents. The female in particular was worried, tumbling over the ground after the usual manner of birds using that ruse.

When I visited the nest on April 28, the young had left—as I think on foot, before they were able to fly. Possibly this is a characteristic of this species in

common with others which spend the great part of their time running over the ground.

Possibly the old birds worried by my frequent and prolonged visits were led to precipitate matters thereby. The young had only left the nest an hour or two I knew by the excrements which it contained.

Four days later I took possession of what effects the family had left—namely the very simple nest and its immediate surroundings—a little sod, a stunted tussock of grass and some bare ground—all carefully gotten out entire with a spade.

And here I must say we cannot be too careful in collecting nests, in our survey of the surrounding country, and in taking the nests to have with them as much of the immediate environments as possible. It is this which gives to our 'notes' and 'finds' the highest scientific value. To be sure, superfluities may be gathered sometimes, yet there is no science without minuteness and exactness, and moreover, by their cultivation we will become better seers, better hearers, better judges,—i. a short better observers—more highly qualified to perform any and all forms of scientific work.

This nest was composed of a small quantity of fine native pasture grass and the fine frost-lighted grass roots which lay all around—just such materials as were to be gathered together on the spot. No hairs nor anything in the lining. It was built with the top flush with the surface of the ground against the before-mentioned stunted grass-clump which protected its north-of-west side slightly. It was located on a slight southern and eastern slope in the midst of one of those pastures hundreds of acres in extent which are rather plentiful in this section of Ohio—a great grazing country, ere the cattle raising of the West ruined the business in the East.

The nest was $2\frac{1}{2}$ inches wide and $1\frac{1}{2}$ inches deep, the walls almost perpendicular, the bottom part a perfect cup in shape, altogether a peculiar type of nest one readily recognized anywhere, I should think, though so simple and coarse of workmanship.

In nesting in that old exposed pasture the birds exhibited their hardihood and farther, their love of barren and waste places, for they could easily have found sheltered locations in tall grasses along the borders of woods or in swamps and meadows.

The same day upon which I took the nest I heard the flight song of this species for the first time. Rev. J. H. Langille's description of it in "Our Birds in Their Haunts" is too exact and good to be improved on. The 'song' was certainly little more than the screeching of a wheelbarrow ungreased. I confess I was disappointed with it. I would have had it sing a very brave song. Something like Shelley's Skylark:

"Higher still, and higher

From the earth thou springest
Like a cloud of fire:

The blue deep thou wingest,

And slinging still dost soar, and staring
ever singest."

Yet so far as I have heard there is no voice like it in heaven; nor on earth under heaven. It was a new voice in my feathered choir of friends and welcome enough.

Had I been able to examine the eggs of this nest, I would feel that I had become fairly well acquainted with the leading facts in the life history of this species which was heretofore but a pleasing and interesting winter acquaintance met only amid the snows, frosts and frozen glories of that season, gracefully walking over drifts with its animated cry and graceful elegantly colored form painted against the snow, busy among such weeds as were not submerged.

In The Geological Survey of Ohio,

Vol. IV, Zoölogy and Botany, in the Report on the Birds of Ohio Dr. Wheaton records the Prairie Horned Lark as breeding near Cleveland, O.

This so far as I am aware is the only record of this species as an Ohio resident. The present locality, Ellsworth, Mahoning Co., is about fifty miles southeast of Cleveland.

ERNEST W. VICKERS.

The Mexican Raven in California.

The Mexican Raven, *Corvus corax sinuatus*, is similar to, although considerably larger than the common Crow and is plentiful throughout a certain portion of California.

While in the air it frequently sails around with its wings outspread, as smoothly and as silently as though suspended by some invisible cord. Its cry which it utters repeatedly while on the wing is much more guttural than that of the Crow, and closely resembles the croaking of a frog.

In June of 1892 while visiting friends in San Jacinto, Calif. I saw my first pair of these birds sailing a cliff on the hillside. In 1894 having removed to San Luis, Obispo County, Calif. I frequently saw these birds hovering around Morro Rock, a huge mass of stone rising almost perpendicularly out of the ocean to the height of several hundred feet and separated from the mainland by a narrow channel of water. One of the inhabitants of Morro told me he had frequently noticed the Ravens carrying large sticks to the rock. Here also nested several species of seabirds but I was compelled to relinquish all hope of obtaining eggs as the cliffs were practically inaccessible.

At Avila Beach about twenty miles from Morro on the high bluffs back of the ocean, there was a nest of sticks which one of the inhabitants of the town said had been occupied by a pair

of these birds the year before but no signs of the birds had been seen since.

In the fall of last year having removed to Whittier, Los Angeles County, Calif. I was glad to hear a rancher who owned a large corn-field say that a pair of Ravens frequently came down from the neighboring hills and feasted on his corn. I made up my mind on the spot that if Raven's eggs were to be obtained in the Puente Hills I would add some to my collection. One of the boys of Whittier told me one day in February that he knew of a nest of these birds which he and his companions had tried in vain to reach the year before. I prevailed upon him to take me to the cliff it was in and there sure enough in a small cavity near the center of the cliff which was about sixty feet in height, could be seen the outer edge of a large nest of sticks. The birds were nowhere in sight but on returning about a week later I saw one of them fly from a holly bush near by and alight on the cliff near the nest.

On the 14th of March I returned to the nest accompanied by a friend each of us carrying forty feet of stout rope. Having joined this together we made it secure to the root of a tree just above the nest. These cliffs are composed of dirt and loose rocks and the utmost care must be taken to prevent the rope from dislodging these and bringing them down about the ears of the person on the rope.

At first I attempted to ascend from the bottom but this proved too difficult and I at last gave it up. I then went to the top and climbed down the rope until I could sit in the entrance of the cavity where the nest was. There to my great joy I perceived five handsome eggs reclining snugly in their bed of sheep's wool. The nest was a very large structure made of sticks and measuring two feet and a half across and must have been occupied for several years. The cavity which measured

about a foot across was finely lined with wool left on the bushes by the sheep which graze on the hills in great numbers. The eggs were fresh and measured as follows: 2.09x1.37, 2.06x1.37, 2.04x1.35, 1.88x1.31, 1.80x1.31

They are a light bluish-green in ground color spotted and dashed with dark brown and olive. One egg was slightly jammed in the nest but was safely blown and the break would not be noticed. I now gathered up the rope and turned homeward well satisfied with my afternoon's work

On the morning of March 29th I visited the nest again accompanied by my brother. Finding nothing in it and observing that the wool was mostly torn out of the bottom I visited a neighboring cliff of about the same height from which I had seen the Ravens fly. There to my surprise about 20 feet from the bottom of the cliff was a nest containing four slightly incubated eggs. The nest and eggs were similar to the first ones although the nest was smaller. The eggs measure 2.04x1.36, 2.01x1.34, 1.94x1.32, 1.91x1.30.

On April 18th I again visited the old nest from which I took six slightly incubated eggs one of which was considerably smaller than the others and more lightly marked. They measured 2.05x1.30, 2.04x1.33, 2.03x1.31, 1.99x1.31, 1.95x1.29, 1.75x1.10.

In each instance while descending to the nest the Ravens after sailing around and croaking for a short time left the vicinity of the nest and did not return. I hope to obtain still another set of eggs from one of the nests this season, although I think the Ravens have done comparatively well for one pair of birds.

GEO. WILLETT, JR.,

Whittier, Calif.

On Collecting and Preparing Nests.

Not much attention is taken of this very important branch of the science

which the OÖLOGIST faithfully represents. My aim in writing this is not to treat fully of nest-collecting, but only to give "a starter" and at the same time to give a few ideas which I have picked up from time to time.

In the preparation of nests few tools are necessary. A good outfit is several spools of strong black thread and about a dozen needles varying in length from a half to two and a half feet. These can be easily made from strong steel wire, cut into the proper lengths, heated on one end, pounded flat and then a nail hole punched in the end of each. It is also absolutely necessary to have a good supply of poison on hand. A good one is soap strongly impregnated with arsenic. When used it should be cut off into fine shavings. Quite a number of small camphor balls are also handy.

Different sorts of nests require different treatment. Let us begin with the easiest. But first allow me to say to always take a nest if possible, with its support. Now to return to the subject in hand.

Well woven and compact nests like those of the Goldfinch, Blue-gray Gnatcatcher, etc., require only to be well disinfected.

Nests built of mud interwoven with straw as Robin, Blackbird, etc., will in time crumble if left as found. But if carefully sewed in and out several times and the threads finally brought under and around the support, it will then, when poisoned, be proof against all ordinary wear.

In the preparation of nests which are built flat on the support, as Swallows, "Ground-birds," etc., it is well to bind them securely to a piece of cardboard placing on the board near the nest some of the surroundings found in its natural position.

Care must be taken in any of the above nests to conceal the thread and not give them a drawn or tight shape, for noth-

ing looks worse than a nest drawn into a knot and literally covered with thread. *In no case ever carry a thread over the aperture of the nest.*

Large loose nests of Crows, Hawks, etc., are best prepared by wrapping and rewrapping them with doubled threads. The threads afterwards being pulled from over the nest and secured at the margin by sewing over the thread and through the nest.

The most difficult nests to prepare are those which are built in cavities and tunnels in banks. In preparing a Woodpecker's or like nests saw off the portion containing the nest and at the point where the nest proper is contained saw out a piece of the wood so that the contents may be exposed.

A Bank Swallow's or Kingfisher's nest can be placed in the cabinet by preparing thus: Make a box about two feet long and about nine inches or a foot square, one end only being closed and the back part of the top uncovered for about nine inches of a foot. Now of course you can guess the rest, but you must remember not to place the top on your box until you have placed the section of bank containing the tunnel into it. The hole in the top of the box is to show the nest cavity at the rear of the tunnel. The whole tunnel need not be boxed but only the mouth and rear portion, its whole length being marked on the label.

Hoping this is not in vain and that we may soon hear from others, I remain, the friend of our birds,

OTTO GRADY,
Ludlow, Ky.

Bubo Virginianus.

An atmosphere of joyless melancholy surrounds the Owl. He seems to regard all the world as malicious and dishonest and looks upon fellow creatures with suspicion and dislike. He has no friends and numerous enemies. When

we hear the sharp screaming of a company of Jays or discordant clamor of Crows in the woodlands we know some Owl is being entertained with their delightful society and this knowledge has been the death of many a *Bubo*. The Owl stares in a sorrowful, wondering way at his tormentors as if striving to solve the cause of his immense popularity, but he has nothing to say; just sits, meditates and occasionally shows his kindly appreciation of the admiring throng by a loud snapping of the mandibles. He makes no move toward proving to the Jays the merits of darkness by placing one of their number inside his feathered exterior, hence their bravery. Should the cracking of a twig betray the presence of an approaching naturalist his head instantly swings in the direction of the noise and stares the hated, dreaded enemy full in the face. His eyes open to their widest extent and gleam with rays of awakening intelligence; he looks densely thoughtful, wise, wide-awake and interested. Then his form tilts forward, then backward, then coming forward again drops from the perch and glides away through the woods noiseless as zephyr-wafted thistle-down. His flight may be traced along its whole course by the vociferous hilarity of the pursuing Jays till the sound ceases to recede and we know that he is "treed" once more. Thus has the whereabouts of an Owl been disclosed to us from the distance of over a mile. From the moment of his discovery by the Jays his popularity and fame steadily increases until in less than half an hour he may have fifty jubilant fellows discussing his anatomical imperfections and merits, and this in a woods where you had not previously observed a Jay and you wonder where they all came from. It is no wonder he seeks the gloom and solitude of densest timber lands and retires into situations most remote from daylight and its denizens. He seems ex-

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pelled, by common consent, from the society of all day creatures who seize every opportunity to annoy and insult him. Even the light of day itself pierces into his vitals with a paralytic effect upon his energy. So he isolates himself in the twilight of dismal swamps and hollow trees and passes the hours of sunlight in gloomy contemplation.

Besides the Crows, Jays and smaller fry that makes life uncomfortable by their malicious teasing he has other and more dangerous enemies—the sportsman, the collector and the farmer. The sportsman shoots him whenever possible for no better reason than that he is an Owl and the farmer for scarcely a more worthy one, viz: his occasional raid upon the barnyard, never for a moment crediting him with the destruction of thousands of weasels, skunks, field-mice and other noxious pests. Any flattering attention paid to the farmer's poultry receives no appreciation and not even the fact that, in order to save this worthy the pain of bidding his poultry a fond farewell and also profanity, he considerably waits until night before abducting a chicken, mitigate his persecution. He could be as pure of all thieving propensities as an angel but would nevertheless be an outlaw and a villain because he is an Owl. Even to approach the barnyard with no deeper purpose than to study the interesting ways of the domestic bird would not be conducive of good health. The farmer often ascends tall trees and tumbles baby Owls from big nests, then introduces them into spirit land by the application of an axe to the spinal vertebra just below their thinking apparatus and this because they some day might steal a chicken. What would

we say if when a man was hung his whole family, his relations and all other men that in the least resembled him and their families and relations were executed because they too might murder?

From the shadows of the night the Owl pours forth his woes and prayers of evil to mankind. His are seemingly the ravings of a grieved and soured nature, one that glories in sin, misery and death. There is something in the song of darkness tending strongly toward the conversion of sinners. It is uncomfortably suggestive of haydes and evil spirits and sets a man to speculating on his hereafter probabilities. It comes like the waning voice of a soul in torture bidding all sinners to beware. Sounding above the moaning winds on a cold, forlorn winter night it conjures up in the minds of some, pictures of death and desolation and the supernatural but to the naturalist a pleasant suggestion of large, white oölogical specimens in that strip of woods the coming March.

Not infrequently an Owl invades the city and it seems quite an incongruity this quiet, restful, solemn bird amid the tumult of municipal life. If he is discovered by the populace and you mingle with the throng you receive the information from more than one wise head that although he is surveying the crowd with wondering eyes he is "blind as a bat" and sees nothing and as he lies before the mobbing school-boys many look on in expectation of his knocking his brains out on some of the trees or buildings but somehow he isn't accommodating. These individuals who think he cannot see in the daytime should endeavor to approach him in the woods just beyond the suburbs of the city where man has demonstrated

his christian spirit toward the tribe in a baptism of cold lead: I mean should try to approach him here after he has been once frightened from his hiding place. You may walk beneath and about his leafy retreat and he will not move so long as he believes himself undiscovered but gaze gravely down upon you, closely following your every movement and apparently doing some mighty thinking. But when once routed it is almost impossible to get within gunshot of him. After a fatiguing night's campaign among the rodents I do not blame him for clinging to his retreat and risking discovery. The chances of detection are small, hence there is very little risk, he being clothed in plumage made to blend with the environment of his roosting place.

The Owls I occasionally meet with in my woodland rambles can, without exception, claim the honor of first discovering me even to the decidedly nocturnal *Asio wilsonianus*. No matter how quietly I made my way the moment I discover the statue-like form of an Owl I become aware that he is already scrutinizing me and believe that in the shadowing forest I have been the attractive center of more pairs of Owls' eyes than it has been my good fortune to see living representatives of the bird both in the woods and in captivity.

The above is *Bubo virginianus* as I have met and known him and to further illustrate the characteristics of this bird I will, in the near future, speak of some peculiarities of my pet Owl "Pearl"

CLAIRE WOOD,

Detroit, Mich.

A Family of *Bonasa umbellus*.

Date, May 27, 1895. Time 6:55 p. m. Place, mixed deciduous and evergreen woods, with grass and ferns in patches. I had eaten my supper and was out for a few minutes with the birds before dark. Having travelled half through a strip of

woodland, about one and one-half miles from the village of Gaines, I came to a place where the woods were divided by an old tumble down rail fence just beyond which was an opening grown up to brush, etc. I was looking high for small birds, when I was startled by a commotion on the ground in front *and what a commotion!* Almost under my feet was a male Ruffed Grouse, not putting distance between himself and I at the rate of 100 miles an hour, more or less, as is usually the case: but running towards me; every feather erect, ruff spread to its greatest extent, and crest erect. And such a racket from one of our stillest birds. He clucked and hissed, sputtered and cackled, in fact it was a perfect miniature of the common hen's performance under like conditions except for a peculiar whistling note which I was surprised to hear from this bird. But why all this fuss? From one point in the dry leaves just ahead ran a group of downy balls, not in one direction but each one in a separate course like the spokes of a wheel. But suddenly all this changed. Mr. Grouse discovers that he confronts what he rightfully regards as his worst enemy, man. His feathers drop and with a warning cluck he flies a few feet over the fence. Presto, every downy chick has disappeared. I did not dare to stir for, surely, at least two of the little birds must be close to my feet for I saw them run that way. They did not seem to try to escape from any definite danger, for they ran in every direction with a perfect disregard as to my position. Evidently they simply followed a "blind" instinct prompted by the warning note of the old bird. I looked the ground over closely and finally discerned two sparkling eyes viewing me with the same unblinking steadiness that the old birds have always been noted for. Colored almost exactly like the dead leaves on which it sat, it was almost obliterated in its surroundings. Look-

ing closely at the ground that I might avoid stepping on another one I stepped forward and picked it up. On straightening up, my eyes fell on another one and so on until I had seven in my hands. Not being able to find any more just then I stood quietly awaiting developments. For eight minutes all was still. The old birds seemed to think all was well and kept out of sight in the weeds. But suddenly there was a faint peep from the grass in front of me answered at once by one of the chicks in my hands. At once Mrs. Grouse came forward through the fence and up as close to the little one as my position admitted. Then turning about she started back clucking and whistling in the most persuasive manner. Out of a clump of grass came a young bird and started to follow though several feet behind. Stepping forward I picked up No. eight. The commotion started up as before except that the male uttered now and then a note not unlike the warning note of a Crow, which seemed calculated to quiet the young. As they did not seem inclined to come closer I placed the little ones in my hat and stepped back. Then the fun commenced. After making a wide circuit around the hat the female ran swiftly up to it, looked in and flew off in terror. Solicitude for the safety of her young had brought this wariest of all our birds to approach an object of the most extreme terror to her. But she had seen her little ones and at once recommenced her tactics to induce them to follow her. The male was now as silent as she had been before. He seemed to think that this kind of work was beneath his dignity. On stepping forward to let them out of my hat I saw the ninth bird sitting out on a patch of clean ground, yet I had overlooked it several times, so closely was it sitting to the ground. I placed them all together on the leaves and stepped back

a few feet. Immediately she came forward and one by one she coaxed them behind a stump and from there to the fence corner, where she left each one, and strange to relate not one stirred while she went after another. Finally she sat down over them and all was as quiet as could be. Not an indication of that contented peeping which you hear from a brood of common fowl for the little Grouse seemed to realize the gravity of the situation. Just one more test and I was ready to leave. How close would she let me come? Slowly I approached but not a feather moved. When within three feet she seemed to rise straight in the air and flying a few feet dropped out of sight in the brush. But this time not one chick stirred. All sat just as she left them. Why did they run the first time and sit still the second? Was her note different or were the little ones responsible for the action? If the Ruffed Grouse was as scarce everywhere as it is in the greater part of Western New York at present, we should not find out much from observation. As it was growing dark I left the little Grouse to their anxious parents and started toward home. I never expect to have another equally good chance to study the young of this shy bird and hope that after the foxes, owls and hunters have each had their quota there may be one pair for next year.

E. H. SHORT,

Gaines, N. Y.

Woodpeckers and Their Nests.

I cannot imagine what could have prompted a man to commit such a crime against his own property, but the owner of the fine grove of trees had deadened them all, cutting a girdle of bark from each of them near the ground and leaving them to die and decay as they stood.

The dry limbs yielded to time and the elements and cumbered the ground

with their melancholy wrecks, but the great trunks stood in sordid ruin until trumpet vines and Virginia creepers clambered over them, hiding their dull decay, and the spot which man had desolated became once more a scene of beauty.

The place was again verdant with glassy foliage and gay with gaudy flowers but there was something ghastly and depressing in the close union of life and death—of mouldering ruin and luxuriant growth, and the place was shunned by the many parties of recreation hunters that frequented the neighboring wood. This deadening, then, became a place where I could study without fear of interruption, and could watch the birds and insects without calling forth the pitying glance of the brute herd.

The song birds that had frequented the place in its happier days were gone, never to return except on hurried visits, but loss in one direction is often gain in another and the ruined trees still swarmed with bird life. The loosened bark and decaying trunks hid myriads of larvæ, grubs and insects and afforded rich feasts to countless Woodpeckers. All day the place rung with the brisk drumming of beaks on soft and rotting wood or on timber seasoned almost to the hardness of iron, and the harsh love notes and the discordant war cries of the restless drummer took the place of music.

The Hairy Woodpeckers were among the most numerous of these birds and their quick movements and continual activity made them appear more numerous still. Emboldened by the security which their small size and rapid movements gave them they cared little who watched them and would drum away close to the observer's head, and when some motion was made which they construed into a threat they would simply shift around to the other side of a limb or tree trunk and resume their

labors, taking to flight only when it suited their convenience.

They appeared to be constant residents but I noticed with surprise that they were the least numerous at the season when I would have expected to find them most abundant, in the summer, and I inferred that many of them went farther north to breed. Still some of them were always with us and I occasionally found their nests.

They nested early, the earliest, I thought of all the Woodpeckers, and allowed themselves considerable range in the variety of their nesting sites and the style of their architecture. Sometimes I would trace a pair to their home in a forlorn snag and after a hard climb would find that the nest hole penetrated the wood to a depth of at least eighteen inches, and that the eggs were completely hidden by the depth of the narrow cavity and could not be seen without considerable chopping—something not to be thought of. At other times I would find a nest in a cavity less than five inches in depth, and then I could get a satisfactory look at the eggs. These were four or five in number with shells of a beautiful clear white color, and so smooth, thin and transparent that their contents gave them a charming rosy tinge.

The birds were affected with a chronic abnormal industry, yet I once found the nest of a tired pair. There were several decaying posts standing in the grove, relics of a former partition fence, and in one of these there were holes which had once accommodated the draw bars. A pair of Hairys took possession of one of these holes and after sinking it two or three inches deeper made their nest in it, an evidence of their lack of industry but a great convenience to me for it gave me an excellent opportunity to watch them feed their young.

There appeared to be several varieties of Hairy Woodpeckers, differing

slightly in size and coloration but all unmistakably of the same species, though their variations were at first confusing.

Even the smallest of these various Hairys were large compared with some of their neighbors, the little Downy Woodpeckers, *Picus pubescens*, the smallest and funniest of the tribe. Too small and delicate looking for hard work on seasoned wood they still toiled away, but in such an inimitably airy manner that it did not seem work. They appeared to be doing it for fun, perhaps as a burlesque on the fierce earnestness of their overgrown relatives. They were fearless little fellows and if unmolested would have built right beside the farmer's door, but strange to say the purpose of their daily labor has been misconstrued and after working hard to rid orchards of noxious insects they are ruthlessly shot on an unfounded charge of sucking the sap of trees.

I could never learn to distinguish the nest and eggs of the Downy from those of the Hairy Woodpecker except by the difference in size, those of the Downy being much the smaller. Sometimes I have noticed the Downies using the nests of the previous year over again, and while satisfied with some old nest boring new nest holes for the sake of exercise. I think the Hairy Woodpeckers must have been a little more fastidious in their tastes for none of these in my circle of acquaintances ever used the same nest hole twice.

On one occasion I found a pair of Downies nesting very late in the season and concluded that some accident must have befallen their nest or brood and that they were trying to make good the loss. Afterwards I found another nest with fresh eggs in a hole where a brood had been reared weeks before, and I saw that some of my small Downy friends were so industrious that they were departing from the custom usual-

ly observed by their race in this locality and were rearing two broods in one season.

It always appeared to me to be the correct and natural thing for all the individuals of a species to migrate with the change of the seasons, or for all of them to stay with us the year round. It seemed, however, that many birds could not accept this theory. Among certain species there are numerous individuals of roving tastes even when the migratory instinct is not established as a characteristic of the species. I am pretty sure that I have observed peculiarities of this kind among the Yellow-bellied Woodpecker, *Sphyrapicus varius*. They are with us the year round and I would never think of calling them migratory birds, but in winter they become extremely rare to grow numerous again about the first of April. About the middle of April they cease their desultory drumming and set to work in earnest digging "foundations" and preparing their nests.

Several pairs nested in my favorite grove, but their holes were usually about eighteen inches in depth and it was frequently impossible for me to get a look at their eggs. Such as I did examine were of a pure white color and seemed to be unusually small for the size of the bird, though this is a point on which my judgment is worth but little. In the nests I examined the number of eggs was almost invariably five.

I have always received the stories of the Woodpeckers sucking the sap of trees with severe disbelief, and have regarded the man who thought the birds injured his growing timber as on par with the man who thought that snakes milked his cows. Consequently I was somewhat discomfited last spring by finding the nest cavities of two pairs of these reputed sapsuckers excavated deep in the trunks of living trees. Besides their nests, which they were using, they had drilled similar

holes in several other trees nearby, perhaps for exercise, perhaps as experimental prospecting, or possibly as decoys to distract the attention of nest robbers, though it is rarely possible that they might have served as receptacles for catching sap. I feel compelled to admit that if these birds were as numerous as Sparrows, which they can never be, they might do some injury to shade trees. I wondered, when I found these nests why a sane bird should build in a damp sappy live tree when there were plenty of dead ones at hand.

I had often heard men tell about big black Woodpeckers that were once numerous here, and how they used to visit the fields and eat up the seed corn like Crows, but I had never seen any bird that answered that description until last year, when I met a pair of them. As you have doubtless surmised they were the *Cophylus pileatus*, or Black-log-cocks. I could never satisfy myself as to whether they were new arrivals from some other locality or survivors of the last race of natives who had lingered in concealment after their brothers had been exterminated.

It was in the middle of the nesting season when I first saw them and they were hard at work. I had the good fortune to be able to visit them occasionally while they were bringing up their family of six young. I could never determine what became of these young birds. I saw the old birds now and then throughout the year, but never any others of their species, and this spring they nested again in the neighborhood of their last year's quarters, the first egg being laid on the 17th of May. The excavation that they make is so large that it is easy to see the large translucent white eggs in the bed of soft fine chips at the bottom.

Perhaps the noisiest bird in the grove was the dashing, handsome Red-headed Woodpecker, *Melanerpes erythrocephalus*, a big, blustering, quarrelsome

fellow, but fair to look upon. I have often climbed to their nests and wondered how such large birds could enter such small cavities. These cavities were almost jug shaped, large at the bottom but small at the entrance. I found that the eggs were usually six in number and were usually pure white, though to my surprise I once found a set all of which were marked with reddish spots at the larger end.

Years ago Congress gave Vincennes a piece of land, perhaps twelve acres in extent, for a park. Council at once took possession of the place and began to beautify it by opening a large gravel pit in one end, dumping a number of rusty, unmounted cannon and other old junk in the other, building an unwhitewashed tool and wagon shed in the middle and surrounding the whole area with a snaggy looking barb-wire fence of various heights and reclining at various angles. With the exception of the gravel pit and the spot reserved as a site for the proposed monument to the late Michael McGinty this park was planted with trees. You know the style of arboriculture practiced in rural towns where the ward politician who gets the contract plants the wrong tree in the wrong soil at the wrong season, occasionally getting them wrong end up, but you would have been surprised at the delicate irony of the placards warning visitors not to injure trees, shrubbery, etc. The proximity of brewery and saloons made the place popular and the beauty and chivalry of the town repaired thither to lounge among mullen and burdock and insult passers by.

The habitues of this fashionable and aristocratic resort were startled last spring by the appearance of a strange bird in their midst. It was a Red-headed Woodpecker and among people who had never seen any bird but a Sparrow it created as much excitement as if it had been a Dodo. Public spirit

ran high and the citizens armed themselves and turned out *en masse* to avenge themselves on the mysterious stranger that had invaded their domain. It is wonderful how that bird escaped, dodged about from tree to tree and evaded the hunters. One day I heard 23 shots fired at that one bird before he quit the field, and he came back again the next day. The decaying *shade* trees must have furnished an excellent feeding ground, for the Woodpecker refused to abandon it and returned every day until at last he was killed, to the great relief of the public.

In strange contrast to the noisy, quarrelsome Red-heads were the Red-bellied Woodpeckers, they were quite numerous, but so quiet and reserved in their manners and so chary of the peculiar squealing notes which constitutes their conversation that they might almost have passed unnoticed. They were so still that I found their nests only by accident and rarely at all. Perhaps their guilty consciences imposed a melancholy reserve upon them, for they are the true sapsuckers, chiseling many holes in the bark of sugar maple and other trees and drinking the sweet viscid sap that accumulate in these cavities.

I am not convinced that these birds do any considerable damage to timber, but if they do their cousins, the Flickers, *Colaptes auratus*, make ample reparation, for they are the most industrious of all the enemies of our insect pests. They are constant residents here and are always foraging no matter how cold the weather may be. Six was the usual number of eggs in such nests as I have examined. It is curious to watch them feed their young, both parents sharing the labor, sometimes carrying the food in their beaks and sometimes disgorging the food already swallowed for the babies. Sometimes an old bird will approach the nest with a grub in its beak. When the grub has disappeared

down the infants hungry throat the old bird will insert her beak into the young ones mouth and begin the process of regurgitation.

ANGUS GAINES,
Vincennes, Ind.

The Hooded Warbler.

Sylvania mitrata.

Of the numerous birds comprising the family of Warblers there are few so attractive to the student of ornithology as that beautiful bird, the Hooded Warbler, (*Sylvania mitrata*), a rather widely distributed species. In Louisiana it is one of the commonest of the Warbler family, the dainty Parula alone excelling it in numbers; and scarcely a bit of brushy woods is there that does not afford an habitation for two or more pairs of this pleasing songster.

The Hooded Warbler makes his initial appearance in this state in the latter part of March, the males being usually observed a few days before the females. The first arrival for '95 was on March 23, when several males were noted, fully a week earlier than '94, when they were first seen on March 31st. A week later males and females were very common, in fact more numerous than at any other period, as many of the birds were passing migrants.

