

GL671
.063
*

FOR THE PEOPLE
FOR EDVCATION
FOR SCIENCE

LIBRARY
OF
THE AMERICAN MUSEUM
OF
NATURAL HISTORY

THE OÖLOGIST,

FOR THE STUDENT OF

BIRDS, THEIR NESTS AND EGGS.

VOLUME XV.

ALBION, N. Y.:
FRANK H. LATTIN, PUBLISHER.

1898.

⋮

A. M. EDDY,
PRINTER AND BINDER.
1898.

INDEX TO VOL. XV.

A. O. U., Report of the Fifteenth Annual Congress of the.....9
 Association News, Oölogists.....4

Bird, to Illustrate the Terminology of the Plumage and Limbs. Diagram of a.....6
 Birds of Montana.....14
 Bird Haunts.....37
 Bird Show. Pet.....87
 Birds Recently Taken in Orleans County. Some Shore.....21
 Birds," Remarks on "Return of the..24
 Birds. The Effect of Storms on....74
 Bunting Black-throated. The Dickcissel or.....32
 Bobwhite.....17
 Breeding of Wilson's Snipe in Western New York.....23

California. A Collecting Trip in...49
 Cardinals. Stray.....88
 Cedar Lake.....85
 Collecting Trip in California. A...49
 Collecting Trip in Old Virginia. A...16
 Coloration of Eggs. The.....41
 Correction. A.....48
 Cuckoo and Other Notes.....70
 Cuckoo Notes from Yates Co., N. Y...76

Dickcissel or Black-throated Bunting. The.....32
 Dipper. Nesting of the American...64
 Discovery. A.....88

Egg Collection. Saved by an.....33
 Eggs for Packing. Wrapping.....32
 Eggs of Greater Yellow-legs.....48
 Eggs. The Coloration of.....41
 Exceptions.....19

Flycatcher. Traill's.....24

Goldfinch in North-eastern Iowa. The Nesting of the American.....39
 Grackle. Purple.....71

Herons. Great Blue.....5
 Hummingbird, The.....77

Illinois. Prairie Horned Lark in...27
 Imitation that Imitates. An....63
 Iowa. The Nesting of the American Goldfinch in North-eastern....39

Junco in Western New York in Summer. The Slate-colored.....72

Laniidae in Western New York. The Status of the Family.....7
 Lark in Illinois. Prairie Horned...27
 Lark in Western New York. The Horned.....69

Montana. Birds of...14
 Murre as a Western New Yorker. The Brunnich's.....35

Names. Pronunciation of Scientific.20
 Nest of the Barred Owl. A.....16
 Nest of Phoebe. Two-storied.....63
 Nesting of *Sturnella magna neglecta* Early.....12
 Nesting of the Am. Dipper.....64
 Nests. Elevated Towhee's.....21
 Nests of the Wood Pewee.....45
 New Jersey. Ring-necked Pheasant in.....81
 "Nomenclature of Colours." Ridgeway's.....85
 Notes on Road-Runner. Additional.36
 Nuthatch. Nesting Habits of the Red-breasted.....55

Ontario. Raptores in Elgin Co.....46
 Oölogist for 1898. The.....40
 Oölogists Association News.....4
 Orleans County. Some Shore Birds Recently Taken in.....21
 Orleans County. Breeding of Wilson's Snipe in.....40
 Ornithologists Cruel. Are.....13
Otocoris in Western New York.....42

THE OOLOGIST

Owl. A Nest of the Barred	16	Storms on Birds. The Effect of.	74
Owl in Western New York. Nesting of the Short eared.	54	<i>Sturnella magna neglecta</i> Early Nesting of.	12
P arulas. A Day With the.	57	Swamp. A Day in a.	73
Pheasant in New Jersey Ring-necked.	81	T housand Islands. Collecting Trip in the.	60
Phoebe. Two-Storyed Nest of.	63	Towhee's Nests. Elevated.	21
Photographing of Birds, Their Nests and Eggs. The.	51	Trip. A February.	20
Photographing. Further Remarks on Ornithological.	59	<i>Vireo solitarius cassinii</i> and Other Notes. The Summer Home of.	29
Plumage and Limbs. Diagram of a Bird, to Illustrate the Terminology of the.	6	Vireo. With Remarks on Our Six Michigan Varieties. The Yellow-throated.	1
Prize Contest.	86	Virginia. A Collecting Trip in Old.	16
Prize Contest. April.	56	Vulture. California (Plate).	66
R aptors in Elgin Co. Ontario	46	W arbler. Prothonotary.	53
Redhead and Ruddy.	25	Western New York. Breeding of Wilson's Snipe in.	23
Remarks on "Return of the Birds"	24	Western New York. Nesting of the Short-eared Owl in.	54
Ridgeway's "Nomenclature of Colours"	85	Western New York. <i>Otocoris</i> in.	42
Road-Runner. Additional Notes on.	36	Western New York. The Horned Lark in.	69
S hrike. The White rumped.	3.86	Western New York. The Status of the Family <i>Laniidae</i> in.	7
Snipe in Orleans County. Breeding of Wilson's.	40	Wood Pewee. Nests of the.	45
Snipe in Western New York. Breeding of Wilson's.	28	Y ellow-legs. Eggs of Greater.	48
Sparrow. Bachman's.	65		

THE OÖLOGIST.

VOL. XV. NO. 1.

ALBION, N. Y., JANUARY, 1898.

WHOLE NO. 140

The Yellow-throated Vireo, With Remarks on Our Six Michigan Vireos.

There are six species of Greenlets in the Great Lake region, viz:—Red-eyed, Philadelphia, Warbling, Yellow-throated, Blue-headed and White-eyed.

A few remarks in a general way may not come amiss. The Yellow-throated appears first in the vernal migrations; next the Red-eyed; then the Blue-headed, and last of all the Philadelphia. The Red-eyed is the most abundant and is very generally distributed throughout the State and I have found it in every one of the eighteen counties where I have observed. It breeds in low woods, high oak groves, heavy timbered forests, orchards and city yards, in pine-ries where mixed with hardwood, and in cedar and tamarack swamps. If my readers will carefully make observations as I have, they will find that the Red-eyed Greenlet is the best and most evenly distributed bird in the State of Michigan. No matter where you go, in the forest or in sections not too well cleared, whether in the city or unsettled districts, if your ear is trained to distinguish, you will soon hear the simple notes of the retiring yet ubiquitous Red-eyed.

Next to the Red-eyed comes the Warbling in point of abundance; this bird being given to local distribution and is always found in cultivated sections, never in deep forests. The Yellow-throated is next commonest; the next is Blue-headed; the Philadelphia next, and the White-eyed the rarest. Some bird students in Michigan claim that the White-eyed is not rare, but I have not been convinced that it is to be found in any numbers anywhere in this State. It is certainly only locally distributed in the Great Lake region, and in over a

quarter of a century of close observation I have not seen it in Kalamazoo county.

The Blue-headed or Solitary Greenlet is quite generally distributed during migrations but is found usually in low woods and timber lands. It is found summering north of the 43d parallel but I have been unable to find its nest. The Philadelphia Vireo has been found in various quarters in Michigan and I have taken it in three counties, but it is never common, and so far as is known does not summer in our State; though it will undoubtedly be proven a nester in the Northern Peninsula by later observers. I am familiar with the songs of our four common species, and I have carefully noted the nesting habits of the Red-eyed, Warbling, and Yellow-throated in Michigan.

The Yellow-throated Vireo almost invariably arrives from the South during the last week in April, but in late seasons is not observed until after May first while in advanced springs they reach Southern Michigan by the twentieth of April or even earlier. Their presence is generally made known by their loud, defiant screaming notes which are somewhat like the rasping notes of the Crested Flycatcher. The song too, is loud and piercing, and is not agreeable when issued near at hand; but when heard coming from the forest at a distance is very pleasing, and will be remembered by a cultivated ear.

After the manner of all of our dear Michigan birds, and I believe the rule holds good throughout birddom in the whole of christendom, the Vireos are mated already on arriving. It is pleasing to think that birds are constant in their attachments and that they remain mated for years, and in all

probability until death or capture separates them. The vernal skirmishes and battles are the natural outcome of the lonesome, but it is fair, I think, to admit that the same identical pair of birds visits the same locality, and after neighborhood differences are settled begin nesting, often in the same tree as in the last season.

I have observed the nest in low bottom lands and one was built within twenty yards of the river. Others were found in orchards and the low horizontal branches of apple trees are often chosen. Two nests that came under my observation were built in forks in drooping lower branches of the common Northern hickory, *Carya tomentosa*, and were in open fields. One nest was at the roadside and within the corporate limits of a city. It had not been disturbed and contained four young birds about ready to fly. They were readily identified from their colors. This nest was at seven feet elevation. The lowest hung nest was placed at about four feet up, and I do not think that the average of all the nests I have found is over ten feet.

The nest much resembles the structure of the Red eyed in its main materials, but is a little larger and coarser and can be identified by a practical eye at any time during its construction. The situation chosen is similar to that selected by the other Greenlets, and always in a fork, generally at the end of a branch.

When the nest is completed it is adorned with spider's web to which is attached bits of lichens after the manner of the Hummer and Gnatcatcher; in truth these three species of birds are the only ones in Michigan, to my knowledge, who habitually ornament their nests in this manner. The Yellow-throated is not as artistic in its decorations as are the Hummer and Gnatcatcher.

This Vireo, after the general habits of

the Greenlets, often allows a lapse of a week or two before depositing the eggs after the nest is completed. This habit often leads to the early deposition of the Cowbird's eggs in the otherwise empty nest of the Red-eyed, but the Yellow-throated is not much bothered with alien eggs, at least in my experience. The old birds do not seem much disturbed by the visit of the despoiler, and do not make the protest observed when a Warbling Vireo's eggs are appropriated.

The eggs are almost invariably four in number, never more, and are handsomest of the Greenlets in Michigan, and are readily identified by their larger size and the more prominent markings. It is unnecessary to describe them here, for all the descriptions in the world could not portray their beauties, nor the record of a thousand measurements assist in the identification of an unknown miscellaneous collection. The truth is, that too much valuable space and time is taken in describing the color, size and markings of eggs and birds, to the exclusion of more entertaining matter. I don't gauge my estimate of a man by the size of his collection of eggs, and I think more of those who are observant of the habits of our feathered friends than of the *pseudo scientist* who talks big and reads technical descriptions and yet can't go into a grove and tell the songs of our common birds. If a man or boy can add one good point of information concerning the habits of our Michigan birds, true lovers of the study of birds will acknowledge his worth as a scientist much more readily than in the case of the individual who amasses a whole raft of eggs by the proverbial collecting and exchanging; yet knowing only of the bare facts of how high, date, incubation, etc., etc. There are too many of this class of collectors in our land.

After nesting duties are completed

the Yellow-throated Vireos are silent and are like most of the woodland song birds difficult to find. Later in the season and after moulting they tune up like the Red-eyed and Warbling Vireos, but their second period of song does not last long, nor is it ever so loud or continued an effort as the vernal burst.

MORRIS GIBBS,
Kalamazoo, Mich.

The White-rumped Shrike (?).

It is interesting to note how great a variation in the time of breeding of certain species there sometimes is between two points situated even within a few miles of each other. For instance, to compare the facts related by Mr. Short of Chili in the Januaay, '95, OÖLOGIST and those related by Mr. Reinecke of Buffalo in the March '96 number with my own observations, I find quite a difference in breeding dates the tendency being towards earlier breeding in nearly all species mentioned in this locality, than at either of the points named.

What Mr. Short said concerning the White-rumped Shrike is so at variance with my observations, that I am tempted to relate my experience with this bird. There are few birds, I think, among all that visit us, that I am so thoroughly familiar with; and certainly there is none that I have taken more nests of.

Here in Western Orleans, I have never found a nest in June, but have found them times without number in April, the dates being, as a rule, the 27th and the full complement being never more or less than six. I did, on one occosion, find a nest containing six eggs as late as May 19th. but in this case I knew of this bird's previous set being taknn April 20th and this later nest was her second attempt at house-keeping. Didn't have the heart to take these.

In this locality one should have his eyes open for nests in process of construction or possibly completed by the 15th of April, in some old apple orchard or thorny hedge-row, not far removed from some dwelling. An old apple orchard is the preferred place, and the nest is very easily found, since the trees are perfectly devoid of any leaves or blossoms or anything to obstruct the view until well along into May.

One peculiar thing has happened in connection with my finding of the nests of this bird. In whatever locality, in March of each year, I have chanced to first note the arrival of the Shrike, in that immediate vicinity, during the following month, I have found its nest. It seems that upon its arrival, it drops right down upon its future nesting site.

The eggs of this species show considerable variation, the series in my collection varying all the way from a very sparse spotting to a spotting that almost hides the background color of the shell.

As regards the distribution of this species and its relative abundance in this locality would say that each square mile of territory is the home of about three pairs of birds in a season.

The dates of my finds are as follows, each set consisting of six eggs and being perfectly fresh, viz:

April 25, '86, April 26, '86, April 26, '86, April 27, '86, May 17, '86. April 27, '87, April 28, '87, April 29, '87. April 27, '88, April 27, '88, April 28, '88. April 26, '89, April 29, '89. April 27, '90, April 28, '90. April 28, '90. April 29, '91. April 26, '92, April 27, '92.

From this it will be seen, that there is virtually no variation in the breeding time of this species, either on account of a backward season, or for any other cause.

There is much that might be written concerning this interesting species, but it is so well known and widely distrib-

uted that perhaps I would be unable to say anything new respecting it and so will rest my pen.

NEIL F. POSSON,
Medina; N. Y.

Oologists' Association News.

During the year just past our association has acquired ten new members (not many, but all of them of a kind that adds strength and stability to an organization such as ours), as follows: J. Parker Norris and J. Parker Norris, Jr., Philadelphia, Pa.; A. H. Frost and R. C. Woodhouse, New York City, N. Y.; W. A. Davidson, Detroit, Mich.; J. W. Daniel, Jr., Lynchburg, Va.; J. Warren Jacobs, Waynesburg, Pa.; W. J. B. Williams, Holland Patent, N. Y.; C. F. Stone, Branchport, N. Y.; and Verdi Burtch, Penn Yan, N. Y.

March 15th last, the Executive Committee published Bulletin No. 1, the contents of which is known to you and which aided materially in securing the new members. The edition numbered 500 copies, and there remain only about 35 of same yet in the hands of the Secretary-Treasurer and myself.

In my annual report of Jan. 1, 1897, I appointed Jos. A. Dickinson, Gresham, Neb. to prepare and compile notes upon the order *Raptorez*, but for some reason there was no response from the members in the way of notes. In view of this I hereby continue this work until such time as Mr. Dickinson shall have sufficient material to justify the preparation of a report such as this Association should be able to issue. Please send copy of all your notes upon the subject as soon as possible. If you have nothing to report send him copies of data of sets of Hawks and Owls in your collections; these in themselves are valuable to show breeding dates, range, etc.

The proposition to amend the con-

stitution of this Association as submitted in the November OOLOGIST having received a two-third vote in the affirmative is adopted. Please change your copy of the constitution to conform with same.

As our organization is now established upon a sound footing, it is advisable to take up a work for which there is a *very urgent need*. One of the prime objects of the Oölogists' Association is to protect oölogists against fraudulent, unscrupulous and dishonest individuals in the exchange or purchase of specimens, etc., and with that end in view I hereby appoint Brothers J. Parker Norris, Jr., 723 Walnut St., Philadelphia, Pa.; W. J. B. Williams, Holland Patent, N. Y. and Jno. W. Daniel, Jr., Lynchburg, Va., as a Committee on Frauds. This committee will receive all complaints and reports of fraudulent or dishonest dealings, investigate same and report a list of those found guilty to the Executive Committee of the Association. This list will be published in a forthcoming bulletin. It behooves everyone interested in the welfare of our favorite study to at once send full particulars to this committee of any dealings wherein there has been dishonesty, and all the members should help to make this very important branch of our work a success.

At the recent election of officers (Dec. 1 to 20, 1897) all the present officers were re-elected.

On account of the amended constitution there is a vacancy in the Executive Committee, and I hereby appoint Robt. C. Woodhouse of New York city as Executive Committeeman for the term commencing Jan. 1, 1898.

Edward Arnold, Battle Creek, Mich. and Dr. R. L. Jessee, Philo, Ills., have been elected to membership in the Association.

ISADOR S. TROSTLER, President.

Omaha, Neb.

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.

TERMS OF SUBSCRIPTION:

Single subscription.....50c per annum
Single copies.....50c each
The above rates include payment of postage.

Each subscriber is given a card good for a Want, Exchange or For Sale Notice. (This card is redeemable at any time within one year from date thereon.)

Subscriptions can begin with any number. Back numbers of the Oöologist can be furnished at reasonable rates. Send stamp for descriptions and prices.

Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped, and all arrearages must be paid.

ADVERTISING RATES:

5 cents per nonpareil line each insertion.
12 lines in every inch. Seven inches in a column, and two columns to the page.

Nothing inserted for less than 25 cents. No "special rates," 5 cents per line is "net," "rock bottom," "inside," "spot cash" rate from which there is no deviation and no commission to agents. If you wish to use 5 lines or less space it will cost you 25 cents; 100 lines, \$5.00; 1000 lines, \$50.00. "Trade" (other than cash) advertisements will be accepted by special arrangement only and at rates from double to five times cash rates. Due bills and cards payable in advertising will be honored only at regular rates in force at the date of issuance of said bill or card.

Remittances should be made by Draft, Express or Postoffice Money Order, Registered Letter or Postal Note. Unused U. S. Postage Stamps of any denomination will be accepted for sums under one dollar. Make Money Orders and Drafts payable and address all subscriptions and communications to
FRANK H. LATTIN,
Albion, Orleans Co., N. Y.

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

Great Blue Herons.

For three weeks had we been making calculations to visit a herouery, which we were told was in a black ash swamp some ten miles from here. We had lived here for upwards of forty years and had not learned of its existence until last year.

As we could only go on Saturday when the boys were out of school, and it had rained for two or three succeededing Saturdays, we began to think that

we should be disappointed until May 12th, which bidding fair for a pleasant day, we hitched up and taking an oöologist's paraphernalia and our dinners we started off.

A very pleasant ride, but longer than necessary, as we got beyond the object of our search before enquiring and were then told that it was half a mile back and some twenty or thirty rods off the road.

They said we would find lots of Cranes as they were there the other day and shot fifteen of them, but we must look out and take a stick along for they would fight if we disturbed their nests.

We went as directed and sure enough there they were and as we approached their quiet retreat they left their nests in great numbers and flew round and round uttering their coarse guttural notes of alarm.

A hundred or hundred and fifty such large birds winging their way slowly around in circles overhead seemed to fill the air and was a sight that will not soon be forgotten.

Occasionally would they light on a nest and then off again, or would settle down on some of the topmost branches of the tall trees on limbs that hardly seemed capable of holding up a Robin, with wings half spread and in constant motion to help balance themselves on their tall still like legs on the swaying limb, they seemed much better adapted for a habitation on terra firma than in mid air.

Their nests too were a sight to behold. Built away in the tops of the trees on limbs that did not seem capable of holding them up, as big as a two bushel basket, and from one to eight in a tree we thought we had got paid for our drive if we got no eggs.

Our next object was to see what was in them. The empty, broken shells underneath told us that many had hatched and we might be too late.

Jumping from bog to bog or running the length of some prostrate log we soon reached a tree with half a dozen nests in it and prepared to go up.

We had a rope ladder that we could put up forty or fifty feet, but as there were no large limbs that would hold us, had to resort to the climbing irons.

One of the boys soon went up and after working an hour or so secured two good sets of eggs, which he let down in a pail with a string which we measured and found to be ninety feet long.

We all had good appetites for dinner by the time he reached the ground, which we soon disposed of. The boys botanized a little to rest themselves, then started for another tree containing eight nests, most of them near the body of the tree.

The other boy tried his luck this time. Ninety feet above ground, in the top of a swaying tree, with a good stiff breeze blowing is not a very delightful place to work for a landsman. A couple of hours and five more sets were secured, thirty eggs in all.

We had learned something from our forenoon's experience, so sent the boy a long fish pole with our drinking cup securely tied to one end. With that he could scoop out the eggs from those nests out of reach; even securing a set from a neighboring tree near by.

The nests were built entirely of twigs, with a slight depression on top for the eggs, and were woven or packed so tight together that they could scarcely be pulled apart, and would fall to the ground without breaking to pieces.

Some of the nests contained young, and all of the eggs were more or less incubated so that we only succeeded in saving two-thirds of them. Two of the sets contained five eggs each, the rest four. The eggs in the sets of five were decidedly smaller than those of only four.

But few of the birds kept in sight

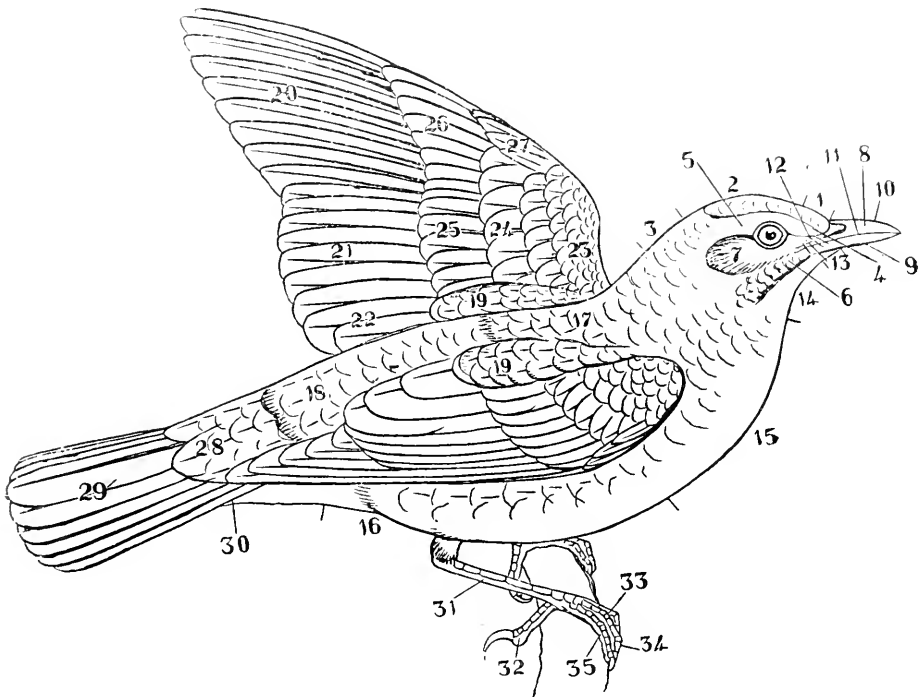
while we were around. Forty nests could be seen at once; but should think there were sixty or seventy in all, on about an acre of ground.

They visit the little lakes around here during the summer and most any evening about sundown can be seen winging their way to the southwest, and many a morning on first rising have I seen them fly up from the lake shore but a few rods from the house.

C. M. SLAYTON,
Grattan, Mich.

Diagram of a Bird, to Illustrate the Terminology of the Plumage and Limbs.

1. Forehead.
2. Crown.
3. Nape or occiput.
4. Lores (space in front of eye).
5. Supercilium.
6. Cheeks.
7. Ear-coverts.
8. Upper mandible or maxilla.
9. Lower mandible.
10. Culmen or upper profile of maxilla.
11. Commissure or line of junction of the two mandibles.
12. Rictal bristles or vibrissæ.
13. Chin.
14. Throat.
15. Breast.
16. Abdomen.
17. Back.
18. Rump.
19. Scapulars.
20. Primaries (the earlier or outermost 9 or 10 quills of the wing).
21. Secondaries (wing-quills springing from the radius and ulna.)
22. Tertiaries.
23. Lesser wing-coverts.
24. Median wing-coverts.
25. Greater wing-coverts.
26. Primary wing-coverts.
27. Winglet or bastard-wing.
28. Upper tail-coverts.



29. Tail-feathers or rectrices.
 30. Under tail-coverts.
 31. Tarsus.
 32. Hind toe or first toe or hallux.
 33. Inner or second toe.
 34. Middle or third toe.
 35. Outer or fourth toe.

Flanks or sides of body are the parts approximately covered by the closed wing.

Axillaries are the lengthen feathers springing from the axilla or region beneath the base of the wing.

Supplementary bristles or hairs are those springing from the side of the forehead in front of the rictal bristles.

Nasal bristles or hairs are those springing from the front of the forehead and covering the nostrils.

Measurements should be taken in millimeteres or in English inches and decimals, thus:

Length—The distance from the tip of

the bill to the tip of the longest tail-feather, unless otherwise stated.

Tail—The distance from the root of the tail, generally indicated both in the fresh and dried state by the presence of a piece of flesh on the underside, to the tip of the longest feather.

Wing—The greatest distance from the bend of the wing to the tip of the longest primary, measured straight. When the wing is curved, it is flattened out for the puepose of measurement.

Tarsus—The distance from the centre of articulation of the tarsus with the tibia to the base of the middle toe.

Bill—The distance from the angle of the gape to the tip, measured straight.

The Status of the Family Laniidæ in Western New York.

Hitherto the status of the Shrike family in Western New York, and for that matter, throughout the northern por-

tion of the Eastern United States generally, has been understood to be as follows:

Three species occurring,—or rather two species and a sub-species. First the Northern Shrike (*Lanius borealis*) breeding in the boreal regions and coming down regularly each fall to spend the winter or a goodly portion thereof in this latitude; second, the Loggerhead Shrike (*Lanius ludovicianus*), an inhabitant of the southern states which but very rarely strays as far north as New York, although the editor of THE OÖLOGIST a few years since found the bird breeding in the vicinity of his home at Gaines, N. Y., and third, the White-rumped Shrike (*Lanius ludovicianus excubitorides*) a varied form of the preceding, occurring quite commonly as a summer resident and breeding in April and June.

The above is the hitherto supposed status of the family in the northern East. Now, for a recent development.

During one of my trips to New York City, early in the present year, I took time to run up to the American Museum of Natural History, where considerable time was most profitably spent in the bird section. I was particularly interested in the collection of "Birds found within Fifty Miles of New York," arranged by Mr. Frank M. Chapman. Much time can be spent to good profit in looking over the collection. And I found that no species of the White-rumped Shrike was present, but that the Loggerhead Shrike was represented as a common summer resident. This was the first intimation I had had that it was the true *ludovicianus* instead of *excubitorides* that occurred as a summer resident in these latitudes. Mr. Chapman being at the time in Mexico I could not confer with him in regard to the matter, but later on I wrote him a letter asking him what he considered the true status of the Shrike in this section and stating that I had always con-

sidered that it was the White-rumped Shrike that occurred here. His reply to my letter is as follows:

"NEW YORK CITY, May 14. 1897.

MR. NEIL F. POSSON, Medina, N. Y.

DEAR SIR:—Returning from Mexico I find yours of April 12th. I am glad to know that you were pleased with our local collection, which has proven of much service to bird-students here.

I consider all small Shrikes east of the Mississippi to be *ludovicianus* and you will find that the recent A. O. U. list confirms this opinion. Birds from Western New York are not *typical ludovicianus*, but I think are nearer to this form than they are to *excubitorides*.

I have never had the fortune to work in your part of the state and cannot therefore give you any records. Should any come to my notice, however, I shall be happy to send them to you.

Yours very truly,

FRANK M. CHAPMAN."

It was my intention, after learning this, to settle the Shrike question definitely one way or the other, by securing this season a number of specimens of our Western New York Shrikes and submitting them to experts for a careful examination, but this I have been unable to do, inasmuch as I have been away from home, practically, throughout the entire year.

Here is a good field of work for some local ornithologist the coming season, who has the time and opportunity to collect a few specimens of our Western New York Shrikes. Let us determine whether we have been working on erroneous premises all these years.

NEIL F. POSSON.

How to do it.

All you have to do is, enclose in an envelope, 75 cents, stamps or postal order. I will send to you by return mail a well labeled collection of Shells and Curios from this locality. If you do not find them satisfactory return them and I will return your money. All specimens in natural state.

W. H. HILLER,

147 W. 23d St., Los Angeles, Calif.

THE OÖLOGIST.

VOL. XV. NO. 2.

ALBION, N. Y., FEBRUARY, 1898.

WHOLE NO. 141

* Report on the Fifteenth Annual Congress of the A. O. U.

ARTHUR C. PARKER, White Plains, N.Y.

The fifteenth annual Congress of the American Ornithological Union, was held in the library of the American Museum of Natural History in Central Park, New York City, on the 9th, 10th and 11th of November.

The sessions, with the exception of the business meeting on the afternoon of the 8th were open to the public. Owing to various reasons the writer was unable to attend the convention Tuesday morning and Thursday, hence the report will not be exactly complete, but information has been obtained from different sources though not as much in detail as is desired.

An excellent paper was read Tuesday morning by Mr. Sylvester D. Judd, on the Protective Adaptations of Insects from an Ornithological point of view.

On Tuesday afternoon Mr. Chapman in an interesting address, told of his collecting tour in Mexico. At the first spot in which he camped, he collected but fifteen specimens during his three weeks stay, because of the intense heat which registered 96 to 98 degrees each day, whereas even on the Amazon during the collecting season it registered but 94. He exhibited numerous specimens which he had collected at his second stopping place near Mexico City. Among the interesting facts which he brought to notice was the difference between the same species of the table-lands and those of the lower plains. He also exhibited an interesting species of black oriole which had

many characteristics of a woodpecker, although its bill was not of woodpecker shape. Dr. Coes examined this skin with evident interest. The Mexican thrushes were particularly interesting, many having beautiful plumage and exquisite song, indeed Mr. Chapman said that the out-bursts of song from the myriads of bird throats sometimes nearly overwhelmed him. The skin of an American Robin, (Western type) was shown, and to prove that it bred in south central Mexico, he produced its nest and skins of its young. Several types of wrens and some interesting vireos were displayed, among which was the connecting link of the Warbling and the South American vireo. Hawks in Mexico are so numerous that a flock at a distance was compared with a swarm of gnats. A remarkable fact which he brought to light, was that many song and wild-birds lived in the cities, making the air merry with their tuneful notes. At the close of this entertaining talk, Daniel G. Elliot, F.R.S. E., in his pleasing manner, remarked upon his discovery of a new species. Incidentally he said that he was like a certain Colonel placed at the head of a regiment, a well meaning man, but very nervous. This officer was placed in a very exposed position, and told not to move until so ordered. Soon balls began to whistle through his ranks and men on every side fell wounded or dead. It was not long before his legs began to tremble, and then to shake, being conscious of this he bent down and surveying his tottering legs addressed them thus: "Oh you poor miserable legs, if you knew where I am going to take you in a few minutes, you would collapse altogether. He went

* This Report was sent in for December OÖLOGIST, but through oversight was omitted.
—Ed.

on to say that he was like that officer, he did not know where he would take himself during his talk. He said he had published a description in the "Ank," fondly thinking that he had discovered a new bird, but, in the succeeding number Mr. Nelson gently and tenderly said that he didn't know what he was talking about. Mr. Nelson said, however, that he had read a description which exactly tallied with that of Prof. Elliot's.

The chair then announced that if we would follow Mr. Chapman down into the "dark place," meaning the lecture room, that he would show some stereoptican views of his Mexican trip, together with a series of others, among which were views of the dense tropical vegetation, his camp in the forest, and also a view of a very peculiar nettle plant, which if touched causes a violent stinging wound, having every appearance of a burn. This plant makes it very uncomfortable some times, when a rare bird is shot and falls in a thicket of them. A number of beautiful views of Gulls, Cormorants and the nests and eggs of the Yellow-billed Cuckoo, Yellow-breasted Chat, Song Sparrow, Veery, and others were exhibited. The three plates showing a Puffin's burrow, its eggs and young were especially interesting, and a picture of the young of the Kittiwake in their cliff nest, afforded a striking example of protection by coloration.

Prof. A. S. Blackmore showed an interesting set of plates, examples of the recent advances in visual instruction. He showed what excellent results could be obtained by placing a properly focused telescope in front of a camera lense, for taking distant pictures, and said that rare specimens might be photographed in this way, the exposure requiring but .01 second. A series of views, belonging to the Dept. of Public Instruction were displayed and explained by Mr. Chapman. A field of

daises and clover was cast upon the canvass and then in another view the feathered inhabitants; and so on a stream and the Kingfisher; the deep wood and its inhabitants. Two slides showing Cormorant life on a small island, west of Hawaii, with its millions of birds and many more millions of eggs. Recently Yankee enterprise has built a railroad through their breeding ground for the purpose of collecting their eggs, which they take by the carload.

Wednesday morning was opened by the secretary's report of the preceeding day, after which John N. Clark read an interesting paper on his ten day's trip in the mountains of northern New Hampshire. He seemed to have a happy faculty for finding nests. Among the things which he mentioned was that he discovered a Hermit Thrush's nest, containing four eggs, which his companion warned him not to touch, saying that if he did so the bird would either destroy or remove them. Laughing and saying that he was not so superstitious, he examined them, and imagine his surprise when upon returning again, he found the nest empty. Upon the close of his paper, Mr. Oberholser corroborated the statement, that the eggs of a Hermit Thrush sometimes suddenly dissappeared. He had watched the nest and eggs at a distance to see if the parent would return, and failing to do so, he had again looked into the nest, finding it empty. Evidently a mystery. The only plausible reason which could be advanced was that a snake had eaten them, the nest being on the ground, and consequently of easy access.

The renowned, venerable Dr. Elliott Coues, in his original entertaining manner, gave an intensely interesting talk upon Audubon. He began by saying that "in 1826 there appeared in England an obscure man of fine form, striking personality, and engaging manner.

In the short period of five years, this obscure man, was lifted from his obscurity into fame immortal." When he returned to America, he brought his wonderful portfolio of paintings of British birds in natural colors. Assisted by the secretary, Dr. Coues lifted the massive portfolio, (measuring $2\frac{1}{2}$ by $3\frac{1}{2}$ feet) upon the table. It had originally been very handsome, of leather and brass bound; although now it is very dilapidated, having lost three of its corners and being torn and scratched. But portfolios of Audubon's are not always brought empty even to an A. O. U. convention in the Museum of Natural History," said Dr. Coues, and every one anticipated a pleasant surprise, nor were they disappointed. Painfully slow the eminent ornithologist opened the covers and tantalizingly he cut the string which bound the contents, then held up one of the original drawings of John James Audubon. In his latter years Audubon had a very original way of drawing his bird pictures. If one had chanced to look at the drawing of one of his sons, they would have seen a funny vacant space in the middle, and it was into this space that Audubon pasted his bird picture, having cut it out around the edges, the boys drawings forming the background. But the question arose as to the descriptive matter for his many plates, and Dr. Coues held up the original manuscript of Audubon's Life histories. "Miss Audubon has a habit of giving a sheet of this manuscript some times, to her close friends and insisted upon my taking two" said the scientist.

Dr. Coues then proceeded to give some interesting inside facts concerning Audubon's efforts to obtain a scientific man who could give satisfactory technical names to the birds which he had discovered and given an English nomenclature. His first efforts were to secure William Swainson who although very learned had a "w'eel in his head."

In Swainson's reply to Audubon's letter he said that many times before he had offered to give technical names, but had met with solid refusals, and now that Audubon wished to use the knowledge which had taken twenty long years to acquire without giving proper credit even on the title page, he felt obliged to refuse. Thus it was that William Macgillivray was given the task of applying scientific names. This said Dr. Coues averted a terrible crisis which would have taken place if either Swainson or Audubon had undertaken.

Recently Messrs. Charles Scribner's Sons have consented to publish Audubon's European Journal of 1833 and the Missouri Journal of 1843. Dr. Coues said that he had read the proofs, and so one can see that it is well under way. Audubonian societies are springing into popular favor and through their efforts an immense amount of good is being done both in protecting bird life and popularizing ornithology. At last the people are beginning to realize the importance of Audubon's work, and have erected monuments in New York and New Orleans and others will follow.

As the Doctor spoke he distributed a number of Audubon's original pictures of birds together with some of his son's, John Woodhouse, through the audience. A photo of Audubon's oil painting as it hangs in the dining room of the family in Salem, N. Y., showed the naturalist as he appeared in his earlier life. Dr. Coues then summed up by saying that "when Audubon was good he was very good in his way, and when Audubon was bad he was very bad in his way" that is, in regard to his bird pictures. He then compared the rising young painter, Louis Agassiz Fuertes, with Audubon in this way and then criticized some of his pictures in a friendly way. After the Doctor had finished and retired Mr. Fuertes arose and walking up to Dr. Coues shook his hand, and although one could not hear

what he said, still one could see the broad smile which lit up the Doctors face, as he gave the young painter an encouraging pat.

"Is Uniformity in Local Lists Possible?" by Mr. J. Dwight, Jr., received a great deal of opposition. His plan was to give technical words in the first declension for the names we now use to describe birds on our local lists. The technical word is to be placed after the name of the species thus, he would have Downy Woodpecker (*habitants*) instead of, The Downy Woodpecker is a resident through the year, and breeds. His plan had its merits, it saved time in making lists, and would save a great amount of circumlocution, but the principal objection was the bringing so many more confusing foreign words into the study of ornithology would not be desirable, as already we have too many.

Mr. Harry Oberholser then gave a brief address on Liberian Birds. He began by giving a description of the physical conditions of the country and gradually led up to the subject of its feathered inhabitants. His descriptions were exceptionally good.

Dr. Cones informed us that something interesting was going to take place outside the Museum. This was rather vague but all followed Dr. Allen outside, where we saw two stuffed partridges, one in its natural feathers and the other with the back feathers of another bird fastened upon its breast, making it the exact color of the ground. Mr. Abbott H. Thayer explained that if we would stand back twenty-five feet or so, we would easily see that the ground colored bird was plainly visible, appearing black, while the other was much less conspicuous. He had colored two sweet potatoes one dirt-brown and the other brown on top gradually shading down to ashy underneath. They were strung on a wire so as to raise

them from the ground. From a distance of twenty-five feet the brown sweet potato was very plainly seen, but the other was scarcely visible. These experiments were to show that animals having lighter under parts were much less conspicuous than if they were a solid color, because, light coming from above cast a shadow below, thereby making the lower colors look darker. This experiment was entitled on the program, "Further Demonstrations on Protective Coloration."

On Thursday the Committee on Bird Protection made its report, which was read by the chairman, William Dutcher. He said that thousands of pamphlets had been distributed, and many news paper articles have been printed relative to the cruelty by which feathers were obtained for millinery purposes, yet women pleaded ignorance and continued to wear feathers. "The Terns of Penikese Islands, Mass" by Mr. G.H. Dutcher was an interesting paper which occupied a great deal of attention.

On Thursday afternoon at a few minutes past four the convention adjourned. This years Congress was probably one of the most interesting held during the fifteen years of its existence.

Early Nesting of *Sturnella Magna* *Neglecta*.

While hunting in the Spring of 1893 I found a nest of the Western Meadow Lark in a field near home. The nest was made of wire grass and was placed in a clump of grass. It contained two whole eggs and three broken eggs, so that the nest must have been finished March 10th.

I am certain that it was a new nest for the birds were around. The eggs were normal in all respects.

H. D. WATTS,
Compton, Cal.

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.

TERMS OF SUBSCRIPTION:

Single subscription.....50c per annum
Sample copies.....5c each
The above rates include payment of postage.

Each subscriber is given a card good for a Want, Exchange or For Sale Notice. (This card is redeemable at any time within one year from date thereon.)

Subscriptions can begin with any number. Back numbers of the Oölogist can be furnished at reasonable rates. Send stamp for descriptions and prices.

Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped, and all arrearages must be paid.

ADVERTISING RATES:

5 cents per nonpareil line each Insertion.
12 lines in every inch. Seven inches in a column, and two columns to the page.

Nothing inserted for less than 25 cents. No "special rates," 5 cents per line is "net," "rock bottom," "inside," "spot cash" rate from which there is no deviation and no commission to agents. If you wish to use 5 lines or less space it will cost you 25 cents; 100 lines, \$5.00; 1000 lines, \$50.00. "Trade" (other than cash) advertisements will be accepted by special arrangement only and at rates from double to five times cash rates. Due Bills and Cards payable in advertising will be honored only at regular rates in force at the date of issuance of said bill or card.

Remittances should be made by Draft, Express or Postoffice Money Order, Registered Letter or Postal Note. Unused U. S. Postage Stamps of any denomination will be accepted for sums under one dollar. Make Money Orders and Drafts payable and address all subscriptions and communications to

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

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

Are Ornithologists Cruel?

BY CHARLES L. PHILLIPS, Taunton,
Mass.

Cruelty is many times unjustly attributed to naturalists, and especially to ornithologists, by thoughtless persons. I do not mean to assert that ornithologists are never cruel, but that the true avian scientists are, as a rule, just as human as many other classes of intelligent men to whom inhumanity is very seldom imputed. Of course we all

know that in nearly every walk of life certain persons are encountered who are wantonly cruel. This unfortunate characteristic appears to be natural, and further, they do not seem to realize that they possess a tendency which induces others, of a more gentle and kind disposition, to judge them harshly.

But let us revert to ornithologists in general. Are they cruel? Many will say so but principally illiterate or shallow minded persons. Why? Because they do not give the matter logical consideration, but speak on the impulse of the moment. Very likely the ornithologist has a deeper affection for his favorites of the feathered tribe, a more sincere admiration, and would do more for their general protection, than the very ones who call him cruel. In fact, I know he would, and I take my own inner-consciousness as a criterion, because I am an ornithologist, and my thoughts and inclinations are open to my revisions, while those of my fellow lovers of the science are not. Ornithologists kill birds and preserve their skins, because they have a thirst for knowledge; because they wish to know the birds better than can be done by meandering through their sylvan retreats and making observation at a distance.

I think that thirst for knowledge was placed in man by the Creator as an essential factor toward progression. And it is just as natural for man to satisfy that craving, as to drink to quench thirst, or to eat to appease hunger. We follow that pursuit, for which we have a natural tendency, and if our brain development leads us to become an ornithologist, we must sacrifice more or less harmless birds so that we may not only educate ourselves but that we may learn that which will interest others to whom it is transmitted.

Reptiles, beasts, and birds of prey, hesitate not to appropriate birds by the million annually to satisfy their hunger

for flesh, which was given them by the Omnipotent. When birds are ruthlessly torn to pieces and devoured they help to keep life in the captor for a few hours only, but when they are taken by the naturalist he preserves and keeps them in his private collection, or places them in a museum, where they usually remain many decades, and during that time they give hours of pleasure and instruction to all lovers of natural science. After making this comparison can we conscientiously say that the ornithologist is more cruel than the designer of all things, who ordained that harmless and beautiful birds, of all kinds, should be rent and demolished by merciless beaks and fangs? I think not. It seems to me the cruelty of the naturalist is very small in comparison, and that the collector of birds, for scientific purposes, is perfectly justified by the glaring example set by his Maker.

One more point. The naturalist is often called a cruel wretch by the masses. How far is their judgment consistent? With one, if you say: "That bird is a Kirtland's Warbler and its skin is worth six dollars," the person will immediately lose sight of the wickedness, and no doubt, he will want to try collecting specimens himself. Further, some think any thing that is very nice to eat, it is perfectly allowable and justifiable to kill. It matters not whether it be pretty or useful. That class will judge by their palate and stomach. Oh, shallow humanity!

If God has willed that repulsive reptiles and brutal beasts shall have their choice of food from the most beautiful, gentle, melodious, and consequently pleasing, of the animated species of the earth ought it to be called cruel if man in the interest of progressive knowledge destroys a few birds? Every intelligent reader, after due consideration of the subject in hand, will, I think, say emphatically: "No!"

Birds of Montana.

In writing about the birds of Montana, I will not endeavor to write about all the birds but only such as I have come in contact with this last summer and last winter.

I will begin with the winter residents. Along in November when we have a cold wave we can see the little Snowflakes flying about in flocks uttering their twittering chirup: sometimes mixed with them may be seen a few Rosy Finches. There are not so very many Rosy Finches that winter in this locality, but there are quite a good many when it is very cold. The Snowy Owl comes down from his summer home and visits us during the winter, as can be shown by the number of stuffed specimens which are found among the different collections. I have seen the Canada Jay and Long-crested Jay here also but think they are only winter residents.

Those of the birds which stay here all the year are not many. We have both the Golden and Bald Eagles which stay the year round. The Golden Eagle breeds here but I have been unable to secure any eggs. They build in pine trees.

A boy told me last summer of finding a nest of a large black bird; he described the bird and the four eggs which the nest contained, and it must have been that of a Golden Eagle, but what was peculiar about it was that the nest was placed upon a hill side, which was pretty steep but not so steep but that the boy could walk up to it. There is an old nesting place near here where they have reared their young for years. I climbed the tree and the nest was about five feet high. For some reason they did not build there this year, although I see them around. A young man told me he shot at one of them and that may be the reason for their leaving the place.

On the 12th of December I went to look after a bait which I had set for Coyottes and on the way near the bait I found a Golden Eagle lying upon his back, I walked up to it and saw where the Coyotes had danced around him, but the eagle was alive and had kept the Coyotes away with his large claws. I turned it over and it wobbled off a few feet and then looked at me. I went on to my bait and then came back and by driving the eagle and carrying him part way I got him home and put him in the stable. He seemed numb and stiff and I think he got a dose of strychnine at my bait, but not enough to kill him. I feed him Jack Rabbit and he is getting quite lively. I saw three of his fellows today.

I do not know of the Bald Eagle breeding here but am told they do about fifty or sixty miles from here. I have seen the birds here but do not know why the Gallatin Valley is not blessed with at least one pair. Clark's Nutcracker stays here the whole year and breeds in the pine covered hills. The Long tailed Chickadee stays here and breeds, I found a nest in an old stump. The nest was in a hole and made of fine squirrel hair; it contained 6 eggs pretty well incubated, so that I could not make a first class set of them, although I saved the set. The birds are plentiful but the nests are hard to find.

Then we have four species of Grouse, the Columbian Sharp-tailed, Sage, Gray Ruffed and Dusky Grouse. I found four nests of the Dusky last summer but only secured one set; the others were sucked when I found them. The American Dipper I have seen here in the winter and know that it breeds here, as I have the nest and eggs which I collected last summer. The nest is a beauty, it is made of moss, which all sticks together in a ball, with a hole on the side for entrance, on the inside it is lined with dry grass and the bottom covered with dry leaves upon which

rested the four white eggs which resemble those of the Purple Martin.

The summer residents are quite numerous but I will not mention all, as this article is getting too long. Lewis's Woodpecker breeds here, they make holes in live trees as well as dead ones in which to rear their young. I found a nest last summer and as both old birds were flying around and it was early for them to be laying, I was in no particular hurry to dig into their home, but a few days afterwards I went to the tree prepared with climbing irons, small saw, hammer and tacks besides a box and cotton, etc I got to the hole and started to measure the distance with a scoop net and found it to be about two feet, but listen, "What is that music which breaks on my ear?" It is the cries of the young birds. I come down the tree and leave them to their happiness.

I had quite an experience with Maryland Yellow throat. I found a nest situated in the ground, well hidden, it contained four eggs. I could not get a very good look at the female and as the male did not put in an appearance I had to flush the bird repeatedly and lie close to the nest while she came back and went on. I looked into the nest again and behold there were five eggs. I was quite sure what it was but to be real sure I decided to bring my gun along the next and secure the bird. The next day my brother looked into the nest and there were six eggs, two days after I came along with my gun, but before shooting the bird I looked into the nest, when I was surprised to find four young birds with two eggs just beginning to addle. I did not shoot but satisfied myself with a look at her and by finding another nest of the same species, the female of which was not so shy I saw what both birds were.

We have at least seven species of Hawk and four of Owl which I am sure nest here as I have seen them here in

the breeding season. I have found the Long-billed Curlew, Bratramian Sandpiper and Killdeer with young.

AMOS F. PYFER,
Salesville, Mont.

A Collecting Trip in Old Virginia.

It was a beautiful Spring, with that sweet freshness about it that only a TRUE lover of Nature can appreciate. The woods now covered with Spring flowers rang with melody from the throats of its little feathered inhabitants. The sweet song of the Cardinal, the Mockingbird and the Red-eyed Vireo could be distinguished from all others. In the distance the loud raps of the Red-headed Woodpecker could be heard as he beat his morning tattoo on some lifeless tree.

"Just a morning for a stroll in the woods." I said to my companion, a true lover of Nature. "Right you are 'old Sport' and I'm with you." He said these words as he disappeared in the house for his collecting box. So armed with the collecting box we started for a collecting trip in Old Virginia. As we strolled through the woods above described our attention was attracted by a peculiar humming noise above our heads. We turned quickly and were much surprised to see a Ruby-throated Hummingbird swinging backward and forward in the air. We immediately sat down and watched the little fellow. After swinging there a few moments he flew and perched himself on a dead twig above our heads, and then again with a nervous quiver he alighted on a bed of moss. Our expectations were correct, his nest was near. My companion quickly fastened on his climbers and in a few moments was rewarded with two pearly beauties, pure white about the size of a pea. Placing these carefully away, we again started.

We had gone but a few steps when a Whip-poor-will flew almost from under

our feet leaving behind two beautiful eggs. The nest, if I may call it by that name, was only a pile of dry leaves. The eggs were cream colored, thickly blotched and spotted with light brown and lilac. We placed them in the collecting box and started again.

It was at least a half hour before we found another but this time we were rewarded indeed. My companion had stopped to watch a saucy squirrel as he "skampered" away, shaking his bushy tail, as if bidding defiance to all mankind, when a noise like thunder was heard to his right and a magnificent Wild Turkey hen arose high in the air and disappeared in the thick brush in front of us. We both made for the spot from which she had flown and much to our pleasure found a neat nest containing 12 eggs. The ground had been slightly indented and lined with feathers, bark, etc. Packing these away we joyfully left for home.

On our way back we found nests of Red-Eyed Vireo, Red-headed Woodpecker, Cardinal, etc. After enjoying a good supper we went to bed and dreamt of the future when we would again take a stroll through the forests of Virginia.

JOHN W. DANIEL, JR.,
Lynchburg, Va.

A Nest of the Barred Owl.

On Mar. 24, 1894 I found a nest of the Barred Owl containing one egg. I returned on the 31st and took the set of 2 beautiful white eggs, on which Madam Owl had just begun the duties of incubation. The nest was in a cavity; about 10 inches deep, in a hollow linn tree; formerly occupied by a squirrel. The eggs were laid on a nice bed of leaves, evidently provided by the former occupant. The cavity was only 28 feet from the ground.

E. S. CRAFTON,
Plattsburg, Mo.

THE OÖLOGIST.

VOL. XV. NO. 3.

ALBION, N. Y., MARCH, 1898.

WHOLE NO. 142.

Bobwhite.

(*Colinus Virginianus*.)

This species, the celebrated gamebird of the Eastern United States, is common in suitable localities. The clover, wheat and sage fields together with pastures and woods are where they will be found. The greater part of the year the Quail is found in coveys pairing in early spring some time in April; then each pair selects a particular locality where they remain to nest during the summer.

During the mating season the well known call of the male can be heard at intervals in the morning and late in the evening throughout the woods. By imitating the call he will come running through the grass, stopping every few yards to listen or to look in all directions to see if there is an enemy near, but if you have been perfectly quiet he will keep coming nearer until he finds out that he has been deceived. When you have him near, careful study will always be rewarded by finding out something new and interesting concerning his habits, although a somewhat common bird. It pays to watch even the commonest of our birds for we too often get the idea that if a bird is found in abundance it has no peculiar or unknown habit; the trouble lies in our not observing carefully.

Their flight is one of the most marked characteristics concerning them. When flushed it flies or rather sails swiftly in an almost straight line, which is one reason for its being prized so much by sportsmen. Sometimes it loses its life by attempting to cross a river, their strength giving out before the opposite shore is reached.

Often after having been flushed sev-

eral times they will alight in trees. Remember very well the first time I ever found any perched in trees. I was out gunning and had flushed a covey, but not being experienced in shooting, banged away in vain; the birds scaring me when they flew up almost as much as I frightened them with my gun, but I managed to see them as they sailed around a pine-thicket. Thinking that I would redeem myself next shot, hurried on, but when I reached the place my dog searched everywhere without any result. Soon he began barking up into a thick pine and upon close investigation found the tree almost full of Bobwhites but as they had so cleverly hid themselves left them undisturbed.

This noted bird is about extinct in some localities and fast becoming so in others on account of the persecution it suffers. Some say that they pull down the heads of wheat and eat the grain. That may be true, but suppose it is, is that any comparison to the good these birds do? I say, "No," and if the stomach of one is examined everyone else will say the same. Their food consists mainly of seeds of various kinds, berries, bugs and stray grain. In the winter when these are covered by the snow, they will be found huddled around trees, eating seeds of weeds and frequently will go into barnyards to feed with the domestic fowls. During the severe winters in 1893 and 1894 hundreds of Bobwhites perished because the bugs were killed by the cold and the seeds were covered by the snow, so that the poor birds were left to starve and freeze to death.

At this time they were very tame and and some heartless hunters took advantage of their emaciated condition

by going out and searching for a covey, which of course would be found huddled together, so that at one shot all were killed. One hunter told me of his getting over one hundred birds in this way, sometimes killing fifteen at once. With this going on, the Bobwhite will soon be compelled to seek shelter in the dense and retired woods, just like our most magnificent gamebird, the Wild Turkey, has done, having been persecuted by the so-called sportsman but whose proper title is the "Destroyer and Persecutor of Innocent Birds."

Another cruel way of killing them is by netting, a practice which has not been very long used. When a covey is found the net is put into position and the thoughtless birds allow themselves to be driven into it by men on horseback. In this way the whole covey is caught.

Once had the opportunity to see how this was carried out and I never wish to see such a scene again, for it was really heart-rending to see those homeless little birds murdered. Oh! if before they went into their death trap, the thought would have struck the leader to fly, for then all would have followed and escaped the awful end which they met a few minutes later. Dogs had been sent out searching the fields and soon a beautiful pointer suddenly stopped. Such a picture, with his left front foot slightly raised, his tail erect and every muscle quivering; for he had found a covey of fifteen Bobwhites, who thoughtless of the danger which they were in, remained still. Soon a net was placed several yards in front of where the birds were, and two men came up on horseback to drive the poor birds into the net. The worse part was later on when all had been secured. Then the work of destruction commenced. After the skulls of the innocent birds were mashed on the brain, they were thrown in a bag; there to die in agony.

The Bobwhite is one of the best friends the farmer has and it is with a sorrowful heart that I think of the way they are treated in return for the harmful insects and destructive bugs, which would, if not eaten by these birds, destroy half his crop. One very sensible farmer once said to me, 'Several years ago I would kill a Partridge as readily as a Crow but once I saw a whole covey in my wheat field destroying bugs and insects which would otherwise have ruined my crop and since then have never killed one.' Another said, "Would rather have my best dog killed than a covey of birds." But still the destruction of our gamebird goes on and unless some new and unforeseen restriction arises, the familiar and well known note of the male will not be heard echoing throughout the woodland or when we go collecting will we be surprised by the whirl and rustle of the wings of a covey which have been startled from its roosting place. May the day be far off when we shall say:

"Once they were here but now they're gone

The Quails have perished, we're left to mourn
And weep without a comforter,

These birds can ne'er return."

All the larger Hawks are enemies to them, although their food consists mostly of mice, grasshoppers, rats, frogs, etc., if a Quail is seen it is almost sure to be caught and eaten. I have seen both Cooper's and Red-tailed Hawks chasing these birds. It is very likely that many of their nests are broken up on account of being placed upon the ground, and but for the large number of eggs laid, there is no doubt but that they would be very rare by this time.

The young from a nest, together with the parents, will remain together during the whole winter if not disturbed. They always roost upon the ground sometimes in the middle of an open field, often in a thicket or in the woods, and when roosting they sit near togeth-

er in a bunch with their heads outward, flying in all directions when startled; then soon utter their call-note and collect together.

Their nests with fresh eggs may be found from April to July, two and sometimes three birds are reared in one summer. The nest which is placed in grass, sometimes under a bank, but more frequently under a large tuft of sage or clover is not very easily found unless the female is flushed; the materials used for construction being only of grass put in a hollow scratched out by the birds. Both male and female assist in building but do not go very far from the nest for the material. It is arched over having an entrance on the side. If the birds are disturbed while building it, they will leave, but only to go somewhere else and start another right away.

The eggs vary in number. Nests have been found with ten eggs, the least, and twenty-five, the most, but fifteen to twenty is the usual number. The color of an egg is pure white; after remaining in the nest a short while it becomes stained. In shape they are pointed at one end while perfectly round at the other.

They will not leave the nest until almost trampled upon. When it does leave, if incubation has commenced, it will not rise but runs along beating the ground with its wings and feigning lameness, trying to take the attention from her nest of eggs.

The young leave the nest soon after hatched and have a peculiar peep similar to a young Turkey and usually utter it two or three times in succession. When disturbed they will give several loud peeps while the old birds will fly about the intruder keeping up a continual fuss. Sometimes they will run around with their feathers ruffled up and wings down making somewhat of a cackling noise.

H. GOULD WELBORN,
Lexington, N. C.

Exceptions.

These exceptions are nothing more than random notes but perhaps may be of value to fellow collectors.

The Spotted Sandpiper (*Actitis macularia*), says Oliver Davie: "The nest is simply a depression in the soil, sometimes constructed of hay and moss. The eggs like all those of the waders lay in the nest with the small ends together."

I found only one exception to the position of the eggs in the Spotted Sandpiper—in this case the small ends were all lying in the same direction. I flushed the bird off the nest and the depression the five eggs made in the nest showed they had lain that way for some time at least. As to the composition of the nest in this locality, the majority of nests were located beneath a weed or a willow shrub where bits of dead black leaves formed the lining for the nest. As authority for this I have sixty-five sets of *Actitis macularia* before me taken from nests none of which compared to that of Davie.

Mourning Dove (*Zainaitura macroura*). In speaking of the position of the nest of this species Davie says, "The nest is placed in the horizontal branches of trees or stumps or on the top rail of old snake fences or rocks, in bushes and in treeless regions near the ground."

Out of personal examination of perhaps some three hundred nests of this Dove about one nest out of twenty was upon the ground and this is a well timbered country.

Cooper's Hawk (*Accipiter cooperi*). Davie says, "The number of eggs vary from four to six, rarely the latter number, and they may be found in various sections between April 7 and May 20."

Out of three sets of the *Accipiter cooperi* taken by me last year two sets were of three and one of four. The latter set was taken about June 20th.

One set of three was about half incubated so there could be little doubt but that the complement was complete.

Yellow-billed Cuckoo (*Coccyzus americanus*), "Being somewhat nocturnal in their habits, the notes of both our Cuckoos are often heard at night."—O. D. But he fails to note the nocturnal disposition of the Yellow-breasted Chat (*Icteria virens*) which sings tenfold more in *noctus* in this locality than does the Cuckoo.

Belted Kingfisher (*Ceryle alcyon*) Mr. Davie says the number of eggs is six but when a full complement is laid seven or eight. Five and six and sometimes seven constitute a set in this locality.

Red-headed Woodpecker (*Melanerpes erythrocephalus*). Davie says, "The egg are five or six in number." On the 6th day of June, 1897, I examined a nest of the *Melanerpes erythrocephalus* and found four young birds—one at least a week younger than the rest. While Mr. Davie made notice of the uneven hatching of the Cuckoos and Belted Kingfisher he never mentioned this fact in the Woodpecker which I have frequently noticed in my collecting trips.

Wood Pewee (*Contopus virens*). In concluding a description of the nest of this bird Davie says: "Externally it is covered with pieces of lichens which are held in position by webs, and the structure thus ornamented is indistinguishable from a natural protuberance itself."

Out of a personal examination of over a hundred nests only one contained any lichens at all.

The remarks of my observations are confined to Park county, Ind.

WINFIELD S. CATLIN.

A February Trip.

On Feb. 22, 1893 W. H. Osgood and I went to the mountains to look for

Horned Owls and Eagles eggs, but we found it too early owing to heavy rains and continued cold weather, so we repaired to a grove of cypress trees and a number of Anna's Hummingbirds darting about indicated nests. I soon found a nest 15 feet up on a horizontal cypress limb which proved to contain two eggs about half incubated. Mr. Osgood also discovered a nest of same bird and on climbing to it found one young and the remaining egg about to hatch.

C. BARLOW,
Santa Clara, Calif.

Pronunciation of Scientific Names.

Among the answers given in a recent OÖLOGIST to the questions quoted in the September issue I find the author stating at the end of No. 5 that it is better to adopt the English pronunciation for scientific terms. Will the author of this advice kindly tell why it is better for the nations having accepted the English language in their constitutions to adopt a method of their own, when all the other nations are apparently well satisfied with the Roman pronunciation?

Why alter an old established system when it is satisfactory in every way? Just to save some the trouble of committing those few rules of pronunciation to memory?

I hope this is not the reason, for in my estimation it would be as just to adopt English terms altogether (as indeed some have had the nerve to advocate) and throw our beautiful old system into the attic. When the English speaking nations can boast of all the world having adopted their language, then and not before would it be advisable to change a system so universally employed as the one under consideration.

H. SCHWARZ,
St. Louis, Mo.

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.

TERMS OF SUBSCRIPTION:

Single subscription.....50c per annum
Sample copies.....5c each
The above rates include payment of postage.

Each subscriber is given a card good for a Want, Exchange or For Sale Notice. (This card is redeemable at any time within one year from date thereon.)

Subscriptions can begin with any number. Back numbers of the Oölogist can be furnished at reasonable rates. Send stamp for descriptions and prices.

Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped, and all arrearages must be paid.

ADVERTISING RATES:

5 cents per nonpareil line each insertion.
12 lines in every inch. Seven inches in a column, and two columns to the page.

Nothing inserted for less than 25 cents. No "special rates." 5 cents per line is "net." "rock bottom," "inside," "spot cash" rate from which there is no deviation and no commission to agents. If you wish to use 5 lines or less space it will cost you 25 cents; 100 lines, \$5.00; 1000 lines, \$50.00. "Trade" (other than cash) advertisements will be accepted by special arrangement only and at rates from double to five times cash rates. Due Bills and Cards payable in advertising will be honored only at regular rates in force at the date of issuance of said bill or card.

Remittances should be made by Draft, Express or Postoffice Money Order, Registered Letter or Postal Note, Unused U. S. Postage Stamps of any denomination will be accepted for sums under one dollar. Make Money Orders and Drafts payable and address all subscriptions and communications to
FRANK H. LATTIN,
Albion, Orleans Co., N. Y.

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

Elevated Towhee's Nests.

In reply to an article by Mr. C. Piper Smith in the April '97 Oölogist I submit the following notes.

While returning from Indianapolis on May 21, 1897, in company with a friend we came to a dense woods bordering the road about 10 miles north of the city. He got over the fence and examined some bushes along it. Returning he informed me that he had found nothing but a grass-lined nest in

a bush. I concluded it must be a Towhee's nest, and so it proved, for a week later (May 28) he secured the nest and set. Nest was of the usual construction—twigs, grass-stems and dead leaves and lined with fine dry grass. Eggs were typical, elongate-ovate covered with fine specks of pinkish, and three in number. Nest was placed 18 inches up in a wild rose bush and contained an egg of the Cowbird.

On June 10 I was passing through a large woods and, in skirting a swampy pond, I happened to pass near a dense blackberry bush when I thought I saw a nest in it. Stooping down I saw a nest and also the head and neck of a female Towhee. She flitted off and alighted on a fallen log where she was joined by her mate and where both remained and scolded me during the few minutes I was in the vicinity. The nest was placed 44 inches from the ground and of the same construction as the above mentioned nest and contained three eggs of the same shape and markings as those above. Returning on June 13 I found the nest empty and could distinguish three slight depressions where the eggs had rested.

LOUIS W. BROKAW,
Carmel, Ind.

[Mr. Brokaw died Sept. 3, 1897. The above note was sent the Oölogist a few weeks previous.—Ed.]

Some Shore Birds Recently Taken in Orleans County.

The Order *Limicola* or Shore Birds ought to be fairly well represented in Orleans County, for Lake Ontario forms our northern boundary. It seems that this order of birds that the bird-student becomes acquainted with. In nearly every instance it seems that this is the particular branch of his ornithological education that is neglected. I find that this is so in my own case. Perhaps this class of birds is more diffi-

cult to study by reason of their ever-varying plumage, as well as by reason of the fact that these birds frequent the seashore and the beaches of the inland lakes at those seasons of the year when man deserts these places.

☐The writer merely wishes to mention a few species which have been taken along the beach of Lake Ontario in this county, the past autumn—not by himself, however, but by Mr. Percy Smith of this place, to whom all the credit is due. Mr. Smith did the gunning, and I with his consent, do the recording of his achievements.

On September 9, 1897, along the bank of Lake Ontario, in the town of Carlton Mr. Smith secured a young male of the Semipalmated Sandpiper, a young male Semipalmated Plover, a young female Black-billed Plover, and a young male Knot (*Tringa canutus*). The last mentioned bird is of rare enough occurrence in these parts to warrant more than passing notice. The Knot breeds in the Arctic Regions, and winters south from Florida, following very closely the Atlantic seaboard in the course of its migrations. Occasionally, although not often, in may occur on the larger inland lakes during migration. Two or three specimens have been taken at different times on the Lake Erie coast in the vicinity of Buffalo. The specimen taken by Mr. Smith on September 9th is the first one ever secured in this county so far as I know. The Knot is the largest of the Sandpipers. This specimen measured as follows: Length, 10; extent, 20.50; wing, 6.25; tail, 2.50; bill, 1 3-16; tarsus, 1 1-16; middle toe, 1 3-16; middle claw, 3-16; head, 1 3-16.

It was in company with a young female Black-bellied Plover, when shot. The weather at the time was pleasant and had been for some time.

Again on October 16, 1897, Mr. Smith spent another day at the lake, visiting the same locality. The day was not

pleasant, but presaged an approaching storm of wind and rain. Various flocks of different kinds of Sandpipers were flying from the beach out over the water, and continually returning again.

Four different species were secured by him. These were the Sanderling (*Calidris arenaria*), a young male, the Pectoral Sandpiper (*Tringa maculata*) male, the Red-backed Sandpiper or American Dunlin (*Tringa alpina pacifica*), two specimens shot, both female young of the year, and the White-rumped Sandpiper (*Tringa fuscicollis*), a male. The writer does not consider any of these four Sandpipers as very common migrants here. The Sanderling is undoubtedly more common than the others. The White-rumped Sandpiper is very rare here, even more so than the Knot, leastwise fewer of them seem to have been taken in this section, for I fail to find any published record of this bird having been taken before in Western New York, although McIlwraith mentions it in his "*Birds of Ontario*." A description of this rare Sandpiper as taken by Mr. Smith, may be of interest in this connection:

"Sex, male; length, $7\frac{3}{4}$; extent, $5\frac{1}{2}$; head, 1; tail, 2; wing, 4 15-16; bill, 1; tarsus, 1; middle toe and claw, about $\frac{1}{2}$; hind toe short and slight, about $\frac{1}{4}$; tibiae, bare, about $\frac{1}{2}$. Bill, black, moderately slender, flattened at tip. Feet black. Toes, slender, not webbed. Top of head finely mottled with dark and reddish-brown and white. Back, dark brown, most feathers narrowly edged with reddish-brown. Wings, brown. Narrow, longitudinal white band formed by tips of greater coverts. Smaller feathers of wing either tipped with reddish-brown or white. First primary, longest. Tail-coverts, white. Tail, brown, with narrow white edges. Breast and sides of neck narrowly edged with fine brown marks on dirty white ground. Chin, white; and belly

and crissum, white. Front of wings mottled with grey and white below."

Of the Red-backed Sandpipers two specimens were taken. There were quite a number of that species there, and very tame. They were in small flocks. I believe it is a characteristic of this species that they are not at all wary of approach. The gizzards of these birds as well as that of the Pectoral Sandpiper contained small snails.

While the account of these takings is hereby recorded by myself, I desire to repeat that none of the credit is due to me, as I was in another state on each of the above dates. Mr. Percy Smith of this place is entitled to the credit, and if all of our bird-students were as careful, thorough-going and particular with each little detail as is he, we would all know more about our feathered friends than we do today. I have merely assisted Mr. Smith in his identifications.

NEIL F. POSSON,
Medina, N. Y.

P. S.—I have unintentionally overlooked the fact that a Mr. Breed of Lyndonville accompanied Mr. Smith on these excursions to the lake, and he is doubtless entitled to a share of the credit. I desire to give credit where credit is due.

N. F. P.

Breeding of Wilson's Snipe in Western New York.

In Short's "List of Birds of Western New York" the Wilson's Snipe, *Gallinago delicata*, is reported as a migrant and common in some localities, therefore it gives me pleasure to offer the following data as evidences that Wilson's Snipe is at least a rare but probably a regular breeder. In my locality they are common migrants, are occasionally seen in mid-winter and a few pairs remain to breed. My suspicions that they were nesting in this locality were first aroused in 1895 when I noted

the birds ten miles north of here in Potter swamp as late as May 19, and they were verified on the 21st of May, 1896, when I found a nest in the side of a hummock containing four eggs which I have already noted in Vol. 1 No. 9 of *The Osprey*. I also had the pleasure of collecting another set of four eggs on May 12, 1897, by accidentally flushing the female which tried to lead me away from her nest by cutting up all sorts of antics. At first I thought surely her leg must be broken and when her wings began to hang helplessly at her sides as she fluttered around the hummocks, I thought that the poor bird must be in a dying condition but when I stopped to examine the nest and she suddenly changed her tactics by running back and forth before me, jabbing her long bill regardless of its sensitiveness into the wood, and excitedly pulling up blades of grass meanwhile uttering a plaintive sound.

The nest was rather boldly situated within a dozen feet of a much traveled road that crosses the swamp. It was placed under a wire fence in an open grassy space where the water was about two inches deep. It was scarcely concealed at all except by a few dead weed stalks and the fresh green grass that was just springing up around the nest. The nest of Wilson's Snipe is generally described as being a mere depression scantily lined with grasses, but in this instance there was no depression whatever but a shallow cupped nest built of small weed stems and grass to a height of three inches with a diameter of six inches by actual measurement. The eggs were about half incubated which would indicate that about the first week in May is the proper time to look for fresh eggs. They are of a olive ground color slightly tinged with grayish. The spots are reddish-brown and form "eu masse" on the large end and become scarcer and smaller towards the smaller ends and over all there is a few quite

spots of blackish in place of the usual sharp scratchy lines. The eggs measure 1.56x1.03, 1.50x1.06, 1.62x1.09, 1.63x1.09.

Another instance of the Wilson's Snipe breeding here came to my notice about the first of June this year. A young lad showed me two eggs that he had taken early in May from a nest on a hummock in a swampy pasture about one mile north of here.

C. F. STONE.

Branchport, N. Y.

Remarks on "Return of the Birds."

In perusing the OÖLOGIST I cannot help but notice Mr. W. N. Clute's article on the "Return of the Birds" (see page 80).

My note book reads:--Jan. 25, '97, temperature 30 degrees F. A few American Crows and English Sparrows, only birds seen. They are always around.

Up to Jan. 21, 1897, Canada Geese were abundant but as the temperature went down they decreased in numbers.

Let us turn to 1898. December was a cold month with no snow to amount to anything, but the absence of birds was very marked.

January came in with two feet of snow; the temperature was high except the 30th and 31st, but flocks of from 20 to 100 Slate-colored Juncos are common. Bohemian Waxwings, Tree Sparrows and American Goldfinches are comparatively common. I have also observed a flock of about 40 Cedar Waxwings which "the snow" ought to drive south. Last winter, however, Snowy Owls were more common than this. I have seen but two this winter and had two reported me where last winter they were not at all rare.

Now if snow drives birds south and not the cold why don't the birds go to Dunn Co. (this state) where I understand they have no snow?

It is a warm day today, but the snow

is here nevertheless. In our neighbor's yard there is a flock of 25 Tree Sparrows feeding on the seeds of an aspen tree. As I was walking along the street I saw a flock of 6 Redpolls, "but snow drives the birds south."

Canada Geese are very abundant on the prairie (Rock) this winter but there is two feet of snow.

H. H. T. JACKSON,
Milton, Wis.

Traill's Flycatcher.

In this locality Traill's Flycatcher is the most common of its family. It is generally found around hedges but is quite often met with in the hazel brush. It may be seen sitting on some dead branch, every now and then darting after some insect and again resuming its post, while between times it utters its simple song and flirts its tail as if impatient for another insect to turn up. The nest is placed in some upright fork or sodded on a horizontal branch of the hedge or hazel, and is never more than 9 or 10 feet from the ground. It prefers hedges not more than 15 feet high but in one or two cases I have found them in hedges 25 or so feet high and once in a box elder 25 feet up, and once 7 feet up in an apple tree.

The nest is composed of the inner bark of dead hedge and is lined with fine grass and horse hair. Sometimes a few feathers are stuck in quill end down, with the tips arched inward over the cavity. The nest is very compactly woven. A typical nest measures three inches in depth and 2 $\frac{3}{4}$ inches in diameter outside and 1 $\frac{3}{4}$ x2 inside.

The eggs are three or four in number, of a cream color, spotted with reddish brown spots, chiefly at the larger end. The average size is .70x.53.

FRANK WILLARD,
Galesburg, Ill.

THE OÖLOGIST.

VOL. XV. NO. 4.

ALBION, N. Y., APRIL, 1898.

WHOLE NO. 143

Redhead and Ruddy.

There are more facts in earth than the books have told; and it is the delight of the Ornithologist to search out these.

Not every bird-lover may wade waist deep in marsh ooze a search for delightful surprises, among the ranks of rush, and the mazes of last year's tangled grass. And so the many miss the pleasures of a close acquaintance with these two—the Redhead and the Ruddy—among the most attractive of our fresh water ducks. Big, marshy, land-girt lakes are the haunts they love. There must be acres of dense rushes for covert and nest hiding; and a plentiful choice of tiny open areas of water where parent and brood may wash and feed.

But little *Erismatura* has his own idiosyncrasy. Unlike the Redhead, he loves nothing better, either for transient sojourn or for a summer home, than an acre bit of slough, rush-bordered and grass-girt, with all the center clear; to make smooth sailing on the summer winds. For, at least so Thomas Miller says,—and he surely knows,—“During a gale of wind the Ruddy erects his tail at right angles with his body to catch the wind and push him along.”

Thoroughly local are both these birds except in migration, or by incident, they are rarely abroad. One may live within a mile of their haunts and yet be none the wiser. For all that, the Ruddy is found, quite plentifully for *him*, wherever the above conditions are satisfying, and, as for the Redhead, he swarms in such a *locus*.

Witness words of Mr. Miller, in a report concerning the birds of the Heron

Lake region: “Redhead: Once our most plentiful duck, here, has been killed in thousands on this lake, for the last fifteen years. Fancy twenty guns hunting on one lake every day, for two and a half months at a stretch, each gun killing from thirty to ninety Redheads a day. Is it any wonder that they are not as plenty as they used to be?” In apathetic rafts of ten to twenty, at most, the Ruddy is found, in migration, on favorable lakes, flying only when they must, and then only for a stone's throw, in flat, muddled masses. Meanwhile the Redhead swarms everywhere among the other ducks; for, unlike the Ruddy, he is no hermit.

Now, visit the Redhead and Ruddy haunts, in early May. Of the Ruddy, we find simply one or two, in mute solitude, here and there, upon the open water. But as for the Redhead, while *she* is seldom to be seen, the careless mate rises from every open space, and from the secluded margins of the bays, in groups of five or even more, and circles about the naturalist, in all the halcyon fearlessness of the close season; sometimes venturing so near that we may note the exquisite vermiculation of his back; catch a glint of the brownness of his eyes, and listen to the hoarseness of his quack, which sounds like the voice of a suppositious Mallard, suffering from bronchitis.

Of course it is the nest that we look for next. But we do not find it, search as we may. We just stumble upon it. We have floundered among the mazes of the rushes for an hour, with the water often waist deep. The old wading suit grows heavier and we grow more and more tired. Suddenly from a dense clump, the eye catches the glint of

creamy eggs, where the sunlight peers through upon them.

That glance is enough to repay the fatigues of a week; for whoever saw another such a nest? It is smuggled into a rather isolated clump of rushes, in three feet of water. The nest-material, pieces of rush, exclusively, is built up to a height of twelve inches above the water line. The rushes overhead are canopied together, scantily, some being broken over at such a height as to make one marvel at the builder's agility. And there are thirteen eggs lying in three layers in the narrow nest. There is no attempt at down-lining.

Another day, we souse our way through acres and acres of rushy wilderness, wondering with an impatient wonder, why it is that male Redheads are so plenty and Redheads' nests so scarce. We have found the spot where the fussy solicitude of the Ibises would seem to center; and, with beating heart, are traversing the area over which a male Ibis is hovering. A nest in sight: it is a Coot nest, only, containing the bodies of young birds, whom the minks have victimized. A long cross-shot brings down the Ibis; a systematic search begins, with wading up and down. But, before the dead bird and his nest have greeted our delighted eyes, we have stumbled upon an embryonic Ruddy nest, already admirable in its sketchy suggestion of artistic skill.

It is a mere saucer of rush sections, about a foot long, barely a foot above the surface of the two-foot depth of water. Five eggs have been laid; and the dozen or more of standing rushes that have drawn together to conceal the nest well indicate what the careful mother would have done by way of protecting her home, had the rushes been more plenty. She must have done some tall reaching, too; for the point of bending in the canopying rushes, is at least two feet above the nest level. No Ruddy is in sight of course,—whoever

was lynx-eyed and cat-footed enough to surprise a Ruddy duck, at, or even *near* her nest?

But we must not dwell, delightedly, upon those Heron Lake experiences. Let us hasten to the far north of North Dakota, three miles from the International Boundry Line; and wade into what is known as the Geroux Marsh—a long, snaky slough, whose whole make-up is thoroughly Heron-Lake-like—with an *ornis* numerically far less; yet in character much the same.

One June day outing reveals a single Redhead nest, quite like the one at which we have just been looking, save that all the environ is beaten down by the tread of competition; for there are about twenty-two eggs, so far as can be told, today, in and about the nest, which has become submerged by combined stress of weight and flood; and the eggs must have been some thirty days deserted. So far as one may judge, after the blanching of water and sun have done their work, about sixteen of the eggs were laid by a Redhead; and the rest by a Canvas-back.

In the same marsh, and at a small slough on the Minnesota side, among the rushes, are found two Ruddy Duck nests, containing seven and eight eggs; the nests being made of rushes, and raised about a foot above the water. At this same little rush-bordered slough is found our first nest of the Ruddy, built on the ground. The site must have been of deliberate choice; and it lay about six feet in-shore from the water line.

But near the end of the following June, was found, at this same slough, the most interesting nest of our quaint little friend, *Erismatura*.

Wading the margin, systematically, that no nest escapes the searcher's scrutiny, one falls to eyeing, with more than usual curiosity, a highly colored ruddy duck, that is sailing before the wind, with his bristle-tail erect. It gives a

keen pleasure to note in him a trait that would seem, somehow, to have escaped the notice of the book-makers. We had supposed the Ruddy to be quite dumb; but this lonely fellow is sailing about, with his head bobbing queerly, up, and down, first in quarter-seconds of rhythm, and in succession, like the drumming of *Bonasa*, with more than double that rate of rapidity, and, at the end of each succession of head bobbing, a single choking note. The whole performance, which would seem to be for the performer's sole edification, is many times repeated, and appears like this: —, —, *gup*, —, —, *gup*. But the clown in chestnut sails around the corner of things, and, almost at the same instant a Ruddy's nest sweeps into view, over the waving grass tops. This grass is the coarse, palm-like angular-stemmed sort, that grows everywhere in the west, amid the water of the sloughs. Of this grass, the nest is made, green blades and dead being woven together into the snugest basket that ever a Ruddy wove; all being fastened to the grass tops, that waved above ten inches of water.

As finally taken, some days later, the nest was heavily lined and decorated with down; and the nest contained 12 eggs. These were piled three-deep, one having been nest-cracked, and become imbedded at the bottom, eluding all the mother's care, in the up-bringing, and over-turning that ever goes with incubation. The eggs were all laid, without a doubt, by the same bird.

To show, in closing this already too-long-spun yarn, the constant need of verification, ones mind goes back to a nest found last June, in the Geroux Marsh. It was the nest of an *Aythya*, no doubt of that, but the eggs were pale green.

After six days, with exercise of most scrupulous care, the female is found at her nest, and closely scrutinized, to prove that she is what she *ought* to be—

a Canvas-back; and, sure enough, with her round head, stubby beak, and white head feathers she is—a—Redhead.

P. B. PEABODY,
Hallock, Minn.

Prairie Horned Lark in Illinois.

"Life is too short to learn *all* about even one bird" says Olive Thorn Miller. This quotation may with appropriateness be attributed to our Illinois member of the Shore Lark family—the Prairie Horned Lark—for the study of this interesting little body affords a never ending source of pleasure to the enthusiastic and observing field-student.

Each time we seek him in his haunts (and he is always to be found), we may confidently expect to learn something new of this attractive bird.

It is not the knowledge of well-known facts and the desire to view a repetition, that imparts to us a bouyant, elastic step when we start for an hour in the field. Is it not the delight we experience in making *new* discoveries—those very interesting *little* details, usually deemed of too small a significance to be given space in our Ornithological Journals.

Naturally, to the Oölogist, the nesting habits of "*Practicola*" must prove of paramount interest, but I find the two 'ölogies' so closely connected, so inseparately linked that I am unable to separate them, and what Oölogist can long pursue his favorite theme, without unconsciously digressing—to Ornithölogy.

The Prairie Horned Lark is a charming singer and contributes to our enjoyment, one of the sweetest of all bird songs.

Simple and child-like as the song of the Indigo, it combines the sweet mellow tones of the Meadowlark with the hurrying time of the House Wren; not loud and distinct as with *Sturnella magna*, but so soft and low that one must needs be quite near, and all attention,

to catch the more exquisite notes. These finer tones will compare favorably (in point of excellence) with the liquid notes of our melodious Bobolink.

The song proper, like all other bird melodies is difficult of description and must be heard to be fully appreciated. The male sings while perched on a clod or fence post or while on the wing. His flying song however, is a finer production and of much longer duration.

On a fine April morning of last season, I was treated to a mid-air rendition from *Praticola* that surely would rival the best production of the far-famed English Skylark.

I was first attracted by an unusually animated song which seemed directly above me. I soon discovered a Horned Lark, with rapidly vibrating wings, circling round and round, over a freshly plowed field. He seemed wholly carried away with power of his song as he mounted higher and higher, until he passed beyond my vision. I could still hear him as the climax was reached, when with almost a scream of ecstasy he fluttered back to earth, "sliding down on the scale of his own music." He dropped to the surface utterly spent by his violent exertions and the interesting performance was over. I wended my way homeward with an increased admiration for the accomplishments of this terrestrial songster.

The Prairie Horned Lark is a constant resident with us and while seemingly not so common in the mid-winter months, I do not believe that any portion of them leave us (as some writers contend) during that time. On very cold days, they leave the pasture-lands and meadows and seek shelter in the corn-fields, where they are found with difficulty. This probably accounts for their apparent disappearance.

Inhabitant of field and meadow, it adds a pleasing picture to our dreary winter landscape that could not well be spared.

On a typical winter Sabbath in February, I am coaxed out of my winter quarters in the hopes of meeting some early arrival from the south. I am prepared to welcome an old Crow, if nothing more interesting appears.

Suddenly I meet a shower of Horned Larks, rolling and bounding through the air in Goldfinch-like curves. They all alight but one male—he leaving his companions, mounts into the air. Higher and higher he goes with each bound, and describing an extensive circle, reaches a great altitude. When a mere speck in the sky, his ambition seems satisfied and closing his wings, he drops like a meteor to the earth. It is a pretty and interesting performance.

Even at this early date, I feel sure they are mated, for they appear to divide in pairs and the notes of the male have assumed a more lover-like tone than the monotonous "*preet preet*" of a month previous.

They are our earliest nest-builders—so early indeed that the female is often compelled to finish her task of incubation amid the ice and snow of a late winter storm.

Two or three broods are reared each season. I have evidence of only two, but as the first brood is hatched in March and the second in June, a third brood for the season is very probable.

The nests are always placed on the ground, sunken in the earth or placed at the roots of corn. The first nests are usually built in meadows and pastures where a natural depression or cow-track is chosen. They are composed of fine dry grasses and feathers, firmly interwoven into a strongly made nest, able to withstand the fury of heavy March winds.

In marked contrast are the nests furnished for the second broods. These are placed at the roots of growing corn in early June and are but small masses of weeds and grasses, so carelessly

thrown together that a nest as a whole could not be lifted from the ground.

It view of the rapid degeneration in the art of nest building, it would be interesting to note the architecture and composition of the third or fourth nests of a season.

The eggs of the Prairie Horned Lark are three or four in number—usually four. The sizes vary greatly, in a series of sets, as will be seen by the following measurements of three sets of my collecting: 64x85, 65x86, 63x81, 58x84; 62x76, 62x77, 63x76, 63x78; 69x92, 68x91, 70x91.

The eggs are wholly unlike those of our other birds, and once seen will never be confounded with the eggs of other species.

The color may be described as greenish-gray. The markings are tiny and so thickly sprinkled over the entire surface, as to wholly obscure the ground color. In some sets a wreath is found encircling the larger end, which gradually shades into a darker hue.

A noteworthy characteristic of the species, is the frequency with which an abnormally marked egg occurs, in a series of sets. This characteristic may however, be only local, as I have never seen this feature mentioned, regarding this particular bird. The most interesting deviation I have yet noted appears in a set, now in the collection of Mr. C. H. Morrell.

An abnormal egg in this set presents so entirely a different shade of coloration that it does not appear to belong to the set.

ISAAC E. HESS,
Philo, Illinois.

The Summer Home of *Vireo Solitarius* Cassini and Other Notes.

On June 9th of the past year I left camp early in the morning and followed a path along a ditch through the forest in El Dorado Co., intent upon studying the varied bird life of the

Sierras. The sides of the ditch were covered with rank ferns while "mountain misery" grew luxuriantly at the side of the path, and I vainly sought to flush some Calaveras Warbler from her nest in such a promising spot. All of a sudden I heard a tremendous hammering in the woods and concluded that the workman must be a Pileated Woodpecker. Following the sound I soon located *Ceophloeus* on a large dead pine, perhaps 50 feet up, and again he repeated his resounding tattoo on the dead tree and expressed his approval in a harsh, resonant cry which could be heard a long distance. A female was shot later by Mr. Beck and Mr. Nutting found a nest in a dead burnt pine containing four young on June 18. Altitude 3,700 feet.

I watched the Woodpecker's undulating flight until he disappeared, when I turned to several Warblers, principally *D. nigrescens*, which were flitting about among the small cedar and spruce, now and then bursting forth in a weak though sweet, song. A pair of Audubon's Warbler's were nervously threading their way up through a large spruce, but finally were given up for other avian attractions which seem to succeed each other so rapidly in the forest. Suddenly there burst upon my ear a beautiful bell-like note but ten feet away and recognizing the musician as a Cassin's Vireo I knew that its handsomely-woven little nest was in a certain small black oak sapling standing alone in the clearing, from whence floated the song. A few steps and there, hidden only by the light-colored leaves, swung the nest with its unsuspecting little owner rocking to and fro in the morning breeze. She flitted off to a near-by bush and poured forth her full, round song with no sign of alarm, and with that perfect confidence with which some birds are imbued. The nest was at the end of a drooping branch of the black oak and only seven



From Photo by R. H. Beck.

Cassin's Vireo on Nest.

feet from the ground. The four eggs were advanced in incubation at this date, June 9th. This was the only nest I saw of this species during the morning's stroll. The nest was composed of light grasses, shredded leaves, soft plant fibres and decorated externally with the white outer silk of a cocoon found on the trees. It was lined with fine brown rootlets and grasses of the same color.

I was surprised at the decrease in numbers of Cassin's Vireo in this locality since the summer of 1896. At that time in travelling over the wooded hill-sides there was scarcely a time when one could not hear the song of this Vireo close at hand in one of the numerous small black oaks, and nests containing young were very numerous. This year I missed the familiar song of my little friend and only now and then did I come upon a pair during my rambles. This change was due no doubt to the fact that in 1896 a collection of skins was made by several collectors in this

locality and the Vireos came in for their share of the sacrifice, quite a series being taken. And this year the woods missed their usual joyous song.

In 1896 a number of nests were found, all with young and situated, with one exception in the low drooping limbs of the black-oak from three to eight feet from the ground. One nest was suspended from the fork of an alder tree about 12 feet from the ground, along a creek. This year on June 8th I found a nest half-built five feet up in a black oak; on June 9th a nest seven feet up containing eggs advanced in incubation; June 12, one just completed placed ten feet up in a drooping black oak overhanging a path; on June 15th a nest six feet up just completed and ready for eggs. On the afternoon of June 15th while walking down the stage road I heard the note of a Cassin's Vireo, and glancing up into a black oak beside the road espied the nest 12 feet up, with the bird on. This I collected with four fresh eggs, the nest being of the same

composition as the one described. The eggs are pure white, quite thickly dotted with small uniform dots of reddish-brown about the large end, and measure 76x60, 77x59, 77x58 and 75x58 inches.

Cassin's Vireo is the largest and handsomest representative of its genus in the west. Its food is largely of insects and grubs which are found plentiful on the leaves of the trees and amongst the vegetation. The song is usually uttered near the nest and more often by the female while she rocks back and forth in her dainty home. The song is gladsome and full of vivacity, and though short, rings through the woodland most beautifully. It is sounded often when one is in the vicinity of the nest, in a jolly, enquiring way and cannot be satisfactorily expressed in words. The nests of Cassin's Vireo, so far as I have examined them, always may be identified by the white cocoons with which they are outwardly decorated. The accompanying illustration is from a photograph taken by R. H. Beck in June, 1896, showing a Vireo on its nest, which was in a small black oak bush only three feet up. With admirable courage the bird remained bravely on her nest while the camera was being focused and the exposure made. I found one nest in the Sierras in 1896 which contained five young but the usual complement is four.

June 14th we had a delightful walk for two miles to a burnt district, a large area which had, several years before, been swept by a forest fire, leaving only the charred trunks of the pines. On the border of this district were growths of small cedar saplings and pine, while an undergrowth of deer brush had sprung up between the burnt trees. This locality was noticeable for the numerous Woodpeckers, to whom it offered no doubt a tempting feeding ground. Here were seen the Pileated, Cabanis's and Red-breasted Wood-

peckers. On the way a nest of the Red-breasted Sapsucker was found in a dead bark-stripped pine, 40 feet up, which contained young which the parents were feeding.

The bushes were full of bird life, the sweet songs of the Thick-billed Sparrows, Warblers and others coming to us from all sides. A pair of Green-tailed Towhees drew attention to their nest $1\frac{1}{2}$ feet up in a small bush, containing five young which fluttered away at our approach. Macgillivray's Warblers were numerous, all with broods of young. Western Robins were common and a nest with three fresh eggs was taken from the top of a 12-foot cedar growing on a flat. Olive-sided Flycatchers were calling frequently from the edge of the timber but generally kept well-up in the tall conifers, where their nests were safe from discovery. I was somewhat surprised, while walking through a growth of small cedars to see a dainty little nest of the California Bush-Tit hanging from a cedar limb 8 feet up. It seemed rather odd to see little *Psalltriparus* so far up in the mountains. The nest held seven incubated eggs.

A short distance further I noticed the nest of some Warbler which has since satisfactorily proven to be Audubon's. It was $4\frac{1}{2}$ feet up in a small cedar on a horizontal limb, next the trunk and held one egg which was partly hidden in the feathery lining and proved to be addled, the nest apparently not having been used. Evidently the mother bird had been shot after the first egg was deposited. The nest is composed of small roots, weed fibres, fine grass and a light brownish fibre resembling horse hair. Lined with feathers, among which are several chestnut ones of the Plumed Quail. I left this nest several days and then took it with its one egg.

Late on June 15th while waiting for the stage to take us out of the mountains I rambled down the road and on

to a hillside, which was grown up with manzanita and various trees. A small nest was noticed, nicely concealed in the center of a manzanita bush, seven feet from the ground, the manzanita leaves affording it protection, because of their light gray color. Soon two Black-throated Gray Warblers appeared in a tree overhead, chirping vigorously at my intrusion and claiming the nest. The eggs, four in number were advanced in incubation and were preserved without blowing. The nest was placed in a crotch of the bush and composed almost entirely of soft, light grayish plant stems, with a few small strips of bark intermixed. It is lined very sparingly with horse-hair and a few feathers.

CHESTER BARLOW.

The Dickcissel or Black-throated Bunting.

Although this bird seems to be increasing greatly in numbers every year, it was not until 1895 that I began to pay particular attention to him.

A short distance up the avenue I find him sitting on a telephone wire serenading the fields round about him with *chink, chink, chee-chee-chee*, repeated over and over again at short intervals at all hours of the day.

The nest is not far from where he sits singing this ditty; but he shows no alarm about your finding it.

In the past three years I have found four sets of this species as follows:

A set of four fresh eggs on June 11, 1895; a set of four slightly incubated eggs on June 29, 1895; a set of five fresh eggs on June 18, 1896 and a set of two slightly incubated eggs on July 8, 1897.

The set taken July 8 was the only one taken that year, and seems to have been rather late. Of this set I have the following description:

Number of eggs, 2; incubation begun, nest, in bunch of clover 4 inches from the ground; was composed of grass and

weed stems, and lined with finer grasses and horse hair; depth inside, $2\frac{1}{2}$ inches; inside diameter, $2\frac{3}{8}$ inches; outside diameter, $4\frac{1}{2}$ inches; height, $5\frac{1}{2}$ inches; eggs resemble those of the Blue-bird both in color and size and measure 1.3-1.6 x 5-8 and 7-8 x 11-16 inches.

Spiza americana arrives in the early part of May and leaves in the latter part of August or early in September, spending the winter beyond the limits of the United States.

The forepart of the head is greenish olive, hind head, neck and cheeks dark ash gray; streak over eye and mandible, lower neck and middle of the breast yellow; chin white, throat black, sides gray, abdomen white, and lesser wing coverts bright chestnut; length, $6\frac{1}{2}$ inches

The female resembles the male excepting the black on the throat.

Its food consists of caterpillars, insects, and immense numbers of canker-worms early in the summer; it also eats seeds of various grasses.

GLEN M. HATHORN,
Cedar Rapids, Ia.

Wrapping Eggs for Packing.

An old subscriber makes the following request which we trust will have a tendency to abate the "thread nuisance:"

"I wish you would point out to some oölogists the mistake they make in wrapping yards of thread around the cotton in which small eggs are wrapped. It does not insure the safety of the eggs at all, if anything, it adds to the chance of breakages, and it takes four times as long to unpack eggs wrapped around with two feet of thread and life is too short to waste in unpacking a lot of small eggs wrapped up in this way and one requires the patience of Job to do it."

THE OÖLOGIST.

A Monthly Publication Devoted to
OÖLOGY, ORNITHOLOGY AND
TAXIDERMY.

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.

TERMS OF SUBSCRIPTION:

Single subscription.....50c per annum
Sample copies.....5c each
The above rates include payment of postage.

Each subscriber is given a card good for a Want, Exchange or For Sale Notice. (This card is redeemable at any time within one year from date thereon.)

Subscriptions can begin with any number. Back numbers of the Oölogist can be furnished at reasonable rates. Send stamp for descriptions and prices.

Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped, and all arrearages must be paid.

ADVERTISING RATES:

5 cents per nonpareil line each insertion.
12 lines in every inch. Seven inches in a column, and two columns to the page.

Nothing inserted for less than 25 cents. No "special rates," 5 cents per line is "net." "rock bottom," "inside," "spot cash" rate from which there is no deviation and no commission to agents. If you wish to use 5 lines or less space it will cost you 25 cents; 100 lines, \$5.00; 1000 lines, \$50.00. "Trade" (other than cash) advertisements will be accepted by special arrangement only and at rates from double to five times cash rates. Due Bills and Cards payable in advertising will be honored only at regular rates in force at the date of issuance of said bill or card.

Remittances should be made by Draft, Express or Postoffice Money Order, Registered Letter or Postal Note. Unused U. S. Postage Stamps of any denomination will be accepted for sums under one dollar. Make Money Orders and Drafts payable and address all subscriptions and communications to
FRANK H. LATTIN,
Albion, Orleans Co., N. Y.

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

Saved by an Egg Collection.

A TRUE NARRATIVE.

In the early spring of 1879 while attending Sunday-school, in a New England city, I placed on the library card the numbers of some books that I desired to read.

With the usual carefulness of the average librarian, a book was given me

that of course differed in number from anything appearing on the card.

Upon arriving home, and for the first time noticing the error, I was highly indignant at being given that which was considered by me as a "kid's book," having reached at that period of my existence the somewhat mature age of fourteen years.

The title of the despised volume was "Boys at Chequasset" by Mrs. A. D. T. Whitney, and, as I had nothing else to particularly interest me just then, condescended to glance over the first few pages. In a very few minutes I was completely fascinated, little dreaming that this book, reaching me apparently by chance was to influence my future life to an extent never attained by any other book.

From that moment an oölogist was born. I forgot everything in a mad insatiable desire for bird's eggs. I wondered how it was possible that I had struggled over the by gone years without possessing a collection, and I longed with an intense yearning for the days to pass that kept me from the one thing that seemed absolutely necessary for my very existence.

At length the time came that I judged would be propitious for my enterprise, and armed with hope and tin ointment box filled with cotton-batten, I sallied forth, firmly resolved to conquer, or to leave my bones to bleach at the top of some gigantic pine. Fortune invariably smiles at the beginning of every venture, and my first climb was rewarded with an egg that in beauty exceeded anything my youthful eyes had ever gazed upon.

At that moment I would have indignantly rejected an offer to exchange it for the Koh-inoor, had anyone been sufficiently rash to suggest such a transaction.

I packed the egg very carefully in my box, and to this day I am unable to state with any degree of certainty,

whether I slid, fell or flew from the tree.

However I made a bee-line for home, and hid my treasure in the barn, got out a ponderous work on natural history and looked up all the birds to see if I could ascertain the exact value of my newly acquired treasure. My efforts in this direction not being crowned with success, I got my hat and ambled sideways out of the house in quest of an acquaintance, who had, in my estimation attained universal knowledge.

He listened patiently and reverently to my narrative and at its close informed me that I had been singularly blessed by the Fates, and that my oological specimen was that of the "migratory thrush." When I eventually discovered that the common, ordinary, every day robin was technically designated migratory thrush, I felt a lump in my throat as big as a balloon.

Retribution has overtaken my boyhood friend, he is now a college professor.

If there was a bird's nest within a radius of ten miles from the house in which I lived, that I didn't find that year, all I can say is that it must been ten feet under ground.

Years passed as they somehow have a habit of doing and with them the school days that the average boy spends generally in wishing them gone, and the remainder of his existence in wishing them back again.

Life began gradually to assume a more serious aspect, and, like the majority of my friends and companions I entered the actual arena of the world.

Then, like thousands of other boys, having an enormous conception of what constituted a man, took for my example the one of all others I should have avoided, and firmly resolved to attain the enviable position that to my poor deluded mind, he occupied. I attained it! In a few short years, filled with assorted bitter and sweet, the former in

big chunks and the latter in infinitesimal grains. I found myself in the maelstrom of a large city, gone home, gone friends, gone cash, everything in fact gone, but the cheerful certainty of eventual annihilation and the craving of a tiger in my vitals for one more drink

So the months faded slowly into eternity, and one Saturday afternoon, I mechanically bent my way to the Natural History Room of the great city, stupidly fumbled up the steps and aimlessly wandered into the edifice. At last drifting into that portion of the building devoted to oölogical specimens. As I gazed wearily at the collection in an instant the thought flashed through my poor muddled brain of the previous visits and under what different circumstances I thought of what I was when as a free-hearted boy I roamed through the same structure, filled with natures treasures, more beautiful by far than anything wrought by the hand of man, and as I compared the present with the happy past, the tears trickled down my cheeks, and I resolved to kill the demon I had myself reared and regain if possible some of my bygone happiness.

But it is far easier to resolve than to accomplish, and the days, weeks and even months that followed, recorded but a succession of unequal struggles and inglorious defeats.

At length one evening, while under the influence of liquor, as usual, I was attracted by a light in the vestry of a church that I sometimes attended, so over I went and after going in, discovered that it was a sociable held under the auspices of the W. C. T. U., and that the main object of the affair was the inducing of those present to sign the p. edge.

Something seemed to whisper to me that this was my last chance, and I guess it actually was. Still I hesitated, finally I said to myself, picking out a

young lady the farthest from me, now I'll leave it to chance. If she asks me I will sign, otherwise not.

No sooner had I made this agreement with myself, than the lady wheeled round, walked straight to me, held out the pledge extended a pencil and said "sign it."

I did so and a minute afterwards would have given anything to have blotted out the act. Notwithstanding all the misery, agony, and disgrace caused by the demon rum.

I did not understand its power then, I do not comprehend it even now, but so it was.

Suffice to say that although quite a number of years have passed since that eventful evening, I have never tasted a drop of liquor in any form, and I now have a pleasant home of my own, filled with books, pictures and curiosities galore.

Although I have some friends and a fair position I shall never be what I might have been had not King Alcohol and I joined forces.

"Each loss has its compensation,
There is healing for every pain;
But the bird with the broken pinion
Never soars so high again."

Boys, profit by the lesson I have so bitterly committed to memory and remember that should you seek forbidden paths you may not be "saved by a collection of eggs."

God grant you may never need it!

WHY.

The Brunnich's Murre as a Western New Yorker.

Brunnich's Murre (*Uria lomvia*) is a frequenter of the coasts and islands of the North Atlantic and eastern Arctic Oceans, moving southward in winter along the Atlantic coast of America as far as New Jersey, occasionally wandering inland to the more easterly of the Great Lakes.

It seems to be only during the last few years that this wanderer from the North Atlantic has been observed in Western New York, but within the past few years, several individuals have been taken on the larger water-ways of this section.

The writer has not observed in any of the ornithological publications of the day any mention of these occurrences, and it appeared to me that a mere mention of the visitations of this bird to this section might be in order, so that they might become matters of record.

Mr. J. L. Davison of Lockport reports that two specimens were taken in Niagara River, Nov. 9, 1894, and that on Dec. 19, 1896, five specimens were taken in Niagara River. I am also reliably informed that at least one specimen, and I am not certain but two, were taken during the past fall or winter on Lake Erie in the vicinity of Buffalo. I recently saw in the collection of the Buffalo Society of Natural Sciences, two mounted specimens of *Uria lomvia*, which had apparently been but lately placed there and it may be that these are the specimens referred to in the above information.

An individual of this species was also taken during 1897 (in the fall, I believe) on Lake Ontario in the western part of Monroe county, and came into the hands of Mr. George F. Guelf of Brockport, in whose possession I believe the specimen is now.

Our little county of Orleans has its record also. During the first half of March, 1897, a specimen in winter plumage was taken on the ice of Sandy Creek near Murray, N. Y. (seven miles inland from Lake Ontario) and brought to Mr. F. A. Macomber of Murray for mounting. The bird was in a famished, exhausted condition, permitting itself to be taken alive by hand. Its body was considerably emaciated, and upon examination its stomach was found to be entirely empty. This bird is now in

the possession of Mr. Macomber of Murray, and on the 22nd of December last, the writer paid him a visit for the purpose of seeing the bird as well as other "rare takes" which he has, and I felt well repaid for my walk of four miles from the Holley depot through a thickening snow storm to his home.

It would prove interesting and instructive to learn of other records of the occurrence of *Uria lomvia* in Western New York, if other records there are, in order that we may more nearly know of just how frequent occurrence it may be here.

It would seem that it is only during the past few years that this Guillemot has extended its wanderings into this section.

It is called Thick-billed Guillemot and Arr, and Mr. L. S. Foster of New York, upon whom I recently had the pleasure of calling, informs me that on Long Island, the bird is commonly called "Crow Guillemot," an epithet which can be fully appreciated when we observe the head of Brunnich's Murre, for the form and shape of its head is very much like that of the common Crow. The resemblance is marked.

NEIL F. POSSON,

Feb. 9, 1898.

Medina, N. Y.

Additional Notes on Road-Runner.

On pages 78-9 of the OÖLOGIST, Vol. XIV, No. 8, issued in August of the past year, were published a few desultory remarks relative to the nidification of the Road-runner and it was with genuine surprise that we noted the fact that our name was subscribed thereto. Retrospection, however, has convinced us that we are indeed the culprit. If our memory is good, that paper was written six or seven years ago, and why Editor Lattin finally liberated it from its cell in the file of rejected matter, we are at quite a loss to know. It was by reason, no doubt, of a dearth of

superior material, yet its publication has elated us to such a degree that we now make a few additional remarks, which, provided they are accorded a like deference, will be brought to light at some period during the first quarter of the ensuing century.

Since the writing of that sketch the hieroglyphics in those sections of our note books allotted to the fleet-footed *G. californicanus* have been augmented considerably. And furthermore in consideration of the fact that the time has come when most any old thing may, with impunity, make ugly faces at Nancy Hanks we doubt not it would be wise to substitute the name of Star Pointer or Joe Patchen in lieu of Nancy's in the sixth line of our former endeavor.

So far as our information goes, the Road-runner is very generally diffused over all sections of our state with probably the exception of the most northern counties, but we have never known it to exist in such amazing exuberance as it does in the most southern districts. In south Texas chaparral regions, few birds are more frequently found than the Paisano, by which appellation it is locally known, and which in English signifies, a country man. However, they are not gregarious and we have seldom if ever seen more than half a dozen in company.

The diet of the Road-runner appears to be a *vexata questio*, some imputing to him the crime of cannibalism—claiming that small chicks and the young hopefuls of small birds are to him a favorite *entre*. A previous writer in the OÖLOGIST asseverates that he has personally witnessed the immolation of immature Mockingbirds upon the altar of the Road-runner's voracity and further states, but does not give his authority for so doing, that he is also a despoiler of the chicken-house. *Vide*, Vol. XI, No. 8, p. 265. We will accept for true his first statement because he has

had secular evidence and so declares. But are not his conclusions upon the second head based upon hearsay? Now we in no way attempt to refute his statement touching their chicken-eating propensities, and it may be that we are not so conversant with the food habits of these birds as is the gentleman, but we have never met with a single circumstance to confirm his theory. When removed from the nest at an early age, they may be partially domesticated and the birds that we have undertaken to "civilize" have never evinced any cravings for a tender prospective spring chicken. So we must reiterate our former statement that "the principal diet of the Roadrunner consists of snails with an occasional small reptile," and will state in addition that grasshoppers are devoured by them in large numbers. Even a superficial knowledge of the nature of their customary *menu* would persuade one that they are of great economical value to agriculture and worthy of the sedulous protection of man.

In March of last year another and a greater vagary concerning *G. californianus* was promulgated by a writer in the *Osprey* Vol. I, No. 7, (A Peculiar Hybrid) a fallacy which was exploded in the following issue of that journal when one of its editors virtually demanded evidence positive that would substantiate the remarkable assertion. That claim was, in brief, that cases of inter-breeding between Chaparral Cocks and common hens was of frequent occurrence, a union resulting in a hybrid having—to use the writer's words—"the general appearance of the hen, although possessing many of the peculiarities of form and disposition of its wild progenitor." 'Tis quite needless to add that the desired proof was never submitted.

The Road-runner is but a mediocre architect at best but it seems to us that those resident in this section are more

careless and inartistic in nest-building than those of the west. Simply an interlaced platform of small twigs with slight or no depression and might easily be mistaken for that of a small Heron. Placed but a few feet from the ground in thorny chaparral—again dissimilar to the western birds (West Texan we mean) who situate their nests in trees at various altitudes ranging between 5 and 20 feet. We have taken many sets of these eggs but we have yet to discover a nest containing eggs exceeding seven in number.

We have observed several different notes and calls of these birds but as we have never yet seen in print, a really intelligible spelling of bird-notes we shall not attempt to so describe them.

One, however, is strangely similar to the cackle of the domestic hen, but omitting the long-drawn finis.

JAMES J. CARROLL,
Refugio, Texas.

Bird Haunts.

The owners of the land thought that the new clearing was a great improvement, but to me the freshly sawed logs and endless heaps of burning brush were melancholy sights, for although the Vincennes University is called my alma mater my real education was acquired in those Fort Knox woods. I have spent many a day there in shady hollow or airy tree top studying the varying aspects of nature.

Leaving town in the early morning I would soon get beyond the zone of English Sparrows and reach the haunts of native birds. The first of these were the Blackbirds, gathering in swarms in the scattered trees in the open pasture and chattering noisily above the browsing cattle.

Farther on where the meadows were swampy and almost impassible the Crows called their noisy councils in an isolated clump of gnarled water oaks

and planned forays to neighboring fields to gather their mixed stores of earthworms and seed corn.

Following the railroad the lowlands were soon passed and densely wooded hills rose on one side while on the other a broad sweep of the Wabash brought the river close to the track. At this point I would leave the road and climbing the sloping hill, over a litter of misshapen, glazed bricks, the remains of old Fort Knox, where, it is said, Zachary Taylor once commanded, would find myself in an open field, the clearing of which dates back to the time of the military possession.

From this point Turkey Vultures could always be seen, soaring in magnificent curves and rarely deigning to flap a wing, but using their broad pinions mainly as sails to catch the fitful currents of the upper air in a manner which I could admire but not understand. These birds could be seen here all the year around, except now and then a few very cold days in mid winter. I had always thought that they avoided the excessive cold by making temporary visits to the South, but a native gave me an entirely different explanation of their disappearance saying, "When the cold snaps comes they jist scrooch down in holler trees an' waits till the clouds roll by!"

Another constant resident of this place was the Chewink, the little "Ground Robin" that frequented the blackberry bushes around the field, running about on the ground and when molested dodging among brush heaps, hiding in thickets and taking flight with extreme reluctance.

The Black-capped Chickadee, the bravest of the brave, also lived here, nesting in such cavities in the stems and branches as could be found near the ground. Once when climbing the fence of this field I was startled by a Black-cap dashing herself against my hand. She was defending her nest

which was in a knot hole in one of the rails. After that when passing that spot I always paid her a visit and when the half dozen little ones were fledged and had gone out in the world to begin their relentless warfare upon tent caterpillars I examined the nest. The fence rail was a large one and a rough knot made it extremely thick at one point. The knothole had been pecked out and made considerably larger at the bottom in a manner which seemed to hint that the owner had received the assistance of a Downy Woodpecker in preparing her residence, or at least that she had taken lessons of one. The nest cavity was neatly lined with quail feathers, rabbit hair and fine moss matted together like felt. Sometime in June I was surprised to find that the nest had been renewed and that the little cavity was again the home of a family of young Chickadees.

Once when leaving the railroad I found a fine Woodcock lying dead in the ditch. It had flown against the telegraph wires and broken its neck. The Woodcock's beautiful eyes are too large for bright sunshine and it often comes to grief when flying in the daytime, but it is safe enough at night, unless dazzled by electric lights, and its migrations are conducted under cover of darkness.

In the low ground between the hills I would often find the muddy banks of the little creeks and pools pierced with countless holes, as if some idle boy had been amusing himself by thrusting a switch into the ground. Sometimes I would see how these mysterious holes really were made. A Woodcock would saunter along with dainty, mincing gait, avoiding the water and stepping gingerly on the mud and every few steps probing deep into the ooze with his long beak, occasionally getting the reward of toil in the form of a fine worm. Even when he pierced deepest in the mud his fine eyes were safe and watchful, being placed so high up in

his head. These birds did not, however, confine themselves exclusively to the lowlands, for I have seen them wandering over the hills, turning over leaves and sticks in search of game.

Sometimes I would find a nest on the ground, a nest constructed of a few dead leaves and a little dried grass thrown together in a slatternly haphazard way that suggested the Whip-poor-will, but the four, smooth, clay colored eggs with their crowded spots of dark brown betrayed the Woodcock. On emerging from the shell the young Woodcocks were covered with a yellowish down, striped with brown or black and were the comicalist little things imaginable. Helpless as they were they had no thought of remaining idly in the nest but began to toddle about, seemingly overloaded with their excessively large bills, as soon as they were hatched.

Woodcocks migrate in heedless, go as you please style and I have seen some stragglers so late in the fall and others so early in the spring that I could almost believe that a few stayed with us through the winter, though this is improbable.

Deep in the woods the little creek was overhung by a jutting bank of sandstone fringed by waving ferns and dainty maidenhair and fragrant in early springtime with the witching perfume of pink hepaticas. There was no spring on the rock, but water oozed from the crevices and gathering in a tiny stream trickled into the brook below.

This silvery thread of dropping water furnished a convenient bath for the Hummingbirds and I have seen them dart back and forth through it in great apparent delight and then seek convenient twigs on which to preen their feathers.

All this is past now. The woods are cleared, the springs dried up, the rocks bare and unsightly, with no nesting

place for bird and no study place for boy, but a crop will soon be planted on the available portions of the new ground.

ANGUS GAINES,
Vincennes, Indiana.

The Nesting of the American Goldfinch in North-eastern Iowa.

Two miles below Decorah, skirting the bank of the upper Iowa river, is a small grove of large trees, mostly cottonwoods. The ground beneath these trees is covered with maple second growth and a tangle of weeds, thistles and climbing vines. In this place I have found the American Goldfinches nesting in great numbers. Surrounded as it is by thistle-patches and covered with thistles itself, no better place for a nesting site could be imagined for Goldfinches, which are sometimes called Thistle Birds. Their numbers, undulating flight, and peculiar plaintive lisp-ing notes immediately attract ones attention.

It was late in July, 1895 when I first visited this place in quest of their nests and eggs. Several nests just finished were found and one set of five badly incubated eggs was taken.

On August 7th I again visited this place and was rewarded by a set of six fresh eggs from a nest in an ash tree five feet from the ground. On the following dates I obtained sets of eggs from the same place: August 10th, a set of six; August 17th, a set of four; August 19th, two sets of five and a set of six.

In 1896 I had no opportunity of visiting this almost colony of Goldfinches, but in 1897 I again took many sets of five and six from this same place.

The nest of the American Goldfinch is a very beautiful and compact little domicile. Many different materials are used in their construction. Those which predominate are vegetable fibers,

spider balls, cotton from cotton-wood tree, horse hair, and last but not least, thistle down. I have found in all the nests I have examined that the inner rim was almost always encircled by wiry brown grass, while the rest of the nest was lined entirely with thistle-down, sometimes even to the depth of an inch.

The position of the nest is decided upon without much reference to concealment. An upright crotch is the most usual place for its situation. The distance from the ground is seldom less than five feet, and although I have never found any more than ten feet high some are recorded as being as high as forty feet.

Most of the nests I have taken were in large thistles, from five to six feet from the ground. Small maples, box alders and scrub willows seem to be next in preference. The size of the nest is usually about the same, an average nest measuring three and a half inches in diameter by three and one-half inches in depth outside, and two inches in diameter by one and one-fourth inches in depth inside.

The number of eggs varies from four to six. Sets of six are oftener found than those of five, while sets of four are still more uncommon.

The largest egg in my collection measures .74x.51 inches; the smallest .62x.49 inches. An average specimen measures .66x.51 inches.

R. W. HEGNER,
Decorah, Iowa.

Breeding of Wilson's Snipe in Orleans County.

Having noticed in the March OÖLOGIST the article by Mr. Stone of Branchport in regard to the breeding of the Wilson's Snipe in Western New York; it may not be out of place for me to state that our little county of Orleans has two or three records of the breed-

ing of this bird within its limits. This Snipe would appear to be a regular breeder, although perhaps a rare one, in this section. Without question, the greater number of the birds migrate further north to breed; but that a few pairs, at least, remain here and breed with us each season, is no longer a question of any uncertainty.

There has come to my notice recently the shooting of a female Wilson's Snipe near Murray, in this county, in whose ovary was found an egg which would have had to be deposited somewhere inside of forty-eight hours.

A nest with eggs has also been found near Murray, and one or more sets have, to my knowledge, been taken from out the Barre marshes.

The writer, has, during the past few months, spent considerable time in looking up rare bird-records for our little county of Orleans, and, as a result, has obtained authentic accounts of the occurrence within our limits of many birds not hitherto supposed to be found, as well as run across breeding-records of several species not regularly attributed to our breeding-fauna. The most of these records not having been published, I shall hope a little later to write them up for mention in THE OÖLOGIST. Our county air-fauna comprises something like 230 species, rather more than less.

NEIL F. POSSON,
Medina, N. Y.

[In the early '80's a local sportsman shot a female Wilson's Snipe in Carlton (Orleans Co). Upon dressing, an egg, ready for deposition, was found in oviduct. This specimen was presented the Editor of the OÖLOGIST.—Ed.]

HOAG, (Benj.) of Stephentown, N. Y., who has been extensively running his subscription notices in the various natural History publications for the past few months, writes:—"The OÖLOGIST is the medium to use when you want to reach the most "bird men." With best wishes for its continued prosperity."

THE OÖLOGIST.

VOL. XV. NO. 5.

ALBION, N. Y., MAY, 1898.

WHOLE NO. 144

The Coloration of Eggs.

CHARLES L. PHILLIPS, TAUNTON, MASS.

Oology if properly followed as a study is a very laudable and instructive science. Too many collectors, however, do not have a proper regard for birds, nor do they really make a true study of oology. They simply have a liking for the freedom and spirit of adventure felt while exploring the woods and fields for the nests and eggs of birds, and a certain elation in amassing a large collection, and perhaps procuring specimens which some fellow collector has been unable to obtain. In other words, rivalry often exists among the young oologists of a neighborhood, and in trying to outdo each other they seem to lose sight of the primary object of their chosen science. It is not only advisable to become familiar with the birds themselves, their habits, songs, nidification, and in fact the general features taught in the ordinary book treating of the ornithology of a given section of country, but it is best to learn these things and at the same time to probe deeper into the science which we are considering. To assist the readers of THE OÖLOGIST in the way suggested is the object of this article.

As we glance over a large collection of eggs we are usually impressed with the variety and beauties of the colorations. Hardly a shade of color known to the experienced artist is absent, and the charming combinations of tints are tastefully blended and often much enhanced by a glossy surface, while again some specimens have their markings made more pleasing to the eye by the dullness of the shell which seems to give the colors a velvety appearance.

This is especially noticeable among the browns and neutral tints. There are some eggs which owing to the absence of markings and the rough chalky exterior cannot be called pretty, but they are interesting, nevertheless, and they must not be omitted from the collection. These plain eggs offer contrast to the colors and they are just as valuable to the lover of oology as the most richly marked specimen in the cabinet.

The primary colors or pigments used by nature in decorating the eggs of birds have by spectrum-analysis been divided into seven distinct substances to the admixture of which in certain proportions all known tints are due. These coloring substances, which bear rather long scientific appellations, are seemingly blood and bile secretions made upon the surface of the egg as it passes through the oviduct. Primarily the spots are doubtless nearly circular in form, but the motion of the egg causes most of them to become smeared, prolonged, or otherwise distorted from the original form. The pale, obscure tints are evidently first deposited and so become deeply seated, rubbed off in part, and perhaps slightly covered with the lime-like substance of the shell. The bright marks are those deposited just before the exclusion of the egg. If they be round the egg was moving slowly or possibly not at all, or if they be prolonged into streaks the egg was evidently progressing quite rapidly, and these marks sometimes show that the egg was slowly revolving during its passage. The ground tint which uniformly covers the whole egg of certain species is probably laid on before the egg begins its motion. It is well-known that some families, the hawks for instance, lay, as a rule, one or more eggs

in each set that is noticeably deficient in marking if not entirely destitute of the characteristic spots and blotches. This fact is easily explained. If the last egg laid was without marking, the others evidently exhausted the secretion of pigments for the time so that when the plain egg passed through the oviduct the glands contained no color with which to mark it. If the first egg lacked coloration, the color had probably not been secreted when that egg was laid. This would indicate that the egg-producing functions at that time were not quite in harmony. It is usually the last egg that is slighted in the respect of marking, although numerous cases are on record where it was the reverse. If a bird be captured or frightened when a half-formed egg is about to enter the oviduct the egg will be laid prematurely and it will be defective in marking. On the other hand, over excitement or debility of the organs in question may cause the egg to be richly colored. Further, old birds in some instances seem to deposit more color than young, mature individuals of the same species.

In some eggs the shell is fine grained and glossy; this class is more commonly white and translucent, as in the Woodpecker family. In others the shell is dull, more porous and consequently better adapted to absorbing the colors. Some eggs have an enamelled, pitted appearance, others have no oleaginous exterior as the ducks. Collectors, it seems to me, cannot help noticing these differences in shell structure as they handle and mark the eggs of various species. The composition of the shell of course has a decided bearing upon the coloration. If porous the color will be absorbed giving the tint a softened appearance; if fine grained the pigment will be deposited upon the surface, imparting a brightness to the color which will augment the attractiveness of the specimen.

Oölogists, no doubt, have noticed that some eggs with fine texture, glossy exterior and red markings may be damaged when fresh by handling with wet fingers. Under these conditions the colors are liable to soften and come off when touched, leaving the marking considerably lighter in tint than originally. For example, some of the beautiful eggs of certain species of Flycatchers are liable to this injury.

These subjects and kindred studies which concern the particulars of the science of oölogy are worthy of the young student's careful consideration, and I should like to expatiate more fully upon them at some future time.

Octocoris in Western New York.

FOR THE OÖLOGIST BY B. S. BOWDISH.

It is now some eight years since *Octocoris* took a prominent position in my ornithological interest.

Whether or not the bird had always been abundant in Ontario Co. I will not say, but certain it is that the bird did not attract great attention on my part until about '89 or '90.

It is a comparatively few years ago that *Octocoris*, or *Eremophila* as it was sometimes called, had not branched out into the numerous sub-species which were so suddenly developed, when comparatively little had been definitely settled regarding its exact distribution and breeding range, students generally of that day regarding the bird of our locality as simply *Octocoris alpestris*, or *Eremophila alpestris*.

For the past few years it has been my effort to ascertain just what percentage of the birds entering our limits (i. e. those of Western New York) were the true *alpestris* and what were *praticola*.

So far all my efforts to include the *alpestris* among our birds have failed, save on the authority of E. H. Short who includes it in the "Birds of West-

ern New York" as a winter resident, and whose term of visitation alternates with that of *praticola*.

In 1884 when Langille presented his "Our Birds in Their Haunts" to the public the division line between *alpestris* and *praticola* had not grown up and the birds ranging from Western New York to Labrador are by him included under the one head of *Eremophila alpestris*. He says, "Until very recently the breeding habit of this species has been assigned wholly to the far north, but it is now well understood that it breeds abundantly in the lake counties of Western New York and more or less to the eastward as far as Troy."

Since the settling of the present code of nomenclature most writers have, I believe, considered our bird as *praticola* entirely. I have shot, measured, compared and studied specimens at various seasons in a vain endeavor to separate them into two varieties. The result has been confusion, worse confounded. At last I am compelled to admit that I have secured no specimens which I could ascribe to other than *alpestris* [? ED] and the result of efforts I submit for what they may be worth.

Langille gives the measurements as 7-7.30 inches length. The length of a series which I took during the winter of '96-'97 were as follows;

Jan. 9, male, length 6.56; Feb. 1, female, length 6.65; Feb. 1, male, length 6.68; Feb. 2, male, length 6.58; Feb. 2, male, length 6.58; Feb. 2, male, length 5.81; Feb. 4, male, length 6.80; Feb. 13, male, length 6.40; Feb. 16, male, length 6.75 (dark breeding plumage); Feb. 16, female, length 6.40; Feb. 18, male, length 6.74; Feb. 18, ♀, length 6.60.

As the above list were shot at random they probably represent very well the average length of specimens of this particular locality (these specimens were all secured in the town of York, Livingston Co.) It would also seem

that at this season the males are decidedly in the majority, as will appear from an inspection of the foregoing scale, and it appears very probable that as the birds begin and become abundant preceding the breeding season that the males arrive somewhat in advance of the females as is the case with many other species of birds.

Langille gives the following description of the Horned Lark, "7-7.50 inches long (as will be seen an average of my specimens is 6.56 inches), somewhat larger than our ordinary sized, its shape being about as peculiar as its voice. The bill is rather long for a song bird, quite pointed and a little curved; on its head are two tufts of erectile black feathers from which it receives part of its common name. As in the case of other birds, but unlike the rest of song-birds, the scales of the leg extend around behind; and its is very long and straight. This Lark is always in a squatting position with drooping tail when at rest. With a long black patch on either cheek; a somewhat triangular black spot on the upper part of the breast, reddish light brown above and dull white beneath, with yellow throat, long pointed wings tipped with black and a tail of the same color, a peculiar undulating flight often accompanied with a soft *tseep* or *tseep-ses*, whether sitting, walking or flying, this bird readily appeals to the eye of the observer."

To this description I will add that the intensity of tints varies greatly in different individuals and at different seasons, the black ranging from a greyish, faded tint to jetty; the yellow from very faint to well defined; and the white from dirty sickly white to a much nearer approach to clear white; this largely irrespective of sex, but conforming largely to seasons as the deepening of shades increases in general with the approaching breeding season and declines with its departure. Ten

stomachs which I examined contained fine sand or gravel. Without doubt insects are included in the bird's bill of fare when examined.

Before the separation of *alpestris* and *praticola* the bird was given place as a resident. Since *praticola* became a separate individual, many have denied him this status claiming absence on his part during December and some during late November and early January.

That he is equally entitled to a place as resident with the American Goldfinch and Cedar Waxwing will be conceded from a glance at the following records for doubtful months during '97. Jan. 9th, one; 18th, four; Nov. 17, (raw west wind with flurries of snow) seven; 18th, flock of about twenty (snowed and by noon of 20th was three inches deep, then thawed); 20th, two-22d, [heard one; 25th, two; Dec. 9th, three (weather bright, wind south); 10th six (weather mild); 11th, one (mild); 15th, six (mild); 16th, heard several (mild); 21st, (during the interval between this and previous record there had been several snow storms and some (quite severe weather) flock of four, and later amidst a heavy snow storm a flock of about ten passed over. 27th, four; 28th, flock of eight and one of fifteen flying southwest; 31st, two

During the dates of the above records all kinds of weather prevailed and the result is much better than I could get with the Goldfinch which at best during the winter is very irregular throughout Western New York or with the Cedar Waxwing which is rarely seen at that time.

□ From the results I would deduce that the larger portion of *praticola* pass south in winter, that the remainder while somewhat irregular are never far from us and are liable to appear at any time without much regard to weather conditions.

As an example of variation in plum-

age of different individuals taken on the 16th of Feb. are thus described in my note book: "One, a male lacking cinnamon tinge on neck and shoulders being dusky instead and having the horns whitish; the other a male, being a dark bird with but very little tinge of the cinnamon, the breast-color a jetty black and the horns with conspicuous black upper edge, in fact, general plumage thoroughly breeding type."

In the matter of breeding, however, the weather very evidently does influence the Prairie Horned Lark to a marked degree. Langille gives dates of finding first nest April 23, 1875, nest containing four young; April 7, 1878, female feeding young, which were able to fly (He concludes nest must have been begun early in March); April 9, 1880, four eggs about half incubated. He does not state what the weather was previous to finding of nests for two or three weeks and this I believe to be an important factor. In Ontario I took my first set of this species in '89, a set of three in which incubation had proceeded about one-third. This nest was found the first week in May and was unquestionably a first nest.

Probably in Western New York nest building does not begin as a rule much if any before the 1st of April, often not until later, but exceptions to this rule produced by unusual weather are liable to occur as was evidenced by the spring of '94 when I took a nest of four nearly fresh eggs on the 10th of March, another of three fresh the 20th, a set of three, incubation advanced, the 27th, and another of three advanced in incubation on the 3d of April. The whole of the month of March up to about the 25th was most exceptional, the ground being free from snow and the weather more balmy than we usually see it in April. During the last week of March a light snow fell but it was not sufficient to cause the birds to leave their nests, but about April 10th there was a

fall of a foot or more of snow and all nests were immediately deserted, the birds congregating in small flocks by the roadside feeding and were often seen in small flocks subsequently. Nor did I, during the remainder of the season note any attempt to renew efforts at nidification.

The nests are usually sunken in the ground, their rim flush with the surface and nest and eggs offer so little contrast that they are by no means readily discovered. Moreover the bird in my experience, is but seldom flushed from the nest, usually skulking, while the intruder is yet some distance from it. The nests are seldom as substantially built as those of the Song Sparrow or Goldfinch.

Set 2-4, Phelps, Ontario Co., N. Y., March 19, 1894, eggs four, incubation just begun, nest depth outside $2\frac{1}{2}$ inches inside $1\frac{1}{2}$ inches, diameter outside $3\frac{1}{2}$ inches, inside $2\frac{1}{2}$ inches; dry grass and rootlets, outer lining plantain leaves, inner lining wheat straw, situated flush with brim in hole apparently excavated by birds, in open clover meadow a short distance from barn on slope facing east.

On going to this field in search of nests as I climbed the fence two birds flew up. I marked both spots, searched the first without success and the second with above results.

Set 3-3, Phelps, N. Y., March 27, 1894, eggs three, incubation advanced, nest depth outside 2 inches, inside $1\frac{1}{2}$ inches, diameter outside $3\frac{1}{2}$ inches, inside $2\frac{1}{2}$ inches; composed of dry grass lined with wheat-chaff. About two inches of snow when found and bird flushed quite near me from depression in ground in wheat stubble field.

Set 4-3, Phelps, N. Y., April 3, 1894, eggs three, incubation advanced, nest depth outside $3\frac{3}{4}$ inches, inside $2\frac{1}{2}$ inches; composed of grasses, fine roots and lined with same and wheat chaff. Excavation by birds in meadow.

Set 5-4, Phelps, N. Y., May 19, 1897, eggs four, incubation advanced, nest depth $3x2$ inches, diameter $4x3$ inches; composed of fine grasses, lined with same, depression of ground in clover pasture. A few sets of five eggs have been reported. I have never been so fortunate as to observe such. The general number for first sets is probably four but sets of three are frequent.

The above is the result of eight years of as careful observation as other duties would allow. In view of the fact that I have failed practically in the first object of this study, may we not consider that there is room for investigation as to the respective status of *Octocoris alpestris* and *Octocoris alpestris praticola* in Western New York?

Nests of the Wood Pewee.

Editor Oologist:

I noticed in last OöLOGIST Mr. W. S. Catlin, speaking of Wood Pewee's nests in his instructive article, "Exceptions," says, "Out of a personal examination of over a hundred nests only one contained any lichens." Every nest that I have examined in this state, was as thickly adorned with lichen on the exterior as those of the far-famed Blue-gray Gnat-catcher.

And furthermore under the head of "Exceptions," I might add that they were all neat and compact, and in beauty, nearly equal to the Gnatcatchers, instead of being "far inferior in design to the poorest nests of the Blue-gray Gnatcatcher, and Ruby-throated Hummingbird," * * * nor do they "suggest a one story, flimsy poverty stricken home," as Mr. Davie says.

JACOB BASTIAN, JR.,
Statesville, N. C.

I SOLD my Eagle through the adv. Advertising in the Oologist pays. F. W. COLLINS.
Garden City, Kans.

THE OÖLOGIST.

A Monthly Publication Devoted to

OÖLOGY, ORNITHOLOGY AND
TAXIDERMISTRY.

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.

TERMS OF SUBSCRIPTION:

Single subscription.....50c per annum
Sample copies.....5c each
The above rates include payment of postage.

Each subscriber is given a card good for a Want, Exchange or For Sale Notice. (This card is redeemable at any time within one year from date thereon.)

Subscriptions can begin with any number. Back numbers of the Oölogist can be furnished at reasonable rates. Send stamp for descriptions and prices.

Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped, and all arrearages must be paid.

ADVERTISING RATES:

5 cents per nonpareil line each insertion.
12 lines in every inch. Seven inches in a column, and two columns to the page.

Nothing inserted for less than 25 cents. No "special rates," 5 cents per line is "net," "rock bottom," "inside," "spot cash" rate from which there is no deviation and no commission to agents. If you wish to use 5 lines or less space it will cost you 25 cents; 100 lines, \$5.00; 1000 lines, \$50.00. "Trade" (other than cash) advertisements will be accepted by special arrangement only and at rates from double to five times cash rates. Due Bills and Cards payable in advertising will be honored only at regular rates in force at the date of issuance of said bill or card.

Remittances should be made by Draft, Express or Postoffice Money Order, Registered Letter or Postal Note. Unused U. S. Postage Stamps of any denomination will be accepted for sums under one dollar. Make Money Orders and Drafts payable and address all subscriptions and communications to

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

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

Raptors in Elgin Co., Ontario.

In dealing with this subject I shall endeavor to give a few interesting notes on these birds, especially on their breeding habits in this locality as far as my observations have extended.

Along the northern shore of Lake Erie, the Bald Eagle is perhaps one of the best known "Birds of Prey," both on account of his great size, and the liking he has for fish, which he obtains

either direct from the pond-nets or picks up along the shore where they have drifted. Between the Eagle and the Great Blue Heron, the fishermen lose quite a number of fish.

It was my good fortune to hear of a nest of this bird, early in March. Accordingly on Good Friday we started out for the situation—Port Stanley—about twenty miles away. Arriving there we found that there was a climb before us. The nest was situated in a large red oak in the corner of a field, with woods on both sides of it. About a mile west you could see the docks putting out into the Lake, at the Port, while half that distance to the south of us the water was breaking on the cliffs.

The tree itself was six feet in diameter at the base, and tapered down to three and a half at the first limb which was seventy feet from the ground. The nest was situated 35 feet above that, on an upright branch out to one side of the tree. The bark was fast to the tree although it was partly dead, and as I afterward found out so hard that it was only with the greatest difficulty that I could drive the spurs of the climbers into it. After a laborious climb I succeeded in reaching the nest—but then! there lay two beautiful fresh eggs—my reward. The nest was three feet deep by three and a half wide on top and tapering to where it was placed in a crotch, built of large sticks and quite hollow in the centre, where a neat nest of straw had been built on which the eggs rested. Having carefully lowered these to the ground, I commenced the descent, feeling well repaid for the climb. The eggs were almost white with slight bluish tinge and measure 2.04x2.70 and 2.06x2.74 respectively.

We learned from Mr. Himdley, on whose farm the nest was, that a pair of Eagles had nested on his place, every year for upwards of 50 years, during which time the nest had been blown

down four times. The first nest was built in a chestnut, the second in a white oak, this nest was 100 feet up, Mr. H. taking a pair of young birds by felling a tree against the one containing the nest. The third nest was in another chestnut. Fifteen years ago the Eagles first built in the present red oak on the central limb, where it remained for eleven or twelve years, when it, too, was blown down, and they built the present nest. Some years ago one of old ones was shot. The other sailed away, returning next day with a mate. While building the nest the Eagles would fly along and seize a dead limb in their claws, thus breaking it off. The male does not allow any Eagle to rest near his domain and drives him away by a series of attacks. This led to the capture of two Eagles under peculiar circumstances. A farmer west of Port Stanley, while walking along the shore, came upon two Eagles with their feet bound fast in the long grass. They had been fighting with the result that they were both captured alive.

One of our commonest Hawks is the Red-shouldered (*Buteo lineatus*). This large Hawk may be seen sailing in graceful circles, high above the trees, most any fine day. It is one of the 'Hen Hawks' of the farmer, and often faces a victim to his vengeance on a charge of chicken stealing, a charge which he is seldom, if ever, guilty of, his food consisting almost entirely of mice and snakes among which it creates great havoc. This Hawk builds its nest in beech trees almost without exception. I have taken several sets of eggs varying greatly in markings. The first set was of three taken Apr. 28, 1896, with distinct blotches of brown on two of the eggs, the third being scarcely marked. Another set taken on the second of the next March, were also well marked and were perfectly fresh.

May 24, 1897, I took a set of five high-

ly incubated from a nest 60 feet up in a maple. This is the only set, so far, that I have taken from any tree, except beech. Some of the eggs are heavily marked, the small ends of two of them being almost uniform brown. Another set of four on the 28th of the same month had two eggs without a distinct blotch, the other two are only slightly incubated. But for Red-shoulders a set of four taken on the 12th of last April surpasses them all. They are nearly uniform in size, 1.73×2.13 and of a very light background heavily blotched with dark brown. The surfaces of two of them seeming to be half brown, so thickly are they marked. The last set taken April 30th contained four highly incubated eggs, four of which are heavily marked, the fifth having no distinct markings.

The Red-tail (*Buteo borealis*) is another large Hawk which seems to be quite plentiful. Its favorite position is setting on a dead tree in the edge of the woods or in a field, watching for mice, which form a large part of their diet. The nest is built of sticks and bark, is of a large size and placed in any large tree, generally in an elm or beech. The eggs, two or three in number, have a whitish background with markings of brown and lilac. A set of two taken April 23, 1897, measure 1.72×2.35 and 1.80×2.40 respectively.

Cooper's Hawk (*Accipter cooperi*). This destructive Hawk is well represented in numbers, and many are the geese, chickens and small rodents that fall a victim to his dexterity. A set taken May 7, 1897, contains four blueish eggs: one of them being blotched with lilac on smaller end.

I have also found Swainson's Broad-winged and American Sparrow Hawk breeding here, while I shot a female American Rough-leg while collecting Hawk's eggs in April.

The American Osprey occurs along the Lake shore, and in fall and spring

the Pigeon and Goshawks are sometimes seen, the former quite often. There are also two or three others that are here in fall and winter, which I have not as yet had a chance to indentify.

The Owls are represented by the following: Gt. Horned (*Bubo virginianus*), Am. Long-eared Owl (*Asio wilsonianus*), Screech Owl and Short-eared Owl. The first three I have found breeding. The Gt. Horned is quite common in all the larger blocks of woods, one nest found April 28, 1898, contained two young about one-third grown. On the edge of the nest were part of four large rats. The Owls had taken possession of an old Red-tail's nest which was situated in a maple 70 feet up. I was surprised to find a nest of *Bubo* in such an open place, as you could see right through the woods, and it did not contain a single-evergreen. On May 4th while botanizing in the edge of a large swamp, I discovered a full-grown young *Bubo* sitting in a second growth maple. A little search found the other young one in a hollow pine stub. At the foot of the stub were the remains of some previous feasts—the hind quarters of a "Cotton tail," the feathers of a Crow. The old ones came quite near in their anxiety for their young. I have found three nests of *Asio wilsonianus* this year. The first nest April 25th contained three young and two eggs. The second nest found same day, four fresh eggs. The third nest May 9th contained five fresh eggs. In every case they had taken possession of old Crow's nests, in second growth pines. The Short-eared Owl is often seen in the fall, generally in pairs when disturbed circling around in their peculiar flight. The Snowy Owl (*Nyctea nyctea*) is often shot along the shore of Lake Erie during the winter, and I have record of one being caught in a steel trap in June, while extracting young chickens from a coop. He had

been visiting the coop night after night.

R. T. ANDERSON,
Aylmer West, Ontario.

A Correction.

Mr. W. Lindsay Foxball in the February issue of the OÖLOGIST, page 27, states that the Chickadee, *Parus atricapillus*, is a common resident of Edgecombe County, N. C. which is in the eastern part of the state. I want to ask if this is not a mistake, for this bird is considered a rare and irregular winter resident in this locality; and while I am aware that it breeds in the mountains of North Carolina, I have never seen the breeding range given so as to include the eastern part of the state.

I presume he refers to the Carolina Chickadee (*Parus carolinensis*), a very similar bird.

Hoping you will correct this error if it should be one, I remain,

J. HARVEY RILEY.

Eggs of Greater Yellow-legs.

On April 27th, a female Greater Yellow-legs (locally called Tell-tale or Prairie Turkey), was shot near this village.

It was observed that she was quite plump and a slight pressure brought to light a perfect and finely marked egg.

The ground color is light grey, profusely marked over the entire surface with dots and heavy blotches of deep lavender and dark brown.

The egg measures 1.30x1.67 inches and is somewhat similar in shape to the egg of our Bartramian Sandpiper.

The larger and heavier splashes of rich brown, add a pleasing color and serve to readily distinguish the egg, from those of our resident Sandpipers.

Question:—Did this bird intend to nest in this vicinity? Does the species ever nest so far south as this, the 40th parallel?

ISAAC E. HESS,
Philo, Ills.

THE OÖLOGIST.

VOL. XV. NO. 6.

ALBION, N. Y., JUNE, 1898.

WHOLE No. 14

A Collecting Trip in California.

For a long time I had been trying to find the principal nesting place or places of the myriads of Hummingbirds seen in the valley during the rainy season. At last I had found it, and here I was with my feet turned toward a small pass through the foot-hills, known locally as Brea Canon.

The day was all that could be desired a perfect "day in June." High overhead in the cloudless blue soared a single Vulture, mute witness to the end of all things. From every fence-post a Meadowlark poured forth his bubbling song, while from every hillside numbers of Western Lark Sparrows rose in small coveys. Here and there a Burrowing Owl regarded me with great, round eyes from the doorway of his subterranean home. Road-runners and Towhees now and again appeared at the border of some dense thicket or clump of cacti. All the world was alive and making the most of that life while the cool hours of the morning remained.

But I must hurry over the events of my trip, only stopping to notice the taking of three eggs of the California Thrasher (*Harporynchus redivivus*). I considered this remarkable only in that the eggs were fresh and the date rather late for this species. The nest as usual was merely a platform of sticks and the eggs a beautiful pea-green spotted with brown.

At last, about eight o'clock, I arrived at a place which to my mind seemed to be the home of every Hummingbird in Southern California. The brushy sides of the canon formed excellent nesting sites for the Towhees, Thrashers and Western Yellow-throats; from an old

sheep "corral" came the musical call of the Valley Quail; but down where the little stream wandered along among tall willows and knotty oaks there were the Hummingbirds.

From under a ledge of rock darted a Black Phæbe (*Sayornis nigricans*). Soon her tiny nest, placed so snugly under the sheltering rock, was found, and the five slightly incubated eggs, pure white in color, packed safely away in my box. Glancing upward I saw not ten feet above me a nest, from which only the tail of the parent bird could be seen. A few minutes' climb revealed to me a female of Cassin's Purple Finch (*Carpodacus cassinii*). This nest contained four badly incubated eggs, but as they were my first set of this species I took them together with the nest.

Sitting down under the spreading branches of a live oak I heard the peculiar note of a California Bush-tit. Long and diligently I searched and at last found—her empty nest. A pair of Costa's Hummers (*Trochilus costae*) seemed to be very much excited, the female repeatedly darting at my head. Finally, after standing immovable for nearly half an hour, I was pleased to see Mrs. Trochilus settle down on the tiny white nest. The nest together with the two pure white eggs it contained soon found its way into my collecting box. A little further on another nest of the same species containing one highly incubated egg, was found. This I did not take as the shell these eggs in this condition is about as tender as wet blotting paper.

In a small clump of "tules," covering perhaps a square rod, was a pair of Marsh Wrens, but no nest could be found. Far up in the top of a tall wil-

low, swung a pensive nest, ownership unknown. A vigorous shaking of the tree sent a female Bullock's Oriole (*Icterus bullocki*) off the nest in short order. Four young birds nearly ready to fly rewarded my climb.

Walking slowly along the banks of the Arroyo I was surprised to see a California Chickadee leave an old stump in response to a hearty rap with my cane. For the first time in my life I had found the home of *Parus rufescens neglectus*, I was almost afraid to open the nest for fear that no eggs would be found. Much to my delight five half incubated eggs were lying on a mass of fur, feathers and seed down, fitted so closely together that no possible cold could come to the young, when hatched. These eggs do not differ at all from those of the common Chickadee (*Parus atricapillus*) so well known to Eastern collectors.

Passing under the spreading branches of a live oak I heard the sudden whirr of tiny wings. Just on a level with my eyes I found the nest, and a few minutes' waiting showed me the parent birds. The cinnamon colored throat and metallic crest plainly showed them to be Rufous Hummingbirds. The nest contained two fresh eggs and was well hidden on the extreme tip of a small limb. The eggs seem to differ from those of other *Trochilidae* only in being more oval, and the nest larger than usual with Hummingbirds. On the opposite side of this tree was a nest of Costa's Hummer (*Trochilus costae*) containing two eggs nearly fresh. Further on, in the top of a tall Willow was found a nest of Cassin's Kingbird (*Tyrannus vociferans*). To my surprise the nest contained four eggs incubation about one-half. This is the only nest of this species I have ever found placed on a horizontal limb. Usually a fork is taken and the nest placed on a more solid foundation.

By this time I was quite ready for

my lunch as it was past two o'clock. While eating I noticed a pair of Cassin's Vireos but was unable to locate the nest. Perhaps, however, their house-keeping was over for that season. By carefully watching a pair of Violet-green Swallows I found two nests high up in the face of a limestone cliff. They had chosen two cracks in the face of the stone, but by dint of hard labor had so filled them up that a sort of shelf was formed, on which the eggs, three and five respectively, were laid. Generally these birds prefer a hollow tree or else a "tunnel" into the face of the cliff; rather than an open nest.

The eggs were pure white and fresh. I think the set of three was incomplete, as they generally, in this section at least, lay from four to seven eggs. There were at least fifty nests of the common Cliff Swallow (*Petrochelidon lunifrons*) on the same cliff, but these I did not disturb as my series of this species was full and probably most of the nests contained young.

For the next hour my search was unrewarded. Then I took a fine set of California Towhee (*Pipilo fuscus cristalis*). The nest, firmly woven and well lined, was placed in a white sage bush which overhung the stream. It contained four eggs incubation slight. While these nests are large and bulky and their owners very familiar, still they are not so easily found as might be supposed. But it was now time to start for home, so retracing my steps I went slowly down the canon. Walking carelessly along I brushed my hand against a tall "nettle weed." This brought an exclamation from me and a sudden "whir-r-r" from the bush. Looking down I saw not over two feet from the ground a Hummingbird's nest containing two eggs. The return of the birds at once identified the eggs as those of *Trochilus alexandri*—the Black-chinned Hummingbird. Packing these in my case I started once more on my return

journey, arriving at home tired but well pleased with the day's trip.

HARRY H. DCNN,

Fullerton, Orange Co., Cal.

The Photographing of Birds, Their Nests and Eggs.

To me a trip after birds eggs is incomplete without the taking of a few photographs. Not only because they recall to mind many of the delights of the trip but because they are of the utmost scientific value. It is impossible in writing out the data for a set of eggs to give all the particulars of the location of the nest and the locality, and yet these are perhaps the most important things next to the date.

In the following article I purpose to give a few hints, a suggestion to collectors which I think will be found of considerable value, both to the beginner and the more advanced student.

THE CAMERA.

First of all get a good camera. There are many on the market and you will find no trouble in getting one that is suited to the purpose. It should be arranged for both time and instantaneous exposures. The size of the pictures should be $3\frac{1}{2} \times 3\frac{1}{2}$ inches or over. I find the 4x5 size the best for all round work. Either plates or films can be used, but the latter on account of less weight are much better. A film camera weighs when loaded less than one half as much as a plate glass camera. This will be found of the utmost importance as extra weight is always to be avoided on a collecting trip.

A large picture is of course the best. There are two ways of arriving at this point, one is by using a 5x7 or over camera and the other is by enlarging. The latter is preferable as a 5x7 camera is unwieldy and a good negative from the smaller camera can be enlarged up to 30x40 inches, or to any intermediate size desired. Of course the larger

camera does away with the extra work of enlarging, but it is a question whether this makes up for the greater handiness of the smaller one.

Better pictures can be obtained by the use of a tripod as most of the pictures will have to be time exposures and few, if any, can hold a camera steady enough for this purpose. Of course the tripod adds extra weight and is not a very convenient thing to carry, but there is one that comes which folds up into a staff about four feet long which will be found a very acceptable aid in walking as well as being always ready for use.

FOCUSING.

The next thing to be considered is focusing. If any reader will take the trouble to look through some of our illustrated Ornithological Magazines he will find that in eighty per cent of the pictures either the entire picture or some part of it is more or less indistinct. This arises from two causes, first, the camera has been placed too near the object, and second, the camera has not been held steady. Let me say right here *don't* get too near the object. The nest or bird may appear very small in the finder but it will be twenty times the size on the plate and if you intend to enlarge you can make it plenty big enough.

The $3\frac{1}{2} \times 3\frac{1}{2}$ inch camera will be found to make the best pictures as it is known as the fixed-focus type. That is, all objects are in the same focus. The larger camera are of the acromatic-type and have to be focussed.

Never get nearer than eight feet of the object to be photographed, if you do the picture will be blurred and consequently worthless. Always keep your camera horizontal otherwise the picture will be slanting. In certain cases the camera can be pointed downward.

Endeavor to get your photo when the sun is shining from behind, but you can also take it when the sunlight comes

from either side in which case you must prevent the direct sunlight from striking the lens of the camera.

It will sometimes be found advantageous to use a mirror and by means of it throw a beam of light on the object while photographing it. However, there is another way of reaching the same end. Make the exposure longer and when developing as soon as appears the part which is lightest in the object photographed will appear first. As soon as it is distinct take the plate out of the developer and wash it off with clear, cold water. Then take a fine, soft camel's hair brush and paint over that part of the surface which appeared first with a ten per cent. solution of Bromide of Potassium. Repeat this several times according to density of the different parts of plate. Replace in developer and develop until finished. The bromide restrains that part of the plate treated and allows the other part of the plate to come up.

TIME AND INSTANTANEOUS EXPOSURES.

Nests in the open fields and large nests on isolated trees, nests built on the seashore and on rocks can be photographed instantaneously but nests in the thickets and deep woods must be time exposures.

The length of time for exposures varies according to the brand of plates, amount of light and size of stop used.

I advocate a quick plate. The smaller the stop the sharper and better the picture but the exposure must be lengthened accordingly.

Where there is a fair amount of light four seconds is about the proper time using the largest stop. If using the smallest, ten times as long is required or forty seconds.

To those who may not know what the stop is the following explanation will suffice.

In the better make of cameras a small circular diaphragm of steel is used. It is placed either in front of, or between

the lenses and is perforated with circular holes of different sizes and can be moved so that the different holes are brought opposite the lenses

The largest stop must always be used for snap shots unless the picture is taken over water upon which bright sunlight is falling in which case the next size smaller is used.

DEVELOPING AND PRINTING.

Any good developer will do and the plates are developed the same as others. A few drops of a ten per cent. solution of bromide of potassium will be found useful in retarding over exposed negatives.

If you intend to publish your photographs albumen paper is the best to print on. Print carefully and tone so as to obtain clear whites. The picture should be carefully mounted and highly burnished.

I trust that the few hints which I have given will be found useful and if this does not reach the editor's scrap-basket I will give a few pointers on enlarging and photographing of wild birds in their haunts, in the near future.

ROBERT C. WOODHOUSE,
New York City.

Davie's "Nests and Eggs of North American Birds," is out and ready for delivery—in fact has been for two months, BUT owing to some sort of a complication between printer and publisher the edition is held up pending a settlement. An early untangling of affairs is most sincerely to be hoped—if possible; urgently demanded. Until then interested parties must wait with best possible grace.

Ripans Tabules cure dyspepsia.

THE OÖLOGIST.

A Monthly Publication Devoted to

OÖLOGY, ORNITHOLOGY AND
TAXIDERMY.

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.

TERMS OF SUBSCRIPTION:

Single subscription.....70c per annum
Sample copies.....5c each
The above rates include payment of postage.

Each subscriber is given a card good for a Want, Exchange or For Sale Notice. (This card is redeemable at any time within one year from date thereon.)

Subscriptions can begin with any number. Back numbers of the Oölogist can be furnished at reasonable rates. Send stamp for descriptions and prices.

Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped, and all arrearages must be paid.

ADVERTISING RATES:

5 cents per nonpareil line each insertion.
12 lines in every inch. Seven inches in a column, and two columns to the page.

Nothing inserted for less than 25 cents. No "special rates." 5 cents per line is "net." "rock bottom." "inside." "spot cash" rate from which there is no deviation and no commission to agents. If you wish to use 5 lines or less space it will cost you 25 cents; 100 lines, \$5.00; 1000 lines, \$50.00. "Trade" (other than cash) advertisements will be accepted by special arrangement only and at rates from double to five times cash rates. Due Bills and Cards payable in advertising will be honored only at regular rates in force at the date of issuance of said bill or card.

Remittances should be made by Draft, Express or Postoffice Money Order, Registered Letter or Postal Note. Unused U. S. Postage Stamps of any denomination will be accepted for sums under one dollar. Make Money Orders and Drafts payable and address all subscriptions and communications to
FRANK H. LATTIN,
Albion, Orleans Co., N. Y.

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

Prothonotary Warbler. (*Protonotaria citria*).

This handsome little Warbler first came under my observation in 1888, while out looking for Downy Woodpeckers' eggs. I was out in the bottom lands of the Mississippi River working my way along the edge of the pond, among the willows and birch, when out flew what I at first thought was a Yellow Warbler, but on getting a bet-

ter view, saw it was a new bird to me. Did not find any nests that year but in 1889 found a set of six handsome eggs on June 15th, in an old Downy Woodpecker's hole, placed in a rotten stub. The nest was a mass of moss, some of which still had the roots and dirt adhering, filling the cavity almost to the top, lined with a few strips of the inner bark of grapevines, some hair-like roots, and a feather.

Since then I have taken many nests and eggs ranging from three to seven in each nest. Some heavily marked with large spots and blotches, others thinly and evenly marked with small spots and specks, of a reddish or brownish color, with lilac shell markings underneath.

Some years the bulk of the nests were found in stubs standing at the edge of or in the water, other years from ten to one hundred feet back from it, and in thick woods.

They were the most numerous in the marshy bottom land at the head of Lake Pepin, where there were many stubs, dead trees and stumps standing in and at the edge of the water. This year I went down there with Willis F. Hill of Lake City, Minn., and we only found one set of four and another nest containing one egg. The action of the ice in spring and heavy winds having torn and blown down nearly all of the suitable nesting places, causing them to seek nesting sites somewhere else.

The height of the nesting season was from May 30th to about June 15th, in some years, and others from about June 5th to about the 25th.

The height ranged from one foot above water (one nest) and two feet to thirteen feet, averaging from four to six feet up. One dead tree contained a Prothonotary Warbler's nest six feet up, and two feet higher a Tree Swallow, and about six feet higher a Downy Woodpecker's. All containing young.

Nearly every nest found was in an old

and sometimes broken out Downy Woodpecker's hole. Very frequently we could tear away the rotten wood all around the nest and take it out whole. The oldest and rottenest holes seem to be preferred.

In all the books and papers that I have, none mention this Warbler as a summer resident, except G. G. Cantwell's list of the birds of Minnestoa. It certainly should be classed as fairly common in suitable localities along the Mississippi River in southern Minnesota.

C. B. JOHNSON,
Red Wing, Minn.

Nesting of the Short-eared Owl in Western New York.

On April 7th while on a trip for Hawk's eggs I had the good fortune to find a set of Short-eared Owls. As I am unable to find anything about this bird in such back numbers of the OÖLOGIST as are in my possession I thought it might interest your readers to know something about this find.

The nest was in a low swampy tract of land on the outskirts of a tamarack swamp.

The land had at one time been plowed and parallel ditches dug about 20 feet apart, but it had evidently never been cultivated for it was overgrown with weeds and cat-tails.

I had just jumped one of these ditches when the old Owl flew up not 10 feet ahead of me, and began circling around me snapping her bill and giving a peculiar cry resembling very much the "yowl" of a cat when you step on her tail.

A hasty examination of the clump of flags from which she had flown disclosed seven (7) eggs in all stages of dirtiness from the worst (probably the first one laid) which was stained a dark drab, to the best which was a pure white.

The nest was simply a slight hollow

in the ground, in the center of a bunch of last years flags, it was lined with flags from the clump in which it was located and contained a few feathers. It measured 6 inches in diameter by 2½ inches deep. Beside it lay a little ball consisting of the fur, bones and teeth of some small animal, probably a mouse.

Before disturbing the nest, however, I turned my attention to the bird and by the aid of my opera glasses I was able to get a very good description of her while she was hovering over me, and finally when she gave up and alighted on a small tree near by I was able to get a good stationary view of her from all sides.

I then returned to the nest (which I had marked by sticking my climber in the ground near it), packed the eggs and started on.