Like a good many of our breeding Warblers, the males are in full song almost immediately after their arrival, so that one is not long in discovering their presence.

The Hooded Warbler has two distinct songs, both consisting of about eight notes, which are uttered continuously during April. During the first part of the month the birds are usually found in company with other smaller birds, the Sycamore, Prothonotary and Parula Warblers, White and Red-eyed Vireos and Titmice and their songs

may be heard from every quarter in the woods, from treetops, from underbrush and from the ground, mingling harmoniously with the notes of their companions. At this time they are everywhere in the woods, the males in full song, their mates almost as noticeable from their quick, sharp chirp. I have found them to be commonest in a tract of high woods, timbered, though not heavily, with sweet and black gum, ash, cottonwood, live, water and pin oak, beech, hackberry and cypress, rather open than otherwise, lying opposite the city on the west bank of the Mississippi. In certain spots these woods are thickly filled with a low growth of the common cane, and here and there in the more open spots are immense, impenetrable thickets of blackberries. This locality is a perfect paradise for many birds but in the breeding season the Hooded Warbler is one of the commonest of all.

The birds mate shortly after their arrival, and nest building commences about the middle of April and later. Although the Hooded Warbler seems to prefer the deeper woods for feeding and song, nearly all the nests are built on the edge of an opening or clearing just within the shadow of the trees, possibly because the undergrowth is thicker in such spots and affords better concealment for the mother bird and her home,

The earliest date I have for beginning of nest-building is April 13th. On the morning of that day, while rambling along the edge of a long clearing I noticed a female Hooded Warbler sitting in a clump formed by a small ash sapling and an encircling vine of smilax, that afterwards rose up to the limb of a small hackberry tree. The bird left the spot with numerous chirps as I approached, and I walked up and examined the spot whence she had flown, the object of my suspicion. The smilax and ash formed a triangular fork

about thirty inches above the ground, and at the bottom was a single dead blade of grass, which I thought might be the beginning of the nest.

In the evening I passed the spot again, and found instead of a single strip of grass quite a collection of strips of various sizes and a quantity of thin dead leaves which formed quite a respectable little nest, not finished but very well begun. Both male and female were observed in the vicinity with material in their bills, and after watching them awhile I found that the former was taking quite an active part in the construction of the nest, shaping it and appearing to be fully as busy as his spouse. A week later, on the 20th, I passed the nest again and found it completed and lined with dry, hair-like fibers of the Spanish moss, and discovered another nest about fifty yards away from the first, on the opposite side of the clearing.

It was about four and a half feet up, woven to two little saplings of a species of alder, and was almost completed, the female being seen near the nest with material. The saplings were in the centre of a little thicket which grew just at the edge of the high woods

On the 28th I visited the two nests again and found them just as before, but no eggs. A few days later, on the 2d of May I tried again and found four eggs in each, which were naturally fresh. The number indicated that an egg had been laid each day, as the nests on the 28th were empty.

My search for other nests on this date was rewarded by a single nest, empty, but apparently just completed, built in an alder sapling and supported on one side by an alder tree some four inches in diameter. The saplings grew from the root of the tree parallel to the trunk, against which the nest was flatly set at a height of about four feet. This nest was the most adroitly concealed of any I discovered, and on

May 11th when I returned for the eggs, I had much trouble finding it. It was built in woods that were thicker, lower and more swampy than the previous ones, though like them it was within thirty feet of a cleared woodland path; in fact, of six nests discovered, not one has been more than one hundred feet from the edge of an opening or path. The eggs were incubated about four days, as were four others I took from the fork of an alder about three feet up, in the locality where the first two were discovered. I found a completed nest on a slope about a quarter of a mile away in a similar situation save that two saplings supported it, and on my way back found another which afforded some interesting points for observation. This nest had been built since the 2d and unlike any of the others, it was pensile, being supported by the V-shaped fork of an alder at the height of four feet. The end of the sapling which supported it is inclined upward at an angle of about thirty degrees and was one of a small clump about one hundred feet from the edge of the woods. It had been raining considerably on this day, and the nest had a large green cottonwood leaf arched and firmly fixed over it, excluding the water completely, but whether it came there through accident or through design I am unable to state. This nest was built by one of the pairs of birds whose eggs I had taken on the 2d, and as I do not like to take two sets from the same birds in a season I let them breed in peace.

The nests are invariably composed of a foundation of thin, half-decayed, dry leaves, grasses, bound with bark-strips from the cypress and spider-webs or caterpillar silk, and lined with the horse hair-like, dry Spanish moss.

The walls of the nest are tolerably thick, and the first nest found had dead leaves to a thickness of two and a half inches as a foundation. Every nest

discovered this season contained four eggs, a description of which may prove interesting. The ground color of all is a pale, creamy white and seems to be characteristic. The markings, however, vary considerably.

In one set they are clear and well defined, consisting of spots and specks of two or three shades of brown and purple lilac sparsely distributed over the entire surface, two of the eggs exhibiting spots that are almost black. The markings are more numerous and slightly confluent at the larger end, but in only one do they form a wreath. In the next set the markings appear less distinct and much paler, being inclined to streakiness at the larger end, around which are large blotches of pale, thin brown pigment.

Two other sets are of similar character, while a fifth, the handsomest of all, shows different characteristics; the ground is of a richer cream. The markings are larger and take the form of scrawls and splotches, the larger spots being shaded to a lighter tinge at the edges, and some of the purple shell marks showing tints of brown. The markings in this set are scattered, one egg having a side heavily marked, another an end, but in all the larger end gets the majority of color. The sets I have are fairly constant in size, and the average is about .69x.52, and though some are as large as .73, nearly all are around .52 in short diameter.

My observations on the Hooded Warbler are confined wholly to the spring months as from May to August the mosquitoes and deer flies effectually drive one from our woods, hence I have no personal observations as to their further habits and time of departure.

ALLEN BRUCE BLACKMORE,

New Orleans, La.

THE OÖLOGIST.

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FRANK H. LATTIN, Editor and Publisher,
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Correspondence and items of interest to the student of Birds, their Nests and Eggs, solicited from all.

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FRANK H. LATTIN,
Albion, Orleans Co., N. Y.

. Articles, Items of Interest and Queries for publication should be forwarded as early in the month as possible.

ENTERED AT THE POST OFFICE AT ALBION, N. Y., AS SECOND-CLASS MATTER.

Owing to various causes, unnecessary to occupy space and time in explaining at length, the June Oölogist has been unavoidably delayed, and in order to "catch up" we mail and bind the June and July issues together. August issue will be out August 16th and "treats" in the engraving line anticipated for this issue will appear therein.

Nests of Water Birds.

With all birds, so far as I am able to learn, the exit is a point of observation for the sitter, from which it can get a view of friends and foes. The Owls and Hawks from an elevated position can command a fine view of the surroundings. With all aquatic birds the

sitter almost invariably occupies a position presenting toward the water. Shore birds, as the Sandpipers, rest on their nests in a position to best view the stream or pond. Rails and Gallinules face the water, the latter usually building so that they can plunge from their homes directly into their favorite channels.

The Loon, which builds or rather forms its nest away out from shore in a mass of vegetable matter, usually the foundation of an old muskrat's house, invariably faces the open deep water. From that position it can slide into the lake at a second's notice. Any one can prove this position of the Loon by examining the premises when the owner is away. The nest proper is a trough-like depression, evidently formed by the bird's efforts at hollowing rather than in building up the sides. This oblong depression is one and a half feet long and over ten inches wide, and the eggs are always placed from three-fifths to two-thirds of the distance from the front end.

"S.,"

Pittsfield, Me.

MAY CONTEST.

Forty-seven Judges.

1. Owls and their Nests, 210.
2. The Spotted Sandpiper, 166.
3. Roderick Dhu, 121.
4. The Mountain Partridge in Captivity, 109.
5. Notes on Nidification and the White-breasted Nuthatch, 72.

The following Judges named the winning articles in their *exact* order and among them the Judges prize was equally divided:

- Otto Grady, Ludlow, Ky.
Dana C. Gillett, Barre Centre, N. Y.
C. R. Stockard, Columbus, Miss.
Hervey L. Smith, Smith's Ferry, Mass.
B. A. Garrett, Ballston Spa, N. Y.
Frank E. Baxter, Montclair, N. J.
Geo. S. Greene, Los Angeles, Cal.
Albert L. Blanchard, No. Yarmouth, Me.
Hervey M. Hoskins, Newberg, Oregon.
All prizes were mailed on July 10th.



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You Are a Judge.

Your decision must be mailed us not later than the 15th day of August. Write on back of a postal card the five articles which you have decided to be the *most valuable, instructive and interesting* in this combined June-July number of OÖLOGIST and mail to us. Number the articles in the order which you think the prizes should be awarded.

During 1895 the Judges prize will be awarded as follows, viz: Each month it will consist of \$6 in specimens or \$4.50 in instruments, supplies or publications or \$3 cash. This prize will be awarded to the Judge who names the winning articles and in their *exact* order. In case more than one Judge names them correctly this prize will be equally divided among the number.

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THE OÖLOGIST.
Monthly.

VOL. XII. NO. 8-9. ALBION, N. Y., AUG.-SEP., 1895. WHOLE NO. 118-119

Wants, Exchanges, and For Sales.

Brief special announcements, "Wants," "Exchanges" "For Sales," inserted in this department for 50c per 35 words. Notices over 35 words, charged at the rate of one cent per each additional word. No notice inserted for less than 50c. Terms, cash with order.

"DEALERS" can use these columns at *Regular Advertising rates, only.*

Strictly First-class specimens will be accepted in payment at one-half list rates.

Exchange Cards and Coupons (subscription) will be accepted for "Wants" and "Exchanges" *only* and according to conditions stated thereon.

COLLECTION of Mexican stamps, 200 in album, value \$10.00; Walnut Coin Cabinet, 15 drawers, value \$30.00. Want in exchange double barrel shot gun. ROBT. D. WAINWRIGHT, No. 47 Canal St., Stapleton, Staten Island, N. Y.

FOR SALE.—Back Nos. of *Young Oologist* and *Oologist*, Nos. 1 to 115 inclusive. Make offers. HAWLEY HALL, P. O. Box, 198 Lewisville, Ind.

I HAVE a collection of Stamps, Books and Confederate Money, for Books and other Confederate Money. A. D. AKIN, Key West, Florida.

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AN INTERNATIONAL Album, latest edition, and a collection of stamps, cataloguing over \$10, for only \$1 cash or best offer of eggs in sets. JESSE C. A. MEEKER, Box 296, Bridgeport, Conn.

FOR SALE.—A fine collection of Penna. Mounted Birds and Small Animals, at reasonable prices. Will also exchange for other specimens. Complete description for stamp. MISS LEAH BERKHEIMER, Osterburg, Bedford Co., Penna.

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EXCHANGE.—No. 1 eggs of this season's collecting, in singles, to exchange for eggs of other localities not in my collection. All letters answered. ROBERT SMITH, Millgrove, Ontario.

HAVE 48 Flint Arrow Heads of this locality, more or less perfect, to exchange for best offer of Birds Eggs, in sets with full data; Raptors or Rallidae preferred. J. H. RILEY, Falls Church, Va.

WANTED. A Violin in exchange for Mounted Birds or Buffalo Horns. GILBERT BROS. & GRIFFEN, Taxidermists, 1519 Leavenworth St., Omaha, Neb.

TO EXCHANGE.—Fine collection of unpolished woods, numerous old half pennies and pennies, birds eggs, cigarette cards for other old coins, eggs or Indian Relics. All answered. B. A. CARPENTER, Salem, N. J.

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FOR SALE CHEAP.—A lot of first-class trays with 15 fine singles for \$1. C. T. MUELLER, Eagle, Wis.

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WANTED.—A Cones' Key of N. A. Birds, will exchange for same first class sets from this vicinity. All letters answered. CHAS. H. LEFLER, Box 238, San Bernardino, Calif.

FOR SALE or EXCHANGE.—Birds eggs and skins. ARTHUR HEWITT, Pasadena, California.

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FOR SALE.—A new full magazine 44 cal. case hardened Winchester Repeater with new leather case, also a Smith & Wesson long barrel 44 cal. single action, nickel plated horse revolver, in good condition, with detachable stock for best offer. Both fine shooters. No exchange. Address R. SANFORD, Hastings-on-Hudson, New York.

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TO EXCHANGE.—Live Horned Toads, Columbian and Foreign stamps, birds eggs and minerals for Arbuckle Brothers signatures cut from Arbuckles coffee wrappers. W. D. GARNETT, 503 So. Denton St., Gainesville, Texas.

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WANTED.—Mounted insects (especially butterflies), showy shells, etc. Will exchange for same. Books and Magazines, Birds' Eggs, Stamps, Coins and other articles. Everybody answered. EDW. H. DRAPER, 144 E. Van Buren St., Chicago, Ills.

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DESIRABLE specimens, crystallized minerals, ornamental shells, and Indian stone relics taken for back Nos. of papers for naturalists. See my ad. in another part of this paper. R. KRIETE, 406 E. Twelfth St., Kansas City, Mo.

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BEING interested in *Entomology* and *Botany*, I will collect specimens in any line in exchange for what I want. Send your lists to J. C. BRIDWELL, Baldwin, Kan. 30-20

TO EXCHANGE.—Hundreds of first-class singles, both common and rare, for sets with data, 22 cal. Stevens' rifle revolver or fancy pigeons will give good exchange. J. O. JOHNSON, Lock Box 550, Sonthington, Conn.

FOR SALE.—Strictly first class '95 bicycle for best cash offer over \$60. Those meaning business write for description. ROY CRIBFIELD, Atlanta, Ill.

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FINE SETS.—15 varieties nice desirable sets with data for exchange. Send for new list. Correspondence solicited. LOUIS T. WHITEFIELD, Tallahassee, Fla.

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WANTED.—The signature "Arbuckle Bros." cut from package of Arbuckles' coffee. I will give ten cents per dozen for all sent me before January 1st, 1895. L. B. GILMORE, Mungen, Wood Co., Ohio.

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FOR SALE in a lump, to the highest bidder. The remainder of my private collection of Birds Eggs. All first-class sets, and many rare ones, 175 different species, 1056 eggs. And listed at more than \$275.00 by Hand-book prices. They will be sold to party offering me most, in the next fifteen days. List of species on application. EDWIN C. DAVIS, Galnesville, Texas.

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A CHANGE TO MAKE MONEY!

The times are hard, but here is a good way. In the last month I have earned \$175.00 in Chimney Dish Washers. I never saw anything take like this. When any woman sees me wash the dinner dishes, clean and dry them in one minute, they say one right away. Anyone can make \$50 a day at their home easy. I have not canvassed, so anxious are the people for the Chimney they send for them. Write to the Climax Mfg. Co., Columbus, Ohio, and they will send you circulars. It is easy selling what everybody wants to buy. I will make \$3,000 this year easy.

THE OÖLOGIST.

VOL. XII. NO. 8

ALBION, N. Y., AUGUST, 1895.

WHOLE No. 118

Dragging for Bobolinks.

Four of the brightest of the mornings of my bright days of collecting this season were spent in dragging for nests of Bobolinks, and other things.

Not one-tenth of humanity knows, adequately, the beauty of nature; and not one-tenth of that tenth knows, appreciatively, the beauty of the morning. The sense of this morning beauty gives to collecting, half its joy.

I rise at dawn 3:30 a. m., don an old suit and older rubber boots, seize camera, collecting box and coil of slender rope, and start afield. The tiny beads of dew give added brightness to the prairie flowers. The whole blossom world takes on a more radiant beauty when heavily bedewed and touched with morning light; but most of all the roses—the many-tinted and abundant prairie roses. The morning newness transforms the very sounds I hear. Many a rollicking Kingbird is teasing his mate with a world of fun in his rattling notes; the Grass-hopper Sparrows rise from under my feet and draw long their *z-z-z-t-ing* notes a'balance on the dead tops of golden-rods, and far away and down in the meadows trickles and tinkles a note as effervescent as the Kingbird's, but how clear, brilliant, limpid; how characteristic of the Bobolink's watery haunts. And now I stand on the hill-crest, and there below me lies, deep among the seamed hills, the long crescent meadow, its right arm buried in the fold of the hillsides; its left reaching far out to touch the lake that lies laughing oak-girt, a mile and a half away. Beyond the meadow, many a soft, long shadow rises and creeps up from the grass line along the ravines to the hillcrests; and the first promise of sun-glow touches below me, weed-copse

and plat of cat tail flag, and long stretches of soft grass, not quite knee-high. Running exhilarated down the slope, I am soon crushing the velvety sphagnum beneath my feet. The dew-gemmed grass soon drenches me, but what of that; are there not unmeasured possibilities in that same wide expanse of grass?

One end of the rope is tightly fastened to a slender bunch of grass (whence a stout pull may easily dislodge it). I set about uncoiling it. A brown bird flutters up before me, and at my feet, embowered in a slight grass nest that crests a bog, nestles a new-ledged Song Sparrow, while beside it lies the sempiternal Cowbird's egg! How eagerly I beat the first circle drinking in great draughts of morning air! But as I close the circle, loose my line, tie again, and circle again, and yet again, my ardor begins to dampen though, many a male Bobolink floats and flutters near, laughing at me. But the line of circles has begun to reach out well into the meadow. No birds rise but many new beauties lie at my feet. Great carpets of violets spread before me, tiny white moccasins lift their delicate heads above the sphagnum; the snow-white spikes and the glossy dark-green spatulate leaves of the brook-weed give depth and richness to the floral show; and there are numberless tiny white asterisks and other star-flowers whose common places and technicalities the botanist only knows. Though not a botanist, observe the flowers I *miss*; for any careless step, taken while the eye eagerly follows the line, sends one leg plunging down into unmeasured depths of cold, black mire. Just as I rise, ruefully, from such a plight, a female Bobolink bolts up from the grass, half way along the line, clutches a blade of grass,

looks back an instant wonderingly, then dives quickly into the grassy maze and no amount of beating can flush her. A bit of white rag is hastily tied to the grass, near where she rose and the careful search begins. A dozen square yards are slowly examined foot by foot but vainly; when a last faint-hearted, sweeping glance reveals the nest, half crushed by my feet, well hidden in a little grassy bog. It is naught but a dainty, spirally wrought cup of slender grasses, flush with the sphagnum tops, but it holds five eggs, quite fresh, of the clear-grounded, dark-blotched type.

But the morning grows apace. Already the unwelcome half-hour bell at school calls my return, and there is nothing more for me today. The Marsh Wrens chatter at me everywhere. Sparrows, Swamp Sparrows, I am sure, are trilling in the distance and winging near by and there are many Bobolinks that scold at my intrusion. But nothing further calls for alertness until a trio of Mallards, two drakes and a female, pass up from the lakes and circle, with much quacking and quarreling in midair. The mate soon chases away the usurper, while the female excites my enthusiasm to the uttermost by dropping, after many futile circles far away into a very feasible bit of the marsh, whence, however, no thoroughness of beating avails to arouse her.

On the second morning the Bobolinks failed me utterly, for a time, and I, discouraged, began to trail the hills beyond the marsh for Grasshopper Sparrow nests, an assiduous male flitting with unusual ardor about a weedy stretch of hill-side. But every bird I aroused was merely feeding. Never yet, in five seasons on Kansas and Minnesota prairies have I succeeded in finding, with the rope, a nest of this particularly abundant sparrow.

Starting again across the marsh I flushed a female Bobolink at the sec-

ond circling. She merely dashed into sight for a quarter of a second as the rope passed over her and then as I took *my* turn at dashing she arose and flew away. Another white rag and another search and another well-made nest containing another set of five unusually clear of ground color, and remarkably large blotches.

Near by the locus of this nest is the spot where two weeks before I found a rarely perfect nest of the Marsh Hawk containing five unmarked eggs. The nest lay snugly sconced amid a plat of cat-tail flags being revealed by the mother bird's over zeal for returning to her treasures. I found them late in the day; part blew them to stop the incubation and left them to secure by stronger light, good photos of the nest and eggs and parent birds. But oh! those egg-thieving small boys!—the eggs had disappeared, when I returned next day at noon. Regretfully, as I packed my Bobolink eggs I passed the Hawk nest and hastened on, fifty yards or more scanning the bog-tops from prudence and from force of habit. Of a sudden what is this?—an opening scraped in the sphagnum; a white egg, entirely cleaned of its contents lying by its shattered half leaving plain marks of more than one beak, its unbroken side perforated with a small drill hole. Then many a query rise to my mind: did a skunk rob the nest and bury the eggs he could not eat, and then, did a keen eyed Forster's Tern spy out the imperfectly buried egg? Or were the Terns themselves ever scanning the marshes with eager eyes, first and last the thieves? And what about those egg-thieving boys? I am still pondering the problem, as I anchor my rope when a Marsh Wren, cocking his tail at me from the crest of a neighboring weed, arrests my attention by a certain peculiarity of his plumage. The bird's impudent spirit brings him nearer and,—“Good Heavens!” I exclaimed, “these

Marsh Wrens are *stellaris*!" What a confession to make! All my life long I have confounded the note of *C. stellaris* with that of *C. palustris*!

I have thought it strange the Marsh Wrens were not nesting in the tall weeds and cat tails. But now, with the proof of identity and with mere book knowledge and data information to guide me, I go at once a-searching, and, within twenty minutes, have located at least five pairs of Short-billed Marsh Wrens, each with from three to five true nests and mock nests. And this was all I found; though it was June 20; but this was enough.

The third morning was the next morning, so eager was I to follow up my find. More mock nests but no eggs. Clear across the marsh I go, and hoping to turn the tide, I make ready the line. The hand end is stayed, and I start out to fasten the anchor end; when with lusty flapping and frantic quacking, a female Mallard rises from the grass, not six feet from me. It takes but a minute to single out the bog in which lie the incomplete set of six eggs. The late date, the slovenly nest, and the entire absence of down indicates a second set. And this, to my great chagrin, was afterward deserted, for no apparent reason. The third set, also, was violated, judging from the finding of a half eaten Mallard egg, on the marsh, ten days after the discovery of the above nest.

Strange, is it not, how fortune often "bunches" her favors! Ten minutes after the Mallard find, I was searching, on hands and knees, for the nest of a Bobolink which the rope had flushed. I had just begun to conclude that the bird had only been feeding, when, beneath a broad leaf of marsh marigold I caught a glimpse of eggs. Eggs? I should say so, there were seven of them, and this, too, a clear grounded and heavily blotched set, very uniform in pattern. Altogether, this nest contain-

ed the best combined evidences of fecundity and cunning I have ever seen. But, here I am, late to breakfast!

June 22 is my favorite morning, and what a morning! Passing beautiful, and rich in results. Naturally, by this date, I am anxious about the Marsh Wren eggs; and this morning's search is exclusively devoted to them. I explore, minutely, ground gone over a few days ago. Almost mechanically a rough nest lying under foot is examined, but my exploring finger touches eggs, a number of them. Gently they are rolled out on the palm of my hand. "One, two, three," eight of them! Unusually rounded ovate, they resemble miniature Bob-white eggs, but for their purer whiteness. Incubation far advanced, but so rare and rarely large a set must be saved, and I saved it. Not ten minutes later another nest was found, above the marsh line among rather tall weeds. A rough nest, beaten down by me in previous passing. It contained six incubated eggs.

Starting homeward, I passed within a few yards of the Marsh Hawk nest. When nearly opposite, I flushed a sparrow, Song Sparrow, one would say. But a certain niceness about the nest and a delicateness of coloring about the eggs induced me to drop out of sight in the grass; and, after many minutes, a cautious bird appeared; and I noted the ashly throat and unspotted breast of the Swamp Sparrow.

The eggs were the most exquisite of this species, that I have ever seen; one of the three, a fourth had been broken, being almost a clear blue, the smaller end delicately marbled with a broad circle of pale lilac. A parasitic Cowbird egg in the nest revealed the cause of the broken egg. Why are delicately marked and colored eggs so often fragile? With utmost care in blowing, though incubation was not very far advanced, these eggs all burst, while a second set, by the same bird, found by

means of the rope, on the morning of July 4, were blown easily, without especial pains.

But what a morning of what a day was that June 22 to me! The sets of Short-billed Marsh Wren were my first find, of that species; the set of Swamp Sparrow my second; while that afternoon, I took at Heron Lake my first set of Red-head Duck, and my third and fourth sets of White-faced Glossy Ibis, with a magnificent male, the first mature bird of this species ever taken, to my knowledge, in the state of Minnesota. It will be long, indeed, before I enjoy again a day so crowded with success.

P. B. PEABODY,
St. Vincent, Minn.

Three Facts.

On July 2, '93 a friend and myself searched some willows bordering a slough near my residence in California. I passed a Mourning Dove sitting on her frail nest nine feet up in a crotch of a young willow tree leaning over water, to see if he would spy her. He did, and farther investigation proved that that nest contained three eggs, incubation as follows: one addled, one fresh and one badly.

On May 19, '94 while strolling down that way I was surprised to see a Dove sitting on a nest in the exact crotch of the same tree of the above-mentioned nest. "Now for a set of three," thought I, in the way of a joke. Sure enough, there were three eggs in it, incubated thus: one slight and two badly.

On April 2, '94 while collecting Raptore sets on Alisal creek, I came to a nest in a sycamore at the edge of a pasture-field. A male, Western Red-tail Hawk circled and screamed softly overhead and the female left the nest as I

climbed up. Imagine my surprise at finding *four* eggs in that nest.

I do not feel sure that the same female laid *all* the eggs in the cases of the Dove, but I do in the case of the Red-tail as those she left were all about the same size and shape. Only one was marked and that faintly with yellowish. The above "nestfuls" were taken as sets but, as accidents oftentimes happen, all were lost.

L. W. BROKAW,
Westfield, Ind.

The Great Auk and Egg in the Academy of Natural Sciences of Philadelphia.

MOUNTED BIRD:—About twice the size of Razor-billed Auk, white breast, webbed feet; back, tail and neck black; neck white from breast, meeting the black neck half way up in a triangle; wings short and black; eyes black, with white spots, about size of a half dollar, and bean-shaped between the eye and bill on both sides; bill about four inches long, black with gray markings radiating downwards and forwards; bill three inches long, three inches thick and one-fourth of an inch broad, and tapering to a point. Bird was abundant on Atlantic coast, now entirely extinct; none seen since 1814.

EGG:—One of three in the U. S., the other two in the museum of Vassar college, Poughkeepsie, N. Y.; and at the Smithsonian Institution, Washington D. C. This egg is quite large and a handsome specimen, being twice the size of a Murre, and similar in markings to same. Ground color is of dark white or buff with irregular markings of brown streaks principally at the larger end. The egg is exceedingly rare being worth several thousand dollars I am told.

M. F. CLECKLEY, M. D.
Philadelphia.

A Collecting Trip Near Monterey, Cal.

May 10, '94.—I left Salinas in my brother's company this morning bound for Pacific Grove intending to labor and to collect some there. In Toro canyon a nest of the Western Bluebird was found in a cottonwood and contained four young nearly fledged. A nest of the Cal. Woodpecker was found also, 28 feet up in a dead portion of a sycamore and contained four fresh eggs, one of which was a runt. At the "Chinese gardens" I left the rig and footed it the remaining six miles. First nest was of Desert Sparrow Hawk, eggs and young, in a large dead pine. An inaccessible nest of Pigmy Nuthatch came next, which contained young as parents were conveying food to them. This species is a common nester here and the nests are made of moss or lichens and sometimes a substance of the "white sage" is added with small and occasionally quill feathers of other birds mixed. Then a set of four half-incubated eggs of Harris's Woodpecker was taken from the top of a small dead pine nearby.

A Bluebird had a nest with young in a stub near this one and then the ringing e-l-e-a-r-r of a Western Red-tail Hawk came from a hill above. The nest was in the top of a large pine not far away. It was lined with oak-moss and seemed deserted, the bird probably having another nest. Several inaccessible nests containing young, of the Nuthatch were observed.

A description of this locality (Monterey would not be amiss.—As the San Lucia mountains approach the bay they are diminished to large hills which have been cut and gorged by rain until ravines, hollows and creeks are found on every hand, the water gradually finding its way to the ocean. Over all these, except in some spots, there is a growth of pines and live-oaks, denser in some portions than in others, with an undergrowth of both

black and huckleberry bushes, wild lilac, poison oak, and manzanita, mingled with young pines and oaks. The saline air rapidly decays this pine timber so when a tree loses its top it soon becomes a stub. Stubs, large and small are very numerous in this section and as the old ones fall or are cut down new ones take their places. The bark has fallen from most of those that are found. This timber is unfit for lumber.

This evening while resting from digging I was accosted by a former collecting friend, L. M. Nichols. The subject of course was Oology. He described the nesting, and also his taking of a "queer little owl" on April 24th. Having told me that an acquaintance had the set of five eggs we proceeded to that person's home where I viewed and obtained it. It proved to be of the Cal. Pigmy Owl.

May 11.—Mr. Nichols and myself left on a tour this morning. First nest was in a tall slender pine and contained one fresh egg of the Nuthatch (*Sitta*, hereafter) which was secured with a rope. The Slender-bill has not been found here as yet. A Harris's Woodpecker's nest was found in a small dead pine, containing three young nearly fledged. In a limb of a large dead pine situated near the bay, a nest of *Sitta* was found with seven badly incubated eggs and farther up in the top a Red-shafted Flicker's nest contained young. Tree Swallows were flitting about intending to build soon. We had now arrived in the vicinity of Point Pinos and another nest of *Sitta* in a small dead pine, was found to be ready for the eggs. A nest of Parkman's Wren was soon discovered about 10 feet up in a dead pine, with seven badly incubated eggs and higher up, a nest of *Sitta* with young.