On blowing, the eggs were found to be slightly incubated. They measured 1.51x1.30, 1.53x1.26, 1.68x1.25, 1.53x1.31, 1.56x1.30, 1.58x1.29 and 1.57x1.28. I had no trouble in identifying the bird from the notes. The location of the nest would have almost proven the species.

I think that there must be several pair in the vicinity for there was hardly a stump or an ant hill in the whole marsh that did not have one or two of those little balls of fur and bones on it.

While passing through a marsh near the river two days later I saw another pair of the birds but was unable to find their nest.

I find that Short in his list of birds of Western New York has this bird down as, "Common fall or winter visitant and possible rare breeder."

I am glad to be able to prove that his supposition was correct.

FRANK S. LOW,
Buffalo, N. Y.

I SOLD my Eagle through the adv. Advertising in the Oölogist pays. F. W. COLLINS, Garden City, Kans.

Nesting Habits of the Red-breasted Nuthatch.

The Red-breasted Nuthatch *Sitta canadensis* is generally distributed throughout this State, occurring as a resident of varying abundance in that portion which is embraced in the Canadian Fauna, and as a winter resident in the southwestern part. The species is most abundant in spring and fall, and when resident, is more common in summer than in winter. Though occurring at all seasons they are somewhat migratory, moving southward in the fall and returning in the spring, but whether the winter birds are individuals that do not take part in the migratory movement, or are migrants from the north I am unable to determine. The past winter I found these birds wintering quite commonly in Cumberland County, Nova Scotia, along the shore of the Bay of Fundy.

The call-note "quank" "quank" "quank" is well known, but the numerous conversational notes of which they have quite an extensive command, are not so often heard. Many of these are uttered in so low and soft a tone that one must be quite near the birds to hear them. I think their notes are more varied than those of their White-breasted relative which is much less common here, but are not as loud. I have never seen the two species associated, though the Red-breasted gets along very amiably with the Chickadees and Brown Creepers, and are usually found with them in the spring and fall.

In their quest for food most of their time is spent on the trunks and limbs of the large trees, searching the interstices in the bark and the bunches of moss for something edible, working with much assiduity, all the time on the go, often clinging head downward, and with much conversational chatter. In the fall they frequently ascend to

the tops of the spruces, working about over the limbs and searching the cones closely. In rare instances I have seen them come to the ground and scratch around among the leaves for food. In this locality the birds usually commence nesting operations late in April and the full complement is generally in the nest by the 20th of May, though the date varies somewhat according to the earliness or lateness of the spring. The locality chosen is in old growths, principally of soft wood, in which dead and decaying fir stubs are numerous, and where the ground is rather low and damp.

Fir stubs are most frequently chosen and the nest cavities are excavated at heights varying from five to forty feet. Most of the nests I have examined were between fifteen and thirty feet from the ground. The slender bill of the bird is hardly strong enough for digging in sound wood and the nests are nearly always in wood so rotten that it is easily broken away with the fingers, or can be cut away with a jack-knife. The nests are easily found. I generally go into the woods about the time the birds are excavating a nest cavity and listen for their note. They are usually near the nest and once they are located the nest can be found by observing the birds. The tapping of the bird in the nest-hole can be heard some distance away and is easily located.

I have never seen the birds sharing the work of excavation as is done by the Chickadees, Mr. Nuthatch allowing his better half to do it all, though he is near and offers encouragement in the way of song and occasionally a dainty morsel is brought and presented for refreshment. The female (distinguished by her paler coloration) enters the cavity and taps away for a time, then brings out the bits of wood she has detached. Usually she comes entirely out of the hole standing head downward

and scattering the contents of her bill by a flirt of the head, turning around to enter again. Sometimes only the head is protruded from the hole, the wood being scattered in the same way.

The entrance is an inch and a half in diameter and the cavity is five to six inches in depth. The nests, of which I have several before me, are all precisely alike. They are rather slight structures composed entirely of fine brownish shreds of cedar bark, placed in the bottom of the cavity. I have never known the birds to use a cavity other than of their own construction and a new cavity seems to be made for every nest. Usually some feathers become detached from the bird and are attached to the wall of the cavity and mingle with the nest material. The eggs are five to seven in number, six being most frequently found; pure white, dotted with red, more heavily at the larger end where the spots sometimes tend to form a wreath. A typical set measures in inches, .63x.47, .60x.48, .65x.45, .62x.47, .61x.47, .61x.47. They are not distinguishable from eggs of the Chickadee but the nest is entirely different and could not be mistaken. There is always a quantity of fresh fir pitch about the entrance to the nest, frequently entirely surrounding it, the greatest quantity being directly below the entrance and often extending down some inches. I have never been able to satisfactorily determine its purpose, but it is invariably present. The nest is about as easily found after incubation commences as when it is being built, as a few raps on the stub is sufficient to cause the bird to leave the nest.

If one knows a pair of Nuthatches are nesting in a certain block of woods, a careful examination of the suitable stubs, rapping on each, will be quite certain to reveal the nest. The parent birds display considerable solicitude whenever the nest is disturbed, remaining near, uttering notes of anger and

distress. The female is especially bold, coming close to the dispoiler of her home and uttering those protests which are the hardest part of collecting even though we know the distress we are causing will be soon forgotten and another nest and eggs replace the ones we are taking.

C. H. MORRELL,
Pittsfield, Maine.

April Contest.

Twenty-two subscribers sent in their opinions as to the value of April OÖLOGIST. Seven articles were mentioned. The winning one and credits and premiums to which each is entitled follows:

1st prize, \$5.00 cash. "The Summer Home of *Vireo Solitarius Cassini* and Other Notes." 46 credits.

2d prize, \$5.00 worth of books "Red-head and Raddy." 39 credits.

3d prize, \$5.00 worth of premiums. "Prairie Horned Lark in Illinois." 27 credits.

Six judges named the winning articles in their correct order, hence the prizes were awarded in the order in which their decisions were received.

1st prize, \$1.00 cash. No. 1, E. A. Doolittle, Painesville, O.

2d prize, \$1.00 worth of books. No. 4, F. B. McKechnie, Dorchester, Mass.

3d prize, \$1.00 worth of premiums. No. 9, V. L. Beed, Hampton, Iowa.

Inasmuch as the three following named the winning articles 50 cents worth of premiums were awarded each.

No. 14, R. P. Smithwick, Merry Hill, N. C.

No. 15, Ralph W. Clayton, Galesburg, Ills.

No. 19, R. H. Beck, Berryessa, Cal.

A portion of the Mss. received in June contest appears in May and June OÖLOGISTS. The balance will appear in July issue at which time an opportunity will be given the readers of the OÖLOGIST to decide on the merits of the articles in the three numbers.

THE OÖLOGIST.

VOL. XV. NO. 7.

ALBION, N. Y., JULY, 1898.

WHOLE NO. 146

A Day With the Parulas.

In the south western portion of Rhode Island, close by the boundary of Connecticut, and just in sight of the

Lake A more beautiful spot is hard to find. It is one of those wilderness like places which give the impression of being miles from civilization. Two sides are filled in with tangled masses



Nest of Parula Warbler. From Photo by F. J. B. Haversham R. I.

eastern end of Long Island, is a small post office district which goes by the name of Haversham. It is a low lying place facing the ocean and covered by numerous small swamps and sloughs. The tide pond in front is open to the sea only by a narrow branch, in and out through which the tide surges with great rapidity. The east end of this pond is styled Inonocontang, and four miles back from its shore is Wauchog

of cedar and alder growth, one end is partially cleared off, and the remaining side forms a forest of tall Hornbeams.

It was to this lake that on June 1st I directed my way in company with a friend. The day was not particularly fine, a strong north east wind wind was churning up the surface of the lake and every little while great drops of rain splashed down. Securing one of the fishing skills of the place we started

to row, aiming for a creek at the upper end where we expected to find usnea moss, the home of many Parulas. Night Herons flew awkwardly back and forth among the swamps, and flocks of Waxwings dashed restlessly about the alders, where we discovered several completed nests beautifully constructed of usnea. Now and then Red-shouldered Hawks soared over, and once an Osprey. On reaching the end of the pond a search was begun for the mouth of the brook which, well concealed by alders was at length discovered. A tule swamp grew about and thinking to find a few Red-winged Blackbirds' nests, we began to wade. Water snakes wiggled in and out and once in a while a black one. The black-birds were in plenty with eggs ready to hatch, we were about to return to the boat when I caught a glimpse of white eggs through the brake, there was a fine set of Least Bittern's eggs, five in number, warm as when the bird stealthily left them. The nest, a rough platform of tules was raised about six inches above the water and so slight was the depression that the eggs readily rolled about. They proved to be slightly incubated when blown. Four fresh Long-billed Marsh Wren's nests were passed on the way back to the boat. The creek is the outlet to the lake and probably forms one of the principal sources. It is about twelve feet wide, continuing so for a mile and a half when it disappears under an underground bridge, over which an old road passes. On all sides is a thick swamp of ash, alders and tall, gaunt dead wood, pierced countless times by Woodpecker's holes. It was reported that Woodduck roosted here, but we found only one old nest in a shaly stub. The usnea grew very thick as we poled along and hearing our first Parula song, we hunted and soon had the nest, a delicate affair hung to an old tree eight feet high. Four slightly incubated eggs

were the contents. From this spot the nests became fairly common, being placed in a variety of situations. Some were over ten feet up while others were not five. One was hung right over mid stream and without the boat could not have been examined. The male birds in all cases were singing about three hundred yards away, and unless the nests held sets, the females were not observed. The majority of nests were empty, being about completed and others held two or four eggs, the latter number being the set. Only twice while taking eggs was any alarm displayed and then the females simply uttered a few chirps after leaving the nests, and then flew off. We urged the skiff along in this way till past noon when arriving at the bridge our progress was stopped. Here we ate lunch and then started back to look for the inlet to the lake. This we found in much the same way as the outlet. The inlet which we called "Usnea Creek" is only navigable for a short distance where it broadens into a thick swamp. The Parulas were not so abundant here and we found but three nests. A pair of Chickadees were singing loudly about, so a little search found us the nest in a paper-birch stub leaning over the water. It contained young almost ready to fly.

The afternoon was now well spent, so turning towards home we slowly rowed along looking for more nests in the moss which still continued to be thick about the hornbeams. Three more nests were seen, one containing two eggs, the rest empty. A Green Heron called from a cedar clump near and arose splashingly. We entered and found a nest containing young about hatched with the broken shells beneath. A few Black-throated Green Warbler's were singing their quaint songs about the cedar tops, but we failed to find their nests.

We reached the shore in an hour or so, and pulling up the boat, with a last

look at the lake over which the sun was now beaming, left. A pair of Spotted Sand-pipers flew noisily before us and in the pasture above a Vesper Sparrow flushed from her nest and three eggs. Chats flew passionately into the air pouring forth their medley of songs, and Bob White's called from the brush. It was a long-to-be-remembered scene.

Our last Parula's nest was found as we were passing through an old moss grown orchard, it was entirely different from all of the others. The general shape was that of the lower half of a Baltimore orioles nest, straws were sticking through the moss and it was almost entirely composed of the disk shaped usnea, "Usnea barbata." Four eggs slightly incubated was the complement contained. The male was singing from the woods near.

The illustration shows a typical nest as we found them. It was photographed at home and showed fairly well the shape and situation. With the exception of the last nest found, all of our nests were entirely composed of the moss with the addition of a few fine straws or pine needles which constituted a firmer lining for the bottom of the nest. The average egg measures .63x .46 and is glossy white dotted with claret brown and lilac, often wreathed about the larger end. The size of the nest of course varies with the bunch of moss selected, but the entrance has a diameter averaging about three-fourths of an inch.

FRANK J. BIRTWELL,
Dorchester, Mass.

Further Remarks on Ornithological Photography.

Editor Oologist:

Noticing the remarks of Mr. R. C. Woodhouse in the June issue on this subject I beg to submit a few suggestions along this line, which differ materially in many respects from the above

writer's experience. Doubtless every collector who has made use of the camera in the field will agree as to its inestimable value, and each artist has probably marked out his own methods of photographing birds and nests, and consequently what I may offer is simply individual opinion.

The collector who goes afield should not expect to gain valuable results without some trouble and pains, and many of the best ornithological views are the results of continued patience and perseverance on the part of the artist. If you have a subject worth taking do not mind a little extra weight or trouble in getting your apparatus to the spot. Select a good camera and a large one if necessary and you will not regret your trouble when the finished print lies before you.

I would advocate using at least a 5x7 camera, as it gives the best all-round satisfactory results and is not as unwieldy as one who has not used it would be led to believe. I have used a 5x7 camera entirely for several years and never find it a burden when I have bird photography in view, and especially if the subject is to be one of interest. My present camera is a "Midget," manufactured by the R. O. Co., and can be folded up to a thickness of about 2½ inches and the lense and shutter dropped into my pocket. The plate holders can be packed next the camera and the whole wrapped in a focusing cloth and carried by a strap, making a convenient package, and when in use is transformed into a very neat bellows camera. I should by all means recommend a focusing camera and not one of the fixed-focus type, the results with the former being eminently more satisfactory.

Use a tripod and take time to carefully focus on the bird or nest you wish to take; then use the "stop" you consider will give the best results and time accordingly. In such cases with

a focus camera, good results are almost certain to follow. No hard and fast rules can be given as to timing photographs, there being many factors necessary for consideration in each subject. I prefer a time view wherever possible, even in the sunlight, when with a moderate stop and quick exposure the results seem superior to an instantaneous view. A small stop and long exposure will give great detail, but a moderate stop and quicker exposure produces a greater contrast of light and shade.

Mr. Woodhouse recommends that you "never get nearer than eight feet from the object to be photographed." By using a focus camera and proper stops a nest can be perfectly photographed at a much less distance, and without any part of the picture being out of focus. There are many subjects which we meet in the field which require unusual treatment to secure and many of the rules usually followed must be disregarded if the object is to be photographed. This summer while in the mountains I found a nest of the Hermit Warbler 45 feet up in a pine tree, which I wished very much to record *in situ*. The nest was on a horizontal limb, resting on the pine needles not over five feet from the top of the tree. There was no opportunity to use a tripod or stand for the camera so I was obliged to straddle a small limb, hold on to the trunk of the tree and hold the camera tightly against the tree until the proper focus was gained. Then, owing to the sun shining indirectly on the nest, it was necessary to make a quick time exposure. The nest was not over four feet from the camera and is almost in perfect focus, as are also the limbs about it. I made four negatives of the nest, one instantaneous one being undertimed in the shade and the others slightly blurred by the vibration of the limb. But the one perfect negative is a pleasing reward for

all my trouble. Nests and birds taken at four and five feet distant almost always come out well if properly focused and a suitable stop used.

I also use occasionally an "extension" which fits into the camera in place of the front board, the latter fitting into the front end of the extension, and thus giving about six inches greater focus and making small nests and objects almost natural size. Small nests may be photographed at a distance of from one to two feet but should be given a longer exposure than is necessary with the camera proper, and the smallest stop should be used which will usually cut a sharp picture.

I use Stanley "50" plates, which give excellent results and are rapid. The matter of finishing the pictures rests with the individual and his taste; personally I prefer the Aristo gelatine finish, and dry my prints on ferrotype tin, which imparts a high polish. Finally the worker who expects interesting results must prepare for and endure often considerable trouble before his object is attained, but the greater the work necessary to secure a good photograph, the more will it afterwards be appreciated.

C. BARLOW.

Santa Clara, Calif.

A Collecting Trip in the Thousand Islands.

There are many quarters in America known as the "Thousand Islands," and in every case they are interesting to observers and tourists. I have had the pleasure of winding about, and in and out among the islands of several of these picturesque groups, from a steamer trip through the celebrated group in the beautiful St. Lawrence river to a canoe cruise among the mangrove-lined edges of the low isles in Florida.

One April not long since two other collectors and myself were rusticated at a small hotel at the southern part of

is said to breed in the large marshes. Here the eggs are usually laid on a tussock entirely surrounded by water, and so near it that the female sometimes sits with her feet in the water. On the islands of Franklin Bay and on those of the Arctic Ocean, the Whistling Swan constructs a large nest of moss, grass and herbage of various kinds. According to Nelson this fine bird arrives on the shore of Bering Sea in the vicinity of St. Michael's early in May, and in some seasons by the 27th of April. At Nulato, Dall found them laying eggs by May 21, but on the sea coast the earliest date Nelson records is May 30. The ordinary number to a nest is three to six. The nest is usually upon a small island in some secluded lakelet, or on a to a clutch is usually two, sometimes only one and very rarely three. When three are found in a nest it is generally believed that the third has been laid by another female. According to Mr. Ingraham's observations the nests in our illustration must be considered correct except in height. They are simply small mounds. The old story of the Flamingo bestriding its nest in an ungainly attitude while incubating is absurd fiction. The eggs are one or two in number, elongate-ovate in shape, with a thick shell, roughened, with a white flakey substance, but bluish when this is scraped off. It requires thirty-two days for the eggs to hatch. Size 3.57x2.20, with considerable variation.

183. ROSEATE SPOONBILL. *Ajaia ajaja* (Linn.) Geog. Dist.—Southern United States and southward into Southern America. Formerly north to Southern Illinois.

The Rosy Spoonbill, of so handsome plumage and singular form, is distributed throughout South and Central America, Mexico, and in all favorable localities of the Gulf region of the United States. In Florida it was formerly abundant, but its numbers have greatly diminished by the constant persecution of the "plume hunters." Rare as far north as the Carolinas. Marshy or muddy borders of estuaries, the mouths of rivers, shrubby islands of tropical seas, or some dense marsh, are the favorite breeding resorts. Mr. R. E. Rachford visited a small colony of these birds in Southwestern Louisiana, June 2, 1886. The birds were found nesting in a clump of cypress trees in a low marshy place fully twenty miles from habitation. Here also nested the Snow, Louisiana and Little Blue Herons, and the Snake Bird. The nests of the Spoonbills were placed from eight to eighteen feet from the ground, and the usual number of eggs found in the nests was three or four; although from one nest seven eggs were taken, and five or six from several others. The nests were platforms of sticks, and for the most part were built close to the trunks of the trees; they were usually more massive than the Herons' nests. The general shape of the eggs is ovate; and their color is white, or buffy-white, blotched, spotted and stained with various shades of brown; sometimes a pure white egg is found in a nest with spotted or marked examples. They measure from 2.50x1.70 to 2.60x1.77.

184. WHITE IBIS. *Guara alba* (Linn.) Geog. Dist.—South Atlantic and Gulf States southward to the West Indies and Northern South America; casually on the Atlantic coast to Long Island; in the interior to the Lower Ohio Valley and Great Salt Lake.

The White Ibis or Spanish Curlew is distributed in summer throughout the South Atlantic and Gulf States from the Carolinas southward, throughout Mexico, Central America, and portions of Northern South America. It breeds in communities by thousands in the tangled marshes of the southern coast; fastening the nest to broken down or upright living reeds; it is composed of reeds, compactly woven



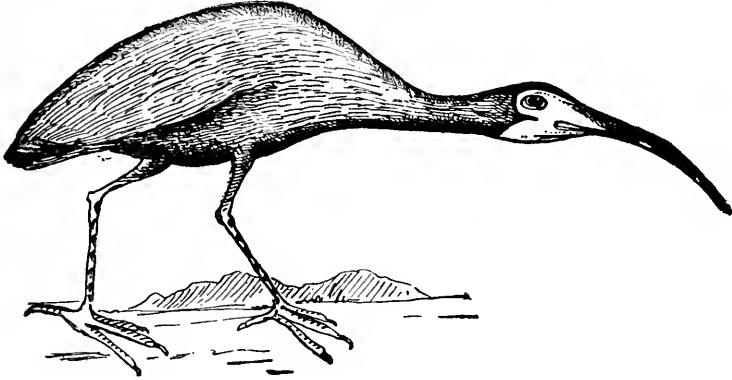
EUROPEAN SPOONBILL (From Brehm).

together, is deep and much hollowed, which is unlike the frail platform nests of the herons. Mr. Stuart says the White Ibis breeds abundantly on the low mangrove bushes on the islands of the Gulf coast. There is a large rookery in Charlotte Harbor. The nests are usually made of the green twigs of the mangrove. The eggs are laid in June. At Cape Sable eggs are deposited after the 10th of April; these are from three to five in number, ashy-blue, spotted and blotched irregularly with yellowish, reddish and umber-brown of varying shades; two or three in number, and measure about 2.25 by 1.50.

[185.] **SCARLET IBIS.** *Guara rubra* (Linn.) Geog. Dist.—Eastern coasts of tropical America, north casually to Florida, Louisiana and Texas; southward to the West Indies.

An exquisite bird of the richest scarlet plumage. There is probably no well authenticated instance of its having been taken within the United States. Wilson was not correctly informed concerning its abundance in the Southern States, and Au-

dubon only saw a flock of three in Louisiana. The bird is said not to be an uncommon visitant to Jamaica and Cuba, and very common on the Island of Trinidad, where it formerly nested. Mr. Warren observed the Scarlet Ibis breeding in immense colonies on the banks of the Amazon, in dense, impenetrable thickets of bamboo canes, several kinds of thorny cactus and Spanish bayonets, besides numbers of small mangroves and palmettos, all interlaced and tangled with huge vines. In one place every bush and tree had on it from five to twenty nests; they were about a foot and a half in diameter and perfectly flat; the materials used in their construction were twigs, fibrous roots and leaves. Mr. Warren states that the Ibises, being disturbed, rose in immense numbers, and a more striking spectacle than a



185. SCARLET IBIS.

large flock of these splendid birds floating through the air, like a crimson cloud, cannot possibly be conceived. The rookeries are only tenanted during the dry season. The eggs are two or three in number, grayish-white in color, marked with spots and blotches of brown of varying shades, and distributed variously over the surface, but generally more profusely at the larger end. The average size is 2.15x1.46.

186. GLOSSY IBIS. *Plegadis autumnalis* (Hasselq.) Geog. Dist.—Old World, West Indies, and Eastern United States.

This species occurs irregularly in the eastern portions of the United States, and has been known to breed in Florida. It has also been found breeding in Nevada. In Europe the course of its migrations for the summer is said to be chiefly in a line from Egypt, to Turkey, Hungary and Poland, and to the southern parts of Russia. In its passage from Africa it is occasionally seen in the Grecian Archipelago, in Sicily, Sardinia, Genoa, Switzerland, France, Holland and Great Britain. The nesting of the Glossy Ibis is like that of the next species. The eggs are of a deep greenish-blue and average 2.01x1.47.



186. GLOSSY IBIS.

187. WHITE-FACED GLOSSY IBIS. *Plegadis guarana* (Linn.) Geog. Dist.—Western United States (Texas, Utah, Nevada, Oregon, California, etc.), southward to Mexico, West Indies, Central and South America.

This beautiful, lustrous Ibis inhabits southwestern United States and south into tropical America. It is found as far north as Kansas, west through New Mexico and Arizona to California. It is especially abundant in southern Texas, and in some localities along the banks of the Rio Grande swarms by thousands. At this place Dr. James C. Merrill, in company with Mr. G. B. Sennett, on the 16th of May, 1877, visited a large patch of tule reeds, growing in a shallow lagoon about ten miles from Fort Brown, in which large numbers of this Ibis and several kinds of Herons were breeding. The reeds covered an area of perhaps seventy-five acres or less. Besides the Ibises, the Great and Little White Egrets, Louisiana and Night Herons, and several other birds were breeding here. The reeds grew about six feet above the surface of the water, and were either beaten down to form a support for the nests, or dead and partly floating stalks of the previous year were used for that purpose. Dr. Merrill states that it was impossible to estimate the number of the Ibises and different Herons nesting here. "Both nests and eggs of the Ibises were quite unlike those of any of the Herons, and could be distinguished at a glance. The nests were made of broken bits of dead tules, supported by and attached to broken and upright stalks of living ones. They were rather well and compactly built, and were usually well cupped, quite unlike the clumsy platforms of the Herons. The eggs were nearly always three in number, and at this date were far advanced in incubation; many of the nests contained young of all sizes. Fifty eggs now before me average 1.95x1.35, the extremes being 2.20x1.49 and 1.73x1.29; they are decidedly pointed at the smaller end, and are of a deep bluish-green color."

188. WOOD IBIS. *Tantalus loculator* Linn. Geog. Dist.—Southern United States from Ohio Valley, Colorado, Utah, California, etc., south to Buenos Ayres; casually northward to Pennsylvania and New York.

The American Wood Stork, as it is called, is distributed over a large portion of South and Central America, Mexico and Southern North America. It is found in all the Gulf States, and is most abundant in Florida, where, Mr. Stuart informs me, it nests in the interior in dense cypress swamps, on the tallest trees, which are often more than one hundred feet in height. In these rookeries are also found nesting the American Egret, *Ardea egretta*; Great Blue Heron, *A. herodias*; the Anhinga and others. The nests, like those of the Herons, are platforms of sticks loosely arranged, with a lining of long moss. The same rookery is occupied each year, and the nests are repaired and augmented until they often become of immense size. The eggs are chalky-white, sometimes spotted with pale reddish-brown; somewhat elliptical. The shell is rough, with a flaky substance. Two or three is the number laid, but almost invariably three. Size from 2.70 to 2.75 long by 1.70 to 1.75 broad.

[189.] **JABIRU.** *Mycteria americana* Linn. Geog. Dist.—Tropical America, north casually to Southern Texas.

This singular bird is known as the American Stork. It is found in portions of Central America and throughout most of South America, but occurs rarely farther north. One specimen is said to have been taken within the limits of the United States, and that near Galveston, Texas. The bird is said to have the same general habits peculiar to the White Stork of Europe. The nest is a large platform of sticks built in the highest trees. An egg is described by Dr. Brewer as rounded-oval in shape, and of an olive-green color; size 3.33x2.20.



172. NEST AND EGGS OF THE CANADA GOOSE. (Photo. by W. Raine.)

they were six days old, and this was in early morning and evening, at which times the old birds would float off from their island with their well-known *hook*, the young following single file behind them, feeding at the extreme end of the lake. This was kept up until August, when the young could fly and take care of themselves. The eggs were always seven and never more than eight in number. What is most remarkable about these birds is that they would go south every fall and return every spring; their number always being diminished by the time they returned; some probably being killed by sportsmen. Mr. Vergon says the geese often strayed away from "home" as far as ten and fifteen miles on the Olentangy River and other waters in the neighborhood. He fed them on a high ridge near the lake and on this ridge they were always first seen in spring when they returned. Mr. Vernon says he thinks they always came at night and is very sure they always departed in autumn at night. While the flocks that departed in the fall and returned in the spring had often been diminished in numbers, yet as many as twenty-two new ones came with them and stayed at the lake. Out of thirty that departed the fall of 1886 only three returned in the spring. The birds were very much afraid of strangers, but with Mr. Vergon they were very familiar, allowing him to handle and caress them at pleasure. Dr. Merrill found this species breeding on the Upper Missouri, Yellowstone, and Big Horn Rivers, where their favorite nesting sites were on the numerous low sandy islands in these rivers, covered in the higher parts with a growth of young willows. Their nests were simply a hollow in the sand, around which was placed a few sticks and twigs, and the eggs lay on a layer of gray down. Nests were found on the tops of broken trunks of trees; one on a rocky ledge three hundred yards from the river; another was made on a pile of brush that had collected in the top of a fallen tree that had floated down and lodged near the middle of the river; some nests

were placed on the high banks among high grass, or on piles of drift wood. By the first of May the nests contained the full complement of eggs, generally five in number. Dr. Merrill says: "When these geese nest among the branches of a tree I do not think they ever construct the nest entirely themselves, but take possession of a deserted nest of the Fish Hawk, and repair it with twigs and a lining of down. They have been seen to carry small sticks to the nest for this purpose." The color of the eggs is a pale dull greenish, and their size is about 3.50x2.50.

172a. HUTCHINS'S GOOSE. *Branta canadensis hutchinsii* (Sw. & Rich.) Geog. Dist.—North America, breeding in the Arctic regions, migrating south in winter, chiefly through the Western United States and Mississippi Valley; Eastern Asia.

This bird, which is like *canadensis* in color, but of a smaller size, breeds in boreal regions. Its length is about 24 to 34 inches. Its general habits are the same as those of the common Canada Goose. Breeds abundantly along the Yukon River and on the islands on the coast of Alaska. Nests have been found on the Islands of the Anderson River and on the Arctic coast. In these regions eggs of this species have been taken from Hawks' and Crows' nests built in trees. It nests usually on sand-beaches, depositing from four to six eggs in hollows in which there are more or less leaves, grasses, feathers and down. In his paper on "The Birds of the Western Aleutian Islands," Mr. Dall states that it does not breed east of Amchita Island, but some nest on Amchitka, Kyska and other islands there. Its nesting habits, notes, and general mode of life are identical with those of the Cackling Goose. The eggs are white, and measure 3.18x2.10. In the Arctic regions the eggs are laid in June and July. Eggs of this bird taken at the mouth of the Yukon in June measure 3.02x2.10, 3.08x2.11, 3.04x2.00, 3.00x2.11, 2.90x2.07. There is a great variation in the size of the eggs of this bird and those of *minima*.

172b. WHITE-CHEEKED GOOSE. *Branta canadensis occidentalis* (Baird.) Geog. Dist.—Pacific coast region, from Sitka south, in winter to California.

A larger sub-species than Hutchins's Goose, length about 35 inches. Mr. Nelson states that during his residence on the coast of Bering Sea this bird was not seen, as hundreds of the two other related forms were examined both at St. Michael's and at the Yukon mouth it appeared evident that either the White-cheeked Goose proper never reached those localities; if at all, merely as a straggler. Mr. Dall records specimens having been taken at Sitka during the Western Union Telegraph expedition. The nesting habits and the eggs are more than likely like those of the Canada Goose.

172c. CACKLING GOOSE. *Branta canadensis minima* Ridgw. Geog. Dist.—Coast of Alaska, migrating southward into Western United States east to Wisconsin.

The length of the Cackling Goose is about 24 inches. Nelson states that this is the most common and generally distributed goose found breeding along the Alaskan coast of Bering Sea. From the sea shore its breeding ground extends along the courses of the great rivers far into the interior. While descending the Yukon, Dall found their eggs laid upon the bare sand banks, as were those of the White-fronted species. The last week of May finds many of these birds already depositing their eggs. Upon the grassy borders of ponds, in the midst of a bunch of grass, or on a small knoll these birds find a spot where they make a slight depression and line it with a scanty layer of grasses, after which the eggs are laid, numbering from five to eight. These eggs, like the birds, average smaller than those of the other geese.

The following measurements, taken from a large series of eggs, show about the average sizes: 3.00x1.90, 2.90x1.90, 2.80x2.00, 2.75x2.00, 2.70x1.92. As the eggs are deposited the female gradually lines the nest with feathers plucked from her breast until they rest in a bed of down. When first laid the eggs are white, but by the time incubation begins all are soiled and dingy.

173. BRANT. *Branta bernicla* (Linn.) Geog. Dist.—Northern portions of the Northern Hemisphere; in North America chiefly on the Atlantic coast, rare in the interior or away from salt water.

The Brant Goose is almost cosmopolitan in its distribution. It is found on the sea coasts of Europe and eastern North America, breeding only within the Arctic circle. Hagerup records this bird to be common as a migratory species along the southern shores of Greenland, and says it breeds possibly in the northern part of Danish Greenland. While being more maritime than United States geese generally are, it is also found inland occasionally on lakes and rivers. During the migrations it is abundant, and seems to prefer the coast to the interior, seldom passing over large tracts of land, following the windings of the shore, and nearly always keeping over water. The Brant is a particular favorite with sportsmen, and many are shot from points of land which project out into the sea. The common Brant Goose is said to breed in immense numbers in Spitzbergen and on the islands about the coast. The nest is constructed on the sandy beaches, of grasses, moss, feathers and down, the birds depositing from four to six eggs. In some parts of Greenland where this species is known to breed, some of the birds make their nests on cliffs. The eggs are grayish or dirty-white, and average in size 2.70 by 1.80, according to Saunders.

174. BLACK BRANT. *Branta nigricans* (Lawr.) Geog. Dist.—Arctic and Western North America; rare in the Atlantic States.

The Black Brant is very closely allied to the common Brant Goose; it is found on the Pacific coast, where the latter does not occur. Its summer home is in high latitudes, and in Alaska, the mouth of the Yukon, is said probably to form the extreme southern limit of this bird's occurrence in the breeding season. At Point Barrow, according to Murdoch, a few remain to breed in June. The nest is placed in rather marshy ground and is a simple depression lined with down, with which the eggs are completely covered when the birds leave the nest. Breeds in abundance on islands northeast of the mouth of Anderson River, in Liverpool Bay on the Arctic coast, on the shores of Franklin Bay, and on various other parts of the coast, especially in regions west of Anderson River. In these regions, according to Dr. Brewer, nests were found by Mr. MacFarlane on small islets in fresh water ponds; others on islands in the Anderson near its mouth; many were made on the shore or on islands in Franklin Bay, and in various parts of the Arctic Sea. Some of the nests were nothing but mere depressions lined with down, while in others the quantity of down was quite large. The number of eggs in a nest was generally five; but in one case as many as seven were seen, and, in six or seven instances six. The eggs are grayish-white, and range from 2.75 to 2.90 long by 1.80 to 1.85 broad.

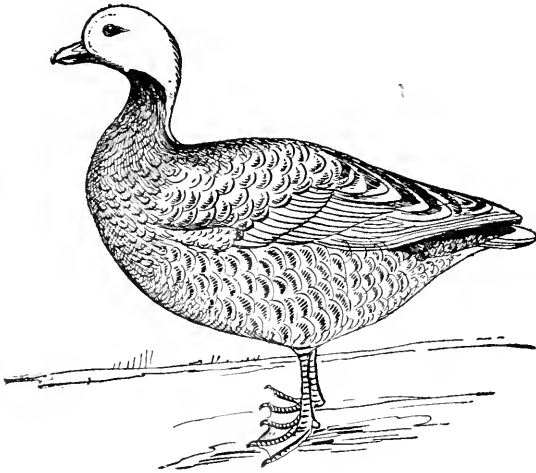
[175.] **BARNACLE GOOSE.** *Branta leucopsis* (Bechst.) Geog. Dist.—Northern parts of the Old World; casual in Eastern North America.

The Barnacle Goose inhabits the northern portions of Europe and is occasionally found on the Atlantic coast of North America. But many of the specimens taken on this side of the Atlantic are birds that are supposed to have escaped from con-

finement. In Great Britain it is a winter visitant. During the migrations it is said to be found in great numbers along the coast of Norway, and at these seasons it is stated to be abundant in Holland, France and Germany. It is said to occur during the breeding season in Northern Siberia. The shores of the White Sea to the eastward are supposed to be the great breeding places of this bird.* The eggs are grayish-white and measure 3.71x2.38.

176. **EMPEROR GOOSE.** *Phalacrocorax auritus* (Sevast.) Geog. Dist.—Coast and islands of Alaska north of the Peninsula; chiefly about Norton Sound and Valley of the Lower Yukon; Commander Islands, Kamtchatka; casually southward to Humboldt Bay, California.

Among the various species of birds more or less peculiar to Alaska, says Mr. Nelson, this goose is perhaps the most noteworthy. This author and naturalist lay camped on a lonely islet in the middle of the Yukon delta for the purpose of gaining some knowledge of the habits of these geese and other water fowl during the last of May and first of June. The birds arrive about those periods. Early in June the



176. EMPEROR GOOSE.

Emperor Goose begins to deposit eggs on the flat, marshy islands bordering the sea. On June 5 a female was found setting upon her eggs on a little knoll, near by a small fragment of bleached driftwood. The nest contained three eggs. They rested in a depression with no sign of a lining. Other nests were found and the birds each time betrayed them by flying off with a startled cry. The majority of the nests contained from three to five eggs, the full complement usually ranging from five to eight. The eggs are absolutely indistinguishable from those of the White-fronted Goose, and in form and measurements present a wide range of variation; some are much elongated, while others are slightly pyriform. As usually taken from the nests they are of a dirty brownish-white, but when fresh are nearly pure white. As the complement of eggs approaches completion the parent makes a bed of leaves, fine grass and feathers plucked from her own breast. The eggs vary in size from 3.28x2.22 to 3.03x2.00.

* Yarrell, III, p. 74.

that so-called river, the Hillsborough, which with the Halifax and Indian rivers, all long, narrow lagoons of salt water forming a peculiar coast line for nearly three hundred miles along the Atlantic seaboard in this sub-tropical region.

We had all done some collecting both the season mentioned and in previous years, and naturally when we consulted we decided to join and try our joint forces in this, to us, comparatively newer field. Now it is a fact that collecting in any form costs money when you are away from home, and I can say in all sincerity that southern collecting is the most expensive of all, for the residents of that region are on a warm trail after the coin of the winter tourists.

Well! passing over preliminaries, with the dickering and delays—we at last started on our trip in a sloop-rigged craft manned by a crew of two colored boys, or plain *niggers* as they are invariably called south of the Mason and Dixon line. The little cabin was nearly eight feet wide and over eleven feet long and four and a half high. The table was with drop leaves, and on the center-board, with a berth on each side, while lockers and space forward gave room for most of our baggage. One of us slept on the floor, and the crew bunked in the cockpit protected by a tarpaulin.

The weather was perfect, and after victualing our craft with eggs at 35 cents a dozen and canned goods and everything else in proportion, we started out with intentions of a week's trip on Hillsboro, Halifax and through the Haulover to Indian river, with the Thousand Islands as a center of operations. Our yacht only drew seven inches and we could run her anywhere, and the darkeys were excellent as workers and good natured to a fault if well fed and properly praised.

A full account of this trip would take

fifty pages; so I will only give a short account of our work and takes, without entering into details or describing date and locality. Our first stop after running onto a shoal in a wide but shallow channel was to anchor alongside of a low island literally covered with herons. It was difficult to keep the boys and crew from shooting ten times more than we had use for, but I had previous experience and headed them off. As it was, skinning was in order until midnight in our crowded quarters and then not one-third of the supply of three species of Herons was in shape.

Next morning we made a raid on the nests and during the day we secured at that place and two other heronies over 300 eggs and could have taken 500 more. In only a very few instances were positive identifications secured, and I would give but very little for the entire lot for my own private collection. This is the usual manner of collecting, and as the nests are massed together and several species of Herons breeding in one tree or group, it is next to impossible to secure perfect identification. If accurate notes were taken and the parent bird secured, the time consumed would make the prices much higher than they are at present for Herons' eggs.

During the trip we secured a few sets of accurately identified Louisiana, Snowy, Little Blue and Great Blue Herons. We felt confident that some of our eggs were those of the White and Yellow-crowned Night Herons as the birds were shot, but they were not good enough for an honorable collector to offer in exchange. Let me tell of the condition of one of these heronies whether in cypress swamps around fresh water or in scrubs or mangroves about salt water. I have seen hundreds of nests in one group in a space not over an acre in extent. As many as fifty nests are seen in one tree. In most cases the nests are built low and I

have often looked into the nests of the Louisiana and Little Blue Herons built in the low mangroves from the steamer deck as we passed near the shore.

Often as many as three species of Herons are found nesting in one group, sometimes five species will be found occupying a space of an acre or less and generally two kinds and in the tangle it is very difficult to secure the parent bird as the Herons leave the spot and give but little opportunity to shoot them near the nest. Many nests were not above twelve feet while some were not over six or seven feet up. The average of the lot of Heron's nests seen on the trip was not above twenty feet. The greatest elevation was in the case of the Great Blue Heron a few of which were over fifty feet up, but many of them were at only ten or fifteen.

Of course an attempt was made to secure only good fresh sets, but the eggs were often mixed and the waste was large in the preparation. The Great Blue Heron nearly always lays three or four, more often three in Florida, as my notes show, while at the north this species lays five and six and occasionally seven. The Snowy, Louisiana and Little Blue Herons varied from three to five and one nest contained seven eggs but from color and shape two hens had evidently laid in one nest.

We took all sorts of trips on shore away from the boat and secured many of the smaller birds but few of their eggs. We changed our location daily and often several times a day and fished, fiddled and fussed to our hearts' content. One of the boys had a violin and one of the darkies a banjo and we all sang (yelled). It was not a rare thing to go bounding over the lagoons or rivers, while one or two would be skinning birds in the cabin or blowing eggs, another trolling for southern weak-fish or channel bass, someone picking on the banjo and the

whole lot grinding pretty fair music with the aid of the colored crew who sang well.

It was really essential to catch fish to supply the craft and as it was we had to run back for more supplies in four days although we thought we had enough to last a week when we started.

Eat! Did you say? There was never anything like it, and I defy anyone to cite a parallel instance. When we pulled into port we made extra provision also for the care of specimens, as the confined quarters made it rather close work to cook meals and skin birds, etc., in one little cabin and there was not room to house the specimens, especially the skins. Then one of the boys was a conchologist and collected hundreds of shells. So we added a lot of dry goods boxes which we placed on deck. But things were just as cluttered up inside of two days as ever. It was not a fashionable quarter you may be sure, but we kept the *nigs* scrubbing and things in fair shape and as long as the arsenic did not get in the pancake batter it was O. K., no matter if some little alligators and a lot of hermit crabs were crawling about the floor and we were a dirty crowd. We were in perfect health and spirits and enjoyed life and the outing amazingly.

When at last, after eleven days of vagabondizing we returned to partial civilization we had secured over 200 skins and nearly 3,000 eggs. We had noted 86 species of birds and found 32 species nesting. I took very few of the eggs as my share as they were mostly unaccompanied with proper data.

In conclusion I wish to say a word in regard to this form of collecting. It is to be deplored that more attention is not given to careful notes and less attention to the greedy gathering of specimens. Many collectors look to the amassing of a collection rather than to the true-blue worth of the studious and thoughtful ornithologist.

Am sorry there is not space to describe the trip and specimens more elaborately, but it is not compatible, so I have given this form of description to our little trip feeling that many will be interested in a yacht trip for specimens in Florida.

PICUS.

An Imitation that Imitates.

THE REDSTART READILY STARTLED.

[Patent applied for. All rights reserved.]

One of the things which an ornithologist often desires to do and which proves as difficult as anything he may attempt, is to reproduce, with any degree of similarity at all to the original sounds, the songs of our feathered friends. Nothing puzzles ornithological writers more than to coin such wordings and phrasings and arrange such intonations and accentations as shall serve to represent and describe somewhere nearly, the songs of the birds they may be treating.

It is difficult business as all will agree but the writer desires to state that in so far as the song of the American Redstart (*Setophaga ruticilla*) is concerned, he has secured a corner on the market and is prepared to furnish on short notice, Redstart songs of his own manufacture at so much per song. Said manufactured Redstart songs are guaranteed to be as good as the original and in no wise distinguishable from the real thing; in fact I may add that so perfect is my reproduction that I have actually deceived, many times, the Redstarts themselves.

While, as I say, this invention of mine is patented and all rights to it are vested in myself only, the editor of the OÖMLOGIST has finally, after much negotiating, prevailed upon me to lease to him (at an exorbitant price) the right to tell "the boys" about it through his paper.

So listen! Take two of the small roofing tins commonly used by roofers

in attaching felt or paper roofing. Place them with their concave surfaces together and putting them thus in your mouth between your teeth and lips, tin-whistle fashion, blow through the central hole alternately with an inhaling and exhaling breath, beginning with an inhaling whistle and ending with an exhalation,—four of each. Blow gently, not loudly.

This I have found to be a remarkably exact imitation of the Redstart's song, so much so that on a recent occasion, by repeating it at intervals, I led a female Redstart clear through a sizable piece of woodland, she answering all the time; and then returning, I made her follow me all the way back through the woods again. Try it. If you are not convinced and if you do not find it an entirely correct representation of the song, your money will be refunded.

NEIL F. POSSON,

Medina, N. Y.

Two-Storied Nest of Phæbe.

May 6, 1888, I found a nest of Phæbe under the overhanging bank of a creek, which contained three eggs of the Phæbe and two of Cowbird. I took the Cowbirds and left the others.

May 13 while passing by the nest in my boat I noticed the Phæbe fly to the nest. I went to it, put my hand in and it appeared to be empty but I felt something break and on removing the lining I found the three Phæbe's eggs broken. They had been *entirely* covered over.

Query:—Why did she cover her own eggs?

VERDI BURTON,

Penn Yan, N. Y.

THE OÖLOGIST.

A Monthly Publication Devoted to

OÖLOGY, ORNITHOLOGY AND
TAXIDERMY.

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.

TERMS OF SUBSCRIPTION:

Single subscription.....50c per annum
Sample copies.....5c each
The above rates include payment of postage.

Each subscriber is given a card good for a Want, Exchange or For Sale Notice. (This card is redeemable at any time within one year from date thereon.)

Subscriptions can begin with any number. Back numbers of the Oölogist can be furnished at reasonable rates. Send stamp for descriptions and prices.

Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped, and all arrearages must be paid.

ADVERTISING RATES:

5 cents per nonpareil line each insertion.
12 lines in every inch. Seven inches in a column, and two columns to the page.

Nothing inserted for less than 25 cents. No "special rates." 5 cents per line is "net," "rock bottom," "inside," "spot cash" rate from which there is no deviation and no commission to agents. If you wish to use 5 lines or less space it will cost you 25 cents; 100 lines, \$5.00; 1000 lines, \$50.00. "Trade" (other than cash) advertisements will be accepted by special arrangement only and at rates from double to five times cash rates. Due Bills and Cards payable in advertising will be honored only at regular rates in force at the date of issuance of said bill or card.

Remittances should be made by Draft, Express or Postoffice Money Order, Registered Letter or Postal Note. Unused U. S. Postage Stamps of any denomination will be accepted for sums under one dollar. Make Money Orders and Drafts payable and address all subscriptions and communications to
FRANK H. LATTIN,
Albion, Orleans Co., N. Y.

Nesting of the American Dipper.

The Dipper, or as the Mexicans call it, "*Gallinita de la agua*" literally "little chicken of the water" is one of the commonest birds of Northern New Mexico, from 6,000 feet up to timber line, breeding most commonly at 7,000 feet.

Here at Porvenir, at an altitude of 7,400, in the midst of thick pine forests and mountain streams is an ideal place for the Dippers, a pair of which can be found every quarter of a mile. When

I first came out here in February the Dipper could be seen at every open place along the streams, but as soon as the ice had all broken up, by the first of March, the birds began to pair off and commence looking out for suitable nesting sites.

On April 13th I found my first nest, only a few pieces of mud and moss on a ledge of rock, three feet over a regular torrent rushing around the corner of a huge boulder. The old nest was about twenty feet to the left of the new one much higher up. On the 14th the foundation was completed and the walls and roof were entirely finished on the night of the 17th. The 18th the lining was begun and not finished until the 23rd, when nothing was done to the nest until the first egg was laid on the 29th. When at work on the nest the male always kept watch, the female flying about a hundred feet for material. I never saw the male assist in any way whatever. On the morning of May 3rd I collected the set of five eggs and nest, the birds being nowhere in sight. The nest was composed of mud and moss, lined with dry pine needles, grass, and the eggs resting on a bed of dry oak leaves. The nest measures 18 inches long, 9 high and six and a half in width, the roof being over an inch in thickness. In the afternoon of the 3rd while walking further up the canon I found another nest almost inaccessible, being 9 feet over the water on a ledge.

The stream was about 12 feet wide and six deep and a huge rock rose seven feet out of the water right opposite the nest, and about nine feet from it. I felled a pine tree near by and rested one end on the boulder and the other on the ledge, a few inches from the nest, and by careful balancing secured the set of five all right. Both sets were perfectly fresh, and measured as follows. Set I. .97x.68. .97x.69. .98x.70. .96x.68. .96x.68. Set II. 1.00x.74, 1.00x.71, 1.02x.76. 1.00x.75. .98x.70.

WALTON I. MITCHELL,
Porvenir, New Mexico.

THE OÖLOGIST.

VOL. XV. NO. 8-10.

ALBION, N. Y., AUG.-OCT., 1898.

WHOLE No. 147

Bachman's Sparrow.

(*Peuceea aestivalis bachmanii.*)

Several years ago I was asked by a bright looking little negro about eleven years of age, "What little bird is it that can't fly good but runs along on the ground like a rat; and makes its nest in a bunch of sage, laying four little white eggs." Being very much puzzled and at the same time astonished to be told that a bird having wings could not fly but only used them to flutter and tumble along the ground with, I began to question him about this phenomenon of a bird, and brought out the fact that it resembled very closely a Field Sparrow, also that when he chased it for some distance it would fly several yards, then run again but he still thought that it couldn't fly good. Afterwards he told me that he knew where a nest with four eggs was, so I immediately set out with him to find the place.

I was naturally very anxious to secure the set and find out something concerning this peculiar bird as I had never before heard of one acting as he told me this one had done, but am afraid then that I was after the eggs just because they would be a new set to add to my collection. This seems to be the impression with too many of our collectors of the present day.

Soon we came to a field which was covered with sage, a few pines and thickets were scattered throughout it, a very suitable place for this species; here the boy said the nest was situated. We had not gone very far when he stopped and pointed to a tussock of grass and said that the nest was under it on the other side. So I very cautiously went

around and sure enough there was a little nest of wiry grass placed under the tussock. Slowly advancing I managed to see a little bird on the nest which resembled very closely a common Field Sparrow. I got within a few feet of her before she slipped off the nest and ran along through the grass for nearly one hundred feet then she hopped up on a low limb of a tree and uttered a chirp very similar to a Field or Chipping Sparrow. In a few minutes her mate appeared and they kept chirping continually as long as I was there.

When I took up the nest I found that a slight hollow had been scratched out by the birds, into this they had put pieces of coarse grass; then as a lining which was very thick, fine grass tops were used. On the whole it was put together rather substantially and was roofed over or domed, the entrance of which was about two or three inches from the ground, being nearly two and one-half inches in diameter.

Capt. Charles E. Bendire very ably describes its nests and I think that a much better idea can be gotten concerning them by reading what he says than any description that I can offer, so I will quote it in full, as follows: "All the nests of this bird vary totally in structure from those of the other species of the genus *Peuceea*, as far as known to me. They are all distinctly roofed-over or domed, a feature only found in the nest of a closely allied species, *Embernagra rufivirgata*, the Texas Sparrow, which constructs a somewhat similar nest. They are cylindrical in shape, about seven or eight inches long by three inches in height and four and one-half inches wide. The inner cavity it from three to four



CALIFORNIA VULTURE. *Pseudoglyphus colifornianus*.

inches in length, about two inches wide and one and three-quarters inch high. The rear wall of the nest is about one and three-quarters inches thick, the sides about an inch, and the roof a little over half an inch in thickness. These measurements vary somewhat in different specimens. The nests are all constructed out of dry grasses exclusively, and are lined with fine grass tops only. Some are much more artistically and compactly built than others, the roof projects somewhat over the entrance in all cases."

So far I have neglected to say much about the contents of this nest. It contained four eggs, of a dead white color. I knew the eggs must be of a kind of Sparrow but what species I could not positively tell. Took nest and eggs and started back home but as luck would have it, when I was going through a strip of woods a twig turned the nest over and out rolled two of my beauties, one smashed up while the other fell in some grass and was saved. I reached home with the three others which measured as follows: 77 by 60, 79 by 59 and 78 by 57. Searched through Davie's "Nests and Eggs of North America Birds" and came to the conclusion that I had found a nest of Bachman's Sparrow which he said came as far north as North Carolina but to be certain I sent one of the eggs to the editor of OÖLOGIST, receiving a reply that it was certainly this species that I had found.

I am now going to tell as best I can, what I have learned of this bird since then although I have never had an opportunity of watching a pair very closely as I have not found a nest near home. Whether they remain with us the whole year I am at present unable to say. During the summer it seems to be a common breeder in certain localities but they are very hard birds to locate and their nests being so difficult to find have not had very good luck in

collecting their eggs. Only five nests have come under my observation though I know of others having been found but was not able to secure the eggs.

The only nest that I found myself was accidentally. A friend and myself were walking through a sage field which was covered with old field pines and when nearing the edge about ten yards from a cultivated field a Bachman's Sparrow started from under my feet, fluttering and tumbling along the ground, as though its wing was broken, uttering a slight chirping sound, seeming all the time to be in great distress. My first inclination was to give chase and catch the wounded bird but I had been fooled before, so we began looking for the nest. We searched for over five minutes in vain and were about disgusted with her when my friend saw a small hole in one side of a tussock of sage, and he said to me that he thought he had found her nest.

We carefully pushed away the grass and to our delight found that it contained four eggs. I knew that they were badly incubated but being such a rare find we took them. The next day when an attempt was made to blow our eggs, our delight was turned to disgust when the drill smashed through the shell of the first, as though it were tissue paper. Though we felt pretty bad about not being able to save the eggs and also to have deprived the mother of the four little chicks which she would have inevitably had the next day. It was a good find anyhow for the nest was roofed over more than any I have ever seen; the eggs not being visible until we had partly removed the roof. A large amount of coarse grass was used in the construction of the nest, being lined with fine wiry grass. The entrance was not over half an inch from the ground. The date of the finding of this nest was May 12, 1894.

Later in the summer along about the

tenth of June, a little boy said to me that he knew of a nest of a little ground sparrow which contained three white eggs, so I told him to wait until the four were deposited then I would go with him to the nest. On the fifteenth I looked up the boy and he started out with me; bringing along a dog which had helped find the nest.

On entering a sage field, the dog, which had gone ahead, flushed the bird and seemed to enjoy chasing her around; for the foolish bird (foolish I may say in one sense but in another exceedingly wise) kept flying around sometimes almost touching the ground until pretty well tired out when she alighted in the top of a small pine to see what would become of her eggs. All the time chirping very loudly. There were four slightly incubated eggs in the nest and the sun shining as it was upon them gave to them a beautiful pinkish appearance, bringing vividly to my mind the scenes surrounding the taking of my first set of the Flicker which showed the yolk through the translucent shell, beautifying them so much.

It seemed very strange that the bird should have selected such an open place, in which to build her nest when all around was thicker sage. With the exception of the tussock within which the nest was placed, there was not a bush or much grass nearer than six or eight feet. It might have been that she could find it easier more probable though because an enemy could be seen very much sooner.

The materials used in building the nest were wholly of fine grasses. It was very slightly domed and was a rather frail structure when placed beside my other nests of this species. A hollow of about an inch deep was scratched out by the birds for the nest.

The next nest I examined was placed in a graveyard, only a few feet from a walk. When we came in, the female,

which was on, allowed us to come within a few feet before leaving and this time only ran a few yards before taking flight. Four fresh eggs were what the nest contained.

A few weeks later another nest was found within ten feet of a sidewalk, over which several hundred people passed daily. It was on the campus of Guilford College, N. C., between the athletic fields and one of the dormitories; hence the birds must have been disturbed very much by the boys running across the field, sometimes almost stepping on it. The Young Men's Christian Association Hall was within ten yards also, which was undergoing repairs at this time, so I think that the birds must have had quite a noisy place in which to live; yet, they built their nest and deposited the eggs which would have hatched in a few days if one of the boys had not disturbed it. Both of the last two described nests were found in May.

The first [time I ever saw a young bird was one morning when I was going through a pea patch, a sage field bordering this, in which a pair had succeeded in raising a brood. My dog had gone ahead and suddenly a little bird that could hardly fly, flew up (uttering a sound something like *chee chee*), which passed me; the mother was right after it and as soon as the little fellow came to the ground, she quick as a flash darted down to the same place, soon with wings spread and dangling legs she arose flying a few feet then ran along as if wounded or in great distress, only to rise again keeping this up for several yards. I at once began chasing her, thinking all the time I was after the young bird and had gone quite a distance before finding out my mistake.

Upon discovering that I had been deceived, I hurriedly went back to where the bird had stopped and found him snugly hid among the peas. He allowed me to almost touch him before tak-

ing flight but as he could not go very far, I easily made him a prisoner. I hoped very much that I could raise him but he died in two or three days, although I fed him butterflies, worms and common house flies. He was exceedingly noisy, mostly I think on account of the lack of his mother's tender care; for every two or three minutes during the day he would give forth an utterance which sounded something like *chee, chee, chee*, (the same as when I flushed him though faster and somewhat louder) continuing until he had said it eight or nine times. A pair of English Sparrows which had had a nest of young near by came to the cage and brought food to the young bird several times. I secured two others later on but they died also.

Most writers give four as the number of eggs deposited by this species, while this is the number generally laid by them, five are sometimes found. I was for a time of the opinion that sets of three would probably be taken late in the season but from my observations this year I find that sets of three are as common at the first of the season as sets of four.

The earliest nest I have ever taken was in the first week of May, while a nest with three eggs was found on July 16th incubation far advanced; and on August 3d, took two young from a nest in a clover field, on hillside. From this it stands to reason that two or three broods are reared in one season.

I know of only one article that has been published in your excellent journal on this species, and that was in THE YOUNG OÖLOGIST for October, 1884. Let us hear more on this interesting and peculiar bird.

H. GOULD WELBORN,
Lexington, N. C.

THE OÖLOGIST.

A Monthly Publication Devoted to

OÖLOGY, ORNITHOLOGY AND
TAXIDERMY.

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.

TERMS OF SUBSCRIPTION:

Single subscription.....50c per annum
Sample copies.....5c each
The above rates include payment of postage.

Each subscriber is given a card good for a Want, Exchange or For Sale Notice. (This card is redeemable at any time within one year from date thereon.)

Subscriptions can begin with any number. Back numbers of the Oölogist can be furnished at reasonable rates. Send stamp for descriptions and prices.

Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped, and all arrearages must be paid.

ADVERTISING RATES:

5 cents per nonpareil line each insertion.
12 lines in every inch. Seven inches in a column, and two columns to the page.

Nothing inserted for less than 25 cents. No "special rates," 5 cents per line is "net," "rock bottom," "inside," "spot cash" rate from which there is no deviation and no commission to agents. If you wish to use 5 lines or less space it will cost you 25 cents; 100 lines, \$5.00; 1000 lines, \$50.00. "Trade" (other than cash) advertisements will be accepted by special arrangement only and at rates from double to five times cash rates. Due Bills and Cards payable in advertising will be honored only at regular rates in force at the date of issuance of said bill or card.

Remittances should be made by Draft, Express or Postoffice Money Order, Registered Letter or Postal Note. Unused U. S. Postage Stamps of any denomination will be accepted for sums under one dollar. Make Money Orders and Drafts payable and address all subscriptions and communications to
FRANK H. LATTIN,
Albion, Orleans Co., N. Y.

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

The Horned Lark in Western New York.

(*Otocoris alpestris*.)

The article in the May Oölogist by Mr. B. S. Bowdish regarding the status of the Horned Lark (*O. alpestris*) and the Prairie Horned Lark (*O. a. praticola*) in Western New York, was read with much interest by myself, and ever since then I have been trying to find time to send the Oölogist a note

on the subject from my own wayward pen. This seems to be the first opportunity I have found for doing so.

Mr. Bowdish states that his researches of eight years have failed to find for him any occurrences of the true Horned Lark (*alpestris*), and his article seems to tend towards eliminating the bird from our Western New York avifauna. Personally, I have not had the opportunity to determine what proportion of our Larks are *alpestris*, inasmuch as I have been away from home almost continually during the past five years: but that the true Horned Lark (*Otocoris alpestris*) does occur in Western New York is conclusively evidenced by the facts which I here append.

I have in my possession an interesting letter from my friend, the eminent ornithologist, Mr. J. L. Davison of Lockport, N. Y., written under date of Jan. 20, 1891, in which he informs us that on the 13th of April, 1889, he sent two specimens of *Otocoris* (taken near Lockport) to the American Museum of Natural History at New York and two specimens to Dr. A. K. Fisher of Washington. Of the two sent to the New York Museum and examined by Dr. Jonathan Dwight, Jr., one proved to be *alpestris* and the other *praticola*. In *The Auk* for April, 1890, is an exhaustive article on "The Horned Larks of North America" by Dr. Dwight, and in this article mention is made of the Lockport specimen of *alpestris*. The Lockport specimen having been taken on the 13th of April it would appear that *alpestris* overlaps *praticola* and remains with us after *praticola* has commenced breeding.

Further, there are in a private collection connected with the collection of the Buffalo Society of Natural Sciences, several specimens which I consider and which, indeed, are considered by the owner and other ornithologists connected with the Society as referable to the true Horned Lark, *O. alpestris*

The opinion I have held for the past eight years concerning the status of the Horned Larks in the lake counties of Western New York remains unchanged, and may be briefly stated as follows:

474. *Otocoris alpestris* (Linn.) Horned Lark. Winter resident, not common, arriving from the North in December or earlier and lingering until into April.

474b. *Otocoris alpestris praticola*. (Hensh.) Prairie Horned Lark. Common summer resident. Breeds. Arrives about February 1st or sometimes a few days earlier and departs in November, thus being nearly continual. Sometimes individuals or small flocks may spend the entire winter with us.

Should the facts and theories herein related prove of interest to any of the OÖLOGIST's readers it will be a source of satisfaction to

NEIL F. POSSON,
Medina, N. Y.

Cuckoo and Other Notes.

The American Cuckoos exhibit many peculiarities, but I have lately noticed two circumstances that are new to me though I have collected their eggs for 11 years, examining hundreds of nests. We have both the Yellow-billed and Black-billed species in Western New York, the latter much more common. On the 28th of May this year I flushed a Black-billed Cuckoo from her nest in the usual situation, a thick bush in a second growth tract. The nest then contained one egg, evidently fresh as indicated by the bright color and cleanliness of the shell. On returning to the nest one week later, June 4th, I found four eggs, I thought this strange as two eggs is the usual complement of the Black-bill with us and over three I had never found.

Imagine my surprise on reaching home to find three eggs on the point of

hatching and one egg almost fresh. Now the question arises, did she bring those three hatched eggs from another nest of hers, or did she steal them from one or more of her kind? In either case, how did she get the eggs to the nest, for she certainly never brought them to the hatching point in seven days allowing her a day to lay each egg.

Now for my second discovery, on the 11th of June I found a typical nest of the Black-billed Cuckoo; they build nearer the ground than the Yellow-bill, containing two eggs of Black-bill and one of Yellow-bill. The eggs exhibit all the characteristics of typical eggs of the two species as to color and size. Now did the Yellow-bill lay in the others nest or did Mrs. Black-bill take to theiving. The eggs were not incubated and probably deserted as they were sinking somewhat into the nest. Adding these facts to the Yellow-bills habit of laying her eggs at intervals of about three days, sitting continuously and often having fresh eggs and young birds in the same nest, and the habit of sitting on the nest for days before any eggs are laid, which peculiarity seems to belong to both birds, with the parasitic habits of the European bird and I think they may safely be called one of the odd birds.

I note Mr. Low's article in a recent OÖLOGIST, confirming my suspicions in regard to the Short-eared Owl, thus adding another breeder to the list.

In regard to Mr. Posson's statements about the Horned Lark, I would say that I shot one in company with Longspurs a short time before moving into Orleans County, but have never seen one since to my knowledge here. All taken by me in Orleans County have been of the *Prairie* variety.

I have in my possession an incomplete set of Mourning Warbler taken June 13th in same locality as set of five taken last year. They are of an en-

tirely distinct type of coloration, blotches being larger and entirely in a wreath, closely resembling some sets of Black-and-White Warbler but slightly smaller. They are a trifle larger than the five eggs taken last year. Unfortunately there were only two eggs and the collector did not leave them for a complete set.

ERNEST H. SHORT,
Orleans County, N. Y.

Purple Grackle.

The first Grackle colony I ever visited was about twenty miles from New York City in Bergen Co., New Jersey. It was in some spruce and pine trees surrounding a farm house. On May 16, 1893, I made my first visit. The place was full of nests, but only one in each tree, and that was placed in the top. Most of the nests contained young, some had four, others five and there were two with six. I saw four sets of eggs, two of four, one of five and one of six.

I visited it again April 28, 1894. This year I was a little early but found two sets of four and two of five.

The way they build is this: First they get a lot of rags, straw, paper, etc. (In one nest there was a rag about three inches wide and three feet long.) This is collected for the foundation and is placed on one of the branches and against the central main branch near the top, often the very top. This is in the spruce trees, but in the pines they build out on the branches, or they often use last year's nest for the foundation. After they get a firm foundation they cover it with horse-manure and mud and on this they build an almost perfectly round nest of grass and mud, lining it with plenty of fine grass, also a few horse-hairs.

The nests measure inside $5\frac{1}{2}$ inches in diameter and $4\frac{1}{2}$ inches in depth, so the

eggs could hardly roll out even in a high wind. The eggs four to six in number vary in size, color and markings. In some the ground color is light greenish-white and others it is rusty-brown. [Sometimes there are a great many markings which almost obscure the ground color and often there are very few markings.

The eggs are usually pale blue, blotched, spotted and lined with brown and umber in a circle around the large end.

The average size is about 1.18x.84.

J. C. M. E.

The Slate-colored Junco in Western New York in Summer.

EDITOR OÖLOGIST;

On the afternoon of August 25th just past, flitting about through some underbrush near the ponderous rocks at the famous Rock City, near Olean, N. Y., I observed some three or four Slate-colored Juncos (*Junco hyemalis*), both males and females being in the group. I was first attracted to them by hearing their familiar twitter, and after expending considerable time, patience and silence, I was rewarded by having two individuals come out from the brush into full view, alighting only a few feet from me.

I relate this incident, not because it is anything new, for the Junco is reported as breeding in Cattaraugus county, but because it was so new to me to see the bird in midsummer, and then besides, I thought the note might tend to corroborate the fact that *Junco hyemalis* is a summer resident in some parts of Southern New York, if indeed any corroboration is necessary. I am also reminded that nine years ago, back in 1889, the last week in July, in the days of high weels, while taking a bicycle tour through southwestern New York a Slate-colored Junco flitted across the road in front of my wheel

as I was spinning along in the vicinity of Beaver Lake, Cattaraugus county.

Dismounting, I chased the little fellow over through a grove on the right of the road until I made my identification complete. At that time, nine years ago, I was greatly surprised to find the Junco here in midsummer—it was a new discovery for me, but I presume to say that its occurrence as a summer resident in Cattaraugus county is not now considered unusual.

NEIL F. POSSON,
Medina, N. Y.

We are requested by Mr. Edward S. Schmid, 712 Twelfth Street, N. W., Washington, D. C., to announce that he will give absolutely free to all readers of the OÖLOGIST who wish it a copy of his large illustrated catalogue of his Birds, Poultry, Dogs and Taxidermy. This offer only holds good until the 15th of December. Mr. Schmid's catalogue is conceded to be the finest one of its kind ever issued. It has 106 pages, over 200 illustrations, and is handsomely bound in blue-tinted cover. It is valuable reference book and is fully worth twenty-five cents to any one interested. You can get it free if you will write him as above. We would like to see every reader of the OÖLOGIST have a copy of this book.

Many Subscriptions to

THE OÖLOGIST

have expired, or will expire with this issue. In the future the Publisher requires CASH IN ADVANCE. Hence, if you are one of the delinquent subscribers, your subscription should be forwarded by return mail, if you wish the OÖLOGIST continued to your address.

FRANKLIN HOUSE Cor. Bates and Larned Streets, DETROIT, MICH.
Rates, \$1.50 to \$2.00 per Day.

Only one block from Woodward and Jefferson Aves. Elevator Service, Steam Heat, Electric Lights, Tile Floors, Etc.
H. H. JAMES & SON, Prop'rs.

THE OÖLOGIST.

VOL. XV. NO. 11.

ALBION, N. Y., NOV., 1898.

WHOLE NO. 148

A Day in a Swamp.

Not twenty miles from the State House at Boston, is a long belt of rich swamp land. A narrow river winds its crooked bed throughout the entire length and combined with the numerous tributary streams, probably forms the basis of the swamp. The growth is varied. Along the banks clusters of dark green pickerel weeds flourish with perhaps a bright cow lily blooming near. Tall grass and bull rushes fringe the edge of the river, the rushes growing in well defined tracts. The short quill grass is found in another place and serrated triangular grass in others. These growths are strangely pronounced, although the general conditions appear to be similar. For example, at one part of the marsh I may find the triangular grass with the purple swamp Geum blooming profusely among it. In another an entirely different form takes the place of both grass and geum. This is characteristic of the entire swamp.

Dividing the marsh into two portions is an active railway, the river taking its course on the left. Bordering the dry land are woods of oak, maple and cedar, alder and willow growths, fields and cow pastures. A few island like groves of cedar are present on the right side of the place. During the time intervening from August till April the marshes are quite frequently visited by gunners after rail, snipe, muskrats, etc., but happily the breeding period of the birds finds them seldom intruded upon, unless by collectors after specimens in various branches of natural science.

On the 11th of June 1898, I visited the above locality in company with a very

desirable friend, after a few eggs of the Long-billed Marsh Wren, and ornithological recreation in general. We procured a small gunning skiff and started off. The day was cloudy and at times decidedly threatening but no drops of rain disturbed the surface of the stream throughout the day. This, however, mattered little to us— we were wet as possible when our landing was reached toward dusk.

The air was full of the delightful sounds of nature and our spirits were at their best. What new unexpected glimpses of life might not gladden our eyes before the day was past! It is perhaps these fine surprises which constitute much of the charm of a trip like ours. Birds were all about us. Red-wings rose from the dark green grass, Bitterns boomed at regular intervals throughout the day. Swamp Sparrows trilled gaily from the dry grass patches and the twitterings of countless Tree Swallows circling about tended to produce a beautiful medley. Even the air was more than ordinarily fresh and the shrill pipings of the little *Hylodes* were the loudest of all.

We found the vivacious Marsh Wrens very abundant along the river side and succeeded in finding plenty of nests, only one of which held eggs. The Wrens were chuckling and chattering even while we secured this and were at it when we left.

At every bend in the river we landed and splashed about through the dense grass, and at one point while thus engaged I ran right upon a Virginia Rail which was carefully guarding six eggs. The bird left and splashed out of sight as I bent down toward her and remained so until I had left, once making a loud creaking sound. Three eggs

were sterile, the others badly incubated. The nest was a small irregular platform of broad grass blades, placed close to the water in a large coarse bunch of grass. The river was a few rods distant.

Just above here the river makes a wide curve and passes for a half mile along the railroad bank. As we rounded the curve a Least Bittern rose silently from a patch of rushes and a female followed. Investigation showed a nest about ready for eggs, constructed of fresh blades of the rushes woven together. The nest was subsequently deserted as was proved a week later. I wished to secure a few pitcher plants which bloomed on the opposite side so we landed and were soon waist deep in the delightful warm mud and water of the right swamp. Here tufts of swamp azalia in bloom were making the air still sweeter. Bees were humming in abundance about the crimson petals of the pitcher blossoms. I was crossing a ditch when a Sora took flight from the sparse grass not ten feet away. Nestling down in a scant bunch of pale green grass was a well shaped nest literally full of eggs. There were fourteen, the eggs being piled one upon the other. Their condition varied from fresh to quite badly incubated, and mixed in at the very bottom were some of the most recent laid eggs with well incubated ones beside them. After the first splashing as the bird left I saw her no more.

I was returning to the boat with my arms full of plants. My friend was just behind. In front a small circle of six cedar trees not three feet tall grew. Just as I was passing this a great splash was heard and a mallard duck (*Anas boschas*) darted off like a rocket. Now in this vicinity the mallard is rare even in imagination, so I lost no time in examining those cedars. The sight was well worth any amount of trouble in getting there. Nine eggs were grouped

in a nest sunk between the stems of the cedars. The nest was a well shaped mass of damp and decaying weeds, marsh grass and a very little green cedar. A few breast feathers flecked the rim. The eggs were very badly incubated, almost on the verge of hatching and were preserved only by using repeated injections of 20 per cent. solution of caustic potash. The tough membranes prevented serious injury to the shell.

The eggs were discolored to dark dirty green which was well worked into the shell and the nest smelt rankly. The bowl of the nest was four inches above water and an equal number of inches in depth. The outside diameter measured $20\frac{1}{2}$ inches and the inside 10. Before taking the set we retired for at least half an hour. By that time the eggs had cooled and the bird was still away. When visited a week later the empty nest was as we left it. Owing to its loose composition and disagreeable odor I could not collect it. The average egg of this set measures 2.26×1.70 inches, and when cleaned is of a clear brownish color. I have but twice before recorded a mallard in my district, the last time being in March 1898, when a pair male and female, were seen in a marsh four miles from this one.

FRANK J. BIRTWELL,
Dorchester, Mass.

The Effect of Storms on Birds.

I will give some incidents that have come under my notice in the last few years, along the line of which I am trying to describe. In the very cold winters of '93 and '94 many birds perished of hunger and cold. It was no more than usual to find dead birds lying around on the ground. Among those who suffered most were the Bluebird and the Mourning Dove.

This change was noticed by all, not

only by ornithologists but by all; every man had something to say about the scarcity of Bluebirds in particular. It was mentioned in newspapers as well as in scientific ones.

The absence of the Doves was not so marked as that of the Bluebirds, on account of their not being so numerous when the cold began, but the student of nature was not long to discover that they were almost entirely wanting in some sections where they once were numerous. Their gentle cooing was not heard by the roadside as it had been in former years. The cold had entirely swept them from the places where they were once plentiful, not numerous, but could be heard by the roadside and on the edges of the fields. They have become frequent in some places since the time I am talking of.

Another of our birds that suffered greatly was the Bobwhite. Covies of those innocent little birds would all huddle together to get warm, and sometimes be found all frozen to death in a bunch; how cold they must have gotten to huddle up in a bunch and froze to death. It looks as if they had taken to their wings for a spell they might have gotten warm, but the weather was so cold from day to day, and the ground frozen so hard, that they could get but very little to eat, so it would seem as if they died of hunger as much as of cold.

One day while walking along a road through a piece of woods, I saw a Carolina Wren in a slight hollow in a pine stump standing by the side of the road; on investigation it proved to be dead, and appeared to have been there for sometime. I left it in its silent and elevated grave to sleep the sleep of *natures rest*.

One day after a thunder storm I was walking across a field in which were small pine bushes growing here and there, as it happened, I stumbled on an overturned nest a Chipping Sparrow with its contents, four eggs, laying on

the ground below unbroken, and buried in the mud about half. The parent birds were nowhere to be seen.

In the latter part of April 1898 there came a rain storm with some snow, and the wind blew hard and steady all the while. The nests of birds were blown out and the eggs destroyed. Walking through the woods you might see overturned nests of various kinds, and once in a while a young bird was seen, wet and cold if not dead. One nest particularly noticed by me was one of the Pine Warbler, placed on a pine limb at the height of twenty-five feet from the ground. I found it lying on the ground, with egg shells in and around it. I had calculating to get a set of eggs from it as soon as I could catch the bird on the nest—to know for certain it was ready to take—and not have to climb up and run the risk of causing the birds to leave the nest before a full complement was to be obtained.

I found nests of Pine Warblers, Chipping Sparrows and the White-breasted Nuthatch destroyed.

One touching scene came to my eyes, it was the dead body of a young Carolina Wren, wet and cold he yielded to the grim hand of death. How many more followed? Surely many of the young of all the earlier species perished in the rain and snow; draggled and wet and cold, I saw some that looked as if they would die in a few more hours

R. P. SMITHWICK.

Merry Hill, N. C.



THE OÖLOGIST.

A Monthly Publication Devoted to

OÖLOGY, ORNITHOLOGY AND
TAXIDERMY.

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.

TERMS OF SUBSCRIPTION:

Single subscription.....50c per annum
Sample copies.....5c each
The above rates include payment of postage.

Each subscriber is given a card good for a Want, Exchange or For Sale Notice. (This card is redeemable at any time within one year from date thereon.)

Subscriptions can begin with any number. Back numbers of the Oölogist can be furnished at reasonable rates. Send stamp for descriptions and prices.

Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped, and all arrearages must be paid.

ADVERTISING RATES:

5 cents per nonparell line each insertion.
12 lines in every inch. Seven inches in a column, and two columns to the page.

Nothing inserted for less than 25 cents. No "special rates," 5 cents per line is "net," "rock bottom," "inside," "spot cash" rate from which there is no deviation and no commission to agents. If you wish to use 5 lines or less space it will cost you 25 cents; 100 lines, \$5.00; 1000 lines, \$50.00. "Trade" (other than cash) advertisements will be accepted by special arrangement only and at rates from double to five times cash rates. Due Bills and Cards payable in advertising will be honored only at regular rates in force at the date of issuance of said bill or card.

Remittances should be made by Draft, Express or Postoffice Money Order, Registered Letter or Postal Note. Unused U. S. Postage Stamps of any denomination will be accepted for sums under one dollar. Make Money Orders and Drafts payable and address all subscriptions and communications to
FRANK H. LATTIN,
Albion, Orleans Co., N. Y.

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

Cuckoo Notes from Yates Co. N. Y.

It seems to me a singular coincident that Mr. Short should be having some strange experience with Cuckoos at the same time that I was. I refer to the incubation of their eggs. My method of ascertaining the state of incubation in eggs that I leave for complete sets is to hold the egg between my eye and the sun, for if the weather is dry it has

been my experience that eggs are not stained to any great extent so incubation might be three or four days along and the eggs look fresh especially in a dark tangle of foliage. On May 30, 1898, I found a nest—in a thorn bush—of the Black billed Cuckoo containing three eggs and as they usually lay four and knowing that the first egg laid was liable to hatch before the fourth egg would be laid I was very careful to examine each egg, the result being that two eggs proved to be fresh, while one egg gave evidence of containing a *tiny* embryo, so I decided to leave them. I visited the nest every day and the fourth egg was laid on June 1st, yet I left them for a possible set of five, but as there were no more eggs laid on June 3d I took the four eggs. Upon blowing them I found that incubation in three eggs ranged from a little bloody to small embryos, while the other egg contained a *fully* developed embryo that probably would have hatched in a few hours, so I could not save the egg. Now, as there was an interval of two days between the laying of the third and fourth eggs, and assuming that there was the same interval between each egg, it would indicate that the first egg was laid on May 26th, so my conclusions are that the Black-billed Cuckoos incubate their eggs in nine days. Regarding above set I noted the following in my data book. "The eggs were fresh on Decoration Day, incubation of Cuckoos eggs must be remarkably short."

Another Cuckoo incident came to my notice on June 5th of this year, when I found a Black-bills nest with the mother bird sitting upon three young ones and a slightly incubated egg and a typical egg of the Yellow-bill, also on same day I found a deserted Robins nest containing an unmistakable egg of the Yellow-billed Cuckoo.

In January '93 or '94 I shot a specimen of the Horned Lark from a flock of

about 50 that were feeding in a bare wheat field. The skin is in my collection but as my notes are rather scant regarding the larks I shall try to find out the status of *Otocoris alpestris* in my locality the coming winter.

C. F. STONE,
Branchport, N. Y.

The Humming Bird.

Most of the hummers sip honey from the flowers. Poised on wings that move so rapidly that they appear like a semi-circle of film around their swaying bodies, the birds insert their long beaks into the tubes of flowers and extract nectar with relish. It is true that some of the warblers and kinglets will sometimes poise in this way before a leaf and peck an insect from its surface, but this occurs rarely, and it is not a regular habit of these birds. The susurrus of the hummer's wings as he balances in the air or darts from flower to flower has given the birdling his name. One of the most wonderful features of hummer flight is the bird's ability to move backward while on the wing—probably the only instance in which a bird is able to accomplish this feat. Mr. Ridgway says that this movement is greatly assisted by a forward flirt of the bird's expanded tail.

There are, however, a few exceptions to this rapid manner of flight, even in the hummer family. One of the most striking is that of the giant humming bird, which flaps its wings in a slow, leisurely way as it hovers over a flower much like the desultory vibrations of a large butterfly's wings. During flight its tail is constantly expanded and closed like a fan, and its body is kept in an almost vertical position, and seems to be suspended from a central point.

It is not to be wondered at that the humming birds are sought for decorative purposes. Their rich colors and bright ornaments make them a tempting prize to the lovers of gaudy fashions. Vast numbers are slaughtered in

Mexico and South America, being killed with fine shot or caught with nets and line. On account of this ruthless destruction some species are said to be on the verge of extinction, and of course it will be the most beautiful kinds that will be exterminated first. At a sale held in London on March 21, 1888, more than 12,000 hummer skins were disposed of and in one week 100,000 hummers and other American birds were sold in London at auction. A brilliant hummer, flitting airily amid the foliage and flowers, is "a thing of beauty and a joy forever." On a woman's bonnet such a decoration is little short of garish. All the colors of the spectrum, with many intermingled tints, are combined in their plumage, so that some of them seem to be truly kaleidoscopic. One of the most striking ornaments of many of the hummers is the "gorget," as it is called—that is, a gleaming throat patch of imbricated feathers. In the common ruby throat it is ruby, as the name implies; in several species, like Costa's humming bird, the tips of the feathers are purple and the basal portions snow white. In others they gleam in the most metallic red or violet. Sometimes the feathers of these gorgets are elongated into a beautiful ruff on each side of the neck, or into a bearded tuft reaching down from the chin.

Still more wonderful are the crests worn by a number of the species. There for instance, is Guerin's helmet crest, whose head is surmounted by a tall, slender top-knot that looks like a miniature pyramid, while a pointed beard of almost the same length depends from its chin. Princess Helena's coquette has a double crest, both parts running to a sharp point, making them look like two tiny horns, while its gorget is decorated at its base with a semi-circle of elongated feathers that stream out like pennants. The spangled coquette has a crest of the finest spray spread out in the form of a round fan, dappled with metallic black spots.

No less varied and wonderful are the tails of the hummers. Robert Ridgway says: "The shape and development of

the tail feathers of the humming birds vary to a degree that has no parallel among other birds, many of the forms assumed being also entirely unique. There are deeply forked and scissor-shaped tails, wedge-shaped tails, double rounded and double emarginated tails, tails and streamers of curious forms, tails with raquette-shaped feathers and tails whose quaint and elaborate structure defies description by any specific term. Several species have long feathers that sweep around in graceful festoons, either running parallel or else crossing each other. These pennants are often free of vanes, save at the end, where there is a broad, fanlike expansion. In one form these elongated appendages make a graceful double curve and cross each other twice.

CABINETS. Send 10 cts for photo of our speciality—SelfLocking. T perches—Oak samples by mail 8c, 10c and 15c; also stands, shields, glass cases, game panels, &c. Cabinets to order. HANAFORD CABINET CO. 139 and 141 W. Fulton St., Grand Rapids, Mich. 58MOTf

BENJAMIN HOAG, BOOKS AND PERIODICALS.

Here's an item to get acquainted on.
"DAVIE'S NESTS AND EGGS N. A. BIRDS."
Fifth Ed., extra cloth, \$1.70, prepaid.
Favor me with list of your wants.
STEPHENTOWN, N. Y.

Marine Shells and Curios.

I am now in a position to furnish in quantity all of the best species collected on the Gulf Coast and will be pleased to furnish prices on application. Best of reference given and satisfaction guaranteed. Collections sent on approval to parties giving satisfactory reference. Any not approved can be returned at my expense. Address all orders to A. J. BARNES, Dunedin, Fla.

AUCTION SALE.

Mounted Birds, Shells, Minerals, Opals, Curios, Gems &c

The following articles will be sold at auction, December 5, 1898. All bids must be received by mail by 4 p. m. on that day.

The highest bidder in each case will be notified of his purchase and can remit or have goods sent C. O. D.

I have placed a reserve price on each lot and no lower bid will be considered. Parties not wishing the whole of any lot can bid on any part of it. Address all bids to

ROBERT BURNHAM,

143 Gallup St., PROVIDENCE, R. I.

1	1 specimen Arcadiolite, N.S., 2x3, fine	\$ 10	35	40 lbs. Calcareous Tufa, N. Y.	2 40
2	1 " " " " 4x4 " "	25	36	40 lbs. Canrinite, Me.	4 00
3	10 lbs. Agatized Wood, Ariz.	2 00	37	1 specimen Catlinite, Minn., 3x5	30
4	100 lbs. Actinolite, Mass., good	6 00	38	1 " Cerargyrite, Nev., 1 oz.	35
5	100 lbs. Alabaster, Italy, fine	10 00	39	1 " Chabazite, N. S.	10
7	100 lbs. Albite, N. H., fine	5 00	40	1 Chalcedony on Coral, Fla.	20
8	1 specimen Allanite, N. H., 2x3, fine	10	41	10 lbs. Chalcocopyrite, Col.	75
9	1 " " Analcite, N. H., 2x3, fine	10	42	1 specimen Chlorite, R. I.	10
10	1 " " Amber Baltic Sea	10	43	1 " Chrysocolia, Col.	10
11	1 " " Ankerite, Penn., 2x3	10	44	10 lbs. Cinnabar, Col., fine	4 00
12	1 " " Andalusite, Mass., good	05	45	1 specimen Columbite, Conn.	10
13	1 " " Antimony, Japan, 2x2, fine	15	46	400 lbs. Coquina	16 00
14	1 " " " " 3x4, fine	25	47	1 specimen Copalite, Africa.	10
15	1 " " Asbestos, Mass.	10	48	1 " Cyanite, Conn.	05
16	1 " " " " 3x4	25	49	10 lbs. Cyanite, Conn.	1 00
17	1 " " Azurite, Col.	05	50	1 specimen Diamond, Africa	2 00
18	1 " " " " 2x3, fine	15	51	15 lbs. Diaspore, Ark.	3 75
19	1 " " Barite, Eng., 2x3, good	10	52	15 lbs. Elaeolite, Mass.	90
20	1 " " " " 3x4, fine	35	53	40 lbs. Emery, Mass.	3 60
21	1 " " " " 3x4, fine	35	54	40 lbs. Epidote, Mass.	3 60
22	100 lbs. Beryl, N. H., good	6 00	55	1 specimen Flint, Eng.	10
23	1 specimen Biotite (15 lbs.), Mass., Matrix	1 00	56	1 " Franklinitite, N. J.	10
24	1 specimen Biotite, Mass., 2x3	05	57	100 lbs. Galenite, Col.	10 00
25	1 " " " " 3x4	10	58	10 lbs. Galenite, Mass., rare	1 00
26	1 " " Black Spinel, N.Y., mat.	25	59	200 lbs. Granite in Matrix, Mass.	18 00
27	1 " " " " " "	10	60	400 lbs. Quartz, R. I.	20 00
28	1 " " Bowenite, R. I.	10	61	200 lbs. " " " "	16 00
29	1 " " Bornite, Col.	10	62	100 lbs. Chalcedony Geodes, Ill.	10 00
30	1 " " Brookite, Ark.	10	63	1 specimen Graphite, Europe	15
31	40 lbs. Brown Spar, R. I.	2 40	64	1 " " Bloodstone, Europe	25
32	1 specimen Brucite, Pa.	10	65	1 " " Heulandite, N. S.	10
33	40 lbs. Buhrstone, France	3 00	66	100 lbs. Hornblende, Mass.	8 00
34	1 specimen Calamine, N. Y.	15	67	200 lbs. Hematite, R. I.	16 00
			68	40 lbs. Pyrite, Col.	3 00
			69	1 specimen Lava, Ves.	10
			70	1 " " Leopoldite, N. C.	25
			71	1 " " Malachite, Chili.	15
			72	10 lbs. Margarite, Mass.	1 50
			73	1 specimen Masonite, R. I.	10
			74	1 " " Pearl spar, N. Y.	10
			75	10 lbs. Petrified Wood, Ariz.	80
			76	10 lbs. Phyllite, R. I.	70
			77	1 specimen Pyroisite, Col.	15
			78	10 Quartz Crystals, N. Y. and Ark.	20
			79	10 " " " "	30
			80	10 " " " "	50
			81	10 " " " "	1 00

82	100 lbs. Rhomb Spar, R. I.	5 00	157	1 " Unio Trigonus "	1 00
83	10 lbs. Scapolite, Mass.	60	These shells are polished and shine like a mirror.		
84	1 specimen Selenite Crystal, Ark.	10	153	1 dozen Scalloped shells, pierced and polished	25
85	10 lbs. Seyberite, Me.	1 00	159	1 Hermit Crab and Shell	10
86	4 specimens Silver Ore.	1 00	160	1 Horse Shoe Crab, small	10
87	1 spec. Smoky Quartz Crystal, Col.	05	161	" " 8 inch	20
88	" " " Col	15	162	1 Sea Urchin (sand dollar)	05
89	1 " " Sodallite, Me.	10	163	1 dozen Skates eggs	10
90	" " " Specular Iron, 2x2 Ala	10	164	1/2 dozen Sturgeon plates	20
91	10 lbs. Sphalerite, Mo.	70	165	1/2 " Sea Clam, 4x6 for painting	25
92	1 specimen Splene, N. Y.	50	166	1/2 gallon mixed Shells	30
93	10 lbs. Stilbite, N. S.	50	167	1/2 doz. White Murex	58
94	5 lbs. Spodumne, Mass.	40	168	1/2 " Pink Murex	68
95	1 specimen Sulphur, 4x4	30	169	1/2 " Conch Shells	50
96	" " " Crystal	15	170	1/2 " Helmet or Queen Shells	1 00
97	" " " Tourmaline, Mass.	25	171	1 doz. large Alligator Teeth	35
98	" " " Tremolite	25	172	Large Turtle Shell, (gopher) Fla.	75
99	" " " Troosite Matrix Xtal.	25	173	1 Saw-fish-saw, 11 inches, Fla.	15
100	" " " Obsidian (10 lbs.) Mex.	2 25	174	1 Trunk Fish, 7 "	30
101	" " " Wollastonite	10	175	1 Porcupine Fish, 5 "	25
102	" " " Zincte, N. J.	10	176	Pistol used 50 years ago	50
103	10 Zircon Crystals	35	177	1 piece Mexican Onyx, 8 square in.	25
104	10 lbs. Zolcite, Mass.	80	178	1 " " 16 " fine.	1 00
105	1 specimen Nuttallite, 4x5, 2 lbs. Mass.	15	179	10 " Fossil Coral, 50 square in, fine.	2 00
106	" " " Pink Wernerite, 4x5, 2 lbs. Mass.	15	180	11 " black and white Agate, 45" good	1 80
107	4 " " Boltonite, 3x3, 1 lb. Mass.	12	181	10 " red and white Agate, 40"	1 50
108	1 Epidote in Actinolite, 4x5.3 lbs. Mass.	25	182	1 " Moss Agate, Brazil, 4 inch	25
109	1 Grey Epidote, 4x4, 1 1/2, Mass.	25	183	" " " 3 "	10
110	1 Grey Epidote, 1 1/2 x 1 1/2	25	184	1 Epidote, Mass., 5 inch, good	25
111	1 specimen Kyanite, Conn., 4x5, 3 lbs.	25	185	1 doz. Opals (fine) Mexico	50
112	" " " Selenite, Mich., 4x6, 4 1/2 lbs.	25	186	1 doz. " "	1 00
113	" " " Magnesite, Greece	25	187	1/2 doz. " "	1 00
114	" " " Porphyretic Granite, N. H., 5x5, 5 lbs.	20	189	1/2 " precious Opals, Australia	1 00
115	1 specimens Apatite Crystals, N. B., 2x3 1/2	75	190	" " " "	1 50
116	1 specimen Pearl Spar, base, 4x5, 2 Galenite Crystals, 2x3 1/2, 1 1/2 x 1 1/2 cut by large Calcite Crystals, beauty.	1 00	191	" " " "	1 50
117	1 specimen smoky Quartz, R. I.	15	192	2 " " "	2 00
118	" " " Stilbite, 4x4, N. S.	1 50	193	1 " " "	2 00
119	" " " Smoky Quartz Crystal, 5x5, N. C.	75	194	1 " " "	3 00
120	30 Arrowheads, different States.	90	195	1 " " Mex. or Aus.	5 00
121	" " " Obsidian, Mexico	75	196	1 " " "	10 00
122	" " " " Mexico	2 50	187	1 Tourmaline, S. Paris, Me., fine 1/4 Kt.	8 00
123	" " " " "	5 00	198	" " " " " 3/8 Kt.	12 00
124	" " " " "	7 50	199	" " " " " 1-16 "	6 00
125	" " " " "	10 00	200	" " " " " good 3/4 "	2 00
126	1 Obsidian Knife, Mexico	25	201	1 Aquamarine, " " fine 5 3/8 Kt	6 00
127	" " " " "	25	202	1 " " " " " 3 3/8 "	4 00
128	" " " " "	40	203	1 " " " " " 3 1/2 "	3 50
129	" " " " "	50	204	1 Red Carbuncle, 10mmx14mm fine	1 50
130	" " " " "	75	205	1 Amethyst Carbuncle, 8x12, fine	1 50
131	" " " " "	1 00	206	1 " " " Faceted, 8x12 fine	1 00
Mounted Birds on Stands.			207	1 American Turquoise, 3/8 in. x 9-16, fine	2 00
132	Cooper's Hawk pouncing on Quail	5 00	208	1 " " " 3 1-16 in. x 1/2 "	1 00
133	American Golden-eye (see Duck)	3 00	209	1 Topaz, faceted, 3-8 in fine	1 00
134	Murre, Common Gulemot	1 50	210	1 pr. Sardonyx for sleeve buttons, fine	75
135	Rocky Mountain Screech Owl	5 00	211	1 pr. Onyx, do.	75
136	Rose-breasted Grosbeak	1 00	212	4 oz. Rough Opals, specimens different colors to show all kinds and conditions	25
137	Black and White Warbler.		213	4 oz. better quality	50
138	Crossbill (Am.)		214	4 oz. still better	1 00
139	Chewink, Towhee.		215	1 Topaz specimen Crystal	20
140	Red and Yellow-shouldered Blackbird.		216	1 Ruby	50
141	Red-shafted Flicker.		217	" " large	50
142	Yellow-headed Blackbird.		218	1 Emerald	49
143	Wilson's Tern.		219	1 Sapphire	15
144	Blue Jay.		220	1 Diamond	2 00
145	Least Sandpiper.		221	1 Skookum Stone	25
146	Meadow Lark.		222	1 Maple Desk 150 years old. Can send drawing. Perfect proof of age and history will be sent on request.	40 00
147	Sparrow Hawk.		223	2 Chairs, solid mahogany, very old. In good repair, each	5 00
148	Meadow Lark.		224	1 Table cloth 6 yards long, 6 napkins. These were the property of Maximilian and used by him in Mexico. Have the coat of arms of Austria. Are very heavy linen	75 00
149	Great Blue Heron.		225	1 doz. fine hand-painted calendars, 1899, each	15
Fresh Water Shells, polished.			226	1 doz. photo views of Providence	15
150	1 pair Unio Solidus, rare	75	227	1 doz. books flowers of New England, hand-painted, each	50
151	1 " " Unio Alatus, Wis	1 50	228	1 Arctic Fox skin, white	5 00
152	1 " " Unio rectus "	75			
153	1 " " Unio gibbosus "	75			
154	1 " " Unio Ligamutlines, Wis	85			
155	1 " " Unio Plicatus, Wis	95			
155	1 " " Unio Metanever, "	75			

Annual Holiday Sale.

Birds Eggs in sets with data.

For \$1.00 you can select \$2.50 worth.

For \$2.00 you can select \$6.00 worth.

All orders of over \$2.00 can select three times the amount sent.

No discount on orders of less than \$1.00.

Everything sent prepaid. With all orders of \$5 or over will be shipped free a suitable tray for every set purchased.

Figures following the name give the number of eggs in each set.

Western Grebe, 4.....	\$2 00	Canvas-back Duck, 7.....	8 75
5.....	2 50	Lesser-scaup Duck, 5.....	3 75
Holboell's Grebe, 3.....	1 50	American Golden-eye, 8.....	6 00
St Domingo Grebe, 4.....	1 40	Harlequin Duck, 5.....	5 00
Tufted Puffin, 1.....	75	Northern Eider, 5.....	2 00
" " 1.....	20	American Eider, 6.....	1 50
Large-billed Puffin, 1.....	1 00	Whitewinged Scoter, 7.....	17 50
Horned Puffin, 1.....	2 00	Ruddy Duck, 10.....	5 00
Cassin's Anklet, 1.....	1 50	Canada Goose, 5.....	7 50
Black Guillemot, 2.....	50	American Flamingo, 1.....	1 00
Pigeon Guillemot, 2.....	1 00	Wood Ibis, 2.....	2 00
Murre, 1.....	20	American Bittern, 4.....	3 00
California Murre, 1.....	20	Least Bittern, 1.....	80
Pallas's Murre, 1.....	50	" " 5.....	1 00
Razor-billed Auk, 1.....	25	Great Blue Heron, 5.....	1 75
Skua, 2.....	1 00	European Blue Heron, 4.....	80
Parasitic Jaeger, 2.....	1 00	American Egret, 3.....	90
Kittiwake, 3.....	1 20	Reddish Egret, 3.....	1 05
Iceland Gull, 2.....	1 50	" " 4.....	1 40
Herring Gull, 3.....	60	Louisiana Heron, 4.....	48
American Herring Gull, 3.....	60	Green Heron, 3.....	36
Mew Gull, 2 (1 dam).....	50	" " 4.....	48
Gull-billed Tern, 3.....	75	Black-crowned Night Heron, 4.....	48
Caspain Tern, 2.....	70	Yellow-crowned Night Heron, 4.....	80
Royal Tern, 2.....	60	" " 6.....	1 20
Cabot's Tern, 3.....	1 20	King Kail, 7.....	1 40
Common Tern, 3.....	24	Clapper Rail, 10.....	1 20
Arctic, 3.....	30	" " 12.....	1 44
Roseate, Tern, 3.....	45	Virginia Rail, 8.....	1 20
Least Tern, 2.....	16	" " 5.....	75
Sooty Tern, 1.....	25	Spotted Crake, 4.....	1 20
Bridled Tern, 1.....	1 00	Sora Rail, 6.....	60
Black Tern, 3.....	30	" " 12.....	1 20
White-winged Black Tern, 3.....	1 50	Corn Crake, 8.....	1 60
Noddy Tern, 1.....	35	Purple Gallinule, 8.....	2 00
Black Skimmer, 3.....	36	Florida Gallinule, 7.....	70
" " 4.....	48	European Coot, 6.....	90
Fulmar, 1.....	75	American Coot, 5.....	40
Manx Shearwater, 1.....	75	" " 12.....	96
Audubon's Shearwater, 1.....	1 50	Northern Phalarope, 4.....	3 00
Stormy Petrel, 1.....	50	Wilson's Phalarope, 4.....	3 00
Leach's Petrel, 1.....	20	American Avocet, 2.....	1 00
Yellow-billed Tropic Bird, 1.....	2 50	Black-necked Stilt, 3.....	1 50
Booby, 1.....	1 75	" " 4.....	2 00
Gannet, 1.....	35	European Snipe, 4.....	1 00
Cormorant, 4.....	1 00	Spotted Sandpiper, 3.....	45
Double-crested Cormorant, 4.....	1 00	Lapwing, 4.....	60
Farallone Cormorant, 4.....	2 00	Golden Plover, 4.....	1 60
Pelagic Cormorant, 3.....	3 00	Killdeer, 4.....	80
American White Pelican, 3.....	1 05	Ring Plover, 4.....	80
Brown Pelican, 3.....	60	Little Ring Plover, 4.....	1 60
" " 4.....	80	Snowy Plover, 3.....	1 50
California Brown Pelican, 3.....	2 25	Wilson's Plover, 3.....	75
Man-o-war Bird, 1.....	1 00	Oyster-catcher, 3.....	75
Red-breasted Merganser, 6.....	4 50	Bob-white, 12.....	1 20
Mallard, 8.....	1 60	Texan Bob-white, 9.....	90
Gadwall, 5.....	3 75	California Partridge, 7.....	70
Widgeon, 8.....	2 00	Valley Partridge, 17.....	2 55
Baldpate, 5.....	3 75	Sooty Grouse, 5.....	4 25
European Teal, 7.....	1 40	Ruffed Grouse, 7.....	1 75
Blue-winged Teal, 8.....	1 60	Oregon Ruffed Grouse, 9.....	3 60
Cinnamon Teal, 9.....	3 15	Rock Ptarmigan, 6.....	3 00
Shoveller, 10.....	3 50	Prairie Sharp-tailed Grouse, 10.....	5 00
Pintail, 8.....	2 40	" " 6.....	3 00
Red-head Duck, 7.....	2 45	English Pheasant, 13.....	3 25
" " 9.....	3 15	" " 10.....	2 50

THE OÖLOGIST.

VOL. XV. NO. 12.

ALBION, N. Y., DEC., 1898.

WHOLE NO. 149

Ring-necked Pheasant in New Jersey.

This year's report of the New Jersey Fish and Game Commission contains an exhaustive and interesting review of the work undertaken to stock the State with the Ring-necked Pheasant. Owing to our limited space we are able to give only a few of the more interesting paragraphs and reports:

In many of the States of the Union the Ring-necked Pheasant has been introduced with success, although in nearly every case its introduction was due primarily at least to private enterprise. There is perhaps no State better adapted to this bird than New Jersey, especially in the southern part, where the sparsely settled yet cultivated country seems to offer them a home where they may propagate their species without assistance from human kind. For it must be remembered that in most places where the Ring-necked Pheasant has been introduced it was propagated by the eggs being placed under the common hen, the parent bird declining to sit long enough to hatch out the young or to take care of them after they had left the shell. Experiments tried in this country show that the female bird makes a better mother in this country than it does in England, and many instances are recorded of the bird rearing its own young. Scientists attribute this to the more prolific insect life in this country; they argue that in Europe and in England especially, insects are less numerous than they are here, and that consequently there the Pheasant has enough to do to provide for its own subsistence without troubling itself with a numerous progeny. Be the facts what they may, it is well established that the Ring Pheasants in

this country take care of their own young.

All these facts having been taken into consideration your commission concluded to try the experiment of introducing the Ring-necked Pheasant into New Jersey. For this purpose a number of birds were sent out two years ago, care being taken to provide homes for them where there was a probability of their being looked after for some time. Everywhere they were received with pleasure, especially so in farming communities. The inhabitants had observed with regret the diminution in the numbers of the indigenous Ruffed Grouse and they welcomed the beautiful stranger. No argument could be adduced against the bird, for it destroys no growing crops, pilfers little of the fallen grain and far more than compensates for the loss of the grain by the destruction of insects. The result of the experiment was closely watched, and it was so encouraging that your commission was induced to continue its efforts toward the better introduction of the bird. Last year the number put out was increased over that of the preceding year, and although failures are reported in a few instances, a perusal of the subjoined letters will probably bring the careful reader to the conclusion arrived at by your commission, that the bird may be introduced into New Jersey, and that with a close season for a few years, and proper care, it will soon become more numerous here than the Ruffed Grouse. Your commission has no desire whatever to persist in the experiment of introducing the bird unless there is at least a probable chance of its ultimate success and in order that yourself and the public generally may know just what degree

of success or failure has attended the experiment, letters were written to those who had received birds, inquiring as to what had been the outcome. Some answers to these letters are herewith reproduced, both for information as to the experiment itself and for the purpose of guiding such persons as may in the future feel inclined to assist in the introduction of the bird.

Ring-necked Pheasants have been distributed to counties as follows: Atlantic 6, Bergen 37, Burlington 63, Camden 6, Cape May 12, Cumberland 98, Essex 0, Gloucester 24, Hudson 0, Hunterdon 12, Mercer 18, Middlesex 18, Monmouth 24, Morris 42, Ocean 24, Passaic 18, Salem 54, Somerset 0, Sussex 6, Union 6, Warren 6; total 464.

From George W. Dunham, fish and game warden, Flemington, Aug. 25, 1898: In April, 1897, you sent me twelve Pheasants—three cocks and nine hens. They were turned out in different localities, between Flemington and the Delaware River, a distance of about ten miles. Wherever they were placed the farmers promised to protect them and prohibit gunning that year. This was done, and so far as I can learn but four birds were shot. Three of the hens, however, were killed by mowing machines, leaving but six to hatch. Last December, after careful investigation, I found that there were at least sixty birds in the vicinity where they were released.

I have visited these farms recently and find the result most satisfactory, the farmers having taken pride in protecting the birds and feeding them during the winter. Many of them fed with their fowls all winter. Several have been killed by mowing machines this summer, as they nest in the tall grass near the underbrush, and cannot be seen. I attach hereto the names of some of the farmers upon whose lands they have hatched, and do not hesitate to say there are at least 300 birds in the

immediate vicinity where they were first released.

There is exceptionally fine cover for them in that locality. This, together with the protection afforded them, accounts for the increase. A few of the young birds scattered, but I do not learn of any nesting far away, and the old ones are still on the ground where they were turned out. Other broods are reported, but I am unable at this writing to say positively that the information is true; these farms are situated in three adjoining townships. The old pheasants on them number at least 100, and quail are abundant throughout that section. The report is made upon personal examination, and the numbers are not exaggerated.

From Mr. M. L. Hoagland, secretary of the White Meadow Club, Rockaway, Aug. 27, 1898. In addition to the three cocks and six hens received from you, we purchased six hens, making twelve hens and three cocks in all; these were put in coops separately, with one cock and four hens to a coop; they began laying on April 16, and averaged nine eggs per day till they had laid in all 308 eggs up to about the latter part of July, and then they stopped. The eggs we hatched under hens and found that bantam hens are far superior to any other kind; in fact nearly all we lost were with large hens, so there is no question but that bantam hens are the best to mother the chicks. We also found the first eggs were by far the best, producing stronger chicks and a larger percentage than those laid later in the summer. Out of the 300 and odd eggs received we hatched about 280 chicks; these we kept in runs made of 1 inch mess wire, 4 feet wide and 8 feet long, with a tight coop in one end for the mother hen. All the birds we hatched out at first died from different causes, but I think the most fatal of all was the lice, which seem sure death to little pheasants; it was not till we had lost by

far the greater number of those hatched that we found out how to care for them, so we could raise them with any degree of success, and by that time our old hens had stopped laying. Of the 230 chicks hatched out we have only succeeded in raising to maturity thirty-six, which we have recently liberated. This seems a very poor return for all our trouble and expense, but I am certain that next year we can raise seventy-five per cent. of those hatched; when we began last spring no one knew anything about raising them, and we went by such instruction as we could gather, with the result that we lost nearly all our birds, and it was not till we began to follow the dictates of common sense that we succeeded in raising any. I would advise any one trying to raise Pheasants to burn up all printed matter he may have on the subject and go at it to reproduce, as near as possible, the natural conditions as the bird would find them in the woods, giving them all kinds of insects and plenty of fresh water. There is no reason why they cannot be raised if they are properly cared for; the last hen we had come off hatched eleven birds from thirteen eggs, and we raised nine of the birds, and let them go, so you see if we had been able to do anything like that at first we would have had a fine lot, but experience is absolutely necessary, and when we began we had none; however, we propose to keep our old birds over till next year, and fully expect to raise a good lot of birds. I hope that those who like us have tried to raise them and failed, because of inexperience, will not get discouraged and quit, but will keep at it till our State is well stocked with them. We hope for some good results from the thirty-six young birds we turned out this summer, and if they breed at all and we raise some more next year we will soon get the country stocked with them.

From Colonel J. Howard Willets,

Fort Elizabeth, Aug. 29, 1898: The pheasants sent last year did splendidly, and if they had not been killed by law in the fall we should have had hundreds of them for breeding this spring. The last consignment this spring also did well. I placed two hens and a cock from last year's birds in a pen; one hen laid twenty-seven eggs and the other thirty-two, but neither hen would set. I took the eggs and placed them under a bantam chicken, and they hatched out two broods. These lived and did well, and this spring I turned them loose, so we had them to begin with. This spring's consignment of one dozen I turned out at once. I located four nests, and they all hatched out well, one of thirty-one, one of twenty-six and one of twenty-two. The last nest had only nine eggs; as they were very late I judged that something destroyed the first nest, and that the hen laid only nine on second laying. A farmer mowed over her nest, and as they were all "piped" and the workmen kept the hen from returning to the nest, he notified me, and at noon I went over and got the eggs, placed them under a hen, and the next morning they were all hatched. I took them back, found the old bird (with my dog) and I let the young go. Their "peep" soon brought the mother, and she has the whole nine, save one, now. I saw them yesterday, they are the size of quail. A farmer told me last week that he had found a nest of thirty-one eggs a few weeks ago, and watched them until they hatched every egg. The only reason I can see that will prevent the plan of introducing them here is that they will go to the open fields of grass and especially meadows to breed, and as the law permits shooting and they in the open they will all be killed as fast as they breed, and before they become numerous enough to be compelled to take to the woods. The three farms upon which we have seven broods that we

know of we shall be compelled to "post" this year, and keep everybody off in order to save the birds. Our local sportsmen we can control, and they will not kill them, but the reed and rail bird shooting here brings so many strangers that they follow it up when the quail season comes in, and we can protect the pheasants in no other way. The "out" birds in the woods will no doubt, many of them, be killed. I know of at least a dozen broods in the woods within two or three miles, which shows that they will soon spread over a large area of territory. and I think enough of them will escape this fall to insure the success of their introduction. They breed such large broods, take good care of their young, stand the winters well and will no doubt multiply. If we had only had last year and this year, while they were gaining a foothold, a close season, we would have made a complete success of their introduction, and would probably after that never had need of anything.

From Mr. Julius Munch, Preakness, Sept. 15, 1898: The half-dozen Ring-necked Pheasants sent me gave me a desire to attempt the raising of these birds on a more extensive scale, and I accordingly secured two dozen more, and I am glad to say that I am more than gratified with the result. I was wholly inexperienced, and to this I attribute the loss of many young birds. I first attempted to induce the hen pheasant to sit, but did not succeed. I watched the bird very closely and thought she showed a determination to sit, as she was most of the time crouched on the ground in a nest she had made in the sand. I permitted her to keep her own eggs, and added others to it, but the bird never sat more than five or ten minutes at a time, when she would get up and run away for several minutes, after which she returned to her eggs. I saw she would not hatch, and so I took all but two of the eggs

away from her, and she spoiled these two.

I found that I had the best success with game and bantam hens, the only objection to the latter being that they cannot cover more than eight eggs. I hatched out nearly every egg in this way.

At first I started near my house in small boxes, with a little runway for the chicks, keeping the hen shut up in the box. Rainstorms killed from thirty to fifty chicks a day, and so I abandoned this method and placed the hens and chicks in the woods, where I gave the little ones more runway. I think this obviated the difficulty, for after that I did not lose more than one or two chicks a day, and some days not at all. It is my opinion that most of the losses were due to the fact that the chicks did not have enough exercise to keep the body heat while I had them near the house.

I think the birds have locality very well developed, and do not believe that they will wander far from any place where there is food and shelter. Even the chicks showed this to a remarkable extent, and it was amusing to watch them at feeding time. At one time I had as many as two dozen broods in the woods, each brood with its own enclosure and feeding box. The chicks wandered at will in the woods, but when feeding time came they each repaired to its own box and never have I seen a chick from one brood eat out of a box placed for another brood. It was very amusing to see them scurrying about looking for their own particular feed box and paying no attention to the boxes used by the others. I had the woods fenced in with wire netting, but occasionally some little fellow developed sufficient strength of wing to get over the fence without having sagacity sufficient to find its way back. When we opened the fence sufficiently to permit it to come back, it made a direct

line for its own feeding box, passing others by on the way.

Of course a number escaped, and others I liberated purposely. I should suppose that over 100 thus got away from my enclosures. and these are in the woods or fields adjoining, excepting of course, such as were destroyed by hawks. I have over 200 of the birds, either old or half grown, now in my enclosures.

Cedar Lake.

Cedar Lake, better known as the Slough, is a small body of water a mile across "as the crow flies." It is rapidly becoming dry land as it has but one inlet, a small stream known as McClod's Run, which furnishes the only supply of water. The Illinois Central Railroad Company's tracks divides the Lake into two parts. One part, the larger of the two, is called the Big Slough, and of this I am going to write.

Into the north end of the Big Slough the small stream, before mentioned, empties. Near the mouth of this stream is a cape extending out into the Lake for half or three-quarters of a mile. It is covered with shrubbery and dwarf trees and makes an excellent place for building sites for birds. To the south of this miniature peninsula is an island covered with rank grass, flag and willows. Just off this island is where the Coot breeds. This bird is very common in Fall and Spring, but very few of them remain to breed.

Duck and Sora Rail are also numerous. In the Fall of '97 I and a friend of mine took a boat and went out into the Lake after Rails. We had a revolver, some shot cartridges and an air gun. Rowing out among the reeds, rushes and wild rice, we succeeded in bagging half a dozen in about as many minutes. They are very easily killed with a shot gun, but are so small that it takes several of them to make a meal. Not many Ducks

are killed as they are "few and far between," but a large number of Coots are taken by those who consider them fit to eat. All shooting on the Lake must cease sooner or later as a fine of fifty dollars is the consequence of anyone's being caught with a gun in his possession in that vicinity, even though he has not fired a shot. I have seen but nine Ducks so far this year—four on the 29th of July and five on Oct. 11th, so you see that we have very little hunting here. Perhaps after the Ducks read in the papers that a fifty dollar fine will be inflicted upon any person hunting them, they may be induced to come here in large numbers.

If this Lake were a few miles out of town and was as large as it was fifty years ago, we sportsmen might enjoy a good hunt once in a while. But I see no way of moving it, and I suppose we shall have to be contented to let it remain where it is and "make no mournful sounds in objection thereof."

GLEN M. HATHORN,

Cedar Rapids, Ohio.

"Ridgway's Nomenclature of Colours"

The following from the Publishers is not very encouraging, to say the least, to the many ornithologists desiring to obtain a copy of this invaluable work:

"In reply to yours of November 28th we would say that Ridgway's Nomenclature of Colours is entirely out of print, and we have had no copies on hand for a long time. We have no new edition in preparation.

Regretting that we cannot help you, we remain,

Yours very respectfully,

LITTLE, BROWN & Co.,"

THE OÖLOGIST.

A Monthly Publication Devoted to

OÖLOGY, ORNITHOLOGY AND
TAXIDERMRY.

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

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

TERMS OF SUBSCRIPTION:

Single subscription.....50c per annum
Sample copies.....5c each
The above rates include payment of postage.

Each subscriber is given a card good for a Want, Exchange or For Sale Notice. (This card is redeemable at any time within one year from date thereon.)

Subscriptions can begin with any number. Back numbers of the OÖLOGIST can be furnished at reasonable rates. Send stamp for descriptions and prices.

Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped, and all arrearages must be paid.

ADVERTISING RATES:

5 cents per nonparell line each insertion.

12 lines in every inch. Seven inches in a column, and two columns to the page.

Nothing inserted for less than 25 cents. No "special rates," 5 cents per line is "net," "rock bottom," "inside," "spot cash" rate from which there is no deviation and no commission to agents. If you wish to use 5 lines or less space it will cost you 25 cents; 100 lines, \$5.00; 1000 lines, \$50.00. "Trade" (other than cash) advertisements will be accepted by special arrangement only and at rates from double to five times cash rates. Due Bills and Cards payable in advertising will be honored only at regular rates in force at the date of issuance of said bill or card.

Remittances should be made by Draft, Express or Postoffice Money Order, Registered Letter or Postal Note. Unused U. S. Postage Stamps of any denomination will be accepted for sums under one dollar. Make Money Orders and Drafts payable and address all subscriptions and communications to

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

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

Prizes.

In April OÖLOGIST we offered prizes for the three best articles sent in after April 1st. These articles have been published in the OÖLOGIST from May to December issues, inclusive, and the publisher leaves it with the readers to decide the three best articles published in these six issues, and to designate the articles which should receive the prizes.

You are requested to name the three

articles appearing in these issues which you consider of greatest value, merit and interest. Write your decision on the back of a postal in the order which you think the prizes should be awarded and mail at once (none counted that are mailed after Jan. 10th) to the Publisher of the OÖLOGIST. The first five "judges" naming the winning articles correctly or in nearest order will each be presented with \$1.00 worth of Premiums, their selection. Only subscribers of the OÖLOGIST can act as judges. Both the Mss. and Judges' prizes will be awarded on Jan. 20th.

N. B. You are to select the three best from all the issues *not each issue, i. e.:* send the titles of three articles only, selected from the various issues and not those of eighteen (3 from each issue).

The White-rumped Shriko.

This species is the only one of the family *Lanidae*, which has been found breeding here, as far as my knowledge extends, is rather common in our fields during the summer months.

It prefers an open field to wooded land, a favorite resort being a thick hedge skirting a field.

Here, perched on some tree a little elevated from its neighbors, the male bird will sit uttering its notes every few minutes, at the same time keeping a sharp lookout for some helpless Sparrow that might chance to pass its way. But where is the female? Having found the male, you may be sure that its mate is not far away.

Look a little closer into that dense hawthorne near by, there is only a last year Catbird's nest, but no! what does that gleam of fresh, white feathers mean? A more careful examination reveals Mrs. Shrike squatting closely in her feathery abode.

Softly but swiftly she glides from the nest, through that mass of thorns without a scratch, although you will pro-

bably receive several in reaching the nest.

You will notice how large and bulky the nest is in comparison with the bird, and how thick the lining is, the better to withstand the inclemency of the weather at so early a nesting date.

The bird's home is also well protected against enemies, placed as it is, in the centre of a thorn bush and being built externally of thorns and other material. But what a commotion you have created through your investigations. The female on leaving the nest is immediately joined by her partner, and together they give vent to their feelings by snapping their bills, at the same time emitting a hissing sound similar to that of the Cuckoo and Thrasher.

If the nest contains incubated eggs or young the parents become greatly disturbed flying about the intruder in a very menacing manner.

The Shrike has earned the well deserved appellation of butcher-bird from the manner in which it obtains its food. Although resembling birds of prey in its choice of food, it differs from them in its manner of eating it.

Birds of the Raptores order devour their food as soon as procured, whilst the Shrike impales it on some thorn or other sharp projection, and in epicurean style, after devouring some dainty morsels about the head, presumably the brain, leaves it to become tender and gamey.

No doubt this habit of spitting its prey also enables the bird to devour it at ease and leisure and secures it from animals. I have often come across the larder of a Shrike in some thick hawthorn or again on a barbed wire fence.

Sometimes the provisions consist of a mere beetle or two, but more often it is a small bird or a field mouse and once I found four young Goldfinches with the mother bird, hung up side by side close to their late home.

The White-rumped Shrike usually

arrive here sometime during the first week of April. They begin building about the middle of April and the nests contain full sets of eggs about the last of the month or first week in May, my earliest record being the 24th of April, 1898 when I took a set of six fresh eggs from a nest in a Hawthorn bush.

They lay a second time about the beginning of June. On June 6, 1896 I found a nest placed on a horizontal sloping branch of an oak, in an open field, containing six fresh eggs.

The number of eggs laid at a time is almost invariably six, though rarely and chiefly in second sets, five.

Out of a number of nests personally examined, the eggs were of a yellowish white color, thickly spotted over the entire surface with several shades of grayish brown varying to yellowish.

In a few instances, however, the eggs were of a pure white ground color sparingly dotted with light yellowish brown, being very distinct from the first variety. LEWIS M. TERRILL,

Montreal, Que.

Pet Bird Show.

On Thanksgiving Day the first pet bird show of this country opened, under the auspices of the New York Ornithological Society, at New York City. It is claimed there were over 3,500 birds on exhibition, comprising nearly every kind of pet bird known to this land and foreign countries. There were larks, linnets, goldfinches, thrushes, nightingales, many varieties of canaries, including Belgian canaries, and one bird which sings Yankee Doodle, and a parrot which speaks several different languages. Mules, hybrids, which are offspring of canaries and goldfinches, and which fanciers declare excel their parents in singing but do not breed, were exhibited. Enthusiastic bird breeders tell some curious stories to account for the physical peculiar-

ities of the various kinds of canaries which one saw in the cages. For instance, they declare that the Chinese white canaries, which Mr. Ferond shows, owe their color to a long system of treatment by the Chinamen, which gradually bleached them out after many generations and left them albinos. Their forefathers were yellow, or perhaps green, as are the canaries in their native islands, but by keeping them in a white room, feeding them on white food, and even having their attendants clothed in white garments, so that the birds never saw any color except white, they were gradually made to produce white offspring which now perpetuate that color. The long Belgian birds, with down-pointed craning necks, are said to have been produced by keeping their progenitors confined in narrow cages, which forced them always to stand bolt upright and to crane their necks downward to get food and water, and the crescent-shaped birds, the fanciers say, were produced by similar means. One does not have to believe these stories, but one can certainly see some very fine specimens of the various sorts of birds at the show. No dealer is allowed to belong to the association, and its purposes are to spread a knowledge of the breeding and care of cage birds among New Yorkers.—*American Field*.

A Discovery.

While passing through a wet ash swamp on June 14th, 1895, I observed a Chickadee leave a hole in a small stub about eight feet from the ground. Reaching the opening, I gently removed the bark and wood until I could see into the cavity. There on a bed of rabbit-fur and moss lay a single fresh egg of the Chickadee. On removing the nest I was surprised at the thickness of the material, but on dividing the nest I found another fresh egg. This led to

further experiment the result of which was that I discovered a set of six eggs, all fresh, each one being separated from the next by a layer of nest material (fur and moss). What was the bird's object?

R. T. ANDERSON,
Aylmer, Ont.

Stray Cardinals.

On December 4th saw a male and female Cardinal Grosbeak in the brush bordering the Bronx River in Wakefield, N. Y. City. Never saw any of these birds here before at any time of the year.

THOMAS CORRIGAN.

Xmas Bargains in Books.

Until Jan. 1st I offer the following books and publications *prepaid* at prices quoted :

Davies "Egg Check List," 2d '86 edition (\$1.00) 85c.

Davies "Naturalists Manual" (75c) 35c.

Cook's "Birds of Michigan," (75c) 50c.

Louck's Life History of Distribution of the Prothonotary Warbler in Illinois," (50c) 20c.

Short's "Birds of Western New York," (25c) 10c.

"Penikese." (35c) 25c.

Lattin's "Egg Catalogue," (25c) 10c.

"Oölogist," 25 back numbers, all different, including the three specials," (\$3 00) \$1.25.

"Natural Science News," 52 back numbers. (\$1.00) 50c.

"OöLOGIST," 50 back numbers (\$2.00) \$1.00.

Davies' "Methods in the Art of Taxidermy," (\$10.00) \$5.00.

Or I will send the entire lot by Express or Freight at purchaser's expense for only \$6.00.

FRANK H. LATTIN,
Albion N. Y.

THE OÖLOGIST

A FULL YEAR FOR

ONLY 25 CENTS.

If you do not care to accept the 50c premium offer made in this issue we will until further notice accept subscriptions at 25c each and in addition mail each accepting the offer a coupon good for a 25 word Exchange Notice, *free*. Address plainly, FRANK H. LATTIN, Publisher, Albion, N. Y.

THE OOLOGIST.
Monthly.

VOL. XV. NO. 1.

ALBION, N. Y., JANUARY, 1898.

WHOLE No. 140

Wants, Exchanges, and For Sales.

Brief special announcements. "Wants," "Exchanges" "For Sales," inserted in this department for 25c per 25 words. Notices over 25 words, charged at the rate of one-half cent per each additional word. No notice inserted for less than 25c. Terms, cash with order.

Strictly first-class specimens will be accepted in payment at one-third list rates.

What's Your Number?

Examine the number following your name on the wrapper of this month's OOLOGIST. It denotes when your subscription expired or will expire.

No. 139 your subscription expires with this issue

140	"	"	"	Jan., 1898.
145	"	"	"	June, "
150	"	"	"	Nov., "

Intermediate numbers can easily be determined. If we have you credited wrong we wish to rectify.

How dear to our hearts

Is cash or subscription
When the generous subscriber
Presents it to view.

But the man who don't pay,
We refrain from description,
For perhaps gentle reader,
That man may be you.—*Ex.*

GOLD NUGGETS:—Free gold ores, every one a gem, showing free gold. Make handsome scarf pins. Sample, 25c. Dealers write for wholesale price lists. Enclose stamp. MICA NOVELTY & CURIO CO., Custer City, So. Dak.

WANT bird and other skins, mounted specimens, buck heads, fire arms of any sort, whether in order or not; books on ornithology, oology, mammology and on the horse; reloading tools for rifles and shot guns, for which I offer desirable stamps, or will purchase. STEPHEN VAN RENSSELAER JR., West Orange, N. J.

FOR SALE:—A fine Flamingo skin, \$8; Ridgway's Ornithology of Illinois, Vol. I, \$1.75; 100 species of shells, \$3. H. S. HATHAWAY, Box 498, Providence, R. I.

EXCHANGE:—Bingley's History of Birds, new, 528 pages, illustrated, cloth binding. For best offer of sets with data. G. H. BRIGGS, Box 82, Livermore, Maine.

FOR EXCHANGE:—A small magic lantern with views all complete, for the best offer in single eggs. J. S. ALLWOOD, Hecla Works, N. Y.

TYPEWRITER WANTED:—Have a good bicycle which I will exchange for good typewriter. State make &c. Write immediately. BURT OGBURN, Phoenix, Arizona.

PET!—In the spring we will have young raccoons, foxes, gray and fox squirrels, red birds, hawks, owls, or in fact anything suitable for pets common to this locality, for cash or exchange. CATLIN BROTHERS, Annapolis, Ind.

FOREIGN birds eggs exchanged for first-class birds skins. W. S. JOHNSON, Boonville, N. Y.

FOR SALE.—A tame fox, about two years old and a beauty, very tame. The best cash offer takes him. J. S. ALLWOOD, Hecla Works, N. Y.

STAR FISH.—Want at once 100 first-class small (2 to 3 inch) common Atlantic Star Fish. Must be cheap. FRANK H. LATTIN, Albion, N. Y.

FOR SALE or Exchange.—Five pairs of pea fowls from one year old to four years old six to eight dollars per pair, prefer to sell. C. S. RUTHERFORD, St. Francisville, Clark Co., Mo.

CASH.—I will pay cash for THE OOLOGIST, June, 1888 and for *Nidologist*, October, 1893, H. H. JOHNSON, Pittsfield, Maine.

NIDOLOGIST, Vols. I, II, III, handsomely bound in one. Full index. Make cash offer. No exchange. EUGENE S. ROLFE, Minnewaukan, N. Dak.

TO EXCHANGE.—Complete collection of 300 moths and butterflies for Indian relics, minerals, etc. Also good camera to exchange. E. A. LOCKE, 466 Massachusetts Ave., Boston, Mass.

WANTED.—Hawks eggs. Will pay cash for first-class sets of those I want. Anyone wanting a high-grade '97 bicycle, nearly new, at a bargain write for particulars. PRESTON MULTER, 1050 Caxton Building, Chicago.

FOR EXCHANGE.—The following sets for sets not in my collection: 1, 30, 32, 47, 58, 59, 70, 74, 80, 146, 160, 191, 194, 207, 212, 214, 225, 263, 273, 289, 216, 331, 337, 339, 360, 378, 387, 388, 390, 406, 412, 423, 444, 456, 474b, 477, 488, 494, 495, 498, 501, 507, 511, 560, 584, 595, 611, 613, 619, 624, 631, 652, 659, 687, 704, 705, 725, 729, 755, 756, 761. EDW. REINECKE, 400 Elm St., Buffalo, N. Y.

WANTED.—A hand printing press, will give good exchange in Oregon Bird Skins, mounted specimens, shells or polished minerals. B. J. BRETHERTON, Newport, Oregon.

WANTED.—Information concerning the wild ducks and other water-fowl occurring in Orleans County, common species as well as the rarer kind. Any little note may be useful to me. Send it along, even though trivial. In exchange for same. I may have something you want. NEIL F. POSSON, Medina, N. Y.

COUES' KEY.—I will give \$15 worth of rare sets, such as A. O. U. 115, 385, 311 and others, for a copy of Coues' Key. Also a good Canvas Folding Boat for \$8.50 cash. Address at once, FLOYD T. COON, Milton, Wisconsin.

WANTED to EXCHANGE.—Copper and silver coins and Indian Relics for U. S. A. Department stamps and U. S. Revenues. I also have Confederate paper money for exchange. ANDREW A. QÜEVLI, Box 446, Windom, Minn.

TWO PACKETS SEEDS.—Mixed Zinnia and Vine Peach, for foreign coin or arrowhead. Also curios to exchange. Please exchange lists. FRANZ TRIPP, Garden Prairie, Ill.

THE OÖLOGIST is worth many dollars to me every year, and I am sure it is worth the same to nearly every subscriber. BURT OGBURN, Phoenix, Ariz.

CASH!!! for Banjo. Have Great Blue Heron, curiosities and sword from Armenia. Enclose 4c in stamps for list of books, magazines and ornithological specimens. I desire Auk's. ARTHUR M. FARMER, Clinton, Mass.

DAVIE'S Taxidermy and other books, for a rifle or shotgun. Davie's Taxidermy new. Repeating rifle preferred or good shotgun. Will sell books, or exchange for gun or rifle. R. P. SMITHWICK, Merry Hill, Bertie Co., N. C.

WANTED.—Egg cabinet and A. O. U. No's 310, 328, 356, 357, 377, 379, 180, 108, 486, 620 Will give sets, books on Natural History for any of these. Also flintlock gun in good condition. A. H. MILLS, West Rutland, Vt.

WANTED.—Birds of Kansas by Col. Goss. Kodak with outfit; also full sets. Can offer western sets of my own collecting, nicely prepared and fully identified. H. L. HEATON, Oberlin, Kansas.

COLLECTION of 26 mounted birds, Herons, Hawks, Ducks, etc. \$25. A Bargain. 30 fine bird skins, \$5. 2 fine mounted heads, 10 point buck and yearling buck \$15 for pair. Fine 4x5 camera, uses plates or roll film, cost \$35. Will exchange for fine repeating rifle of large calibre or will sell cheap. All letters answered. B. HARTLEY, West Haven, Conn.

WANTED.—A 10 or 12 gauge shot gun and camera. Will give in exchange the following mounted specimens: Osprey (wings spread), Barred Owl, American Coot, Red Fox, Gray Squirrel, Hedgehog, Rattlesnake, 7ft in length, and a few sets. Send for complete list.

OAKLEY WALKER, Mayfield, Ky.

THE OÖLOGIST is Monarch of the Oological world, especially in the advertising of specimens, supplies, &c. DR. M. T. CLECKLEY, Augusta, Ga.

PARTIES desiring sets of eggs, skins of birds or mammals, alcoholic specimens of reptiles or batrachians or any branch of natural science should correspond with J. M. & JAMES J. CARROLL, Refugio, Texas.

WANTED.—Trustworthy and active gentlemen or ladies to travel for responsible, established house. Monthly \$65 and expenses. Position steady. Reference. Enclose self-addressed stamped envelope. THE DOMINION COMPANY, Dept. V., Chicago.

NELSON'S Natural History establishment can supply you with showy sea shells, fine crystals and minerals, scientific books and supplies for any branch of Natural History work. ANDREW NELSON, 1108 Palean St. Keokuk, Iowa.

FOR EXCHANGE.—Rare eggs in sets. Were the best individual collection shown at the World's Fair. Will exchange for pedigreed bloodhound or beagle pups. F. B. JONES, P. O. Box 54, Martin's Ferry, Ohio.

FINE well prepared sets to exchange: Osprey, Red shouldered Hawk, Razor-billed Auk-roseate Tern, American Oystercatcher, Screech Owl, Chestnut-collared Longspur and many others. CHARLES E. DOE, 561 South Main St., Providence, R. I.

WANTED:—Several sets each of the following: Red-tailed and Red-shouldered Hawk, well spotted, also several sets each of 6, 7, 12, 21, 63, 84, 72, 75, 106, 140, 190, 226, 230, 228, 261, 263, 273, 281, 289, 315, 325, 326, 332, 352, 355, 360, 364, 368, 373, 387, 388, 390, 393, 394, 412, 416, 417, 428, 452, 461, 477, 490, 501, 549, 593, 611, 614, 619, 622a, 624, 703, 713 and rare Warblers. I will pay cash for good sets of Hooded Merganser, Bald Eagle, Golden Eagle, Osprey, American Bittern, Swallow-tailed Kite, Sandhill Crane, Prairie Falcon and Sawwhet Owl. In exchange for above I can offer 1000 bird skins and 5000 eggs in sets from Iceland, Lapland, Northwest Canada and Arctic America, the lot includes rare Gulls, Terns, Jaegers, Swans, Geese, Ducks, Plovers, Falcons, Hawks and Owls. Send 2 cent stamp for full list. W. RAINE, Bleeker St., Toronto, Canada.

FOR SALE.—A. O. U. Nos. 204 1-2, \$1; 51a 1-3, 24c; 58 1-3, 30c; 60 1-1, \$1; 364 1-3, 60c; 335 1-3, 65c; 339 1-4, 60c; 337 1-2, 40c; 348 1-4, \$3; 356 1-1, \$1; 339a 1-3, 70c; 312 1-1, 75c; 333 1-5, 70c; 201 1-5, 25c; 200 1-4, 35c; 300 1-12, 65c; 300c 1-6, 70c; 128 1-1, 75c; 362 1-1, 45c; 269 1-4, 38c; 70 2-3, 15c; 77 1-3, 20c; 74 1-2, 10c; 488 1-6, 20c; 289 1-13, 60c; 263 2-4, 25c; 501 1-5, 25c; 501b 1-5, 25c; 412 1-7, 20c; 477 1-5, 16c; 321 1-2, 25c; 706 1-4, 38c; 708 1-4, \$1; 587 1-5, 25c; 622 1-7, 30c; 755 1-4, 14c; 497 2-4, 10c; 595 1-4, 25c; 452 1-6, 40c; 467 1-4, 25c; 766 1-6, 20c; 674 1-5, 40c; 721 2-7, 25c; 725 1-6, 30c; 713 1-4, 40c; 546 1-5, 40c; 510 1-4, 10c; 550 1-4, 38c; 563 1-4, 12c; 619 1-5, 25c; 683 1-4, 30c; 681 1-4, 70c; 639 1-4, 38c; 652 2-4, 15c; 637 1-6, 423 1-4, 24c; 614 1-5, 21c; 613 1-5, 12c; 616 1-4, 12c; 461 1-3, 20c; 611 1-4, 35c; 624 1-3, 15c; 638 1-4, 25c; 735 1-16, 30c; 530 1-4, 20c; 687 1-4, 30c; 593 1-3, 35c; 406 1-5, 24c; 16 1-1, 60c; 217 1-2, \$1.25; 552 1-4, 20c; 420c 1-2, 20c; 420a, 40c; 92 1-1, 70c; 513 1-3, 15c; 511b 1-5, 15c; 511a 1-4, 20c; 191 1-5, 40c; 378 1-4, 25c; 273 1-4, 36c; 390 1-7, 60c; 71 1-3, 20c; 76 1-1, 40c; 75 1-1, 35c; 79 1-1, 35c; 416 1-2, \$1.25; 208 1-4, 35c; 212 1-7, 50c. One pair Reed's climbers, \$1. Above prices are per set. All eggs prepaid at price. MAJOR JOHNSON, Lock Box 550, Southington, Conn.

MY ENTIRE Collection of 150 singles, all A No. 1, none but cash offers considered. List sent on application. DR. F. C. LEWIS, Johnsonburg, Pa.

SETS FOR EXCHANGE:—8 fine sets of 3 Indigo Bunting, with or without nests; also 604 1-4, 263 1-4, 390 1-3 and many singles. Want common sets. ISAAC E. HESS, Philo, Ills.

FOR EXCHANGE:—\$10 worth of 1st class singles for 1 set of 2 eggs of Bald Eagle with complete data. OTTO HOLSTEIN, Paris, Kentucky. D2t

AZTEC RELICS from ancient ruins in Arizona. Sample relics sent prepaid on receipt of 10c (stamps or silver). Satisfaction guaranteed. BURT OGBURN, Phoenix, Ariz. D4t

FINE 4x5 photographs of a hornets nest which is 33 inches in circumference and in situation, for exchange for 20 cents worth of birds eggs, insects or curios. TROY W. EARHART, Mulberry, Indiana.

ORIGINAL Nests with Sets:—Oven Bird n-5, Bobolink n-5 n-5, Cedar Waxwing n 5 n-5, Blue Jay n-4 n-4, American Redstart n-4 (handsome) n-4, Vesper Sparrow n-4, Field Sparrow n-4, Least Flycatcher n-4, Black-capped Chickadee 1-6, Rose-breasted Grosbeak n-4. Nests wanted with sets when practicable. CHAS. S. BUTTERS, 69 Merrimack St., Haverhill, Mass.

FOR SALE or EXCHANGE:—Fine sets from Northwest Canada, all have *original data* in hundreds of the various collections. The lot includes sets of Little Brown Crane, American Goshawk, Rough legged Hawk, Ferruginous Roughleg, Wilson's Snipe, Phalarope, Belted Pipping Plover, Grebes, rare Ducks, Gulls, Northern Shrike, Sprague's Pipit, Baird's Sparrow and other rarities; also rare sets from Arctic America (Mackenzie Bay). The sets of Little Brown Crane are accompanied with affidavit sworn to by the collectors, who took the eggs in Assinobia and Alberta. W. RAINE, 181 Bleeker St., Toronto, Can.

BACK NUMBERS of the OÖLOGIST, NATURAL SCIENCE NEWS, *Museum* and other scientific publications offered in exchange for first class birds' skins. W. S. JOHNSON, Boonville, N.Y.

MY COLLECTION of duplicates for sale to the highest bidder at once, about 1800 eggs, 336 sets, \$140 worth. All complete sets with original data. Send for list. All letters answered. D. R. WALLACE, 940 No. 27 Ave., Omaha, Neb.

WANTED:—Ridgeway's Manual, first class treatise on taxidermy, or any reliable work on ornithology, in exchange for first class eggs with complete data. WINFIELD S. CATLIN, Annapolis, Ind. D2t

WANTED:—An offer in skins or sets for 200 different copies of the *Scientific American*—all in good condition. Best offer gets the whole lot. J. M. WILLARD, 2221 Elm St., Oakland, Cal.

FOR SALE:—Following books new, Crow-black Bird and Their Food by Beal, 15c; Hawks and Owls, from standpoint of the Farmer by Fisher, 45c; Blue Jay and its Food by Beal, 15c; The English Sparrow in North America, 405 pages, by Merriam & Barrows, \$1.60; Hints on Insect Collecting, 8c; Abbott's Natural History, 623 pages, 500 illustrations, 10c; OÖLOGIST, vol. 9, unbound, \$1.25 and Emue eggs, \$1.75 each. Cash with order. W. J. WIRT, Naturalist, Box 137, Gaines, Orleans Co., N. Y.

I HAVE a number of good shells, curious and eggs to exchange for books on natural science, or for a cheap guitar in good order. Write out description and cost, and I will make you an offer. W. H. HILLER, 147 W 23d St., Los Angeles, Calif.

A SOUVENIER from "Holmes Castle." Send ten cents for a package of Asbestos (mineral wood) which was taken from around the dummy safe in which H. H. Holmes suffocated many of his victims. Holmes was executed in Philadelphia on the charge of killing Pretzel, his partner in crime. Twenty-three murders have been charged to Holmes. CLIFTON A. FOX, 525 West 61st St., Chicago, Ill.

TO EXCHANGE:—I have a fine lot of Land Fresh Water and Marine Shells to exchange for Indian relics. BENTON HOLCOMB, West Granby, Hartford Co., Conn.

FOR EXCHANGE:—Sets of 51a 1-3, 70 1-3, 77 1-2, 191 1-4, 194 1-5 1-6, 262 1-4, 333 1-3, 337 1-2, 412 1-8, 456 1-5, 467 1-3 1-4, 488 1-5, 501 1-4, 1-5, 517 1-2, 552 1-4 1-1, 584 1-5, 595 1-3, 622a 1-5 1-6, 624 1-3, 735 1-6. First class with data, for common sets. A. W. PLUMB, Flint, Mich.

FOR SALE:—Copies complete of the *Nidologist* from the time it started till June, 1897. Make offers. Also bird skins of this locality for sale. E. ATKINS, East Las Vegas, New Mexico.

I WOULD like to have the ones that answered the exchange notice of D. R. Clarkson, St. Clair House, Niagara Falls, communicate with me. ROBERT WARWICK, Fleming, N. Y.

WANTED: Singles of Golden and Bald Eagles, Duck Hawk, Stormy Petrel, Parauque, Swallow-tailed Kite, Sandhill Crane, Roseate Spoonbill, Albatross, Penguin for cash, choice Southern sets. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. D2t

OÖLOGISTS', Taxidermists' and Naturalists' supplies for any department. Shells, minerals, crystals, (rare amber colored calcite from Joplin, Mo.) and scientific books and periodicals. ANDREW NELSON, 1108 Palean St., Keokuk, Iowa.

A NO 3 Eastman Kodak, 3 $\frac{1}{2}$ x4 $\frac{1}{4}$. Good as new. Books, Magazines, Old Papers and Copper Ore to exchange for Mounted Game Heads, Birds, etc. Also want Autographs, for which I will give good exchange or cash. Would like to hear from some collector in Washington. D. C. F. O. NELSON, 237 S. Main St., Butte, Mont.

WANTED:—Eggs in sets with data, Ornithologists and Oologists Books and instruments in exchange for stamps. Write stating price and description. H. W. KIMBALL, 123 E. Lake St., Minneapolis, Minn.

EXCHANGE:—Eggs of this locality for more Northern specimens. Send and get my list. Will exchange sets or singles. W. H. BALDWIN, JR., Box 102, Greenville, Texas. O2t

I HAVE Opals and minerals to exchange for old silver and gold coins; also will take a few bird skins from N. W. states, also advertising space. ROBERT BURNHAM, 143 Gallup St., Providence, R. I. O2t

FOR SALE:—Arrowhead Scarf pins, either light or dark, mounted in rolled gold, 50c each; sterling silver, 75c each, postpaid. Also a lot of very fine, flints, bird arrow points. CHAS. R. HESTON, Sidney, O. N2t

STAMPS AND BILLS cheap! 10 varieties of square cut used obsolete U. S. stamped envelopes, catalogue price 75c, only 20c; 3 varieties entire official size, catalogue 52c, only 13c; set of 11 Austrian stamps, 1 to 50kr, catalogue value 23c, only 9c; 10 varieties of old paper money 25c, only \$1.00, genuine originals, only 30c; a \$10 bill and catalogue of over 150 varieties 8c; 2 Indian arrows from N. C. Sec. J. E. HANDSHAW, Smithtown Branch, N. Y. N3t

PUBLICATIONS, EGGS, BOOKS WANTED: I will allow 50c each for any back number of the "Auk" you may have, if in good condition and sent prepaid. You to take your full pay in Eggs, Shells (showy or scientific), Corals, Echinoderms, Fossils, Minerals, Stamps, Handbooks, Curios or Novelties, (Books, Instruments and Supplies will be given in exceptional cases by special arrangement) as listed in the Premium List Supplement. I can also use on same terms the following numbers of the OÖLOGIST at prices quoted: June, 1858, 25c; July-Aug., 1856, 20c; Jan.-Feb. 1857 or Dec., 1856 with same attached, 10c; June-Sept., 1857, 15c; Apr., 1859, 15c; Jan.-Feb., 1856, 10c; Jan., 1895, 5c; March, 1897, 5c; May, 1897, 5c. All must be complete, clean, and in good condition. I will also accept back No's of *Ornithologist* and *Oologist*. *Recreation*, *Insect Life*, any issue and in any quantity at 5c per copy on same terms. (I will allow 2c for Oct., '93 and Feb., '94 "Nids," also for October and December '96 *Osprey*.) If you have other publications along my line. Write and state what is wanted. I can also use books on subjects pertaining to Natural History if in good condition and cheap, also A No. 1 sets of eggs with data at 1/2 "Standard" rates. Lists of books and eggs must be submitted for my selection or approval before sending. Address at once FRANK H. LATTIN, Albion, N. Y.

MINERALS SHELLS, etc. The White City Collections. 50 fine cabinet specimens, \$3. 50 smaller size, \$2. 50 amateur size, \$1. Printed name and locality with each specimen. 50 Shells, Corals, and Marine Specimens, only \$3. 100 Fossils, including fine Fish, Trilobite, Crinoids, Corals, Sponges, several fine Ferns, etc., only \$8. A great variety Unios with one valve highly published from 35c to \$1, very showy. Taxidermy in all its branches at reasonable prices. Illustrated catalogue by mail, 10c. J. M. WIERS, Naturalists Agency, 357 W. VanBuren St., Chicago, Ill.

"THE STORY OF THE FARALLONES."

Text by C. Barlow, arranged and published by H. R. Taylor.

A beautiful brochure filled with charming descriptions and illustrations in half-tone of the wonderful bird rookeries. Appreciated by all who see it and doubly fascinating to the Oologist. In all there are 379 SQUARE INCHES of costly illustrations on enamel paper. Dr. Coues says of the work: "It is very handsomely gotten up—a credit to all concerned, either in the text or illustrations, and gives a great deal of information in an entertaining manner."

The elegant Souvenir, worth more than twice the money, will be sent for

ONLY 30 CENTS, POSTPAID,

Or Two to one address for 50 cents. Remit in any form to

H. R. TAYLOR, Publisher,

ALAMEDA, CAL.

THE OSPREY

Now Published from

NEW YORK.

Carried hither by result of its successful publication.

Among the features of the coming months are interesting articles and photographs by well-known naturalists, relative to **Cuba, Greenland, Alaska, Mexico, etc.**

In the Boobys of Revillegrigedo Islands," Mr. A. W. Anthony tells of the Red-footed, Blue-faced, and Brewster's Boobys as he met with them on his expeditions into Mexican waters. Six wonderfully interesting photographs pictures to us the curious birds as they are, alive, on the far of Pacific Islands.

Mr. Geo. G. Cantwell has resisted the gold excitement long enough to send THE OSPREY some excellent photographs of Alaskan birds. Also many other photographs of nature are to appear—in numbers and quality equalled only by those found in THE OSPREY.

Articles are constantly appearing by the best ornithological writers and men of national reputation, besides articles and notes by field naturalists, adequate in themselves to sustain THE OSPREY's reputation as the representative monthly of bird students.

Portraits of Great American Ornithologists in THE OSPREY.

Subscription, \$1. Sample copy 10c.

THE OSPREY CO.,

141 East 25th St., New York City.

The Oregon Naturalist.

The Oregon Naturalist is the only magazine on the Pacific Coast devoted to Natural Science. A sample copy free. Address,

JNO. W. MARTIN,

Palestine, Oregon.



SEINES, NETS, TENTS, and SPORTING GOODS.

Every description of Guns, Revolvers, Ammunition and Sporting Goods at very lowest prices. We have something of interest to you.

FOLDS

We have some compound Folds in rock, and a few Banded Sandstone Faults, both very interesting to Geologists, and a quantity of polished material for sale. We make a specialty of cutting and polishing cabinet material at our Steam Lapidary Shop.

John G. Buxton, Milo Centre, N. Y.

Dr. Miles' Nervine

A REMEDY FOR THE
Effects of Tobacco.



THE excessive use of tobacco, especially by young men is always injurious and undoubtedly shortens life materially. Mr. Ed. C. Ebsen, compositor on the Contra-Costa News, Martinez, Cal., writes; "I have used Dr. Miles' Restorative Nervine and received much benefit from it. I was troubled with nervousness, dizzy spells and sleeplessness, caused by the use of tobacco and stimulants. I took Dr. Miles' Nervine with marvelously good results, allaying the dizziness, quieting the nerves, and enabling me to sleep and rest, proving in my case a very beneficial remedy." Dr. Miles' Restorative Nervine is especially adapted to restoring the nervous system to its normal condition under such circumstances. It soothes, heals and strengthens.

Dr. Miles' Remedies are sold by all druggists under a positive guarantee, first bottle benefits or money refunded. Book on diseases of the heart and nerves free. Address,
DR. MILES MEDICAL CO., Elkhart, Ind.



New Mineral Store.

If you want good and cheap Mineral Specimens write for Circular and particulars.

ANDREW HARTMAN,
4515 Parrish St., Philadelphia, Pa.

GEORGE G. CANTWELL, JUNEAU, ALASKA.

The spoils of an eight months collecting trip among the Islands of the Alaskan coast are now offered for sale, consisting of rare Sea Birds and Eggs, Puffins, Auks, Murrelets, Cormorants, etc., and many interesting curios of the SIWASH INDIANS.

Full line of 5x8 views of the route to the Gold Fields. Juneau, Dyea, Skagaway, Chilkat Pass, Yukon river, etc., 50 cents each. \$5 per assorted dozen.

Send for Price List.

N6t

THE ODELL Type Writer.

\$20 will buy the **ODELL TYPE WRITER** with 78 characters, warranted to do as good work as any machine made.

It combines SIMPLICITY with DURABILITY, SPEED, EASE OF OPERATION, wears longer without cost of repairs than any other machine. Has no ink ribbon to bother the operator. It is NEAT, SUBSTANTIAL, nickel-plated, perfect, and adapted to all kinds of type writing. Like a printing press, it produces sharp, clean, legible manuscripts. Two or ten copies can be made at one writing. Any intelligent person can become an operator in two days.

Reliable Agents and Salesmen wanted.

For Pamphlet giving Indorsements, etc., address

139

ODELL TYPE WRITER CO.,

358-364 Dearborn St.,

CHICAGO, ILL.

THE ANTIQUARIAN.

The single journal in America exclusively devoted to the study of Prehistoric Man, which aims to occupy the ground between the scientist and the student. Quite a feature made of late discoveries and other news in Archaeology. Excellently illustrated. Sample copies to Archaeologists and Students.

Issued monthly at \$1.50 per year.

Special terms to workers.

PREMIUMS FOR CLUBS.

THE LONDON PTG. AND PUB. CO.
COLUMBUS, OHIO.

This month's OOLOGIST was mailed subscribers Feb. 9.

NEW AND SECOND-HAND BOOKS

PRICES GOOD UNTIL APRIL 1, 1898.

Starred (*) titles are second hand copies, but as a rule the inside pages are "good as new." Many are practically new, but previous owners' name has been written within.

The unstarred titles are for new books, in a few instances the covers are slightly shelf-worn.

Many volumes and sets cannot be duplicated—hence the necessity of sending your order early. When ordering always state whether you have a second choice, or whether you wish money refunded, in case books ordered have been sold.

Many of the volumes offered in this list are taken from my private library and I offer them for sale: First, because I need the room for other books, and Second, because I need the cash to purchase these "other books."

IMPORTANT! Lack of time and space prevents my listing more books this month. I have hundreds of other publications in stock and can procure anything obtainable. Write your wants.

Remit in most convenient manner, but do not send sums of \$1.00 or over loose in your letter. All books are PREPAID at prices quoted. Address all orders plainly and in full to

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

Ornithology and Oology.

A. O. U. Check-list, abridged edition (50). \$	30	Ridgway, Catalogue of Old World Birds in National Museum.....	10
A. O. U. Check List of North American Birds. Last edition, cloth.....	1 90	*Warren, Birds of Pennsylvania, 100 colored plates.....	3 24
A. O. U. Supplement for '88	20	Short, Birds of Western New York, '96 ed.	07
Apgar, A., Pocket Key of the Birds of the Northern United States East of the Rocky Mountains (50).....	40	The Wilson Quarterly and Semi-Annual, the official organ of the Wilson Ornithological Chapter. Six issues, viz: Vol. I, No. 2; Vol. II, Nos. 1 and 2; Vol. III, No. 1; Vol. IV, No. 1 and 2. Nearly 300 pages of valuable contributions to Ornithology (1.70).....	59
Chamberlain, New and revised edition. Nuttall's Land, Game and Water Birds, colored plates and many illustrations, 2 vols.....	3 30	Cook, A. J., Birds of Michigan. This copy is the 1893 report of the Michigan Board of Agriculture which contains 526 pages and is bound in cloth, 165 of these pages, illustrated with 115 engravings, are devoted to the Birds of Michigan in addition to which and the annual report the following Bulletins are also published in the volume: "Vegetable Tests," 27 pages; "Spurry, <i>Spergula arvensis</i> ," 6 pages; "Flat Pea, <i>Lathyrus silvestris</i> ," 5 pages; Fruit Notes and Spraying 17 pages; Potato Experiment, 59 pages; Honey Analysis, 13 pages; Inspection of Fertilizers, 12 pages; Locust and Horn Fly, 6 pages; Soils of Michigan, 13 pages; Eighty New Strawberries, 13 pages; Report of exhibit at Columbian Exposition, (Entomological, Botanical, Chemical, &c), 37 pages; Forestry, 21 pages.....	97
*Chapman, Frank M., Birds Found within Fifty Miles of New York City (50).....	20	Shufeldt, M. D., R. W., "Scientific Taxidermy for Museums." 71 full page plates, 67 pages, text, unbound.....	1 10
Chapman, Frank M., A Handbook of the Birds of Eastern North America.....	2 85	Ornithological and Natural History Publications can furnish back No's of almost anything published in America during the past 25 years. Write wants,	
Earl, Thos. M., Pets of the Household, Their Care in Health and Disease (50)	24	Young Oologist, Vol. I and II, cloth bound	65
Goss, Col. N. S., History of the Birds of Kansas (7.50).....	5 40	Oologist, Vol. III and IV, cloth bound.....	60
McIlwraith, Thomas, Birds of Ontario (2.00)	1 65	Vol. IX, '92, 300 pages, cloth bound.....	67
Ridgway, Robt., Manual of North-American Birds (7.50).....	6 32	Thirty back numbers, issued from 1890 to 1896, inclusive, my selection.....	63
Stearns, W. A., Bird Life in Labrador (75)	58	Oologist and Young Oologist. Eighty back numbers. All different. (4.00). Lot prepaid only.....	1 40
*Morris, Nests and Eggs of British Birds, 2 vols. 151 colored plates.....	7 33	Twenty back numbers issued prior to 1890, my selection, prepaid.....	41
Wilcox, Common Land Birds, of New England.....	60	Almost any back issue can be furnished. Send stamp for list and prices.	
Maynard, Birds of Eastern North America. 296 pages of original 532, bound in card board covers, 3 plates.....	1 62	Natural Science News. Vol. I complete, 52 numbers, only six complete vols. left. Will send you one for only.....	1 00
Eliot, List of Described Species of Humming Birds.....	13	Vol. II complete, 14 numbers, only.....	30
Louck's, Life History and Distribution of the Prothonotary Warbler in Illinois.....	31		
Ingersoll, E. Birds' Nesting.....	1 05		
Maynard, Chas. J. Eggs of North American Birds.....	1 90		
Coues, E. Key of North American Birds Check List of American Birds.....	6 98		
Langille, Rev. J. H. Our Birds in their Haunts.....	2 95		
Langille, Rev. J. H. Our Birds in their Haunts.....	1 80		
Merriam, Florence A. Birds through an Opera Glass.....	68		
Raine, Walter. Bird Nesting in Northwest Canada.....	1 80		
Barrow's, The English Sparrow in North America, 400 pp.....	65		
*Brewer, North American Oology. Part I, 74 colored eggs.....	2 92		

Fill your gaps while you can. I can *now* furnish odd numbers, complete volumes and in some cases complete files of the following and dozens of others: *Auk, Nidologist, Osprey, Ornithologist and Oologist, Science, Popular Science Monthly Nature, Canadian Entomologist, Insect Life, American Naturalist, Archaeologist, Nautilus, Microscopical Bulletin, Microscope, Microscopical Journal, Hoosier Naturalist, Oregon Naturalist, Iowa Ornithologist, Sunny South Oologist, Taxidermist, Mineral Collector, Hawk-eye Ornithologist and Oologist, Wisconsin Naturalist, Old Curiosity Shop, Ornithologist and Botanist, Bay State Oologist, Collector's Monthly, &c., &c.*

Zoology and Natural History.