Turning homeward we found a set of five of *Sitta* in a pine stub, 8 feet up. Near the railway close at hand we found a nest of *Harrisii* with young, in a small dead pine. As the Pigmy Owl's

nest was not far away we went to it. The eggs had been laid on large chips in bottom of a nest of a *Harrisii*, in a dead leaning limb of a live oak and about 5 feet up. Another set, of seven, of *Sitta* was secured from a nest in a small dead pine, 11½ feet up.

May 12.—I made a trip alone today and took in yesterday's but without success in the latter. At Lake Majella I took some measurements of a dead pine stump. On May 1, '93 five half incubated eggs were taken from an old nest of *Harrisii* 5½ feet up in it. Not far from this stump I found two nests of *Harrisii*, one in a stub too rotten to climb and young occupied the other. Nothing of note was found until I arrived in a "patch" of dead trees at the foot of the Huckleberry Hill. My method being to pound the bases of all dead trees, I soon found a nest of *Sitta* 41 feet up from which a set of six fresh eggs were secured.

At the summit of the hill I took an incubated set of seven of *Sitta* from a nest 35 feet up in a tree from which the bark had not yet fallen. After leaving it a loud screaming was heard and a Red-tail was seen sailing about overhead. Evidently there was a nest near. While descending the Hill I heard several loud flaps and looked up in time to see a Golden Eagle sail away from the top of a high pine. On the summit of a hill near the "big one" I took from a nest 28 feet up, a fresh set of eight *Sitta*. Four birds were about this nest and three about the last one. As it was now past noon I hastily ended my tour.

May 13.—Accompanied by my brother I left for the region east of Monterey. A nest of *Harrisii* was found in a low oak stub near the Grove, containing three young about feathered. At the Hotel del Monte we entered an open space bordered by trees in different stages of decay. First nest was of *Sitta*, inaccessible on account of great height

and condition of limb in which it was situated. Another large tree was found to contain three nests, one of *Sitta* with seven eggs hatching, another of the House Finch in a cavity with young and lastly one of the Tree Swallows just built.

This second nest reminds me that I have found both this species and Brewer's Blackbird nesting in two odd places, namely, in cavities in pine trees, stubs usually, and in and about old nests of our larger Hawks.

But to return. Turning southward we entered a deep gulch and halfway down, a small tree was found to hold two nests, one not far up with young of the Cala. Chickadee and from the other in the top, about 28 feet up, a set of five fresh eggs of *Sitta* was taken. A large stub on summit of other side also contained two nests, one of the Flicker with two fresh eggs and other of Chickadee "hatched and gone." Nearby from a nest 17 feet up an incubated set of seven of *Sitta* was taken. These eggs are marked nearly as heavily as eggs of the Western Flycatcher.

Farther southward we came to a cluster of dead young pines, two of which were stubs. In one of the latter a half incubated set of nine of *Sitta* was secured from a nest 18 feet up. A set of seven badly incubated eggs were taken from the other stub. The pleek of a *Harrisii* now called our attention and after listening the nest was soon located owing to the squeaking of the young it held. Taking a "wood-road" we soon came to a small cleared space in the center of which stood a large stub very much decayed and from it, 22 feet up, was secured a set of nine fresh eggs of *Sitta*. We had by this time reached another large gulch and before crossing it I climbed a large dead pine only to find two nests with young, one of *Sitta* and the other of Bluebird. An unfinished nest of Nuttall's Woodpecker was also found, as the bird flew from it

on our approach and flitted about while we were there. Across the gulch at the entrance of a smaller one and situated high up in a large pine with poison oak covering its trunk, was a nest of the Red-tail. It undoubtedly contained young as the parents were circling overhead and carried a squirrel-

In a dead pine standing by the side of a small gully farther on, we found three nests, two of which, a Bluebird's and a Nuthatch's, contained young and a set of two incubated eggs of Cala. Screech Owl was taken from the other. Previous to this I have twice noted three occupied nests in this same tree.

In conclusion I will say that my intention was to collect sets of the Nuthatch and that I hit it about right, having taken a series of nine sets, each differing as to markings.

L. W. BROKAW,
Westfield, Ind.

Notes on the Least Bittern for '95.

On the 25th of June, while rowing upon a lake, I noticed a Least Bittern fly over some bull-rushes which grew tangled and coarse in an indentation in the shore line. From former experience I suspected that he made his home here and upon searching I discovered the nests of these birds.

They were all placed between one and two feet above the water in the thickest part of the rushes and could not be seen until I was close upon them. Considering the size of the birds' the nests were rather large in diameter, though of no great thickness.

They were composed of dead and living rushes interwoven about the growing stalks and were very little hollowed.

The eggs were light green in color or rather whitish green and were slightly larger than the eggs of the Mourning Dove, but resemble them in shape.

The first nest contained four eggs.

the second three and the third three young and one egg.

On June 28th we were traversing a bay of a large lake. At one end is a hard bottomed shallow which is in no way connected with the main land, but stands exposed to wind and wave. The wild rice has taken footing here and mingled with the rushes grows tall and thick. The unmusical cry of the Yellow-headed Blackbird came constantly to our ears and occasionally we heard the piping of a Rail.

I had found the Least Bittern breeding here on previous years and once more made search for them. As many as six or eight pairs sometimes built in this place but this season there were only three.

The nests were similar to those of the former colony, but instead of being constructed of bullrushes they were formed of wild rice stalks. One of them was so close to the open water that we saw it while rowing along the border of the weeds. The other two were well concealed. All of them contained three eggs which were exceptionally small sets as the nests of former years have generally contained four or five.

It is said that the birds bring up two broods in a season. I have found nests in past years late in May but the majority of my finds have been during the last of June. The nests of this latter period may have been second nests, but if so the young of the first nests have always kept themselves so well concealed that they were no where to be seen.

On the first of July I saw what I thought was a Teal Duck flying across a small lake. It was some distance away, which magnified its size, for I soon perceived that it was a Least Bittern. It turned in at one end of the lake and alighted in the rushes which were not nearly as dense as where the Least Bittern generally builds.

I found a lone pair of birds nesting there. The nest was formed of rushes like those of the first colony, and contained three eggs.

I was in its vicinity several times afterward and stopped to look into it. A house was within a hundred yards of the place where it was situated and there were several small boys always infesting the shore, yet I think that no one besides myself knew of this nest. At all events the bird was not disturbed and the rushes were not trampled down about it. This demonstrates what retiring habits the Least Bittern has. He keeps himself in such security and is so silent that only those who are on the lookout for birds are liable to see him, and I have little doubt but what he is counted rare in localities where he is not so.

I was often able to approach quite near to the nest last mentioned without flushing the bird. I found that both male and female shared in the duties of incubation. When I came in sight they always rose upon the nest, but instead of standing on the feet they rested on the knee joints with the feet forward. From this I believe that they set upon the eggs with the feet doubled under them.

In general form the bird was a miniature of the American Bittern, though there was not a great deal of resemblance in coloration. The under parts of both birds was light yellow, the back of the male was a greenish black and the back of the female was of a brownish shade. The color of the back made the two quite distinguishable.

When the birds noticed that they were being observed they always raised the bill straight upward; a position characteristic of their larger relative. Sometimes they climbed upon the rushes before flying, at which times one foot was held some distance above the other just as Blackbirds cling to the flags, although in the Heron-like

position the birds are rather handsome, yet when they assumed this attitude, with the bill upward and neck stretched, they appeared extremely narrow of body and their awkwardness of position overshadowed all the beauty of plumage that they possessed.

The flight also resembled that of the American Bittern, though when beating along close to the water some distance away they were readily mistaken for some other bird.

When leaving the nest they might utter a low sound like the chipping of a Blackbird or a very undertoned squawk but they have their characteristic cry. I had heard it often in the marshes, but never thought it was that of the Least Bittern until this year. I supposed it belonged to the Coot or the Grebe and always considered the Bittern remarkably silent. It is a note that would be useless to describe but is quite loud and harsh.

One morning I was walking along the shore when I saw a Bittern fly to the lily pads not far from me. Had I not seen him alight I should certainly have passed by without noticing him. While his plumage in no respect resembled the vegetation yet it was such that when I took my eyes away it was rather difficult to place them on him again. He was not aware of my presence and walked upon the lily pads with neck stretched before him as fully as long as his body, with long stealthy steps. I have seen the American Bittern step with the same long stride. A few scattered rushes grew among the lillies and whenever he came to one he perked his head about under it with sidelong glances, searching industriously for insects. Sometimes he climbed short distances upon these rushes in pursuit of something. It was remarkable to see how light he was and how the rushes bore him up. His feathers made him appear a larger bird than he was. He was very industrious for there

were other duties to attend to at home and he made good his time in searching for food.

A Kingbird held watch over the rushes bordering the woods where the nest was placed. I knew that he made life miserable for all the big birds that came that way, but supposed he had become so accustomed to this Least Bittern as to let go unnoticed so modest a bird. We were fishing outside the weeds one drowsy day, when the Bittern came by with the Kingbird close on his trail. Not content with merely snapping at him he alighted upon his back. The weight of the two birds was so near alike that the Bittern was borne nearly to the water, whereupon the Kingbird left him, but only to repeat the proceeding when the Bittern was well under way. The only protestation on the part of the persecuted bird was a feeble croaking barely audible to me.

I visited this Bittern's nest when the young were out. I found them to be exceedingly bright eyed birds covered with a yellowish-white down. They did not hold the bill straight up when they saw me, but looked quite Heron-like. As they exhibited a tendency, at my presence, to crawl out of the nest into the adjacent rushes I left them without going nearer than to get a good sight.

This was the last I saw of this family of birds. They probably soon left for those more marshy spots where lily-pads and wild rice and flags grow thickly and where they are better able to find the leeches, water insects, and the similar food on which they live.

H. M. GUILFORD,
Minneapolis, Minn.

Albino Eggs of the Bluebird.

Having read several times of the finding of Albino eggs of *Sialia sialis*, I have always made it a point to notice

the color of all Bluebird eggs which I might find in the hope of finding a set of white ones.

After examining a great many nests I was at last rewarded in the spring of '94 by finding two sets of perfectly white eggs. About the first of May I noticed a pair of Bluebirds carrying material for a nest into a deserted Woodpecker's excavation, but as it was situated about 25 feet from the ground and in a rather rough barked maple tree, I did not take the trouble to climb up to it.

One brood was raised here in safety, but fortunately for me they concluded to change quarters.

On the 8th of June I saw the pair building a new nest in an old paint bucket, hung on the broken limb of a crab apple tree, about 50 feet from the house. I often looked into this nest when passing and on the morning of the 13th was very much surprised to see a pure *white* egg in the nest.

After this I looked at the nest oftener, if possible than before. The remaining eggs of the set were deposited on the following dates, 14th, 15th, 17th, and 19th.

No more eggs being deposited, on the 21st I took the set of five.

Not to be driven away in this manner the pair at once began building a new nest in another paint pail about 18 inches from the first.

I was now careful not to disturb them, wanting to see whether the second set would be like the first or of normal coloration.

On the 27th the first egg of the second set was laid, and to my great joy it was also white. This time I did not disturb them any until July 5th, when I took the second set of *four* eggs.

This time the old birds did not build again but joined the first brood and after remaining in the neighborhood about two weeks disappeared.

From the two sets both being white one would infer that when a bird once lays albino eggs, she continues to do so, at least throughout the season, if not every year.

D. F. HALL.
Creston, Iowa.

A Mowbray Semple.

A. Mowbray Semple was born near Poynette, Wis., in 1872 and from early childhood possessed a love for nature and nature's beauties.

He attended the local schools and later the Poynette Biblical Academy from which he graduated in 1894 with high honors, and after which he attended Rush Medical College in Chicago, Ill., with intentions of perfecting his education and becoming a medical missionary and for which he had rare qualifications.

He was a natural artist with crayon and pencil and in his lectures at the Chinese missions in his home city, he very ably illustrated what he called his "Chalk Talks," in this way, doing much good work in the conversion of the Chinamen to the Christian faith.

He was deeply interested in Ornithology, Oölogy, Botany and Photography and occasionally contributed well written and valuable papers to THE OÖLOGIST and other kindred magazines.

He was a member of "The Wilson Ornithological Chapter" of the A. A. and one of the organizers of the Oölogists' Association.

He took sick with pneumonia on April 23d last and after an illness of nine days peacefully passed away on May 1st.

The Oölogists' Association passed the following resolutions:

WHEREAS, It has pleased the Almighty to summon unto His presence our late brother, A. Mowbray Semple, and

WHEREAS, It is but fitting that a just recognition of his work in the advancement of Natural Science should be had; therefore, be it

Resolved, By the Oölogists' Association, that while we humbly bow in submission to the will of the Almighty, we do not the less mourn the loss of our deceased brother and co-worker, and

Resolved, That in the death of the said brother, A. Mowbray Semple, the Oölogists' Association laments the loss of one of the organizers and charter members of this association, whose active mind was ever looking to the advancement and welfare of this association, and

Resolved, That the Oölogists' Association tender to the relatives of our deceased brother, our sincere and heartfelt sympathy in their late bereavment, and

Resolved, That these resolutions be placed on file with the secretary of this association and a copy be transmitted to the family of our deceased brother and a copy hereof be sent to the OÖLOGIST for publication.

Signed.

ISADOR S. TROSTLER, Pres.,
EDMUND VAN WINKLE, Vice-Pres.,
WILL E. SNYDER, Treas.,
H. W. KERR, Sec.,
JOS. A. DICKINSON, Ex-Com.,
Executive Committee.

The Ring-necked Mongolian Pheasant.

Phasianus torquatus.

This variety of Pheasant, a native of China and Japan, was introduced in Oregon by Hon. O. N. Denney, then consul general to Shanghai, in 1881, and a second importation in 1882.

Several other varieties were introduced at the same time, but the Ring-neck only has prospered and he is now very much in evidence. He is a game bird *par excellence*, in more senses than one; and the "shootist" loves him. With the farmer it is not quite so. A few ex-

tracts from letters to the Chief of Division of Ornithology Department of Agriculture will show the views usually held of him by the agriculturalist.

Mr. Asher Tyler, in his letter of Jan., 1889 says of him. * * "Having spread very rapidly and increased wonderfully. The female produces from fifteen to eighteen eggs at each litter and hatch them all. Some of them lay two litters a year. The old ones have lots of nerve, will fight a Hawk, as anything that comes near them. The cocks will go in a barnyard and whip the best barnyard fowls we have and run things according to their own notion. They are very hardy and stand our winters well.

"Their favorite haunts are low grounds near fields of grain in which they depredate. They are very destructive to gardens as well. Great complaints are made against them."

Mr. R. S. Barr writes: "They are very destructive birds, both to grain and small fruits. When not disturbed he often comes in the chicken yard and fights with the chickens. There is a law to protect him, here, but it is generally discarded by the people."

Hon. T. T. Geer writing to the *Oregonian* published at Portland, Oregon, of date of Jan. 29, 1889 says: "In the matter of multiplying they seem to regard themselves as having been specially included in the original biblical injunction, and are striving in season and out of season, for first money.

* * As a farmer however, I not only have no objection to them, but rather admire them."

In my own letter of Jan. 22, 1889 to the Chief of Ornithology Department of Agriculture I have said of this Pheasant. "They are more a bird of open ground than the native Pheasant. They seek woods and brush for shelter when flushed, but will not "tree" for a dog. They usually make a loud cackling noise when flushed. They lie close and

run and hide with remarkable dexterity, and are a hard bird to get.

"This Pheasant is well adapted to take care of himself; is increasing fast, and has come to stay.

"He is a vigorous fighter, and there are many reports of his going through the farmer's roosters. Cases are reported of his crossing with the domestic hens (?). He is destructive in gardens, berries and small fruits. * * He is voted a nuisance by many farmers and I am afraid his introduction will prove a calamity to the country, whatever it may be for the sportsman.

"He is pretty good eating, about like our native pheasant, but I am inclined to regard him as a gaudily painted deception and a fraud. * * He 'roosts' on the ground, hiding among grass, weeds, or other cover. The hen lays on the ground, from twelve to eighteen eggs at a clutch; raises two and sometimes three broods in a season.

"The male crows, something like a young domestic rooster just learning the art, and flaps, or rather flutters his wings afterward."

And in my letter of Mar. 7, 1890 to the *Pacific Rural Press* of San Francisco, Cal., in answer to inquiry:

"This Jap. is hardy, vigorous, and remarkably well calculated to take care of himself. He is an expert at running and hiding; is impudent and profane. He will sit behind the fence a hundred steps from where I am working in my berryground and yell, 'You daren't shoot,' and flutter his wings in the most insulting manner. If approached he runs off rapidly, dodging behind every sort of cover, and when pressed gets up suddenly and flies straight away crying out rapidly and loudly, "Shoot' shoot, shoot and be d—d; shoot and be d—d."

In spring the males quarrel and swear at each other long distances apart, getting nearer and nearer and eventually having a pitched battle. If the interests of piety and morality of

the busy men, this Mongolian should be kept out.

He rises early and gets in all the time there is. As a provocation of profanity he is irresistible, and missionary effort among your vine culturalists and berry men will be useless in a few years after you introduce this Pheasant. The law for his protection here is practically a dead letter. Every one who hunts carries a tight game-bag, and it is an unwritten law, implicitly obeyed, that no one else tries to see what he has in it."

My further acquaintance with this bird has greatly modified the unfavorable opinion given above. He *does* eat some berries and small fruits and he *does* forage some on "garden truck;" lettuce, onions, cabbage &c., he especially effects, but he is a great insect eater. Grasshoppers, cutworms, green-worms, *et genius entomo*, are his peculiar delight. He digs cutworms out of sod with his strong beak, and is a most expert and persevering grasshopperist. The young birds are active, feather quickly, and a little brown chick no bigger than the end of your thumb, can catch a grasshopper too easy. They also catch flies, moths, &c. of all sorts found among grass and weeds, and they especially delight in aphids. If your cabbage, kale, rutabagas and such become "lousy" a brood of Pheasant chicks is a sure remedy.

In this way he helps to raise the fruits and vegetables, and is certainly entitled to some share, as compensation. And I am not prepared to assert that he takes more than his just dues. And I think that Mr. Asher Tyler, quoted above would *now* modify his sweeping statement as to their destructiveness.

Mr. Asher's statement that the young are "easily raised," and that they "become very domestic," is not in accordance with my experience. The young are fairly easy to raise under proper conditions. The *wild* hens raise them easy enough, but with a common dom-

estic hen it is different. The chicks do not eat grain at first, but subsist entirely on insects, flies, bugs, &c. which they can catch among grass and weeds.

Some substitute food must be provided when they are kept in confinement. They require to be kept dry and warm, more so than domestic chicks. They need plenty of hovering, and the mother hen should be handy and understand her business. They have some other peculiarities also, that should be understood to insure success, but this article is already spinning out too long.

With us they do not become very domestic. They are shy, shrewd, very suspicious and afraid of strangers. We have to keep them confined or they would leave. We live in a small village. If we were on a large farm where they would not be hunted or otherwise disturbed, they would stay around, but they would keep out of sight mostly and they could only be caught with a gun. They cannot be trapped or snared. They are too sharp for that.

No finer game bird runs or flies. He will not "tree" but lies *close* to the ground, and a dog that understands him, can hold him a long time. When flushed he flies straight away, cackling loudly. When winged he is yet hard to get, if there is cover of any kind, as he has got the most useful pair of legs on him of any game bird.

He is the beloved of the sportsman, the disgust of the bungler, the despair of the trapper. Wherever he is introduced he will learn some new tricks to bother the "shootist" and his dog. The male's brilliant plumage renders him conspicuous, and he needs to be sharp to take care of himself. They are hardy from the time they are weaned, and I see no reason why this Pheasant should not become *the* game bird of the U. S.

F. S. MATTESON,

Turner, Oregon.

THE OÖLOGIST.

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ALBION, N. Y., SEPTEMBER, 1895.

WHOLE No. 119

Two 'Knots' Shot at Stoney Point, N. Y.

Last Tuesday morning after several days of severe wind, almost a gale from the northwest, a young enthusiastic observer and ornithologist of this city, Mr. James Savage, took his wheel and gun and sped out to Stony Point, thinking that he might perhaps find a rare bird on the beach that had, by the severity of the wind, been thrown out of his course southward. His expectations were agreeably rewarded. Coming to the point he saw two waders that seemed to be entirely new to his experienced eyes. He was lucky enough to secure both. To his surprise he found that they were male and female of the heretofore, in this vicinity, not observed "Knot," also called Red-breasted and Ash-colored Sandpiper, or Gray-back. This handsome species, so remarkable for its seasonable differences of plumage, is the largest of the North American Sandpipers. It inhabits most parts of the globe: in America chiefly coastwise, and breeds in high latitudes.

"In autumn and winter," says Audubon, "this species is abundant along the whole range of our coast, wherever the shores are sandy or muddy, from Maine to the mouths of the Mississippi; but I never found one far inland. Sometimes they collect in flocks of several hundred individuals, and are seen wheeling over the water, near the shore, in beautiful order, and now and then so close together as to afford an excellent shot, especially when they suddenly alight in a mass near the sportsman, or when swiftly veering they expose their lower parts at the same moment. On such occasions a dozen or more may be killed at once, provided the proper moment is chosen."

An authentic egg of the Knot has for many years been the object of special and diligent search by eminent naturalists and explorers traveling in Arctic regions where the bird is known to live during the season of reproduction. Lieut. A. W. Greeley, U. S. A., commander of the late expedition to Lady Franklin's Sound, succeeded in obtaining the long sought for egg of the "Knot." C. H. Merriam publishes the first account of it, written by Lieut. Greeley as follows: "The specimen of bird and egg were obtained in the vicinity of Fort Conger, latitude 81 deg. 44 min. N., color, light pea green, closely spotted with brown in small specks about the size of a pin head."

Mr. Savage has these rare specimens mounted by Mr. H. Grieb of this city, and will undoubtedly present them to the Buffalo Society of Natural Sciences.

O. REINECKE,

Aug. 23, 1895.

Buffalo, N. Y.

Nesting of Richardson's Merlin

On May 18th a friend of mine while looking for nests of the Ferruginous Buzzard on an island in the Bow River, near Calgary Alberta, noticed a small Hawk fly from a Black Poplar, and upon proceeding to the spot the bird commenced screeching and was almost immediately joined by its mate, and by the time my friend stood under the tree the two birds were making a tremendous noise, and were very bold, making repeated swoops to within a few yards of the intruder's head.

My friend was not long in reaching the top of the tree which had been broken off at some time, and was rewarded by the sight of five as handsome eggs as he ever saw. The nest was

practically none, the eggs being laid on the rubbish which had collected at the bottom of the hole, about 30 feet from the ground, incubation slight. My friend was satisfied that they were eggs of Richardson's Merlin, but to be fully convinced he shot the female and fully identified the bird.

The set is now in my possession and the eggs are very handsome, thickly blotched and splashed with rich red brown, almost appearing uniform in one specimen. The set was taken about three miles from where Mr. J. E. Houseman took a set in '94. See OÖLOGIST for July, 1894.

On July 21st I was down the Bow river collecting and within about a mile of where the above set was taken, I shot an Am. Sparrow Hawk from the top of a poplar, and immediately following the report a male Hawk flew from another tree vociferously protesting against my intrusion. I had been on the look out for Richardson's Merlin for several days, as I wished to procure a pair if possible, and my suspicions were aroused at once as the bird was larger and darker, and the cry was somewhat different from the Sparrow Hawk. I proceeded to the spot, and when within a few yards of the tree the female left the nest and joined her mate.

The tree was a large black poplar, and it was utterly impossible for me to climb it without help, so I satisfied myself with shooting the female, and determined to return the following day, which I did, and with the aid of a long pole I reached the first branch and then a large jagged hole that showed near the top. Directly, my head was on a level with the hole five hungry mouths were opened, clamoring noisily for food, and I was gazing upon five downy young of Richardson's Merlin. One was a remarkably small and puny bird almost dead and with scarcely any down upon it. I transferred the lot into my hat and now all that remains of

them is their carefully preserved skins along with the female.

I was greatly surprised at taking young birds so late, and I think it just possible that the bird left from the first nest mated again, thus accounting for the lateness of the nesting.

I spent some 4 weeks around Calgary this summer, and saw in all about five for six pair of Merlins, they are no doubt very local as I spent some three weeks, 100 miles north of Calgary and never saw a single specimen, the Pigeon Hawk seeming to take its place. I believe these two records are only the second and third authentic ones of the nesting of the nesting of this bold little Falcon. Whilst taking the latter nest the male was very bold swooping to within a few yards of my head. I could easily have shot, him but thought I had played havoc enough.

G. F. DIPPIE,
Toronto.

A Few Notes on the Arizona Jay.

Aphelocoma sieberii arizonæ.

This interesting bird is a common resident in the Sierra Madres about Monterey in the oak timber. It was while I was field engineer of a short railroad that runs from town to the foot of the mountains, twelve miles south, transporting ore from thence to the smelters here, that I met this species.

Being very busy, I had no time to study this bold fellow and make sure his identity, but at last fortune favored me, and I obtained an introduction. They are gregarious, roving about in flocks of half a dozen or a dozen. They spend all the morning and evening flying about from tree to tree, uttering their harsh cries, and not appearing to notice man in the least. In the middle of the day they are generally still, sitting around in trees, in some retired

place, although a couple of hours before they had not deigned to heed anyone, yet if they be disturbed while taking their midday "siesta," they lift up their voices in the most complaining tones.

About the middle of April, I observed one building its nest 30 feet from the ground in a large oak right in the midst of a mining camp.

In due time the 7th of May came around, and with it very little for me to do, as I was then bridge engineer. So after discharging what duties I had, I sat out for a climb to the top of a hill close by, "For," said I to myself, "I may run across a nest of that festive Jay." I looked around me very carefully as I went. When about half way up, I disturbed a dozen individuals, who were taking an evening nap. My face flushed with delight. Surely I was in for a valuable set. A careful examination of all the trees in the neighborhood terminated in a disappointment, but as disappointments are common to a collector, I did not mind this.

After a while I reached the top. I looked about me. At my feet was the partly constructed bridge, the railroad winding and twisting along the side of the hill, while farther down the valley were the engine and the track-laying gangs. On the other side was the majestic mountain range towering skyward 4,000 feet, the San Pedro mine with its red dump about on the same level that I was, and with a long cable reaching nearly to the railroad. The view was indeed lovely, and I stopped for a few moments enjoying the scenery. Then I looked around again, but this time at the trees, when suddenly I saw a sight that made me want to jump up and whoop a la Comanche Indian. Not 50 feet from me in a small oak was a Jay sitting serenely on her nest which was situated close to the main branch, fifteen feet from the ground. I went up and stood under the tree, yet she

took no notice of me, so by way of amusement I snapped a few twigs at her to see what effect it would have. At first she paid no attention whatever of them, but when one smote her on the head, she decided that the place was getting too warm for her, and left in great haste. Lighting on a tree nearby, she called to her "old man," who was exceeding prompt in making an appearance. As I began to climb the tree the pair raised a terrible rumpus, flying about close to me uttering their harsh cries, and lighting frequently.

I reached the nest and looked in. Any one who has ever made a rare find can imagine the thrill that went through me as I gazed upon four eggs. They were bluish-green in color similar to the eggs of the Robin, sparsely sprinkled with small spots of reddish lavender brown quite evenly distributed over the entire surface. One egg was almost entirely free from markings. Size about 1.25x.80.

The nest was composed of twigs, very loosely yet neatly arranged, and scantily lined with rootlets. It was neatly rounded, and well cupped, measuring 5x4, 3x2½ in.

But now comes the sad part of my story. The eggs were far advanced in incubation, and being out on my work, I did not have the best tools that were ever used, so I could not save my precious set. Alas, I found no more eggs of this Jay, but am looking forward to next year to have the opportunity of taking and preserving at least one set.

IRVING H. WENTWORTH,
Monterey, Mexico.

—♦—♦—♦—

A Few Notes on the Nesting of the Great Crested Flycatcher.

So little has been written concerning the nesting habits of this species that it occurred to me to write a short account describing from my own experience its nidification.

The Great-Crested Flycatcher is a fairly common bird in eastern United States, but on account of its retiring disposition is not very well known. It arrives from the South early in May and remains with us until September. Nidification generally begins about the first week in June and fresh eggs may be found in July. The best time, however for fresh sets is about the middle of June.

I can well remember even now the circumstances under which I first saw one of the eggs of the species. I was about nine years of age at the time and, with some companions was standing in front of the school house at East Madison, N. J., where I have spent a good portion of my early existence. We were engaged in the arduous occupation of doing nothing in particular when a farm boy approached, and exposed to our view an egg of this species which none of us had ever seen before.

With envious eyes I surveyed the peculiarly marked specimen, and when the boy with magnanimous generosity offered to dispose of it at the low price of 25 cents, which he assured us was about equivalent to giving it away, I jumped at the bargain, but next minute lugubriously confessed that I hadn't the money.

The boy collected an additional egg each day till we had scrutinized five specimens and fully believing that he had now taken the full complement and having besides sold all the other eggs at prices ranging from ten cents to a quarter, consented at my entreaty to show me the nest, which I found in an isolated hollow stub. This stub was about 12 feet high and so excessively crooked that it might be said to approach the bounds of deformity. Having first been laughingly informed that I could have what the nest contained, I impetuously scrambled up and had just time to insert my hand in the nest which was but a few inches from the

top and to seize to my great joy and astonishment an egg, when the stub fell. In withdrawing the egg on such short time allowance, I pushed the nest from its original site, and afterward found it on the ground, it having traversed internally the length of the stub and having come out where the stub had broken off. During this time I had traversed the stub's length externally, sustained no bruises and retained the egg intact much to my guides chagrin, who sincerely expressed his regret at having made such a rash agreement and for some time this egg stood pre-eminent so to speak in my collection.

This Flycatcher is of the persevering genus in that it will lay the full complement no matter if each egg is taken before another is laid, and some times this indefatigability is not without its reward, which the following example will well illustrate.

Some years after the preceding reminiscence, not having since found any more of this species eggs, a friend and myself were exploring an old remote orchard, when I upon inserting my hand in a large hole felt an egg. Without hesitation I called out "Sparrow's egg," but upon drawing the egg out was overjoyed to find it a Crested Flycatcher's.

Moved by the other boy's entreaty I left the egg for the time being, but the next day we revisited the spot each returning home an egg richer. As we only collected singles, we agreed to leave the prospective remainder of the set undisturbed. The nest, however, was found three days later by some other oölogists and the three eggs taken. In the course of a couple of weeks while again collecting in the locality I visited the nest, and found a recently hatched young bird, which proved that the birds had succeeded in hatching their sixth and last egg.

The female is not a close setter and I have rarely surprised her on the nest.

In fact in only a very few instances out of the large number of nests that I have examined, have I seen either bird in the vicinity.

The number of eggs to a set seems to vary with the locality. In almost all the complete sets which I have collected, six eggs composed the complement, while a friend, who has also collected many sets of this species informs me that he has almost invariably found four eggs to be a complete set. His sets were obtained in the vicinity of Newark, N. J., where I am told these birds are numerous.

Davie gives four to six as the number to a set, but this summer on June 21st, while collecting with a friend at Richmond Hill, L. I. I was fortunate enough to take a set of seven from a hole in an apple tree six feet from the ground. The nest cavity is generally large enough to admit of the hand but in this instance the hole was smaller than is usually the case and the eggs had to be withdrawn by means of a spoon which should always be carried for such emergencies.

The eggs of this set were in varying stages of incubation, one containing an embryo while another was entirely fresh. In another cavity in the same tree was a nest of the English Sparrow containing six eggs while in a maple close by was a family of Yellow Warblers just ready to fly.

This bird usually builds in regions removed from the near society of man, but on the day that I collected the set of seven I observed an instance of this bird nesting close to civilization. A friend living on Richmond Hill said that he had found an egg in his yard which he was unable to identify. He produced the egg and I at once pronounced it a Great Crested Flycatcher's and expressed my astonishment at this bird's nesting so close to a house. Without saying a word he walked to a tree near the front walk and gave it a

sharp rap with his hand. Simultaneous with the rap the Flycatcher who had doubtless heard him approach, flew from its hole some five feet from the ground and perched on a dead limb some distance away, raising and lowering its crest with an excited, jerky movement in an exceedingly ludicrous manner.

I had previously searched for years in vain for a nest of *M. crinitus* at Richmond Hill and had begun to think that this bird was not a breeder in that locality.

I have never found a nest of this species placed more than fifteen feet from the ground, and the average height is about six feet. The nests were nearly always placed in holes in apple trees in isolated orchards, which localities are the favorite haunts of this Flycatcher. They sometimes, however, utilize bird houses and Mr. W. E. Loucks in the February OÖLOGIST mentions a pair which nested "in the corner of a dancing pavilion under the roof."

The nest is composed of miscellaneous substances, sticks, fine strips of bark, grasses, feathers, fine stems and rootlets and the invariable snake skins.

PAUL H. MOTTELAY,
New York City.

Blue-gray Gnatcatcher.

This species is common throughout this and adjoining counties. It is very noisy as it goes through the woods catching its food which consists of gnats, etc. There is scarcely a piece of woods that does not afford a habitation for one or more pairs of these busy birds.

The Blue-gray Gnatcatcher arrives here in the first part of April being common about the 15th. The nests are placed on horizontal or drooping limbs and upright forks. When the first it is saddled and sometimes an upright twig affords a support to either side. Some-

times, but rarely ever, it builds in bushes, one was found in an upright fork of a plum bush about five or six feet high. Three nests have been found on drooping limbs with a horizontal one about five inches above the first.

The number of eggs deposited are four or five. Their ground color is greenish or bluish-white speckled with chestnut, and in some the markings are of a dark brown tinge. The nest is a rather frail structure with high compact walls, narrow at the brim and gracefully turned. The interior is made of soft downy materials, withered blossoms, down of the milkweed, fine wiry grasses, stems of old leaves, horse-nair and sometimes, but rarely ever, chicken feathers. The exterior is beautifully ornamented with lichens, held in place by webs and to the limb by the same. Concerning the beauty of the nest will quote Mr. Davie: "As a work of beauty and ingenious architectural design the nest of this bird has few equals in this country." At a distance it looks like a round knot protruding from the limb, and this makes it hard to find. The best way to find the nest is to watch the birds carry building material to it.

The earliest date I have for beginning of nest building is May 1st. On the morning of that day while rambling in some pines I saw a Gnatcatcher fly to a pine limb with something in its mouth. After sitting there for a short time it flew away. Soon it came back with its mate, both with material for the nest in their mouths. Several days after I passed the place again and found both birds busy, the nest being nearly completed. A week later I came to the nest, seeing that it was finished began climbing the tree, when about half way up the bird flew off. The height was 35 feet and ten feet from the trunk of tree. The limb was too small to bear my weight so I took a pole, nailed a box filled with cotton to

one end, and cut another one but smaller. The eggs were secured as follows: Held the box under nest and turned it and eggs into box with the smaller pole. On examining the box found it to contain four fresh eggs.

The nest was saddled on the limb and one side was fastened to an upright twig. It was made of fine wiry grasses, soft downy materials and stems of old leaves, beautifully adorned with lichens. In diameter it measured one and one half inches and two inches in height.

Set II. While looking for nests I came across a pair of Gnatcatchers. After looking for their nest a short while I found it in an oak on a dead limb just above it was another one not two inches from top of nest. It was 15 feet high and 10 feet from trunk of the tree. The nest with its five incubated eggs was easily secured. The birds never came near, as is not generally the case. This nest was larger than any I have ever found. It was made of fine wiry grass, soft downy material, seeds of grass, and like the other, beautifully adorned with lichens. As the limb was slanting the nest was higher on one side than the other being $3\frac{1}{2}$ and $2\frac{1}{2}$ inches in height and 2 inches in diameter. Date, May 12.

Set III. On May 15, while getting a Warbler's nest I heard a Gnatcatcher. I thought it had a nest near, so began searching for it. After looking a short time I saw a nest in a sycamore tree, and could see the tip end of her tail over the edges of the nest. I had climbed within a few feet of it before she left the nest and her five incubated eggs. All the time I was getting it she flew at me. The nest was well fastened to the limb, at the bottom and to an upright branch at one side. It was a rather small one compared to the nest of Set II, measuring only $1\frac{1}{2}$ inches in height, and $1\frac{1}{2}$ inches in diameter. Made of

the same materials as others except it was lined with horse hair.

Set IV. While rambling in some woods for nests, I saw Gnatcatchers flying to and from an upright fork of a hickory. When I examined the fork found that they had just commenced a nest. It being a good distance from home, I did not pass the nest until two weeks after. Then instead of a few lichens and grasses, found a completed nest with five fresh eggs. The old bird was rather bold while I was taking the nest, coming within a few feet of me and fussing all the time. This nest had thicker walls than any other I have taken, measuring $\frac{1}{2}$ to $\frac{3}{4}$ of an inch thick. The other dimensions were $2\frac{1}{2}$ inches in diameter and 3 inches in height. It was made of brown lichens, fine wiry grass, and a little moss, beautifully adorned with lichens.

H. GOULD WELBORN.
Lexington, N. C.

Notes on the Nesting of the Ash-throated Flycatcher.

The Ash-throated Flycatcher, (*Mniotilta cinerea*) is very common in this locality during May, June, July, although its nests are easily found, as the birds usually retire to the seclusion of the woods and hill-sides to find a nesting site. The birds arrive here from winter quarters the last of April, the first birds being seen about the 14th and stay until the middle of August. During the last of April and the first week in May they may be seen everywhere busily catching flies and insects, not seeming to mind the presence of man in the least, although later in the season they become very shy and wary. About the 12th of May the birds begin mating, at which time the males are very pugnacious, often engaging in fights for the possession of a female.

After a site has been selected for the nest, which is usually in some old flick-

ers or woodpeckers hole, the nest building commences. A thick layer of grass is usually put in first, although I have found several nests that had no grass at all in them. On top of the grass, the birds put horse manure, rabbit fur, cow's hair and fine roots to a depth of two or three inches, and then the lining which is usually composed of short hair or fur taken from the hide of some dead cow or rabbit. One nest found was composed almost entirely of rabbit's fur.

From four to seven eggs are laid, usually five. They have a light buff ground color, scratched and splashed lengthwise, but most profuse on the large end, with reddish-brown or chestnut, underlaid with faint lilac markings. When robbed of the first set they will sometimes lay a second which usually contains four eggs. One pair from whom I took a second set, I have reason to believe laid a third, as the eggs were very much alike and the same characteristics were noted in each case.

Happening to pass a white oak, one of the dead limbs of which I knew to be hollow, I thought I would climb up and take a look at it. I hardly expected to find any nest in it, as it joined a hollow stub and therefore had no bottom to it. Hence I was agreeably surprised to find the hollow in the branch choked up with grass which I knew meant an Ash-throated Flycatcher nest, although no birds were visible. I cautiously approached the place several times in the next few days but didn't see any bird, so I concluded the nest was deserted, but on chopping the hole bigger I was rewarded with five eggs. This was May 23, '95. June 18th I again climbed the tree and found a set of four which I left for two days to be sure of a full set. I thought that was enough for one pair of birds, but out of curiosity I again climbed the nest July 12th. Result. One set of four incubated about three-fourths. On each occasion I was un-

ble to get a glimpse of the birds try as I would although I never before took a set when the owners weren't very much in evidence.

During the last two years three very odd nesting sites of this Flycatcher have come under my observation. The oddest of the three was one situated in a four inch pipe, ten feet from a traveled road. May 23 while walking along the road, shooting swallows, my brother chanced to look into the pipe, one end of which was in a tunnel, the other three feet from the ground. Noticing grass strewn along inside the pipe, he proceeded to investigate, and soon saw the nest which was three feet from the mouth of the pipe. After trying in vain to loosen the nest with his ramrod, he succeeded, with the assistance of two small boys who informed him it was a swallow's nest, in jouncing the nest out, and found it to contain four fresh eggs, one broken.

Another nest was situated in a six by six water spout, not more than two feet from a hoisting plant which is in daily operation. The third, which was observed last year, was under the warped saddle boards at the peak of a neighbor's roof.

GEO. L. KAEDING,
Drytown, Cal.

The Only Venomous Bird Known.

Among all the thousands of feathered creatures classified by the trained ornithologists, but one, the Rpir N'Doob, or "Bird of Death," is known to be venomous. This queer and deadly species of the winged and feathered tribe is a native of the island of Papua or New Guinea. The bird is described as being about the size of a common tame Pigeon, of gray plumage, and a tail of extraordinary length, ending in a tip of brilliant scarlet red. It is a marsh bird and is found to inhabit only the immense stagnant pools adjoining the lakes of the interior of the island.

The Rpir N'Doob has a hooked beak, as sharp as a cock's spur, and hollow. The venom with which it inoculates is distilled in a set of organs which nature has provided for the purpose, and which lie in the upper mandible just below the openings of the nostrils. Under this poison-secreting laboratory in the roof of the mouth is a small fleshy knob. When the bird sets its beak in the flesh of a victim this knob receives a pressure which liberates the venom and inoculates the wound.

No man, native or otherwise, was ever known to recover from a bite inflicted by a Rpir N'Doob. The suffering in such cases is said to be much more agonizing than in cases of rattlesnake and Gila monster bites.

M. T. CLECKLEY, M. D.
Augusta, Ga.

My Oölogical Cabinet.

Perhaps some of the OÖLOGIST's readers would like to know how to get a cheap, durable, safe and pretty egg cabinet. I will tell you what I use: two empty thread cases; one four and the other a six drawer case. These can be bought in dry good stores very cheap. Mine cost \$1 and \$1.75 respectively. I believe that no other cabinet answers my purpose so well. They are made in oak and maple, and are "rat-proof." My largest egg in one of these cabinets is a Black Vulture's; so they will hold pretty large eggs. Being nicely finished and revarnished they present a handsome appearance; while the interior may contain nicely arranged eggs. One cabinet may be placed above the other, and make a handsome piece of furniture and economize room. Thread cases are made in several styles according to quality and finish. Two hundred medium eggs can be stored in two cabinets.

CLARENCE L. MCCARTHA.
Troy, Alabama.

A Hanging and the Lesson in It.

In *Popular Science News* for April, 1894, under the title of "Birds That Think" was an article taken from *Harper's Young People*. And as that article is short and intended to form the text for this present sermon, it will be no more than right to quote it in full. It is exactly as follows:

* * * * *

"A Swallow had built its nest among the rafters of the barn of Mr. Denny near Royal Oaks in Talbot County. While on the nest the Swallow was attacked by the Sparrow and the two birds had a furious battle, which went on sometimes in the air and sometimes on the ground. The Swallow was courageous, but it had not the mind of the Sparrow and finally had to yield to its antagonist. Having driven the Swallow from the barn the victorious Sparrow took possession of the nest and contents. In about an hour the Swallow returned to the barn bearing in its mouth a bunch of something resembling long horsehair.

"The bird went directly and noiselessly to its nest, threw itself on the back of the Sparrow and before the astonished bird had recovered from the shock caused by the sudden and violent return of its vanquished foe, the Swallow put a horse-hair noose around the Sparrow's neck and somehow fastened the other end of the lasso to the nest or to the rafter. The Sparrow soon choked to death on its unexpected gallows, where it hung for some days."

* * * * *

I deny the truthfulness of this account on several grounds. It does not read like the account of an eye-witness or at all events like the account of such an eye-witness as would be capable of telling just what transpired. Although we will not affirm that no such actions ever will be observed in lower animals, yet it is most highly improbable; and we will only grant the bounds of possibility for the sake of argumentative observation and to add interest to our examinations.

For my part, even if I had seen such an event transpire I think I would not

have believed my eyes. However I do not think I would have seen the same chain of incidents as the writer of that article reported. Nowhere are the majority of people so incompetent to judge, so little to be trusted in their calculations, as in matters where their senses are called into play in connection with animated nature.

One day I met a farmer who gave me the startling information that the Bobolink lived on his farm all the year round, and that the little Black-capped Chickadee or Titmouse was the genuine "sapsucker." He likewise startled me by telling me that the dragon-flies which I had pinned on my hat were "mosquitoes?" I must here exonerate Ohio and this section by the statement that my ignorant farmer does not live in these 'parts' nor is he by any means to be considered a type of Buckeye farmers.

Yet the ignorance whereof this case is an extreme, the difference between it and the average being only one of degree not of kind, is so wide spread that I may safely call it universal.

Not boasting or with vanity be it said that no people as a whole know so much concerning the world in which they live as the American. Yet this knowledge is but a dim glimpse of that all-engulfing ocean whose bounds are infinite itself. The majority of persons do not use their eyes often enough to truthfully see; neither can they trust the evidence of their ears. And when once in a while they are awakened into consciousness by some extraordinary event their organs play them false. They are dazzled and bewildered by the profusion and novelty of sensations. And why? Simply because they have not exercised them frequently enough to have any reliable criterion of past experiences. For it is not the eye that must see, but the brain behind it. Behind the eye must be the eye-brain; and behind the ear the ear-brain. The eye

and the ear are but the windows through which the light from the outer world finds its way into the mind and soul. So it is with the other senses.

As a rule we are prone to see only what we have been trained to see or have trained ourselves to see; or, as is too frequently the case, there has been no education of the powers of what I may call physical observation. So that all our education which should have ended in fitting us for a fuller appreciation of the world in which we live and what is that pray but a greater capacity for Life—ends often with mummifying us, sealing us up in living cells, with less capacity for the enjoyment of Nature than she gave us as children, than the red man has.

Outside of the sense range of how many mortals lies how vast and splendid a world! How much more fully, for instance, might the farmer enjoy life if he took the trouble to cultivate closer relations with the world in which he lives, in which his life finds so picturesque a setting against all the mighty forces and mysteries of the universe. If he were a more careful and interested observer.

How can a man be a good live farmer without being a naturalist also? That he might know what wild flowers bloomed about him spotting with color the successive pages of the year whereby nature keeps a faithful calendar in his fields; that he might see the beauty which a Supreme Beauty has given to the roughest weed, that he may admire and learn of it while he destroys it; that he might know what birds sang in his fields and orchards; what 'bugs' were foes and which he was to class with the hostes on his right hand which gather to his aid. For as the poet says:

"More servants wait on man
Than he'll take notice of."

There is some hope for the farmer whose life is somewhat more than the cultivating of corn and the feeding of

the swine, who has a longing after the higher things even into the idea which nothing can smother. As a rule people are only what they are interested in, which means something rather narrow and limited and far enough away from Nature. The writer of the article on "Birds That Think" writes like a reporter writing for business ends.

The use of the word "mind" in the article is not quite correct. It could scarcely be said that a Sparrow has more mind than a Swallow, seeing how much more capable of extended flight is the latter. Although, getting down to particulars, even here a dispute might be raised as to whether the Swallow actually had any more 'mind power,' when we consider its peculiar adaptation to long continued flight lies rather in its lightness, general figure and shape of wing. But of the two birds the English Sparrow—for such it was although not so stated in the article—had the best chance in the fight being a trained and experienced fighter—a fighter both by nature and nationality. The Sparrow whipped the Swallow and drove it from the barn. So far the tale goes well and is too common a one, experience leads me to believe. But now comes the change. The observer was very patient—he waited around "about an hour."

Meanwhile the Swallow had been out sitting on a telegraph or telephone wire or flying in superb tireless circles getting its "mind:" full of cogitations, plotting a revenge—or had she been in close consultation with some of the sage Swallows of that region renowned throughout all Swallowdom for age and judgment—two indiscoverable Siamese twins as we are taught to believe? Of course our observer could not follow the Swallow nor could he have any means of knowing what she did or where she went while he waited her return. She may have flown far, acting as a Swallow usually does un-

der such circumstances, or she may have done some of the things which we have reached in our speculations. At all events she returned and with a bunch of something which looked like "long horse-hairs." In the next sentence we learn that it was horse-hairs—our observer got a better glimpse of it or settled into that conclusion. That the Swallow had settled in its mind what it would do, we know from the statement that she flew "directly and noiselessly" to her nest—two not very unusual or remarkable things to do—but they were so described to give weight to the culminating actions which must prove that birds think. No circling about with twitterings as usual, no uncertainty or hesitation; the plot was all laid. Only it was a pity her husband did not lend a hand as Mr. Swallows usually do. But he was busy in a clover-field near by and "could not possibly get off." Did our observer climb up among the rafters of the barn? He was able for some reason to see very well, at all events. How the Swallow threw herself upon the Sparrow's back and "astonished" and shocked it so that she was able ere its recovery to put a horse-hair noose around its neck and to fasten the other end to the nest or to the rafter—excitement ran too high for him to tell which—all this is very remarkable. And then to leave "the Sparrow soon choked to death on its unexpected gallows" "for several days," it is too much! To see it hanging so long and not want to find out or try to find out which it was suspended from, the nest or rafter!

Now my ornithological brethren I do not want to be thought a sarcastic or ironical preacher nor do I wish to be rough with novitiate observers. It is for the very reverse that I am laboring. This department is difficult and with few enthusiasts enough I believe.

I am only talking thus to give sufficient emphasis to what I have to say

upon the matter of observation. This is my only reason for 'tearing up' that unpretentious and carelessly written article. Yet such notes are in the right direction, and poor, careless and faulty ones are perhaps better than none and always to be encouraged. Where one is actually interested he will soon do better work if there be any ability in him. And all encouragement to the beginner in the fields of original observation in living nature. Those fields are vast and everything is yet to be done. Let such magnificent monuments to this phase of nature-study as Sir John Lubbock's "Ants, Bees and Wasps" and Charles Darwin's "The Formation of the Vegetable Mould Through the Actions of Earth Worms" be our inspiration and ideals.

(Continued in next number)

Notice.

The regular semi-annual meeting of the Western New York Naturalists' Association will be held at Chili, Monroe Co., N. Y., Thursday, Oct. 3, 1895. This will include the election of officers for the ensuing year and some very important business. It is earnestly hoped that there will be a good attendance of active members. The business meeting will be called at 10 a. m. Public session from 1 to 5 and 7:30 to 9 p. m. Conveyances will meet morning trains at Coldwater Station on the direct line of the N. Y. C. & H. R. R. R. E. H. SNORT, Chairman of Com. G. F. GUELF, Secretary.

JUNE-JULY CONTEST.

Thirty Judges.

1. In the Haunts of the White-tailed Kite, 116.
2. The Prothonotary Warbler in Dry Weather, 83.
3. Woodpeckers and Their Nests, 76.
4. Hawk Notes from California, 64.
5. The Hooded Warbler, 40.

None of the Judges named the prize winning articles in their exact order.

Prizes were mailed on September 10.

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A Monthly Magazine Devoted to
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FRANK H. LATTIN, Editor and Publisher.
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During 1895 the Judges prize will be awarded as follows, viz: Each month it will consist of \$6 in specimens or \$1.50 in instruments, supplies or publications or \$3 cash. This prize will be awarded to the Judge who names the winning articles and in their exact order. In case more than one Judge names them correctly this prize will be equally divided among the number.

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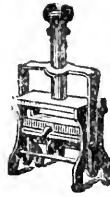
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Monthly.

VOL. XII. NO. 10-11. ALBION, N. Y., OCT.-NOV., 1895. WHOLE NO. 20-21

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TO EXCHANGE.—7 vols of *Golden Days*. About 400 No's, for eggs, stuffed birds, climbers or oölogical instruments, value of papers \$10, will ex. for \$5. RUSSELL GRAY, Box 187, Haverford, Pa.

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WANTED.—To correspond with Oologists in Portland or vicinity, with a view of exchanging specimens, next season. J. MERTON SWAIN, 1 Central Wharf, Portland, Me.

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I WILL exchange Indian relics, stamps and other curios for photographs and good drawings of wild animals, birds and nests. ABBERT GANIER, Milliken's Bend, La.

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LOOK! For every three arrowheads sent me, or one bird point, I will send prepaid one old gun flint used at Ft. Winnebago. HARRY WILLIAMS, Portage, Wis.

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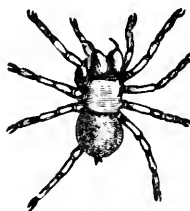
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You Are a Judge.

Your decision must be mailed us not later than the 20th day of November. Write on back of a postal card the five articles which you have decided to be the most valuable, instructive and interesting in this combined Oct.-Nov. number of OÖLOGIST and mail to us. Number the articles in the order which you think the prizes should be awarded.

During 1895 the Judges prize will be awarded as follows, viz: Each month it will consist of \$6 in specimens or \$4.50 in instruments, supplies or publications or \$3 cash. This prize will be awarded to the Judge who names the winning articles and in their exact order. In case more than one Judge names them correctly this prize will be equally divided among the number.

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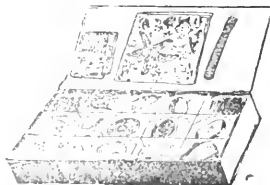
I've been in this business a long time but here are the biggest bargains I ever offered. I haven't done so much lately, been too busy, shant issue another catalogue just yet but paste this in your hat. By another year "Bartlett" will be more in evidence than ever before in the 12 years I have been in the "curio" business.

Here Are a Few Astonishers.

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Chinese poker chips 5c. now 3 for 5c.
Chinese invitations to New Year's banquet 20c. now 10c.
Chinese envelopes 5c. now 3 for 5c.
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Chinese lottery tickets 3c. now 10c per dozen.
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Chinese hornruts 10c. now 5c. or 3 for 10c.
Liver beans, biggest on earth 25c. now 10c.
Satin spar scarf pins, appropriate for lady or gentleman 35c. now 25c.
Indian wampum 25c doz., now 15c doz.
Indian pottery, large 5 to 10c; small 10c per dozen.
Indian arrow heads, perfect 8c each, 4 for 25c. 6 for 35c. per doz. 65c. per hundred \$5.50.
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Receptaculites Owenii (sunflower coral) from this locality, very rare, 5c to 50c.
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"I wish to tell what your valuable medicine has done for me. For four years I had heart disease of the very worst kind. Several physicians I consulted, said it was

Rheumatism of the Heart.



DR. J. H. WATTS,

It was almost unendurable; with shortness of breath, palpitations, severe pains, unable to sleep, especially on the left side. No pen can describe my sufferings, particularly during the last months of those four weary years. I finally tried

Dr. Miles' New Heart Cure,

and was surprised at the result. It put new life into and made a new man of me. I have not had a symptom of trouble since and I am satisfied your medicine has cured me for I have now enjoyed, since taking it

Three Years of Splendid Health.

I might add that I am a druggist and have sold and recommended your Heart Cure, for I know what it has done for me and only wish I could state more clearly my suffering then and the good health I now enjoy. Your Nerve and other remedies also give excellent satisfaction." J. H. WATTS.

Humboldt, Neb., May 9, '94.

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Dr. Miles' Heart Cure Restores Health

THE OÖLOGIST.

VOL. XII. NO. 10.

ALBION, N. Y., OCTOBER, 1895.

WHOLE NO. 120

A Hangitg and the Lesson in It.

(Concluded from last Number.)

Interesting though it may be, instead of going to libraries—all blessings on them and those who have made them—let us go to that great library of animated nature, whose volumes are the life histories of animals and the pages are their pleasant actions. To him who will sit down in field or wood and intelligently question Nature with live senses shall shortly be opened up something new and interesting.

I covet some authentic notes on the habits of birds much more than I covet their eggs and nests; and how much more to be desired is the knowledge of the habits and traits of the wild denizens of the field and wood than their dead skins and skeletons. True, it takes much longer to find out something new about a bird than it does to collect its nest and eggs and fill out a data blank; so also does it take more wits and more training—though when the collector goes far enough he is merged into the naturalist.

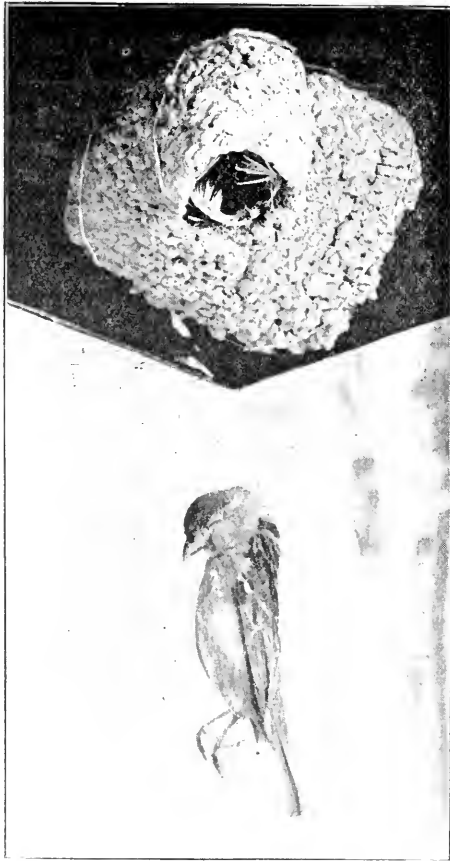
Then, it may be, that the nest, eggs and skins will bring the most dollars and cents; but surely no naturalist is led on by a niggardly monetary standard. And on the valuation scale of truth methinks a page of good notes will out-weigh quite a few sets of eggs or skins of birds.

All this sermonizing has been done not so much for the elders as for the benefit of the youngers or youngsters—I beg their pardon for that word. The "old fellows" I have neither wish nor hope of converting from their evil ways—provided they are in evil ways, which

I doubt. I wish to urge, as I have been urging, to a more exclusive devotion to observation, as emphasized against mere collecting.

It is apparent that the time is not far distant when collecting in this country must to a great extent, be suppressed. It is not without pain and apprehension that older naturalists note the falling off in numbers of almost every species of bird, mammal, reptile and even rare and local flowers. And when the time comes for protection to plant its determined foot against the collector and collector-naturalist—happy may the observer-naturalist well be for he may still bag his annual note-book full of game.

In antithesis to the article quoted, I have a case to present which came under my notice in June, 1894. The photograph with which this is illustrated is of the identical nest, though another female English Sparrow was used in lieu of the one which was actually hung. 'The lesson in it' lies in the conclusions drawn from the circumstances of the case. The lesson in carelessness and slowness in approaching results in the examination of such obscure cases could scarcely be better sought than in this particular instance. Of all groups of animals whether it be among insects, birds or mammals those which are sociable or gregarious seem the most human-like, and interest most people more than such species as dwell in isolated pairs. Witness ants, bees, wasps, beavers, prairie dogs, "quails" some of the Swallows—a complete list of the sociable animals would be long. The Eave Swallows or "Republicans" as they are called from their social habits—since more appropriately called Cliff Swallows (*Petrochelidon lunifrons*)



from their habits of nesting on the faces of ledges of cliffs, have become in a measure domestic, now building their nests on the sides of houses and under the eaves of barns. We had last year a colony of fifteen families under the east eaves of the great barn. They are as characteristic of the exterior of the barn as the Barn Swallows are of the interior, and I have never caught one inside. Their noisy and incessant twitter on the wing and unique squeaky conversational notes only uttered under the eaves, and their quaint gourd shaped bottle nosed nests of cunningly

worked mud, all aid in making them the most striking and pleasant of our feathered visitors. How odd they look as they stick their heads out of the necks of their nests and watch you down below like little imps or brownies, that crescent across the front of the head—whence *lunifrons*—showing very plainly like a little cap.