Buffon's Natural History For Children, Cloth and Gilt, 32 Colored Plates. 36

Colton, Practical Zoology (90)..... 65

Heilprin, Angelo, Animal Life of Our Sea Shore (1.25)..... 1 10

Jordan, D. S., Manual of the Vertebrate Animals of the Northern United States (2.50)..... 2 25

Manton, W. P., Primary Methods in Zoology..... 41

Mivart, St. G., The Cat, A Study of Back-boned Animals (3.50)..... 2 29

Orton, Comparative Zoology. Structural and Systematic, 350 engravings..... 1 07

*Packard, A. S., Brief Course in Zoology... 76

Stearns, W. A., Notes on the Natural History of Labrador (1.00)..... 41

*Wood, J. G., Illustrated Natural History (1.25)..... 58

White's Natural History of Selbourne..... 86
Vol. II, Letters..... 18

Ballard, World of Matter..... 95

Allen, Monograph of North American Pin-nipeds..... 2 34

Coues, Fur Bearing Animals..... 1 53

Living World, A popular Natural History devoted to Fish, Reptiles Insects, Birds, Mammals and Lower Invertebrates. Over 1200 good, engravings—350 of mammals, 300 of birds, &c. Over 700 pages, good type, good paper, elegantly bound in cloth and gilt, size, 8x10 in 1 78

Jordan, Science Sketches (1.50)..... 99

Bilby, Young Folks' Natural History..... 40

Gill, Catalogue of the Fishes of the East Coast of North America..... 16

Fauna of Death Valley, Expedition. Birds, Reptiles, Fishes, Insects, Mollusks, Trees and Shrubs, Cactuses and Yucas, Localities..... 1 13

Fauna of British India, including Ceylon and Burmah.
Birds, 2 vols., 270 cuts.....
Moths, 1 vol., 330 cuts.....
Mammals, 1 vol., 200 cuts.....
Fish, 2 vols., 340 cuts.....
Reptiles and Batrachie, 1 vol., 140 cuts.....
Seven volumes, 4,000 pages, 1,300 illustrations 15 30

Burroughs, Riverby (1.25)..... 81

Penikese, The 23 Issues of Natural Science News. This valuable serial on Agassiz's famous summer school at Penikese Island, written by an eminent Professor who spent both seasons at the Island..... 25

Penikese, book form, paper covers (50) 35

Lydecker, Royal Natural History, 6 vols, complete in 36 loose parts, profusely illustrated, many colored plates..... 12 15

Bailey, The Prairie Ground Squirrel or Spermophiles of the Mississippi Valley 66

Allen, The American Bison, living and extinct, maps and 12 plates..... 2 34

Conchology, &c.

*Dana, Jas. D., Corals and Coral Islands (5.00)..... 2 67

Pilsbry, H. A., The Manual of Conchology. Issued in 8vo form in quarterly parts. Each part contains 64 or more pages of letter press and 15 to 20 plates. Of Marine Univalves, 15 vols., 60 parts, have appeared. Of Terrestrial Molluscs, 9 vols., 36 parts, have been published, completing Helix with Index. Fine edition, both colored and Indiantinted plates, per part \$8 00; Sample part of fine edition on "Tree Snails," cost \$3.00..... 3 65

*Chenu, Manuel de Conchylogie et de Paleontologie Conchyliologique, Vol. I—Univalves, 3707 figures..... 7 56

Clarke, Common Sea Weeds..... 36

Wood's Common Shells of the Sea Shore Tryon, Streptomatide, American Melanians, 838 figures..... 2 81

*Woodward, S. P., A Manual of the Mollusca, 350 pages, 23 plates, over 800 figures..... 1 80

Miscellaneous.

*Agassiz, A Journey in Brazil..... 1 56

Livingstone's Explorations, Africa, and the Herald Stanley Expedition (1.75).. 86

Chute's Physics (1.25)..... 81

Taxidermy, Guides, &c.

Ballard, H. H., Three Kingdoms, Handbook of Agassiz Association (75)..... 65

Goodale's, Few Common Plants (20)..... 14

Hyatt's Sponges (29)..... 16

Bowditch's Physiology (20)..... 13

Hornaday, W. T., Taxidermy and Zoological Collecting (2.50)..... 2 10

Lattin, Frank H., The Oologists' Handbook, 1885 (25)..... 18

The Standard Catalogue of North American Birds Eggs, 1896 (25)..... 05

Hyatt's About Pebbles..... 10

Tassin, How to Collect Minerals..... 03

Bert, Primer and Scientific Knowledge.... 42

Standard American Stamp Catalogue, '94 22

*Davie, Naturalists' Manual..... 24

Naturalists' Directory of the U. S. and Canada. Nearly 6000 classified names and address. Edition of '90 (2.00)..... 80
Edition of '95 (2.00)..... 1 00

International Directory. '95 (2.50)..... 90

Microscopy.

Manton, W. P., Beginnings with the Microscope (50)..... 40

*Wythe, The Microscopist: A Compendium of Microscopic Science (8.00)..... 3 20

Entomology.

Eberhart, N. M., Elements of Entomology Economic Entomology..... 30 30

Hyatt's Insects (1.25).....	81
Manton, W. P., Insects, How to Catch and How to Prepare for the Cabinet (50)....	36
Thomas, Synopsis of the <i>Acrididae</i> of No. America.....	1 60
Geology, Mineralogy, &c.	
Dana, E. S., Mineralogy and Petrography (2.00).....	\$ 1 75
*Dana, Geological Story (1.15).....	81
Dana, Minerals and How to Study Them..	1 35
*Steele, J. D., 14 Weeks in Geology (1.00)...	51
Winchell, Alex., Geological Studies (2.50)...	1 71
*Hitchcock's Elementary Geology.....	50
Jordan's Elementary Crystallography, with series of nets, for the construction of Crystals (1.50).....	52
Botany.	
Burgers, J. T., English Wild Flowers.....	36
*Wood, A., Object Lessons in Botany (1.17)	75
*Class Book of Botany (2.92).....	1 13
*Gray Asa, School and Field Book of Botany (1.80)	1 12
Manual of Botany, rev. (1.62).....	1 45
*Lessons and Manual, rev. (2.16).....	1 12
Manton, W. P., Field Botany (50).....	40
Apgar, Pocket Key to Trees.....	41

Address,

Frank H. Lattin,
Albion, N. Y.

TAXIDERMISTS' GUNS, Pocket Guns, Pistols, Gun Cases, Shooting Shot Shells; also Shot Cartridges for **SPECIMEN HUNTERS.** All kinds, all prices from \$1.00 to \$25.00. List free. Write for *Taxidermist's free list.*

JAMES H. JOHNSTON,
PITTSBURG, PA.

FRANK B. ARMSTRONG,
TAXIDERMIST,

and Collector and Dealer in

Bird and Mammal Skins,

Birds Eggs in fine sets, Mounted Birds and Animals.

BROWNSVILLE, TEXAS.

CABINETS. Send 10 cts for photo of our speciality—Self Locking. T perches—Oak samples by mail 8c, 10c and 15c; also stands, shields, glass cases, game panels, &c. Cabinets to order. HANAFORD CABINET CO., 139 and 141 W. Fulton St., Grand Rapids, Mich. 58MOTf

Shells, Marine Curios, &c.

I am now ready to supply first-class stock at low prices and should you wish anything from this section, let me hear from you. All inquiries will have a prompt reply. mtf

J. H. HOLMES, Dunedin, Fla.

Come to Florida.

A fortune can be made in a few years in pineapples and tomatoes; vegetables raised the whole year. An ideal home. For particulars write **R. P. Osler,** Avon Park, Fla. 29&Otf

SHINE? Minerals, Fossils and Shells cut and polished at our Steam Lapidary Shop, recently fitted up on the most improved plans where we do first-class work at reasonable prices. Cabinet work a specialty. Polished material for sale.
JOHN G. BUXTON, Milo Centre, N. Y.

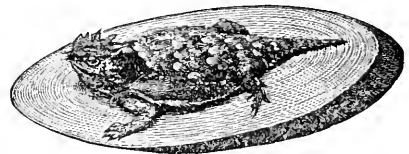
Iceland, Lapland, Spain.

A large stock of Birds Eggs—last season's collecting has just arrived from the above localities. Descriptive price-list sent free upon application.

A. KRICHELDORFF,

Naturalist, etc., No. 535 Oranien-Strasse, Berlin, S., Germany.

CALIFORNIA CURIOSITIES.



Mounted Horned Toads,

Tarantulas, Scorpions, Trap-Door Spiders, 5 Specimen Collections, etc.
Also Trap-Door Spider's Nests.

Headquarters for Pincushions both from Yucca Palm and Redwood Bark. Lowest prices on Orangewood Goods, such as Napkin Rings, Fancy Paper Cutters, etc.

Best work on mounted specimens. No trash. Wholesale Illustrated Price List free to 05t dealers only.

G. W. TUTTLE, PASADENA, CAL.

NATURALISTS' PRINTING of all kinds on good paper cheap. Egg labels 15c per 100 small; 25 per 100 large. Fossil 10c per 100. Letter heads 35 per 100. Send copy for prices. D. H. EATON, Woburn, Mass.

H. H. & C. S. BRIMLEY,
COLLECTORS, RALEIGH, N. C.

First-class Skins of Birds and Mammals, Bird's Eggs, Reptiles and Batrachia both Alive and in Alcohol. Histological Material. Full data. Send stamp for lists.

CENTRAL PARK
NEW YORK

THE OÖLOGIST.

Monthly.

VOL. XV. NO. 2. ALBION, N. Y., FEBRUARY, 1898. WHOLE NO. 141

Wants, Exchanges, and For Sales.

Brief special announcements, "Wants," "Exchanges" "For Sales," inserted in this department for 25c per 25 words. Notices over 25 words, charged at the rate of one-half cent per each additional word. No notice inserted for less than 25c. Terms, cash with order.

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

What's Your Number?

Examine the number following your name on the wrapper of this month's OÖLOGIST. It denotes when your subscription expired or will expire.

No. 141 your subscription expires with this issue
145 " " " " June, "
150 " " " " Nov. "

Intermediate numbers can easily be determined. If we have you credited wrong we wish to rectify.

This month's OÖLOGIST was mailed subscribers March 7.

I HAVE live Black and Bald Eagles, a pair Fawns, Foxes, Coons, Squirrels; also Natural History specimens of all kinds to sell or trade. C. F. FITE, Denver, Ind.

TO EXCHANGE:—California bird skins for books on Zoology, Physiology, Botany, Entomology, Geology. Send descriptive list of books stating edition and of desiderata. R. E. SNODGRASS, Palo Alto, Calif.

FOR SALE or EXCHANGE:—A pocket kodak in good condition. Would like cash or will exchange for oölogists' supplies or arrowheads. ARCHIE DAWSON, Mt. Vernon, Iowa.

FOR SALE:—Good 4½x4¼ Vive Camera, six plates, twelve cards, twelve sensitized papers, printing frame and instructions \$4.00. OTIS TROTTER, Camp Point, Ill.

WANTED:—A pedigreed black cocker spaniel dog, also a pointer or setter dog (state age). Will give fine sets of eggs in exchange. P. D. GETTY, 301 N. Main St., Bloomington, Ill.

TO EXCHANGE:—Eggs of this locality for eggs of other localities, all first class with data. Same wanted in exchange. CHAS. E. RICE, Osell, Nebraska.

WANTED FOR CASH:—Cocoons of *Polyphenus*, *Promethes*, *Ceanothii* and others. '97 Search Light bicycle lamp for best offer of cocoons or birds' eggs. JAMES L. MITCHELL, Indiana Trust Building, Indianapolis, Indiana.

DESIRABLE Western Bird Skins to exchange for Horned Larks and Song Sparrows. Correspondence necessary. J. O. SNYDER, Curator of Zoological Museum, Stanford University, Cal.

WANTED.—Good pair of climbers. For same I offer first class sets, with data. Columbian Sharp-tailed Grouse. Write describing climbers. STORRS H. LYMAN, Box 41, Dayton, Wash.

FOR SALE.—Arrowhead Scarf Pins mounted in rolled gold 50c. each; sterling silver 75c. each. Also a lot of fine Ohio Bird arrow points and other Indian Relics. CHAS. R. HESTON, Sidney, O.

FOR SALE.—4x5 photographs of curious double nest of Chipping Sparrow, like cut in January Osprey, price 25c. WM. H. FISHER, 1602 Mt. Royal Ave., Baltimore, Md.

WANTED.—Live Goldfinches. American species, either sex; prefer Arkansas and Lawrence. Will give good exchange or reasonable cash price. WALTER C. WOOD, 196 Randolph St., Detroit, Mich. F2t

WANTED.—Collectors in the United States and Canada to gather and prepare for me, scientifically, birds eggs, in large quantities, in sets with data at a reasonable price. State what varieties in your locality and terms. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. F3t

FOR SALE or EXCHANGE.—5x7 Premier Hand Camera, R. R. Lens, 3 plate-holders, case etc., good as new; for ½ cost (cash) a perfect bargain. 12 ga. insertion barrel, many desirable books as Pacific R. R., Reports IX and X; Fisher, Hawks, Owls and others. Want good bird, mammal skins, reptiles and curios. Send for list. J. O. DUNN, 390 E. 39th St., Chicago.

FOR SALE.—Arrowhead Scarf Pins mounted in rolled plate gold 35c. Solid silver 60c. each postpaid. (This offer good until April 1st only) Also Bird Points and other Indian relics and minerals at reduced prices. CHAS. R. HESTON, Sidney, O.

EXCHANGE.—Auk, vol. 14; O. and O., vols. 15, 16 and 17; Nidologist, Osprey and Museum—some rare; Kombi Camera: fine sets 1, 9, 11, 12, 59, 126, 182, 184, 199, 225, 337b, 360a, 373, 478a, 707, and cash for strictly first class adult skins. 1, 2, 3, 6, 131, 135, 137, 146, 147, 148, 149, 150, 153, 169.1, 212, 214, 230, 232, 249, 254, 255, 263, 277, 305, 308b, 332, 323, 334a, 337, 337a, 342, 343, 355, 357, 360, 538, 539, 540a, 542a, 545, 546, 548, 561, 581, 584, 721, 721a, 758a. EUGENE S. ROLFE, Minnewaukan, N. Dak.

FOR SALE.—Minerals. For 12 one cent stamps will mail postpaid a cabinet specimen of Micaceous Quartz (mica quartz and feldspar). Sparkling, very pretty and showy. A late find. CHAS. R. HESTON, Sidney, O.

LOOK!—Crayon portraits, 16x20 for \$1.25 cash. Would exchange a few for eggs, books, etc. Everybody write. W. PAUL STORMONT, Sterling, Kan.

FOR SALE.—Guitar at \$7.50, cost \$15 new, oak back and sides, standard size, good tone; also D flute, 4 keys, cheap. W. PAUL STROMONT, Sterling, Kan.

EXCHANGE.—Violin and case, postage stamps and eggs for Coues' Key, Ornithological books and good sets with data from other localities. C. V. JEFFREY, Indianola, Iowa.

EXCHANGE.—International Stamp Album, '96 edition, containing 300 var. stamps, catalogue value \$10.00. Would like to exchange this for camera, birds, eggs, stamps or rifle. FRANK R. SANDERS, Box 674, Laconia, N. H.

TO EXCHANGE.—About 20 first class sets birds eggs, with data, will exchange at half catalogue rates. Want Hornaday's Taxidermy, also glass eyes. W. O. HOTCHKISS, Twinsburg, O.

I WILL give one pair Climbing Irons strapped ready for use for \$2.50 worth of eggs in sets. F. H. METCALF, Holyoke, Mass.

WANTED.—Human Skull with Teeth, Birds Eggs, (singles) Mounted Specimens, 22 Rifle, U. S. Stamps, Indian Relics, Fossils, Minerals, Opals, Autographs, Shells, Curios. I offer in exchange an Odell Typewriter, Bible printed in 1674, other old books, autograph letters of Jay Gould, polished onyx books mounted for watch charms, Johnson's Encyclopedia 8 vols., war papers. Write me now. I also have a fine U. S. stamps, general issue, department and revenue. CHAS. E. TUTTLE, 2 Nickwackett St., Rutland, Vt.

WANTED.—A first class set of 335 1-3. Will give 337 1-2, 394 1-4, 529 1-5. Datas given and required. L. S. HORTON, Gretna, N. Y.

WANTED.—A first class set of 337b½. Will give 339½, one egg of this set is not quite A1. L. S. HORTON, Gretna, N. Y.

B-FLAT CORNET, nickel plated and engraved, used in band one year; cost \$24; all complete: have also a chank case for mouth piece, cleaning rod and mute, all in leather satchel; for best offer in shells, minerals and curios. Address and state what you have to exchange. GEO. P. ANDERSON, Box 37, Daunebrog, Neb.

OÖLOGICAL Invention. Hand Egg Blow-pipe for blowing and rinsing eggs. A very useful instrument. Many unsolicited recommendations. Price 75 cents, sent prepaid with printed instructions. DR. M. T. CLECKLEY, 457 Greene Street, Augusta, Ga. J2t.

WANTED:—Ridgeway's Manual, first class treatise on taxidermy, or any reliable work on ornithology, in exchange for first class eggs with complete data. WINFIELD S. CATLIN, Annapolis, Ind. D2t

WANTED: Singles of Golden and Bald Eagles, Duck Hawk, Stormy Petrel, Parauque, Swallow-tailed Kite, Sandhill Crane, Roseate Spoonbill, Albatross, Penguin for cash, choice Southern sets. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. D2t

WANTED.—Skin of Palmer's Thrasher. Must be in good condition. Please state whether male or female, also amount wanted. WM. M. PALMER, 515 West 130th St., New York, N. Y.

300 varieties minerals. 25 two-inch ones \$1. Fossils, Geodes, Curios, Onyx, Indian Axes and long Spear 100 Arrow Heads, \$2.00, postpaid. CORA JEWELL, Shannondale, Indiana.

FOR SALE CHEAP.—A pair of fast Greyhounds; black dog and white bitch and four pairs of pups. URLING C. COE, Carthage, Mo.

PUBLICATIONS, EGGS, BOOKS WANTED: I will allow 50c each for any back number of the "Auk" you may have, if in good condition and sent prepaid. You to take your full pay in Eggs, Shells (showy or scientific), Corals, Echinoderms, Fossils, Minerals, Stamps, Hand-books, Curios or Novelties. (Books, Instruments and Supplies will be given in exceptional cases by special arrangement) as listed in the Premium List Supplement. I can also use on same terms the following numbers of the OÖLOGIST at prices quoted: June, 1888, 25c; July-Aug., 1886, 20c; Jan.-Feb., 1887 or Dec., 1886 with same attached, 10c; June-Sept., 1887, 15c; Apr., 1889, 15c; Jan.-Feb., 1888, 10c; Jan., 1895, 5c; March, 1897, 5c; May, 1897, 5c. All must be complete, clean, and in good condition. I will also accept back No's of *Ornithologist and Oologist*, *Recreation*, *Insect Life*, any issue and in any quantity at 5c per copy on same terms. (I will allow 25c for Oct. '93 and Feb., '94 "Nids," also for October and December '96 *Osprey*.) If you have other publications along my line. Write and state what is wanted. I can also use books on subjects pertaining to Natural History if in good condition and cheap, also A No. 1 sets of eggs with data at ½ "Standard" rates. Lists of books and eggs must be submitted for my selection or approval before sending. Address at once FRANK H. LATIN, Albion, N. Y.

I received more answers to my ad. The OÖLOGIST that I could not attend to them all. I exchanged over \$350.00 worth of Eggs and could have exchanged more, had I have had that. J. W. SUGDEN, Salt Lake City, Utah.

Note our Prices on Printing.

5,000 Note Heads.....	\$5.00; 10,000, \$9.00
5,000 Good No. 6 Envelopes . . .	5.00; 10,000, 9.00
5,000 Bill Heads.....	5.00; 10,000, 9.00
5,000 Statements.....	5.00; 10,000, 9.00
5,000 Business Cards.....	4.00; 10,000, 7.50

All work and stock guaranteed first-class. It will pay you to send your printing to A. M. EDDY, Albion, N. Y.

Nobody need have Neuralgia. Get Dr. Miles' Pain Pills from druggists. "One cent a dose."

A COMPLETE SET OF FOREST AND STREAM

AT A STREAM.

A complete set of the "Forest and Stream" 47 Volumes bound, with paper sides and leather backs, and the remaining numbers unbound. The Set is imperfect in the following particulars, which can be corrected for a small outlay.

The Backs of Volumes 1 to 6 are not an exact match for the rest. Volumes 8 and 9 are bound in one and Volumes 10 and 11 are bound in one. Volume 15 lacks the index.

The entire set is offered for only \$100 cash.

An exceptional opportunity for some Library, Sportsman's Club, or private individual. Address, **FRANK H. LATTIN, ALBION, N. Y.**

Winchester MEANS PERFECTION
WHEN APPLIED TO
REPEATING RIFLES AND ALL KINDS OF
SHOT-GUNS AMMUNITION
SINGLE-SHOT RIFLES

Pronounced by Experts the Standard of the World.
Ask your dealer for WINCHESTER make of Gun or
Ammunition and take no other.
FREE:--Our new Illustrated Catalogue.
WINCHESTER REPEATING ARMS CO., New Haven, Ct.

NEW ENGLAND MINERALS.

Rhomb Spar, R. I., Beryl, N. H.: Actinolite, R. I.; Galenite, Mass. $\frac{1}{4}$ pound specimens of either *postpaid* for only 10 cents; or the four for only 30 cents.

The above is only a sample of the bargains I am offering in New England Minerals. Write your wants and send for lists. I handle only good fresh material—no rubbish.

ROBERT BURNHAM,

No. 143 Gallup St., PROVIDENCE, R. I.

MEXICAN COINS. 1c, 2c and 5c nickel uncirculated, and 1c copper. Set of 4 prepaid for only 12c. The nickel coins were in circulation only a few months in '82-'83 may become exceedingly rare in a few years. ROBERT BURNHAM, 143 Gallup St., Providence, R. I.

H. H. & C. S. BRIMLEY,
COLLECTORS, RALEIGH, N. C.

First-class Skins of Birds and Mammals, Bird's Eggs, Reptiles and Batrachia both Alive and in Alcohol. Histological Material. Full data. Send stamp for lists.

FRANKLIN HOUSE Cor. Bates and Larned Streets,
DETROIT, MICH.
Rates, \$1.50 to \$2.00 per Day.

Only one block from Woodward and Jefferson Aves. Elevator Service, Steam Heat, Electric Lights, Tile Floors, Etc.
H. H. JAMES & SON, Prop'rs.

PRICES FOR BACK NUMBERS OF THE
YOUNG OÖLOGIST
 AND
THE OÖLOGIST

will, during 1898, remain as quoted below

After which the prices of many numbers will be advanced and possibly not obtainable at any price. Should you desire back numbers to complete your file NOW is the time to purchase. You can never obtain them for less money and possibly not at any price, as our stock ranges from only 2 to 25 copies of an issue.

Prices for 1898 are as follows:

Nos. 18, 32 and 42 can no longer be furnished, — 35 cents each when in stock.

Nos. 15, 21, 23-24, 34-35, 89, 111 are 25c each.

Nos. 1, 14, 88, 127, 15c each.

Nos. 9, 11, 13, 16, 53, 66-67, 75, 76, 77, 78, 79, 80, 87, 90, 101, 113, 114, 115, 130, 132, 137, 10c each.

☞ All other numbers, 5c per copy.

For 50c I will send a package of twenty (20) all different back numbers, my selection.

For \$1 I will send a package of fifty (50) back numbers, all different, my selection.

For \$2 I will send a package of ninety (90) back numbers, all different, my selection.

For \$5 I will send by return mail a copy of every issue published (excepting 18, 32 and 42) — Nos. 1 to 139 inclusive.

My prices for back Nos. of the **YOUNG OÖLOGIST** and **OÖLOGIST** in volumes, are as follows:

Vol. I.	1884-5, Nos.	1 to 12.....	\$.60
"	II, 1885,	" 13 and 14.....	.20
"	III, 1886,	" 15 to 20 (lacking No. 18).....	.35
"	IV, 1887,	" 21 to 25-26.....	.45
"	V, 1888,	" 27 to 38 (lacking No. 32).....	.50
"	VI, 1889,	" 39 to 50 do 42.....	.40
"	VII, 1890,	" 51 to 62.....	.50
"	VIII, 1891,	" 63 to 74.....	.50
"	IX, 1892,	" 75 to 84.....	.70
"	X, 1893,	" 87 to 98.....	.75
"	XI, 1894,	" 99 to 110.....	.50
"	XII, 1895,	" 111 to 122.....	.60
"	XIII, 1896,	" 123 to 127.....	.25
"	XIV, 1897,	" 128 to 139.....	.50

BOUND VOLUMES.

Can be furnished, strongly bound in cloth and boards, as follows:

Vol. I and II **YOUNG OÖLOGIST** bound in one volume.....\$1.00

Vol. III and IV, **THE OÖLOGIST**, bound in one volume, only..... 1.00

Vol. IX, **THE OÖLOGIST** for '92, 298 pages of valuable and instructive Oölogical and Ornithological matter with many full page illustrations..... 1.00

Or, if you order the three volumes at one time, we will send them by return mail for only \$2.50. Every student of birds, their nests and eggs should have these three volumes in their library. The valuable information they contain, is worth many times the price.

Address plainly

FRANK H. LATTIN,

Publisher of THE OÖLOGIST,

ALBION, N. Y.

At Four Score.

Dr. Miles' Nervine Restores Health.



UNCLE EZEKIEL OBEAR, assessor and tax collector, Beverly, Mass., who has passed the 80th life mile stone, says: "Dr. Miles' Restorative Nervine has done a great deal of good. I suffered for years from sleeplessness and nervous heart trouble. Would feel weary and used up in the morning, had no ambition and my work seemed a burden. A friend recommended Dr. Miles' Nervine, and I purchased a bottle under protest as I had tried so many remedies unsuccessfully, I thought it no use. But it gave me restful sleep, a good appetite and restored me to energetic health. It is a grand good medicine, and I will gladly write anyone inquiring, full particulars of my satisfactory experience."

Dr. Miles' Remedies are sold by all druggists under a positive guarantee, first bottle benefits or money refunded. Book on diseases of the heart and nerves free. Address,

DR. MILES MEDICAL CO., Elkhart, Ind.



Extra Special.

Any person purchasing Books to the amount of \$1.00 or over at prices offered in last issue will be entitled to **THE OÖLOGIST** one year, with an exchange coupon, *gratis*. Offer good until April first only.

THE MONARCH CHAINLESS.

A Bicycle Gearing Absolutely New, Novel, and Practical.

In their indiscriminate haste to announce the making of chainless wheels, some manufacturers have tumbled over each other in the endeavor to be in front. To be in front is a spasm, to "keep in front" is sustained energy. To utter a truism is one thing, to live up to it is another.

The spirit of the aphorism of the Monarch Cycle Manufacturing Company, "Ride a Monarch and Keep in Front," is well illustrated in its latest product, The Monarch Chainless. Alive to the times, the company will produce a chainless bicycle which has been proven by repeated tests to be superior, in its class, in every particular.

Two surfaces that will roll on each other will transmit motion from one to the other. If the surfaces are comparatively smooth, the motion is transmitted by friction. But, when the surfaces are provided with projections, the motion, although it is unchanged in nature, is transmitted by direct pressure, and it is irregular unless the acting surfaces of the projections are carefully and exactly shaped to produce an even motion. It is the difficulty which is experienced to produce these perfect projections, when bevel gears are used, which leads the experienced mechanic away from them. Long experience in Sewing Machine manufacture has taught the Monarch Company that whatever transmission was used, bevel gears were not to be considered if easy running was to be thought of. The result has been a driving gear which is excellent in its easy running qualities.

The mechanism is simple. The crank axle and hub gears somewhat resemble the familiar sprocket wheels, the noticeable difference being the teeth which are closer together and V shape in cross section instead of four sided. The shaft connecting the two is provided at each end with a pinion having roller pin teeth which run in and out of the wide angle openings between the gear teeth. Each set of gears is enclosed

but should they from any cause be exposed the action of the pin teeth is such that they are self-cleaning, forcing mud and dirt out from between the teeth. One of the chief objections urged against chainless wheels by mechanics is that should the rear frame become twisted or out of line, there would be a consequent binding of the mating gears. The Monarch chainless is entirely free from this objection inasmuch that the junction of the pinions and gears form a type of the ball and socket joint, thereby permitting free running under the conditions usually met with in bicycle riding. A particular advantage which this gear has, and which gives it the highest efficiency, is the direct lift as against the end thrust which is common to all bevel gearing. This end thrust is a prominent factor in friction and frame strain.

Another point to be counted in favor of the Monarch gear is, that it is not of delicate construction although comparatively light in weight.

As stated by Grant, the well known authority on gears, "The pin gear is particularly valuable when the pins are made in the form of rollers for then the minimum of friction is reached." The friction between the tooth and pin, otherwise a sliding friction at a line bearing is, with a roller pin, a rolling friction. When properly made, there is no form of tooth that is superior to the roller pin tooth.

While the Monarch company is warranted from the study of experts in placing its chainless machine on the market as the best type of that class, its faith in the chain wheel is in no way diminished. It will continue to keep them in the forward ranks of that type of bicycle which is yet the choice of the majority of the people. In line with the general policy of the Monarch company, the price of its chainless will be \$100.00, which will give a complete line, including chain machines, ranging from this price to \$40.00.

CLEAN YOUR EGGS! Glass syringe in turned box, just as good work as 35c ones, at 18c postpaid.
CLIMBING IRONS. Best "Greeley" irons with forged steel spur and heavy straps, perfectly safe and the best irons made. By express for only \$1.95, always previously sold at \$2.50.

THE BIROS ARE COMING. I now offer for 30 days, the best arsenical soap for skins, all skins sold at 45c, for only 35c per pint. By express.

EGG TRAYS. Any size or color at reduced rates. Write for prices stating what you want.

NEW BULLETIN of Eggs, Skins, etc. Just out. Send for copy. Address

ERNEST H. SHORT, ALBION, N. Y.

How to do it.

All you have to do is, enclose in an envelope, 75 cents, stamps or postal order. I will send to you by return mail a well labeled collection of Shells and Curios from this locality. If you do not find them satisfactory return them and I will return your money. All specimens in natural state.

W. H. HILLER,

147 W. 23d St., Los Angeles, Calif.



THE DIETZ DRIVING LAMP

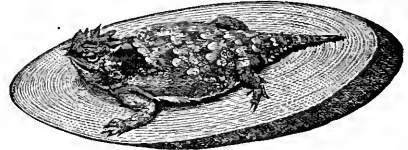
Is about as near perfection as 50 years of Lamp-Making can attain to. It burns kerosene, and gives a powerful, clear, white light, and will neither blow nor jar out. When out driving with it the darkness easily keeps about two hundred feet ahead of your smartest horse. When you want the very best Driving Lamp to be had, ask your dealer for the "Dietz."

We issue a special Catalogue of this Lamp and, if you ever prow around after night-fall, it will interest you. 'Tis mailed free.

R. E. DIETZ CO.,
60 Laight St., New York.

Established in 1840.

CALIFORNIA CURIOSITIES.



Mounted Horned Toads,

Tarantulas, Scorpions, Trap-Door Spiders, 5 Specimen Collections, etc.

Also Trap-Door Spider's Nests. Headquarters for Pincushions both from Yucca Palm and Redwood Bark. Lowest prices on Orangewood Goods, such as Napkin Rings, Fancy Paper Cutters, etc.

Best work on mounted specimens. No trash.

Wholesale Illustrated Price List free to outside dealers only.

G. W. TUTTLE, PASADENA, CAL.

NATURALISTS' PRINTING of all kinds on cheap. Egg labels 15c per 100 small; 25c per 100 large. Fossil 10c per 100. Letter heads 35c per 100. Send copy for prices. D. H. EATON, Woburn, Mass.

50 YEARS' EXPERIENCE

PATENTS

TRADE MARKS
DESIGNS
COPYRIGHTS & C.

Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. Handbook on Patents sent free. Oldest agency for securing patents.

Patents taken through Munn & Co. receive special notice, without charge, in the

Scientific American.

A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms, \$3 a year; four months, \$1. Sold by all newsdealers.

MUNN & Co. 361 Broadway, New York
Branch Office, 625 F St., Washington, D. C.

TAXIDERMISTS' GUNS, Pocket Guns, Pistols, Gun Cases, Shooting Shot Shells; also Shot Cartridges for **SPECIMEN HUNTERS.** All kinds, all prices from \$1.00 to \$25.00. List free. Write for Taxidermist's free list.

JAMES H. JOHNSTON,
PITTSBURG, PA.

THE ANTIQUARIAN.

The single journal in America exclusively devoted to the study of Prehistoric Man, which aims to occupy the ground between the scientist and the student. Quite a feature made of late discoveries and other news in Archaeology. Excellently illustrated. Sample copies to Archæologists and Students.

Issued monthly at \$1.50 per year.
Special terms to workers.

PREMIUMS FOR CLUBS.

THE LANDON PTG. AND PUB. CO.
COLUMBUS, OHIO.

**GEORGE G. CANTWELL,
JUNEAU, ALASKA.**

The spoils of an eight months collecting trip among the Islands of the Alaskan coast are now offered for sale, consisting of rare Sea Birds and Eggs, Puffins, Auks, Murrelets, Cormorants, etc., and many interesting curios of the SIWASH INDIANS.

Full line of 5x8 views of the route to the Gold Fields, Juneau, Dyea, Skagaway, Chilkat Pass, Yukon river, etc., 50 cents each. \$5 per assorted dozen.

Send for Price List. N6t

The Oregon Naturalist.

The Oregon Naturalist is the only magazine on the Pacific Coast devoted to Natural Science. A sample copy free. Address,

JNO. W. MARTIN,
Palestine, Oregon.

Shells, Marine Curios, &c.

I am now ready to supply first-class stock at low prices and should you wish anything from this section, let me hear from you. All inquiries will have a prompt reply. mtf

J. H. HOLMES, Dunedin, Fla.

CABINETS. Send 10 cts for photo of our speciality—Self Locking. T perches—Oak samples by mail 8c, 10c and 15c; also stands, shields, glass cases, game panels, &c. Cabinets to order. HANAFORD CABINET CO., 139 and 141 W. Fulton St., Grand Rapids, Mich. 58MOTf

I SOLD my Eagle through the adv. Advertising in the OÖLOGIST pays. F. W. COLLINS, Garden City, Kans.

HEADACHE cured in 20 minutes by Dr. Miles' PAIN PILLS. "One cent a dose." At druggists.

MINERALS SHELLS, etc. The White City Collections. 50 fine cabinet specimens, \$3. 50 smaller size, \$2. 50 amateur size, \$1. Printed name and locality with each specimen. 50 Shells, Corals, and Marine Specimens, only \$3. 100 Fossils, including fine Fish, Trilobite, Crinoids, Corals, Sponges, several fine Ferns, etc., only \$8. A great variety Unios with one valve highly published from 35c to \$1, very showy. Taxidermy in all its branches at reasonable prices. Illustrated catalogue by mail, 10c. J.M. WIERS, Naturalists Agency, 357 W. VanBuren St., Chicago, Ill.

THE Plant World.

An illustrated monthly journal of popular botany. Edited by F. H. Knowlton, Ph. D., assisted by a corps of specialists.

This journal will aim to present the facts of plant life in a popular and attractive way and in everything will be

Scientific but not Technical.

A large number of prominent botanists have promised to contribute to the first volume.

First number issued Oct. 1st, 16 pages octavo, neatly printed.

Subscription, \$1 a year,

Sample free if requested now.

Address,

WILLARD N. CLUTE & CO., Publishers,
BINGHAMTON, N. Y.

Egg Data Blanks.

In books with 3 inch stub; (check-book style), nicely bound and well perforated. Light manilla covers.

Regular 5 inch style.	
100 in book.....	\$ 25
125 in book.....	30
Special 8 inch style.	
100 in book.....	28

BOARD COVERS.

5 inch style.	
100 in book.....	35
8 inch style.	
100 in book.....	38

Stubs are arranged both to keep duplicate data and to note the disposition you make of set. Postpaid at prices. Address plainly,

ERNEST H. SHORT,
Albion, N. Y.

WANTED-BRAINS

Send for our handsome views of public buildings, statues and a view of Washington City. This book cost us many dollars. It will be sent to you for nothing. Write us to-day. Can you think of something to patent? Protect your ideas; they may bring you wealth. Before applying for patent, get our liberal offers and Inventor's Assistant. Danger in delay. **COPP & CO.**, Patent Attorneys, Washington, D. C.

ROBERT BURNHAM,

DEALER IN

PRECIOUS STONES, OPALS, CURIOS AND FINE MINERALS.

Cutting and polishing Agates and Gem
Stones, and setting the same in solid
gold settings a specialty.

143 Gallup St., Providence, R. I.



PRICE LIST OF GEMS.

OPALS.

Australian.....	50c to \$40.00 per kt.
Hungarian.....	50c to 50.00 "
Mexican.....	10c to 20.00 "

Opal Scarf Pins set in Solid Gold in four sizes, as follows: 75c, \$1.25, 2.50, 3.50.

STUDS.

Screw or Separate Back, \$1.00 to \$3.00. Clusters to order.

EAR RINGS.....\$2.00 to \$5.00

RINGS, ETC., SET TO ORDER.

Prices an application for special settings or extra fine stones.

AMETHYST, TOPAZ, MOONSTONE,

BLOODSTONE, AGATE, CROCIDOLITE, &c.
In all forms and sizes for Rings, Pins, Charms,
10c to \$5.00.

Tourmaline.....	50c to \$15.00 per kt.
Aquamarine.....	50c to 5.00 "

Part Exchange will be accepted in payment during the next thirty days.

Good Live Agents Wanted

in all parts of the world.

Liberal cash commission paid.

Having a large stock on hand, I will, for a short time sell 20 lbs. of good Minerals for \$1. One to forty kinds as you want them, large or small.

RAPID TAXIDERMY.

Ten persons can learn at once as well as one and bring the cost down to nothing. All materials furnished.

Sold on a guarantee to give perfect satisfaction or money refunded.

Write for Circulars, Testimonials and Guarantee.

Mention THE OÖLOGIST and address.

MORRIS GIBBS, M. D.,

Kalamazoo, Mich.

BARGAINS

IN

Single Eggs and Sets.

Prices cannot be beaten.

Forster's Arctic, Common and Black Terns; Lapwing, European Coot, Skylark, Meadow Pipit and 50 other species. **5 cents each.**

Puffin, Mew Gull, Kittiwake, Herring, Californian and Ring-billed Gulls, Cormorant, Black Guillemot, Razor-billed Auk, Anhinga, Pintail, Redhead and American Eider, Corn-crake, Snipe, Dunlin, Ruff, Oystercatcher, Kestrel and 50 other species, at **10 cents each.**

Western, Hebbell's and St. Domingo Grebes, Parasitic Jaeger, Royal Tern, Fulmar, Gannet, Stormy Petrel, Lesser Scaup, Goldeneye and Northern Eider, Avocet, Curlew, Whimbrel, Nighthawk, and 50 other kinds. **15 cents each.**

Glaucous Gull, Mana Shearwater, Canvas-back, Barrow's Goldeneye, Harlequin Duck, Wood Ibis, Merlin, Short-eared Owl, White-necked Raven and others. **25 cents each.**

Black-throated Loon, Iceland Gull, Booby, Canada Goose, European Swan, Turnstone, Broad-winged Hawk, Caracara, Raven. **50 cents each.**

Loon, Yellow-billed Tropic Bird, Greenshank, Duck Hawk, Gray Sea Eagle, Mississippi Kite, Bohemian Waxwing, and other rare eggs at **\$1.00 each.**

Least Auklet, Ancient Murrelet, Black Oystercatcher Bald Eagle and others, **\$1.50 each.**

Also sets of the above with original data. Largest stock of Birds Eggs in North America, and testimonials from many well-known American Ornithologists speaking in the highest terms of my specimens and reliability and manner of dealing my customers.

Walter Raine, Bleeker St., Toronto, Ca.

IDENTIFY YOUR EGGS.

For 30 days I offer Maynard's "Eggs of North American Birds," last edition with colored plates at \$1.70, *prepaid*, cloth bound and new. Address,

ERNEST H. SHORT,

Albion, N. Y.



THE OÖLOGIST.
Monthly.

VOL. XV. NO. 3.

ALBION, N. Y., MARCH, 1898.

WHOLE No. 142

Wants, Exchanges, and For Sales.

Brief special announcements, "Wants," "Exchanges" "For Sales," inserted in this department for 25c per 25 words. Notices over 25 words, charged at the rate of one-half cent per each additional word. No notice inserted for less than 25c. Terms, cash with order.

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

What's Your Number?

Examine the number following your name on the wrapper of this month's OÖLOGIST. It denotes when your subscription expired or will expire.

No. 141 your subscription expires with this issue
145 " " " " June, "
150 " " " " Nov., "

Intermediate numbers can easily be determined. If we have you credited wrong we wish to rectify.

This month's OÖLOGIST was mailed subscribers March 12.

FOR SALE:—*Auk* vols. 10, 11, 12, 13, \$1 50 each; *O. and O.* vols. 6 to 18 inclusive. Make cash offer for the set. Many others. BENJAMIN HOAG, Stephentown, New York.

FOR SALE:—Live Diamond Backed Rattlesnakes. Large and in fine condition. Also rattlesnake skins, stuffed alligators, saw fish saws and other Florida curios. Sawfish fine specimen sent postpaid for 25cts. Address L. S. MORRISON, Orange City, Fla.

PREMIUMS:—I will sell, in amounts of 50c or over, any of the premiums offered on last page of this month's OÖLOGIST at ½ price listed for cash—(e. i. \$1 worth for 50c; \$2 worth for \$1, &c). FRANK H. LATTIN, Albion, N. Y.

HAND EGG Blow-pipe for blowing and rinsing eggs. Sent prepaid with instructions for 75c or will exchange one for \$3 worth of A1 sets. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. M3t

WILD CAT Souvenirs from the grandest natural park in W. Ills. A view and fine mineral or fossil for 25c. Stamps, minerals, fossils, for stamps. HARVEY B. BROWN, Hamilton, Ills.

TO EXCHANGE:—Finely mounted Game Heads, for first class eggs in sets with datas. Send for full lists of every thing in the naturalist's line. Address by return mail. WALTER E. McLAIN, Taxidermist and Job Printer, New Vineyard, Maine.

REMEMBER:—Lapwing 1-4, 20c; Least Fly-catcher n-3, 15c. Birds, 1897 or 1898, \$1.20; 1897 cloth, \$1.85. Eggs accepted in part payment for Columbia and Hartford bicycles. BENJAMIN HOAG, Stephentown, N. Y.

MUZZLE loading shot guns, Rifles, Revolvers, Telescope, Birds Eggs, Books, Papers, Coins, everything way down. If you want some bargains write. Enclose stamp, please. C. B. VANDERKOOK, Odin, Ill.

FOR SALE OR EXCHANGE:—Two hundred first class sets with data. Cheap for cash. Can use a 12 gauge repeating shot gun. Pheasants, Pigeons, etc. J. O. JOHNSON, Southington, Conn.

WANTED.—Live Goldfinches, American species, either sex; prefer Arkansas and Lawrence. Will give good exchange or reasonable cash price. WALTER C. WOOD, 196 Randolph St., Detroit, Mich. F2t

WANTED.—Collectors in the United States and Canada to gather and prepare for me, scientifically, birds eggs, in large quantities, in sets with data at a reasonable price. State what varieties in your locality and terms. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. F3t

BOOKS WANTED:—New or 2d hand copies of Davie's "Nests and Eggs" (any edition); Bendire's "Life Histories of N. A. Birds;" Fisher's "Hawks and Owls" or any standard work or publication on Ornithology or Oology. Will give good exchange or cash. FRANK H. LATTIN, Albion, N. Y.

FOR A NEW Geographiscope brass mounted reversible lens for either Stereoscopic or Single Views. Chery hood dark chambers latest pattern. Magnifies immense, very clear, finely finished with 24 finely retouched views, Foreign and American landscapes and comic scenes, &c. All for \$5 worth of first class sets not in my collection. Must be A1 sets with original datas. Send list in A. O. U. Nos. All letters answered. Address GEO. W. MORSE, Care Union Depot Hotel, Omaha, Neb.

WANTED:—Pocket Rifle, Field Glass, 2) gauge Shot gun and a good wath. I have a very large list of rare fets and skins to offer. C. H. WATROUS, Chester, Conn.

BEAUTIFUL Feathered Metallic Tin. (19) to exchange for Vanadinite, (552) or anything in Quartz (210). Only showy specimens wanted. C. J. ASHTON, P. O. Box 306, Elkhart, Ind.

THE OSPREY, RECREATION:—New subscribers only, can have either magazine a year for \$1 worth (list rates) desirable bird's egg. *Oregon Naturalist* for \$2 worth. BENJAMIN HOAG, Stephantown, N. Y.

TO EXCHANGE:—For mounted specimens (birds, mammals or heads). Must be first class specim ens. 1 Columbia Graphophone, and complete outfit, consisting of (36) A1 musical and talking records, 1 large 26 inch concert horn, with folding stand, 1 smaller 14 inch horn, 2 way hearing tubes, 1 carrying case for 24 records, recorder, reproducer, etc., all complete. 1 Bb Cornet. 1 six candle incandescent Electric Desk Lamp, complete with 6 batteries. I will exchange any of the above articles for best offer in mounted specimens. Send for complete list to E. D. CARTER, Berkley, Iowa.

2500 Eggs of Birds of Prey For Sale or Exchange.

For the next 60 days, only, I shall offer some bargains in eggs of Raptores, of which I have probably the largest stock on this continent. Here are some samples of my removal sale prices. Do not miss this chance, it will not occur again.

Sets.	Per egg
California Vulture, 1	\$ 35
Turkey Vulture, 2	25
Mississippi Kite, 1 to 2	1 25
Marsh Hawk, 4	15
Sharp-shinned Hawk, 4	40
Cooper's Hawk, 3 to 4	10
American Goshawk, 2 to 3	1 25
Harris Hawk, 2 to 3	18
European Buzzard, 2 to 3	18
Red-tailed Hawk, 2 to 3	25
Western Redtail, 2 to 3	25
Florida Red-shouldered Hawk, 2	25
White-tailed Hawk, 2 to 3	40
Swainson's Hawk, 3 to 4	20
Broad-winged Hawk, 2	50
Rough legged Hawk, 2 to 3	30
American Rough-legged Hawk, 2 to 3	1 25
Ferruginous Roughleg, 2 to 4	1 00
Golden Eagles, 1 to 2	3 00
Bald Eagles, 1 to 2	1 50
Gray Sea Eagle, 2 to 3	1 00
Gyrfalcon, 2 to 3	3 00
Duck Hawk, 4	1 00
Marlin, 4 to 5	25
Kestrel, 4 to 6	10
Audubon's Caracara, 2 to 3	40

Also fine sets of owls cheap. Full original data with all sets. Satisfaction guaranteed, eggs taken back any time within two years at 15 per cent. discount.

W. RAINE, Bleeker St. Toronto, Can.

Shells, Marine Curios, &c.

I am now ready to supply first-class stock at low prices and should you wish anything from this section, let me hear from you. All inquiries will have a prompt reply. mtf

J. H. HOLMES, Dunedin, Fla.

GEORGE G. CANTWELL, JUNEAU, ALASKA.

The spoils of an eight months collecting trip among the Islands of the Alaskan coast are now offered for sale, consisting of rare Sea Birds and Eggs, Puffins, Auks, Murrelets, Cormorants, etc., and many interesting curios of the SIWASH INDIANS.

Full line of 5x8 views of the route to the Gold Fields. Juneau, Dyea, Skagaway, Chilkat Pass, Yukon river, etc., 50 cents each. \$5 per assorted dozen.

Send for Price List.

N6t

Easter Bargains.

Birds Eggs.

Russet-backed Thrush, Wood Thrush, Mockingbird, Sennett's Thrasher, California Bush-tit, Cardinal House Finch, Tricolored Blackbird, Cedar Waxwing, Flicker, Black Phoebe, Cowbird, Parkman's Wren, Summer Redbird, Arizona Hooded Oriole.

From now until April 15th I offer one of each of these eggs, first class and prepaid FOR ONLY 50c. They list at \$1.66, but as I am overstocked I offer them at less than 1/3 rates.

Egg of African Ostrich. Large and clean. Plain one at \$1.40, decorated for Easter, \$1.65. Prepaid at these prices.

Snowflake (winter snowbird) nicely mounted with glass shade, \$2.

Scarlet Tanager, mounted same style, \$2.50.

Indigo Bunting, same style, \$1.75.

By express.

Fine Ribbon Agate (1x1½ inches), regular price 25c, now 17c.

Rough specimens of genuine Fire Opal, 10c each.

10 Arrow Points all different, 45c.

10 varieties semi-precious stones, all labelled, 40c each.

Curios.

1 each: Eye-stone, Lucky-tooth of Cod, Eggs of Skate, Red Sea Bean, Acorn Barnacle, Chinese Horn Nut, Shark's Tooth, Tarpon Scale, Mexican Watchman's Whistle, Alligator Tooth. The ten for only 35c.

Ten varieties small showy shells for only 45c.

Write me for prices on all naturalists supplies, books, etc.

Address. ERNEST H. SHORT.

Albion, N. Y.

NEW ENGLAND MINERALS.

Rhomb Spar, R. L. Beryl, N. H.: Actinolite, R. I.; Galenite, Mass. 1/4 pound specimens of either *postpaid* for only 10 cents; or the four for only 30 cents.

The above is only a sample of the bargains I am offering in New England Minerals. Write your wants and send for lists. I handle only good fresh material—no rubbish.

ROBERT BURNHAM,

No. 143 Gallup St..

PROVIDENCE, R. I.

Winchester MEANS PERFECTION
WHEN APPLIED TO
REPEATING RIFLES AND ALL KINDS OF
SHOT-GUNS AMMUNITION
SINGLE-SHOT RIFLES

Pronounced by Experts the Standard of the World.
Ask your dealer for WINCHESTER make of Gun or
Ammunition and take no other.
FREE:—Our new Illustrated Catalogue.
WINCHESTER REPEATING ARMS CO., New Haven, Ct.

HAVE YOU READ

“Bird Nesting in Northwest Canada”?

It is acknowledged to be one of the most interesting works on Oology published in recent years.

It describes an egging expedition through the prairie of Northwest Canada and is just the book that young oologists delight in for it is both interesting and instructive. The book is full of illustrations of birds, their nests and eggs, as well as hunting scenes, Indian camps, animals, Rocky Mountain and prairie scenes.

The colored plates figure about 70 species of birds eggs and on this account it is a useful book for reference. In it are figured the only and authentic eggs of the Knot in the world. Other eggs figured include Golden Eagle, Swallow-tail Kite, Prairie Falcon, Duck and Pigeon Hawks, Buzzards, Phalarope, Snipe, rare Sandpipers, Plovers, Gulls, Raven, Grosbeaks, rare Sparrows, Larks, Buntings, Grackles, Shrikes, Little Brown Crane, &c.

For the next 60 days a few cloth bound copies will be sold to the readers of THE OÖLOGIST at \$2 each. The work is out of print and will become rare and valuable before long as I have no intention of printing a second edition.

It is the first work published on the Birds of Assinibria, and describes the nests of Little Brown Crane, American Hawk Owl, Great Northern Shrike and other birds which previously were not known to breed so far south.

Send 6 cents in stamps for sample plates of Birds Eggs and note the price. \$2 is for a cloth bound copy.

Scores of Testimonials from noted American and European Ornithologists.

For Sale by W. RAINE, Bleeker St., Toronto, Can.

MINERALS SHELLS, etc. The White City Collections. 50 fine cabinet specimens, \$3. 50 smaller size, \$2. 50 amateur size, \$1. Printed name and locality with each specimen. 50 Shells, Corals, and Marine Specimens, only \$3. 100 Fossils, including fine Fish, Trilobite, Crinoids, Corals, Sponges, several fine Ferns, etc., only \$8. A great variety Unios with one valve highly published from 35c to \$1, very showy. Taxidermy in all its branches at reasonable prices. Illustrated catalogue by mail, 10c. J.M. WIERS, Naturalists Agency, 357 W. VanBuren St., Chicago, Ill.

CABINETS. Send 10 cts for photo of our speciality—SelfLocking. T perches—Oak samples by mail 8c, 10c and 15c; also stands, shields, glass cases, game panels, &c. Cabinets to order. HANAFORD CABINET CO., 139 and 141 W. Fulton St., Grand Rapids, Mich. 58M0tf

I received more answers to my ad, THE OÖLOGIST that I could not attend to them all. I exchanged over \$50.00 worth of Eggs and could have exchanged more, had I have had that. J. W. SUGDEN, Salt Lake City, Utah.

PRICES FOR BACK NUMBERS OF THE

YOUNG OÖLOGIST

AND

THE OÖLOGIST

will, during 1898, remain as quoted below

After which the prices of many numbers will be advanced and possibly not obtainable at any price. Should you desire back numbers to complete your file now is the time to purchase. You can never obtain them for less money and possibly not at any price, as our stock ranges from only 2 to 25 copies of an issue.

Prices for 1898 are as follows:

Nos. 18, 32 and 42 can no longer be furnished,—35 cents each when in stock.

Nos. 1, 21, 23-24, 34-35, 89, 111 are 25c each.

Nos. 1, 14, 88, 127, 15c each.

Nos. 9, 11, 13, 16, 53, 66-67, 75, 76, 77, 78, 79, 80, 87, 90, 101, 113, 114, 115, 130, 132, 137, 10c each.

☞ All other numbers, 5c per copy.

For 50c I will send a package of twenty (20) all different back numbers, my selection.

For \$1 I will send a package of fifty (50) back numbers, all different, my selection.

For \$2 I will send a package of ninety (90) back numbers, all different, my selection.

For \$5 I will send by return mail a copy of every issue published (excepting 18, 32 and 42)—Nos. 1 to 139 inclusive.

My prices for back Nos. of the YOUNG OÖLOGIST and OÖLOGIST in volumes, are as follows:

Vol. I.	1834-5,	Nos. 1 to 12	.....	\$ .60
"	II.	1885, " 13 and 14	.....	.90
"	III.	1886, " 15 to 20 (lacking No. 18)	.....	.35
"	IV.	1887, " 21 to 25-26	.....	.45
"	V.	1888, " 27 to 38 (lacking No. 32)	.....	.50
"	VI.	1889, " 39 to 50 do	.....	.40
"	VII.	1890, " 51 to 62	.....	.50
"	VIII.	1891, " 63 to 74	.....	.50
"	IX.	1892, " 75 to 83	.....	.70
"	X.	1893, " 87 to 98	.....	.75
"	XI.	1894, " 99 to 110	.....	.50
"	XII.	1895, " 111 to 122	.....	.60
"	XIII.	1896, " 123 to 127	.....	.25
"	XIV.	1897, " 128 to 139	.....	.50

BOUND VOLUMES.

Can be furnished, strongly bound in cloth and boards, as follows:

Vol. I and II YOUNG OÖLOGIST bound in one volume	.....	\$1.00
Vol. III and IV, THE OÖLOGIST, bound in one volume, only	.....	1.00
Vol. IX. THE OÖLOGIST for '92, 298 pages of valuable and instructive Oölogical and Ornithological matter with many full page illustrations	.....	1.00

Or, if you order the three volumes at one time, we will send them by return mail for only \$2.50. Every student of birds, their nests and eggs should have these three volumes in their library. The valuable information they contain, is worth many times the price.

Address plainly

FRANK H. LATTIN,

Publisher of THE OÖLOGIST,

ALBION, N. Y.

From Extreme Nervousness.



THAT no one remedy can contain the elements necessary to cure all diseases, is a fact well known to everyone. Dr. Miles' System of Restorative Remedies consists of seven distinctively different preparations, each for its own purpose.

Mrs. L. C. Bramley, 37 Henry St., St. Catharines, Ontario, writes: "For years I suffered from extreme nervousness and annoying constipation, developing into palpitation and weakness of the heart. I was unable to sleep, suffered much from headache, pain in my left side, palpitation and a constant feeling of weakness and prostration. I began using Dr. Miles' Nerve, Heart Cure and Nerve and Liver Pills and the Anti-Pain Pills to relieve sudden paroxysms of pain and headache. I soon felt much improved and the pains and aches and weariness left me. I then took Dr. Miles' Restorative Tonic and am now restored to my former good health."

Dr. Miles' Remedies are sold by all druggists under a positive guarantee, first bottle benefits or money refunded. Book on diseases of the heart and nerves free. Address,

DR. MILES MEDICAL CO., Elkhart, Ind.



WANTED-BRAINS

Send for our handsome views of public buildings, statues and avenues of Washington City. This book cost us many dollars. It will be sent to you for nothing. Write us to-day. Can you think of something to patent? Protect your ideas: they may bring you wealth. Before applying for patent, get our liberal offers and Inventor's Assistant. Danger in delay. **COPP & CO.**, Patent Attorneys, Washington, D. C.

ALL ROADS ARE ALIKE TO A MONARCH.
Perfection is the result of our long
experience.



MONARCH AND DEFIANCE BICYCLES

are the product of mechanical ingenuity.

\$40.00

\$50.00

\$60.00

Monarch Chainless \$100.00

Send for 1898 Catalogue.

Agents wanted in open territory.

MONARCH CYCLE MFG. CO.,

Lake, Halsted and Fulton Streets, Chicago.

Branches—New York. London and Hamburg.

Send ten 2-cent stamps for a deck of Monarch Playing Cards illustrating
Lillian Russell, Tom Cooper, Lee Richardson, and Walter Jones.

H. H. & C. S. BRIMLEY,
COLLECTORS, RALEIGH, N. C.

First-class Skins of Birds and Mammals,
Bird's Eggs, Reptiles and Batrachia both
Alive and in Alcohol. Histological Material.
Full data. Send stamp for lists.

MEXICAN COINS. 1c, 2c and 5c nickel
uncirculated, and 1c copper. Set of 4 prepaid
for only 12c. The nickel coins were in circulation
only a few months in '82-'83 may become
exceedingly rare in a few years. ROBERT
BURNHAM, 143 Gallup St., Providence, R. I.

HEADACHE cured in 20 minutes by Dr. Miles'
PAIN PILLS. "One cent a dose." At druggists.

ROBERT BURNHAM,

DEALER IN

PRECIOUS STONES, OPALS, CURIOS AND FINE MINERALS.

Cutting and polishing Agates and Gem Stones, and setting the same in solid gold settings a specialty.

143 Gallup St., Providence, R. I.



PRICE LIST OF GEMS.

OPALS.

Australian..... 50c to \$40.00 per kt.
Hungarian..... 50c to 50.00 "
Mexican..... 10c to 20.00 "
Opal Scarf Pins set in Solid Gold in four sizes, as follows: 75c, \$1.25, 2.50, 3.50.

STUDS.

Screw or Separate Back, \$1.00 to \$3.00. Clusters to order.

EAR RINGS..... \$2.00 to \$5.00

RINGS, ETC., SET TO ORDER.

Prices an application for special settings or extra fine stones.

AMETHYST, TOPAZ, MOONSTONE, BLOODSTONE, AGATE, CROCIDOLITE, &c. In all forms and sizes for Rings, Pins, Charms, 10c to \$5.00.

Tourmaline..... 50c to \$15.00 per kt.
Aquamarine..... 50c to 5.00 "

Part Exchange will be accepted in payment during the next thirty days.

Good Live Agents Wanted
in all parts of the world.

Liberal cash commission paid.

Having a large stock on hand, I will, for a short time, sell 20 lbs. of good Minerals for \$1. One to forty kinds as you want them, large or small.

NATURALISTS' PRINTING of all kinds on good paper cheap. Egg labels 15c per 100 small; 25 per 100 large. Fossil 10c per 100. Letter heads 35 per 100. Send copy for prices. D. H. EATON, Woburn, Mass.

RAPID TAXIDERMY.

Ten persons can learn at once as well as one and bring the cost down to nothing. All materials furnished.

Sold on a guarantee to give perfect satisfaction or money refunded.

Write for Circulars, Testimonials and Guarantee.
Mention THE OOLOGIST and address.

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

BE GOOD

It is a hard task for the average man, and requires the showing forth of many excellent qualities. But for a Bicycle Lamp to be good, really requires but two things:

- 1st. To Give a Good Light.
- 2d. To Stay Alight in Spite of Wind and Jar.



beautifully combines these two good qualities. It also has the other and lesser virtues belonging to the

Perfect Bicycle Lamp.

Therefore as one step in your effort to

BE GOOD

BE WISE, and buy one of them

AND YOU WILL BE HAPPY.

Send for circular or, better still, send \$2.50 which is the reasonable price at which we sell one, delivered anywhere.

R. E. DIETZ COMPANY
60 Laight Street

Established 1840 NEW YORK CITY

\$1.00 WORTH OF PREMIUMS ABSOLUTELY FREE TO EVERY SUBSCRIBER TO THE OÖLOGIST. HOW? For full particulars, read blank on reverse. SUBSCRIBERS can purchase premiums in lots of 5.00 or over at *one-half* price.

BIRDS EGGS.

Western Grebe.....	\$ 50
Herring Gull.....	35
Arctic Tern.....	10
Pintail.....	35
American Bittern.....	75
Virginia Rail.....	15
Sora.....	10
European Coot.....	20
American Coot.....	20
Lapwing.....	20
Valley Partridge.....	15
Col. Sharp-tailed Grouse.....	50
Mourning Dove.....	05
Western Red-tail.....	50
Swainson's Hawk.....	50
American Sparrow Hawk.....	35
Short-ear Owl.....	1 00
Screech Owl.....	40
Burrowing Owl.....	20
Yellow-billed Cuckoo.....	10
Hairy Woodpecker.....	50
Pileated Woodpecker.....	1 00
Red-bellied Woodpecker.....	25
Red-headed Woodpecker.....	25
Flicker.....	5
Scissor-tailed Flycatcher.....	10
Crested Flycatcher.....	15
Phoebe.....	05
Black Phoebe.....	15
Western Wood Pewee.....	20
Acadian Flycatcher.....	15
Least Flycatcher.....	15
Skylark.....	15
Prairie Horned Lark.....	15
American Crow.....	05
Fish Crow.....	05
Starling.....	10
Dwarf Cowbird.....	10
Red-winged Blackbird.....	15
Tricolored Blackbird.....	05
Western Meadowlark.....	10
Arizona Hooded Oriole.....	35
Orchard Oriole.....	05
Bullock's Oriole.....	10
House Finch.....	05
Seaside Sparrow.....	25
Sharp-tailed Sparrow.....	25
Lark Sparrow.....	05
California Towhee.....	10
Cardinal.....	05
Gray-tailed Cardinal.....	25
Lazuli Bunting.....	20
Painted Bunting.....	10
Sharpe's Seed-eater.....	50
Scarlet Tanager.....	25
Summer Tanager.....	25
Purple Martin.....	10
Barn Swallow.....	05
Tree Swallow.....	15
Cedar Waxwing.....	10
White-rumped Shrike.....	10
White-eyed Vireo.....	15
Bell's Vireo.....	15
Least Vireo.....	35
Yellow Warbler.....	05
Hooded Warbler.....	50
White Wagtail.....	10
Meadow Pipit.....	10
Mockingbird.....	05
Catbird.....	05
Sennet's Thrasher.....	15
Baird's Wren.....	20
Parkman's Wren.....	15
Oregon Chickadee.....	35
California Chickadee.....	50
Californian Bush-tit.....	15
Wood Thrush.....	05
Russet-backed Thrush.....	15

American Robin.....	05
Bluebird.....	05
English Pheasant.....	25
English Sparrow.....	05
Ring Pheasant.....	50
Gopher.....	35
Hammerhead Shark.....	15
Red-leg Turtle.....	15
Snapping Turtle.....	15
Jackdaw.....	10
Rook.....	10
Maggie.....	10
Missel Thrush.....	10
Song Thrush.....	10
English Blackbird.....	10
Lesser White-th't Warbler.....	10
Garden Warbler.....	10
Red Bunting.....	10
Green Finch.....	10
Willow Warbler.....	10
Chiff Chaff.....	10
Spotted Flycatcher.....	10
Common Bunting.....	10
Sedge Warbler.....	10
Nightingale.....	25
English Sparrow Hawk.....	35
Great Tit.....	10
English Swallow.....	10
Hedge Accentor.....	10
English Partridge.....	15
Ostrich.....	1 50

BIRD SKINS.

Redpoll.....	\$ 35
Snowflake.....	35
Tree Sparrow.....	35
Slate-colored Junco.....	35
Cedar Waxwing.....	35
Black-and-white Warbler.....	35
Myrtle Warble.....	35
Brown Creeper.....	35

SHELLS.

Murex brandaris.....	25
" trunculus.....	25
" saleanus.....	25
Eburna Japonica.....	20
Oliva litterata, extra.....	10
Cypraea moneta.....	10
Ovulum gibbosum.....	15
" secale.....	10
Nerita peleronata, select.....	10
Trochus (Livona) pica.....	25
Helix fideles.....	15
Bulimus Bahamaensis.....	13
Partula gibba.....	15
Orthalicus melanochilus.....	25
" undatum.....	25
Liguus fasciata.....	15
Achatinella perversa.....	10
" uniplicata.....	10
" spirizona.....	10
" olivacea.....	10
Pythea pyramidata.....	15
Fissurella barbadensis.....	10
Chama arcinella.....	15
Cardium insculpta.....	15
Tellina radiata.....	10
Fasciolaria distans.....	10
Melongenina corona.....	15

SEA CURIOS.

Precious coral, 1 oz. pkg.....	25
Organpipe Coral.....	10
Creamy Sea Fan.....	35
Yellow Sea Fan.....	35
Sand Dollar.....	10

Phillippian Urchin.....	35
Purple Urchin, select.....	25
Black Starfish.....	35
Acorn Barnacles.....	10
Keyhole Urchin.....	25
Lucky Tooth of Cod.....	10
Hermit Crab in Shell.....	35

MINERALS, &c.

Chialtolite Crystals.....	\$ 15
Coquina.....	25
"Electric" stone.....	25
Chalcedony Geodes select.....	50
GEM STONES, small cut and polished semi-precious stones, many suitable for mounting:	
Sard Trilby heart intag.....	10
Hoos.....	\$ 15
Opals, Mexican.....	15, 25, 35, 50
Red Onyx.....	15
Black Onyx.....	15
Crocidolite, Tiger-eye.....	10, 15, 25
Lapis Lazuli.....	35
Chalcedony, tinted.....	10
" varigated.....	10
" artificial tree.....	15
Black Ribbon Agates.....	10
Red Ribbon Agate.....	10
Carnelian.....	10
Assorted dozen.....	50
Ditto, selects.....	1 00
Fossil Shark Teeth.....	5, 10
Scaphites nodosus.....	10, 25, 50, 1 00
Polyp Coral.....	10, 25, 50

MISCELLANEOUS.

Arrowheads, 1/2 doz. asst'd\$.....	50
Revolutionary Gun Flint.....	15
Dove Shell from British Guiana exhibited at World's Fair, pkg. of 12.....	25
Chines Horn Nut.....	10
Beetle Nut.....	10
Pkg Liver and Sea Beans.....	15
Scorpion in Box.....	50
Broken Bank Bill.....	10
Confederate State Bill.....	10
Chameleon in Alcohol.....	25
Alligator Tooth.....	5, 10, 15, 25
Young Naturalist's Marvelous Collection, '95 ed- 50 labelled specimens.....	1 00
Chinese Coin.....	05
Trap Door Spider's Nest.....	50
Mexican Whistle, clay.....	10
7var.unusedCubanStamps.....	15
Resurrection Plant, Mex.....	10
Bird Arrow Point.....	25
Enamel, Armorial/StickPin.....	25
Set of Souvenir World's Fair Tickets.....	1 00

PUBLICATIONS.

OÖLOGIST, 20 numbers.....	50
Nidologist, 8 numbers.....	1 00
The Wilson Quarterly and Semi Annual 4 numbers.....	1 00
Natural Science News, 52 back numbers.....	1 00
Back numbers of above publications are all different and of our selection.	
OÖLOGIST, 1892, bound cloth.....	1 00
Penikese, a volume of 96, pages. Giving an acct of Agassiz's summer school at Penikese Island.....	50
Loncks, Prothonotary Warbler.....	50
Short, Birds of W. N. Y.....	25

Date.....1898.

FRANK H. LATTIN, Publisher, Albion, N. Y.

Enclosed find 50 cents for which send THE OÖLOGIST one year, including one Exchange Coupon and \$1.00 worth of Premiums to the following address:

Name.....

P. O. Box or Street Address.....

CountyPost-Office.....State.....

I select the following for my One Dollar's worth of premiums.....

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

Remember.—That for **only 50 cents** every subscriber will receive THE OÖLOGIST, as issued, for one year, and in *addition* will receive by return mail, one exchange coupon and \$1.00 worth of premiums as offered on back of this blank. Write above the ones you prefer and mark on back of this blank a few extras to be used in case we should be out of your first choice. **This offer will hold good until April 15, 1898, only.**

BE SURE and address all of your letters and orders plainly and in full to
FRANK H. LATTIN, Albion, Orleans Co., N. Y.

THE OÖLOGIST.

A MONTHLY PUBLICATION DEVOTED TO

OÖLOGY, ORNITHOLOGY AND TAXIDERMY.

VOL. XV. NO. 4.

ALBION, N. Y., APRIL, 1898.

WHOLE NO. 143

Wants, Exchanges, and For Sales.

Brief special announcements. "Wants," "Exchanges" "For Sales," inserted in this department for 25c per 25 words. Notices over 25 words, charged at the rate of one-half cent per each additional word. No notice inserted for less than 25c. Terms, cash with order.
Strictly First-class specimens will be accepted in payment at one-third list rates.

What's Your Number?

Examine the number following your name on the wrapper of this month's OÖLOGIST. It denotes when your subscription expired or will expire.

No. 143 your subscription expires with this issue
145 " " " " June, "
150 " " " " Nov. "

Intermediate numbers can easily be determined. If we have you credited wrong we wish to rectify.

This month's OÖLOGIST was mailed subscribers April 11.

WANTED.--Sets of Terns, Gulls, Ducks, Rails, Grouse, Ibises, Willet, Lapwing and others common and rare. Give cash sets, etc. ALLEN PETERSON, Woodstown, N. J. A2t

SEE HERE:--On account of moving I want to close up my business *at once*. Send by return mail complete list of wants for estimates on job taxidermy work, skins, sets and curios. Prices will satisfy you. B. S. BOWDISH, Phelps, N. Y.

GREAT HORNED OWLS for sale. I have one pair and one egg belonging to same birds \$6.50. Also one female of the same species, \$3.00. First class work and satisfaction guaranteed. Cash only. Also the following A. O. U. Nos. to exchange for complete sets with data: 333 1-4, 1-1, 1-5; 412 1-7; 408 1-8. Parties meaning business please write. C. R. MOSES, Lake Crystal, Minn.

EXCHANGE:--Fine Field Glasses and carrying case, pair pearl Opera Glasses and case, Silver Watch and Rolled Gold Chain, old Paper Money, Stamps and Albums, hundreds of Novels, Story Papers, etc., to exchange for fine Indian Relics, such as Pipes, Arrows, etc., also old coins and eggs wanted. Enclose stamp. R. D. HAY, Winston, N. C. A2t

WANTED.--A few well marked sets of Red-tailed and Red-shouldered Hawk, Broad-winged Hawk, Sharp-shinned Hawk, Osprey and others, also sets of Horned and Screech Owls. I can offer rare eggs from Pribilof Islands, Behring Sea, such as Least Auklet, Ancient Murrelet, nests and eggs of Lapland Longspur, nests and eggs of Aleutian Leucosticte, Murrelets and other rarities found in few collections. W. RAINE, Toronto, Canada.

SETS of 325, 390, 406, 456, 598, 617 and others, to exchange for sets not in my collection. Send list. JOHN G. SCOTT, Greenwood, Ind.

FOR SALE CHEAP.--Scientific Books, state what you are interested in. "Birds," Vol. I and II, half leather, \$1.50. Send for list now. H. NEUMANN, 204 Rock St., Watertown, Wis.

I HAVE \$50.00 worth of eggs in sets left for exchange: one pair of Great Horned Owls, in fine shape will lay in captivity, one year old, for the best offer in fine sets. All letters answered. First come, first served. D. R. WAL-LACE, 940 No. 27 Ave., Omaha, Neb.

DAVIE'S "NESTS AND EGGS," fifth edition, extra cloth, and a new subscription to either *The Osprey* or *Recreation* for only \$2.50. The book prepaid. BENJAMIN HOAG, Stephentown, New York.

CAMERAS WANTED.--Send description. I will give rare Sea Birds Eggs and Hawks Eggs or rare Bird Skins and cash. I particularly want a good 5x7 Camera with tripod and a good hand Camera. W. RAINE, 181 Blecker St., Toronto, Canada.

WANTED.--Bendire's Life Histories, Vol. II. Will give rare Birds Eggs or rare Birds Skins from Northwest Canada and Pribilof Islands. W. RAINE, Toronto, Canada.

DAVID WARD, the lucky gold miner, who brought back the news of a rich find of gold on the American side of Alaska, and who says that the rush next spring will be far down the Yukon on the American side, spent three years in prospecting in Alaska and in that time only received seven letters from home. Since his return he has had more than that many thousands of letters from would-be argonauts in three months. He is now in Philadelphia, Pa., and tries to answer every inquiry concerning the Far North, its perils, rigors of climate and wonderful riches. His practical experience makes his advice highly valuable, and anyone interested in Alaska should avail themselves of his knowledge by writing to him.

FOR EXCHANGE.--Skins of 343, 337, 360, 368, 390, 507, 608 619, 131. Also some good sets for mounted birds. Wants first-class skins of Quail, Grouse and Pheasants. Could use Bicycle. A. I. JOHNSON, Taxidermist, 6.0 East Grand Ave., Des Moines, Ia. a2t

S. B. Crayton of Anderson, S. C. is now in Cordeale, Florida and expects to collect some nice sets of eggs and curios.

WANTED.—Camera. I want a good 5x7 camera, with first class lens and shutter. Give full particulars with price. J. O. SNYDER, Stanford University, Cal.

SETS of Ridgeway's Nos. with data: 67 2-5, 115 1-3 161 1-4, 263 2-5, 331 1-4, 420 2-5, 431 1-4, 436 1/2, 439 1/2, 438 1/2, 516 1/2, 523 1/2 to exchange for "Premo B" Camera 4x5 in good condition, or photograph stock, or Indian relics. Write first. C. H. SLATING, Almont, Mich.

SKINS of Shore Larks and Song Sparrows wanted in exchange for western birds. Correspondence necessary. J. O. SNYDER, Curator of Zoological Museum, Stanford University, Cal.

WANTED.—Canvas-back, Redhead, Black Duck Eggs, fresh, unblown, want correspondence with collectors of sets from Pennsylvania, Delaware, Jersey, and Southern New York. Have coins, eggs. Write. BENJ. A. CARPENTER, Salem, N. J.

EGGS, Coins, Indian Relics, Paper Money, etc., to exchange for singles not in my collection. Birds of Maine, Knight, new, \$1.00 post paid. W. A. LEE, New Vineyard, Me.

WANT folding view camera, lens and tripod, 8x10 or 10x12. Must be good, very cheap, cash. Have fine Eagle, Owl, Hawk, Buzzard and Osprey eggs. Address with stamp, F. THEO. MILLER, Matthews C. H., Va.

SACRIFICE SALE.—A few more of those nicely prepared sets at greatly reduced prices in order to make room for fresh stock. Send for list. W. L. & R. D. FOXHALL, Tarboro, No. Car.

WANTED.—Autographs of Abe Lincoln, U. S. Grant, John A. Logan, Chester A. Arthur, James G. Blaine, Thomas A. Hendricks, Allen G. Thurman, Walter O. Gresham, G. F. Banks, Thomas Nast, Kate Field, Oliver Wendell Holmes, Harriett Beecher Stowe, Mark Twain, Henry George, Andrew Carnegie, Eugene Field, Edward Eggleston, and any other person of note. Will pay cash or give good exchange for any good autographs. F. O. NELSON, 237 S. Main St., Butte, Mont.

REMOVAL SALE BARGAINS in second-class eggs, a lot of rare eggs for little money, send for list, must clear out before May 1st. Look! Sooty Grouse, 10c; Least Auklet, 35c; Canvas-back Duck, 10c; Gray Ruffed Grouse, 67c; Sooty Grouse, 10c; White Ibis, 67c; Ferruginous Rough-legged Buzzard, 25c; Red-head Duck, 65c; Baldpate, 10c; Northern Eiders, 66c; Fulmar Petrel, 10c and 20 other good eggs as cheap, this is as chance to get some rare eggs very cheap. Send stamp for full list of first and second-class single eggs. W. RAINE, Toronto, Canada.

FIRST-CLASS Birds Skins for sale, choice Hawk Owls, \$1.50. Franklin's Gulls, \$1.50; American Scamp, \$1; Golden-eye Duck, \$1; Wilson's Phalarope, 50c; Curlew Sandpiper, \$1; Black Turnstone, \$1; Black Oystercatcher, \$1.75; Canadian Ruffed Grouse, \$1.00; White-tailed Ptarmigan, \$1; Swainson's Hawk, \$1.25; Sharp-shinned Hawk, 50c; Pigeon Hawk, 50c; Northern Waxwings, 75c; European Durlin, 75c; Turnstone, 50c; Sanderling, 35c; 2) species of Warblers at 25c per skin; 12 species of Sparrows, 25c per skins. Send for full list. WALTER RAINE, Toronto, Canada.

EXCHANGE.—I will give the formula of any proprietary medicine, preparation, toilet article, or anything on the market, in exchange for eggs. H. D. VAIL, Norwalk, O.

ERRATA.—In March issue in W. Raine's advertisement our printer priced an egg of the California Vulture at 35 cents. It should have been \$35.00 at which price an egg of this nearly extinct species is a great "snap."—Ed.

WILL exchange sets of 30, 32, 51a, 70, 74, 75, 79, 202, 508, for other sets or for large calibre revolver. J. R. MANN, Arlington Heights, Mass.

VIEW Cameras to exchange, any style, for desirable sets at one-third Lattin's list. Also rare typical singles. Send list of sets and singles. L. D. SUMNER, 502 State St., Madison, Wis. a5t

LOOK! For every 25 cents worth of Bird Eggs, Arrow Heads, or Curios sent me I will send recipes for making eighteen fine inks; maple syrup without maple trees and 25 other recipes. Every fifth one answering receives eggs worth 20 cents. F. W. COLLINS, Garden City, Kansas.

TO EXCHANGE.—Several sets each of 1, 77, 132, 203, 221, 226, 237b, 378, 390, 476, 501c, 622b and California Crow. ALTON BIGELOW, Selma, Calif.

FOR SALE.—Live Bull Snakes, bird skins, mounted birds and mammals. Will collect fresh skins of birds found here, and also first-class eggs. O. S. BIGGS, San Jose, Ill.