One evening as I was going to milk, the startling information was brought that the Fave Swallows had hung an English Sparrow. When I reached the barn I saw quite an unusual uproar among the Swallows. Thirty Swallows

sweeping round in circles twittering incessantly can make considerable hub-bub. Every now and then a Swallow would dip down and strike at a female English Sparrow which was dangling below a nest, from the mouth of which it appeared to be suspended. Sometimes the Sparrow would squirm as violently as a bird could in so disadvantageous a position, twirling back and forth. In about three-quarters of an hour, by guess, when I came from milking the bird was dead. Meanwhile, the Swallows hushed by the coming night, had gradually sunk to rest, and all was silent in the little hanging village under the eaves. I put a ladder against the barn and went up to make an examination—to hold my inquest. Verdict, death caused by a horse-hair running noose, whether the result of accident or otherwise, not determined.

Now here was a pretty clear case of circumstantial evidence, so everybody thought, but the writer, he did not try to explain it then—couldn't. This is the way it seemed to stand: Bird had evidently been troubling the Swallows, trying to appropriate the nest; there had been an unusual commotion in town; here was the Sparrow hung by the neck, dead. What would the most natural conclusion be, as drawn from such evidence? What might an average jury say after an impressive address by an eloquent judge? But I waited my conclusion till after further examination. Such a scene would furnish sufficient material for a nice live article at the hands of most any reporter. I took the nest down. Now for the revelations! It contained two dead Swallows and three English Sparrow eggs. Here is more evidence: Time for the Swallows to have plotted and planned. But an examination of the horse-hair puts an entirely different face on the whole matter.

This is where the interest centers and our conclusions hinge: The two ends

of the horse-hair were built into the mud of the interior of the nest while it was yet soft. The hair by chance had been looped around the tube entrance in the form of a running-noose. From day to day the Swallow had passed in and out through this death trap, and even the Sparrow had escaped sometimes, but at last was overtaken by this accidental retribution. To an observer on the ground this conclusion, unless he were extremely shrewd, would probably never occur. It is so easy to reach such different conclusions by the same circumstances if you have left out just one little point. We must not allow our judgments to be warped by a few apparent facts tending by way of convenient and glittering generalizations to startling conclusions. We must believe nothing till we see it all the way through—must take nothing on trust. On such cases we must be attorney on both sides, witnesses, judge and jury. No wonder if we have to proceed with care and with not too much haste.

A few weeks after the tragedy recorded above I discovered a young Eave Swallow dangling from a nest around at the west side of the barn. It had been dead a long time evidently and was all dried up. I set up a ladder and went up to get the empty nest and find out how the accident happened. While I was carefully working at the nest high over my head, it suddenly crumbled, and I was baptized with sand and mud,—in my eyes, and ears, and hair, and down my neck—so I never knew the truth at the bottom of that mystery. But doubtless the half-fledged Swallow had become tangled in the hair wherewith the nest was lined, and in its struggles to get free had fallen from the nest. There are a good many of these accidental deaths, among birds as the naturalist knows, who is abroad much and at all seasons.

ERNEST W. VICKERS.
Ellsworth, O.

An Outing in Assiniboia, 1895.

I left Battle Creek, Mich., May 25, 8:15 a. m., for Fort Qu Appelle, Assa. for a couple of weeks of collecting and studying the nesting habits of the birds of the N. W. Territory. As I had spent some time in this locality, June, '94, and had rare good luck in this grand collecting ground, I anticipated much pleasure and a goodly supply of Ducks, Plovers, Hawks, Sparrows and other kinds of rare birds, nests and eggs. I had a tent, a complete camping outfit, a good gun, lots of good provisions, a good guide, and two assistants to help blow the eggs, fill out datas and cook the necessary meals.

After a pleasant ride through Michigan, Illinois, Indiana, Wisconsin, Minnesota, Dakota and Manitoba, and seeing a wonderful quantity of Ducks, Plovers, Phalaropes and Hawks flying out of the sloughs and around the track of the C. P. Ry. in Manitoba, always an interesting sight to a lover of the birds, I at last found myself at Qu Appelle station on the line of the C. P. Ry., Tuesday morning, time six K. I expected my brother to meet me at the station, but found afterwards my letter had not been received in time, as his home is twenty miles from the post office, and he gets his mail but once a week. As breakfast was not ready at the hotel, and the stage would not leave for Ft. Qu Appelle, a Hudson Bay Post, twenty miles distant, until 8:30 a. m. I put on my rubber boots and took a stroll north of the station. I saw several Hawks, flying around the bluffs and recognized a Ferruginous Rough-legged Hawk, male, also a Swainson's Hawk, but did not discover their nests; I flushed several Prairie Chickens out of the bushes, and searched carefully for a nest but was unsuccessful; saw a Yellow Warbler, several Clay-colored Sparrows and other small birds, returned to the hotel and was soon ready for the trip to the Fort.

The road to the Fort is very smooth and hard in dry weather. We had a fine team and made the distance of twenty miles in three hours, arriving at the Fort at 11:30. On the way over the dog, a fine setter, flushed several Marbled Godwits, Spotted Sandpipers, numerous Field Plovers, Horned Larks and Sparrows out of the grass but I did not attempt to search for any eggs. Several of the Plovers feigned lameness and no doubt their eggs were close by the road. Goshawks were flying around close to the trail, and I passed a tree from which I took one egg in June, '94. Did not stop to examine the nest.

Fort Qu Appelle a post of about 600 people, is beautifully situated in the Qu Appelle Valley, surrounded on both sides by high hills, and quite close to the Fishing Lakes, three lakes close together, in fact close connected by necks or rivers of narrow widths, full of fine pickerel, pike, white fish and many other kinds of fish. The first lake is close by the town. There is a small patch of willows on the beach between the town and the lake. I walked through this patch and saw a lot of different kinds of Ducks, four Canada Geese and a lot of Gulls, Terns and Plovers on the pebbly beach. The Geese allowed me to approach within 30 yards and then flew across the lake. The Ducks simply swam out a little ways. The Plovers paid no attention to me. No doubt many of the birds had nests close by, but I had no time to search for their eggs as I wished to leave the Fort at one K. for my brother's home. Hiring a buck-board I started on the last stage of my journey, up the sides of the hills and over the plains and after passing a number of Indian villages of Sioux, Crees and other kinds of savages, I arrived at my brother's house about five K., p. m., feeling first-class after my long trip.

My brother was pleased to see me and took me out and showed me a

beautiful nest of the Canvas-back containing fourteen fine eggs. The nest was built of flags and reeds, similar to a Coot's, and was placed in the high thick flags in about two feet of water close to shore. Canvas-backs and Red-heads were very plentiful and flying around us making a lot of noise. We saw a lot of Mallards, Shovellers—in pairs, Baldpate, Gadwall, Teals, Blue Bills (Scaup) and numerous other Ducks. I found a Coot's nest containing nineteen eggs and it looked very full indeed, also saw about twenty other nests of the Coot containing from three to twelve eggs each. The Crows were flying around in all directions with eggs in their bills and were very tame and imprudent. I shooped several away from the nests but they nearly always returned and took away eggs close to me where I could witness the whole performance.

My brother had a number of nests of Ducks spotted for me, and he told me the Crows robbed all but one of them (the Canvas-back of fourteen eggs which I safely landed.) Phalaropes in flocks of from ten to a hundred were swimming around in the water, males and females together, and I spent a lot of time watching their actions. They appeared to be feeding on the insects in the water, as a great many of them were in two or three feet of water. They did not appear to mind my presence in the least and went on feeding within ten feet of me. On the shores I noticed a great many very small Sandpipers, numerous Killdeers and small Spotted Sandpipers. My brother then took me to the foot of the hills, and at the bottom of a coulee I found a nest of the Long-eared Owl. It was placed fifteen feet up in a maple and contained five fresh eggs, a couple of coulees further down I found another nest containing three eggs. My brother then showed me a nest and two fine eggs of the Western Goshawk. The nest was

eight feet up in a willow tree and was a very large one, and had been occupied for many years, probably by the same pair of birds. The female was very noisy. My brother found this nest May 26th, and as it then contained two eggs, and the birds laid no more, the set was no doubt complete. We now retraced our steps to the house and turned in for the night.

E. ARNOLD,
Battle Creek, Mich.

(TO BE CONTINUED.)

Notes from Punkin Patch.

Visits to the swamps or fluviatile lakes of the river bottoms doubtless occur so frequently in the experiences of many readers of the OÖLOGIST that the novelty of these visits long since vanished and the birds there found were long ago placed in the common category.

Living as I do, however, in the dry regions of the great "Prairie States," my summer outings to the swamps are eagerly anticipated and long remembered, and the denizens of these mud and water districts are yet objects of keen interest and study. Day after day found me in the marshes, tramping in the soft, sunny margins to find the homes of the King Rail, wading thigh-deep in water and yielding moss in search of Coots and Gallinules, pushing my toilsome way among the thick growth of tall flags which secrete the habitations of the Marsh Wrens and Yellow-headed Blackbirds, or out in the deeper water, filled with a rank growth of moss and covered with the spreading pads and fragrant blossoms of the lily, where are scattered the nests of the Grebe and the Black Tern, all common species, but new to one whose collecting is done chiefly in the upland regions. What enthusiastic collector, accustomed to the birds of the dry regions, would not wade the

swamps all day and not feel well rewarded by finding the nest of the "Squawk" or American Bittern hidden among the flags? I remember with what pleasure I landed my first "dog-fish," and though utterly worthless for use as food, I persisted in carrying it to camp to display as an evidence of my success. Something akin to this is the feeling of the ornithologist when he is first visiting the swamps and finds a well filled nest of the Coot or Gallinule, and we should not be too severe with the collector for taking a few unnecessary sets while the experience is new. It is only the repetition of the experience we had with our first pair of boots and our first suspenders.

Punkin Patch is typical of the ordinary swamp-lake, usually an area of open water of more or less extent, stagnant and green with the moss and other aquatic plants which grow in rankest profusion, and filled with stems of lilies supporting the spreading circular leaves and white blossoms with bright golden stamens. In the clearer portions of the water schools of minnows dart away at the approach of larger enemies, and animalcules in abundance float on the surface to be picked up by the birds which sport and feed over the area. These lakes are usually fringed by a zone of tall, rank flags and rushes, which extend far out beyond the water's edge and often continue into the borders of the timber which commonly grows on the ridge between the swamp and the river. In the ordinary stages of water, these lakes receive their supply from the rise of the river and can be reached and explored by skiffs, but the present dry season deprived most of the swamps of the vernal supply and they could be reached only by wading. I advise any who expect to visit the swamps another season to wade in a pair of old pants and old shoes. Waders are too heavy and burdensome, and rubber boots become

filled with water and heavy to lift with each step. A light stout pole or staff, marked with feet and inches, is useful as a help in walking and to guard against tripping over concealed roots and stems, and it serves to measure the depth of the water and the dimensions of the nests. In walking one generally sinks about eight inches into the mud and moss, but there is commonly a hard stratum below, though one should be on the lookout for holes and especially for the runs of the muskrats, which inhabit these swamps. It is not all fun, but work should have an element of enjoyment in it, and after the trip is over the work has been done and the pleasure remains as an agreeable recollection.

It was on this trip to Punkin Patch that I formed the acquaintance of the King Rail, and the sturdy, somewhat pugnacious, artful creature soon became a favorite of mine, though I can not say that the friendship was mutual. I found my first one on her nest about forty feet from the water's edge, in a tuft of green flags growing in the moist, though uncovered ground, and to my starting eyes she formed one of the pleasantest pictures I had ever seen. She was sitting jauntily under her little canopy of drooping flags, with her brown eyes turned inquiringly on me and she appeared in no hurry to leave the premises. When I motioned toward her with my foot, however, she slipped from her nest and glided noiselessly from the spot among the adjacent dry rushes. No farther than twenty feet away, she stopped and uttered her Guinea-like cry of "crak" and circling about the place, she threaded her way in and out of the tufts of flags, now coming into sight a moment and then quickly stepping behind a tuft which would hide her from view. Thus she stepped around me remonstrating against the disturbance of her home, displaying considerable boldness, so

much that I concluded that the King Rail is inclined to be "sassy," like those belonging to royalty and are frequently found when the opportunity is given. In fact, I soon learned that the King Rail is considerably disposed to lord it over the gentle-spirited Mud-hens with whom she dwells and frequently saves herself the trouble of making a nest and laying so many eggs, by taking possession of both nest and eggs of her neighbors. I have several times found nests containing incubated eggs of the Florida Gallinule and the fresh eggs of the Rail. On May 18, this season, I found a nest containing eight incubated eggs of the Gallinule and five fresh eggs of the Rail, the eggs of the former occupying the middle of the nest and the eggs of the latter lying in the outer circle, affording indisputable evidence to me that the Rail was the usurper of the home already established.

The nests of the King Rail are usually placed between "mud and water" where the ground is barely covered with water or where the water is shallow, but when the banks of the pond are more inclined the nests are placed in tufts at the water's edge. Sometimes, however, their nests are found in the tufts in deeper area, though more nests are found in the outer fringe of flags. I learned to mentally divide the zone of flags into three zones of widths, the outer one occupied by the Rails, the middle third inhabited by the Coots, Gallinules and Least Bitterns, and the inner third colonized chiefly by the Grebes, though each of the species named is found nesting in all parts of the flags to a certain extent. I give the foregoing as a guide to those who will visit the swamps for the first time, to follow until they can profit by their own experience, as I believe that this should be the object of those who write their experiences in these columns.

I think it is impossible to distinguish

the nest of the King Rail from the nest of the Florida Gallinule by the construction alone, yet the drooping of the tops of the flags in the tufts containing the Rail's nest is almost characteristic of the Rail and is seldom or never seen in the nest of the Gallinule. In many cases the habitation of the Gallinule is not covered, while the nest of the Rail is rarely open above. Many nests of the Gallinule are much larger than any nests of the Rail. The nests of the King Rail are commonly made of small pieces of soft rushes, laid on pieces of coarser rushes which are piled in the base of a tuft of green flags. My first nest was an average structure, being eight inches in diameter externally, and six inches across the shallow bed, the latter being one and three-fourths inches deep. The nest stood six inches high in the tuft. It contained ten eggs which were about one-half incubated, May 18. Sets of nine, ten, eleven and twelve fresh eggs were also found, as well as new nests containing two and three fresh eggs. On May 19, a nest was found by the drooping of the flags, and it held four eggs, which were undisturbed, and on May 22 seven eggs were found in it, an egg having been deposited each day. On May 25 only eight eggs were in the nest. I noted this as a large nest, it being seven inches high, nine in diameter, only one one and three-fourths inches deep, and the tuft was growing in three inches of water. The late nests are found nearer the open water and the nests with incubated complements were placed in the drier area in the outer fringe of flags, thus indicating that the Rails locate the nests where the water is receding, and they perhaps desire that the ground shall be uncovered of water when the young are hatched. No late nests were found on the dry or uncovered ground, and several nests with incubated complements were found in

the outer margin where the ground was uncovered and even dry.

The Black Terns soon excited my interest. To and fro over the water they passed in their swallow-like flight, uttering their sharp squeaks, and now and then hovering a moment above a particular spot before they dropped to the surface to pick up a floating morsel which pleased their fancy. Out on the dry punkin vines and on the lily pads they would congregate in small groups, and their antics while courting were as amusing to watch as those of the Flicker, though they are less noisy than the latter species. Stepping out from the group of six or eight, two—doubtless male and female—would bow their heads to each other and flutter their wings in a comical way, while the other individuals would stand apart and solemnly watch the scene. No nests were to be found at this time, but on June 8th we found them nesting, most of the eggs being somewhat incubated then. Though I had never taken the eggs of this species, we found them readily, so that I came to regard the eggs of the Black Tern as being very easy to discover. If the collector will be guided by the actions of the birds, he will be led to the eggs as surely as the birds are nesting. Like children in their play of "hide the thimble," the old birds hover over one's head or fly about the spot uttering "hot" or "cold," and when the collector is closest to the eggs the cries of the birds are sharpest and the menaces of the parents most alarming. Then the birds have a habit of hovering above their eggs in company with several of their fellows, and they will frequently alight on their eggs for a few moments, soon to arise and fly to and fro before returning to again reveal their homes. Unless the collector strikes the swamps right in the place they are chiefly inhabiting, they do not especially notice his approach, but as he nears their

quarters individuals will now and then fly over his head and protest against his progress. If he strike their nesting domains at once, he will be met with a din about the ears which he little anticipated if not acquainted with the habits of the Terns. Soon they become accustomed to the presence of the intruder and continue their tireless flights up and down the open water, though the owners of the nearest nests continue to tell their interesting story, dashing at his head with angry cries and turning upward abruptly just as he expects to be struck. As the birds flit to and fro, the observer can approximate the focus of their flight and if they hover at that point, he may be certain that they have eggs beneath for his finding. Over a small area, several acres in extent, I once observed two pairs of birds flying and I found both nests in a few minutes, guided solely by their cries and hovering. I at first failed to locate the second nest and thought that I had been mistaken, when the hovering of the birds induced me to return and I found the eggs on a deserted nest of the Grebe, well-concealed along the over-arching flags where it was anchored, and nothing but the actions of the birds would have disclosed the nest to me. None of the eggs we found were rolled in the mud or decaying matter, as I had read that they often are, though most of them were rather advanced in incubation and I think that I was slow in finding my first eggs because I looked for mud-covered eggs. The ordinary sites of the nests were the collapsed houses of the muskrats, now floating or anchored with their highest part about three inches above the water level. Generally no nests were made, though frequently several short pieces of the punkin stems had been scratched around the eggs to prevent their rolling apart and a perceptible (yet scarcely) depression had been made or found

for the eggs usually in the center of the floating mass. Often the eggs were deposited on masses of floating punkin stems, which were scarcely above the water level. They have a close mimicry to their surroundings, but they cannot escape the keen eyes of the ornithologist who is eager to add the eggs of a new species to his collection.

P. M. SILLOWAY,
Roodhouse, Ill.

From a Rusty Pen

Did someone ask what had become of us? Or was he rejoicing at being favored with our long silence? Well, we are still here in the backwoods, in that part of Arkansas we have called "Fairy Land." And you would think it Fairy Land too, if you could be here some morning in April or May at sunrise; then as the day advances to quietly seek some deep ravine with its shade and birds and waterfalls. To a non-lover of birds and music it might be as annoying as the rattle and clangor of city life is to the country folk.

The Yellow-breasted Chat is the first to sound the approach of day, beginning at about a quarter past three, with a few low, indistinct notes, gradually growing louder and fuller and sweeter as daylight appears, till he has awakened the whole neighborhood, and the other birds chime in, one by one, till finally you cannot distinguish one from another; a confused sea of warbles as constant as the sound of the waves for about two hours, then gradually subsides into the ravines. The lonesome note of the Wood Pewee is second on the roll. Then comes the troubled voice of the Summer Tanager and the Wood Robin's metallic song. Just as the sun is peeping above the hilltops the Carolina Wren mounts a brush pile with his merry mimicry and whistles out "*Earl Pleas—Earl Pleas—*



A. Mowbray Semple.

get up, get up, get up—sweeter, sweeter, sweeter." and lies away, scolding, to be lost among the merry-makers.

Thus we are living among the feathered tribe, 45 miles from the railroad, 3½ miles from town, on the northern slope of the mountain, with never-failing springs as a water supply and the most beautiful landscapes to keep us company. From our mountain one can take a bird's eye view of the town of Clinton and the surrounding country for 40 miles.

Flowers? Yes, hundreds of acres of them, of the most gorgeous hues, and ferns too that would outdo any garden or greenhouse. No wonder this is a land of birds. Although old this is a new country, and they are called neighbors who live three or four miles away.

When the romantic part of our lives elapsed to that "perfect state," marriage, we settled down on a piece of the very wildest for a homestead and have spent four years in trying to sub-

due some of Nature's freest gifts, rocks and sassafras bushes,—except 1893 (when we were away) and since then we have been re-subduing them. However, the birds sing on just as merrily as before we came, I suppose, at least I have not learned that any have become extinct from our intrusion, though a few whose eggs are the least desired in our collection and were formerly quite numerous are almost wanting this season. The Bluebird, "Red-head" and Carolina Wren have almost deserted us this year, and if their food is any the less plenty I cannot account for it.

One peculiarity in our avi fauna here is that there are no birds that seem to depend on the farm and meadow for a nesting site. The Quail, Chippy, Bluebird, Catbird, Wren and Cardinal all nest promiscuously throughout the forest, and I have not as yet found a single nest except that it be in the timber. Even the Dove nests in the woods. Another strange feature to me is that I have never found a nest in a Black Gum one of our most plentiful trees, and one too that furnishes all fruit-eating birds a goodly portion of their winter's store. At my old home in Indiana, the Hummer seldom built on anything but the Beech. Here we have not the Beech, but there is no tree nearer like it for manner of growth, and shape of limbs, etc., than the Gum; but Mrs. Ruby-throat builds preferably in White Oak on the mountain, and in the corky-barked Sweet Gum of the "bottoms," entirely different looking from the Beech.

So far I have had but little time to spend collecting and have only been able to secure what I find in passing about my work, while many a set I have missed because so far from home, when the time came for gathering. I learned while some 18 miles above here on the river, that Ravens built in the cliffs there every year. But that 18

miles of rocky road and the uncertainty of success have kept me away for five years. Twice I have found nests of Red-cockaded Woodpecker, but each were in large, tall, live pines with limbs high up and both trees covered with resin, and two miles from home.

Pileated Woodpeckers are more plentiful than Crows, but they are equally wary and as squirrels are plentiful and have numerous excavations similar in size, shape and location to those of the birds and it is the Woodpecker's nature to be prying into everything, one is not sure of a nest being located until he sees the bird fly from the same hole on different occasions. Many a hard climb I have had over rough bark believing I would soon be in possession of the coveted eggs, only to be disgusted at finding the nest to be a squirrel's den.

I did not know till this spring how mean (?) a bird the "Guinea" Woodpecker is. I had a difficult climb to one's nest three or four years ago; found the bird apparently sitting, but no eggs. This spring they built or rather excavated in the top of a tall ash near the house. I waited for full two weeks after all hammering had ceased and to my displeasure found an empty Woodpecker's hole. The same pair of birds then began a nest (I thought) in an oak on the other side of the house and after about a month of work and palavering around have left the country.

Besides the above birds mentioned some of our commoner ones are, Black Vulture; Wild Turkey; Barred Owl; Kentucky, Hooded, Yellow, Prothonotary and Black and White Warblers; Yellow-throated and Warbling Vireos; Ovenbird; Winter and Bewick's Wrens; Traill's Flycatcher; Blue-gray Gnatcatcher, Whip-poor-will; Chuck-will's-widow; with an occasional Bald Eagle, White Pelican, White Heron and Double-Crested Cormorant.

C. E. PLEAS.

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WHOLE NO. 121



Roy G. Fitch.

The Spotted Sandpiper.

(*Actitis macularia*).

I was once asked by a bright-looking little country lad, about ten years of age, "What little bird is it that can't stand up good?" Being puzzled and curious, I asked him if the bird fell down. He said, "No, but every once in a while he pretty near does." Further questioning brought out the fact that he ran along the creek and waded in the water. I then told the boy that the bird was the Spotted Sandpiper, probably better known as the "Tip-up."

Although the Spotted Sandpiper is one of the commonest and most widely distributed of our American birds, it appears to be sadly neglected, and in reality less is known concerning its

habits than appears to be about a great many much rarer species. With me the Spotted Sandpiper has always been a favorite bird. I have found it to be a bird of rare ability in wit and of a great eccentricity of habits. I have spent more than one pleasant afternoon studying the habits of this little rascal. I call him a rascal on account of his always present air of "I've got a nest, but you can't find it." I am going to try to tell, as best I can, what I have learned of this bird and what I think of him.

My first attempts at finding the nests of this bird were sad failures. I did not then possess Davie's valuable guide or any such work, and my only bird lore was gleaned from the pages of the OÖLOGIST, which, though very instructive and valuable, threw but little light upon the Tip-up. It is a noticeable and lamentable fact that the mentions of the Spotted Sandpiper in Ornithological books and publications are few and far from satisfactory. I have noticed this to be the case with most common species. Students of nature seem to be under the impression that a species is not worth time or pains of study unless it is at least uncommon. All seem to be seeking the rare, the marvelous and the unlikely. This is especially the case with amateurs who, as a rule, can off-hand better describe some rare bird they probably never saw, than the Song Sparrow, the Spotted Sandpiper, the Robin, the Bluebird, the Phoebe and others that they see nearly every day in summer, spring and fall.

Although this Spotted Sandpiper is so common I have never found but four nests. I will first describe my unsuccessful attempts at finding their nests. Not knowing the situation, I naturally supposed their nests to be placed in the sand on the beach. I watched the

birds until I would see one carefully squat down in the sand and sit there. Then I thought I had one sure and would sneak up as near as I could and flush the bird, who would fly off with a *peet-weet*, *peet-weet* of alarm. I would then rush forward to alas! disappointment. Time and time again I went through this, till at last one day I suddenly came upon a bird squatted in the sand who went up with a terrible sputter. At last I thought I had them; but alas! nothing but sand. My supposed nesting birds were only basking in the sun. The bird is very partial to sun baths, and their preparations for these are quite elaborate. They run along until they find a suitable patch of white sand. The bird then carefully kicks away all of the stones. Then lifting one foot up and tucking it away in its plumage, it carefully sits down. Then it digs a little with one foot and then with the other. After this it wriggles and shucks around until it is thoroughly settled in the hot sand. Then after yawning a couple of times and looking around inquisitively, it throws its neck backward, resting its head on the back and, bill pointing skyward, it quietly closes its eyes. The wings are slightly elevated and spread at the same time. It will remain perfectly motionless and apparently asleep for from one to ten minutes. It arouses very suddenly and, straightening up and shaking itself, starts off with a *peet-weet-weet*. The Sandpipers are very shy about their sun baths, and though you may be well acquainted with them, you may have some trouble in catching one at it. The extent of the Spotted Sandpiper's vocabulary may be summed up as *peep*, *peet* and *weeet*. They employ a larger number of combinations and sentences with these three synonyms than at first thought appears possible. By changing tone, accent, rapidity of utterance, etc., they plainly express sorrow, alarm, pleasure, displeasure, etc. When the mother bird is leading a brood of four newly-hatch-

ed young, she coaxes them along with a soft little *peep*, *peep*, once in a while introducing a sharp *peet-weet* of warning or scolding to some rash or laggard one among the brood.

My first nest was found accidentally. I was walking towards a small stream, and when coming over a grassy knoll about one hundred yards from the stream, a Spotted Sandpiper started from under my feet and fluttered and tumbled along the ground, as though its wing was broken. My first inclination was to catch the wounded bird, but I had been there before—the gag was old. After a short search I succeeded in finding the nest. My delight was turned to disgust upon the discovery that the four eggs were picked and just about to hatch. While examining the nest, the birds flew about in wide circles, uttering excited cries of alarm, *peet-weet-weet-weet-weet-weet*. I was on second thought, elated by finding the nest. I had learned something and now might expect to hunt for nests of this species with some success. My second nest was found about a week later and in the same manner as the first. This nest was placed in a tuft of grass on a hillside, about 200 feet from a creek. The nest was a hollow, bare spot on the ground, lined with a few leaves, bits of dry grass and soft weed stems, arranged in a circular form. The eggs were four in number as is generally the case (I think that not one in one hundred complete sets are of three, and I have yet to hear of one of five). The eggs are pyriform and arranged in a circle, the small ends together in the center. If one or all are turned around, the bird will replace them in their natural position. The set was perfectly fresh, and measured 34x25, 34x25, 35x26 and 33x24 mm. The eggs are a dark, rich grayish-buff, spotted and speckled with very dark chocolate-brown, principally around the greater end.

My third nest I saw built. A short

distance from home is an old deserted brickyard. In this place are two old ponds. One is very small and reedy and the other, quite large with sandy beaches. Early in the spring a pair of Spotted Sandpipers took up their residence here with the Green Herons, Red-winged Blackbirds, King Rails, Song Sparrows, American Goldfinches, Muskrats and other inhabitants of the place. I watched this pair of Sandpipers every day until they had reared their young. I used to take my stand on the big bank overlooking the place, with field glass, every morning and afternoon. On the southern shore of the larger pond, at the western end, a long stretch of beach, low, flat and sandy stretches off two or three hundred feet to the southwest. This place was the Sandpipers' delight. On the southwest this beach is terminated by a miniature bluff which rises abruptly to the height of twenty feet. From here back about one hundred and fifty feet runs a small grassy plateau terminated by a bluff or line of bluffs rather, which range from two to three hundred feet in height, the tops running back in a field for about one thousand feet. The ponds are bordered on the north by an embankment about ten feet high, from which a field runs northward about two or three thousand feet. The eastern and western ends are bounded by high sand banks. After some looking about, the Sandpipers selected a tuft of rank grass on the edge of the little plateau, about two hundred feet from the pond, as a building site. The first operation was to scratch a hollow in the soft, light, sandy clay for the nest. The male and female both worked at this. The male would work away for a few moments, while the female stood off about two feet viewing the work with an approving but critical eye, turning her head from side to side in a true feminine "Well, now, that does pretty well for a man" style. After a few moments the

two would change places, the male looking on with an interested, approving gaze. The birds were about two hours in completing the hollow to their entire satisfaction. The remainder of that day and the next two were occupied in lining the hollow. The male collected all of the materials while the female made the nest. She was very fastidious and compelled him to collect ten times the amount of material that was used. She built and rebuilt, arranged and rearranged, until at last, at the end of the third day from the commencement of the hollow the whole affair seemed to be entirely satisfactory to her and her mate. For four days after completing the nest the birds spent their time in feeding and acquainting themselves with the surroundings. During this period they were remarkably shy, retiring and silent. My observations were mostly made from the sand banks at the west, where, with the aid of my glasses, I could closely watch every movement of the birds without in the least disturbing them. The material used in the lining of the nest was entirely dry grass stems. The first work on the hollow of the nest was commenced at nine o'clock in the morning on the 1st day of May. The finishing touches were made on the lining at fifteen minutes to four on May 3d. The observations of May 7th, 8th, 9th and 10th were so interesting I will give them at length.

May 7th. The birds appear very much excited. I arrived on the ground this morning at 8:10. The female spent the entire forenoon alternately sitting or standing over the nest and standing or sitting near it. The male has kept her supplied with food. He is very much excited, flying back and forth between the nest and pond with loud, excited, shrill cries of *wee-wee-wee-wee-wee*. The female laid the first egg this afternoon at three minutes after two. While laying she *squatted* on

ver the nest, not as one would suppose, sitting upon it. After the operation she appeared to be very much exhausted. The male immediately took her place, standing over the egg. The female appeared to be too much exhausted to take that position for about an hour, but at fifteen minutes past three she relieved him. She kept this station the remainder of the day.

May 8th. When I arrived at twenty minutes past eight this morning, the birds were much less excited and the female was still standing over the nest. I think she must have stood guard all night. The male relieved her from ten minutes to nine to twenty minutes past ten for her to feed. The female laid the second egg this afternoon at ten minutes past two. The male again relieved her during her period of exhaustion.

May 9th. The programme today was the same as yesterday, the third egg being laid at five minutes past two.

May 10th. Today the same programme was enacted. The female laid the fourth egg at two o'clock. At three o'clock, after her period of exhaustion, she carefully arranged the eggs and settled down upon them, thus beginning the actual incubation.

From this time until the 26th of the month the routine of life was very regular and smooth. The birds were silent and retired. The male relieved the female every morning at eleven o'clock, and remained on the nest until she returned from feeding at three. The birds were very punctual about relieving each other. The time did not vary more than ten minutes during the entire period. The female incubated the eggs from three o'clock in the afternoon until eleven o'clock the next morning every day. The male sat upon the eggs to allow the female to rest, exercise and feed from eleven to three o'clock every day. During the period of incubation I made

myself so familiar with the old birds that they were not in the least afraid of me. I did this so that I might closely watch the young when they were hatched.

On May 26th the eggs all hatched between one and two o'clock in the afternoon. When the young emerged from the shell they were wet and covered with blood. The shells were picked around the greater end, so they came off in two pieces. As soon as a young one hatched the female took the empty shell, flew down to the pond and returned with it full of water, which she promptly poured over the youngster to wash off the blood. Then she flew back to the pond and sank the shell, thus destroying all evidence of the existence of the young. The young as soon as dry were able to trot about. As soon as all the young were dry, the whole brood left the nest, to return no more.

If you suddenly come upon a brood of young Sandpipers, the mother utters a cry of warning and flutters along the ground as though maimed to draw the intruder away. The young squat down and remain perfectly motionless. In this position they are almost impossible to find, if one is discovered he will "play possum" and allow you freely to handle him without showing the least sign of life. The Spotted Sandpiper lives almost entirely on insects, slugs, snails, etc., though once in awhile one will eat seeds. Taken all together I think that the Spotted Sandpiper is one of the most eccentric and interesting birds we have.

I hope that we may hear more about our common birds. Don't neglect them because they are not rare.

R. G. FITCH,
Grand Rapids, Mich.

An Outing in Assiniboia, 1895.

May 29, 1895. This morning I was out very early and prepared for a good days work. The Qu Appelle River passes my brothers house within a distance of 600 yards. The river is about 200 yards wide on an average and on both sides of it there is about from 300 to 800 yards of thick reeds, heavy grass and flags six to ten feet high, every few hundred yards there are small bodies of water from two to six feet deep with little islands of marsh in the centre and occasionally quite a stretch of dry land covered with long grass making the locality a paradise for many kinds of Ducks, Plovers, Phalaropes, Bitterns, Rails, Grebes, Gulls, Terns, Marsh Hawks and a few Canada Geese.

The Yellow-headed and Red-winged Blackbirds swarmed in countless numbers and the Coots were nesting every few yards. My brother told me the latter birds were more numerous than usual this year.

My first find was a Red-head's nest containing six fresh eggs. This nest was built in a thick clump of high flags and was composed of dried flags and reeds outwardly, lined with marsh hay and a few bits of down. The female flew from the nest when I was within ten feet of it.

A short time afterwards I almost stepped on a female Mallard who flew from her beautiful nest of down containing ten fresh eggs. This nest was built in the long grass in a dry spot close to the river. The Mallard flew around me several times making a noise and then flew into the reeds about 100 yards distance. My next flush was a Gadwall who had a nest similar to the Mallard placed in the long grass on dry land close to the Qu Appelle River. This nest contained six beautiful clay colored eggs averaging 2.10 by 1.55.

About half a mile further north I flushed a Blue-winged Teal from her

handsome nest and six eggs. This nest was also placed in a dry locality in the long grass and was within fifteen feet of the river.

Shortly after this I came to a large body of water about three feet deep, full of small islands of marsh, and scared a lot of Red-heads, Canvas-back, Scaup and Teals. Saw a Canvas-back fly out of one of the clumps of marsh with a loud splash and a huge quack and hurrying over to the place I found a very large floating nest containing five eggs of the Canvas-back and three eggs of the Red-head and another egg of the Red-head lying in the water close to the nest. The nest was mussed up quite a lot and looked as if several birds had been fighting for possession of it.

I am quite satisfied that the Canvas-back and Red-head very often lay their eggs in the same nest. During my trip in the northwest I found six different nests containing eggs of the Canvas-back and Red-head and in one case the nest contained three different kinds of Ducks eggs. The first contained 11 eggs of the Canvas-back and 3 of the Red-head; second had 1-5 and 1-4 respectively; third had 1-5 and 1-6; fourth, 1-11, 1-3 and one Mallard's egg; fifth contained 1-5, 1-8 and sixth had 15 eggs of the Red-head and four of the Canvas-back.

The eggs of these two birds are quite different in shape and color and are very easily distinguished apart. The Canvas-back's eggs average a little larger than the Red-heads, are a bright greenish buff, while the eggs of the Red-head are a creamy white color and the shells closer grained and more glossy. It is much easier to mark an egg of the Canvas-back with a lead pencil than it is to mark the Red-head's egg.

In four cases I found the Canvas-back in possession of the nest and in the other two cases the female

Red-head left the nest at my approach. In the case of the nest of 19 eggs, four Red-head's and one Canvas-back's, the eggs were lying in the water close to the nest and the nest looked as if the Ducks had been fighting for possession of the same.

My brother tells me that the Canvas-back and Red-head very often are seen together during the nesting season around the nest and he is satisfied that they sometimes mate. He has frequently watched the nest from the time the eggs were laid until the young brood left the home and the female duck, a Red-head, was sometimes accompanied by the Canvas-back male. Of course these Ducks are very common in this locality and naturally would often be seen together, whether they interbreed or not will have to be solved by some one who has more time to study their nesting habits than my brief visit would allow. However, there is not a doubt but that the two different Ducks eggs are found in the same nest. The half-breeds told me that the Red-head female Duck stole eggs from other birds and placed them in her own nest, this story I very much doubt, nevertheless there may be some truth in the story. Can any of the OÖLOGIST readers enlighten me on this question? I can find no mention of the matter in any ornithological publication in my possession.

The Phalaropes were very common all around the marsh and I must have seen at least five hundred birds in the different flocks. I now had all the eggs I could carry and started back for the house. I found three Horned Grebes nests on my way home, one containing four eggs, another containing three and two more contained one egg each. The season was evidently too early for full clutches of this bird's eggs. Shortly after one o'clock I arrived at the house and after a hearty dinner I blew the eggs and washed the same carefully and made data for each set.

My brother then hitched a horse to the buck board and we started northwest over the prairies to look for Hawks, Plovers and Sparrows nests. I found two nests of the Swainson's Hawk but no eggs were in them although the birds were in the vicinity of the nest.

The season was too late for fresh eggs of the Ferruginous Rough-legged Hawks. I found three different nests, two placed on willow trees and one on a poplar. Two of the nests were within four feet of the ground and the other was about twelve feet up. The first contained four young and one egg and the next had five young, the last three young. In each case the female was on the nest and the male close by on the ground or flying overhead. The male is a much darker bird than his wife and they are both very large and handsome. I very often watched them stand on the ground close to a hole waiting for the gopher to make his appearance. In every case where I climbed to a nest containing young there were from one to three remains of this unfortunate animal. Very often their skins were used as a lining for the nests. The nests are huge ones built of sticks, sods, etc. and lined with pieces of rabbit's and gopher's fur, grass and feathers. Birds are very quiet and make little noise when one approaches their nest. I found a nest of the White-rumped Shrike containing three eggs which was placed in a willow tree three feet up, female was quite pugnacious and flew close to my face during the time I was examining the eggs. After a long drive north to the heavy timber I made a careful search for a couple of miles and flushed a few Grouse and Ducks, but found no nests, so turned the horse in the direction of the house. Field Plovers and Killdeers were plentiful but I did not make any effort to find their nests.

After I arrived at the house I took

the boat and crossed the river and took another stroll through the marsh and found a nest and five eggs of the Marsh Hawk. The eggs were handsomely mottled and blotched with chestnut and lilac and were quite different in appearance from a set I took later at the top of a coulee on the top of the thick brush. The second set was entirely clear not a spot on them. They also average a little larger.

After taking a couple of sets of Eared Grebe I made for the house as the day was ending and I felt I had done enough slushing since morning.

E. ARNOLD,
Battle Creek, Mich.

(TO BE CONTINUED.)

The Mockingbird.

The Mockingbird is typically a native of the extreme Southern part of the Southern States. I may still more confine its habitat by saying that it is chiefly found in Southern Louisiana and Texas. It is found elsewhere, but nowhere does it sing, flourish and hatch its callow brood as in the two states mentioned.

As my travels, even in my own state, have been limited, I can speak of the bird only as it is found in the extreme Southeastern part of Louisiana, on the banks of the Mississippi.

The Mockingbird follows the general characteristics of the Thrushes only its build is slenderer, and this slenderness is even more marked by the long tail that it has. Like that of the Thrasher its head is narrow and its bill long, only in this case it is perfectly straight. The general color above and below is a steel gray, the wings and tail being black with the exception of a few white feathers. In the latter there are four white feathers, and they are not seen except when the bird is flying.

Somewhat like the old story of Adam

and Eve, the male Mockingbird is said to have one more white feather in his wing than the female has, that is, the male has nine and the female eight. This is firmly believed by most people who know anything about Mockingbirds, and in keeping a cage-bird the wing feathers are always carefully counted, for the males alone sing, the female having but a few calls and notes of alarm. However, I do not know whether to accept this or not, for every bird that I have had my hands on had nine white feathers in each wing.

As you see the plumage of the Mockingbird is very plain, and there is nothing to recommend it to man but its beautiful song.

The song of the Mockingbird is as unlike the singing of other birds as are the grand arias of a *prima donna* to the ordinary singing of the household. Our household songs may be very sweet and may have charms and may excite feelings that no other singing will, but still from a point of excellence it is generally low.

The Mockingbird takes the pretty notes of our commoner birds and weaves them together with a marvelous musical skill, and to them he adds a magnificent song of his own. I need not tell you what the effect is. The great Wilson appreciated it and in his article on the Mockingbird he speaks of it in a beautiful manner. I advise all to read it who have not done so already, for when once read it will never be forgotten.

A favorite singing place of the Mockingbird is the top of a house or a bare limb in the top of a tree. Often the bird will become as if intoxicated by its own song, and in its ecstasy leap with outstretched wings and tail into the air, and whirl about as if mad, all the time singing the song that only a Mockingbird can sing.

In many cases its beautiful song is the ruin of the Mockingbird, for man

is not content to listen to it at a distance. The story of the hen that laid the golden egg is repeated. The sweet songster must be caught and caged and carried to a cold climate unsuited to it. There it is expected to sing with its former brilliancy, and too often people are disappointed. If these places were suited to it, Nature would guide the Mockingbird to them, and there, of its own accord, it would sing as sweetly as it does here.

It almost makes me sick to think that thousands of Mockingbirds are annually caught by trappers. Fifty per cent of these caged birds die before they are grown, and almost half of the remaining ones, either do not sing at all, or sing imperfectly.

Every Spring two or three bird-catchers put in an appearance here and begin operations. In many places they are not molested and are allowed to catch as many birds as they please. But I am proud to say that not one has been caught from our place, that is, to our knowledge. Many cages I have found, but always the trapper has been chased off, his birds confiscated and given their liberty, and the trap destroyed.

The Mockingbird exhibits a certain fearlessness towards man that makes its capture doubly repulsive to me.

Their love for the same locality is also marked, for year after year, the same birds will build their nest in the same place, or as near to it as possible. For example a pair of birds nested for several years in a palm bush near our house. This year, however, the season was late and when the nesting time came around the bush was unfit for a nest, so they chose another site, not far off in the fork of a willow tree, and there they hatched their brood. About a month later they built another nest over the old one and hatched a second set of eggs. Both parents fed the young and all went well until they

were almost ready to fly. One evening I saw a young bird suddenly hop out of the nest, immediately followed by a second one. I caught both and prepared to return them to their home. Upon reaching the nest I found a big grass snake in possession, busily engaged in dressing the remaining bird with slime, preparatory to swallowing it. I rescued the little fellow and placed them in a box for the night. The next morning I placed them in a barrel near a window where I could observe the process of feeding. At first the old birds were shy but they got over that and soon were feeding their young as if nothing had happened. They brought larvæ, grasshoppers, worms and grapes all day long, and in such quantities that a stranger would have thought that there was a barrel full of young birds. After having been fed for a week, the little birds flew away one by one as they grew strong enough.

The Mockingbird has no special choice in a nesting place. They nest anywhere and everywhere. I have found nests in the tallest trees and in bushes but a foot or two from the ground; and I know of a bird that builds its nest year after year in a hollow post.

The nest is usually made of interwoven grass and leaves. They are not strongly built and the birds seem to trust to the position a great deal.

A set consists of four eggs. They are green with brown splotches. Two sets are hatched each year and rarely three. The ordinary nesting season extends from April to August, though I have found a nest early in March and one about the middle of August.

The dark feathers of young Mockingbirds are more or less tipped with white and their breasts are heavily spotted with black. These spots remain during the year but do not appear after the first moulting season.

H. L. BALLOWE,
Diamond, La.

THE OÖLOGIST.

A Monthly Magazine Devoted to
OÖLOGY AND ORNITHOLOGY.

FRANK H. LATTIN, Editor and Publisher.
ALBION, N. Y.

Correspondence and Items of Interest to the student of Birds, their Nests and Eggs, solicited from all.

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FRANK H. LATTIN,
Albion, Orleans Co., N. Y.

. Articles, Items of Interest and Queries for publication should be forwarded as early in the month as possible.

ENTERED AT THE POST OFFICE AT ALBION, N. Y., AS SECOND-CLASS MATTER.

ERRATA! In the article "Notes on the Nesting of the Ash-throated Flycatcher" in Sept. Oölogist, the fourth line should read, "although its nests are *not* easily found."

The Rowland Ward Co., London, in a recent list offer, "A well-stuffed specimen of the extinct Great Auk (*Alca impennis*), in splendid preservation, which originally formed part of the Brunswick Collection, also a perfect and beautifully marked egg—this was formerly owned by Mr. S. Potts, and is generally acknowledged to be one of the finest known specimens." This is truly an exceptional opportunity for some Museum or wealthy collector in America.

The Burrows Brothers Co. of Cleveland are offering for sale one of the original presentation sets of "Audubon's Birds of America." Their price is \$2,500 and they say that a much inferior set was recently sold in New York for \$3,000.

One of the most prolific collectors of the eggs of the Ruby-throated Hummingbird is doubtless Mr. S. B. Crayton of Anderson, South Carolina. His record for the past three seasons runs as follows: '93, 25 sets; '94, 21 sets; '95, 28 sets.

Oliver Davie announces that the Fifth Edition of his invaluable work "Nests and Eggs of North American Birds" will be out in January. The new edition will be thoroughly revised and will contain over 700 pages and 300 illustrations. The price will be \$2.25. Orders will be received by the Publisher of the Oölogist.

A new "Check List of North American Birds" which can be consulted without wallowing through an entanglement of "Supplements" and a new "Cones' Key" which may be of some earthly value from an oölogical standpoint—Dr. Cones assures us in his letter to the *Nödiologist*, are among the possibilities of the future.

The most distant of the Oölogist's subscribers residing in Uncle Sam's domain is Mr. C. H. Hall of Fort St. Michael, Alaska, which is about 100 miles north of the Yukon River and a journey of nearly 1,500 miles beyond Sitka. This issue will not reach him until July, 1896 for, as he states in his last—"vessels cannot get here before."

Michigan has a fair which sees the importance of ornithology in the economy of farming and kindred pursuits. The Washtenaw County Agricultural

Society hired Mr. Watkins, well known to readers of the OÖLOGIST, to make an exhibit for them at the Ann Arbor fair, Sept. 24 to 27 inclusive. The following is taken from a local paper: "L. Whitney Watkins of Manchester, has a part of his collection of birds and insects in the school exhibit corner at the fair. It attracts a great deal of attention. Mr. Watkins is a thorough scientist in his line, is a graduate of Michigan Agricultural College, and is a member of almost every scientific society interested in his work in the country."

The fifth annual meeting of the Western New York Naturalists' Association, was held at Chili, Monroe County, Thursday, October 3d. The following officers were elected for the ensuing year: President, Albert H. Davis, Brockport; Vice-President, Frank H. Lattin, Albion; Secretary, George F. Guelf, Brockport; Treasurer, Ernest H. Short, Albion; Executive Committee, E. J. Botsford, Medina, N. L. Davis, Brockport and L. V. Case, Geneseo. Elected to active membership, W. J. Wirt, Gaines. It was decided that the next meeting he held at Albion, Orleans county during the month of March, 1896. Exact date will be given later.

In his list of "honorable protestants" in the October *Nidiologist* Bro. Taylor includes the name of V. W. Owen of Los Angeles, California. If Owen is "honorable" he is positively *ignorant* and Bro. Taylor should have qualified his endorsement accordingly. If any of the readers of the OÖLOGIST has any rare set or sets in his or her possession that came from or through the hands of this Owen—pack carefully and mail at once to H. R. Taylor, 150 Fifth Ave., New York, N. Y. Don't forget to enclose stamps for the return of your valuable (?) specimens. As a nucleus for this "Owen Aggregation" the editor of the OÖLOGIST will, in an unusual modest philanthropic manner, send in

sets of the Leconte's Thrasher and Abert's Towhee of Owen's personal collecting which on the data he assures us "Identification, positive." In the case of the Leconte's Thrasher "the female parent bird was shot and identified" this clincher is given in a letter however and not on the data. Bro. Taylor will also find upon close inspection of the data a wonderful case of coincidence in the nidification of these two species for both sets were of "four," set mark "1-4," identification "positive" and incubation "commenced" and both nests were "placed in a bush 3 feet up." But the most remarkable of all the sets which we shall include in the "nucleus" is a set of Saw-whet Owl. This set is wonderful in many particulars. 1st they were collected by an oölogist of whom the editor of the OÖLOGIST *never heard*, while a young collector 3,000 miles away had no difficulty, not only in unearthing but in securing a set of eggs of a species which many near-by oölogists would have jumped at an opportunity to obtain at full rates and paid the cash. In fact one of the last sets we owned was disposed of at *double* rates. 2d, they were collected at "Beloit, Mass.," a place *not in existence*. 3d that the eggs are really those of the Burrowing Owl and taking this fact into consideration that they should have been taken in the state of Massachusetts and from a "stump about ten feet from ground." 4th, that the writing on the data which accompanies this set should lead one to question as to whether it is not the disguised hand writing of either an "honorable" or "ignorant" collector.

As there is a possibility in this case of Owen's being "honorable" but "ignorant" and that he has been the bunkoed party we give his feasible explanation, he says: "The set of Saw-whet Owl I obtained from Mr. Gillmore of Mass. who is a reliable collector. He has lately come to California to live and has been disposing of a part of his

collection and I was lucky enough to obtain them with several other nice sets from him. Mr. Gilmore had at the time I obtained this set another of five eggs collected in the same locality by a friend in 1888. He also stated that he was positive of the identification as he had on two occasions shot the birds."

Should the "Owen Aggregation" prove a "howling success" an elaborate annotated conclusion to this rambling "pointer" will undoubtedly be given by Bro. Taylor in an early issue of the *Nidologist*.

Roy G. Fitch.

Roy G. Fitch, aged nineteen years, the only child of Mr. and Mrs. Charles L. Fitch of Grand Rapids, Mich., was killed on the morning of July 18th, in the elevator at the Alma, (Michigan) Sanitarium. He had been at that place for five weeks taking treatment for debility following a long attack of malarial fever, which he had last spring. He was much improved in health and was expected home on the night of the date of the accident to remain until August 19, when he intended to enter the Agricultural College at Lansing.

When the accident occurred he was attempting to run the elevator in the momentary absence of the man in charge. He slipped and fell in such a way as to be caught between the cage and the wall. It is thought his injuries were not serious enough to have proved fatal, but that the shock and fright produced heart failure.

Roy was a great favorite in his neighborhood and with his teachers and classmates. His disposition was gentle and affectionate and his habits were studious. He was a great lover of birds and for several years had made their habits a study. He was vice-president of the Kent Ornithological Society, organized last winter, and he had a large collection of specimens and books that he shared with the club in pursuit of its

studies. A gentleman who has always known him says: "Had he lived he would have become eminent in the science toward which his tastes seemed to tend."—A statement of which there is little question would have been more than fulfilled.

Through correspondence the editor of the OÖLOGIST had known Roy for a number of years, and in the fall of '94, while in attendance at the West Michigan Fair at Grand Rapids, formed his personal acquaintance. Roy was the Judge of the Natural History department—which was one of the most creditable displays we had ever seen at a State or County fair.

He was a frequent contributor to ornithological publications, and as such, was better known under the nom de plume, "Amicus Avium." His most valuable contribution, which is one of the most valuable and wonderful ever written, on the Spotted Sandpiper and from an "observation" standpoint, we think we are safe in saying, on any species, appears in this issue of THE OÖLOGIST.

The Spotted Sandpiper mss. was sent in September, at which time Roy's father writes as follows:

"My object in writing now is to hand you an article on the Spotted Sandpiper, which Roy completed shortly before going to Alma. I say "completed," but that is only in a sense true. He had written the article in full with a pencil, even to the signature at the foot, and had started to copy it with a pen, but had only written a little more than two pages in that manner before leaving home for the last time. I have therefore written out on the typewriter a transcription of the pencilled manuscript, which I hand you. I send it to you, because Roy has several times mentioned the article to me, and had said that he intended to send it to you when completed."

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The volume of the text of the present set bear autograph presentation inscription to David Eckley from Audubon.

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If this set is of interest to you we shall be glad to hear from you at your early convenience.

Respectfully,
THE BURROWS BROTHERS COMPANY.

[As the above letter is of no small amount of interest and thinking that some reader of the OÖLOGIST might be glad for an opportunity to purchase this extremely rare and valuable set of "Audubon's" we print the letter in its entirety.—ED. OÖLOGIST.]

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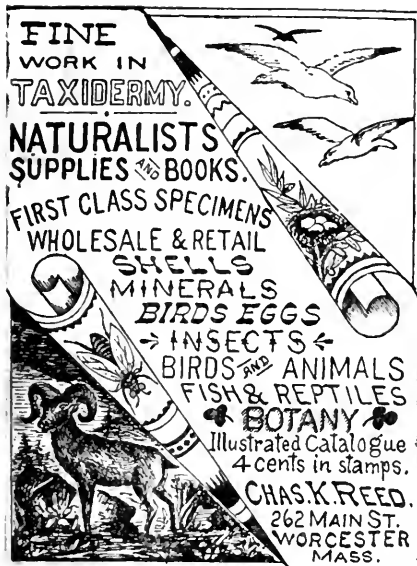
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THE

OÖLOGIST.

Monthly.

VOL. XII. NO. 12. ALBION, N. Y., DECEMBER, 1895. WHOLE NO. 122

Wants, Exchanges, and For Sales.

Brief special announcements. "Wants," "Exchanges" "For Sales," inserted in this department for 50c per 35 words. Notices over 35 words, charged at the rate of one cent per each additional word. No notice inserted for less than 50c. Terms, cash with order.

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SEND 12c. in stamps or one set of eggs with data, for a fine stereoscopic view of Virginia Rail's nest containing eight eggs. S. W. HARRIS, Reading Ave., Hillsdale, Mich.

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WILL PRINT 200 letter heads and 200 envelopes and send post paid for Davie's Nests and Eggs (write before sending book). FRED JOHNSON, Portage, Wis.

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EXCHANGE:—I have a fine line of books (new), Kambi Camera, Hectograph, also numerous novelties which I will exchange for other books, novelties, etc. MOTT S. SPAULDING, Ivarea, Pa.

WANTED FOR CASH:—A Colt's "New Navy" or "New Army" Revolver, perfect condition. Also first-class Sailing Skiff about 18 feet, must be sound and fast. Smooth skin preferred. Send full particulars. Builders send prices. Address I. CANADA, care of THE OÖLOGIST, Albion, N. Y.

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TO EXCHANGE:—Fine fossils, minerals, polished agates, books, Indian relics and curios for good sets. I wish at once about \$250.00 worth of sets and will give good specimens for them. GEO. W. DIXON, Watertown, S. D.

FOR EXCHANGE:—Finely mounted specimens of birds for any old books treating on Natural History. Texas collectors' addresses wanted. NATHAN L. DAVIS, Brockport, N. Y.

EXCHANGE:—A collection of eighty singles, a two pound whale tooth, sea shells, marine curios for Indian relics. Lists sent all answered. WILLIAMS McLAIN, Edison, Ohio.

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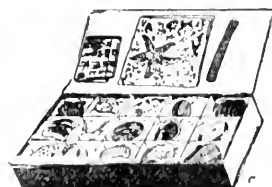
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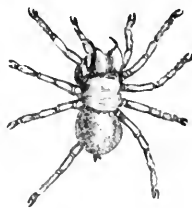
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THE OÖLOGIST.

VOL. XII. NO. 12

ALBION, N. Y., DECEMBER, 1895.

WHOLE NO. 122

An Outing in Assiniboia. 1895.

The evening of May 29th, an old school mate of mine from Kingston, Ont., called at my brother's house to see me and was quite surprised to hear that I had come so far west to study the game birds in their nesting haunts and collect a few sets of their eggs. As he had lived in Assa, about fifteen years and his life had been spent mostly trapping and hunting, I knew he could give me many valuable pointers regarding nesting locations of the various birds. He told me of a lake about 30 miles north-west, at the foot of the Touchwood Hills and said he had frequently seen the Hooded Merganser and the Bufflehead nesting in the vicinity of the lake, also that there was a large colony of American Avocets, a few Pelicans and Crow Ducks, (Double-crested Cormorants) nesting on an island in the center of the lake. As I especially desired to get a set or two of the Bufflehead and Merganser I made up my mind to drive over in the morning and so informed my brother.

About 8 o'clock next morning we hitched the team to a wagon and started for the lake. On the way over I found four nests of the Ferruginous Roughleg; three of the nests contained five young birds each and the other nest with three fresh eggs. I found two nests of the Long-eared Owl built in willow trees about 10 feet from the ground; both nests contained young birds and the parents flew close to my head, making a noise like a cat while I was examining the young. I saw quite a number of crows' nests; some contained fresh eggs and others young birds. I did not collect any of their

eggs, as quite a number of the birds nested close to my brother's house. Chestnutcollared Longspurs and Baird's Sparrows were quite common most of the way over and I flushed quite a few birds out of the grass, but did not succeed in getting any fresh eggs. I also saw the Western Chipping Sparrow; Clay-colored Sparrows were quite plentiful, and I found a couple of nests of McCown's Longspur; one nest contained four young birds and the other three fresh eggs—a beautiful set: both the nests were very flimsy affairs; a few pieces of hay placed in a hollow in the ground in the short grass; the eggs have a ground color of greenish olive blotched, with very dark brown and purple, and the shell is rough, quite different from any other eggs I know of. The bird has a beautiful soaring note and seems to sing through the heat of the day and always on the wing, and the sweetest music appeared to be made as the male ascended in the direction of his little mate, sitting on the treasured shells placed in the grassy home they had both helped to construct in their labor of love, far from the habitations of man.

I flushed several Prairie Sharp-tailed Grouse out of the grass and searched diligently for their eggs but got none. Most of the birds were males, no doubt. About noon we came to a small lake of sweet water and made our coffee and prepared dinner for ourselves and the team.

This lake was swarming with Lesser Scaup, Mallards, Shovellers, Wigeons and other game birds. I was very much surprised to see Phalaropes, Sandpipers and other plovers swimming in the middle of the lake in deep water,

apparently feeding on the insect life the water contained. There must have been four hundred small birds swimming 100 feet from the shore. I saw several Hudsonian Godwits on the edge of the stream, several Killdeers and a few Tell-tales, Lesser.

It was close to this lake I took my set of three eggs of the Ferruginous Rough-Leg as we approached it. I saw a huge nest placed in a willow tree and as soon as we unhitched the horses I started for the nest, three-fourths of a mile distant. When I was within 200 feet of the nest the female bird lifted her head and watched me approach. She did not leave the nest until I touched the tree. Nest was very large and was made of large sticks, lined with grass, sods, bark, and fur and contained three fresh eggs, was placed 12 feet up in a willow tree close to a slough. I saw a number of nests in the vicinity and examined all of them; some were crows' nests, others Swainson's Hawks; apparently none contained eggs, excepting a crow's nest which had three well incubated eggs.

It is astonishing what a lot of empty Hawks' nests I found on the prairies. I walked mile after mile to examine empty hawks' nests, as they are very large affairs and are generally built on a small tree growing on high ground. One can see the nests a mile or two distant.