A FEW mineral specimens from Klondike to exchange for curios as any kind—what have you to trade. H. STEPHENSON, 239 So. 25th St., Lincoln, Neb.

WANTED.—To exchange A1 bird skins of this locality for A1 southern or western skins or sets. Send for list if you mean business. A. W. PERRIOR, 316 E. Kennedy St., Syracuse, N. Y.

STAMPS to exchange for mounted specimens. The Sparrow and Warbler family more particularly wanted. W. H. SINTON, 1406 Harlem Ave, Baltimore, Md.

COLLECTORS.—I have fine Natural History specimens of all kinds to exchange for eggs in sets, bird and mammal skins, etc. G. H. BRIGGS, Livermore, Maine.

PREMIUMS.—I will sell, in amounts of 50c or over, any of the premiums offered on last page of this month's OÖLOGIST at 1/2 price listed for cash—(e. i. \$1 worth for 50c; \$2 worth for \$1, &c). FRANK H. LATTIN, Albion, N. Y.

HAND EGG Blow-pipe for blowing and rinsing eggs. Sent prepaid with instructions for 75c or will exchange one for \$3 worth of A1 sets. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. M3t

WANTED.—Collectors in the United States and Canada to gather and prepare for me, scientifically, birds eggs, in large quantities, in sets with data at a reasonable price. State what varieties in your locality and terms. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. F3t

I received more answers to my ad. THE OÖLOGIST that I could not attend to them all. I exchanged over \$350.00 worth of Eggs and could have exchanged more, had I have had that. J. W. SUGDEN, Salt Lake City, Utah.

BOOKS WANTED:—New or 2d hand copies of Davie's "Nests and Eggs" (any edition); Bendire's "Life Histories of N. A. Birds"; Fisher's "Hawks and Owls" or any standard work or publication on Ornithology or Oology. Will give good exchange or cash. **FRANK. H. LATTIN**, Albion, N. Y.

WANTED.—For every good long handled egg drill sent me I will send a fine highly polished Mexican Opal, suitable for mounting. **WALTON I. MITCHELL**, Parvenir, San Miguel Co., New Mexico.

EXCHANGE EXTRAORDINARY.—Southern, Northern and Canadian birds eggs in choice sets with full original data to exchange for A 1 sets and large singles. Have employed competent collectors. Carefully selected sets for private collections for sale at a reasonable price a specialty. **DR. M. T. CLECKLEY**, 457 Greene St., Augusta, Ga.

PARTIES sending me original A No. 1 set with data, eggs not listed under 10c each. I will send a beautiful birds-eye view lithograph 4x23 of Trans-Mississippi Exposition Grounds to be held June 1 to Nov. 1898 together with a 36 page pamphlet with cuts and description of main buildings and other general information. Address, **GEO. W. MOORE**, care Union Depot Hotel, Omaha, Neb.

THE DR. HAS PROOF.—"I am thoroughly persuaded that it pays to advertise in the OÖLOGIST. I have been one of your subscribers and advertisers for years and do not hesitate to recommend the Oölogist as the peer of all other naturalists' magazines. **DR. M. T. CLECKLEY**, Augusta, Ga.

FOR SALE.—Printing Press and outfit, almost new. Cost \$12.00. Will sell cheap. Prints card 3x5 inches. Will also collect insects for teachers. For particulars address. **G. E. TAFT**, 320 Am. Bk. Bldg., Kansas City, Mo.

BLACK Crystallized Slag. Just the thing for your collection. A beautiful novelty. For information address. **E. W. KIMBALL**, 616 Marine St., Boulder, Colo.

FOR SALE OR EXCHANGE.—I will give one pair steel climbing irons, strapped complete for \$1.25 money or better \$2.50 worth of sets with date. Send list. **F. W. COLLINS**, Box 431, Garden City, Kans.

DOG WANTED.—I want a well-bred registered setter dog; weaned pup preferred. If older, must be broke. Send pedigree, age, etc. Will give good trade or cash. Write at once to **FOSTER MARIS**, Annapolis, Indiana.

READ THIS.—Brewer's Sparrow, 1/3. 45c; Screech Owl, 1/2. 50c; Turkey Vulture, 1/2. 50c; Least Flycatcher, 1/4. 25c; Wilson's Thrush, 1/3. 25c; Ruffed Grouse, 1-7. 40c; Bullock's Oriole, 1-5. 10c; Ovenbird, 1/3. 10c; Meadow Lark, 1-5. 15c; California Murre, 10-1. 12c each; Am. Herring Gull, 1/3. 30c; prices per set *prepaid*. Lists free. Davie's "Nests and Eggs," fifth edition, extra cloth, and 50c worth any above sets, both prepaid, \$2.25. Let me quote you prices on any book or magazines wanted in any branch of literature. **BENJAMIN HOAG**, Stephentown, N. Y.

"**SHORT.**" our local Dealer in Supplies and Specimens for the Naturalist. In a recent conversation very flatteringly assured us that the Oölogist was practically the only medium which had paid him from an advertising standpoint and that in the future he should confine his ads. almost exclusively to its columns.

"**BURNHAM,**" the Opal Dealer and Manufacturing Jeweler of Providence, R. I., recently made us a very pleasant visit and in speaking of his past experience with advertising in the Oölogist said to this effect, "That in all of his extended advertising, for the amount invested the Oölogist beat them all and that he sometimes thought it was the only medium that really *paid*." We were convinced that he knew whereof he spoke from the fact that he greatly increased his order for space and left with us "collateral" sufficient to more than cover half a dozen pages.

"**THE OSPREY**" is unquestionably the most popular and up-to-date illustrated Ornithological magazine in the entire world and the two-page adv. in the Oölogist testifies volumes in relation to the enterprise and hustling qualities of its Editor and Publisher. These same two pages of advertising, as well as two more contracted for future issues of THE Oölogist illustrates how a Brother Publisher regards the Oölogist as an advertising medium and adds a very substantial testimonial, to the thousands previously received as to the Oölogist's value in that direction. For these four pages the Publisher of the "*Osprey*" pays our *regular* and *ONLY* rate viz:—\$8.40 per page or 5c per line. THE Oölogist has but a single rate and it makes no difference whether you wish to use 5 lines or 10 pages of space it will cost you 5c per line for each and every insertion and furthermore the little 5 line adv. is just as gratefully received as a full page one.

100 choice mixed West Indian Sea Shells, 15 varieties choice rare curiosities, 25c. 10 varieties Indian Relics, 40c. Chisel, 18c. Spade, 20c. Hoe, 25c. Axe, 37c. Celt, 15c. 10 choice Sea Shells, 10c. Lists free. 50c premium on every dollar worth sold. **WILLIAM P. ARNOLD**, Peacedale, R. I.

FLORIDA.

Do you want to know more about it? Do you want a home there among orange groves and pineapple plantations? If so, then send 25 cents for six months trial subscription to the

BISCAYNE BAY MONTHLY.

Southernmost Periodical in the U. S.

Regular subscription price is \$1 per year but we are making this special offer to readers of the Oölogist and in addition will send each one subscribing a set of five different Confederate Bills. (fac similes) and a Florida Curio, or souvenir. Address.

BISCAYNE BAY CO.,
ORANGE CITY, FLA.

Note our Prices on Printing.

5,000 Note Heads	.....	\$5.00;	10,000,	\$9.00
5,000 Good No. 6 Envelopes	.....	5.00;	10,000,	9.00
5,000 Bill Heads	.....	5.00;	10,000,	9.00
5,000 Statements	.....	5.00;	10,000,	9.00
5,000 Business Cards	.....	4.00;	10,000,	7.50

All work and stock guaranteed first-class. It will pay you to send your printing to **A. M. EDDY**, Albion, N. Y.

Lattin's Standard Catalog of North American Birds Eggs.

Enlarged (contains 72 pages) revised, corrected and brought up to date of going to press—March, 1893. Giving all of the new A. O. U. changes and additions. Also divided and subdivided into orders, sub-orders families, and sub-families.

Values are based on the 1893 ones which were determined by the compiler, from invaluable notes, suggestions and assistance from Major Chas. E. Bendire, J. Parker Norris, Esq., and Captain B. F. Goss. In addition to these notes, which have been carefully reworked, the compiler has had suggestions from over FORTY LEADING AMERICAN OÖLOGISTS, all of which were carefully considered and where advisable, adopted. Lattin's Catalogue has long been recognized by leading Oölogists as the "Standard." The compiler intends to issue a new one as soon as this edition is exhausted and desires the assistance of every working Oölogist, in making values, etc. On this account he has concluded to close out this edition at the following rates, postpaid (regular price was 25 cents per copy.) Single copy 10 cents; 3 for 25 cents; 7 for 50 cents; 15 for \$1.00.

Address, **FRANK H. LATTIN, ALBION, N. Y.**

THOUSANDS OF OLD BOOKS

Have accumulated in the libraries of our public institutions, and those of prominent public men, both in duplicate and otherwise. They cost them nothing and oft-times are valued accordingly. They are, however, both valued and desired by specialists and parties interested. Perhaps you or your friends may have some of the identical volumes which I desire, crowding library shelves or stowed away in garrets, doing nobody any good; but had I them I would not only appreciate them but might know of a dozen others who would do likewise. Look over my list of wants and if you have anything I desire or others write me, stating what you wish in exchange, and perhaps we can arrange an exchange which will be advantageous to each. I will exchange for single volumes—but the larger the exchange the better.

I WANT

Government and State Reports.—Annual Reports and Bulletins and U. S. Geological Survey, with F. V. Hayden in charge. Reports of Wheeler's U. S. Geological Surveys W. of the 100th Meridian. Reports of King's U. S. Geological Survey. Natural History of New York. Smithsonian Contributions to Knowledge. U. S. Reports on Ethnology.

Botany.—Any of Gray's or Wood's Text-Books and Publications. Lesquereaux & James, "Mosses." Tuckerman's "Lichens." Goodale's "Wild Flowers." Hervey's "Sea Mosses." Sargent's "Silva of N. A." Hough's "American Woods."

Geology, Mineralogy and Palaeontology.—Any of Dana's Winchell's, Miller's or Geikie's Works

Conchology.—Any of Tryon's Sowerby's, Gill's or Woodward's Works.

Entomology.—Any of Packard's, Westwood's or Comstock's Books. Any of Maynard's, Edward's or Selder's Works on "Butterflies."

Ornithology, Oology and Taxidermy.—Works by any of the following: Baird, Bendire, Brewer, Brewster, Cassin, Chapman, Cory, Coues, Davie, DeKay, Fisher, Gentry, Goss, Hornaday, Mellwraith, Maynard, Munot, Nuttall, Nehrling, Raine, Ridgeway, Shufeldt, Studer, Warren, Wilson. Also back numbers of volumes of any of the following publications: "Auk," "Ibis," "Ornithologist and Oologist," "Nidologist," "Osprey," "Bird Books," Pamphlets and Publications are my specialty and I can use almost anything in that line advantageously either in large or small lots, old or new.

Medical.—Quain's Anatomy, 10th ed.; Campbell's Language of Medicine; Gould's Medical Dictionary; The National Dispensatory; Gray's Anatomy; Gould's Medical Dictionary; Reese's Toxicology; Osler's Medicine; Park's or American Text Book of Surgery; Parvin's, American Text Book, or Lusk's Obstetrics; Garrigue's or Keating & Coe's Gynecology; Ingal's Laryngology; Duhring's Dermatology; Dana's Nervous Diseases; Kirchoff's or Blandford's Insanity; Reese's Medical Jurisprudence.

I also desire second-hand copies of any *standard* book, report of publication devoted to Medicine, Ornithology, Oology, Geology, Mineralogy, Palaeontology, Zoology, Conchology, Botany, Microscopy, etc., etc.

I also want choice Birds Eggs in Sets with data; A No. 1 Mounted Birds and Reptiles; a Good Microscope; Indian Relics, and choice collections of U. S. or Foreign Stamps or Coins, Typewriter, Field Glass, Collecting Guns or anything new or in good condition, suitable for a collector, naturalist, sportsman, or for a physician and surgeon.

I CAN OFFER IN EXCHANGE

23 vols. Harpers in patent binders; Set of Encyclopædia Britannica; Set Johnson's Encyclopædia, Morocco bound; Raud & McNally's \$25 Business Atlas; New Dental Chair; \$100 Fossil Collection; \$50 Mineral Collection; \$1000 worth of "Surplus" Stock as offered in NATURAL SCIENCE NEWS (copy for stamp) of April, 1893, consisting of Minerals, Fossils, Shells Land and Marine Curios, Mexican Goods, Novelties, etc., etc.; 7 foot Shark from the Plant R. R. System's Exhibit at the Atlanta Exposition. Select Disarticulate Human one-half skeleton; Skeleton of Monkey; Fauna of British India, Ceylon and Burmah," 7 vol., 4000 pp. 1300 illustrations; Jeancon's "Atlas of Pathological Anatomy," cost \$36.75; 70 acres of Land near Vineland, N. J.; lot in Osler City, Fla.; Fishing Tackle; 22, also 32 cal. Rifle; 12 gauge double and single barrel shot guns; Mimeograph; Thousands of back numbers of Youths Companion, Golden Days, Forest and Stream, etc., etc.; collections in almost any department of Natural Science or Curiosities at any value from \$1 to \$100 and \$1000 worth of other material. I will sell anything I offer for exchange *cheap for cash*. Lists to all who have anything that I can use.

Exchanges under \$5 not solicited except for choice material or desirable books.

Address, **FRANK H. LATTIN, Publisher of the OÖLOGIST, ALBION, N. Y.**

Advertise in The OOLOGIST.



The "*Country Gentlemen*" is the leading Agricultural newspaper in America, and in soliciting advertising for its columns it makes its strongest hit in the following statement:

"AS TO QUANTITY OF CIRCULATION

it publishes many more 'Want Ads' than *all other papers combined*. You doubtless know what a 'Want Ad' circulation must be *and always is?*"

From this same stand point the OÖLOGIST's rank among publications devoted not only to Ornithology but Natural History as well is identical to that of the COUNTY GENTLEMEN among agricultural publications. The "Want Ads." of this issue, April, of the OÖLOGIST were received, unsolicited, in less than three weeks—the ones in March issue during four days—and those of February issue in less than two weeks, for a big batch of them, keep an eye out for the May and June issues.

Mr. W. Raine, of Toronto, who has already purchased \$20 worth of space in the OÖLOGIST for '98 and who has patronized its columns to a greater or less extent for the past ten years, under date of March 2d, writes:

"I do not wish to jolly you but I must say that the OÖLOGIST is the best advertising journal of its kind in this continent. You should see the pile of letters I have received the past two weeks. Many from my old correspondents of years standing. For 12 years I have advertised in every Ornithological journal published in the United States, but *none* bring as good results as the OÖLOGIST."

Marine Curios and Shells.

I make a specialty in collecting, preparing and selling anything in the line of Marine Specimens obtainable on the Gulf Coast. I sell to the collector as well as to the Retail, Wholesale and Jobbing trade.

I have unlimited facilities for obtaining anything among the "obtainables"—Experienced collectors and assistants—and am prepared to furnish better material at lower prices than can be obtained from other sources.

When placing your orders with me you have the satisfaction of knowing that you are obtaining your stock direct from **Headquarters**.

I make a specialty of furnishing material for the

Fair, Bazaar and Resort Trade.

If there is anything you need write. By special permission I refer you to "LATTIN" as to the quality of my material and my methods of doing business. He has placed large orders with me in the past and I now have others booked for this seasons trade.

J. H. HOLMES, Dunedin, Fla.

The Nidologist.

By a recent purchase I have obtained all the remaining back numbers of this valuable magazine from its Publisher.

The "Nid" was, during its existence, the most popular of all O. and O. publications and was the pioneer illustrated "Bird" magazine.

Back numbers are just as valuable to the collector *today* as they were on the date of issue. Now is the time to fill the gaps in your file or to obtain complete volumes. Send your list of wants and obtain prices.—I will make them *right*.

I now quote, prepaid:

Volume I, lacking No's 2, 4, 6,	\$2.00.
" II, complete	1.00.
" III "	2.00.
" IV "	1.00.
Volumes I to IV, as above,	5.00.

I will send you a package of 14 back numbers all different, my selection for 75 cents.

Or a package of 25 all different, my selection, for only \$1.25.

SPECIAL NUMBERS:—Vol. II, No. 3 (Nov. '94) contains colored plate of set of four eggs of White-tailed Kite, 15c.

Vol. III, No. 4-5 (Dec. '95) contains full half-tone group of A. O. U. officers and members (41 in all) including Bendire, Ridgway, Coues, Allen, Brewster, Fisher, Sennet, Shufeldt, etc., etc., 25c.

Vol. IV, No. 1 (Sept. '96) contains colored plates of nest and eggs of Western Evening Grosshawk. 20c.

Every person interested in Ornithology and Oology should possess the three special numbers—regular price 60 cents—during April will mail the *three* for **only 30 cents**.

I WANT and will allow good exchange or cash prices for the following issues September, October, November and December, 1893; February, 1894; September and October, 1895. Address,

FRANK H. LATTIN, ALBION, N. Y.

HAVE YOU READ "Bird Nesting in Northwest Canada"?

It is acknowledged to be one of the most interesting works on Oology published in recent years.

It describes an eggging expedition through the prairie of Northwest Canada and is just the book that young oologists delight in for it is both interesting and instructive. The book is full of illustrations of birds, their nests and eggs, as well as hunting scenes, Indian camps, animals, Rocky Mountain and prairie scenes.

The colored plates figure about 70 species of birds eggs and on this account it is a useful book for reference. In it are figured the only and authentic eggs of the Knot in the world. Other eggs figured include Golden Eagle, Swallow-tail Kite, Prairie Falcon, Duck and Pigeon Hawks, Buzzards, Phalarope, Snipe, rare Sandpipers, Plovers, Gulls, Raven, Grosbeaks, rare Sparrows, Larks, Buntings, Grackles, Shrikes, Little Brown Crane, &c.

For the next 60 days a few cloth bound copies will be sold to the readers of THE OOLOGIST at \$2 each. The work is out of print and will become rare and valuable before long as I have no intention of printing a second edition.

It is the first work published on the Birds of Assiniboia, and describes the nests of Little Brown Crane, American Hawk Owl, Great Northern Shrike and other birds which previously were not known to breed so far south.

Send 6 cents in stamps for sample plates of Birds Eggs and note the price. \$2 is for a cloth bound copy. After May 1st the price will go up to \$3.00.

Scores of Testimonials from noted American and European Ornithologists.

For Sale by W. RAINE, Bleeker St., Toronto, Can.

Special Offers in Eggs and Supplies.

BIRDS EGGS.

Russet-backed Thrush, Wood Thrush, Mockingbird, Sennet's Thrasher, California Bush-tit, Cardinal, House Finch, Tricolored Blackbird, Cedar Waxwing, Flicker, Black Phoebe, Cowbird, Parkman's Wren, Summer Redbird, Arizona Hooded Oriole.

From now until April 30th I offer one of each of these eggs, first class and prepaid FOR ONLY 50c. They list at \$1.66, but as I am overstocked I offer them at less than 1/3 rates.

MOUNTED BIRDS, ETC.

Snowflake (winter snowbird) nicely mounted with glass shade, \$2.

Scarlet Tanager, mounted same style, \$2.50.

Indigo Bunting, same style, \$1.75.

Above by express.

Fine Ribbon Agate, (1x1 1/2 inches), regular price 25c, now 17c.

Rough specimens of genuine Fire Opal, 10c each.

10 Arrow Points, all different, 45c.

10 varieties semi-precious stones, all labelled, 40c.

Students' Mineral Collection, 56-5c.

Mineral specimens representing Rocks, Ores, and semi-precious stones, all labelled, regular price \$1.50, for only \$1.12 prepaid.

By express in lots of 50 or more 70c each.

CURIOS.

1 each: Eye-stone, Lucky-tooth of Cod, Egg of Skate, Red Sea Bean, Acorn Barnacle, Chinese Horn Nut, Shark's Tooth, Tarpon Scale, Mexican Watchman's Whistle, Alligator Tooth. The ten for only 35c.

Ten varieties small show shells for only 45c.

CLEAN YOUR EGGS!

Glass syringe in turned box, just as good work as 35c ones, at 18c, postpaid.

CLIMBING IRONS.

Best "Greeley" Irons with forged steel spur and heavy straps, perfectly safe and the best iron made. By express for only \$1.95, always previously sold at \$2.50.

Davie's "Nests and Eggs of North American Birds," 5th edition, revised and enlarged. The long expected book is now finished and I shall be able to deliver them in a few days. Illuminated cloth binding prepaid at \$2 25. There is no discount on this work but the first 10 persons sending an order for goods including this work will receive a valuable present free. For the first 2 clubs of 2 or more copies to one address I will give a fine egg of Aplomado Falcon listing at \$4.00. This work has long been the standard and needs no description.

Ridgeway's "Manual of North American Birds," new edition, revised, a standard work on our Birds now made better than ever. Leather or cloth binding, price \$7.50 postpaid. **SPECIAL OFFER.**—Parties ordering this work with other goods before May 1st, can order it at \$6 84 prepaid.

New Bulletin of Eggs, Skins, etc. Just out. Send for copy.

Address,

ERNEST H. SHORT, Albion, N. Y.

THE BIRDS ARE COMING.

I now offer for 30 days only, the best arsenical soap for skins, always sold 45c, for only 35c per pint. By express.

EGG TRAYS.

Any size or color at reduced rates. Write for prices stating what you want.

TANNING LIQUOR

For Rugs, etc. Best made. Not dangerous to handle. By express, pint 40c, quart 75c, gallon \$2.50.

EGG DATA BLANKS.

In books with 3 inch stub (check-book style) nicely bound and well perforated. The handiest and neatest style of data made. Light manilla covers.

Regular 5 inch style:

100 in book - - - - - \$ 25

125 in book - - - - - 30

Special 8 inch style:

100 in book - - - - - 28

BOARD COVERS.

5 inch style:

100 in book - - - - - 35

8 inch style:

100 in book - - - - - 38

Stubs are arranged both to keep duplicate data and to note the disposition you make of set. Postpaid at prices.

Loose datas:

8 inch, 1 style, 25c per 100.

5 inch, 4 styles, 20c per 100.

2 inch, 2 styles, 15c per 100.

IDENTIFY YOUR EGGS.

For 30 days I offer Maynard's "Eggs of North American Birds," last edition with colored plates at \$1.70, *prepaid*, cloth bound and new.

SPECIMEN VIALS or Collecting Bottles

for small crystals, gems, fossils, etc., but more especially for small shells, insects and microscopical objects. One hundred assorted, with corks.....\$ 90

NEW ENGLAND MINERALS.

Rhomb Spar, R. I., Beryl, N. H.: Actinolite, R. I.; Galenite, Mass. $\frac{1}{4}$ pound specimens of either *postpaid* for only 10 cents; or the four for only 30 cents.

The above is only a sample of the bargains I am offering in New England Minerals. Write your wants and send for lists. I handle only good fresh material—no rubbish.

ROBERT BURNHAM,

No. 143 Gallup St., PROVIDENCE, R. I.

GEORGE G. CANTWELL, JUNEAU, ALASKA.

The spoils of an eight months collecting trip among the Islands of the Alaskan coast are now offered for sale, consisting of rare Sea Birds and Eggs, Puffins, Auks, Murrelets, Cormorants, etc., and many interesting curios of the SIWASH INDIANS.

Full line of 5x8 views of the route to the Gold Fields, Juneau, Dyea, Skagaway, Chilkat Pass, Yukon river, etc., 50 cents each. \$5 per assorted dozen.

Send for Price List.

N6t

Shells, Marine Curios, &c.

I am now ready to supply first-class stock at low prices and should you wish anything from this section, let me hear from you. All inquiries will have a prompt reply.

J. H. HOLMES, Dunedin, Fla.

MINERALS SHELLS, etc. The White City Collections. 50 fine cabinet specimens, \$3. 50 smaller size, \$2. 50 amateur size, \$1. Printed name and locality with each specimen. 50 Shells, Corals, and Marine Specimens, only \$3. 100 Fossils, including fine Fish, Trilobite, Crinoids, Corals, Sponges, several fine Ferns, etc., only \$8. A great variety Unios with one valve highly published from 35c to \$1, very showy. Taxidermy in all its branches at reasonable prices. Illustrated catalogue by mail, 10c. J.M. WIERS, Naturalists Agency, 357 W. VanBuren St., Chicago, Ill.

CABINETS. Send 10 cts for photo of our speciality—Self-Locking, T perches—Oak samples by mail 8c, 10c and 15c; also stands, shields, glass cases, game panels, &c. Cabinets to order. HANAFORD CABINET CO., 139 and 141 W. Fulton St., Grand Rapids, Mich. 58M0tf

H. H. & C. S. BRIMLEY,
COLLECTORS, RALEIGH, N. C.

First-class Skins of Birds and Mammals, Bird's Eggs, Reptiles and Batrachia both Alive and in Alcohol. Histological Material. Full data. Send stamp for lists.

NATURALISTS' PRINTING of all kinds on good paper cheap. Egg labels 15c per 100 small; 25 per 100 large. Fossil 10c per 100. Letter heads 35 per 100. Send copy for prices. D. H. EATON, Woburn, Mass.

Her Health Restored



THE misery of sleeplessness can only be realized by those who have experienced it. Nervousness, sleeplessness, headaches, neuralgia and that miserable feeling of unrest, can surely be cured by Dr. Miles' Restorative Nervine. So certain is Dr. Miles of this fact that all druggists are authorized to refund price paid for the first bottle tried, providing it does not benefit.

Miss Henry Bruns, wife of the well known Dr. Smith at Grand Junction, Iowa, says: "I was troubled with sleeplessness, nervousness, headache and irregular menstruation; and was untroubled misery for years. I used various advertised remedies for female complaints besides being under the care of local physicians, without help. I noticed in Dr. Miles' advertisement the testimonial of a lady cured of ailments similar to mine, and I shall never cease to thank that lady. Her testimonial induced me to use Dr. Miles' Nervine and Nerve and Liver Pills, which restored me to health. I cannot say enough for Dr. Miles' Remedies."

Dr. Miles' Remedies dispensed by all druggists under a positive guarantee, first bottle benefits or money refunded. Book on diseases of the heart and nerves free. Address,

DR. MILES MEDICAL CO., Elkhart, Ind.



WANTED-BRAINS

Send for our handsome views of public buildings, statues and avenues of Washington City. This book cost us many dollars. It will be sent to you for nothing. Write us to-day. Can you think of something to patent? Protect your ideas; they may bring you wealth. Before applying for patent, get our liberal offers and Inventor's Assistant, Bangor in delay. COPP & CO., Patent Attorneys, Washington, D. C.

The Oologist for 1898

"Will be fully up to its old standard of the early '90's—in fact we intend to make it second to none. In order to accomplish this we expect the hearty coöperation of every person interested in Nature Study and Natural Sciences as well as those interested in Ornithology and Oölogy. In order to enlist this coöperation we make on other pages of this issue one of the most liberal subscription offers ever made by an American Publisher.

"Our experience as a Publisher has taught us that subscribers bring SUCCESS. Our Offer will bring the former and the latter will surely follow. In order to fully merit this "SUCCESS," which will surely come our way we intend to give our subscribers a treat in line of Articles, Exchanges and Advertisements, and in order not only to secure but guarantee this "treat" we offer the following prizes.

"For the best Mss. of about 1,000 words (800 to 1,200), accompanied with photos or drawings, if convenient.

"1st prize \$5 Cash. 2d prize \$5 Books. 3d prize \$5 Premiums."

The Publisher of the OÖLOGIST has selected the more meritorious Mss. received in response to the above and has published them in this issue (April) and leaves it with the readers of the OÖLOGIST to say which should receive the prizes. *You* are requested to name the three articles appearing in *this* issue which you consider of greatest value, merit and interest. Write your decision on the back of a postal in the order which you think the prizes should be awarded and mail at once (none accounted after May 1st) to the Publisher of the OÖLOGIST. The first five "judges" naming the winning articles correctly or in nearest order will *each* be presented with \$1 00 worth of Premiums, their selection. Only subscribers of the OÖLOGIST can act as judges. Both the Mss. and Judges' prizes will be awarded on May 10th.

MORE PRIZES FOR MSS.—Prizes of same value viz: 1st \$5.00 Cash, 2d \$5.00 Books and 3d \$5.00 Premiums—will be

awarded for best Mss. (about 1,000 words) received between the dates of April 1st and June 1st.

PICTURES WANTED.—We also want unpublished photos illustrating bird life. Anything of interest to the Ornithologist and Oölogist or suitable for reproduction in the columns of the OÖLOGIST acceptable. For the three best photos received before June 1st duplicates of the Mss. prizes will be awarded, viz: 1st \$5.00 Cash, 2d \$5.00 Books, 3d \$5.00 Premiums. All photos or prints, sent in this contest shall become the property of the OöLOGIST.

200 SUBSCRIPTIONS, new or renewals must be received during the month of April if you wish the May issue to be of 32 pages. Since January 1st we have been receiving an average of about 100 subscriptions each month. With this number with the premium subscription offers we are making we can only afford to publish a 16-page issue. By simply showing this issue to an interested friend and calling attention to our subscription offers the necessary or additional 100 subscriptions would easily more than be secured each month and a 32-page OÖLOGIST guaranteed.

THE OOLOGIST

A full year for

ONLY 25 CENTS.

If you do not care to accept the 50c premium offer made on other pages, we will until May 15th—next 30 days only—accept NEW subscriptions at 25c each and in addition mail each accepting the offer a coupon good for a 25 word Exchange Note, *free*. Address plainly, FRANK H. LATTIN, Publisher, Albion, N. Y.

MEXICAN COINS. 1c, 2c and 5c nickel uncirculated, and 1c copper. Set of 4 prepaid for only 12c. The nickel coins were in circulation only a few months in '82-'83 may become exceedingly rare in a few years. ROBERT BURNHAM, 143 Gallup St., Providence, R. I.

ROBERT BURNHAM,

DEALER IN

PRECIOUS STONES, OPALS, CURIOS AND FINE MINERALS.

Cutting and polishing Agates and Gem Stones, and setting the same in solid gold settings a specialty.

143 Gallup St., Providence, R. I.



PRICE LIST OF GEMS.

OPALS.

Australian..... 50c to \$40.00 per kt.
Hungarian..... 50c to 50.00 "
Mexican..... 10c to 20.00 "
Opal Scarf Pins set in Solid Gold in four sizes, as follows: 75c, \$1.25, 2.50, 3.50.

STUDS.

Screw or Separate Back, \$1.00 to \$3.00. Clusters to order.

EAR RINGS.....\$2.00 to \$5.00

RINGS, ETC., SET TO ORDER.

Prices an application for special settings or extra fine stones.

AMETHYST, TOPAZ, MOONSTONE, BLOODSTONE, AGATE, CROCIDOLITE, &c. In all forms and sizes for Rings, Pins, Charms, 10c to \$5.00.

Tourmaline.....50c to \$15.00 per kt.
Aquamarine.....50c to 5.00 "

Part Exchange will be accepted in payment during the next thirty days.

Good Live Agents Wanted
in all parts of the world.

Liberal cash commission paid.

Having a large stock on hand, I will, for a short time sell 20 lbs. of good Minerals for \$1. One to forty kinds as you want them, large or small.



2-Years
were required to
perfect our new
"Vesta"
Tubular
Lantern which we
now offer as something
extraordinary in the
Lantern line. It has the
Railroad Lantern's rugged
constitution joined to the
tubular system, and the
result is a splendid light-
giving, wear and abuse
resister. We will, if
desired, mail our special
Circular of the "Vesta"
Lantern; or, upon receipt
of \$1.00, we will send you
(freight prepaid) the very
best Lantern for general
service you ever saw.
Why not "see it" on those
terms?

Our Illustrated Catalogue is Mailed Free.

R. E. DIETZ CO.,
60 Laight St., New York.
ESTABLISHED IN 1840.
Only good Lanterns are stamped "DIETZ."

RAPID TAXIDERMY.

Ten persons can learn at once as well as one and bring the cost down to nothing. All materials furnished.

Sold on a guarantee to give perfect satisfaction or money refunded.

Write for Circulars, Testimonials and Guarantee.
Mention THE OÖLOGIST and address.

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

FRANKLIN HOUSE

Cor. Bates and
Larned Streets,
**DETROIT,
MICH.**
Rates, \$1.50 to
\$2.00 per Day.

Only one block from Woodward and
Jefferson Aves Elevator Service, Steam
Heat, Electric Lights, Tile Floors, Etc.

H. H. JAMES & SON, Prop'rs.

\$1.00 WORTH OF PREMIUMS ABSOLUTELY FREE TO EVERY SUBSCRIBER TO THE OÖLOGIST. HOW? For full particulars, read blank on reverse. SUBSCRIBERS can purchase premiums in lots of 50c or over at one-half price. Stamps accepted.

BIRDS EGGS.

*Can furnish in sets.

Western Grebe	50
Herring Gull	35
Pintail	35
American Bittern	75
Virginia Rail	15
Sora	10
European Coot	20
American Coot	10
Lapwing	20
Valley Partridge	15
Col. Sharp-tailed Grouse	50
*Mourning Dove	05
Western Red-tail	50
Swainson's Hawk	50
American Sparrow Hawk	35
Short-ear Owl	1 00
Burrowing Owl	20
Yellow-billed Cuckoo	10
Hairy Woodpecker	50
Pileated Woodpecker	1 00
Red-bellied Woodpecker	25
Red-headed Woodpecker	10
Flicker	5
Scissor-tailed Flycatcher	10
Crested Flycatcher	15
Phoebe	05
Black Phoebe	15
Western Wood Pewee	20
Least Flycatcher	15
Skylark	15
Prairie Horned Lark	15
American Crow	05
Fish Crow	35
Starling	10
Dwarf Cowbird	10
*Red-winged Blackbird	05
Tricolored Blackbird	15
Western Meadowlark	10
Arizona Hooded Oriole	35
*Orchard Oriole	05
Bullock's Oriole	10
*Great-tailed Grackle	15
House Finch	05
Lark Sparrow	05
Cardinal	05
Gray-tailed Cardinal	25
Lazuli Bunting	20
Painted Bunting	10
Sharpe's Seed-eater	50
Scarlet Tanager	25
Summer Tanager	25
Purple Martin	10
Barn Swallow	05
Tree Swallow	15
Cedar Waxwing	10
White-rumped Shrike	10
White-eyed Vireo	15
Bell's Vireo	16
Least Vireo	35
Yellow Warbler	05
Hooded Warbler	50
White Wagtail	10
Meadow Pipit	10
Mockingbird	05
Catbird	05
Sennet's Thrasher	15
Baird's Wren	20
Parkman's Wren	15
Oregon Chickadee	35
California Chickadee	50
California Busn-tit	15
Wood Thrush	05
Russet-backed Thrush	15
American Robin	05
Bluebird	05
English Pheasant	25

English Sparrow	05
Ring Pheasant	50
Gopher	35
Hammerhead Shark	15
Red-leg Turtle	15
Snapping Turtle	15
Jackdaw	10
Rook	10
Maggie	10
Missill Thrush	10
Song Thrush	10
English Blackbird	10
Lesser White-th't Warbler	10
Garden Warbler	10
Reed Bunting	10
Green Finch	10
Willow Warbler	10
Chiff Chaff	10
Spotted Flycatcher	10
Common Bunting	10
Sedge Warbler	10
Nightingale	25
English Sparrow Hawk	35
Great Tit	10
English Swallow	10
Hedge Accentor	10
English Partidge	15
Ostrich	1 50

Can furnish sets to amount of \$1.00 as premium, but selection must be left with us.

BIRD SKINS.

Redpoll	\$ 35
Snowflake	35
Tree Sparrow	35
Slate-colored Junco	35
Cedar Waxwing	35
Black-and-white Warbler	35
Myrtle Warble	35
Brown Creeper	35

SHELLS.

Murex brandaris	\$ 25
" trunculus	25
" saleanus	10
Eburna Japonica	10
Oliva litterata, extra	20
Cypræa moneta	10
Uvulum gibbosum	15
" secale	10
Nerita peleronta, select	10
Trochus (Livona) pica	25
Helix fideles	13
Bulimus Bahamaensis	15
Partula gibba	10
Orthalicus melanochilus	25
" undatum	25
Liguus fasciata	15
Achatinella perversa	10
" uniplicata	10
" spirizona	10
" olivacea	10
Pythea pyramidata	15
Fissurella barbadensis	10
Chama arcaeella	15
Cardium isocardia	15
Tellina radiata	10
Fasciolaria distans	10
Melongena corona	15

SEA CURIOS.

Precious coral, 1 oz. pkg.	25
Organpipe Coral	10
Creamy Sea Fan	35
Yellow Sea Fan	35
Sand Dollar	10

Phillippian Urchin	35
Purple Urchin, select	25
Black Starfish	35
Acorn Barnacles	10
Keyhole Urchin	25
Lucky Tooth of God	10
Hermit Crab in Shell	35

MINERALS, &c.

Chialstolite Crystals	\$ 15
Cocquina	25
"Electric" stone	25
Chalcedony Geodes select.	50
GEM STONES, small cut and polished semi-precious stones, many suitable for mounting:	
Sard Tribly heart intag.	
Hoos	\$ 15
Opals, Mexican	15, 25, 35, 50
Red Onyx	15
Black Onyx	15
Crocidolite, Tiger-eye	10, 15, 25
Lapis Lazuli	35
Chalcedony, tinted	10
" varigated	10
" artificial tree	15
Black Ribbon Agates	10
Red Ribbon Agate	10
Carnelian	10
Assorted dozen	50 1 00
Fossil Shark Teeth	5, 10
Scaphites nodosus	10, 25, 50, 1 00
Polyp Coral	10, 25, 50

MISCELLANEOUS.

Arrowheads, 1/2 doz. asst'd	50
Revolutionary Gun Flint	15
Dove Shell from British Guiana exhibited at World's Fair, pkg. of 12.	25
Chines Horn Nut	10
Beetle Nut	10
Pkg Liver and Sea Beans	15
Scorpiou in Box	50
Broken Bank Bill	10
Confederate State Bill	10
Chameleon in Alcohol	25
Alligator Tooth	5, 10, 15, 25
Young Naturalist's Marvelous Collection, 95 ed-50 labelled specimens	1 00
Chinese Coin	05
Trap Door Spider's Nest	50
Mexican Whistle, clay	10
7 var. unused Cuban Stamps	25
Resurrection Plant, Mex.	10
Bird Arrow Point	25
Enamel, Armorial Stick Pin	25
Set of Souvenir World's Fair Tickets	1 00

PUBLICATIONS.

OÖLOGIST, 20 numbers	50
Nidologist 8 numbers	1 00
The Wilson Quarterly and Semi Annual 4 numbers	1 00
Natural Science News, 52 back numbers	1 00
Back numbers of above publications are all different and of our selection.	
OÖLOGIST, 1892, bound cloth	1 00
Penikese, a volume of 96 pages. Giving an acct of Agassiz's summer school at Penikese Island	50
Loncks, Prothonotary Warbler	50
Short, Birds of W. N. Y.	25
Latins Standard Egg Cat	25

Date.....1898.

FRANK H. LATTIN, Publisher, Albion, N. Y.

Enclosed find 50 cents for which send THE OÖLOGIST one year, including one Exchange Coupon and \$1.00 worth of Premiums to the following address:

Name.....

P. O. Box or Street Address.....

CountyPost-Office.....State.....

I select the following for my One Dollar's worth of premiums.....

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

Remember.—That for **only 50 cents** every subscriber will receive THE OÖLOGIST, as issued, for one year, and in *addition* will receive by return mail, one exchange coupon and \$1.00 worth of premiums as offered on back of this blank. Write above the ones you prefer and mark on back of this blank a few extras to be used in case we should be out of your first choice. **This offer will hold good until June 1, 1898.**

BE SURE and address all of your letters and orders plainly and in full to
FRANK H. LATTIN, Albion, Orleans Co., N. Y.

Nests and Eggs of North American Birds.***

BY OLIVER DAVIE.

Fifth edition; Revised, augmented and profusely illustrated, 560 pages, octavo, extra cloth. Price, prepaid to any part of United States or Canada, \$2.25.

We have received word from the Publishers that the long promised "Davie's" is at last ready for delivery. Every "Bird Man" must have a copy. It is an absolute necessity—without a copy you are, from an Oological standpoint, as much at sea as a carpenter would be without saw or hammer.

The price is \$2.25 net, *prepaid*. No reduction, no deviation. If, however, you order a copy of us on or before June 1st and enclose 45 cents additional (to cover mailing expenses) \$2.70 in all, I will send you prepaid:

One copy Davie's "Nests and Eggs".....	\$2 25
One copy "Penikese," bound.....	50
One copy Short's Birds of Western New York.....	25
Ten copies of "Nidiologist" (including one containing colored plate).....	1 40
One copy Lattin's Standard Egg Catalogue.....	25
Subscription to OOLOGIST, one year.....	50
One Exchange Notice, or Coupon good for one in Oologist.....	25

\$5 40

The regular price for above is \$5.40, but until June 1st I will send entire lot prepaid for only \$2.70. No change or variation in the combination. Remit in most convenient manner.

Address at once, plainly and in full.

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

A COMPLETE SET OF FOREST AND STREAM AT A BARGAIN.

A complete set of the "Forest and Stream" 47 Volumes bound, with paper sides and leather backs, and the remaining numbers unbound. The Set is imperfect in the following particulars, which can be corrected for a small outlay.

The Backs of Volumes 1 to 6 are not an exact match for the rest. Volumes 8 and 9 are bound in one and Volumes 10 and 11 are bound in one. Volume 15 lacks the index.

The entire set is offered for only \$100 cash.

An exceptional opportunity for some Library, Sportsman's Club, or private individual. Address,
FRANK H. LATTIN, ALBION, N. Y.

The Osprey.

Live Birds studied and
photographed in their
native haunts.

Each Number a Revelation to the Bird Lover.

FULL OF COSTLY ILLUSTRATIONS.

Printed on fine enamel coated paper.

Volume 2, (September, '97 to June '98) will make the best bird-book for the Ornithologist and Oologist that can be purchased for many times One Dollar.

THE APRIL OSPREY

Ready April 1st, among the contents are

AUDUBON'S STORY RETOLD, By Sara A. Hubbard, illustrated with three portraits of Audubon, and the reproduction of an original painting now in the possession of the family. The article results from the recent publication of Audubon and His Journals, which was written by Audubon's grand-daughter, Miss Maria R. Audubon, and is, perhaps, the only authentic work of importance on Audubon.

O-JAW-AW-NE (The Bluebird), by Chief Pokagon, in the April OSPREY, is the third article by this celebrated venerable Pottowattomie Chief to have appeared, originally, in THE OSPREY. The two former articles were furnished by Chief Simon Pokagon himself; this one was purchased by Mr. William Brewster and afterwards presented to THE OSPREY by him.

Part One of W. E. Louck's **LIFE HISTORY OF THE PROTHONOTARY WARBLER** also appears in the April number, and is one of the most interesting features of the present volume, as far as the text is concerned. With PART ONE is a large map showing the distribution of the Golden Swamp Warbler in Illinois. Accompanying PART TWO will be photographs showing nesting sites, etc. These photographs will be selected from a large series obtained by a party sent out to secure them for THE OSPREY.

A YOUNG BURROWING OWL, a remarkably fine photograph from life, taken by Mr. H. W. Nash in Colorado, will be the cover illustration for April.

THE FINEST BIRD PHOTOGRAPHS APPEAR IN THE OSPREY.

Have YOU some of the finest?

If so, THE OSPREY will be pleased to hear from you.

SPECIAL For one month, if this ad. is mentioned, we will send with each new \$1.00 subscription, *beginning with April*, the January, February, and March OSPREYS **FREE**

(The offer will will positively expire after 30 days.)

All '97 numbers are advanced in price. '96 numbers are out of print,

The Osprey Co., 141 East 25th St., New York City.

THE OSPREY.

"THE LEADING MONTHLY FOR BIRD STUDENTS IN AMERICA."

You will be tempted to say something as follows:

(A FEW OCTOBER, '97 SAMPLES.)

"THE OSPREY.—That our American cousins are to the front in enterprise is indisputable. They led the way in general literature with such beautifully got up magazines as *Scribner's Monthly* and the *Century*, now they are 'shewing us the way,' with a natural history magazine, which for paper and printing surpasses anything done in England. Not but what we can do it if the public will only support us. But unfortunately natural history is not sufficiently popular in England to make a really got up magazine pay its expenses, else we would ourselves produce one quite as good as this beautifully printed and illustrated American magazine for ornithologists."—*The Naturalist's Chronicle, London.*

"Recent numbers of THE OSPREY are remarkable for the interesting illustrations found in them.—*Forest and Stream.*

"I am much impressed by the beauty of the photographs which you reproduced."—Dr. Geo. Bird Grinnell, editor *Forest and Stream, New York.*

"I can't call to mind words to express the praise due THE OSPREY—and you in giving it to us."—Benjamin Hoag, Stephentown, N. Y.

"THE OSPREY now has subscribers in every State in the Union and Canada; a few in England, Scotland, Germany, Austria, Australia and Costa Rica. Its list of public libraries is constantly growing; it already has some, such as the Carnegie library of Pittsburg; Department of Agricultural library of Washington; Sacramento Free library of Sacramento, Cal. etc. Articles by the best known popular science writers in America are being secured for the coming year. Many college professors and competent critics pronounce it the best monthly magazine published for the student of birds; and it is finding a place in the cultured homes all over America. where there is a love of nature."—*Republican-Register, Galesburg, Ill.*

"Just the other day I was looking over the file of Volume I and realized what you are giving the public for \$1.—C. T. Barlow, Santa Clara, Cal.

Every Ornithologist or Oologist, not a subscriber, should not fail to send \$1.00 subscription, or at least 10c for a sample.

THE OSPEY CO., 141 East 25th St., New York City.

"It is the most valuable piece of ornithological literature in my library. I am sure that I will never be without your paper as long as it lasts. It is not only a luxury but a necessity."—T. L. Hankinson, Agricultural College, Mich.

"I shall certainly try to be a constant subscriber hereafter for I think THE OSPREY is by all odds the finest publication of its kind in the country. May it as it wins its way into the many homes of many states be a power in developing a greater protection for and to our little brothers of the air."—W. G. Coleman, Boone, Iowa.

"Often hear it spoken of as the best ornithological monthly."—P. J. McCook, Hartford, Ct.

"I would not be without it for twice the price."—Harry K. Pomeroy, Kalamazoo, Mich.

"The dollar a year we send you doesn't begin to pay for what we get."—V. H. Chase, Wady Petra, Ill.

"It is most valuable, and am sure it will be extremely helpful to us in our works of the Audubon Society,"—Miss J. E. Hammond, Sec'y, Schaller, Iowa.

"You can count on me as long as THE OSPREY flies."—T. D. Perry, Savannah, Ga.

"I am growing more and more in love with it each month. The illustrations are alone worth the amount of subscription. * * * What ornithologists can agord to be without it."—James Savage, Bugalo, N. Y.

"One of the prettiest and most practical ornithological journals America has yet seen. It has deserved success."—*Bulletin Mich. Ornithological Club.*

"THE OSPREY is our favorite here in Detroit."—W. F. Warren, Detroit, Mich.

"I am so well satisfied with THE OSPREY that I must remit a year's subscription. It is without doubt one of the best monthlies of its kind."—Wm. Blake, Ross, Herefordshire, England.

Easter "Snaps."

During the month of April (no later) I offer the following Specimens, Publications, &c. at about ONE HALF their value and at prices which are *profitless* to myself. I make this offer in order to induce the patronage of collectors not already dealing with me and in order to impress upon them that both my material and prices are RIGHT for I handle a full line of specimens and supplies in all of the various departments of the Natural Sciences and if there is anything you need write me and get my prices before purchasing elsewhere. Remit in most convenient manner and address plainly,

ERNEST H. SHORT, ALBION, ORLEANS CO., N. Y.

[At prices quoted below the articles offered are by Freight or Express at purchasers expense. When cheaper by mail I will advise you before shipping. Satisfaction guaranteed or money refunded.]

MOUNTED BIRDS, &c.

Baltimore Oriole.....	\$ 70
Red-faced Orange Oriole.....	2 10
Nuttall's Woodpecker.....	1 10
Rusty Blackbird.....	90
California Woodpecker.....	1 10
Brown Thrasher.....	70
Screech Owl.....	1 70
" young.....	1 10
Yellow Warbler.....	70
Black-throated Green Warbler.....	85
Purple Grackle.....	1 05
Great Northern Shrike, killing Magnolia Warbler.....	1 70
Lazuli Bunting.....	85
Spotted Sandpiper.....	85
Purple Sandpiper.....	90
American Woodcock, young.....	1 25
" in down.....	1 05
American Sparrow Hawk, young.....	1 25
" in down.....	1 15
Saw-whet Owl.....	2 20
California Partridge.....	1 10
Marsh Hawk.....	2 35
Old Squaw.....	2 10
Flicker.....	1 10
Blue Jay.....	1 10
Grey Squirrel eating nut.....	1 40
Alligator, 3½ ft.....	1 85
" 4½ ft.....	4 75
Sawfish, young, 2½ in.....	1 60
Swallowfish, 20 in.....	2 10

EGGS.

Ostrich, African.....	\$ 75
Emeu.....	1 35
Crocodile.....	60
Great Auk (cast).....	70
Eporynis (cast) 13 in long, will hold two gallons water.....	1 70
Moa (cast).....	1 35
Snapping Turtle, 1-16, with data.....	80
Red-leg Turtle, 1-8, with data.....	50

INDIAN RELICS, &c.

Sioux Catlinite Pipe of Peace.....	\$1 55
Sioux War Club.....	1 95
Moqui Rain God, 12 in.....	1 35
Moccasins.....	1 15
Children's Moccasins.....	70
Mexican Zarepa, 2x5 ft.....	2 15
South Sea Islander's Dress.....	1 35
Mexican Water Bottle, 10½ in.....	1 05
Mexican Water Bottle, 7 in.....	99

CORALS, &c.

Mushroom Coral, 8 in.....	55
Honey Comb Coral, 8 in.....	65
Cabbage Coral, 8 in.....	1 20
Brain Coral, 12 in.....	2 10
Propeller Coral, 10 in.....	1 05
Palm Coral, 16 in.....	1 10
Organpipe Coral, 7 in.....	55
Venus Cup Sponge, 2 ft high.....	4 25

MISCELLANEOUS.

Texan Steer Horns, elegantly polished and mounted with plush and nickel, 2 feet tip to tip (3½ feet following of curves). \$2 35	
Pair 12 in. Buffalo Horns, polished, un- mounted.....	1 40
Shark's Jaw, open.....	90
Swordfish Sword, 3ft.....	1 10
Sawfish Saw, 3ft.....	1 40
Polished Turtle or Tortoise Shell, Nassau, 9x14 in.....	3 90
Polished specimens of Landscape Marble and Mexican Onyx. Regular price \$1 to \$3 each—at ½ these prices, which is actual cost of material.	
Arrowheads, 100 (no less) assorted.....	2 20
Gem Stones, 100 (no less) assorted.....	2 15

BOOKS AND PUBLICATIONS.

THE OÖLOGIST, Vol. I to XIV, lacking only 9 issues of a complete file of all num- bers issued to '93.....	\$1 90
<i>The Oölogist</i> , Vol. I, 3 No's; Vol. II, lacks No. 1: Vols. III and IV complete; Lot..	1 80
Oölogist, 1892, bound in cloth.....	45
Bureau Ethnology Reports, Powell. Six volumes all different, (usually sold at \$2 50 to \$5 each). Lot.....	5 50
U. S. Geological Survey, Annual Reports, (regular price about \$2 each). 10 vols., all different.....	5 50
Cope, Vertebrata of Tertiary Formations, 4to, 1043 pp, 131 plates.....	3 10
Lesquereaux, Cretaceous and Tertiary Floras, 4to, 285pp, 60 plates.....	2 10
Leidy, Fresh Water Rhizopods of North America, 4to, 335pp, 48 ill., 1190 col. figs	2 10
Scudder, Tertiary Insects of North Amer- ica, 4to, 731pp, 28 plates.....	1 70
Davie, Methods in the Art of Taxidermy..	3 80
CABINETS for Coins or small specimens, size 12x14x14 in each containing 12 drawers and each drawer containing 20 compartments (2½ x1½ x¼ in), strongly made and nicely finished.....	\$ 90
TRAYS in flat, a bundle of 200 with wrap- pers, size 6x4¾ in., per bundle.....	\$ 55

THE OÖLOGIST.

A MONTHLY PUBLICATION DEVOTED TO

OÖLOGY, ORNITHOLOGY AND TAXIDERMY.

VOL. XV. NO. 5

ALBION, N. Y., MAY, 1898.

WHOLE NO. 144

Wants, Exchanges, and For Sales.

Brief special announcements, "Wants," "Exchanges" "For Sales." Inserted in this department for 25c per 25 words. Notices over 25 words, charged at the rate of one-half cent per each additional word. No notice inserted for less than 25c. Terms, cash with order.

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

What's Your Number?

Examine the number following your name on the wrapper of this month's OÖLOGIST. It denotes when your subscription expired or will expire.

No. 143 your subscription expires with this issue
145 " " " " June, "
150 " " " " Nov., "

Intermediate numbers can easily be determined. If we have you credited wrong we wish to rectify.

This month's OÖLOGIST was mailed subscribers June 1.

RAPID TAXIDERMY.—One can easily do up ½ dozen birds in an afternoon with Oriental embalming process. Send for circulars. **ORIENTAL EMBALMING CO.**, Box 92, New Hamburg, Ontario.

NOTICE.—I have fine sets of Hawks, Owls, &c., such as 337, 368, 375, 342, to exchange for other good sets, not now in my collection.

JASPER BROWN, Box 77, Norway, Iowa.

COLLECTORS who have 1st class sets for sale send lowest cash price. **A. E. PRICE**, Grant Park, Ill.

HAND EGG Blow-pipe for blowing and rinsing eggs. Sent prepaid with instructions for 75c or will exchange one for \$3 worth of A1 sets. **DR. M. T. CLECKLEY**, 457 Greene St., Augusta, Ga. M3t

VIVE Cameras to exchange, any style, for desirable sets at one third Lattin's list. Also rare typical singles. Send list of sets and singles. **L. D. SUMNER**, 502 State St., Madison, Wis. a5t

FOR EXCHANGE.—Telegraph outfit. Battery, sounder and key, nearly new, for good camera or offers in Gray's Manual or Davle's "Nests and Eggs." **C. H. SLEIGHT**, Union Grove, Wis.

FOR SALE or EXCHANGE.—Shakespeare's life and complete works with glossarial notes; one vol. 8 vo. full sheep.—*Dyes.* Eggs of 289, 316, 412, 474b, 511b, 611, 705 and others. **LESTER I. BROWN**, Box 235, Perry, Iowa.

WANTED.—Rare and odd built birds nests. Write me what you have to offer and lowest cash price. **J. E. GROSJEAN**, Lima, Ohio.

FOR SALE.—The *Nidologist*, complete, in fine condition. Volumes 1, 2 and 3 bound with klip file and binder, \$8. **MILTON C. HOWE**, Monson, Mass.

FOR EXCHANGE.—Vol. I *Natural Science News* and first six vols. OÖLOGIST lacking eight numbers. Wanted: sets, skins or photographs of birds and eggs. **F. B. MCKECHNIE**, 66 Bird St., Dorchester, Mass.

TO EXCHANGE.—1 old relic muzzle loading cap fire pistol, 125 years old at least, Allen patent, for best offer in egg sets with data. **R. WALLACE**, 940 No. 27 Ave., Omaha, Neb.

COINS.—I will send 10 foreign coins, all different in good condition for 25c. **JOHN R. PHILLIPS**, 344 E. Court St., Jacksonville, Ill.

EXCHANGE:—Fine Field Glasses and carrying case, pair pearl Opera Glasses and case, Silver Watch and Rolled Gold Chain, old Paper Money, Stamps and Albums, hundreds of Novels, Story Papers, etc., to exchange for fine Indian Relics, such as Pipes, Arrows, etc., also old coins and eggs wanted. Enclose stamp. **R. D. HAY**, Winston, N. C. A2t

FOR EXCHANGE.—Skins of 343, 337, 360, 368, 390, 507, 608, 619, 131. Also some good sets for mounted birds. Wants first-class skins of Quail, Grouse and Pheasants. Could use Bicycle. **A. I. JOHNSON**, Taxidermist, 620 East Grand Ave., Des Moines, Ia. a2t

FOR SALE.—350 1st class sets, full data, at about 1/4 catalogue rates. Have to dispose of them. Write for list. **S. B. CRAYTON**, Townville, Anderson Co., S. C.

WANTED.—Sets with nests. Will exchange singles of Osprey, Nighthawk, Stormy Petrel, or steel engraving of Audobon for each set. **W. P. YOUNG**, Jamaica Plain, Mass.

WANTED.—Volumes 4, 5, 6 and 7 of OÖLOGIST unbound. Will give in exchange fine sets with full data. **P. D. GETTY**, 301, N. Main St., Bloomington, Ill.

FOR EXCHANGE:—3-4 2-5 581, 3-3 563, 3-1 687, 2-4 2-3 652, 1-5 4-3 529, 1-4 466, 1-4 456, 1-4 507, 5-1 704, 3-3 2-4 498, 1-4 756, 3-1 761, 1-4 488. Eggs all A 1 with data, for eggs of other localities, with full data. All letters answered. **M. J. CONWAY**, 584 6th Ave., Lansingburg, Rens. Co., N. Y.

CHEAP STAMPS.—4 var. Argentine, 5c; 5, Cuba, 5c; 15, Holland, 10c; 17, Italy, 10c; 5, Mexico, 5c; 7, Salvador, 10c; 11, U. S., 5c. List of sets, &c. free. 17 var. western bird skins, \$1, postpaid. F. T. CORLESS, Logan, Ore. M4t

WANTED.—All sets and skins from Birds of this locality for same of other locality. My specimens will be nearly all of the perching birds and of this year's collecting. Correspondence desired. Send list of what you have for, and what you want in exchange and I will send my list to you. ROBERT KNETSCH, Terra Costa, McHenry Co., Ill.

WANTED.—To exchange first class Southern California eggs for egg drills, embryo hooks, scissors, forceps and data blanks. BURNELL FRANKLIN, Pasadena, California.

BARRED OWL 1-2 75c, 1-3 \$1.20; Great Horned Owl 1-2 75c; Whippoorwill 1-2 \$1.25; Red-tailed Hawk 1-2 35c; Woodcock 1-3 \$1.90. Many other bargains. C. B. VANDERCOCK, Odin, Ills.

FOR SALE.—Price per egg: 75 2-1, 12c; 117 5-1, 11c; 195 1-4, 10c; 202 1-4, 5c; 230 1-4, 6c; 269 7-4, 6c; 493 5-4, 3c. Will exchange 117, 269, 493 for desirable sets. D. WILBY, Weston, Ont.

EXCHANGE.—First class foreign stamps for minerals, shells and sea curiosities. Only A 1 specimens wanted. CHARLES S. CHEYRIER, Trenton, New Jersey.

WANTED.—One set each. Am. Woodcock, Loon, Pigeon Guillemot, Am. Magpie, Gannat, Ibises, Whippoorwill, Chuckwillowidow, Willet, Prairie Hen and Florida Crow. Can offer sets. W. A. MEAD, Carmel, N. Y.

WANTED.—Eggs and Skins of Waders and Warblers with complete data. Will give good exchange in other eggs and skins. Correspondence solicited. ADIN BURDICK, Lake City, Minn.

BIRD SKINS from this section of Georgia, to exchange for those found north and west—west of Mississippi river preferred. Nothing for sale. ROBT. WINDSOR SMITH, Kirkwood, Ga. M2t

WANTED sets of eggs in exchange or for cash. Can offer rare sets Ducks, Hawks, Owls, Warblers. Want Eagles, Poorwills, Warblers, Sparrows and commoner kinds. E. ARNOLD, Battle Creek, Mich.

WANTED.—Sets of the *Lincolnae* for 518 5-4, 446 1-4 1-5, 505a n-3 etc. Will sell choice sets and singles cheap for cash. HARRY DUNN, Fullerton, Orange Co., Calif.

TO EXCHANGE.—First class sets of Nos. 194, 273, 373b, 375, 325, 365, 385, 443, 487, 552a, 703, 420a, 289b, with datas. All letters answered. GEORGE W. LOWRY, Abilene, Tex. M2t

FOR EXCHANGE.—What have you to exchange for mounted Mule Deer, also Virginia Deer. Also some nice Deer Heads, one in the velvet. One eight-legged pig with one head; a genuine freak. A. I. JOHNSON, Taxidermist, 620 East Grand Ave., Des Moines, Ia. m2t

I HAVE Whippoorwill eggs and other eggs. Cheaper for cash than you ever did buy, or will exchange for a fine watch. Send stamp for list of many good things you will want. Every one who answers this advertisement and sends stamp for list I will send a present. I mean to sell cheap. G. W. ROBINETTE, Flag Pond, Va., U. S. A. (Reference Merchants Bank)m2

FOR SALE.—My entire collection of sets, all first class with data, for best offer. 56 varieties including 1. 289, 337, 368, 375, 417 &c, or will exchange for Cones Key, Goss' Birds of Kansas, Ridgeway's Manual and part cash or any good books. List for stamp. H. S. SOWERS, St. Francisville, Clark Co., Mo.

FOR EXCHANGE or SALE at very low rates the following species in fine sets with data: 40, 165, 179, 201, 307, 235, 243, 283, 293a, 301, 302, 311, 313, 318, 319, 326, 327, 329, 335, 339a, 348, 351, 354a, 359, 1. 362, 380, 383, 410, 419, 421, 432, 439, 487, 512, 554, 594, 602, 666, 706, 707, 708, 736, 754, 799a. THOMAS H. JACKSON, 343 E. Bidwell St., West Chester, Pa.

LOOK.—The following for exchange or prepaid at prices quoted. Giant Purple Urchin (*Strongylocentrotus franciscanus*) Test 30c, a few with spines; Small Urchins, spines (excellent) 25c, same, Test, 10c; Starfish *Asterias ochracea* 15c, *Astropecten stellatus* 20c, *Asteriscus miniatus* 10c; Sand Dollar 5c. Cocoons *Platysamia cecropia* 5c; Shells, volumes of Magazines, Insects, Want Crustaceans, Shells, Eggs, Natural History material. Excellent Guitar for Banjo. EDWIN H. DRAPER, 6700 Butler St., Station O, Chicago, Ill.

WANTED.—Well marked sets of Red-tailed and Red-shouldered Hawk, Broad-winged Hawk, also several sets of Cedar Bird, Red-eyed Vireo, Yellow and Black-billed Cuckoo, Meadow Lark, American Bittern, Field Plover, Killdeer, Downy Woodpecker, Loon, Tufted Puffin, Cassin's Auk, American Woodcock, Pigeon Guillemot, Pied-billed Grebe, Blue and Green-winged Teal, Sooty Tern, Royal Tern, Caspian Tern, Bridled Tern, Leach's Petrel, Wood Duck, Hooded Merganser, Bald Eagle, Sparrow Hawk, Screech Owl, Purple Gallinule, Sandhill Crane, Willet, Californian Quail, Bobwhite, Passenger Pigeon, Turkey Vulture, Barred Owl, Great Horned Owl, Flicker, Chuckwillowidow, Poorwill, Ruby-throated Hummingbird and nests, Prairie Horned Lark, Osprey, Painted Bunting, Tree Swallow, Purple Martin, Mocking Bird, Cactus Wren, Robin and others. I can offer sets from Iceland, Labrador, Northwest Canada and Alaska such as: No. 2, 13, 20, 21, 27, 37, 40, 51, 51a, 56, 71, 79, 86, 90, 104, 117, 119, 132, 136, 138, 142, 143, 146, 147, 151, 152, 155, 159, 160, 172, 195, 217, 223, 269, 275, 285, 301, 342, 335, 385, 421, 473, 477a, 487, 493, 528, 694, 698, 721b, 739, 765 and many others. I have thousands of eggs to offer in exchange. WALTER RAINE, 181 Bleeker, St., Toronto, Canada.

WANTED.—Lists of eggs for sale by reliable collectors. Do not care to exchange this year. Many eggs wanted, especially Californian. LEE CHAMBERS, Santa Monica, Cal. M2t

EXCHANGE EXTRAORDINARY.—Southern, Northern and Canadian birds eggs in choice sets with full original data to exchange for A 1 sets and large singles. Have employed competent collectors. Carefully selected sets for private collections for sale at a reasonable price a specialty. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. M2t

EXCHANGE.—English Setter Pups, male, one month old, fine blood, beautifully marked, father A 1 retriever, mother trained; will exchange for birds eggs in sets or high-class fancy pigeons valued at \$15.00. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. M2t

GOLDEN EAGLE! I have a first-class egg with data, scientifically prepared, collected last February. Will sell for low price of \$1. Its a beauty. R. S. DANIELS, Nordhoff Ventura Co., Calif.

WANTED TO Purchase for Cash, or the best of exchange if preferred, first class complete sets of the following species in *any* quantity. All species of Eagle, Kite, Falcon, Crane, Loon, Tropic Bird and Albatross, Hooded Merganser, Wood Duck, Roseate Spoonbill, Flamingo, Sharp-shin Hawk, Broad-wing, Saw-Whet Owl, Prairie Falcon, Duck Hawk, Whip-poor-will, Chuck-wills-widow, Parauque, and any other species new to my collection, especially species of Petrels, Auklets, Murrelets, Warblers, Waders, &c. All sets must be A 1 with full data. I also desire the following species in *large quantities*, for which I will offer choice sets from my series, or will give rare or common foreign in sets or singles or series if desired. A. O. U. Nos. 6, 27, 64, 67, 77, 79, 106, 139, 140, 190, 191, 202, 214, 218, 263, 273, 289, 294, 337, 339, 347a, 368, 373, 375, 387, 388, 390, 394, 452, 461, 467, 471, 494, 498, 501, 507, 554, 560, 611, 619, 622, 624, 628, 702, 703, 704, 743a, 761. Many others are wanted too numerous to mention. Have also many rare and desirable singles on hand and can *always* offer a very full list of prime sets, either American or foreign. *Have over 3000 papers and periodicals to offer including complete vols. of the Auk, O. and O., Nidologist, Osprey, Oologist, &c.* I also require many back numbers to complete my files. Will be glad to answer all communications. C. W. CRANDALL, Lock Box 3, Woodside, Queens Co., New York.

Marine Curios and Shells.

I make a specialty in collecting, preparing and selling anything in the line of Marine Specimens obtainable on the Gulf Coast. I sell to the collector as well as to the Retail, Wholesale and Jobbing trade.

I have unlimited facilities for obtaining anything among the "obtainables"—experienced collectors and assistants—and am prepared to furnish better material at lower prices than can be obtained from other sources. If there is anything you need, write.

J. H. HOLMES, Dunedin, Fla.

NATURALISTS' PRINTING of all kinds on good paper cheap. Egg labels 15c per 100 small; 25 per 100 large. Fossil 10c per 100. Letter heads 35 per 100. Send copy for prices. D. H. EATON, Woburn, Mass.

QUEER Fruits, Shells, Corals, Beans, Pebbles, Gems, etc., **Queer** Relics, Fossils, Eggs, Minerals, Coins, Stamps. **40 Queer Things** the world over, post free for two dimes!

ALLEN SEELEY,

P. O. Box 72,

KEMPTVILLE, ONTARIO.

FLOWERS!

Do You Raise Them?

If you send for a free sample of Tropic Plant Food, the great plant fertilizer that stimulates growth and makes plants bloom. How to make a Pansy Bed and sample of Food on request, address,

THE YUKON MFG. CO., NEBRASKA CITY, NEB.

The largest mfrs. of plant food in the world.

MINERALS SHELLS, etc. The White City Collections. 50 fine cabinet specimens, \$3. 50 smaller size, \$2. 50 amateur size, \$1. Printed name and locality with each specimen. 50 Shells, Corals, and Marine Specimens, only \$3. 100 Fossils, including fine Fish, Trilobite, Crinoids, Corals, Sponges, several fine Ferns, etc., only \$8. A great variety Unios with one valve highly published from 35c to \$1, very showy. Taxidermy in all its branches at reasonable prices. Illustrated catalogue by mail, 10c. J.M. WIERS, Naturalists Agency, 357 W. VanBuren St., Chicago, Ill.

CABINETS. Send 10 cts for photo of our speciality—SelfLocking. T perches—Oak samples by mail 8c, 10c and 15c; also stands, shields, glass cases, game panels, &c. Cabinets to order. HANAFORD CABINET CO., 139 and 141 W. Fulton St., Grand Rapids, Mich. 58M0t

NEW ENGLAND MINERALS.

Rhomb Spar, R. L. Beryl, N. H.; Actinolite, R. I.; Galenite, Mass. ¼ pound specimens of either *postpaid* for only 10 cents; or the four for only 30 cents.

The above is only a sample of the bargains I am offering in New England Minerals. Write your wants and send for lists. I handle only good fresh material—no rubbish.

ROBERT BURNHAM,

No. 143 Gallup St., PROVIDENCE, R. I.

That Other 100

Readers of THE OÖLOGIST who have not yet subscribed for

THE OSPREY

Should send 10 cents for the May number,

THEN THEY WILL.

Largest Circulation to Ornithologists and Oologists.

THE OSPREY CO., 141 E. 25th ST., NEW YORK CITY.

ROBERT BURNHAM,

DEALER IN

PRECIOUS STONES, OPALS, CURIOS AND FINE MINERALS.

Cutting and polishing Agates and Gem Stones, and setting the same in solid gold settings a specialty.

143 Gallup St., Providence, R. I.



PRICE LIST OF GEMS.

OPALS.

Australian.....	50c to \$40.00 per kt.
Hungarian.....	50c to 50.00 "
Mexican.....	10c to 20.00 "

Opal Scarf Pins set in Solid Gold in four sizes, as follows: 75c, \$1.25, 2.50, 3.50.

STUDS.

Screw or Separate Back, \$1.00 to \$3.00. Clusters to order.

EAR RINGS.....\$2.00 to \$5.00

RINGS, ETC., SET TO ORDER.

Prices an application for special settings or extra fine stones.

AMETHYST, TOPAZ, MOONSTONE, BLOODSTONE, AGATE, CROCIDOLITE, &c. In all forms and sizes for Rings, Pins, Charms, 10c to \$5.00.

Tourmaline.....	50c to \$15.00 per kt.
Aquamarine.....	50c to 5.00 "

Part Exchange will be accepted in payment during the next thirty days.

Good Live Agents Wanted

in all parts of the world.

Liberal cash commission paid.

Having a large stock on hand, I will, for a short time, sell 20 lbs. of good Minerals for \$1. One to forty kinds as you want then, large or small.

LaGrippe,

Followed by Heart Disease, Cured by
DR. MILES' HEART CURE.



MR. C. C. SHULTS, of Winterset, Iowa, inventor and manufacturer of Shults' Safety Whiffletree Coupling, writes of Dr. Miles' Heart Cure. "Two years ago an attack of LaGrippe left me with a weak heart. I had run down in flesh to mere skin and bone. I could not sleep lying down for smothering spells; frequent sharp darting pains and palpitation caused a constant fear of sudden death, nothing could induce me to remain away from home over night. My local physician prescribed Dr. Miles' Heart Cure and in a few days I was able to sleep well and the pains gradually lessened, and finally ceased. I reduced the the doses, having gained fifteen pounds, and am now feeling better in every way than I have for years."

Dr. Miles' Remedies are sold by all druggists under a positive guarantee, first bottle benefits or money refunded. Book on diseases of the heart and nerves free. Address,

DR. MILES MEDICAL CO., Elkhart, Ind.



H. H. & C. S. BRIMLEY,
COLLECTORS, RALEIGH, N. C.

First-class Skins of Birds and Mammals, Bird's Eggs, Reptiles and Batrachia both Alive and in Alcohol. Histological Material. Full data. Send stamp for lists.

ALL ROADS ARE ALIKE TO A MONARCH.
Perfection is the result of our long
experience.



MONARCH AND DEFIANCE BICYCLES

are the product of mechanical ingenuity.

\$40.00

\$50.00

\$60.00

Monarch Chainless \$100.00

Send for 1898 Catalogue.

Agents wanted in open territory.

MONARCH CYCLE MFG. CO.,

Lake, Halsted and Fulton Streets, Chicago.
Branches—New York, London and Hamburg.

Send ten 2-cent stamps for a deck of Monarch Playing Cards illustrating
Lillian Russell, Tom Cooper, Lee Richardson, and Walter Jones.

ALL MY OFFERS, subscription, premium or otherwise, as made in April OOLOGIST, will be extended or hold good until July 15, 1898. "LATTIN."

FINE SHELLS.

<i>Acmea patina</i>	\$ 15	" <i>argus</i>	75 to 1
" <i>persona</i>	15	" <i>isabella</i>	10
<i>Achatina variegata</i>	75	" <i>Lynx</i>	05
<i>Achatinella Olivacea</i>	05	" <i>pantherina</i>	25
" <i>spirazona</i>	10	" <i>pyrum</i>	50
" <i>Perversa</i>	10	" <i>talpa</i>	50
" <i>unidentata</i>	05	" <i>tigris</i>	25 to 50
" <i>uniplicata</i>	05	" <i>turdus</i>	20
" <i>magna</i>	10	" <i>undata</i>	20
<i>Ampullaria Hopetonensis</i>	05	<i>Cytherea lusoria</i>	40
<i>Astratium longispina</i>	30	" <i>umbonella</i>	40
<i>Astarte sulcata</i>	10	" <i>pulchra</i>	25
<i>Aspergillum radix</i>	75	" <i>chione</i>	40
<i>Arca ponderosa</i>	20	<i>Delphinula laciniata</i>	60
<i>Aplustrum aplustre</i>	20	<i>Dentalium solida</i>	30
<i>Bankivia varians</i>	15	" <i>entalis</i>	10
<i>Bulinus multilineata</i>	15	<i>Dolium fasciatum</i>	50
" <i>Bahamaensis</i>	10	<i>Dosinea discus</i>	20
<i>Bulla ampulla</i>	20	<i>Eburna areola</i>	40
<i>Bankivia varians</i>	10	" <i>Japonica</i>	25
<i>Callista gigantea</i>	25	<i>Engina mendecaria</i>	05
<i>Cancellaria cancellata</i>	25	<i>Fasciolaria distans</i>	10
" <i>reticulata</i>	25	" <i>tulpa</i>	20
<i>Cantharus antillarum</i>	10	" <i>trapezium</i>	35
<i>Cardita floridana</i>	10	<i>Fissurella cancellata</i>	10
<i>Cardium muricatum</i>	15	<i>Fulgur perversa</i>	25
" <i>Pseudolina</i>	1 50	<i>Haliotis lamellosa</i>	25
" <i>elatum</i>	1 00	" <i>iris</i>	40
" <i>isocardia</i>	25	" <i>rufescens</i>	75
" <i>consors</i>	50	<i>Harpa ventricosa</i>	45
<i>Cassidaria echinophora</i>	25	<i>Helix nemoralis</i>	10
<i>Cassis cornuta</i>	1 50	" <i>Fraseri</i>	40
" <i>rufa</i>	50	" <i>lactea</i>	15
" <i>tuberosa</i>	1 00	" <i>terrestris</i>	05
" <i>testiculus</i>	30	" <i>pyramidata</i>	05
" <i>coarctata</i>	30	" <i>thyroides</i>	05
" <i>torquata</i>	30	<i>Hemicardium uredo</i>	40
<i>Cerithium vulgatum</i>	10	<i>Hiponyx conica</i>	05
<i>Chama arcinella</i>	20	<i>Hippopus maculatus</i>	75
<i>Chiton tunicata</i>	15	<i>Hyalea tridentata</i>	20
" <i>magdalensis</i>	05	<i>Ianthina communis</i>	10 to 40
" <i>scabra</i>	15	<i>Io spinosa</i>	20
<i>Chlorostoma funebreale</i>	10	<i>Latirus craticulatus</i>	30
<i>Clanculus Mediterraneus</i>	05	" <i>filosa</i>	25
" <i>Pharoensis</i>	15	<i>Leptothyra rubrilineata</i>	05
<i>Clypidella fascicularis</i>	15	<i>Lignus fasciatus</i>	20
<i>Cochlostyla mirabilis</i>	40	<i>Lima squamosa</i>	25
" <i>metaformis</i>	45	<i>Littorina zebra</i>	05
" <i>phœnix</i>	35	" <i>scabra</i>	05
<i>Columbella rustica</i>	05	" <i>compressa</i>	05
" <i>fulgurans</i>	05	<i>Lottia gigantea</i>	25 to 75
" <i>heamastoma</i>	10	<i>Macoma secta</i>	15
<i>Choncolepas peruviana</i>	35	<i>Marginella apicina</i>	05
<i>Conus generalis</i>	50	<i>Melo diadema</i>	60
" <i>testudinea</i>	25	<i>Melongena corona</i>	35
" <i>minimus</i>	15	<i>Mitra episcopalis</i>	25
" <i>miles</i>	40	<i>Murex martinianus</i>	50
" <i>archepiscopus</i>	35	" <i>endiva</i>	30
" <i>marmoreus</i>	50	" <i>Radix</i>	60
" <i>litteratus</i>	30	" <i>trunculus</i>	25
" <i>bandanus</i>	75	" <i>rufus</i>	30
" <i>Californicus</i>	10	" <i>salleanus</i>	30
" <i>eburnea</i>	25	<i>Mya arenaria</i>	20
" <i>millepunctata</i>	75	<i>Nanina citrina</i>	30
" <i>strictus</i>	35	" <i>Humphrey siana</i>	35
<i>Crepidula adunca</i>	15	<i>Nassa reticulata</i>	05
<i>Crucibulum spinosum</i>	20	" <i>coronata</i>	10
<i>Cuma kiosquiformis</i>	15	" <i>arcularia</i>	15
<i>Cyclostoma sulcosa</i>	05	<i>Natica maculata</i>	15
<i>Cyprea helvola</i>	10	" <i>guilimimi</i>	10
" <i>annulus</i>	05	" <i>mamilla</i>	15
" <i>caput-serpentis</i>	10	<i>Nautilus pompilius</i>	1 00
" <i>cervinetta</i>	25	<i>Nerita peleronta</i>	10
" <i>carneola</i>	15	" <i>tessellata</i>	05
" <i>erosa</i>	05	<i>Neritina communis</i>	05
" <i>hiscro</i>	30	" <i>virginea</i>	05
" <i>mappa</i>	75	<i>Omphalis fucescens</i>	15

Oliva reticulata.....	05 to 20
" porphyrea.....	1 00
" erythrostoma.....	25
" episcopalis.....	20
Orthalicus undata.....	20
" fasciatus.....	20
Ovulum ovum.....	25
Pachydesma crassatelloides.....	40
Patella puncturata.....	10
" cerulea.....	15
" guttata.....	40
" aspera.....	15
Purpura manicella.....	25
" floridana.....	15
" patula.....	20
Pythia pyramidata.....	10
Ranella crumena.....	35
Rotella elegans.....	15
" nigrescens.....	10
" vestiaris.....	05
Segaretus perspectiva.....	20
Siphonaria gigas.....	35
Solarium perspectivum.....	60
Spondylus pictorum.....	2 50
Strombus alatus.....	15
" pugillus.....	10
" variabilis.....	10
" gigas.....	50
Tapes sulcaria.....	35
" decussata.....	15
" cochii.....	15
Tellina radiata.....	15
" virgata.....	35
Terebra maculata.....	20 to 50
Tivala ambignus.....	10
Triton rubecula.....	25
" tritonis.....	75 to 3 00
Trochita mamillaris.....	10
Trochus turbinatus.....	10
" niloticus.....	75
" articulatus.....	10
" fanulum.....	15
" pica.....	15 to 40
" zlyphinus.....	20
Turbo chryzostomus.....	25
" petholatus.....	25
" castaneus.....	15
Uvanilla inernis.....	20
Venus rudis.....	15
" verricosus.....	25
" gallina.....	10
Vermetus umbilicatus.....	10 to 35
Voluta musica.....	20
" scapha.....	25
" vespertilio.....	25

On orders of \$1.00 or over liberal discounts will be given. Write stating how much you wish to invest. Can furnish many others. List for stamp.