Bartramian Sandpipers were plentiful, but I did not waste much time searching for their nests. A few miles north-west of this lake I found a nest of the Swainson's Hawk, which contained three beautiful fresh eggs. I flushed the female off the nest. I saw quite a lot of these birds in the vicinity of their nests, but the season was a little early for full clutches of their eggs. I took but three sets, one of three and the others two eggs each; all the nests were built in willow trees close to sloughs.

About 4 p. m. we arrived at the foot of the Touchwood Hills and soon came

to a small wooded patch and to the lake. Judge of my disappointment when I found the lake almost dried up. We soon struck our tent and had everything comfortable, as we found a fine well and had lots of dry wood.

What was formerly the island was now part of the main land and the Pelicans, Cormorants and Avocets had left the locality.

I found a number of nests of the White-bellied Swallow and saw a few Godwits, Marbled and Hudsonian.

Least Sandpipers were also quite common and about one dozen Avocets were flying around, making their yelping noise.

About a mile north I found another lake of quite a fair size and surrounded by small woods. Saw a lot of Shovelers, Baldpates, Pintails, Buffleheads and Hooded Mergansers swimming on the water and flying around the shore. I made a very careful search for nests and noticed a pair of Buffleheads keeping around the south-east corner of the lake. I made a careful search for their nest and was about to give up in despair when my friend pointed to a small hole 8 feet up in a black poplar, or as he called it, a Balm of Gilead tree. I thought it might be a nest of the Sparrow Hawk and soon climbed up to it. I had to enlarge the hole to get my hand inside. About 16 inches down I could feel four eggs. I pulled one out and was delighted to find I had an egg of the Bufflehead. I soon pulled out the other three and put my hand in again to get the down and was surprised and very much pleased to find another layer of five more eggs. The tree was not over 12 inches in diameter and the duck had to place her eggs in layers so as to get them all inside the tree. I soon had the nine eggs on the ground and after pulling out all the down I descended and tried a drill on one of the eggs and found the set was fresh. They measured 1.94 x 1.43, 1.98 x 1.43, 2.03 x 1.47,

1.98 x 1.44, 2.05 x 1.47, 2.14 x 1.47, 2.08 x 1.45, 2.16 x 1.45, 2.16 x 1.45; are of a greyish-olive color and the shell is glossy and quite thick. I was very careful to blow them through small holes and they now bring to me visions of delight whenever I open my cabinet. I have taken 14 species of ducks' eggs in Manitoba and Assiniboia, the sets ranging from four eggs to nineteen; nearly all were taken with the down and as I marked all the eggs very carefully after blowing same, none of them are stained or dirty and my series of ducks' eggs would delight any oölogist. In every case identification is absolute and where there was any doubt the shot gun was brought to bear on the parents and some form part of my collection of skins.

As the ducks will allow a very close approach to the nest without taking flight, one who knows the birds can nearly always identify the female on the nest. Several times I have broken one or two eggs in a set by stepping on the nest, the female flying from under my feet.

As it was now getting dusk we retraced our steps to the camp. I had taken but the one set of duck's eggs today, but considering the rarity of the find I felt amply repaid for my long wagon ride across the prairies and was soon in bed.

I had little sleep all night as the Buffaloheads had got me excited and I was anxious for the field again.

E. ARNOLD,

Battle Creek, Mich.

To be continued.

Field Days in the Foothills

On August 1st, I and my friend, M., left Calgary, Alberta, our intention being to penetrate as far into the foothills as it was possible to do with a buckboard. I then "squat" in some favorable locality for a few days.

One of the chief inducements of the trip was, to secure if possible, specimens of the "Blue Grouse," found in the hills, as I expected to find them that rare variety *D. obscurus richardsonii*.

M. had a pair of fine pointers which he was going to take, to help hunt the Grouse, but taking the advice of a friendly "rancher" who assured us that the country was full of "Wolf Pizon," and that we should stand a good chance of losing one or both the dogs, he (M.) came to the conclusion that he would leave them at home.

The 1st was a glorious day, and as we joggled along the trail, with the snow capped peaks of the Rockies getting nearer and nearer, we both came to the conclusion that "collecting" trips had bright as well as shady sides.

Large hawks were continually in sight, the commonest species seemed to be Swainson's Buzzard. We would often pass within easy gunshot of this bird, as it sat on some slight elevation of the ground or a fence. It is readily distinguished by the broad salmon-colored pectoral band.

Richardson's Spermophile is one of the most abundant small mammals. They are very fearless. I have often struck at them with the whip as we drove past within a few feet. They will then dive into their burrow as quick as a flash, only to be out the next instant, surveying your departure with a sort of "missed me that time old fellow" expression.

After a drive of some 25 miles, during which we noticed sundry McCown's and Chestnut-collared Longspurs, Swainson's Hawks and others of doubtful identity, we arrived at a "ranch" where we were to put up for the night.

(Aug. 2d.) We were up bright and early this morning and after a hearty breakfast, our journey was resumed, the rancher having first pointed out to us a large "butte" about 8 miles away,

at the base of which he informed us, we should find a lumber "shack" which was closed for the summer months.

After travelling about 5 miles, we suddenly came to where the trail split in two, one section diverging to the southwest and the other pointing due west.

An animated discussion followed as to which trail to take, M. favoring the westerly route, myself the southwesterly; eventually we decided to take the westerly and started again. After following this trail about 3 miles we suddenly came upon another "ranch," where the trail seemed to terminate.

Upon making enquiries, we were told to keep right along up a certain valley, for such and such a distance and then by manœuvring from certain points (which we never found) we should strike the right trail to take us to the foot of the big "butte."

With growing presentiments that that trail would be hard to find, we started afresh.

All went well until we reached the top of a rise, and then we found stretching away below us on all sides a valley, through which there had at some time been a fire, and the ground was thickly strewn with fallen logs and rank undergrowth.

I asked M. if he was going back and he said "not much," and as I seconded him on the spot we decided to trust to luck and get to the bottom of the valley some how.

To put it briefly, we made all fast. I started and after some 20 minutes, during which our good old "cayuse" pulled us over logs and stumps of every conceivable shape and size, we arrived at the bottom with nothing wrong, except that one wheel of the buckboard was badly strained and everything well shaken up. It was nothing short of marvellous that we never smashed the buckboard.

In a short time we found the trail again and about 20 minutes' driving

brought us to the lumber "shack," which was situated near the edge of a dense pine bush at the base of a big hill.

Upon inspection, we found the "shack" door securely fastened and it impossible to obtain entrance by that way. However, M. was equal to the occasion, for he quietly slipped round to the back and I presently heard him tearing boards from somewhere, and upon investigating, was just in time to see his feet disappearing through a square hole in the logs, which was evidently the window.

From the inside we managed to open the door, and then we found our domicile was not such a bad place after all. There was a good stove, cooking utensils and sundry other domestic paraphernalia.

The first thing was to refresh the inner man, and after preparing and partaking of a good meal, it was nearly dark, and after smoking a pipe we turned in as we were pretty well tired, and expected a hard day's work on the morrow.

G. F. DIPPIE,
Toronto, Canada.

To be continued.

The California Clapper Rail.

The California Clapper Rail was formerly abundant on all salt marshes in the vicinity of San Francisco Bay, but, owing to the inroads of numerous sportsmen and still more numerous pot hunters this fine bird was almost exterminated, which caused the Supervisors of Alameda and San Mateo counties, in which counties these Rails were especially abundant, to create a closed season from the spring of 1893 to the fall of 1895 to prevent total extermination. The open season formerly commenced Sept. 1st and extended to March 1st, but later on was modified so that the opening occurred Sept. 15th,

and still again, Oct. 1st. The game laws of the state were totally revised this year, so that the open season began Oct. 15th to extend to Feb. 15, 1896, and, it was owing to a flaw in the law that Rails were declared legitimate game this year and not the next. To be precise, the season opened after midnight of Oct. 14th, and many ambitious hunters were on the marshes long before the golden rays of morning proclaimed the bombardment to follow. I was not one of the lucky ones, for, business in San Francisco demanded my presence, but, I was treated to a sight I never saw before, as the train I was on sped across a small marsh about thirty acres in extent between Oakland and Alameda, where two years ago Rail were thick as \$20 pieces:—I counted nearly forty persons walking about and sending their dogs into patches of tall "salt grass" and along the banks of numerous small sloughs left half empty by the receding tide. Some of the hunters, I heard, bagged ten and twelve Rail apiece, and well they might for thick as bees around a hive, some one would drop the flushed bird if the last one didn't. On the marshes back of Alameda where boats are necessary, bags of fifteen to forty were about the average for a few hours sport. Everyone who could afford the time, school boy, city officials, sportsmen and pot-hunters were out in full force, and the reckless and unchecked slaughter has continued, so that now, Oct. 25th, only a very anxious mortal will try his luck, and, it is safe to say that in another week not a Rail will be found.

The yacht "Emerald" with Mr. E. K. Taylor (brother of the man who sends us our *Nid.*) and party of friends from Alameda on board cruised along the San Mateo shores for two days and the daily papers reported this crew had bagged 400 Rail. My doubts were dispelled when the jolly crew returned, and although I did not see all the game

I had their word for it, and, the town ate nothing but Rail for the next two days. San Mateo county "produces" more Rail than any in the state. Mr. Taylor shot two rare Black Rail (*Porzana Jamaicensis*) which, unfortunately were lost.

Oct. 20th being Sunday, I resolved to take advantage of my first opportunity in three years to bag a few Rail. I did not start to row across the wide slough to Bay Farm Island Marsh until ten o'clock as a flood tide was due at half past one. Rain began to fall and donning the rubber coat borrowed from the boat-keeper I spent two hours and a half rowing up and down the small sloughs and sending the dog into likely looking patches of salt grass and bushes on higher places. The tide had risen and the marsh was covered by half a foot of water with a few high exposed places. From one of these the first bird noted was flushed and brought down. Then the fun began! I had found a good location and put up a bird every few minutes for two hours, when, becoming alarmed at the rapid falling of the tide I set out for the nearest good sized slough, shoving along through little tortuous channels and the last forty feet was a case of get out and push the boat across the short, curly "marsh grass" into a slough deep enough to float it. I found the birds very much wilder and scarcer than reported but managed to bag eight. I swapped all that had broken limbs and shot holes in the heads with a sportsman who wanted his "to eat" not "to skin." Seven of them were females, one of which was immature in size and plumage, showing it was hatched late in the season. The males appear larger and stouter and perhaps darker on the breast and underparts. One hunter shot a partly albino; the white predominating, on the neck, wings and back in large patches. He would not swap it, give it away or sell

it, and this ignoramus told me it was "a cross between a Rail and a Plover," while I silently opined "where ignorance is bliss, its folly, etc." This man's friend told me later that he did not keep it for a curiosity longer than to get it home where it was plucked and eaten.

Rail hunting at flood tide is not the highest sportsmanship, as the Rail take refuge on high ground, and, when very little of that is exposed your dog is sure to put up a bird almost every few yards. Occasionally these birds will climb into a thick, short bush, common to the salt marsh, or sit contentedly on a pile of drift or a floating log, and at such times can be hit with an oar, but the birds today with the exception of one were flushed before I saw them, and this one was standing partly concealed among some salt grass in several inches of water, and tipping its body quickly up and down; a common habit. Again, the Rail is not a swift flyer, flying in a straight line, and when hunters are numerous one of them will get the bird you miss if it flies his way, or, mark it down and flush it again and keep Mr. Rail on the hop-skip-and-jump until he is shot or has presence of mind to sink into the water and keep his head out by holding to a stem by his bill. This is a favorite trick of theirs when wounded.

Yet, hunting them at high tide saves lots of hard work, such as pulling around the sloughs and tramping through the sticky marsh mud with heavy rubber boots. The mud there is under water too deep to wade and here is where the tall, wet salt grass grows in profusion, half blinding the dog, rendering him loath to work.

Although not web-footed this long-legged bird is a tolerably rapid swimmer when pursued in the water, swimming with its body submerged up to most of the neck.

The nests are built on the salt marsh, under a bush or among the "marsh

grass" and weeds close to a small slough. The material used is a heap of wet, dead stems, grass and drift. The eggs range from eight to eleven usually, in a set. The young are downy and coal black when hatched. During the nesting season these high tides are absent, but rats play havoc with the eggs and young. I noticed many fierce looking rats today, driven to higher grounds by the tide. I shot two that were being chased across the slough by the dog. They dove when the dog was about to grab them and whenever I raised my gun.

The Rails note is a chatter, something like that of a Gallinule or Guinea fowl. Their chief food is crustaceans and the craws of those I shot were mostly empty. One contained bits of leaf of a plant common to the salt marsh and one bird had swallowed a mud crab the size of a quarter of a dollar and had discarded the legs and pincers probably to prevent the crab causing trouble after being swallowed.

Some persons relish the Rail's flesh, but my personal opinion is not with them except in case of extreme hunger. The breast and second joint is meaty, the rest is,—just Rail. A broth tasting like clam juice is obtained from stewing them plain.

DONALD A. COHEN,
Alameda, Cal.

Notes on the Ruffed Grouse.

The Ruffed Grouse (*Bonasa umbellus*) is a constant resident in Maryland, being quite common in some sections of the country within a few miles of this city.

In roaming about the woods in the spring, I have often flushed the Pheasant (as this bird is called with us) from likely places, for a nest, but all my efforts to find one were in vain until May 2, 1894, when I succeeded in taking my first set of eggs. It was in this manner:

I had been tramping all day trout fishing and in the afternoon to reach the station, to take the train for home, I took a short cut over the hills.

Walking along the side of a steep rocky slope I placed my foot upon a fallen tree as I passed, and the shaking of it caused a Pheasant to flush from beneath a rock, across which the tree was resting. As far as I could watch it, it flew for about one hundred yards diagonally up the hill. I have often read, and heard it stated that this bird will cover its nest with leaves when leaving it, but such was not the case here. Possibly there was no time to do so, as the bird could not see me, and was only flushed by the shaking of the tree.

The nest was a hollow about 2½x6 inches, scratched in the ground on the south side of the hill, and beneath the shelter of the overhanging rock. This formed a roof of about fifteen inches in height, sheltering it from the weather, and entirely hiding it from the view of anybody passing above, but to a person coming up the hill it was fully exposed to sight. The lining was of dead oak and chestnut leaves, intermixed with a few feathers from the breast of the setting bird. The eggs, ten in number, were not spread out in the nest, but were all in a heap, and looked as if they had been dumped together into the nest.

Incubation was fresh, the eggs measuring respectively, in inches, 1.70x1.17, 1.69x1.18, 1.67x1.12, 1.62x1.17, 1.61x1.19, 1.60x1.17, 1.60x1.15, 1.59x1.18, 1.59x1.15, 1.56x1.18; ground color the usual cream, all being more or less speckled with small red and lilac markings.

"For her second laying, when the first has been destroyed, the female sometimes takes possession of abandoned nests, in trees or the tops of stubs, removing her young to the ground in her bill. This is of rare occurrence."—C. A. Cooper, in "Shooting on Upland,

Marsh, and Stream"). E. A. Samuels, in "Our Northern and Eastern Birds," says about the same thing, and states that his collectors have taken their eggs from old Crows' nests on several occasions.

Pheasants pair in the spring, about the end of March, or the first of April. It is during this season that you generally hear their "drumming," but on several occasions, I have heard it in November. This sound seems to possess ventriloquial powers, and it is exceedingly difficult to locate the bird by it. If a person will place the end of a finger on the lobe covering the opening of the ear, and work it rapidly, they will obtain a very fair representation of this "drumming" sound.

Frequently in walking through the woods you will pass a Pheasant. It will remain perfectly still and quiet until you are about ten feet beyond, then it rises with a whirr and is frequently out of sight before you can turn around.

Sometimes they are hunted with cur dogs that flush them, and by barking drive them to the trees. By many persons it is believed that if a covey is found in the trees, they can all be "bagged" by shooting them in turn, beginning at the bottom. I have never seen it tried.

I have found no large coveys in this part of the state, most of the birds flushed being singles, the greatest number I have put up together being four. In the mountain parts of the country, where they are more plentiful, I have seen much larger coveys.

They generally confine themselves to the woods, being especially fond of hill-sides thickly covered with laurel (*Kalmia latifolia*). Warren, in "Birds of Pennsylvania," says: "I have observed when hunting them in the fall that they often leave the woods, and are found feeding about the edges of the fields, along the borders of woods or thickets." Again, Frank Sebley, in "American Part

ridge and Pheasant Shooting," says: "I have come across single Pheasants in the open fields, among coveys of Part-ridges, at least four miles distant from any woods or thickets."

Their food consists of various insects, seeds, acorns, grains, berries, buds, etc. In winter, when everything else is covered with snow, they often live entirely upon the buds of the *Kalmia latifolia*.

I have found them in the vines, eating the small chicken grape, of which they seem to be very fond.

W. M. H. FISHER,
Baltimore, Md.

Hawks and Their Nests.

The long lane which came down from the woods pasture among the hills was enclosed by dilapidated fences, whose mouldering rails, overgrown by trumpet creepers and corners filled with miniature wildernesses of sumach and sassafras, contrasted strongly with the highly cultivated fields on either side. Relics of the original forest growth and outlawed plants, banished from the well tilled farms, found a last retreat here, and struggling together for standing room on the fertile soil, fought out the battle of life undisturbed, except by the occasional passage of a few cattle, who never stopped to browse but kept on to the rich expanse of blue grass beyond.

A single tree had been spared in the clearing of the land and still stood, towering in solitary grandeur above the undergrowth, its apparent size doubled by its isolation. It was a honey locust, humming like a great instrument of music with the buzz of the insects its sweetness attracted, but guarded by a formidable *chevaux de frise* of many spiked thorns against the too familiar advance of unwelcome visitors.

Lying in the shade of the budding

elders, with books and wild flowers tucked between the lichen-grown rails of the fence, where they would be safe from the sportive winds of early May, I lazily read the latest work on birds. A rustle of broad wings drew my attention and I looked up in time to see a Sharp-shinned Hawk just settling upon her nest in the great locust. The wild blood of the naturalist stirred within me and every nerve tingled. That nest was mine—at least to study.

Approaching the great tree I walked around it, surveyed it from all points of view, then climbing upon the fence, peered longingly up at the branches, but found no encouragement there. Armed at every point, it confronted me on all sides with a fierce array of bristling bayonets. The site of that Hawk's nest was impregnable. I might as well assault the fortress of Gibraltar.

A faded bit of dried skin clinging to one of the thorns showed where a Shrike had impaled some luckless mouse the previous winter and to draw my mind from my disappointment I thought of the *Lanius borealis*, that dashing buccaneer who scorns our enervating summers, but in winter comes down from his northern land to reap a rich harvest of mice and sparrows. Dashing yet dainty, gay and reckless, he ranks bravest of the brave, and, his size considered, his courage surpasses that of the fierce Hawk in the nest overhead.

Returning to my book I read that "the nest of the Sharp-shinned Hawk '*Accipiter fuscus*, is usually situated in a low pine." "Low!" Did my author mean to insult me? "Although so often found now they were rarely discovered by the earlier ornithologists. Audubon met with but three, and neither Wilson nor Nuttall ever saw one." Uncheered by this poor consolation I wearily sneaked away.

Next day I returned to the locust tree carrying a light cotton rope attached to

a common three-barbed "grab-hook" that had been made to use in fishing buckets out of wells. Swinging my hook I threw it, after a failure or two, over a branch full thirty feet from the ground. Ascending the rope as only a sailor, a monkey, or a naturalist could have ascended it, I carefully reached one arm over the limb, and twisting the rope around one foot and pressing it in place with the other, I drew my pocket knife and trimmed off all the thorns in reach, so that I could draw myself up without danger or difficulty.

After a brief rest I threw the hook again and caught a branch some ten feet further up. Mounting this branch as I had the first one I followed it to the trunk, and by moving slowly and carefully climbed to the nest.

This nest, which was situated in a fork comparatively free from thorns, was constructed of twigs, coarse ones beneath and smaller ones above, and had only the scanty suggestion of a lining of leaves. The four eggs were nearly spherical, more than an inch and a quarter in diameter, and were covered with spots and blotches of chocolate brown on a ground of bluish white.

I was collecting facts, and not eggs, and did not rob the nest, but it would not have been a very serious crime if I had done so, for these Hawks are persistent layers and I have known of a nest being robbed three times in one season, thirteen eggs being taken before the poor bird gave it up in disgust. It may have been persecution of this kind which led this Hawk to select a locust tree for a building site.

Creeping back to my hook I lowered a string to the ground and then bringing the end of it over the branch tied it to my rope. Descending the rope I pulled the string and drew hook and rope over the branch to the ground. I had climbed fifty feet in a locust and down again without getting a scratch.

When a friend once informed me that "Hen-hawks built their nests out of cord-wood" I thought the statement was only the spontaneous bubbling over of the unaffected poetry of his nature, but I afterwards admitted that there was some show for his exaggeration. Climbing a lofty shell bark hickory to examine a bulky nest in a fork near the top I found that I was invading the premises of a Cooper's Hawk. For so small a bird the nest was surprisingly large, and the coarseness of the materials used in its construction were still more surprising, some of the sticks used being $\frac{1}{2}$ inch in diameter. This nest was rudely lined with strips of the inner bark of some tree, apparently of the cottonwood, and contained no eggs. About the middle of May I returned again and found the female brooding upon two dirty bluish white eggs, obscurely spotted and blotched with faded brown. I was surprised at the smallness of the set of eggs and took pains to examine three other nests each of which contained four eggs.

These Hawks are the smallest of those known by the suggestive name of Hen-hawk. They are common in this locality and I have frequently had the opportunity of admiring the swiftness of their flight and the accuracy of their aim.

The Red-tailed Hawk, *Buteo borealis*, is another common species here, but its nest is not easy to find, for it is hated so heartily and is so much persecuted that it builds only in the most secluded spots. The only nest I have ever examined was in the topmost fork of a giant tulip tree. This tree by the way is known as the "yaller poplar" here. The nest was an immense affair, larger even than that of Cooper's Hawk. It consisted of a huge bundle of sticks, was slightly hollowed out and lined with the so called "cup-moss" (*Cladonia pyxidata*), gathered from old trees. The nest contained three eggs, not quite

spherical in shape but having no pointed end. In color they were yellowish white, marked with blotches of brown.

I frequently work in plain view of a long ridge of saw mill debris which lies along the bank of the Wabash and furnishes breeding and hiding places for all the rats in the county. This was a favorite hunting ground for Sparrow Hawks and consequently a popular resort for all the sportsmen and workmen in Vincennes who vied with each other in their attempts to kill these useful birds. When unmolested the mode of hunting pursued by the Sparrow Hawk was interesting. Poised two hundred feet or more above the rubbish pile he would beat against the wind without changing his position. At length sighting some victim which I could not see he would drop like a stone to within perhaps twenty feet of the ground. Stopping for an instant to correct his aim he would make another dart and then would rise again. Often as he rose I would hear a faint squeal which proclaimed that his dinner was secured and that there was one rat less.

I have frequently heard it said that Sparrow Hawks make entertaining pets, but my limited experience with them has done little to corroborate this.

An acquaintance once persuaded me to climb to the top of a high cedar on his premises and rob a crow's nest for him. When I reached the nest I found it contained four eggs, the usual number with the Crow, but they were not the property of the original builder of the nest. A Sparrow Hawk had pre-empted the claim, and instead of improving and repairing the dilapidated last year's structure had filled it up, covering the Crow's warm lining of cedar bark with a layer of twigs. Why the misguided bird should have preferred a rough, flat surface to a smooth hollow one was an unsolved mystery but there were her eggs, all covered

with dots and confluent blotches of reddish brown on a yellowish cream colored ground.

This was the only bird's nest I ever robbed, and it was with many twinges of conscience that I wrapped the eggs in cotton and lowered them to the ground in a sack. Only one of the eggs could be persuaded to hatch and the one little Hawk was brought up by hand. Patience and kindness had no effect on his stony heart. Perhaps it was his having been hatched in an incubator and brought up in ignorance of the refining influence of a mother's early love that made him the depraved little wretch that he was.

However this may be he made life a burden for his friends and room-mates for six months, and then he was liberated. When at liberty he showed that he either entertained some friendly feelings for his former owner or that familiarity with man had made him bold, for he made the barnyard of his old jailor his hunting ground, and was fast ridding the place of vermin when he was shot by a trespassing gunner. I draw no conclusion but merely suggest that there may be food for thought in the circumstance that the man who killed this Hawk is now serving a term in the State prison for larceny.

When climbing dead trees and decayed snags in search of information in a very different line I have occasionally found the nests of Sparrow Hawks in the holes excavated by Woodpeckers, a circumstance which at first surprised me, for the reach of the Hawk's wings had led me to believe that it was much larger than even the *Melanerpes erythrocephalus*.

On one occasion I found a Sparrow Hawk's nest in the jagged cleft of a large cottonwood which had been blighted by lightning.

My experience would seem to indicate that these birds are the latest breeders of all the raptorial birds nest-

ing in this locality, for I have usually found their eggs in the last week in May or the first week in June.

We are occasionally favored by visits from Pigeon Hawks and Black Hawks but they are non-residents, and I think the preceding list comprises all the Hawks nesting near here, except the one family of Red-shouldered Hawks described in a previous article.

ANGUS GAINES,
Vincennes, Ind.

A Letter of Interest from Dr. Coues.

In the October *Nidologist* under date of Sept. 16th from Sylvan Lake, South Dakota, Dr. Elliott Coues writes as follows:

"I am obliged to Mr. E. S. Rolfe for pointing out in the *Nidologist*, of this month, page 10, the vexatious misprint in my *Key*, ed. 1887, page 613, which makes the egg of Wilson's Phalarope measure "1.90" broad. This "apparent impossibility," as he says, is of course a typographical error for 0.90. This is the third or fourth time I have heard of it from as many different users of the *Key*, and I will see that it is set right in the next edition.

I have meditated a new edition of the *Key* for some years, but have been very busy with other literary engagements; and besides, I thought best to wait awhile till the incessant shifting of names should cease—or slacken at any rate—so that I could tell what names were likely to remain in fashion long enough to make it worth while for the *Key* to conform to them. The A. O. U. Committee on Nomenclature and Classification, of which I have the honor to be chairman, has passed upon all doubtful or disputed cases thus far submitted to its decision, and we are now rapidly printing the new Check List of North American Birds, which will probably appear in a month or two. This will practically settle mat-

ters of nomenclature for the next ten years.

In view of the contemplated new edition of the *Key*, which will conform closely to the Union Check List in nomenclature, I would request readers of the *Nidologist* to favor me at early convenience with corrections of any errors the current edition may be found to contain. My address is always "Washington, D. C."

I find much to interest me Ornithologically in the heart of the Black Hills of South Dakota, where I am seeking much-needed respite from work and worry for a few weeks. Sylvan Lake is a picturesque and romantic spot, six miles from Custer City, and three from Harney Peak—the latter the most elevated point in these Hills. The Blue Crow, or Maximilian's Jay (*Gymnocitta cyanocephala* or *Cyanocephalocyanocephala*, if you prefer to be tautological in the most approved style), is one of the commonest birds. My attention has been particularly attracted to the Junco, which breeds here, and which will, perhaps, require to be named as a new subspecies, *Junco hyemalis danbyi*, after Mr. Durward E. Danby, Principal of the High School in Custer. I remember handling skins like this several years ago, but never before had an opportunity of seeing the bird alive. The difference from *hyemalis* is evident at gunshot range. The impression is that of a large gray rather than blackish bird, with the dark color of the breast fading gradually into the white of the belly. My specimens shot this month have the gray of the back overcast with a brownish wash; and some of them show an approach to the characters of *albini* in having an imperfect wingbar formed by the white tips of the greater row of secondary coverts. The general coloration is rather that of *caneiceps* than of *hyemalis*, but there is no definite dorsal area of chestnut. The bill is flesh-colored, more or less

obscured with dusky. The size is about 7.00x11.00. Danby's Junco is very common in Custer and other towns in these Hills; it comes about the houses as familiarly as the Chipping-Sparrow.

Nesting of the Great Blue Heron

Occasionally we hear of the nesting of the Great Blue Heron through your columns, but these notes are generally not complete, and I have felt that extended observations might meet the requirements of your readers.

My first acquaintance with the nesting quarters of this species was on May 6th, about twenty years ago, when a friend and myself visited a heronry in Van Buren county, Mich., about 42° 20'. We failed to get any eggs as the nests were all placed in immense sycamores, all of the trees being as much as thirty inches through and most of them considerably more. It is not a small undertaking to climb one of these smooth-bark trees when it is quite fifty feet to a limb. Moreover the nests are situated way out at the extremities of the long smooth branches. I was something of a climber myself in those days, but I always bluffed totally when I came to a sycamore. My companion was also scared, and although he had climbed to two nests of the Red-shouldered Hawk during the day he did not make a move to ascend any of these trees.

The locality was a deep swampy forest of elm, oak, basswood, etc., and was often inundated. In fact we had a difficult time in reaching the heronry, and to gain our purpose had to take a circuitous route. Not being able to climb we resolved to make up in hard work what we were lacking in headwork and courage, so with the aid of a man we chopped down two of the gigantic buttonwoods. This of course was a very foolish act and besides gave

us an infinite amount of work, which was all for naught, as the nests were destroyed and the eggs smashed when the trees fell. But this simply shows the disposition of two enthusiastic boys who only half knew what they wanted.

When we first entered the heronry the birds, about one hundred pairs were not wild, but on the first crack of a rifle and the fall of one of their number all was commotion. They continued to circle over our heads as long as we staid and only occasionally a bird alighted near enough to offer a good target. Several birds were secured with a rifle, but not a specimen with our shot guns.

Generally not more than four nests were built in a tree, but in two instances there were seven. Upwards of forty nests of the year were counted in the locality. I felt ashamed of our actions before we left the grounds and I have continued to feel badly ever since we needlessly chopped down those trees to gratify a boyish whim. Some of the young were quite three week's old.