E. H. SHORT, Albion, N. Y.

A Beautiful Collection

FROM THE
GULF COAST.

100 Melongena Corona, 4 to 5 inches.....	\$3 50
100 Fulgar Perversa, 6 to 8 inches.....	3 00
100 Fulgar Pyrum, 3 to 3½.....	3 00
100 Pairs Pholas Costata, white, 6 to 7½ in.....	10 00
100 Fasciolara Distans, 3 in.....	2 00
100 Vermetus Lumbricalls, 6 to 10 in.....	2 00
100 Strombus Pugilis, 3 in.....	2 00

This collection will be nicely cleaned and delivered F. O. B. at prices quoted and satisfaction guaranteed.

Address all orders

A. J. BARNES, Dunedin, Fla.

AGENTS WANTED

In Every County to Supply the Great Popular Demand for

AMERICA'S WAR for HUMANITY

Told in Picture and Story.

Compiled and Written by

SENATOR JOHN J. INGALLS
OF KANSAS.

The most brilliantly written, most profusely and artistically illustrated, and most intensely popular book on the subject of the war with Spain. Nearly

200 Superb Illustrations from Photographs

taken specially for this great work. Agents are making \$50 to \$100 a week selling it. A veritable bonanza for live canvassers. Apply for description, terms and territory at once to

N. D. THOMPSON PUBLISHING CO.,
St. Louis, Mo. or New York City.

Tempting Offers

In books and periodicals for New subscriptions to

THE OSPREY.

If you are interested in Birds you must have this the leading magazine of the world devoted to your study.

THE OSPREY to a new subscriber and:

Davie's "Nests and Eggs," fifth edition, extra cloth.....	\$2 50
Hornaday's Taxidermy.....	2 90
Bird Neighbors, 51 colored plates.....	2 30
The Story of the Birds.....	1 30
Crusoe Island (a Bird Hunter's Story).....	1 30
How to Know the Shore Birds.....	1 25
How to Know the Ducks, Greese and Terns.....	1 50
Birds, '87 or '98 subscriptions.....	2 00
Birds, '97, full year, cloth.....	2 40
Recreation.....	1 40
The Oologist.....	1 00
The Plant World.....	1 50
Mekeel's Weekly Stamp News.....	1 20
McClure's Magazine.....	1 50

I will furnish any book or periodical published at like low rates in combination with THE OSPREY. Don't miss the remarkable offers I can make but for a short time.

I shall take pleasure in quoting prices at any time on anything wanted in books or periodicals.

BENJAMIN HOAG,

Subscription Agency.

STEPHENTOWN, N. Y.

100 choice Sea Shells, 25c; 25 West Indian Shells, 25c; 10 varieties Curiosities, 25c; 10 varieties rare Indian Relics, 40c; Chisels, 18c; Hoe, 18c; Spade, 25c a doz; 25 Plummet, 37c; Axe, 37c; Wiach, 50c; the whole lot for \$2.00.

W. P. ARNSOLD,

Peacedale, R. I.

DESIRABLE BOOKS AT "SNAP PRICES."

Some cannot be obtained elsewhere at any price. My prices are for the month of June only. After that date, write first. Remit in most convenient manner and address plainly.

ERNEST H. SHORT, ALBION, ORLEANS CO., N. Y.

Davie's Egg Check List

AND KEY TO

NORTH AMERICAN BIRDS.

SECOND (1886) EDITION.

This work was indispensable to all students of Oology; assisting them in identifying Nests and Eggs while in the field, and took the place of expensive works, beyond the reach of many collectors. It contained Full and Accurate Descriptions of all the Nests and Eggs of the Land and Water Birds of North America known to date of issue together with the breeding range and habitat of the species and ornithological synonyms. It contains in the neighborhood of 200 pages and is bound in heavy paper.

Illustrated with 7 Full Page Engravings.

By chance we have secured a few copies of this edition and is *today* the only form of Davie's obtainable. Will close out the few copies left at \$1.00 each, prepaid.

Davies' Naturalists Manual

The work is intended especially for the young naturalist, and gives instructions for collecting and preserving birds, eggs, nests, and insects, and for the benefit of the oologist was compiled, from leading scientific works a description of the nests and eggs of American Birds from the Thrushes to the Tanagers, inclusive (No. 1 to 164 Ridgeway's Nomenclature) to which was added original notes on the species with which Mr. Davie was familiar in '82.

It also contains paragraphs or chapters on the following: Cabinet, Choice of Guns and Ammunition, Measuring Specimens, Arsenical Solution, Skinning Birds, Sewing Wings in Proper Place, Filling Skins, Drying Board, Removing Blood and Grease from Skins, Rendering Feathers Insect Proof, How to Soften Dry Skins, Mounting Birds, (well illustrated), Recipes for Preserving Small Birds Entire, Glue for Preserving Small Birds Entire, Glue for Feathers, Arsenical Soup, Anneal Iron Wire, To Make Artificial Rocks and Branches, etc., etc.

The book was published at 75 cents per copy and was worth the money. It contains 130 pages, illustrated. A few copies at 35 cents each.

"BIRDS OF MICHIGAN"

BY A. J. COOK.

A list of 332 birds, 159 pages, over 160 illustrations. Profuse notes. Bibliography complete.

It is in fact a work on the Birds of the Great Lake Region, and will interest every Ornithologist in America.

Formerly 75 cents, now, while they last, only 50 cents, prepaid.

"THE STORY OF THE PARALLONES."

BY BARLOW & TAYLOR.

A beautiful brochure filled with charming descriptions and illustrations in half-tone of the wonderful bird rookeries. Appreciated by Ornithologists and all who see it and doubly fascinating to the Oologist. In all there are 379 SQUARE INCHES of costly illustrations on enamel paper.

The elegant Souvenir published at 50 cents, will be sent for only 30 cents, postpaid.

"Pets of the Household, Their Care in Health and Disease."

BY EARL.

160 pages, illustrated, invaluable. Mostly devoted to cage birds with a chapter on the Aquarium and another on Pet Quadrupeds.

Postpaid Only 30 cents.

"Life History and Distribution of the Prothonotary Warbler in Illinois."

BY LOUCKS.

Valuable and interesting. Published by Ills. State Laboratory of Natural History. Sold at 50 cents. Now only 20 cents, postpaid.

"Birds of Western New York."

BY SHORT.

Second revised edition. Regular, 25 cents; now only 10 cents.

"Notes on the Natural History of Labrador."

BY STEARNS IN '83.

74 pages illustrated, usually \$1.00.

Mammals, Birds, Fishes, Plants, Crustacea, Mollusca, Echinodermata, etc.

Notes on results of three collecting trips to Labrador: 1875 (2 mo.), 1880 81 (1 year), 1882 (2 mos.) Postpaid, only 40 cents.

"PENIKESE."

A valuable reminiscence sketch by an eminent Professor of Natural Sciences, who spent both seasons at Agassiz's famous Summer School. It gives many interesting and hitherto unpublished items of great value in relation not only to the Island, School and Dally Life there, but of the immortal Agassiz himself. The publisher of this book intended to have placed a cloth bound edition on the market at \$1.00. However, a few have been bound in paper and while they last will sell at 24 cents, prepaid.

THE OÖLOGIST.

A MONTHLY PUBLICATION DEVOTED TO

OOLOGY, ORNITHOLOGY AND TAXIDERMY.

VOL. XV. NO. 6

ALBION, N. Y., JUNE, 1898.

WHOLE NO. 145

Wants, Exchanges, and For Sales.

Brief special announcements, "Wants," "Exchanges" "For Sales," inserted in this department for 25c per 25 words. Notices over 25 words, charged at the rate of one-half cent per each additional word. No notice inserted for less than 25c. Terms, cash with order.

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

What's Your Number?

Examine the number following your name on the wrapper of this month's OÖLOGIST. It denotes when your subscription expired or will expire.

No. 145 your subscription expires with this issue
150 " " " " Nov. '98
153 " " " " Apr. '99 "

Intermediate numbers can easily be determined. If we have you credited wrong we wish to rectify.

This month's OÖLOGIST was mailed subscribers June 14.

WILL exchange sets (A1), also many singles of 394, 511, 390, 300, 263 and more common ones for singles, sets, shells, curios, etc. If anything wrong let me know. EMORY E. BRANDOW, Catskill, N. Y.

STAMPS, Coins, Paper Money Arrow Points for same. Want N. H. Points, also Coin and Stamp papers, English plate numbers, one-half penny to 10 shillings. ERWIN G. WARD, Truant School, Springfield, Mass.

SAMANTHA at Saratoga, in a New Dress.—One of the funniest of all the funny books is "Samantha at Saratoga." Formerly published at \$2.50, and sold by the hundred thousand. It has recently been issued in an exquisite little cloth-bound volume in the "Cambridge Classics" series by Hurst & Co., of New York, as a means of widely advertising that series, and is sold at the fabulously low price of 25 cents. They are sold by booksellers, or the publishers direct.

BIG EGGS.—African Ostrich Eggs only 78 cents each prepaid, fine specimens, one hole. One egg prepaid, and a new subscription to either *Osprey* or *Recreation*, \$1.25. Books and periodicals of all sorts; let me quote you prices. Birds eggs in fine sets, list free. BENJAMIN HOAG, Stephentown, N. Y.

TO EXCHANGE.—For first class bird skins, 40 *Natural Science News*, 7 *Popular Science*, 2 *Zoologists*, 3 *O. and O.*, 3 *Museums*, and Pocket Guide to Common Land Birds of New England (by Wilcox.) O. S. BIGGS, San Jose, Ill.

WHO wants Pinnated Grouse eggs for hatching? Four (4) for \$1.00, by mail, safe arrival guaranteed.—S. M. EDWARDS, Argusville, Cass Co., N. D.

FOR SALE.—A. O. U. No. 161-1, 50c; 401-3, 50c; 5a 2-3, 24c; 541-3, 35c; 651-4, 68c; 703-3, 17c; 772-3, 20c; 791-1, 20c; 115 1-2, \$1.20; 127 1-2, 70c; 188 1-4, \$1.20; 202 10-4, 25c; 212 1-7, 38c; 214 1-11, 50c; 300 1-19, \$1.15; 333 1-5, 68; 337a 1-2, 70c; 339 5-3, 45c; 339a 1-3, 70c; 390 1-7, 68c; 493 1-5, 24c; 412 2-7; 19c; 420a 1-2, 39c; 423 1-4, 24c; 431 n-2, 60c; 461 2-3, 24c; 452 1-6, 40c. The above prices are per set, all first-class data. Send for full list. All sets not satisfactory can be returned and money refunded at once. J. O. JOHNSON, Lock Box 550, Southington, Conn.

POLISHED Buffalo Horns, Eggs, Bird Skins and Mounted, to exchange for books, useful articles or cheap for cash. CHRIS P. FORGE, Carman, Manitoba.

TO EXCHANGE.—About 60 numbers *Natural Science News*, also a Harvard Camera and outfit. Camera takes picture 2½x5. What have you to offer? OLIVER HOTCHKISS, Twinsburg, O.

FOR EXCHANGE, Star Fish, Horse Foot Crab, Skate Eggs, Shells such as we have here for Indian Relics or Minerals, or any Curios. E. BISHOP, P. O. Box 261, Northport, Long Island, N. Y.

FOR SALE.—Fine walnut egg cabinet, capacity 10,000 eggs. 75 square drawers; also fine powder and ball revolver, rebored for shot. Big bargain. PHILO W. SMITH, JR., Mona House, St. Louis, Mo.

MY entire collection of birds eggs for sale for best offer in cash, send for list. W. L. HART, 1106 Pacific Ave., Tacoma, Wash.

EXCHANGE.—273½, 387½, 474b½, 488 1-6, 506½, 511b½, 6 5, 412 1-5 2-8, 595½, 581½, 540½, 598 5-3, 604½, 622a 2-6, 622½ 1-5 1-6 3-7, 704 1-5, 705 2-4, 721 1-6, 761 2-4 for other sets. Also 373½, ½ 1-5 and 305 1-7 for sets of 390, 337. ISAAC E. HESS, Philo, Ills.

HAND EGG Blow-pipe for blowing and rinsing eggs. Sent prepaid with instructions for 75c or will exchange one for \$3 worth of A1 sets. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. M3t

VIVE Cameras to exchange, any style, for desirable sets at one third Lathin's list. Also rare typical singles. Send list of sets and singles. L. D. SUMNER, 502 State St., Madison, Wis. a5t

CHEAP STAMPS.—4 var. Argentine, 5c; 5, Cuba, 5c; 15, Holland, 10c; 17, Italy, 10c; 5, Mexico, 5c; 7, Salvador, 10c; 11, U. S., 5c. List of sets, &c. free. 17 var. western bird skins, \$1. postpaid. F. T. CORLESS, Logan, Ore. M4t

WANTED.—To exchange Llewellyn Setter bitch, with fine pedigree, and a good hunter; 11 months old for good shot gun. URLING COE, Carthage, Mo.

FOR SALE.—Live Bald Eagle about 5 years old. Nice specimen. Price \$10.00. Address, W. F. D., care OÖLOGIST, Albion, N. Y.

TEA.—Fine quality, any kind, 50c, 75c and \$1 per pound in exchange for Indian stone relics or mounted bison, moose, sheep, goat, elk, or antelope heads. Describe horns or antlers. Address, J. B. BROWN, P. O. Box 2366, New York City.

BIRD SKINS from this section of Georgia to exchange for those found north and west—west of Mississippi river preferred. Nothing for sale. ROBT. WINDSOR SMITH, Kirkwood, Ga. M2t

WANTED sets of eggs in exchange or for cash. Can offer rare sets Ducks, Hawks, Owls, Warblers. Want Eagles, Poorwills, Warblers, Sparrows and commoner kinds. E. ARNOLD, Battle Creek, Mich.

FOR EXCHANGE.—What have you to exchange for mounted Mule Deer, also Virginia Deer. Also some nice Deer Heads, one in the velvet. One eight-legged pig with one head; a genuine freak. A. I. JOHNSON, Taxidermist, 620 East Grand Ave., Des Moines, Ia. m2t

I HAVE Whippoorwill eggs and other eggs. Cheaper for cash than you ever did buy, or will exchange for a fine watch. Send stamp for list of many good things you will want. Every one who answers this advertisement and sends stamp for list I will send a present. I mean to sell cheap. G. W. ROBINETTE, Flag Pond, Va., U. S. A. (Reference Merchants Bank) m2

EMBRYO SCISSORS are needed during the next 60 days. If at all this season. A good pair may save a choice set worth many times their cost. The Long-shanked, fine pointed, curved ones are always retailed in the neighborhood of \$1. I have just secured a few at a "special rate," and have decided to give my patrons the benefit of my "Bargain." While they last they are yours at only 45 cents each prepaid. ERNEST H. SHORT, Albion, N. Y.

THE OÖLOGIST

A FULL YEAR FOR

ONLY 25 CENTS.

If you do not care to accept the 50c premium offer made in April issue we will until July 15th accept subscriptions at 25c each and in addition mail each accepting the offer a coupon good for a 25 word Exchange Notice, free. Address plainly, FRANK H. LATTIN, Publisher, Albion, N. Y.

All Notes, Exchanges and advertising matter intended for July OÖLOGIST must be forwarded by early mail. July issue will be out ON TIME.

TO EXCHANGE.—First class sets of Nos. 194, 273, 373b, 375, 325, 365, 385, 443, 487, 552a, 703, 421a, 489b, with datas. All letters answered. GEORGE W. LOWRY, Abilene, Tex. M2t

THREE Dollars will buy 110 varieties of foreign and native woods, or I will exchange for woods not in my collection. LOUIS W. HAHN, Silver Creek, Chautauqua Co., N. Y.

WANTED.—Lists of eggs for sale by reliable collectors. Do not care to exchange this year. Many eggs wanted, especially Californian. LEE CHAMBERS, Santa Monica, Cal. M2t

EXCHANGE EXTRAORDINARY.—Southern, Northern and Canadian birds eggs in choice sets with full original data to exchange for A 1 sets and large singles. Have employed competent collectors. Carefully selected sets for private collections for sale at a reasonable price a specialty. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. M2t

EXCHANGE—Eastman \$4 Folding Kodak, 4x5 made to load with roll of 100, or less, films. Fine lens and all in A 1 condition. Will exchange for skins or eggs or both. J. P. BABBITT, Taunton, Mass.

EXCHANGE.—English Setter Pups, male, one month old, fine blood, beautifully marked, father A 1 retriever, mother trained; will exchange for birds eggs in sets or high-class fancy pigeons valued at \$15.00. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. M2t

Marine Shells and Curios.

I am now in a position to furnish in quantity all of the best species collected on the Gulf Coast and will be pleased to furnish prices on application. Best of reference given and satisfaction guaranteed. Collections sent on approval to parties giving satisfactory reference. Any not approved can be returned at my expense. Address all orders to A. J. BARNES, Dunedin, Fla.

\$3 worth of Desirable Sets,
[Ten Species.]

**THE OÖLOGIST one year, and
an Exchange Coupon, all
prepaid, for only \$1.**

This Offer is good until July 15th only. The following sets are the one selected for this offer:

Least Tern 1-2, Mourning Dove 1-2, Red-winged Blackbird 1-4, Orchard Oriole 1-5, Bullock's Oriole 1-5, Boat-tailed Grackle 1-3, House Finch 1-4, Arkansas Goldfinch 1-5, California Shrike 1-5, and a 10th set of some desirable species, my selection, worth not less than 50 cents.

Remember that until July 15th you get entire lot with Exchange Coupon and OÖLOGIST one year for only \$1.00. All prepaid, safe delivery, and satisfaction guaranteed. No deviation from this list or offer. Address at once,

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

Marine Curios and Shells.

I make a specialty in collecting, preparing and selling anything in the line of Marine Specimens obtainable on the Gulf Coast. I sell to the collector as well as to the Retail, Wholesale and Jobbing trade.

I have unlimited facilities for obtaining anything among the "obtainables"—experienced collectors and assistants—and am prepared to furnish better material at lower prices than can be obtained from other sources. If there is anything you need, write.

J. H. HOLMES, Dunedin, Fla.

NATURALISTS' PRINTING of all kinds on good paper cheap. Egg labels 15c per 100 small; 25 per 100 large. Fossil 10c per 100. Letter heads 35 per 100. Send copy for prices. **D. H. EATON, Woburn, Mass.**

AGENTS WANTED

In Every County to Supply the Great Popular Demand for

AMERICA'S WAR for HUMANITY

Told in Picture and Story.

Compiled and Written by

SENATOR JOHN J. INGALLS
OF KANSAS.

The most brilliantly written, most profusely and artistically illustrated, and most intensely popular book on the subject of the war with Spain. Nearly

200 Superb Illustrations from Photographs taken specially for this great work. Agents are making \$50 to \$100 a week selling it. A veritable bonanza for live canvassers. Apply for description, terms and territory at once to

N. D. THOMPSON PUBLISHING CO.,

St. Louis, Mo. or New York City.

MINERALS SHELLS, etc. The White City Collections. 50 fine cabinet specimens, \$3. 50 smaller size, \$2. 50 amateur size, \$1. Printed name and locality with each specimen. 50 Shells, Corals, and Marine Specimens, only \$3. 100 Fossils, including fine Fish, Trilobite, Crinoids, Corals, Sponges, several fine Ferns, etc., only \$8. A great variety Unios with one valve highly published from 35c to \$1, very showy. Taxidermy in all its branches at reasonable prices. Illustrated catalogue by mail, 10c. **J.M. WIERS, Naturalists Agency, 357 W. VanBuren St., Chicago, Ill.**

CABINETS. Send 10 cts for photo of our specialty—SelfLocking. T perches—Oak samples by mail 8c, 10c and 15c; also stands, shields, glass cases, game panels, &c. Cabinets to order. **HANAFORD CABINET CO., 139 and 141 W. Fulton St., Grand Rapids, Mich. 58MOTf**

NEW ENGLAND MINERALS.

Rhomb Spar, R. I., Beryl, N. H.; Actinolite, R. I.; Galenite, Mass. ¼ pound specimens of either *postpaid* for only 10 cents; or the four for only 30 cents.

The above is only a sample of the bargains I am offering in New England Minerals. Write your wants and send for lists. I handle only good fresh material—no rubbish.

ROBERT BURNHAM,

No. 143 Gallup St., PROVIDENCE, R. I.

A Beautiful Collection

FROM THE

GULF COAST.

100 Melongena Corona, 4 to 5 inches	\$3 50
100 Fulgar Perversa, 6 to 8 inches.....	3 00
100 Fulgar Pyrum, 3 to 3½	3 00
100 Pairs Pholas Costata, white, 6 to 7½ in ..	10 00
100 Fasciolaria Distans, 3 in	2 00
100 Vermetus Lumbricalis, 6 to 10 in.....	2 00
100 Strombus Pugilis, 3 in.....	2 00

This collection will be nicely cleaned and delivered F. O. B. at prices quoted and satisfaction guaranteed.

Address all orders

A. J. BARNES, Dunedin, Fla.

That Other 100

Readers of THE OÖLOGIST who have not yet subscribed for

THE OSPREY

Should send 10 cents for the June number,

THEN THEY WILL.

Largest Circulation to Ornithologists and Oologists.

THE OSPREY CO., 141 E. 25th ST., NEW YORK CITY.

ROBERT BURNHAM,

DEALER IN

PRECIOUS STONES, OPALS, CURIOS AND FINE MINERALS.

Cutting and polishing Agates and Gem Stones, and setting the same in solid gold settings a specialty.

143 Gallup St., Providence, R. I.



PRICE LIST OF GEMS.

OPALS.

Australian.....	50c to \$40.00 per kt.
Hungarian.....	50c to 50.00 "
Mexican.....	10c to 20.00 "
Opal Scarf Pins set in Solid Gold in four sizes, as follows: 75c, \$1.25, 2.50, 3.50.	

STUDS.

Screw or Separate Back, \$1.00 to \$3.00. Clusters to order.

EAR RINGS.....\$1.00 to \$5.00

RINGS, ETC., SET TO ORDER.

Prices an application for special settings or extra fine stones.

AMETHYST, TOPAZ, MOONSTONE.

BLOODSTONE, AGATE, CROCIDOLITE, &c. In all forms and sizes for Rings, Pins, Charms, 10c to \$5.00.

Tourmaline.....	50c to \$15.00 per kt.
Aquamarine.....	50c to 5.00 "

Part Exchange will be accepted in payment during the next thirty days.

Good Live Agents Wanted

in all parts of the world.

Liberal cash commission paid.

Having a large stock on hand, I will, for a short time, sell 20 lbs. of good Minerals for \$1. One to forty kinds as you want them, large or small.

Dr. Miles' Nervine

A REMEDY FOR THE

Effects of Tobacco.



THE excessive use of tobacco, especially by young men is always injurious and undoubtedly shortens life materially. Mr. Ed. C. Ebsen, compositor on the Contra-Costa News, Martinez, Cal., writes; "I have used Dr. Miles' Restorative Nervine and received much benefit from it. I was troubled with nervousness, dizzy spells and sleeplessness, caused by the use of tobacco and stimulants. I took Dr. Miles' Nervine with marvelously good results, allaying the dizziness, quieting the nerves, and enabling me to sleep and rest, proving in my case a very beneficial remedy." Dr. Miles' Restorative Nervine is especially adapted to restoring the nervous system to its normal condition under such circumstances. It soothes, heals and strengthens.

Dr. Miles' Remedies are sold by all druggists under a positive guarantee, first bottle benefits or money refunded. Book on diseases of the heart and nerves free. Address,

DR. MILES MEDICAL CO., Elkhart, Ind.



H. H. & C. S. BRIMLEY,
COLLECTORS, RALEIGH, N. C.

First-class Skins of Birds and Mammals, Bird's Eggs, Reptiles and Batrachia both Alive and in Alcohol. Histological Material. Full data. Send stamp for lists.

ALL ROADS ARE ALIKE TO A MONARCH.
Perfection is the result of our long
experience.



MONARCH AND DEFIANCE BICYCLES

are the product of mechanical ingenuity.

\$40.00

\$50.00

\$60.00

Monarch Chainless \$100.00


Send for 1898 Catalogue.

Agents wanted in open territory.

MONARCH CYCLE MFG. CO.,

Lake, Halsted and Fulton Streets, Chicago.
Branches—New York, London and Hamburg.

Send ten 2-cent stamps for a deck of Monarch Playing Cards illustrating
Lillian Russell, Tom Cooper, Lee Richardson, and Walter Jones.

 **ALL MY OFFERS,** subscription, pre-
mium or otherwise, as made in April
OOLOGIST, will be extended or hold
good until July 15, 1898. "LATTIN."

Three Big Bargains in Egg Collections.

The following collections have been placed in our hands for sale at prices quoted. All are packed ready for immediate shipment, safely delivered and satisfaction guaranteed.

The Collections will remain on sale until July 10th only, at which date if unsold they will be unpacked and placed on sale at "CHAUTAUQUA" and at double these prices. Catalogue of either collection furnished to parties meaning business at 10 cents; the three for 25 cents, which amount may be deducted from price of collection, if purchased. With but few exceptions, all specimens are first-class in every respect, and the sets are accompanied by full and original data.

If interested, remit or write at once to

FRANK H. LATTIN, ALBION, N. Y.

COLLECTION A Contains One Hundred and Seventy-five (175) varieties of single eggs. Catalogue value, \$50.00. Nearly all of the specimens are carefully selected typical specimens. The following desirable species are represented in this collection: Loon, Western Grebe, Great Black-backed Gull, Baldpate, Northern Eider, American Avocet, Gray Ruffed Grouse, Columbian Sharp-tailed Grouse, Turkey Vulture, Red-tailed Hawk, Western Red-tail, Swainson's Hawk, Barred Owl, Elf Owl, Pileated Woodpecker, Yellow-billed Magpie, Bendire's Thrasher, Ring Pheasant, Great Auk (cast), Ostrich, Emeu, Crocodile, and over 150 others. This collection will be sent by express at purchasers expense for **only \$15.**

COLLECTION B Contains selected typical sets of Ninety (90) species and in addition eight (8) desirable novelties such as Ostrich, Emeu, Python, Crocodile, Great Auk (cast), etc. The following very desirable sets are found in this collection: Redhead 1-8, Canvas-back 1-6, Bobwhite 1-11, California Partridge 1-11, Inca Dove 1-2, Marsh Hawk 1-4, Swainson's Hawk 1-3, Screech Owl 1-3, Burrowing Owl 1-7, Downy Woodpecker 1-6, Calif. Woodpecker 1-6, Northwestern Flicker 1-7, Whip-poor-will 1-2, Anna's Hummingbird n-2, Cassin's Kingbird 1-4, White-necked Raven 1-5, Rusty Song Sparrow 1-4, Sooty Song Sparrow 1-4, La. Water-Thrush 1-6, Cactus Wren 1-5, Chickadee 1-7, and nearly 70 others. Catalog value \$90.00. Entire collection by Express at purchaser's expense, **only \$25.**

COLLECTION C Contains sets of forty-five (45) species and singles of Ostrich, Adder, Alligator and Gopher. Catalogue value of entire collection, \$30.00. The following sets are found in this collection: Inca Dove 1-2, Swainson's Hawk 1-2, Desert Sparrow Hawk 1-5, Screech Owl 1-3, Burrowing Owl 1-7, Anna's Hummingbird n-2, Cassin's Kingbird 1-3, Arizona Hooded Oriole 1-3, Lawrence's Goldfinch 1-5, Tree Swallow 1-4, California Shrike 1-5, Calif. Thrasher 1-3, Cactus Wren 1-5, and over 30 others. (All the sets in this collection are found in collection B). Collection by Express at purchasers expense, **only \$7.50.**

BE GOOD

It is a hard task for the average man, and requires the showing forth of many excellent qualities. But for a Bicycle Lamp to be good, really requires but two things:

- 1st. To Give a Good Light.
- 2d. To Stay Allight In Spite of Wind and Jar.



beautifully combines these two good qualities. It also has the other and lesser virtues belonging to the

Perfect Bicycle Lamp.

Therefore as one step in your effort to

BE GOOD

BE WISE, and buy one of them

AND YOU WILL BE HAPPY.

Send for circular or, better still, send **\$2.50** which is the reasonable price at which we sell one, delivered anywhere.

R. E. DIETZ COMPANY

60 Laight Street

Established 1840 **NEW YORK CITY**

BOYS GO A FISHING. Largest outfit ever offered for 10 Cents. 1 Fine Furnished Line, 1 Float two colors and varnished, 1 Imitation Drab Linen Line, 2 White Lines, 40 feet, 15 Best Quality assorted Hooks. Sent on receipt of 10 cents and 2 cents postage. Stamps taken. Address,

EXCELSIOR TACKLE CO., BRADDOCK, PA.

MEXICAN COINS. 1c, 2c and 5c nickel uncirculated, and 1c copper. Set of 4 prepaid for only 12c. The nickel coins were in circulation only a few months in '82-'83 may become exceedingly rare in a few years. **ROBERT BURNHAM, 143 Gallup St., Providence, R. I.**

RAPID TAXIDERMY.

Ten persons can learn at once as well as one and bring the cost down to nothing. All materials furnished.

Sold on a guarantee to give perfect satisfaction or money refunded.

Write for Circulars, Testimonials and Guarantee. Mention **THE OÖLOGIST** and address.

MORRIS GIBBS, M. D.,

Kalamazoo, Mich.

USE A MARLIN REPEATER



32-calibre cartridges for a Marlin, Model 1892, cost only \$5.00 a thousand.

32-calibre cartridges for any other repeater made, cost \$12.00 a thousand.

You can save the entire cost of your Marlin on the first two thousand cartridges. Why this is so is fully explained in the **Marlin Hand Book** for shooters. It also tells how to care for firearms and how to use them. How to load cartridges with the different kinds of black and smokeless powders. It gives trajectories, velocities, penetrations and 100 other points of interest to sportsmen. 88 pages. Free, if you will send stamps for postage to

THE MARLIN FIREARMS CO., New Haven, Conn.

PUBLICATIONS, EGGS, BOOKS WANTED: I will allow 50c each for any back number of the "Auk" you may have, if in good condition and sent prepaid. You to take your full pay in Eggs, Shells (showy or scientific), Corals, Echinoderms, Fossils, Min-rals, Stamps, Hand-books, Curics or Novelties. (Books, Instruments and Supplies will be given in exceptional cases by special arrangement) as listed in the Premium List Supplement. I can also use on same terms the following numbers of the OÖLOGIST at prices quoted: June, 1888, 25c; July-Aug., 1886, 20c; Jan.-Feb., 1887 or Dec., 1886 with same attaché, 1.00; June-Sept., 1887, 15c; Apr., 1889, 15c; Jan.-Feb., 1885, 10c; Jan., 1895, 5c; March, 1897, 5c; May, 1897, 5c. All must be complete, clean, and in good condition. I will also accept back No's of *Ornithologist and Oölogist*, *Recreation*, *Insect Life*, any issue and in any quantity at 5c per copy on same terms. (I will allow 25c for Oct., '93 and Feb., '94 "Nids," also for October and December '96 *Osprey*.) If you have other publications along my line. Write and state what is wanted. I can also use books on subjects pertaining to Natural History if in good condition and cheap, also A No. 1 sets of eggs with data at 1/2 "Std undard" rates. Lists of books and eggs must be submitted for my selection or approval before sending. Address at once **FRANK H. LATIN, Albion, N. Y.**

HEADACHE cured in 20 minutes by **Dr. Miles' PAIN PILLS.** "One cent a dose." At druggists.

Lattin's Standard Catalog of North American Birds Eggs.

Enlarged (contains 72 pages) revised, corrected and brought up to date of going to press—March, 1896. Giving all of the new A. O. U. changes and additions. Also divided and subdivided into orders, sub-orders, families, and sub-families.

Values are based on the 1893 ones which were determined by the compiler, from invaluable notes, suggestions and assistance from Major Chas. E. Bendire, J. Parker Norris, Esq., and Captain B. F. Goss. In addition to these notes, which have been carefully reworked, the compiler has had suggestions from over FORTY LEADING AMERICAN OOLOGISTS, all of which were carefully considered and where advisable, adopted. Lattin's Catalogue has long been recognized by leading Oologists as the "Standard." The compiler intends to issue a new one as soon as this edition is exhausted and desires the assistance of every working Oologist, in making values, etc. On this account he has concluded to close out this edition at the following rates, postpaid (regular price was 25 cents per copy.) Single copy 10 cents; 3 for 25 cents; 7 for 50 cents; 15 for \$1 00.

Address, FRANK H. LATTIN, ALBION, N. Y.

Advertise in The OOLOGIST.



The "*Country Gentlemen*" is the leading Agricultural newspaper in America, and in soliciting advertising for its columns it makes its strongest hit in the following statement:

"AS TO QUANTITY OF CIRCULATION

it publishes many more 'Want Ads' than *all other papers combined*. You doubtless know what a 'Want Ad' circulation must be *and always is?*"

From this same stand point the OOLOGIST's rank among publications devoted not only to Ornithology but Natural History as well is identical to that of the COUNTY GENTLEMEN among agricultural publications.

Mr. W. Raine, of Toronto, who has already purchased \$20 worth of space in the OOLOGIST for '98 and who has patronized its columns to a greater or less extent for the past ten years, under date of March 2d, writes:

"I do not wish to jolly you but I must say that the OOLOGIST is the best advertising journal of its kind in this continent. You should see the pile of letters I have received the past two weeks. Many from my old correspondents of years standing. For 12 years I have advertised in every Ornithological journal published in the United States, but *none* bring as good results as the OOLOGIST."

"Methods in the Art of Taxidermy." By Davie.

The Publishers price for this elaborate work was \$10. The book is now out of print and the Publisher's supply is exhausted. Each month will now increase the value of copies remaining in hands of Dealers or Collectors, at least at the rate of 50 cents per month.

I have only a few copies left (only six) and knowing full well that I shall be unable to obtain copies in the future to fill my orders at this price and perhaps not at any price. I have decided to close out the ones I have if taken *before July 15th* at only **\$4 per copy**. (35 cents additional if sent prepaid).

In case I have any left after July 15th it will take at least a \$5 bill to secure a copy, doubtless more.

Address at once

ERNEST H. SHORT, ALBION, N. Y.

THE OÖLOGIST .

A MONTHLY PUBLICATION DEVOTED TO

OÖLOGY, ORNITHOLOGY AND TAXIDERMRY.

VOL. XV. NO. 7.

ALBION, N. Y., JULY, 1898.

WHOLE NO. 146

Wants, Exchanges, and For Sales.

Brief special announcements. "Wants," "Exchanges" "For Sales," inserted in this department for 25c per 25 words. Notices over 25 words, charged at the rate of one-half cent per each additional word. No notice inserted for less than 25c. Terms, cash with order.
Strictly First-class specimens will be accepted in payment at one-third list rates.

What's Your Number?

Examine the number following your name on the wrapper of this month's OÖLOGIST. It denotes when your subscription expired or will expire.

No. 146 your subscription expires with this issue
150 " " " " " " Nov. " "
155 " " " " " " Apr. '99 " "
160 " " " " " " Sept. " "

Intermediate numbers can easily be determined. If we have you credited wrong we wish to rectify.

This month's OÖLOGIST was mailed subscribers July 31.

WANTED.—A good 32 single shot rifle. Will exchange sets and singles. State price and write at once to, GEORGE D. BRADSHAW, Cariyon, N. Y.

WANTED:—Printing Press, in good condition, chase about 6x10. Also some newspaper type. Write giving description and lowest cash price. FRANZ TRIPP, Garden Prairie, Ills.

WANTED—Full sets of A. O. U. No's 7, 293, 305, 329, 336, 339b, 343, 349, 352, 360a, 362, 591c, 592, 599, 597, 633, 642, 645, 649, 655, 660, 662, 663, 672, 675, 677, 680, 681a, 681b, 685, 685a, 707a, 708, 718a, 719b, 722, 724. Can offer choice sets with nests of 641, and 676. Egg cabinet, &c. Address H. W. BEERS, 35 Denver Ave., Bridgeport, Conn.

TO EXCHANGE:—Fine sets of Mallard, Cinnamon Teal, Avocet, Black Stilt, Red-head and White-face Glossy Ibis. The latter can be supplied in series of from one to a dozen sets. Send your list excluding eggs catalogued at 25c or under. A. M. SHIELDS, Crocker Building, San Francisco. Jly2t

HOW TO MAKE MONEY! If you are out of employment and want a position, paying you from \$50 to \$100 monthly clear above expenses by working regularly, or, if you want to increase your present income from \$200 to \$500 yearly, by working at odd times, write the GLOBE CO., 723 Chestnut St., Phila., Pa., stating age, whether married or single, last or present employment, and you can secure a position with them by which you can make more money easier and faster than you ever made before in your life. Jlyr

CAMERA WANTED.—I want a good 5x7 hand-tripod camera. Send description with price. J. O. SNYDER, Stanford University Cal.

VIVE Cameras to exchange, any style, for desirable sets at one-third Lattin's list. Also rare typical singles. Send list of sets and singles. L. D. SUMNER, 509 State St., Madison, Wis. a5t

WILL EXCHANGE $\frac{1}{2}$ spark oil, amateur, hand generator, Kent Dynamo-motor, Shaw and Edison motor for eggs. Large eggs preferred. Everything answered. Send your lists. C. F. CALLAGHAN, General Delivery, Erie, Pa.

LITTLE BROWN CRANE Eggs and Skins for sale. 3 sets of 2 eggs each with skins of the parent birds, obtained in Assinibola last month with original datas. Full particulars about the nesting of the Little Brown Crane in North West Canada will soon appear in the *Auk*. W. RAINE, Kew Beach, Toronto, Canada.

CHEAP STAMPS.—4 var. Argentine, 5c; 5, Cuba, 5c; 15, Holland, 10c; 17, Italy, 10c; 5, M exico, 5c; 7, Salvador, 10c; 11, U. S., 5c. List of sets, &c, free. 17 var. western bird skins, \$1, postpaid. F. T. CORLESS, Logan, Ore. M4t

WANTED:—Pair of opera glasses and books on Birds, will give Scientific Books or cash in exchange. H. E. NEUMANN, 204 Rock St., Watertown, Wis. □

WANTED:—Several sets of Black and Yellow-billed Cuckoos, Red-eyed Vireo, Cedar Bird, Downy Woodpecker, Painted Bunting, Tufted Puffin, Pigeon Guillemot, Osprey, Screech Owl, Tree Swallow, Prairie Horned Lark, Purple Martin, American Bittern, Cala. Quail, Bob-white, Killdeer, Bartram's Sandpiper, Leaches Petrel and many others. I can offer eggs and skins from Iceland, Labrador, Hudson Bay, Northwest Canada, Rocky Mountains and Alaska. WALTER RAINE, Kew Beach, Toronto, Canada.

FOR SALE:—1 large Elk head 7 and 8 points, Buffalo horns, polished, mounted and unmounted set; large elk antlers, 6 point; one mounted goat head; a few mounted birds, skins and eggs in sets and singles. At very low prices for cash or useful exchange.

CHRIS P. FORGE, Carman, Manitoba

FOR SALE:—Fine specimens of American Turquois. Will cut good settings at 25c to \$1. This is a good chance to get a fine stone cheap. ROBERT BURNHAM, 143 Gallup St., Providence, R. I.

NOTICE:—Having gone to the front with the Geneva 34th, I would like all previously arranged exchanges and correspondence postponed until the close of the war. B. S. BOWDISH.

I WILL exchange butterflies of Missouri for others from any part of the United States, common ones taken. W. H. SCHWARZ, 1520 Lafayette Ave., St. Louis, Mo. Jy2t

MINERALS FOR SALE:—Choice specimens of Molybdenite (fine), Columbite, Torbernite, Orthoclase, Magnetite crystals, Rose Quartz, Serpentine and Aphrodite. 10 to 25c. JAMES W. DAVIS, Port Chester, N. Y.

FOR EXCHANGE:—Fine sets 53, 125, 139, 141, 142, 143, 212, 214, 221, 225, 226, 230, 366, 367, 475, 545, 702, 725a and 150 others. Send good list and receive same. W. H. PARKER, 158 McClelland Ave., Salt Lake City, Utah.

FOR SALE or EXCHANGE:—2000 eggs in sets taken this season in Northwest Canada. The lot contains many rare species. Send list. W. RAINE, Kew Beach, Toronto.

TO EXCHANGE:—The following A. O. U. singles for sets: 120c, 126, 208, 261, 316, 337, 387, 88, 444, 467, 488, 495, 498, 507, 511b, 519, 546, 550, 584, 593, 613, 616, 622a, 633, 652, 684, 687, 704, 705, 721 and 725. Address Lock Box 854, Wellington, Kas.

AM SELLING my collection of Rugs, Bird and Mammal skins, Heads, Birds, Snakes, at ½ cost. Write for wants. BOX 421, West Haven, Conn.

WANTED:—Second hand bicycle. I offer fine pair of Buffalo head Duck under Reed's Convex Glass Shade, shore sence. Whole piece 38x30 in., with frame. Value, \$25. Address, J. R., care OÖLOGIST, Albion, N. Y.

FOR SALE or EXCHANGE:—Three Flying Squirrels, one old and two young (full grown). Best cash offer or exchange in sets, takes the lot. EDW. W. SPRINGER, Owatonna, Minn.

I WILL exchange an improved Simplex Typewriter for Sargent's or Fuller's Book on Botany. LOUIS W. HAHN, Silver Creek, Chautauqua Co., N. Y.

EXCHANGE:—Eggs, sets or singles, stamps, old money, shells, mandolin, climbers, skins, relics, for eggs, skins or best offer in cash. J. A. FORD, Carlyon, Orleans Co., N. Y.

WANTED:—Bendires "Life Histories of North American Birds" Vol. II. Can offer rare sets, skins, books and part cash. I also want an XL shot gun. WALTER RAINE, Kew Beach, Toronto.

MOUNTED Birds eggs, curios, books, etc. To sell or exchange. Want good shot gun. I would like to open correspondence with you. V. G. deKaland, 722 12th St., Ann Arbor, Mich.

HAVE following sets for exchange: E. Sparrow 3-5 1-6, 202 1-5, 261 1-4, 333 1-4, 390 1-4, 444 2-4, 2-3, 456 3-4 1-5, 474 1-2, 477 1-3 1-4, 488 1-4, 498 4-4, 501b 3-4 1-6, 506 1-4, 511 1-4, 519 1-3, 538 1-4, 540a 1-4, 560 1-4 2-2, 611 1-5 1-4, 611 1-5 1-4, 612 1-4 1-5, 616 1-4, 652 1-4 1-3, 703 1-4, 704 1-4, 705 1-4 1-3. All letters answered. JAS. L. PLATT, Cresco, Iowa.

WANTED:—Ithaca, Remington, Spencer Winchester and Parker Bros. shot guns, 12 gauge. Also fox hound, Pheasants and Turkeys. Can offer in exchange for above one hundred first class sets, data, Fancy Pigeons, etc. J. O. JOHNSON, Southington, Conn.

WANTED:—Sets of Raptors and Warblers, for which I can give rare Arizona and other sets. I particularly desire 331, 332 and 378 A. O. U. No's. F. C. WILLARD, 70 N. Cherry St., Galesburg, Ill. Jy2t

FOR SALE CHEAP:—Fine Minerals, choice fossils, rare shells, odd curios, ancient relics, specimens of all branches of science. Wanted; *Oliga* and *Cyprinas*. Live Hawk and Owls. F. A. W. DEAN, 39 Falls St., Niagara Falls, N. Y.

I WOULD LIKE to hear from collectors in other states who will exchange eggs peculiar to their state, for those of my vicinity. Lists furnished. R. J. RICHARDSON, Box 2356, Batavia, N. Y.

WANTED:—Sets of 342 or 335. Will give to the amount of \$1.20 for every \$1 for anything I have to exchange for them. I have 2-5 201, 1-4 263, 1 3 595, 1-3 624, 1-4 269, 1-5 1-3 683, 1-1 13, 1-4 652, 1-4 619, 1-2 357. RAY DENSMORE, Box 7, Painesville, Ohio.

LOOK! Keating Bicycle in good condition, for sale or exchange. \$12 cash takes it. A bargain. Write for description. R. E. PIKE, Box 32, Livermore, Maine.

FOR EXCHANGE:—A few shells for crystals. A. D. C., Box 21, Harwichport, Mass.

WANTED:—Eggs of Raptors in sets with full, original data; for, other sets, books, back numbers or volumes of the *Ornithologist and Oölogist*, skins, mounted birds, eyes, supplies, etc. Write what you have and what you want. Want also good unmounted photos, of birds, their nests and eggs from nature. Address CHARLES R. HIGBEE, Jr., No. 13 Austin St., Hyde Park, Mass.

FOR EXCHANGE:—468 4-5, 500 5-4, 510 1-4 1-5, 518 3-4 n-4, 621 1-5 1-6, 622b 2-5 1-4, 703 1-4, 505a n-4. Would like sets of 225, 226, 182. Will sell cheap for cash. HARRY DUNN, Fullerton, Calif.

PUBLICATIONS, EGGS, BOOKS WANTED: I will allow 50c each for any back number of the "Auk" you may have, if in good condition and sent prepaid. You to take your full pay in Eggs, Shells (showy or scientific), Corals, Echinoderms, Fossils, Minerals, Curios, Novelties, &c. as listed in the Premium List I can also use on same terms the following numbers of the OÖLOGIST at prices quoted: June, 1888, 25c; July-Aug., 1886, 20c; Jan.-Feb., 1887 or Dec., 1886 with same attached, 10c; June-Sept., 1887, 15c; Apr., 1889, 15c; Jan.-Feb., 1886, 10c; Jan., 1895, 5c; March, 1897, 5c; May, 1897, 5c. All must be complete, clean, and in good condition. I will also accept back No's of *Ornithologist and Oölogist*, *Recreation*, *Insect Life*, any issue and in any quantity at 5c per copy on same terms. (I will allow 25c for Oct., '93 and Feb., '94 "Nids," also for October and December '96 *Osprey*.) If you have other publications along my line, Write and state what is wanted. I can also use books on subjects pertaining to Natural History if in good condition and cheap, also A No. 1 sets of eggs with data at ½ "Standard" rates. Lists of books and eggs must be submitted for my selection or approval before sending. Address at once FRANK H. LATTIN, Albion, N. Y.

CASH or EXCHANGE:—*Ostryg.*, vol. I. No's 1, 5, 7, 9, 10; vol. II. No's 1, 3. *Zoölogist*, vol. IV. No. 1. Dec. '93, May '94, Oct. '96. JESSE C. A. MEEKER, Box 295, Bridgeport, Conn.

Choice North Dakota Sets.

Personally collected. Very full data. Prepaid on orders exceeding \$3. On orders exceeding \$10, ten per cent. discount. No exchanges. I refer (though without permission) to Wm. Brewster, C. W. Crandall, Thos. H. Jackson, J. Parker Norris, G. Fream Morcom, A. H. Frost, H. G. Parker, O. W. Knight, Ludwig Kummlen and other high class collectors.

	Per Egg
American Avocet, 2-4, 2-1.....	\$ 40
American Bittern, 1-5 1-4.....	40
Wilson's Phalarope, 3-4 1-1.....	25
Bartramian Sandpiper, 3-4 1-3 1-2.....	15
Belted Piping Plover, 1-3.....	50
American Herring Gull, 2-2.....	15
Prairie Sharp-tail Grouse, 1-6 1-8 1-13.....	20
Western Horned Owl, 1-3.....	75
American Long-eared Owl, 3 5.....	20
Short-eared Owl, 1-2 1-1.....	40
Ferrug. Rough-legged Hawk, 2-5 4 1-3 1-1.....	75
Swainson's Hawk, 2-3 7-2.....	20
Marsh Hawk, 6-5 4-4.....	20
Western Night Hawk 1-2.....	20
Western Meadow Lark, 1-7.....	10
Baird's Sparrow, n-5 (end blown).....	50
Chestnut collared Longspur, 1-6 1-5 3-4 3-3.....	15
Prairie Horned Lark 1-3 1-6.....	10
Canvas-back n-6 (down only).....	40
Lesser Scaup n-9 (down only).....	25
Baldpate, n-8 n-9 n-10 n-11 2-7 2-8 1-9.....	25
Gadwall, n-8 n-10 1-7.....	25
Shoveller, n-10 2 9 3-8 1-7.....	15
Pintail, 3-8.....	15
American Golden-eye, 1-11 2-10 1-9.....	25
Ruddy, 1-9 1-7.....	15
Green-winged Teal, n-3.....	50
Blue-winged Teal, n-10 n-9 1-13 1-9.....	10
Mallard, 1-8.....	10
Redhead, 1-15 1-11.....	15
Duck's nest or down 25c extra.	

EUGENE S. ROLFE,

Jul2t Minnewaukan, N. Dak.

THE OOLOGIST

A FULL YEAR FOR

ONLY 25 CENTS.

If your do not care to accept the 50c premium offer made in this issue we will until August 15th accept subscriptions at 25c each and in addition mail each accepting the offer a coupon good for a 25 word Exchange Notice, free. Address plainly, FRANK H. LATIN, Publisher, Albion, N. Y.

MINERALS SHELLS, etc. The White City Collections. 50 fine cabinet specimens, \$3. 50 smaller size, \$2. 50 amateur size, \$1. Printed name and locality with each specimen. 50 Shells, Corals, and Marine Specimens, only \$3. 100 Fossils, including fine Fish, Trilobite, Crinoids, Corals, Sponges, several fine Ferns, etc., only \$8. A great variety Unios with one valve highly published from 35c to \$1, very showy. Taxidermy in all its branches at reasonable prices. Illustrated catalogue by mail, 10c. J.M. WIERS, Naturalists Agency, 357 W. VanBuren St., Chicago, Ill.

Methods in the Art
—OF—
TAXIDERMY
—BY—

OLIVER DAVIE,
Author of "Nests and Eggs of North American Birds," etc.

Containing Ninety Full Page Engravings, over Five Hundred Figures minutely illustrating the most practical methods practiced in the art. It teaches in detail, step by step, the Skinning and Stuffing of Birds, Mammals, Crustaceans, Fishes and Reptiles, together with illustrations of forms and Attitudes of the Animal Kingdom. The text is by OLIVER DAVIE, who has made Taxidermy his life study and profession. The originals of the illustrations were made in India ink from time to time as the actual subjects could be obtained from which to make the various procedures. They were drawn by the eminent Bird and Mammal Artist.—THEODORE JASPER, A. M., M. D., whose experience in the Art of Taxidermy extends over a period of fifty years. Every illustration by this artist is a work of art. Among these engravings are reproductions from photographs of actual work by American Taxidermists. Each copy of this book is enclosed in box for shipment and is sent prepaid upon receipt of price.

In one Quarto Volume, Silk Cloth, Gilt Top, Untrimmed Edges, \$7.50.

(Publisher's price is \$10.)



32-calibre cartridges for a Marlin, Model 1892, cost only \$5.00 a thousand. 32-calibre cartridges for any other repeater made, cost \$12.00 a thousand.

You can save the entire cost of your Marlin on the first two thousand cartridges. Why this is so is fully explained in the **Marlin Hand Book** for shooters. It also tells how to care for firearms and how to use them. How to load cartridges with the different kinds of black and smokeless powders. It gives trajectories, velocities, penetrations and 100 other points of interest to sportsmen. 15c pages. Free, if you will send stamps for postage to

THE MARLIN FIREARMS CO., New Haven, Conn.

ROBERT BURNHAM,

DEALER IN

PRECIOUS STONES, OPALS, CURIOS AND FINE MINERALS.

Cutting and polishing Agates and Gem Stones, and setting the same in solid gold settings a specialty.

143 Gallup St., Providence, R. I.



PRICE LIST OF GEMS.

OPALS.

Australian..... 5c to \$4.00 per kt.
Hungarian 50c to 50.00 "
Mexican..... 10c to 20.00 "

Opal Scarf Pins set in Solid Gold in four sizes, as follows: 75c, \$1.25, 2.50, 3.50.

STUDS.

Screw or Separate Back. \$1.00 to \$3.00. Clusters to order.

EAR RINGS.....\$2.00 to \$5.00

RINGS, ETC., SET TO ORDER.

Prices an application for special settings or extra fine stones.

AMETHYST. TOPAZ. MOONSTONE.
BLOODSTONE. AGATE. CROCIDOLITE, &c.
In all forms and sizes for Rings, Pins, Charms,
10c to \$5.00.

Tourmaline.....50c to \$15.00 per kt.
Aquamarine50c to 5.00 "

Part Exchange will be accepted in payment during the next thirty days.

Good Live Agents Wanted

in all parts of the world.

Liberal cash commission paid.

Having a large stock on hand, I will, for a short time, sell 20 lbs. of good Minerals for \$1 One to forty kinds as you want them, large or small.

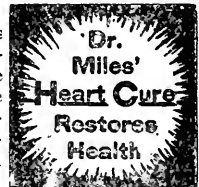
"Saved Her Life."



MRS. JOHN WALLET, of Jefferson, Wis., than whom none is more highly esteemed or widely known, writes. "In 1850 I had a severe attack of LaGrippe and at the end of four months, in spite of all physicians, friends and good nursing could do, my lungs heart and nervous system were so completely wrecked, my life was despaired of, my friends giving me up. I could only sleep by the use of opiates. My lungs and heart pained me terribly and my cough was most aggravating. I could not lie in one position but a short time and not on my left side at all. My husband brought me Dr. Miles' Nervine and Heart Cure and I began taking them. When I had taken a half bottle of each I was much better and continuing persistently I took about a dozen bottles and was completely restored to health to the surprise of all."

Dr. Miles' Remedies are sold by all druggists under a positive guarantee, first bottle benefits or money refunded. Book on diseases of the heart and nerves free. Address,

DR. MILES MEDICAL CO., Elkhart, Ind.



H. H. & C. S. BRIMLEY,
COLLECTORS, RALEIGH, N. C.

First-class Skins of Birds and Mammals, Bird's Eggs, Reptiles and Batrachia both Alive and in Alcohol. Histological Material. Full data. Send stamp for lists.

Nests and Eggs of North American Birds+++

BY OLIVER DAVIE.

Fifth edition; Revised, augmented and profusely illustrated, 560 pages, octavo, extra cloth. Price, prepaid to any part of United States or Canada, \$2.25.

I now have this invaluable book in stock ready for immediate delivery. Every "Bird Man" must have a copy. It is an absolute necessity—without a copy you are, from an Oological standpoint, as much at sea as a carpenter would be without saw or hammer.

The price is \$2.25 net, *prepaid*. No reduction, no deviation. If, however, you order a copy of us on or before Sept. 1st and enclose 45 cents additional (to cover mailing expenses) \$2.70 in all, I will send you prepaid:

One copy Davie's "Nests and Eggs"	\$2 25
One copy "Penikese," bound	50
One copy Short's Birds of Western New York	25
Ten copies of "Nidologist" (one containing colored plate)	1 40
One copy Lattin's Standard Egg Catalogue	25
Subscription to OOLOGIST, one year	50
One Exchange Notice, or Coupon good for one in Oologist	25

\$5 40

The regular price for above is \$5.40, but until Sept. 1st I will send entire lot prepaid for only \$2.70. No change or variation in the combination. Remit in most convenient manner.

Address at once, plainly and in full.

FRANK H. LATTIN, Publisher,

Albion, Orleans Co., N. Y.

"Methods in the Art of Taxidermy." By Davie.

The Publisher's price for this elaborate work was \$10. The book is now out of print and the Publisher's supply is exhausted. Each month will now increase the value of copies remaining in hands of Dealers or Collectors, at least at the rate of 50 cents per month.

I have only a few copies left (only six) and knowing full well that I shall be unable to obtain copies in the future to fill orders at this price and perhaps not at any price I have decided to close out the ones I have if taken *before September 15th* at only **\$5 per copy**. (35 cents additional if sent prepaid.)

Address at once, **ERNEST H. SHORT, ALBION, N. Y.**



THE DIETZ DRIVING LAMP

Is about as near perfection as 50 years of Lamp-Making can attain to. It burns kerosene, and gives a powerful, clear, white light, and will neither blow nor jar out. When out driving with it the darkness easily keeps about two hundred feet ahead of your smartest horse. When you want the very best Driving Lamp to be had, ask your dealer for the "Dietz."

We issue a special Catalogue of this Lamp and, if you ever prowl around after night-fall, it will interest you. 'Tis mailed free.

R. E. DIETZ CO.,
60 Laight St., New York.

Established in 1840.

RAPID TAXIDERMY.

Ten persons can learn at once as well as one and bring the cost down to nothing. All materials furnished.

Sold on a guarantee to give perfect satisfaction or money refunded.

Write for Circulars, Testimonials and Guarantee.
Mention THE OOLOGIST and address.

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

Marine Shells and Curios.

I am now in a position to furnish in quantity all of the best species collected on the Gulf Coast and will be pleased to furnish prices on application. Best of reference given and satisfaction guaranteed. Collections sent on approval to parties giving satisfactory reference. Any not approved can be returned at my expense. Address all orders to A. J. BARNES, Dunedin, Fla. □

Marine Curios and Shells.

I make a specialty in collecting, preparing and selling anything in the line of Marine Specimens obtainable on the Gulf Coast. I sell to the Collector as well as to the Retail, Wholesale and Jobbing trade.

J. H. HOLMES, Dunedin, Fla.

CABINETS. Send 10 cts for photo of our speciality—SelfLocking. T perches—Oak samples by mail 8c, 10c and 15c; also stands, shields, glass cases, game panels, &c. Cabinets to order. **HANAFORD CABINET CO., 139 and 141 W. Fulton St., Grand Rapids, Mich. 58M0t**

NEW ENGLAND MINERALS.

Rhomb Spar, R. I., Beryl, N. H.; Actinolite, R. I.; Galenite, Mass. ¼ pound specimens of either *postpaid* for only 10 cents; or the four for only 30 cents.

The above is only a sample of the bargains I am offering in New England Minerals. Write your wants and send for lists. I handle only good fresh material—no rubbish.

ROBERT BURNHAM,

No. 143 Gallup St., PROVIDENCE, R. I.

MEXICAN COINS. 1c, 2c and 5c nickel uncirculated, and 1c copper. Set of 4 prepaid for only 12c. The nickel coins were in circulation only a few months in '82-'83 may become exceedingly rare in a few years. **ROBERT BURNHAM, 143 Gallup St., Providence, R. I.**

\$3 worth of Desirable Sets,
[Ten Species.]

THE OOLOGIST one year, and an Exchange Coupon, all prepaid, for only \$1.

This Offer is good until Sept. 15th only. The following sets are the one selected for this offer:

Least Tern 1-2, Mourning Dove 1-2, Red-winged Blackbird 1-4, Orchard Oriole 1-5, Bullock's Oriole 1-5, Boat-tailed Grackle 1-3, House Finch 1-4, Arkansas Goldfinch 1-5, California Shrike 1-5, and a 10th set of some desirable species, my selection, worth not less than 50 cents.

Remember that until Sept. 15th you get entire lot with Exchange Coupon and OOLOGIST one year for only \$1.00. All prepaid, safe delivery, and satisfaction guaranteed. No deviation from this list or offer. Address at once,

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

FRANKLIN HOUSE Cor. Bates and Larned Streets,
DETROIT, MICH.
Rates, \$1.50 to \$2.00 per Day.

Only one block from Woodward and Jefferson Aves. Elevator Service, Steam Heat, Electric Lights, Tile Floors, Etc.
H. H. JAMES & SON, Prop'rs.

\$1.00 WORTH OF PREMIUMS ABSOLUTELY FREE TO EVERY SUBSCRIBER TO THE OÖLOGIST. **HOW?** For full particulars, read blank on reverse. **SUBSCRIBERS** can purchase premiums in lots of 50c or over at *one-half* price. Stamps accepted.

BIRDS EGGS.

*Can furnish in sets.

Western Grebe	50
Herring Gull	35
*Least Tern	10
Pintail	35
Green Heron	12
Florida Gallinule	10
European Coot	20
American Coot	10
Lapwing	20
Calif. Partridge	15
Gray Ruffed Grouse	75
Col. Sharp-tailed Grouse	50
*Mourning Dove	05
Western Red-tail	50
*Swainson's Hawk	50
American Sparrow Hawk	35
Screech Owl	50
*Burrowing Owl	20
Yellow-billed Cuckoo	10
Hairy Woodpecker	50
Gardiner's Woodpecker	35
Pileated Woodpecker	1 00
Red-bellied Woodpecker	25
Red-headed Woodpecker	10
Flicker	5
Scissor-tailed Flycatcher	10
*Arkansas Kingbird	06
Cassin's Kingbird	25
Crested Flycatcher	15
Phoebe	05
Black Phoebe	15
Western Wood Pewee	20
Skylark	15
Prairie Horned Lark	15
American Crow	05
Fish Crow	35
Starling	10
*Red-winged Blackbird	05
Bicolored Blackbird	10
Tricolored Blackbird	10
Meadowlark	15
Western Meadowlark	10
Arizona Hooded Oriole	35
*Orchard Oriole	05
*Bullock's Oriole	10
*Boat-tailed Grackle	15
House Finch	05
Western Lark Sparrow	05
Cardinal	05
*Western Goldfinch	10
*Arkansas Goldfinch	10
*Lawrence's Goldfinch	20
Heermann's Song Sparrow	08
Gray-tailed Cardinal	25
Black-headed Grosbeak	15
Lazuli Bunting	20
Painted Bunting	10
Sharpe's Seed-eater	50
Scarlet Tanager	25
Summer Tanager	25
Purple Martin	10
Tree Swallow	15
Cedar Waxwing	10
White-rumped Shrike	10
*California Shrike	08
White-eyed Vireo	15
Bell's Vireo	15
Yellow Warbler	05
White Wagtail	10
Meadow Pipit	10
Mockingbird	05
Catbird	05
Sennet's Thrasher	15
California Thrasher	20
*Cactus Wren	20
Baird's Wren	20
Parkman's Wren	15

California Chickadee	50
*California Bush-tit	05
Wood Thrush	15
Russet-backed Thrush	15
American Robin	05
Bluebird	05
English Pheasant	25
English Sparrow	05
Ring Pheasant	50
Gopher	35
Hammerhead Shark	15
*Red-leg Turtle	15
*Snapping Turtle	15
Jackdaw	10
Rook	10
Maggie	10
Missel Thrush	10
Song Thrush	10
English Blackbird	10
Lesser White-th't Warbler	10
Garden Warbler	10
Reed Bunting	10
Green Finch	10
Willow Warbler	10
Common Bunting	10
Sedge Warbler	10
Nightingale	25
English Sparrow Hawk	35
Great Tit	10
English Swallow	10
Hedge Accentor	10
English Partridge	15

BIRD SKINS.

Redpoll	35
Snowflake	35
Tree Sparrow	35
Slate-colored Junco	35
Cedar Waxwing	35
Black-and-white Warbler	35
Myrtle Warbler	35
Brown Creeper	35

SHELLS.

Murex brandaris	25
" trunculus	25
" saleanus	25
Eburna Japonica	25
Olivia litterata, extra	20
Cypræa moneta	15
Ovulum gibbosum	15
" secale	10
Nerita peleronta, select.	10
Trochus (Livona) pica	25
Helix fideles	13
Bulimus Bahamaensis	15
Partula gibba	15
Orthalicus melanochilus	25
" undatum	25
Liguus fasciata	15
Achatinella perversa	10
" uniplicata	10
" spirizona	10
" olivacea	10
Pythea pyramidata	15
Fissurella barbadaensis	10
Chama arcinella	15
Cardium isocardia	15
Tellina radiata	10
Fasciolaria distans	10
Melongenena corona	15

SEA CURIOS.

Precious coral, 1 oz. pkg.	25
Organpipe Coral	10
Creamy Sea Fan	35
Yellow Sea Fan	35
Sand Dollar	10

Phillippian Urchin	35
Purple Urchin, select.	25
Black Starfish	35
Acorn Barnacles	10
Keyhole Urchin	25
Lucky Tooth of Cod	10
Hermit Crab in Shell	35
"Eye Stones"	05

MINERALS, &c.

Chiasolite Crystals	15
Coquina	25
"Electric" stone	25
Chalcedony Geodes select.	50
GEM STONES, small cut and polished semi-precious stones, many suitable for mounting:	
Sard Trilby heart intag.	
Ioes	15
Opals, Mexican	15, 25, 35, 50
Red Onyx	15
Black Onyx	15
Crocidolite, Tiger-eye	10, 15, 25
Lapis Lazuli	35
Chalcedony, 3 var. each	10
Black Ribbon Agates	10
Red Ribbon Agate	10
Carnelian	10
Assorted dozen	50 1 00
Fossil Shark Teeth	5, 10
Scaphites nodosus	10, 25, 50, 1 00
Polyp Coral	10, 25, 50

MISCELLANEOUS.

Arrowheads, 1/2 doz. asst'd	50
Revolutionary Gun Flint	15
Dove Shell from British Guiana exhibit at World's Fair, pkg. of 12.	25
Chines Horn Nut	10
Beetle Nut	10
Broken Bank Bill	10
Confederate State Bill	10
Chameleon in Alcohol	25
Alligator Tooth	5, 10, 15, 25
Young Naturalist's Marinevelous Collection, 50 labelled specimens	1 00
Chinese Coin	05
Mexican Whistle, clay	10
7var. unused Cuban Stamps	35
Resurrection Plant, Mex.	10
Bird Arrow Point	25
Set of Souvenir World's Fair Tickets	1 00

PUBLICATIONS.

OÖLOGIST, 20 numbers	50
Nidologist, 8 numbers	1 00
The Wilson Quarterly and Semi Annual 4 numbers	1 00
Natural Science News, 52 back numbers	1 00
Above publications are all different and of our selection.	
OÖLOGIST, 1892, bound cloth	1 00
Penikese, a volume of 96, pages. Giving an acct' of Agassiz's summer school at Penikese Island	50
Loucks, Prothonotary Warbler	35
Short. Birds of W. N. Y.	15
Lattin's Standard Egg Cat	15
Directions for Collecting Minerals, 16 pp.	05
Exchange Notice (or Coupon) in OÖLOGIST	25
Advertising in OÖLOGIST	.50-1

Date..... 1898.

FRANK H. LATTIN, Publisher, Albion, N. Y.

Enclosed find 50 cents for which send THE OÖLOGIST one year, including one Exchange Coupon and \$1.00 worth of Premiums to the following address

Name.....

P. O. Box or Street Address.....

County..... Post-Office..... State.....

I select the following for my One Dollar's worth of premiums.....

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

Remember.—That for **only 50 cents** every subscriber will receive THE OÖLOGIST, as issued, for one year, and in *addition* will receive by return mail, one exchange coupon and \$1.00 worth of premiums as offered on back of this blank. Write above the ones you prefer and mark on back of this blank a few extras to be used in case we should be out of your first choice. **This offer will hold good until November 1, 1898.**

BE SURE and address all of your letters and orders plainly and in full to
FRANK H. LATTIN, Albion, Orleans Co., N. Y.

THE OÖLOGIST.

A MONTHLY PUBLICATION DEVOTED TO

OÖLOGY, ORNITHOLOGY AND TAXIDERMY.

VOL. XV. NO. 8-10.

ALBION, N. Y., AUG.-OCT., 1898.

WHOLE No. 147

Wants, Exchanges, and For Sales.

Brief special announcements, "Wants," "Exchanges" "For Sales," inserted in this department for 25c per 25 words. Notices over 25 words, charged at the rate of one-half cent per each additional word. No notice inserted for less than 25c. Terms, cash with order.

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

What's Your Number?

Examine the number following your name on the wrapper of this month's OöLOGIST. It denotes when your subscription expired or will expire.

No. 147 your subscription expires with this issue
150 " " " " Nov. "
155 " " " " Apr. '99 "
160 " " " " Sept. "

Intermediate numbers can easily be determined. If we have you credited wrong we wish to rectify.

This month's OÖLOGIST was mailed subscribers Oct. 6.

IMPORTANT:—Owing to the fact that the publisher of THE OÖLOGIST has been absent from home the past few months this issue has necessarily been delayed and while this issue is dated "August-October" it does not imply a "double number" but will count as one only towards the ones due on subscriptions. Next issue will appear promptly on November 10th.

MOUNTED BIRDS:—Cooper's Hawk pouncing on Quail, Nos. 151, 30, 373e, 595, 636, 521, 474, 474b, 360, 242, 70, 413, 477, 501, 498, 497, 587. Will sell single or in lot. I have a nice glass case for the lot. ROBT. BURNHAM, 143 Gallup St., Providence, R. I.

WANTED: at once a copy of Bulletin No. 4 of Division of Forestry, Dept. of Agriculture—"The Nomenclature of the Arboreal Flora of the U. S." FRANK H. LATTIN, Albion, N. Y.

WANTED:—Sets or singles of 8. 51a, 59, 125, 144, 163, 166, 200, 228, 275, 289, 375, 378, 428, 434, 463, 461, 474b, 477, 498, 501, 563, 735, 761, 766. In exchange for mineral specimens. ROBERT BURNHAM, 143 Gallup St., Providence, R. I.

WANTED:—Auks single copies or volumes previous to and including 1896. Will give cash or Davies' new Nest and Egg book. Write what you have. JAMES H. HILL, New London, Conn., P. O. Box 485. a 4t

CHOICE:—A No. 1 sets with full original data, for sale or exchange. A. O. U. Nos. 55, 63, 69, 70, 80, 231, 211, 258, 289, 373, 412, 456, 469a, 474b, 475, 477, 488, 498, 506, 513, 523, 563, 593, 595, 598, 601, 604, 622, 622a, 683, 703, 704, 705, 735, 766. M. T. CLECKSEY, 457 Greene street, Augusta Ga.

FOR SALE.—My entire collection of 500 sets, all different. Must be sold and at snap prices. For list, description and terms, address. W. F. HILL, Lake City, Minn.

TO EXCHANGE or SELL.—Sets, data, 202, 483, 511, 593, 412, 423, 456, 540, 581, 613, 702, 725, 761, 766; also singles. Want singles of 556, 92, etc. WILLIAM B. CRISPEN, Box 17, Salem, N. J.

TO EXCHANGE:—The following A. O. U. sets: 359a 1-2, 631 2-4, 703 2-5, 726a 1-6 (from Arizona), 729 1-4, 751 1-4 and many rare singles. Next season I will have for sale and exchange many sets from this state. E. F. POPE, Colmesneil, Tex.

FOR SALE.—Vol. I and II of *Osprey* also vol. XIV of *Oologist*. All for \$4, express paid. A great bargain, worth over \$5. GEO. ROBERTS, JR., 63 Washington St., Hartford, Conn.

IT PAYS to advertise in the OÖLOGIST. AMOS W. PYFER, Salesville, Montana.

WANTED.—Nos. 7, 30, 204, 205, 206, 208, 301. Can give in exchange 475 1-6 1-7, 273 1-4, 511b 1-5, 348 1-4, 420a 1-2 and others. AMOS W. PYFER, Salesville, Mont.

TO EXCHANGE.—Fine sets of 191 1-4, 6 1-6, 348 1-4, 420a 1-2 and second class set of two eggs of Golden Eagle. AMOS M. PYFER, Salesville, Mont.

SEEDS—Packet of assorted Haytian seeds. Some very rare and singular, 25 cents. Stamps taken. T. G. PRIDDLEY, 371 Carlton Street, Toronto. s2t

TO EXCHANGE:—I have a fine lot of Land, Fresh Water and Marine Shells to exchange for Indian relics. BENTON HOLCOMB, West Granby, Hartford Co., Conn. s3t

WANTED:—A Winchester or double barrel hammerless shotgun, Winchester forearm action preferred. Also want a setter pup. Have \$35 worth of first class eggs in sets, with data, to offer in exchange. JOHN SKINNER, Fayette, Iowa.

EXCHANGE:—Small hornets nest about 2 inches in diameter, value 50 cents. Chimney Swifts, Orchard Orioles, and Chipping Sparrows nests. Will accept single eggs not of this locality, nests at rate of single eggs. Address. WM. B. CRISPEN, Salem, N. J.

FOR EXCHANGE:—22 cal. rifle single shot, good condition, cost \$7.50. Want Indian relics of any kind, or fine crystals, shells and corals. Address ARCHAEOLOGIST, Box 393, Caro, Michigan.

EXCHANGE OR SALE:—A Quackenbush safety cartridge rifle in good condition, 22 long, for best offer. Address G. H. BRIGGS, Livermore, Maine, Box 132.

FOR SALE:—A walnut exhibition egg cabinet, cost \$6 sell for \$2. OTTO HOLSTEIN, Paris, Kentucky.

R. L. MORE, Decatur, Texas. 3 fossils, 10c. Mexican Opals, 12 cents each. Horned frog (unmounted) 25 cts. Your money back if you want it.

STRICHTY first class sets 275-2, 30 10-1, 106 20-1, 130 1-8, 274 2-2, 2-3, 347 1-2, 554 2-3, 2-4, 559 1-3, 697 1-3, and 757 1-2, to exchange for good sets of 332, 343 or 364. Address, Lock Box 27, Arlington, Mass.

FOR EXCHANGE:—Five sets bird eggs with or without nests; Pacific coast sea shells, Illinois river shells, etc. Will exchange above for sets not in my collection. OTHO N. GAY, Camp Point, Ill.

FOR SALE:—I have a nice collection of fine first class sets, will sell very cheap. Parties who wish to buy, send for list immediately. FREEMAN J. GRIDLEY, Nordhoff, Ventura Co., California.

WANTED:—Comstocks Entomology, can offer in exchange eggs, 306 1-4, 735 1-7, 507 1-6, 622 1-5. Botanical specimens, and part cash. Send description of stock. R. T. ANDERSON, Aylmer West, Ont.

SHELLS:—50 land and fresh water shells from Haiti, assorted. 50 cents. Post free. T. G. PRIDDEY, 371 Carlton street, Toronto. s2t

OVERSTOCKED:—Choice sets with full original data for sale at reasonable prices, or exchange for desirable sets, or large singles. List for 2c stamp. DR. M. T. CLECKLEY, 457 Greene street, Augusta, Ga. s2t

WANTED:—A. 1 sets A. O. U. Nos. 7, 58, 64, 137, 139, 144, 190, 172, 218, 261, 263, 273, 334, 339, 364, 387, 388, and many others. Offer other sets and cash if cheap enough. FRANK HARRIS, La Crescent, Houston Co., Minn.

TO EXCHANGE:—Sets of 263, 461, 465, 474b, 488, 501, 540, 581, 587, 598, 608, 681, 687, 735, 751, 756, 766 with full data. HARRY CUTLER, Saranac, Michigan.

CABINETS:—Store boxes for insects or eggs also cabinets or single drawers, cases, etc. Apply to T. G. PRIDDEY, 371 Carlton street, Toronto. s2t

CAMERA, Hall's typewriter, and coffee mill for sale. Magazines and story papers to exchange for minerals or curios. H. N. BUG-BEE, Fitchburg, Mass.

NEATLY and scientifically prepared sets of 120 1-2, 428 n-2, 731 1-5, and others at very low prices. Satisfaction guaranteed. Write for prices. W. L. & R. D. FOXHALL, Tarboro, No. Car.

MY COLLECTION of birds eggs to exchange for first class shot gun or bicycle, or 25 cal. rifle, Stevens preferred, send for entire list of eggs. W. L. HART, Tacoma, 1106 Pacific Ave., Wash.

TO EXCHANGE:—Fine sets of Mallard, Cinnamon Teal, Avocet, Black Stilt, Red-head and White-face Glossy Ibis. The latter can be supplied in series of from one to a dozen sets. Send your list excluding eggs catalogued at 25c or under. A. M. SHIELDS, Crocker Building, San Francisco. Jly2t

HOW TO MAKE MONEY! If you are out of employment and want a position, paying you from \$50 to \$100 monthly clear above expenses by working regularly, or, if you want to increase your present income from \$200 to \$570 yearly, by working at odd times, write the GLOBE CO., 723 Chestnut St., Phila., Pa., stating age, whether married or single, last or present employment, and you can secure a position with them by which you can make more money easier and faster than you ever made before in your life. Jlyr

VIVE Cameras to exchange, any style, for desirable sets at one-third Lattin's list. Also rare typical singles. Send list of sets and singles. L. D. SUMNER, 502 State St., Madison, Wis. ast

EXCHANGE:—Have fine sets of Osprey, Buzzard, Owls, Herons, etc. want Quail, Sora, Woodcock and other rare Delaware Valley sets. Correspondence with Delaware Valley collectors solicited. BENJ. A. CARPENTER, Salem, N. J.