The next heronry that I visited was some years later. I discovered this bunch by watching the flight of the old birds. There were fifteen nests in the heronry and four nests were in one tree. They were nearly all in sycamores, but a few were built on dead branches of ash trees. We had no climbers with us on this trip in Ottawa Co., about 43 degrees, and probably there was not one in our party who could have used them if there had been a collection.

It was not till 1888 that I was gratified with a sight of a collector up a big sycamore after great blue's eggs. I had actually begun to think that no one could climb those largest sycamores and I doubted if I should ever get a set of the eggs for my collection in Michigan as the birds nearly always built in big sycamores. So when we heard of this heronry in St. Joseph Co., Mich., just a half mile from the Indiana state line,

I resolved to try once more what could be done.

On May 7th we started down the St. Jo river in a row boat and with our tent and camp duffle for a good time and intentions for a haul.

On the following three days we collected about two hundred eggs of this species and also a lot of other eggs, mainly hawks.

I say we, but in reality my companion did all the work, while I was only considered fit to sit in camp and assist at blowing the eggs, or in obeying his orders from up the tree.

Our tent pitched on the banks of Pigeon river, a rapid little stream that flows into the St. Jo right at the heronry, we turned in, and were lulled to sleep by the young Herons which kept up a clatter far into the night. Barred Owls also added their melodious and pleasing notes to the night. Owl's notes are always welcome to me.

Only parts of two days were spent among the Herons' nests as one day was wet and climbing was out of the question as the limbs, covered with the calcareous substance which accumulates, were very slippery when wet. Four trees were climbed one day and two the other. The first tree ascended was a sycamore, only seven feet in circumference, and it was the smallest in girth of the lot which were climbed. It was over forty feet to the first limb, but was easy to climb as there were no knots, snags or shoots to hamper the collector.

My companion used a strap in climbing all rough trees and those very large in circumference, but did not employ it in this instance, and informed me that he rarely used it in trees of less than seven feet in circumference measured three feet above the ground.

The first tree held twelve nests distributed on five huge sprangling limbs at near the extremities. Ten of the nests held eggs and seven contained full

sets aggregating 33 eggs. Only complete sets were lowered to me in the basket attached to a fish line. The time spent on this first tree was slightly over an hour. When one considers that in this space of time the climber ascends a smooth trunk and then successively visits a dozen nests distributed on five different branches, which radiate from the trunk, lowers the selected sets of eggs to the ground and then descends, and all in about an hour, it is indeed surprising. After one other climb of an eight foot tree, which proved a hard one as it was covered in spots with bothersome shoots, we took lunch.

Next he tackled the largest sycamore in the heronry over ten feet in girth and the one with the largest number of nests of all, upwards of twenty. Of these nests the lowest one was at about seventy feet up and the highest over eighty. There were sixteen nests of the year. Two held incomplete sets, three nests young birds and the others yielded over forty eggs in complete sets. He finished this tree in less than an hour and a half.

While he was up the trees I was constantly wondering how he escaped falling and my idle time was divided in taking notes and admiring his marvelous intrepidity. Starting up a tree of large girth he would take a strap of as much as eighteen feet long* and coiling the ends around his hands to the proper length he would spur rapidly up the bole.

When he reached a limb he would swing above it and readjust his strap and go on. Or if he met with a snag or a lot of shoots he rested on his spurs and threw the strap above the obstruction and without loosening the support in his hands. Once the strap caught on a crooked shoot on the opposite side of the tree and would not come loose. Then, as I have seen him do before and since, he merely went round the tree sideways and loosened the strap and

went on. Reaching the main point where the branches divided he tied his strap to a big limb and set out to gather eggs.

This part is the most dangerous of the undertaking. The branches are from six inches to a foot in diameter and angle off from a common center for from ten to twenty feet and are very smooth, and besides there is more or less deposit of lime on all the branches. One false step upon these limbs would mean almost sure death. Yet this intrepid dare devil would walk up the limbs not over three inches through, and at nearly a hundred feet from the ground would lower the line and pull up the basket and fill it with eggs. Not only this, but to scare me he would roll a cigarette and smoke it standing in the bulky nest.

In one tree he found a Red-tailed Hawk's nest or rather young, for the buzzard had taken a Heron's nest, ready made, for its purpose. Some trees had nests mostly filled with young and my companion did not ascend these trees. We could tell generally by watching the birds. In this way he made no mistakes and did not climb an unproductive tree. There must have been at least thirty trees which held nests. There were perhaps a dozen which held ten or more each, while several contained but one to four.

Our needs were satisfied by the product of six trees which brought the number up to near 200, which gave us about 170 well-blown eggs. Many were so badly incubated as to give great trouble in preparation.

I have found this species very common in the South where it breeds in abundance. In Florida the eggs of the Blue Heron are generally considerably larger than those taken at the North, while as if to make amends for the disparity in size the Northern birds lay more eggs in a clutch. The average number of eggs at the North is between

four and five, probably nearer five, while at the South it is below four. I have heard of sets of seven eggs in Michigan, while I have seen two sets of six and any number of sets of five. In Florida the Great Blue never lays over four that I can learn of on the St. John's River and often only three, but as I have proved they average larger.

In Florida the Herons of all species, so far as I am able to judge, are given to nesting in comparatively low trees, and often in nothing more than bushes, and it requires no effort to get them after once locating a rookery. However, it requires much caution in order to identify the species, and especially is this the case where the Louisiana, Little Blue and Snowy Herons nest together, as they are often found doing.

EUGENE PERICLES.

Tennessee and Connecticut Warblers in
Massachusetts

While gunning in the outskirts of Millbury on Sept. 27, 1895, I was fortunate enough to secure a Tennessee Warbler, a bird which very rarely comes so far east. It was feeding among the white birches and maples at the edge of a swamp in company with a small flock of Black-poll Warblers. On dissecting I found it to be a young female.

Not contented with securing one prize, I made another trial on Oct. 5th and took two Connecticut Warblers; both I think are males, although at this season of the year it is very hard to tell the sex of small birds. I found them in a white birch thicket together with the Myrtle and Yellow-palm Warblers. Their only note was a low chirp, quite different from that of any of the common Warblers. Besides the above, I shot a freak on Sept. 30th in the shape of a Field Sparrow with a pure white tail.

H. T. VAN OSTRAND.

Millbury, Mass.

THE OÖLOGIST.

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FRANK H. LATTIN, Editor and Publisher,
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Birds Who Sing on the Wing.

I have read with a good deal of interest Dr. Morris Gibb's article on "Birds who sing on the wing" in the March Oölogist, but I cannot let the subject pass without mention of our best songster in this district and one that never sings except on the wing, namely McCown's Longspur.

These little birds are abundant everywhere on the prairie and it is a great source of pleasure to me to listen to them. When on the ground I have never heard them make any sound except a little chirp. The true song is only given when the birds rise from the grass, fly nearly straight upwards for

twenty or thirty feet, then spreading their wings and tail like a parachute they slowly descend to the ground singing at the same time a song, which if once heard is not likely to be soon forgotten. I noticed several times that when the song ceased before the bird reached the ground it stopped its soaring flight and flew off in a different direction, generally to the ground, but occasionally they would fly upwards and repeat it. The song although very characteristic and unlike any other with which I am acquainted is still difficult to describe properly. It is something inspiring to listen to these little birds, there is something so free and joyous about their song, it bursts out as though they were unable to contain themselves a moment longer, as soon as one settles another rises, sometimes two and three at a time, thus keeping up a continual music all the time.

I do not know of any species of birds which sing so much as these do, to me they seem to do nothing else. I think that both sexes sing, but am not certain, it is impossible to distinguish them on the wing and the only two I shot were both males so I could not be sure, but it seemed to me that when I was watching them all the birds around me were singing and as it was long after the breeding season it is fair to suppose that both sexes were equally distributed.

These birds differ from most of the others in that they sing as much after the nesting season as they do before it, in fact their singing is kept up until their departure for the south which takes place about the first of September.

J. E. HOUSEMAN,
Calgary, Alberta.

A Hint on Preserving Nests.

Others have given instructions on the use of fine thread for wrapping nests so

I will pass over this style of preparation, with the suggestion that very fine wire may often be advantageously substituted for the thread.

No nest should ever be transferred from collecting ground to collector's home loose in game pocket, bag or basket. Card board boxes should accompany the collector, of a size to nicely accommodate the nests he expects to find and the nest should be *carefully* removed from its position (after your measurements and notes of situation) and placed in box at once. If packing is required use soft tissue paper in preference to cotton which will stick to nesting material and cause trouble.

By this system and great *care* the most perfect of specimens may be obtained of such nests as Rails', Cuckoos', Herons', Bitterns', and the like, as well as fragile nests of Warblers, and many others commonly considered impracticable of preservation.

Such nests as Hawks, Crows, and the like where one specimen of a kind only is wanted may be first visited and measured and then a box prepared and taken to the tree, the nest carefully packed and lowered to the ground by a string.

All nests of a nature too fragile to be left unsupported in the cabinet, save by thread or wire, are to remain in these boxes permanently and as the lower parts are not to be exposed cotton may be used to fill the lower corners of the box and form a bed in which the nest will snugly rest and the shape be thus protected.

Other firmer nests may be mounted for cabinet by placing in a standard of wire from wood base having four prongs, one supporting each side of nest. Or the same devise minus the wire standard and wooden base may be used to support nest upright in tray.

By the use of the boxes and great care in collecting and preparing, the finest specimens of bird architecture,

which in their *natural delicate* perfection have been strangers to collections, may grace the cabinet. The slightest carelessness however, may destroy the pristine beauty of some fragile specimen, and its true, you know, that "whats worth doing, is worth doing well."

I would also say always have datas or better a data note book and before you touch a nest, take your measurements and make out your full data (except incubation) and other notes.

B. S. BOWDISH,
New York City.

A Little Chat on Pet Birds.

The capturing and keeping of wild birds has, as far back as I can distinctly recollect, been a source of perpetual amusement to me and seemingly an irresistibleity to my nature. Had I the time and place now to keep some avian pets, undoubtedly I would have a large aviary as of old.

My first capture was made when but a mere child of seven or eight summers. With string, a stick, and rusty flour seive, I was taught the first rudiments in the art of bird trapping. The numbers of innocent Snow-birds (*Junco hyemalis*) I captured that day was certainly astonishing: before eve, I had a room full, so to speak, but my sympathetic heart got the better of me, and through an open window, I watched the frightened little birds depart, taking wing in the wintery air, and greatly relieving my burdened and guilty conscience. But seed had fallen in fruitful ground, and from thence sprang a desire to capture more of the birds that flew about me, or sang in the trees of my father's garden.

As I grew older more privileges were granted me. I was less restricted, and from time to time I wandered into the woods, the fields and meadows, the

fascination for which I have never outgrown. I soon learned that it was far easier to get the young birds from the nest than to capture the old ones, especially so in the way recommended by my parents, viz., the salt method, by which, I am safe in saying, I never had success.

Imagine my delight at being presented with a real live owl, one with horns, and that snapped his bill uncommonly close to my fingers. He was duly installed in a roomy cage in the woodshed, and I fed him on meat, stuck on the prongs of a fork that was tied to a stick. From this fork he snapped the meat much to the amusement of myself and the usual crowd of spectators. He was the terror of the house cat, that never failed to run when those large, yellow eyes were turned towards her. At night, he made hideous noises, which kept the family so awake, that they vowed vengeance, and unto this day I believe they carried out their threats for my owl mysteriously disappeared.

A friend similarly inclined, proposed that we launch into the bird business, and we did with intrepidity that was astonishing, for we entered into the enterprise, not for financial success, but for the pure novelty of the thing. His living in the country offered better facilities for procuring the young birds, and we eventually had more than we knew what to do with. Unfortunately, we knew nothing of their diet, and were surprised and alarmed at their rapid decrease, especially so, at the care we gave them, and the constant feeding with corn meal and water. Our chagrin at the final failure only stimulated me to further experiments, and I finally succeeded in raising a family of crows much to my delight and the vexation of the family. These five crows were a nuisance, mildly putting it, and where they learned their pranks I am unable to say. I fortunately succeeded in donating two to a friend, who I believe

eventually wrung their necks for some misbehavior. One of the remaining three was good enough to die, the other two came to a sad end, one being shot for a petty theft, and the other, probably in sorrow, drowned himself in a watering trough. A neighboring boy also owned a Crow, a black one, not especially in color but in character. He never failed to follow the boys when they were hunting, scaring all game away by his vociferous cawing. In a distant brick building, was a hole into which the Sparrows retreated when they saw Jim Crow in the vicinity. He soon caught on to their little game, and took his stand on a ledge a few inches from the entrance, pecking their heads whenever they peeped cautiously out and chuckling joyously to himself at his shrewdness. He would also chase the pigeons, and all the dogs and cats in the neighborhood had great fear of him.

I used to cast covetous eyes on a pair of magpies brought from Colorado by a lady friend. She named them Jim and Jack, and they soon learned to distinguish one name from the other, and come when called. While they were angels compared with my crows, they proved an unending source of annoyance to her, stealing every small article they saw, hiding them under the edges of the carpet or behind pictures, and every day she ran across new depositories for their stolen booty. The birds had a curious way of playing leap-frog, and numerous other tricks, which they performed to a degree of exactness pleasing to the looker on. Blue Jays are easily tamed and make interesting pets, but they are mischievous like the Crow, and are not to be trusted. Grackles are very interesting birds to rear, and while they are not as tricky as the Crow, they will go through very ludicrous performances. While spending a week in September at a friend's house in Iowa, I captured a number of

Bronzed Grackles, two of which I brought home. The Grackles were frequenters of the lawns, visiting the city gardens and parks, strutting around on the grass, eating anything they could find, and seemingly wanting to show off their glossy plumage to the best advantage. I caught a great number of them by means of a figure four trap, and grains of soft corn tied to a string. They soon became reconciled to their fate, and took cage life better than I had expected. The two I brought home were sturdy fellows, with plumage not to be excelled. I named them Jack and Jill, Jill being recognized by a slight peculiarity in the base of the bill. Sad to relate, Jack murdered Jill a day or two after my return, and was left sole owner of the cage. He would bite unmercifully, and I have some scars this day from his sharpened bill. Beech nuts were his favorite food, although he would eat anything, being especially fond of sun-flower seed. In the spring, Jack's cage hung out under a tree, and as huge flocks of croaking Grackles wended their way northward, Jack would cast such wistful and longing glances after them, that I had not the heart to detain him.

Another Jack I formerly owned was a Red-tailed Hawk, bought of a saloon keeper, who offered him at such a reasonable price that I could not resist the temptation to make the purchase. When bought, he was as gentle as a dove, but, I do not know whether it was my influence or not, he afterwards became a terror, and would allow no one to touch him. I kept him on a perch in the yard, lariatied with a long string, and there he sat day in and day out, retreating to a coop built for him at night, always haughty and never falling from his dignity by allowing a caress. He never molested the chickens that were continually around him, not even did he cast wistful glances at them. The roosters made a great hub-bub when he

was installed on his perch, but soon looked on him as harmless, he not having taken any notice of them. It beat all how the birds took offence at Jack's presence. The Sparrows, Robins, and Jays, in fact, every bird around the yard and garden troubled Jack so much that I had serious notion of shooting some of the more bold, especially the Jays and Sparrows, that would fly at Jack, strike him on the head, and quickly retreat, but he took it all good naturedly, and only occasionally remonstrated by endeavoring to catch them with his bill as they passed over. It amused me to see the ignorance exposed by passersby as to just what Jack was. Many believed he was an Eagle, some a Crow, the majority positively asserted he was an Owl, but the climax was reached when an old lady shouted over the fence, "Polly want a cracker?"

Fluffy was a Screech Owl owned by a family not far distant, and an amusing little pet he was. He was taken when but a baby from a hole in a knarled oak, and contrary to my prediction, was successfully raised. It was amusing to see him follow the small chickens around, hopping in among them, but always astonished at what they ate. He had his freedom, but never left the yard, at night, contrary to the custom of his forefathers, he remained part of his time in the cage built for him. He would come at call; he would tackle a mouse or large grasshopper, or cast longing glances at the Canary-bird. The English Sparrows deserted the vicinity in fear of him, and he kept the premises free from rodents. This same family raised a Sparrow Hawk from its infancy, and I never ran across a more interesting little pet. It was very gentle, and would leave its cage and perch on one's shoulder at call. One of the boys frequently took it into the meadows, where it would launch itself from his shoulder and catch a grasshopper,

or give chase to a ground squirrel with lightning rapidity.

At one of the parks here, a Snowy Owl, Great Horned Owl, Swainson's Hawk and Turkey Buzzard are kept in confinement. The Snowy Owl is no longer snowy from coming in contact with his dirty cage, but there is enough of his original coat to identify him. The Buzzard has been in captivity for a number of years, but as far as my observations go, it proves rather uninteresting, being somewhat sluggish.

Mourning Doves can be kept in a Pigeon loft and they will soon breed in confinement. Shrikes make exceedingly interesting pets, and are easily reared, staying around the house, and keeping the premises free from mice.

Cedarbirds, Tanagers, Indigo Buntings, Rose-breasted and Cardinal Grosbeaks, Orioles, and Sparrows of many kinds are easily raised, and are objects of beauty, but for my part, I dislike to confine these beautiful creatures in a cage for my own selfish gratification. Unless I can give a pet perfect freedom, I should much rather see it wild. These beautiful feathered gems, so agile, so happy and gay in their native element, seem to lose their attractiveness, and assume an air of melancholy when placed behind the bars.

W. E. LOUCKS,
Peoria, Ills.

Some Notes on Two California Birds.

MEX. HORNED LARK, *Otocoris alpestris chrysolæma*.

As I have never seen anything written about this species I thought that perhaps my experience would be of interest to the readers of your valuable paper.

My first introduction to this bird occurred several years ago, when I was a little shaver, some nine or ten years of age.

Of course I had the usual collection of rare and valuable eggs that all small boys have, made up of a few cracked and broken singles, which I will not name. One year, I think it was in the later part of May, I was picking peas and I noticed a number of little birds that I took to be some species of sparrow, who seemed to be perfectly at home in the pea field.

They would fly away up in the air, uttering at the same time a few notes. I could hardly call them a song, which are very well expressed in the following: *tip, tip, tip, bp,—tip, tip—tippy, tippy, tippy*. I began at once to look for eggs and it was not long before I flushed a little bird from the nest, which was built under a pea row, in a slight depression in the ground. It was made of straw and dry grass and contained four of the prettiest eggs I thought I had ever seen.

Several years afterward, after I had started to collect eggs scientifically, I tried to get these eggs identified and was told they were probably the eggs of the Ruddy Horned Lark. I tried to get more sets of eggs or birds to make sure of the identity of this species, but could not find either until last year.

On the 18th of June, 1894, while crossing a carrot patch, a bird was flushed from her nest under one of the carrot rows. It was built in a depression in the ground and contained four fresh eggs.

The female bird was shot as she left the nest and positively identified as a Mexican Horned Lark.

The ground color of these eggs is of a pale olive and they are heavily spotted with drab, which is thicker at the larger end.

On the 14th of June I returned to the carrot patch and a set of three slightly incubated eggs was taken.

This bird also was flushed from the nest, which was composed entirely of dry grass, as was the preceding nest.

The eggs of this set have larger spots on them than the set of four.

On the 25th of April, 1895, while out collecting, a nest was found in a vineyard. It was built under a thistle, in a slight depression in the ground and contained four eggs; incubation begun.

Another nest was found in the same vineyard, with one egg in it. Returning a few days later to collect the set, I found that a harrow had been run over the ground and had torn the nest up.

Another nest was found containing three young birds about one week old.

PLAIN TITMOUSE, *Parus inornatus*.

This pretty little Titmouse is common with us during the breeding season.

They nest in holes in the large oak trees that grow abundantly in the Santa Clara valley, preferring a hole which had been excavated by a Woodpecker or Flicker.

The eggs, which are laid in early April, are from four to eight in number, may be pure white or white, thickly spotted with minute pink spots.

Last year a nest was found on the 15th of April, in which was four fresh eggs. These eggs were taken and on returning two days later two more eggs were taken from the nest. Three days later three more eggs were taken, whereupon the bird decided to quit.

This nest was built at the bottom of a large hole in a white oak tree, ten feet from the ground and was made of string, feathers, bark strips, dry grass and tow.

Five of these eggs were pure white, the other four being speckled with minute pink spots.

Another nest was found on the 6th of May, but as we had no hatchet with us we could not get into it. This nest was built in a small hole on the upper side of a live oak limb twenty feet up.

I examined three nests this year, sets of incubated eggs being taken from two of them. Both of these nests were found

on the 12th of April, 1895. The first was built in a post oak tree, in an old Flicker's nest, six feet from the ground and contained six eggs.

This bird was on the nest and would not leave it until we began to enlarge the hole.

These eggs are white, spotted with little pink spots.

The other nest was built in a hole on the under side of a white oak limb and eight pure white eggs were taken from it.

The last nest of the season was found on the 19th of April and was "plumb full" of young birds. I did not stop to see how many.

These birds sit very close on the nest, while incubating, and when disturbed utter a note that sounds like the mew-ing of a cat.

WM. L. ATKINSON,
Santa Clara, Cal.

Accidental Deaths of Birds.

After reading the article in the February OÖLOGIST, by Mr. Harry C. Lillie, on "Destruction of Birds," I thought I would add to it a few items of my own observation and some others of which I have seen notice.

An English Sparrow built its nest in the corner of a roof and its foot becoming entangled in a piece of twine in nest, it hung there in full view from the street until death ended its suffering.

In May, 1894, I climbed to a cavity that for years had been used as a nesting site by a pair of Sparrow Hawks. The tree was partly split by lightning and on reaching the nest I found a splinter had fallen and blocked the entrance leaving an opening on each side. Removing this, I found the skull and part of the skeleton of a hawk amongst the debris at bottom of the hole, and examining skull I found it to be that of an adult. The bird had evidently been imprisoned and starved to death. Several

times I have picked up a Woodcock lying beneath the telegraph wires, and once I found a Meadow Lark hanging from the barb of a wire fence.

A friend in Virginia once shot an American Merganser with an oyster firmly adhering to its bill so that it was unable to open it, which would have died first in this case I do not know. I have heard of ducks, oyster-catchers, etc., being caught by clams at low water and held until high tide when they were drowned.

While at Cobb's Island, Va., some years ago, Capt. C. H. Crumb told me that Loons were frequently found dead in the gill nets, having dived for fish and been caught themselves.

In "Forest & Stream" I saw an account of a Crow being found hanging from the limb of a tree, head down and wings expanded, the claws firmly clasping the limb. The party writing it wanted to know if the Crow had "La Grippe."

Mr. Harry Gordon White, in "O. & O." May, 1889, tells of finding a Flicker with a deep dent in its skull like that sometimes seen in a derby hat; also of one found in nesting hole with feet frozen to ice; and of finding one each of the Mourning Dove, Swamp Sparrow and Fox Sparrow killed by flying against the telegraph wires.

Mr. P. C. Kirkwood tells me of a Chimney Swift killed by striking on the tip of a lightning rod two years ago; the skeleton is still there now.

It is often the case that birds are killed in their migration by flying against the lighthouse. Once I saw an account of many being killed in some city in Iowa by flying against the store windows at night, being blinded by the electric lights inside.

Young ducks, grebes, etc., are frequently gobbled up (or down) by pike and other fish. I remember once reading an account of the skeleton of an Osprey and a large fish being found, the

talons of the bird being set in the fish so that it was impossible to release it, the fish evidently being too large and heavy for it to carry.

During the cold snap in January, 1893, the ground being covered with snow for some weeks, many game birds as well as others perished. In the last ten days we have had parallel weather and reports have been coming in from all sections of the state of Partridges (Bobwhite) and other birds found frozen.

WM. H. FISHER,
Baltimore, Md.



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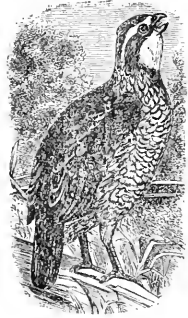
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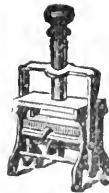
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“ caurica, Ceylon	15
“ carneola, Singapore	15
“ vitellus, Ceylon	20
Ovulum ovum, Zanzibar	25
“ gibbosum, West Indies	15
“ secale on Pterogorgia twig	10
Nerita peleronta, select, W. I	10
Turbo chrysostroma, Phillip-pines	25
Trochus pellis-serpentis, Panama	25
“ (Livona) pica, West Indies	25
Helix fideles, Oregon	15
“ muscarum, Cuba	10
Bulimus Bahamae-nsis, Bahamas	15
Partula gibba, Ladronez	10
Orthalicus melanochilus, Fla. Key	25
Liguus fasciata, Fla	15
Achatinella perversa, Sandwich Is	10
“ uniplicata, Sandwich Is	10
“ spirazona, Sandwich Is	10
“ olivacea, Sandwich Is	10
Pythea pyramidata, Guam Is	15

CORALS and ECHINODERMS.

Precious <i>Corallium rubrum</i> , 1 oz. pkg. of polished twigs	25
Rose Coral	15
Organpipe Coral	10, 25, 50
Creamy Sea Fan	35
Purple Sea Fan	35
Yellow Sea Fan	35
Purple Sea Feather	50
Sea Pen	25
Sand Dollar	10
Philippian Urchin	35
White-spined Urchin	35
Giant Purple Urchin	50
Deep Sea Starfish	50
Black Starfish	35

MINERALS and FOSSILS.

Chlastolite Crystal	15
Tourmaline, brilliant black crystal	25
Coquina	25
“Electric” stone	25
Geodes, select	50
Meteorites, diamondiferous, from Canon Diablo	25
Opal, green var., Wash.	25, 50
Gem Stones, half doz., assorted	50
Fossil Shark Teeth, 3 for	10
Scaphites nodosus	25, 50
Polyp Coral	25

MISCELLANEOUS SPECIMENS, &c.

Skin of Snowflake	\$ 35
Arrowheads, half doz, assorted	50
Revolutionary Gun Flint	15
Dove Shell from British Guiana exhibit at World's Fair, pkg. of 12	25
Chinese Horn Nut	10
Beetle Nut	10
Pkg. of Sea Beans (1 Liver, 12 assorted Sea, 12 Cassia)	25
Scorpion in Box	35
Broken Bank Bill	10
“ “ “ 6 var.	50
Confederate States Bill	10
“ “ “ 3 var.	25
Set of 6 var. unused, 1880, Venezuela stamps	15
Chameleon in Alcohol	25
Egg of Hammerhead Shark	15
Acorn Barnacle	10
Hermit Crab in Shell	35
Sawfish Saw	35
Curio Sponge	25
Porcupine Fish	35
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2 sheets each containing 25 selected 1c Foreign stamps	25
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One Exchange Notice in Natural Science News	25
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Cat's Eye Stick Pin	25
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Small size	25
Medium size	35
Large size	50
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Single Books	10

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American Herring Gull.....	.25
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REMEMBER you are at *no* expense whatever except the 10 cents for mailing purposes and that the only condition required in your acceptance is that your subscription to *either* the OÖLOGIST or NATURAL SCIENCE NEWS is paid through '96 (if it's paid for *both* publications you are entitled to a *double* present or a \$1.00 selection).

Also Remember that if you are entitled to the present that it will give "Lattin" greater pleasure to send you the same than to do otherwise.

Always write your Christmas Present selections on a sheet separate from any other matter and be sure and have your name and address signed to the same in full.

This "Christmas Present" offer will positively expire on Jan. 1, 1896 and will not be extended except to the few who cannot conveniently accept the offer with its condition within the time specified—to them the offer will be held open during the month of January, but not a single day later. Let me hear from you by return mail.

FRANK H. LATTIN, Publisher, Albion, Orleans Co., N. Y.

Changes and Additions to The Oologist and Natural Science News Premium List Supplement.

DECEMBER 10, 1895.

OUTS.

I am OUT of the following premiums and cannot supply them after this date:

- EGGS.—Purple Gallinule, Yellow-breasted Chat, CORAL.—Pink at 25 and 50c.
- FOREIGN STAMPS, ETC.—Packets of 100 and 200 var; Imperial Album.
- BOOKS.—Davie's "Methods in the Art of Taxidermy."
- NOVELTIES.—Coral Necklace; Pocket Drinking Cup.

ADDITIONS.

I have either newly received or have concluded to add the following articles to my "Premium List Supplement" list and offer.

BIRD SKINS.

Any Species, your selection, catalogued at \$1.00 or under by "Worthen" or by "Lattin" in his old pink catalogue at prices quoted in either of the lists mentioned. It's always advisable to name "extras."

EGGS.

Your selection of any species listing at \$1.00 or under at Lattin's "Standard Catalogue" prices. When selecting this premium you must *always* name extras to be used as substitutes to the full amount of your order.

SCIENTIFIC SHELLS.

Your selection from species listing at \$1.00 or under as offered in Lattin's Shell List in his June ('95) BULLETIN. When selecting this premium "extras" must always be named to fully equal the amount of the order.

SHOWY SHELLS.

Any species catalogued at \$1.00 or under in Lattin's old pink catalogue—always name a few extras when selecting this premium.

SUPPLIES, ETC.

An assortment of Glass Eyes of sizes and colors most commonly used. This premium at regular rates will catalogue at exactly \$1.00 and the selection must be left entirely with me. \$1.00

Tanning Liquor, 1 qt. bottle of best, by express at purchaser's expense, \$1.00.

An Exchange Notice (or a card good for one) in NATURAL SCIENCE NEWS, 25c.

An Exchange Notice (or a card good for one) in the OÖLOGIST, 50c.

A year's subscription, with exchange card, to the OÖLOGIST, 75c.

A year's subscription, with two exchange coupons, to NATURAL SCIENCE NEWS, \$1.00.

Advertising space in either OÖLOGIST or NATURAL SCIENCE NEWS to the amount of \$1.00. Should you desire to select this premium and not care to use the space at once a credit card will be issued for the amount which you can use when needed.

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