FOR EXCHANGE:—A 1 sets of eggs and some fine skins to exchange for fire-arms, jewelry, precious or semi-precious stones, microscope, musical instruments, field glass or bicycle. Let me know what you have to offer and I will send list of eggs and skins. Will give good exchange. All letters answered. ADIN BURDICK, Lake City, Minn.

FOR SALE:—A. O. U. Nos. 16 1-2, 50c; 51a 1-3, 24c; 70 2-3, 18c; 77 2-3, 24c; 79 1-1, 24c; 106 1-1, 10c; 115 1-2, \$1.40; 263 1-4, 21c; 273 1-4, 30c; 333 1-4, 38c; 339 1-1, 14c; 339a 1-3, 70c; 405 1-4, 1-3, 24c; 413 1-6, 30c; 420a 1-2, 39c; 428 n-2, 80c; 429 n-2, 10c; 430 n-2, 80c; 431 n-2, n-2, 70c; 434 n-2, \$1.00; per set. Write for complete list. Jacofins in red, black and yellow, \$2.50 per pair. One pair Yellow crested Fantails, \$4.00. All of above sent on approval if wished. J. O. JOHNSON, Southington, Conn., Lock Box 550.

FOOT BALL outfit, Mole skin pants and jacket, black sweater, orange and black cap, nose guard, shin guards, ankle supporters, cleated shoes. Make me cash offer. CLIFTON A. FOX, 525 West 61st street, Chicago, Ill.

THE OSPREY, one year to new subscribers to OSPREY'S books, and one package of K. & P. preservative, together with full instructions. Taxidermy made easy, for \$1.15. This offer good until January 1st. KERR & PERHAM, Sandwich, Ill.

A BARGAIN:—For 50 cents I will furnish the following eggs. One of each species. California Quail, Barn Owl, Herring Gull, American Coot, Burrowing Owl, Cactus Wren, Western Lark Sparrow, California King Bird, Bullock Oriole, Hooded Oriole, Cliff Swallow, Mocking bird, Linnet, Brown thrasher. California Towhee. H. S. Austin, Simi, Cal.

WANTED:—Skins of Shore Larks and Song Sparrows. A series of 30 or 40 skins from a single locality, especially in the south, middle and north-western mountain regions. A large variety of California bird skins, reptiles, batrachians or fishes to offer in exchange. J. O. SNYDER, Curator Zoological Museum, Stanford University, California.

TO EXCHANGE:—Ontario sets with data as 622a 1-5, 705 1-4, 390 1-5, 5-a, 406 1-4, for some from other localities as 199, 202, 203, 593, etc., also many first class singles. R. T. ANDERSON, Aylmer West, Ont.

DAVIES NEST AND EGGS, 5th Ed. cloth, and Rowley's Art of Taxidermy, both *prepaid* \$3.45. Davies Nest and Eggs and *Osprey*, Recreation, or any dollar periodical published, \$2.50. I would like to quote you prices before you buy books, or subscribe, or renew your subscription to any periodicals. All offers made in my "ads" during '98 still good. Large list of fine sets at bottom prices. Eggs taken in exchange for subscriptions and books. BENJAMIN HOAG, Stephentown, N. Y.

FOR TRADE:—Pair live Great Horn Owls in fine plumage, two years old, can use Marlin or Winchester repeater 22 Cal. or eggs in sets. FRED CARPENTER, 1511 South 28th street, Omaha, Neb.

100 choice showy Sea Shells, 35 cents, 7 variety Indian Relics, 37 cents, 20 varieties curiosities, 27 cents, 10 old coins, 18 cents, 20 variety Sea shells, 18 cents, Indian hatchet, 25 cents, Spade, 20 cents, Δ 3 20 cents, Hve. 20 cents. Price list free. W. M. H. ARNOLD, Peacedale, R. I.

TO EXCHANGE:—1-1 32 1-1, 51a 1-3, 200 1-4, 202 1-5, 412 1-4, 705 n-3, 1 53 1-3, 736 1-3, 608 1-3, 758a 1-4, 725 1-4, 633 1-4, with 495a, 613 n-5, 614 1-5, 616 1-5, 710 1-2, 683a 1-3, 599 1-4. Want OOLOGIST vol. V, Nos. 5, 6, 7; Vol. VI, No. 4. Vol. III, No. 4, also nest and eggs of the common western birds, especially sub-species of eastern birds. F. B. McKECHINE, 66 Bird street, Dorchester, Mass.

MANDOLIN:—New, cost \$14, to exchange for Baby Hawkeye Folding Pocket Kodak 3 $\frac{1}{2}$ x4 or 4x5 camera. GUY POTTER, 127 West 3rd street, Peru, Indiana.

TO EXCHANGE for eggs an old-fashioned muzzle-loading pistol, used in the Revolutionary war. ROSS S. BACON, Derby, Conn.

TO EXCHANGE:—Birds of North America by Studer. Contains 119 hand-colored plates by Jasper, for \$60 in eggs or \$25 in cash. Cost \$50. Write for description. ROSS S. BACON, Derby, Conn.

I WILL GIVE 20th Century bicycle lamp, instructions in Hypnotism and Hycnote Therapies (by mail) and sets for desirable sets with original data. Send lists. ISADOR S. TROSTLER, Sta. B, 4246 Farnam St., Omaha, Nebraska.

BOOKS:—I have several copies of Maynard's Sparrows and Finches of New England, \$1.50 each, and sponges 85 cents each. THEODORE B. PARKER, 39 Beaumont Ave., Newtonville, Mass.

FOR EXCHANGE:—A No. 1, Skins of Magpie, Holboell's Grebe, Pileated Wood pecker, Red Shafted Flicker, Steller's Jay, Canada Jay, Spurred Towhee, etc. Also about 40 first class sets with data. Wanted Indian relics, S. & W. revolver, anything. STEPHEN P. HARWOOD, 8 West Preston street, Baltimore.

FOR SALE:—My entire collection of over 150 sets, such as 243 1-4, 35 1-2, 37 1-1, 120c 1-4, 289 1-20, 729 1-4, 717a 1-4, 420c 1-2, 410 1-5, 676 1-4, 487 1-5, 428 1-2, 751 1-5, 396 1-5, 390a 1-4, 487 1-5, 663 1-3. Will sell whole lot at 1-6 catalogue value, or exchange for 4x5 Kodak in good condition. W. H. CONNERY, 491 New Houston St., West, Savannah, Ga.

WANTED:—Sets of Raptors and Warblers, for which I can give rare Arizona and other sets. I particularly desire 331, 332 and 378 A. O. U. No's. F. C. WILLARD, 70 N. Cherry St., Galesburg, Ill. Jy2t

FOR EXCHANGE:—A few shells for crystals. A. D. C., Box 21, Harwichport, Mass.

FOR SALE:—Fine specimens of American Turquois. Will cut good settings at 25c to \$1. This is a good chance to get a fine stone cheap. ROBERT BURNHAM, 143 Gallup St., Providence, R. I.

I WILL exchange butterflies of Missouri for others from any part of the United States, common ones taken. H. SCHWARZ, 1520 Lafayette Ave., St. Louis, Mo. Jy2t

BARGAIN:—32 cal. collecting tube to fit 12 gauge gun. Uses 32 extra long brass shells. Just the thing for small birds. Cost \$4.00, used but little, in good condition. Complete with 34 new primed shells, 44 slightly used shells, recapper, de-capper, leader, wad-cutter, 250 primers, all for \$2.75 postpaid. Address CHAS. R. HIGBEE, JR., No. 13 Austin St., Hyde Park, Mass.

FOR EXCHANGE at ONE-THIRD to three-fourths catalogue rates, RARE sets and singles from LABRADOR, which are not quite first-class, including the following species:—Puffin, Black Guillemot, Mandt's Guillemot, Murre, Brunnick's Murre, Razor-bill, Kittiwake, Leach's Petrel, Red-breasted Merganser, Old-squaw, Northern Eider, Semipalmated Sandpiper, Semipalmated Plover, Willow Ptarmigan, Reinhardt's Ptarmigan, American Rough-leg, Short-eared Owl, Northern Raven, Redpoll, Lapland Longspur, Savannah Sparrow, White-crowned Sparrow, Tree Sparrow, American Pipit, and Grey-cheeked Thrush. Can use series of COMMON species. None but strictly first-class sets accepted. Taylor's Catalogue. No postals. Address, LOCK BOX 27, Arlington, Mass.

EXCHANGE.—Unmounted photographs of live birds, photographic studies of birds, for unmounted photographs of live birds and nests, or prepared clavicules with the sternum. MATHILDE SCHLEGEL, East Aurora, N. Y.

TO EXCHANGE.—First-class, sets and singles, with data, send your list and receive mine. W. A. STRONG, San Jose, Cal.

Marine Shells and Curios.

I am now in a position to furnish in quantity all of the best species collected on the Gulf Coast and will be pleased to furnish prices on application. Best of reference given and satisfaction guaranteed. Collections sent on approval to parties giving satisfactory reference. Any not approved can be returned at my expense. Address all orders to A. J. BARNES, Dunedin, Fla.

Marine Curios and Shells.

I make a specialty in collecting, preparing and selling anything in the line of Marine Specimens obtainable on the Gulf Coast. I sell to the Collector as well as to the Retail, Wholesale and Jobbing trade.

J. H. HOLMES, Dunedin, Fla.

WANTED.—A good 4x5 Kodak, Eastman preferred. Will give good exchange in A 1 sets or singles. Send description of Kodak and receive my list. W. H. CONNERY, 404 New Houston St., West, Savannah, Ga.

50 var. U. S. Stamps, 50 var. Foreign, 10 var. unused Stamps, 110 choice var. of for 15c. post free. 10 different stamp papers 10c. post free. MEEKER BROS., Box 296, Bridgeport, Conn.

FOR SALE.—Two sets Loon's eggs, \$1.25 set. Also one Albino Hedge Hog, very large, nicely mounted. Make me an offer. ALVAH G. DORR, Bucksport, Me. A21

TO EXCHANGE.—Singles of this vicinity with data, to exchange for foreign stamps. J. W. RIFE, Gen. Delivery, Los Angeles, Cal.

EASTMAN No. 4 Folding Kodak, 4x5, cost \$50, made to load with roll of 100 films (or less); fine lens, and all in A1 condition. Will exchange for eggs or skins or both. J. P. BABBITT, Taunton, Mass.

FOR EXCHANGE.—First-class sets with data to exchange for other first-class sets with data. Southern or Western eggs preferred. EVERETT E. JOHNSON, 9 Bartlett St., Lewiston St., Maine.

ANCIENT POTTERY fragments from various states for sale. Nice specimen sent prepaid on receipt of ten cents (stamps or silver). Satisfaction guaranteed. BURT OGBURN, Watsonville, Cal.

160 acres timberland, (Oak and Pine), in the fruit belt of Arkansas, for cash or first-class photo gallery. Title perfect. Some fruit and buildings. C. E. PLEAS, Chipley, Fla.

WILL sell a collection of eggs for \$12 cash or trade for good camera. Seventy-five different kinds. Address, FRANK TEMPLEMAN, 22 South Main St., Batavia, N. Y.

FOR SALE—Scientific Books, will take in exchange books on birds, instruments or opera glasses. Send list of what you have and receive mine. H. E. NEUMANN, 204 Rock St., Watertown, Wis.

5 COINS, 5 Shells, 5 Minerals, 3 Eggs, or 2 Arrowheads for every 100 Omaha stamps or for 100 new issue revenues. No torn stamps accepted. C. A. DAVIS, 1131 Elmwood Ave., Providence, R. I.

TELEGRAPH RELAYS—I have two Western Union 150-volt relay instruments, almost new. For sale at \$5 for the two or will exchange for sets. C. BARLOW, Santa Clara, Calif.

WANTED.—Fine sets in exchange. Offer sets from Northwest Canada, Michigan, Indiana, Illinois will pay cash for sets. Send list. Have many rare sets. E. ARNOLD, Battle Creek, Mich.

WANTED.—Cooper's Ornithology of California, part II the water birds, Elliott's North American Shore Birds, Fisher's Hawks and Owls of the United States, Raine's Bird Nesting in Northwest Canada, full volumes of any Ornithological publications, Oologist's instruments, and first-class eggs of any of the shore birds in exchange for first-class sets of 468 n-3, 500 5-4, 510 1-4, 2-3; 518 3-4, n-4; 621 1-5, 1-6; 622b 2-5, 1-4; 703 1-4, and many other desirable sets. Write soon. HARRY H. DUNN, Fullerton, Orange Co., Calif.

At Four Score.

Dr. Miles' Nervine Restores Health.



UNCLE EZEKIEL OBEAR, assessor and tax collector, Beverly, Mass., who has passed the 80th life mile stone, says: "Dr. Miles' Restorative Nervine has done a great deal of good. I suffered for years from sleeplessness and nervous heart trouble. Would feel weary and used up in the morning, had no ambition and my work seemed a burden. A friend recommended Dr. Miles' Nervine, and I purchased a bottle under protest as I had tried so many remedies unsuccessfully, I thought it no use. But it gave me restful sleep, a good appetite and restored me to energetic health. It is a grand good medicine, and I will gladly write anyone inquiring, full particulars of my satisfactory experience."

Dr. Miles' Remedies are sold by all druggists under a positive guarantee, first bottle benefits or money refunded. Book on diseases of the heart and nerves free. Address,



DR. MILES MEDICAL CO., Elkhart, Ind.

H. H. & C. S. BRIMLEY,
COLLECTORS, RALEIGH, N. C.

First-class Skins of Birds and Mammals, Bird's Eggs, Reptiles and Batrachia both Alive and in Alcohol. Histological Material. Full data. Send stamp for lists.

MINERALS SHELLS, etc. The White City Collections. 50 fine cabinet specimens, \$3. 50 smaller size, \$2. 50 amateur size, \$1. Printed name and locality with each specimen. 50 Shells, Corals, and Marine Specimens, only \$3. 100 Fossils, including fine Fish, Trilobite, Crinoids, Corals, Sponges, several fine Ferns, etc., only \$8. A great variety Unios with one valve highly published from 35c to \$1, very showy. Taxidermy in all its branches at reasonable prices. Illustrated catalogue by mail, 10c. J.M. WIERS, Naturalists Agency, 357 W. VanBuren St., Chicago, Ill.

NEW ENGLAND MINERALS.

Rhomb Spar, R. I., Beryl, N. H.; Actinolite, R. I.; Galenite, Mass. 1/4 pound specimens of either *postpaid* for only 10 cents; or the four for only 30 cents.

The above is only a sample of the bargains I am offering in New England Minerals. Write your wants and send for lists. I handle only good fresh material—no rubbish.

ROBERT BURNHAM,

No. 143 Gallup St., PROVIDENCE, R. I.

MEXICAN COINS. 1c, 2c and 5c nickel uncirculated, and 1c copper. Set of 4 prepaid for only 12c. The nickel coins were in circulation only a few months in '82-'83 may become exceedingly rare in a few years. **ROBERT BURNHAM,** 143 Gallup St., Providence, R. I.

ROBERT BURNHAM,

DEALER IN

**PRECIOUS STONES, OPALS,
CURIOS AND FINE MINERALS.**

Cutting and polishing Agates and Gem Stones, and setting the same in solid gold settings a specialty.

143 Gallup St., Providence, R. I.



PRICE LIST OF GEMS.

OPALS.

Australian..... 50c to \$40.00 per kt.
Hungarian..... 50c to 50.00 "
Mexican..... 10c to 20.00 "

Opal Scarf Pins set in Solid Gold in four sizes, as follows: 75c, \$1.25, 2.50, 3.50.

STUDS.

Screw or Separate Back, \$1.00 to \$3.00. Clusters to order.

EAR RINGS..... \$2.00 to \$5.00

RINGS, ETC., SET TO ORDER.

Prices an application for special settings or extra fine stones.

AMETHYST, TOPAZ, MOONSTONE, BLOODSTONE, AGATE, CROCIDOLITE, &c. In all forms and sizes for Rings, Pins, Charms, 10c to \$5.00.

Tourmaline..... 50c to \$15.00 per kt.
Aquamarine..... 50c to 5.00 "

Part Exchange will be accepted in payment during the next thirty days.

**Good Live Agents Wanted
in all parts of the world.**

Liberal cash commission paid.

Having a large stock on hand, I will, for short time, sell 20 lbs. of good Minerals for \$1 One to forty kinds as you want them, large or small.

We are not enthusiastic

about the



simply earnest.

We do not claim much, only that it is the

Best Bicycle Lamp on Earth.

ITS SUPERIORITY is shown in three principal points.

IT GIVES THE MOST LIGHT
STAYS ALIGHT IN SPITE OF WIND AND JAR
IS HANDSOME IN APPEARANCE

Send for circular or, better still, send \$2.50 which is the reasonable price at which we sell one, delivered anywhere.

R. E. DIETZ COMPANY
60 Laight Street

Established in 1840 in the Manufacture of Lamps and Lanterns. **NEW YORK CITY**

WANTED.—Well marked sets of Red-tailed and Red-shouldered Hawk. Broad-winged Hawk, also several sets of Cedar Bird, Red-eyed Vireo, Yellow and Black-billed Cuckoo, Meadow Lark, American Bittern, Field Plover, Killdeer, Downy Woodpecker, Loon, Tufted Puffin, Cassin's Auk, American Woodcock, Pigeon Guillemot, Pied-billed Grebe, Blue and Green-winged Teal, Sooty Tern, Royal Tern, Caspian Tern, Bridled Tern, Leach's Petrel, Wood Duck, Hooded Merganser, Bald Eagle, Sparrow Hawk, Screech Owl, Purple Gallinule, Sandhill Crane, Willet, Californian Quail, Bob White, Passenger Pigeon, Turkey Vulture, Barred Owl, Great Horned Owl, Flicker, Chuck-will-widow, Poorwill, Ruby-throated Hummingbird and nests, Prairie Horned Lark, Osprey, Painted Bunting, Tree Swallow, Purple Martin, Mocking Bird, Cactus Wren, Robin and others. I can offer sets from Iceland, Labrador, Northwest Canada and Alaska such as No. 2, 13, 20, 21, 27, 37, 40, 51, 51a, 56, 71, 79, 86, 90, 104, 117, 119, 132, 136, 138, 142, 143, 146, 147, 151, 152, 155, 159, 160, 172, 185, 217, 223, 229, 275, 285, 301, 342, 353, 385, 421, 473, 477a, 487, 493, 528, 694, 698, 721b, 739, 765 and many others. I have thousands of eggs to offer in exchange. WALTER RAINE, 181 Bleecker, St., Toronto, Canada.

THE OOLOGIST

A FULL YEAR FOR
ONLY 25 CENTS.

If you do not care to accept the 50c premium offer made in this issue we will until Jan. 1, 1899, accept subscriptions at 25c each and in addition mail each accepting the offer a coupon good for a 25 word Exchange Notice, free. Address plainly, FRANK H. LATTIN, Publisher, Albion, N. Y.

USE A
MARLIN
REPEATER
And SAVE MORE
THAN HALF
the cost of
Cartridges



33-calibre cartridges for a Marlin, Model 1892, cost only \$5.00 a thousand.
33-calibre cartridges for any other repeater made, cost \$12.00 a thousand.

You can save the entire cost of your Marlin on the first two thousand cartridges. Why this is so is fully explained in the Marlin Hand Book for shooters. It also tells how to care for firearms and how to use them. How to load cartridges with the different kinds of black and smokeless powders. It gives trajectories, velocities, penetrations and 1000 other points of interest to sportsmen. 128 pages. Free, if you will send stamps for postage to

THE MARLIN FIREARMS CO., New Haven, Conn.

Choice North Dakota Sets.

Personally collected. Very full data. Prepaid on orders exceeding \$3. On orders exceeding \$10, ten per cent. discount. No exchanges. I refer (though without permission) to Wm. Brewster, C. W. Crandall, Thos. H. Jackson, J. Parker Norris, G. Frean Morcom, A. H. Frost, H. G. Parker, O. W. Knight, Ludwig Kumlien and other high class collectors.

	Per Egg
American Avocet, 2-4 2-1.....	\$ 40
American Bittern, 1-5 1-4.....	40
Wilson's Phalarope, 3-4 1-1.....	25
Bartramian Sandpiper, 3-4 1-3 1-2.....	15
Belted Piping Plover, 1-3.....	50
American Herring Gull, 2-2.....	15
Prairie Sharp-tail Grouse, 1-6 1-8 1-13.....	20
Western Horned Owl, 1-3.....	75
American Long-eared Owl, 3-5.....	20
Short-eared Owl, 1-2 1-1.....	40
Ferrug. Rough-legged Hawk, 2-5 4 1-3 1-1.....	75
Swainson's Hawk, 2-3 7-2.....	20
Marsh Hawk, 6-5 4-1.....	20
Western Night Hawk 1-2.....	20
Western Meadow Lark, 1-7.....	10
Baird's Sparrow, n-5 (end blown).....	50
Chestnut collared Longspur, 1-6 1-5 3-4 3-3.....	15
Prairie Horned Lark 1-3 1-6.....	10
Canvas-back n-6 (down only).....	40
Lesser Scaup n-9 (down only).....	25
Baldpate, n-8 n-9 n-10 n-11 2-7 2-8 1-9.....	25
Gadwall, n-8 n-10 1-7.....	25
Shoveller, n-10 2-9 3-8 1-7.....	15
Pintail, 3-8.....	15
American Golden-eye, 1-11 2-10 1-9.....	25
Ruddy, 1-9 1-7.....	15
Green-winged Teal, n-3.....	50
Blue-winged Teal, n-10 n-9 1-13 1-9.....	10
Mallard, 1-8.....	10
Redhead, 1-15 1-11.....	15
Duck's nest or down 25c extra.	

EUGENE S. ROLFE,

Jul 2t Minnewaukan, N. Dak.

CABINETS. Send 10 cts for photo of our speciality—Self Locking. T perches—Oak samples by mail 8c, 10c and 15c; also stands, shields, glass cases, game panels, &c. Cabinets to order. HANAFORD CABINET CO., 139 and 141 W. Fulton St., Grand Rapids, Mich. 58MOTf

\$3 worth of Desirable Sets,

[Ten Species.]

THE OOLOGIST one year, and an Exchange Coupon, all prepaid, for only \$1.

This Offer is good until Nov. 15th only. The following sets are the one selected for this offer:

Least Tern 1-2, Mourning Dove 1-2, Red-winged Blackbird 1-4, Orchard Oriole 1-5, Bullock's Oriole 1-5, Boat-tailed Grackle 1-3, House Finch 1-4, Arkansas Goldfinch 1-5, California Shrike 1-5, and a 10th set of some desirable species, my selection, worth not less than 50 cents.

Remember that until Sept. 15th you get entire lot with Exchange Coupon and OOLOGIST one year for only \$1.00. All prepaid, safe delivery, and satisfaction guaranteed. No deviation from this list or offer. Address at once,

FRANK H. LATTIN, Publisher,

ALBION, N. Y.

Bargains in Books and Publications Devoted to Ornithology, Oology, etc.

The private library of a prominent Ornithologist has recently been placed in our hands for sale. Below we offer many very rare and desirable titles at prices much below actual value. Of most we have only single sets or copies, hence importance of early order. All are new or good as new. Prices are by mail, express or freight at purchaser's expense—will ship in cheapest way. Money returned at my expenses if books wanted are sold. Prices good until **Jan. 1, '99 only**. After that date, write first. Remit in most convenient way. Address plainly and in full

Beddard's, "Animal Coloration," [\$3.50].....	2 00	"Annual Reports of Bureau of Ethnology," 1884 to 1893, 9 vols.....	12 00
"Bulletin of the Nuttall Ornithological Club," Vol. III unbound.....	3 00	"Annual Reports U.S. Geological Survey," 1880-1895, 27 vols.....	18 00
"Auk," Vols I to VII, elegantly bound, cloth and leather, (\$35.00).....	24 00	Bulletins of the American Museum of "Natural History," Vols. III to IX, complete, [\$30.00].....	10 00
"Ornithologist and Oologist," 10 vol. (IX to XVIII), 6 m, half morocco, bal. unbound (\$30.00).....	10 00	"Scientific American," over 700 back numbers of past 40 years ['55 to '97]. Few if any duplicates. Many unobtainable at any price. Publisher's original price about \$50. Lot, only.....	10 00
"Nidologist," Vol I to IV complete, lacking 3 Nos. of Vol. I.....	3 00	Cope, "Vertebrata of Tertiary Formations," 4to, 1043 pp, 134 plates.....	4 00
"The Osprey," Vol. I complete (Vol. II, \$1).....	3 00	Lesquereaux, "Cretaceous and Tertiary Floras," 4to, 295 pp, 60 plates.....	2 50
Coues, "Key to North American Birds," 1st Ed. <i>rare</i> , (\$7.00).....	3 00	Leidy, Fresh Water Rhizopods of North America, 4to, 335pp, 48 ill., 1190 col. figs.	4 00
Davie, "Methods in the Art of Taxidermy" (\$10), now out of print and publishers supply exhausted, will soon be very rare	4 00	Scudder, "Tertiary Insects of North America," 4to, 731pp, 28 plates.....	2 50
Morris, "Nests and Eggs of British Birds," 3 vol. cloth, 1875, 233 col. plates, (\$18).....	10 00	Thomas, "Acridæ of North America," 262 pp, 4to.....	1 50
Wilson & Bonaparte, "American Ornithology," (\$7.00) two nail holes in cover, new	3 50	"Science," Vol. I to XXII, complete, [I to XI in cloth, balance loose].....	25 00
Studers, "Ornithology or Science of Birds," from text of Brehm, illus. by Jasper, folio, half morocco (\$15.00).....	8 00	"Nature," Vol. XXXI to XXXIV, unbound, cost \$12.....	4 50
Vennor, "Our Birds of Prey, or the Eagles, Hawks and Owls of Canada" 30 photo plates, (\$12.00).....	4 50	"Inset Life," Vols. I to VII, complete.....	7 00
Brewer, "Wilson's American Ornithology," half morocco.....	4 00	"Microscopical Bulletin," Vol. I to IX, complete.....	3 00
Gentry, "Life Histories of the Birds of Eastern Pennsylvania," 2 vols., out of print.....	2 50	"The American Monthly Microscopical Journal," Vol. IX to XIII, complete.....	3 00
Warren, "Birds of Pennsylvania" (\$5.00).	3 00	Wood, "Animate Creation," popular edition of "Our Living World," revised and adopted to American Zoology by Holder, 60 parts, complete, 30 page oleographs, 60 plates and in addition profusely illustrated, [\$15].....	7 50
Stearns and Coues, "New England Bird Life," Part I, Singing Birds (\$2.50).....	1 25	Ornithology and Oology.	
Dixon, "Rural Bird Life," (\$2.50).....	1 25	Coues, E. Key of North American Birds.....	6 98
Stejneger, "Ornithology of Commander Is. and Kamtschatka," 390 pp., 32 col. plates, map, &c.....	3 00	Check List of American Birds.....	2 95
Ridgway, "Ornithology of Illinois," 1 vol. 32 plates, 1889.....	3 50	Langille, Rev. J. H. Our Birds in their Haunts.....	1 80
Hatch, "Birds of Minnesota".....	2 00	Merriam, Florence A. Birds through an Opera Glass.....	68
"THE OÖLOGIST," complete file, 1884 to date	5 00	Raine, Walter. Bird Nesting in North-west Canada.....	1 80
"Proceedings of U. S. National Museum," 12 vol. cloth, (vols. I to IX, XII, XV and XVI).....	15 00	Barrow's, The English Sparrow in North America, 400 pp.....	65
"Bulletins of the U. S. National Museum," Nos. 1 to 46 (11 Nos. paper bound, bal. in cloth).....	30 00	Ridgway, Catalogue of Old World Birds in National Museum.....	10
Reports of National Museum," for years '86, '87, '88, '89 and '94.....	4 00	*Warren, Birds of Pennsylvania, 100 colored plates.....	3 24
"Smithsonian Reports," for years '84, '85, (2 vols.), '86, '87, '88, '90, '93, '94, '95.....	7 50	Short, Birds of Western New York, '96 ed. 10	
"U. S. Fish Commission Reports, 1873 to 1887 (backs 77-78), 11 large cloth vol., also '94 and '96 in paper, lot 13 vols.....	8 00	The Wilson Quarterly and Semi-Annual, the official organ of the Wilson Ornithological Chapter. Six issues, viz: Vol. I, No. 2; Vol. II, Nos. 1 and 2; Vol. III, No. 1; Vol. IV, No. 1 and 2. Nearly 300 pages of valuable contributions to Ornithology (1.70).....	5
"Hayden Survey Reports," 1867 to 1878, 13 vols.....	7 50		
"Bulletins of Hayden Survey," Vols. II, and VI, (2 vols.).....	5 00		

Cook, A. J., Birds of Michigan. This copy is the 1893 report of the Michigan Board of Agriculture which contains 523 pages and is bound in cloth. 165 of these pages, illustrated with 115 engravings, are devoted to the Birds of Michigan in addition to which and the annual report the following Bulletins are also published in the volume: "Vegetable Tests" 27 pages; "Spurry, <i>Spergula arvensis</i> ," 6 pages; "Flat Pea, <i>Lathyrus silvestris</i> ," 5 pages; "Fruit Notes and Spraying" 17 pages; "Potato Experiment," 59 pages; "Honey Analysis," 13 pages; "Inspection of Fertilizers," 12 pages; "Locust and Horn Fly," 6 pages; "Soils of Michigan," 13 pages; "Eighty New Strawberries," 13 pages; "Report of exhibit at Columbian Exposition, (Entomological, Botanical, Chemical, &c.)," 37 pages; "Forestry," 21 pages.....	97
Shufeldt, M. D., R. W., "Scientific Taxidermy for Museums." 71 full page plates, 67 pages, text, unbound.....	1 10
Young Oologist, Vol. I and II, cloth bound.....	65
Oologist, Vol. III and IV, cloth bound.....	66
Vol. IX, '92, 300 pages, cloth bound.....	67
Thirty back numbers, issued from 1890 to 1896, inclusive, my selection.....	68
Oologist and Young Oologist, Eighty back numbers, All different, (4.00). Lot prepaid only.....	1 40
Twenty back numbers issued prior to 1890, my selection, prepaid.....	41
Almost any back issue can be furnished. Send stamp for list and prices.	
Natural Science News, Vol. I complete, 52 numbers, only six complete vols. left. Will send you one for only.....	1 00
Vol. II complete, 14 numbers, only.....	30
Ornithological and Natural History Publications can furnish back Nos of almost anything published in America during the past 35 years. Write wants.	
Fill your gaps while you can. I can now furnish odd numbers, complete volumes and in some cases complete files of the following and dozens of others: <i>Auk</i> , <i>Nidologist</i> , <i>Osprey</i> , <i>Ornithologist</i> and <i>Oologist</i> , <i>Science</i> , <i>Popular Science Monthly</i> , <i>Nature</i> , <i>Canadian Entomologist</i> , <i>Insect Life</i> , <i>American Naturalist</i> , <i>Archaeologist</i> , <i>Nautilus</i> , <i>Microscopical Bulletin</i> , <i>Microscope</i> , <i>Microscopical Journal</i> , <i>Hoosier Naturalist</i> , <i>Oregon Naturalist</i> , <i>Iowa Ornithologist</i> , <i>Sunny South Oologist</i> , <i>Taxidermist</i> , <i>Mineral Collector</i> , <i>Hank-ey's Ornithologist and Oologist</i> , <i>Wisconsin Naturalist</i> , <i>Old Curiosity Shop</i> , <i>Ornithologist and Botanist</i> , <i>Boy State Oologist</i> , <i>Collector's Monthly</i> , <i>Random Notes</i> , &c., &c.	
Taxidermy, Guides, &c.	
Ballard, H. H., Three Kingdoms, Handbook of Agassiz Association (75).....	65
Goodale's, Few Common Plants (25).....	14
Hyatt's Sponges (25).....	12
Bowditch's Physiology (25).....	13
Hornaday, W. T., Taxidermy and Zoological Collecting (2.50).....	2 10
Lattin, Frank H., The Oologist's Handbook, 1885 (25).....	15
The Standard Catalogue of North American Birds Eggs, 1892 (25).....	05
Hyatt's About Pebbles.....	1
Tassin, How to Collect Minerals.....	03
Bert, Primer and Scientific Knowledge.....	41
Standard American Stamp Catalogue, '94.....	22
*Dawie, Naturalists' Manual.....	24
Naturalists' Directory of the U. S. and Canada. Nearly 6000 classified names and address. Edition of '90 (2.00).....	80
Edition of '95 (2.00).....	1 00
International Directory, '95 (2.50).....	90
Zoology and Natural History.	
Hornaday, Directions for Removing and Preserving Skins of Mammals.....	25
Extirmination of the American Bison, 187pp, 22 plates.....	1 35
Kumlien, <i>et al.</i> , Natural History of Arctic America, 180pp.....	1 35
Lucas, Preparation of Rough Skeletons..	15
Scudder, Nomenclator Zoologicus (An Alphabetical list of all Generic names employed by Naturalists for Recent and Fossil Animals from earliest times to 1850), 716pp.....	3 00
Stejneger, Directions for Collecting Reptiles and Batrachians.....	25
Buffon's Natural History For Children, Cloth and Gilt, 32 Colored Plates.....	36
Colton, Practical Zoology (50).....	65
Heilprin, Angelo, Animal Life of Our Sea Shore (1.25).....	1 10
Jordan, D. S., Manual of the Vertebrate Animals of the Northern United States (2.50).....	2 25
Manton, W. P., Primary Methods in Zoology.....	41
Mivart, St. G., The Cat, A Study of Back-boned Animals (3.50).....	2 29
Orton, Comparative Zoology, Structural and Systematic, 350 engravings.....	1 07
*Packard, A. S., Brief Course in Zoology..	76
Stearns, W. A., Notes on the Natural History of Labrador (1.00).....	41
*Wood, J. G., Illustrated Natural History (1.25).....	58
White's Natural History of Selbourne.....	86
Vol. II, Letters.....	18
Ballard, World of Matter.....	95
Allen, Monograph of North American Pinnipeds.....	2 34
Coues, Fur Bearing Animals.....	1 53
Microscopy.	
Manton, W. P., Beginnings with the Microscope (50).....	40
*Wythe, The Microscopist: A Compendium of Microscopic Science (5.00).....	3 20
Miscellaneous.	
*Agassiz, A Journey in Brazil.....	1 56
Livingstone's Explorations, Africa, and the Herald Stanley Expedition (1.75).....	86
Chute's Physics (1.25).....	81
Address,	
Frank H. Lattin,	
Albion, N. Y.	

THE OÖLOGIST.

A MONTHLY PUBLICATION DEVOTED TO

OÖLOGY, ORNITHOLOGY AND TAXIDERMY.

VOL. XV. NO. 11.

ALBION, N. Y., NOV., 1898.

WHOLE No. 148

Wants, Exchanges, and For Sales.

Brief special announcements, "Wants," "Exchanges" "For Sales," inserted in this department for 25c per 25 words. Notices over 25 words, charged at the rate of one-half cent per each additional word. No notice inserted for less than 25c. Terms, cash with order.
Strictly First-class specimens will be accepted in payment at one-third list rates.

What's Your Number?

Examine the number following your name on the wrapper of this month's OÖLOGIST. It denotes when your subscription expired or will expire.

No. 148 your subscription expires with this issue

150	"	"	"	Jan. '99"
155	"	"	"	June "
160	"	"	"	Nov. "

Intermediate numbers can easily be determined. If we have you credited wrong we wish to rectify.

WANTED.—Outfit for making rubber stamps. ROBERT BURNHAM, 142 Gallup St., Providence, R. I.

TO EXCHANGE.—The following singles for sets. 289, 337, 378, 423, 456, 461, 467, 475, 483, 494, 496, 501, 529, 540, 560, 581, 587, 624, 652, 674, 681, 705, 721, 724. L. S. HORTON, Gretna, N. Y.

TAXIDERMIST and ornithological collector. Lessons given personally or by mail. Work exchanged for skins. Persons wishing to make collections. Address, C. K. MASON, Kansas, Ill.

WILL EXCHANGE.—Black Hills specimens. Minerals, Fossils, Limestone Crystals, Gypsum, Chalcedony for curios and specimens from elsewhere, books, Merchandise, etc. CHAS. HAAS, Whitewood, S. D.

WANTED.—Good pair of climbing irons with straps complete, also Cones' Key, or Ridgeway's Manual of North American Birds; will give in exchange A No. 1 sets at one-half list price. BURNELL FRANKLIN, Pasadena, California.

FOR exchange or sale, 300 Arrowheads. Axes etc. Collection of old stamps, also eggs. Address, FRED JOHNSON, Box 53, Bolivar, Mo

NEW Marlin repeater 25-50 for \$40 of desirable sets or \$10 cash. Will buy sets of 196, 197, and 200, if cheap. W. E. SAUNDERS, London, Ontario.

NOTICE.—Wish old pennies, half-pennies and correspondence with parties wanting to exchange fine sets next season. I collect Osprey, Vultures, Hawks, Herons, Fish Crow, Owls, Swallows etc. BENJ. A. CARPENTER, Salem, N. J.

OÖLOGISTS, Taxidermists attention. Finest grade supplies, tools, specimens, artificial eyes. Lowest prices, carriage paid to States. Write for catalogue free. H. BOOTH, 8 Cranbury Road, Fulham, England.

TO EXCHANGE.—Autographs, Bird Eggs, Old Books and papers. Coins, etc. for Autographs and old manuscript will also pay cash for desirable autographs. F. O. NELSON, 237 S. Main Street, Butte, Mont.

WANTED.—Old guns and pistols, cap and ball pepper box style preferred. Will pay cash or trade. First-class eggs in sets or singles. CLAUD FULLER, 1208 W. 24th St., Kansas City, Mo.

WANTED to exchange eggs of New York State and many others for eggs of other states. Send list and receive mine. ED. T. SCHENCK, 69 Smith Ave., Gloversville, N. Y.

WANTED.—A 10 or 12 gauge shot gun or a Winchester rifle; also tent. Will give in exchange a No. 1 mounted specimen, first-class skins eggs in sets with data and part cash. Send for list. OAKLEY WALKER, Box 186, Mayfield, Ky.

FOR SALE.—A. O. U. Nos. 13a 1-1, 40c; 86 1-1, 20c; 40 1-3, 40c; 77 1-3, 20c; 79 1-1, 24c; 211 1-10, 60c; 214 1-11, 50c; 263 1-4, 24c; 117 2-1, 30c; 273 1-4, 30c; 406 1-4, 20c; 420a 1-2, 30c; 467 1-4, 24c; 587 1-5, 25c; 614 1-5, 30c; 622a 1-5, 20c; 624 1-4, 24c; 659 1-4, 35c; 674 1-4, 34c; 683 1-4, 35c; 713 1-4, 35c; 721 1-7, 25c; 743 1-8, 70c; 65 1-4, 60c; Snapping Turtle 1-8, 30c; Jacobins in red, 1 black, \$3 to \$5 per pair; one pair Yellow Crested Fantail, \$4. J. O. JOHNSON, Lock Box 550, Southington, Conn.

SEND ME anything really curious, to value of 30c or more, such as Indian relics, alligator teeth or eggs, shark or skate eggs, sea horse, echinoderms, etc. with locality, etc. and I will send in return a 4x5 photo of Tule Wren's nest, in Tules, from Nature. W. H. HILLER, 147 W. 23d St., Los Angeles, Calif.

WILLSIE CAMERA—New, leather covered, time and instantaneous, holds twelve cut films 2x2½, costing 3c each, does first class work, carry in large pocket, in focus three feet and over, just the thing for birds nests, cost \$5, to exchange for equal value back numbers bird magazines or books. E. B. WEBSTER, Cresco, Iowa

TO EXCHANGE:—Shells, Corals and Echinoderms from California, Central America and West Indies for Guitar, Washburn Mandolin, Books, Typewriter or offers. No specimens wanted. E. C. STARKS, 414 Elm St., Washington, D. C.

SALE OR EXCHANGE:—A 1 singles, Golden Eagle, Royal Tern, Noddy Pintail, Willet, A. O. U. No's 51a, 51, 120, 123, 132, 184, 221, 264, 430 nest, 196 and many others. Also Old Coins, Nests, other curios and an American bull dog, double action revolver. Will sell or exchange for gun or camera. Send for list. FORDYCE HAMMOND, Cuba, N. Y.

COLLECTION 500 varieties stamps, and International stamp album (latest edition) 400 page illustrated stamp catalogue and a 22 inch diamond frame bicycle. Wanted cash offers. CLIFTON A. FOX, Englewood, Ills.

FOR SALE:—Valuable collection 2000 varieties U. S. and foreign stamps. Specimens generally in good condition and collected previous to 1888. W. H. SINTON, 713, Lennox, St., Baltimore, Md.

If other parties, advertisements turn out like mine they cant complain. I expect I could have exchanged 20 times the number of specimens I had, but I shall try and be better prepared the coming season to meet the demand. B. A. CARPENTER, Salem, N. J.

CONCERT Roller Organ in first class condition with seventeen pieces of music valued at fifteen dollars to exchange for phonograph records or offers. N. R. CHRISTIE, Larkspur, Colo.

TO EXCHANGE for sets, mounted birds or books on ornithology, 50 first class singles. GLEN M. HATHORN, 1600 E. Avenue, Cedar Rapids, Ia.

FIRST CLASS Natural History specimens "for" standard Books on Ornithology, Conchology, Zoology, Bendire's work, copies of the *Auk*. Address JOHN B. WHEELER, East Templeton, Mass.

TO EXCHANGE.—Fine sets of California Birds eggs, including several species of Hummingbirds, for others not in my collection. Send lists and receive mine. J. J. SCHNEIDER, Box 1509, Anaheim, Cal.

FOR SALE.—Three sets out of six taken: Le Conte's Sparrow, with nests, parent, and photographs, in situ. Wanted.—Sets of 84, 105, 114, 123a, 129, 134, 148, 152, 162, 193, 185, 227, 287, 295, 300b, 301, 307, 310b, 339a, 373d, 384 and many others, cash or trade. P. B. PEABODY, Hallock, Minn.

SEEDS—Packet of assorted Haytian seeds. Some very rare and singular. 25 cents. Stamps taken. T. G. PRIDDLEY, 371 Carlton Street, Toronto. s2t

SHELLS:—50 land and fresh water shells from Haiti, assorted. 50 cents. Post. free. T. G. PRIDDEY, 371 Carlton street, Toronto. s2t

OVERSTOCKED:—Choice sets with full original data for sale at reasonable prices, or exchange for desirable sets, or large singles. List for 2c stamp. DR. M. T. CLECKLEY, 457 Greene street, Augusta, Ga. s2t

CABINETS:—Store boxes for insects or eggs also cabinets or single drawers cases, etc. Apply to T. G. PRIDDEY, 371 Carlton street, Toronto. s2t

HOW TO MAKE MONEY! If you are out of employment and want a position, paying you from \$50 to \$100 monthly clear above expenses by working regularly, or, if you want to increase your present income from \$200 to \$570 yearly, by working at odd times, write the GLOBE CO., 723 Chestnut St., Phila., Pa., stating age, whether married or single, last or present employment, and you can secure a position with them by which you can make more money easier and faster than you ever made before in your life. Jlyr

VIVE Cameras to exchange, any style, for desirable sets at one-third Lattin's list. Also rare typical singles. Send list of sets and singles. L. D. SUMNER, 502 State St., Madison, Wis. a5t

FOR SALE:—Fine specimens of American Turquois. Will cut good settings at 25c to \$1. This is a good chance to get a fine stone cheap. ROBERT BURNHAM, 143 Gallup St., Providence, R. I.

TO EXCHANGE:—I have a fine lot of Land, Fresh Water and Marine Shells to exchange for Indian relics. BENTON HOLCOMB, West Granby, Hartford Co., Conn. s3t

WANTED:—Auks single copies or volumes previous to and including 1896. Will give cash or Davies' new Nest and Egg book. Write what you have. JAMES H. HILL, New London, Conn., P. O. Box 435. a 4t

PUBLICATIONS, EGGS, BOOKS WANTED. I will allow 50c each for any back number of the "Auk" you may have, if in good condition and sent prepaid. You to take your full pay in Eggs, Shells (showy or scientific), Corals, Echinoderms, Fossils, Minerals, Curios, Novelties, &c. as listed in the Premium List I can also use on same terms the following numbers of the OÖLOGIST at prices quoted: June, 1888, 25c; July-Aug, 1886, 20c; Jan.-Feb. 1887 or Dec., 1886 with same attached, 10c; June-Sept., 1887, 15c; Apr., 1889, 15c; Jan.-Feb., 1886, 10c; Jan., 1895, 5c; March, 1897, 5c; May, 1897, 5c. All must be complete, clean, and in good condition. I will also accept back No's of *Ornithologist and Oologist*, *Recreation*, *Insect Life*, any issue and in any quantity at 5c per copy on same terms. (I will allow 25c for Oct., '93 and Feb., '94 "Nids," also for October and December '96 *Osprey*.) If you have other publications along my line. Write and state what is wanted. I can also use books on subjects pertaining to Natural History if in good condition and cheap, also A No. 1 sets of eggs with data at 1/2 "Standard" rates. Lists of books and eggs must be submitted for my selection or approval before sending. Address at once FRANK H. LATTIN, Albion, N. Y.

MEXICAN COINS. 1c, 2c and 5c nickel uncirculated, and 1c copper. Set of 4 prepaid for only 12c. The nickel coins were in circulation only a few months in '82-'83 may become exceedingly rare in a few years. ROBERT BURNHAM, 143 Gallup St., Providence, R. I.

Marine Curios and Shells.

I make a specialty in collecting, preparing and selling anything in the line of Marine Specimens obtainable on the Gulf Coast. I sell to the Collector as well as to the Retail, Wholesale and Jobbing trade.

J. H. HOLMES, Dunedin, Fla.



2=Years
we were required to perfect our new
“Vesta”
Tubular
Lantern which we now offer as something extraordinary in the Lantern line. It has the Railroad Lantern’s rugged constitution joined to the tubular system, and the result is a splendid light-giving, wear and abuse resister. We will, if desired, mail our special Circular of the “Vesta” Lantern; or, upon receipt of \$1.00, we will send you (freight prepaid) the very best Lantern for general service you ever saw. Why not “see it” on those terms?

Our Illustrated Catalogue is Mailed Free.

R. E. DIETZ CO.,
 60 Laight St., New York.
 ESTABLISHED IN 1840.
Only good Lanterns are stamped “DIETZ.”

USE A MARLIN REPEATER
 And **SAVE MORE THAN HALF** on the cost of Cartridges.



32-calibre cartridges for a Marlin, Model 1892, cost only \$5.00 a thousand.
32-calibre cartridges for any other repeater made, cost \$12.00 a thousand.
 You can save the entire cost of your Marlin on the first two thousand cartridges. Why this is so is fully explained in the **Marlin Hand Book** for shooters. It also tells how to care for firearms and how to use them. How to load cartridges with the different kinds of black and smokeless powders. It gives trajectories, velocities, penetrations and 1000 other points of interest to sportsmen. 198 pages. Free, if you will send stamps for postage to **THE MARLIN FIREARMS CO., New Haven, Conn.**

SHORTHAND How?
SELF-TAUGHT By the study of the *Manual of Phonography*, by Benn Pitman and Jerome B. Howard. A perfect self-instructor. Over 355,000 sold. Thousands have mastered it; so can you. Sold by all booksellers, or we will send with *Phonographic Reader and Phonographic Copy Book*, post-paid, for \$1.25. Catalog and full information free to those who wish to investigate first. Send name on postal card.

THE BENN PITMAN SYSTEM has for 44 years been the standard. Called by U. S. Bureau of Education “The American System.” First prize, World’s Fair.

THE PHONOGRAPHIC INSTITUTE CO.,
 222 W. 4th St., CINCINNATI, OHIO.

MINERALS SHELLS, etc. The White City Collections. 50 fine cabinet specimens, \$3. 50 smaller size, \$2. 50 amateur size, \$1. Printed name and locality with each specimen. 50 Shells, Corals, and Marine Specimens, only \$3. 100 Fossils, including fine Fish, Trilobite, Crinoids, Corals, Sponges, several fine Ferns, etc., only \$8. A great variety Unios with one valve highly published from 35c to \$1, very showy. Taxidermy in all its branches at reasonable prices. Illustrated catalogue by mail, 10c. J.M. WIERS, Naturalists Agency, 357 W. VanBuren St., Chicago, Ill.

NEW ENGLAND MINERALS.

Rhomb Spar, R. I., Beryl, N. H.; Actinolite, R. I.; Galenite, Mass. ¼ pound specimens of either *postpaid* for only 10 cents; or the four for only 30 cents.

The above is only a sample of the bargains I am offering in New England Minerals. Write your wants and send for lists. I handle only good fresh material—no rubbish.

ROBERT BURNHAM,
 No. 143 Gallup St., PROVIDENCE, R. I.

FRANKLIN HOUSE Cor. Bates and Larned Streets, DETROIT, MICH.
 Rates, \$1.50 to \$2.00 per Day.

Only one block from Woodward and Jefferson Aves. Elevator Service, Steam Heat, Electric Lights, Tile Floors, Etc.

H. H. JAMES & SON, Prop'rs.

H. H. & C. S. BRIMLEY,
 COLLECTORS, RALEIGH, N. C.

First-class Skins of Birds and Mammals, Bird's Eggs, Reptiles and Batrachia both Alive and in Alcohol. Histological Material. Full data. Send stamp for lists.

ROBERT BURNHAM,

DEALER IN

PRECIOUS STONES, OPALS, CURIOS AND FINE MINERALS.

Cutting and polishing Agates and Gem Stones, and setting the same in solid gold settings a specialty.

143 Gallup St., Providence, R. I.



PRICE LIST OF GEMS.

OPALS.

Australian..... 50c to \$40.00 per kt.
Hungarian..... 50c to 50.00 "
Mexican..... 10c to 20.00 "

Opal Scarf Pins set in Solid Gold in four sizes, as follows: 75c, \$1.25, 2.50, 3.50.

STUDS.

Screw or Separate Back, \$1.00 to \$3.00. Clusters to order.

EAR RINGS.....\$2.00 to \$5.00

RINGS, ETC., SET TO ORDER.

Prices an application for special settings or extra fine stones.

AMETHYST, TOPAZ, MOONSTONE,
BLOODSTONE, AGATE, CROCIDOLITE, &c.
In all forms and sizes for Rings, Pins, Charms, 10c to \$5.00.

Tourmaline.....50c to \$15.00 per kt.
Aquamarine.....50c to 5.00 "

Part Exchange will be accepted in payment during the next thirty days.

**Good Live Agents Wanted
in all parts of the world.**

Liberal cash commission paid.

Having a large stock on hand, I will, for a short time, sell 20 lbs. of good Minerals for \$1 One to forty kinds as you want then, large or small.

From Extreme Nervousness.



THAT no one remedy can contain the elements necessary to cure all diseases, is a fact well known to everyone. Dr. Miles' *System of Restorative Remedies* consists of seven distinctively different preparations, each for its own purpose.

Mrs. L. C. Bramley, 37 Henry St., St. Catharines, Ontario, writes: "For years I suffered from extreme nervousness and annoying constipation, developing into palpitation and weakness of the heart. I was unable to sleep, suffered much from headache, pain in my left side, palpitation and a constant feeling of weakness and prostration. I began using Dr. Miles' Nerve, Heart Cure and Nerve and Liver Pills and the Anti-Pain Pills to relieve sudden paroxysms of pain and headache. I soon felt much improved and the pains and aches and weariness left me. I then took Dr. Miles' Restorative Tonic and am now restored to my former good health."

Dr. Miles' Remedies are sold by all druggists under a positive guarantee, first bottle benefits or money refunded. Book on diseases of the heart and nerves free. Address,



DR. MILES MEDICAL CO., Elkhart, Ind.

WANTED-BRAINS

Send for our handsome views of public buildings, statues and avenues of Washington City. This book cost us many dollars. It will be sent to you for nothing. Write us to-day. Can you think of something to patent? Protect your ideas: they may bring you wealth. Before applying for patent, get our liberal offers and Inventor's Assistant. Danger in delay. **COPP & CO.**, Patent Attorneys, Washington, D. C.

Chachalaca, 3	1 20	Arkansas Kingbird, 3	18
Band-tailed Pigeon, 2	2 00	" 5	30
Red-billed Pigeon, 1	50	Cassin's Kingbird, 4 (1 dam)	1 00
White-crowned Pigeon, 2	2 00	Crested Flycatcher, 5	60
Mourning Dove, 2	06	Mexican-Crested Flycatcher, 5	1 15
White-fronted Dove, 2	70	Lawrence's Flycatcher, 3	2 25
" winged Dove, 2	30	Phoebe, 4	16
Mexican Ground Dove, 2	70	" 5	20
Inca Dove, 2	1 50	Say's Phoebe, 5	75
Turkey Vulture, 2	1 50	Wood Pewee, 2	21
Black Vulture, 2	1 50	" 3	36
Marsh Hawk, 3	1 05	Western Wood Pewee, 3	60
" 5	1 75	Acadian Flycatcher, 3	45
Cooper's Hawk, 3	90	" 4	60
" 5	1 25	Trail's Flycatcher, 3	45
Harris's Hawk, 3	1 50	Alder Flycatcher, 4	60
European Buzzard, 3	1 20	Least Flycatcher, 4	60
Red-tailed Hawk, 2	3 00	Vermilion Flycatcher, 3	3 00
Red-shouldered Hawk, 2	70	Skylark, 3	45
" 4	1 05	Prairie Horned Lark, 4	80
Florida Red-shouldered Hawk, 2	1 20	Desert Horned Lark, 3	60
Swainson's Hawk, 2	1 00	Texan Horned Lark, 5	1 50
Rough-legged Hawk, 3	1 20	American Magpie, 6	90
Ferruginous Rough-legged Hawk, 3	7 50	Yellow-billed Magpie, 5	2 50
Merlin, 3	1 50	Pinon Jay, 2	5 00
Kestrel, 4	80	Blue Jay, 5	20
American Sparrow Hawk, 3	60	" 4	25
" 5	1 00	Florida Blue Jay, 4	1 00
Desert Sparrow Hawk, 3	1 05	American Crow, 4	20
Audubon's Caracara, 3	3 00	" 5	25
American Osprey, 2	1 00	Florida Crow, 5	2 10
" 3	1 50	Fish Crow, 5	1 75
American Barn Owl, 4	1 60	Starling, 6	60
American Long-eared Owl, 4	1 40	" 4	40
" 5	1 75	Bobolink, 4	1 00
Short-eared Owl, 5	7 50	Red-eyed Cowbird, 1	40
Barred Owl, 3	4 50	Yellow-headed Blackbird, 4	20
Florida-barred Owl, 2	2 50	Red-winged Blackbird, 4	08
Screech Owl, 3	1 05	Sonoran Redwing, 4	2 00
" 4	2 00	Bahaman Redwing, 4	2 00
" 5	2 50	Bicolored Blackbird, 3	30
Florida Screech Owl, 4	2 00	Meadowlark, 5	50
Texan Screech Owl, 3	1 20	" 4	40
California Screech Owl, 4	1 80	Mexican Meadowlark, 5	2 50
Mexican Screech Owl, 2	2 00	Western Meadowlark, 6	60
Great Horned Owl, 2	2 50	Hooded Oriole, 4	2 00
Western Horned Owl, 2	2 00	Orchard Oriole, 5	30
Burrowing Owl, 8	1 60	Baltimore Oriole, 4	24
" 9	1 80	" 5	30
Groove-billed Ani, 6	4 50	Bullock's Oriole, 4	40
Road-runner, 4	1 00	" 6	60
Mangrove Cuckoo, 4	4 00	Purple Grackle, 5	50
Yellow-billed Cuckoo, 2	20	Bronzed Grackle, 4	20
Black-billed Cuckoo, 4	60	" 5	25
" 2	30	Great-tailed Grackle, 4	60
Belted Kingfisher, 5	1 00	Boat-tailed Grackle, 3	45
Hairy Woodpecker, 4	2 00	" 4	60
Downy Woodpecker, 3	60	Purple Finch, 4	80
" 4	80	California Purple Finch, 4	1 40
Red-naped Sapsucker, 2	2 00	House Finch, 5	25
Red-headed Woodpecker, 5	40	St. Lucas House Finch, 4	1 40
California Woodpecker, 5	2 00	Redpoll, 3	1 05
Red-bellied Woodpecker, 4	1 00	American Goldfinch, 5	25
Golden-fronted Woodpecker, 5	1 76	" n-4	1 20
Gila Woodpecker, 3	4 50	Western Goldfinch, 6	60
Flicker, 7	21	Arkansas Goldfinch, 3	30
" 9	27	Mexican Goldfinch, 5	2 50
Red-shafted Flicker, 8	80	Lawrence's Goldfinch, 5	1 00
Northwestern Flicker, 6	1 50	European Goldfinch, 5	1 00
Chuck-wills-widow, 2	3 00	Tree Sparrow, 5	75
Whip-poor-will, 2	3 00	Snowflake, 3	1 50
Merrill's Parakee, 2	5 00	" (1 dam), 2	75
Nighthawk, 2	80	Chestnut-collared Longspur, 3	1 05
Western Nighthawk, 2	80	McCown's Longspur, 3	3 00
Florida Nighthawk, 2	1 50	Vesper Sparrow, 4	20
Texan Nighthawk, 2	80	Savannah Sparrow, 4	40
Black-chinned Hummingbird, n-2	1 20	Lark Sparrow, 4	20
Costa's Hummingbird, n-2	1 20	Western Lark Sparrow, 4	20
Anna's Hummingbird, n-2	1 20	White-crowned Sparrow, 5	2 50
Rufous Hummingbird, n-2	1 20	Gambel's Sparrow, 4	60
Scissor-tailed Flycatcher, 4	40	Chipping Sparrow, 4	08
Kingbird, 3	09	Slate-colored Junco, 5	1 75
Gray Kingbird, 4	2 00	Oregon Junco, 4	2 00
Couch's Kingbird, 4	1 00	Black-throated Sparrow, 3	1 05

Song Sparrow, 4.....	12	Florida Wren, 4.....	1 40
" 5.....	15	Lomita Wren, 5.....	2 50
Desert Song Sparrow, 5.....	1 75	House Wren, 5.....	40
Mountain Song Sparrow, 4.....	1 00	" 6.....	48
Heerman's Song Sparrow, 4.....	32	" 7.....	56
Samuel's Song Sparrow, 5.....	40	Parkman's Wren, 6.....	90
Rusty Song Sparrow, 5.....	2 00	Western House Wren, 5.....	40
Sooty Sparrow, 5.....	2 50	White-billed Marsh Wren, 4.....	20
Swamp Sparrow, 4.....	48	White-breasted Nuthatch, 6.....	2 10
Towhee, 3.....	30	Slender-billed Nuthatch, 3.....	2 25
White-eyed Towhee, (1 dam.) 4.....	1 75	Red-breasted Nuthatch, 5.....	6 25
Arctic Towhee, 4.....	3 00	Tufted Titmouse, 6.....	3 00
Green-tailed Towhee, 3.....	1 50	Plain Titmouse, 4.....	3 00
Canon Towhee, 3.....	1 50	Chickadee, 7.....	1 05
St. Lucas Towhee, 3.....	3 00	" 8.....	1 20
California Towhee, 3.....	40	Oregon Chickadee, 7.....	2 45
Abert's Towhee, 3.....	2 25	Carolina Chickadee, 4.....	60
Cardinal, 3.....	15	California Bush Tit, 5.....	75
Gray-tailed Cardinal, 3.....	1 05	Verdin, 3.....	1 05
Rose-breasted Grosbeak, 4.....	40	Blue-gray Gnatcatcher, 4.....	80
Black-headed Grosbeak, 8.....	45	Western Gnatcatcher, 5.....	2 50
Blue Grosbeak, 4.....	1 00	Wood Thrush, 4.....	24
Indigo Bunting, 4.....	32	Wilson's Thrush, 4.....	48
" n-3.....	35	Willow Thrush, 3.....	3 00
Lazuli Bunting, 4.....	80	Russet-backed Thrush, 4.....	60
Painted Bunting, 3.....	30	Dwarf Hermit Thrush, 4.....	6 00
Dickcissel, 4.....	32	American Robin, 4.....	12
Scarlet Tanager, 3.....	75	Western Robin, 4.....	40
" n-4.....	1 25	Red-spotted Blue-throat, 5.....	3 75
Summer Tanager, 4.....	1 00	Wheatear, 5.....	50
Purple Martin, 5.....	60	Bluebird, 4.....	20
Cliff Swallow, 6.....	30	English Pheasant, 13.....	3 25
Barn Swallow, 4.....	20	" 10.....	2 50
Tree Swallow, 6.....	90	Nest of Black-chinned Hummer.....	30
Violet-green Swallow, 6.....	2 40	" African Starling.....	1 50
Bank Swallow, 5.....	15		
Rough-winged Swallow, 5.....	1 25		
Cedar Waxwing, 5.....	50		
" 4.....	40		
Phainopepla, 2.....	70		
" 3.....	1 05		
Loggerhead Shrike, 6.....	48		
White-rumped Shrike, 6.....	48		
California Shrike, 5.....	40		
Red-eyed Vireo, 4.....	40		
" n-3.....	36		
Yellow-throated Vireo, 3.....	75		
Cassin's Vireo, 3.....	3 00		
White-eyed Vireo, 4.....	60		
Bell's Vireo, 4.....	60		
Least Vireo, 3.....	1 05		
Black and White Warbler, 3.....	1 50		
Prothonotary Warbler, 4.....	1 00		
Blue-winged Warbler, 4.....	6 00		
Parula Warbler, 3.....	60		
Yellow Warbler, 4.....	20		
" 5.....	25		
" n-4.....	30		
Sonora Yellow Warbler, 5.....	2 50		
Chestnut-sided Warbler, 4.....	80		
" 3.....	60		
Yellow-throated Warbler, 3.....	4 50		
Pine Warbler, 4.....	2 00		
Ovenbird, 4.....	80		
Louisiana Water Thrush, 5.....	1 75		
Yellow-breasted Chat, 4.....	32		
Hooded Warbler, 3.....	1 50		
" 4.....	2 00		
Pileolated Warbler, 3.....	2 25		
American Redstart, 4.....	60		
White Wagtail, 6.....	60		
Meadow Pipit, 5.....	50		
Sage Thrasher, 2.....	1 00		
Mockingbird, 4.....	20		
Catbird, 4.....	12		
Brown Thrasher, 4.....	12		
" 5.....	15		
Palmer's Thrasher, 4.....	1 41		
Bendire's Thrasher, 3.....	2 25		
" 4.....	3 00		
California Thrasher, 3.....	60		
Crissal Thrasher, 2.....	2 00		
Cactus Wren, 4.....	70		
Carolina Wren, 5.....	52		

SPECIAL.

The following desirable and authentic sets I offer at one-half of prices quoted, postpaid.

LIST RATE.

Olive-backed Thrush, 4.....	\$1 40
Winter Wren, 4.....	4 00
Loon, 2.....	3 00
Green-winged Teal, 10.....	5 00
Wood Duck, 8.....	8 00
Great White Heron, 4.....	8 00
American Woodcock, 3.....	4 50
Red-shouldered Hawk, 3.....	1 05
Great Horned Owl, 3.....	3 75
White-throated Sparrow, 4.....	1 40
Magnolia Warbler, 4.....	2 00
Mourning Warbler, 4.....	10 00

MOUNTED BIRDS.

A chance to secure a suitable holiday present at one-half of regular prices.

All bright male birds on perches.

Indigo Bunting.....	\$ 75
Scarlet Tanager.....	90
Rose-breasted Grosbeak.....	75
American Goldfinch.....	50
Yellow Warbler.....	50
Snow Bunting.....	75
Cedar Waxwing.....	60
Bluebird.....	75
Blue Jay.....	1 00
Red Squirrel with nut in paws.....	1 00
Chipmunk with nut in paws.....	1 00
Screech Owl with bird in claws.....	1 10

Mounted specimens go by express or freight at purchaser's expense, unless order amounts to over \$5.00. Orders over \$5.00 sent prepaid.

No discount on Birds.

Address all orders plainly,

ERNEST H. SHORT,

Albion, N. Y.

\$1.00 WORTH OF PREMIUMS ABSOLUTELY FREE TO EVERY SUBSCRIBER TO THE OÖLOGIST. HOW? For full particulars read blank on reverse. SUBSCRIBERS can purchase premiums in lots of 50c or over at *one-half* price. Stamps accepted.

BIRDS EGGS.

*Can furnish in sets.

Western Grebe	50
Herring Gull	35
*Least Tern	10
Pintail	35
Green Heron	12
Florida Gallinule	10
European Coot	20
American Coot	10
Lapwing	20
Calif. Partridge	15
Gray Ruffed Grouse	50
Col. Sharp-tailed Grouse	50
*Mourning Dove	05
Western Red-tail	50
*Swainson's Hawk	50
American Sparrow Hawk	35
Screech Owl	50
*Burrowing Owl	20
Yellow-billed Cuckoo	10
Hairy Woodpecker	50
Gardiner's Woodpecker	35
Pileated Woodpecker	1 00
Red-bellied Woodpecker	25
Red-headed Woodpecker	10
Flicker	5
Scissor-tailed Flycatcher	10
*Arkansas Kingbird	06
Cassin's Kingbird	25
Crested Flycatcher	15
Phoebe	05
Black Phoebe	15
Western Wood Pewee	20
Skylark	15
Prairie Horned Lark	15
American Crow	05
Fish Crow	35
Starling	10
*Red-winged Blackbird	05
Bicolored Blackbird	10
Tricolored Blackbird	15
Meadowlark	10
Western Meadowlark	10
Arizona Hooded Oriole	35
*Orchard Oriole	05
*Bullock's Oriole	10
*Boat-tailed Grackle	15
House Finch	05
Western Lark Sparrow	05
Cardinal	05
*Western Goldfinch	10
*Arkansas Goldfinch	10
*Lawrence's Goldfinch	20
Heermann's Song Sparrow	08
Gray-tailed Cardinal	15
Black-headed Grosbeak	25
Lazuli Bunting	20
Painted Bunting	10
Sharpe's Seed-eater	50
Scarlet Tanager	25
Summer Tanager	25
Purple Martin	10
Tree Swallow	15
Cedar Waxwing	10
White-rumped Shrike	10
*California Shrike	08
White-eyed Vireo	15
Bell's Vireo	18
Yellow Warbler	05
White Wagtail	10
Meadow Pipit	10
Mockingbird	05
Catbird	05
Sennet's Thrasher	15
California Thrasher	20
*Cactus Wren	20
Baird's Wren	20
Parkman's Wren	15

California Chickadee	50
*California Bush-tit	15
Wood Thrush	05
Russet-backed Thrush	15
American Robin	05
Bluebird	05
English Pheasant	25
English Sparrow	05
Ring Pheasant	50
Gopher	35
Hammerhead Shark	15
*Red-leg Turtle	15
*Snapping Turtle	15
Jackdaw	10
Rook	10
Magpie	10
Missel Thrush	10
Song Thrush	10
English Blackbird	10
Lesser White-th't Warbler	10
Garden Warbler	10
Reed Bunting	10
Green Finch	10
Willow Warbler	10
Common Bunting	10
Sedge Warbler	25
Nightingale	25
English Sparrow Hawk	35
Great Tit	10
English Swallow	10
Hedge Accentor	10
English Partridge	15

BIRD SKINS.

Redpoll	35
Snowflake	35
Tree Sparrow	35
Slate-colored Junco	35
Cedar Waxwing	35
Black-and-white Warbler	35
Myrtle Warbler	35
Brown Creeper	35

SHELLS.

Murex brandaris	5
" trunculus	25
" saleanus	10
Eburna Japonica	25
Oliva litterata, extra	20
Cypræa moneta	15
Ovulum gibbosum	15
" secale	10
Nerita peleronta, select.	10
Trochus (Livona) pica	25
Helix fideles	13
Bullium Bahamaensis	15
Partula gibba	25
Orthalicus melanochilus	25
" undatum	25
Liguus fasciata	15
Achatinella perversa	10
" uniplicata	10
" spirazona	10
" olivacea	10
Pythea pyramidata	15
Fissurella barbadensis	10
Chama arcinella	15
Cardium isocardia	15
Tellina radiata	10
Fascolaria distans	10
Melongena corona	15

SEA CURIOS.

Precious coral, 1 oz. pkg.	25
Organpipe Coral	10
*Creamy Sea Fan	35
Yellow Sea Fan	35
Sand Dollar	10

Phillippian Urchin	35
Purple Urchin, select	25
Black Starfish	35
Acorn Barnacles	10
Keyhole Urchin	25
Lucky Tooth of Cod	10
Hermit Crab in Shell	85
"Eye Stones"	05

MINERALS, &c.

Chiaustolite Crystals	15
Coquina	25
"Electric" stone	25
Chalcedony Geodes select.	50
GEM STONES, small cut and polished semi-precious stones, many suitable for mounting:	
Sard Trilby heart intag.	
loes	15
Opals, Mexican	15, 25, 35, 50
Red Onyx	15
Black Onyx	15
Crocidolite, Tiger-eye	10, 15, 25
Lapis Lazuli	35
Chalcedony, 3 var. each	10
Black Ribbon Agates	10
Red Ribbon Agate	10
Carnelian	10
Assorted dozen	50 1 00
Fossil Shark Teeth	5, 10
Scaphites nodosus	10, 25, 50, 1 00
Polyp Coral	10, 25, 50

MISCELLANEOUS.

Arrowheads, 1/2 doz. asst'd	50
Revolutionary Gun Flint	15
Dove Shell from British Guiana exhibit at World's Fair, pkg. of 12.	25
Chines Horn Nut	10
Beetle Nut	10
Broken Bank Bill	10
Confederate State Bill	10
Chameleon in Alcohol	25
Alligator Tooth	5, 10, 15, 25
Young Naturalist's Marvelous Collection, 50 labelled specimens	1 00
Chinese Coin	05
Mexican Whistle, clay	10
7 var. unused Cuban Stamps	35
Resurrection Plant, Mex.	10
Bird Arrow Point	25
Set of Souvenir World's Fair Tickets	1 00

PUBLICATIONS.

OÖLOGIST, 20 numbers	50
Nidologist, 8 numbers	1 00
The Wilson Quarterly and Semi Annual 4 numbers	1 00
Natural Science News, 52 back numbers	1 00
Above publications are all different and of our selection.	
OÖLOGIST, 1892, bound cloth	1 00
Penikese, a volume of 96 pages. Giving an acct of Agassiz's summer school at Penikese Island	50
Locks. Prothonotary Warbler	35
Short Birds of W. N. Y.	15
Latin's Standard Egg Cat Directions for Collecting Minerals, 16 pp	05
Exchange Notice (or Coupon) in OÖLOGIST	25
Advertising in OÖLOGIST	50-81

Date.....1898.

FRANK H. LATTIN, Publisher, Albion, N. Y.

Enclosed find 50 cents for which send THE OÖLOGIST one year, including one Exchange Coupon and **\$1 00 worth of Premiums** to the following address

Name.....

P. O. Box or Street Address.....

County..... Post-Office..... State.....

I select the following for my One Dollar's worth of premiums.....

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

Remember.—That for **only 50 cents** every subscriber will receive THE OÖLOGIST, as issued, for one year, and in *addition* will receive by return mail, one exchange coupon and \$1.00 worth of premiums as offered on back of this blank. Write above the ones you prefer and mark on back of this blank a few extras to be used in case we should be out of your first choice. **This offer will hold good until January 1, 1899.**

BE SURE and address all of your letters and orders plainly and in full to
FRANK H. LATTIN, Albion, Orleans Co., N. Y.

THE OÖLOGIST.

A MONTHLY PUBLICATION DEVOTED TO

OÖLOGY, ORNITHOLOGY AND TAXIDERM.Y.

VOL. XV. NO. 12.

ALBION, N. Y., DEC., 1898.

WHOLE No. 149

Wants, Exchanges, and For Sales.

Brief special announcements, "Wants," "Exchanges" "For Sales," inserted in this department for 25c per 25 words. Notices over 25 words, charged at the rate of one-half cent per each additional word. No notice inserted for less than 25c. Terms, cash with order.

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

What's Your Number?

Examine the number following your name on the wrapper of this month's OÖLOGIST. It denotes when your subscription expired or will expire.

No. 149 your subscription expires with this issue
150 " " " " " Jan., '99"
155 " " " " " June ""
160 " " " " " Nov. ""

Intermediate numbers can easily be determined. If we have you credited wrong we wish to rectify.

TO EXCHANGE.—Fine sets of 11 1-1, 49 1-3, 51a 1-3, 202 1-4 1-3, 225 1-4, 269 1-3, 319 1-2, 331 1-4, 342 1-3, 375 1-3, 467 1-3, 595 1-4, 608 1-3, 619 3-5, 624 1-3, 673 n-4, 674 1-4, 681 1-4, 687 1-4, 713 1-3, 755 2-4. JOHN H. FLANAGAN, 29 Weybosset St., Providence, R. I.

WANTED.—"Osprey" Vol. II, combined numbers 6-7; for this number, to complete my file, I will give good exchange in prints of nests and eggs, sending list for your selection. WM. H. FISHER, 1602 Mt. Royal Ave., Baltimore, Md.

30 choice Relics, Curiosities, etc., 25c, 10 old coins 18c, 9 varieties of rare Indian Relics 37c, 100 choice sea shells 35c, spade 18c, hoe 25c, chisel 25c, all the above for \$1.50. Lists free. WILLIAM P. ARNOLD, Peacedale, R. I.

WILL PAY CASH for perfect sets of Osprey and Sharp-shinned Hawk. Address JEAN BELL, Ridley Park, Pa. D2c

FOR SALE OR EXCHANGE.—Capen's "Oology of New England" in fine condition. Nine volumes of American Field. Frosts Hunting pictures. C. B. JOHNSON, Red Wing, Minn. D2c

HORNADAY'S TAXIDERM.Y and Chapman's Birds of Eastern North America, binding being somewhat spoiled by fire, rebound in cloth, good as new, latest edition, to the first one sending me \$3.00, cost \$5.50. Write now. H. E. NEWMAN, New Ulm, Minn., care of College.

IMPORTANT.

Do not neglect to look over our new and revised list of Books and Publications devoted to Ornithology and Oology and Natural History in general, offered in this month's OÖLOGIST and above all do not overlook the "Extraordinary Christmas Offer."

WANTED.—Eggs in sets, Minerals and Arrow Points. Can offer first class eggs in sets and singles. Send list and receive mine. H. A. SHAW, Grand Forks, N. C.

TO EXCHANGE.—191, 316, 412, 456, 477, 488, 489, 498, 501, 511b, 519, 581b, 704, 705, 721, 761. All sets. OTHO GAY, Camp Point, Ills.

EXCHANGE.—1898 Improved Gramophone with 66 records and case, costing \$60. Want camera and photo supplies. Profitable entertainments can be given. What offer? C. H. DICKINSON, Grand Rapids, Minnesota.

EGGS FOR EXCHANGE.—Fine sets with full data of 499 20-3, 519 1-5 1-4, 581 5-3 2-4, 591b 3-3 1-4, 622b 3-3, 713 4-3 to exchange for other sets. J. S. APPLETON, Simi, Ventura Co., Cal.

WOULD LIKE to have all dealers in Coins, Curios, Minerals, Indian Relics, who read this send catalogues to RIDGELY NICHOLAS, 44 Park Ave., New York.

THE LATEST SENSATIONAL FRENCH PLAY:—Cyrano De Bergerac, by Edmund Rostand, which is being played in this country by Richard Mansfield and in England by Henry Irving, is just brought out in a dainty, cloth-bound volume at the price of 35c. and a cheap paper edition at 15c., by Hurst & Co., New York, the well known cheap-book publishers. They will send it postpaid or it may be had at all dealers.

FOR SALE OR EXCHANGE.—A \$10.00 Cam'era, new, for Coues' Key and other standard works. I also have a high grade bicycle, nearly new that I will sell at a bargain. P. A. MULTER, 13 Eldridge Court, Chicago, Ill.

MANN BONE CUTTER, new, \$22.00; Winchester repeating rifle, new, 22 short or long, for hammerless 16 or 12 gauge gun. W. C. FARRAR, Peru, Ind.

EXCHANGE.—I have some good sets of Dakota eggs to exchange for good Taxidermist's Tools and good Work on Taxidermy. WM. A. BOWMAN, Devil's Lake, N. D.

"METHODS in the ART of TAXIDERM" by Davie. *New*. Will swap for good eggs in sets, good collection U. S. and foreign stamps or for books on Ornithology or Oology. FRANK H. LATTIN, Albion, N. Y.

WHEN YOU WANT low quotations on Minerals, Geological Specimens, Corals, Shells, Scientific Publications and Naturalists' Supplies, write to ANDREW NELSON, 1108 Palean St., Keokuk, Iowa.

WANTED.—Good Typewriter, Camera or eggs in sets. Have to offer Printing Press and type, fifty varieties of shells from VanCouver's Island or eggs. RALPH W. CLAYTON, Box 454, Galesburg, Ills.

EGGS FOR EXCHANGE.—Fine sets of following or will sell cheap for cash: 165, 167, 184, 207, 257, 286, 293a, 311, 313, 318, 319, 329, 335, 417, 419, 421, 478a, 487, 508, 512, 513, 591, 593c, 630, 666, 697, 706, 707. THOMAS H. JACKSON, 343 E. Biddle St., West Chester, Pa. D4t

FOR SALE.—1000 finely mounted native birds and 200 sets eggs with data. Will sell at bargain, singly or as a whole. Write for lists to H. M. BACON, 36 Temple Place, Boston, Mass.

20 varieties Fossils. Geodes, Minerals. Land and Sea Curios, beautiful Calcite Cave Specimens in frost and boxwork, 25c. to \$1.00; various Indian relics, arrowheads, \$1.25 per 100, postpaid. CORA JEWELL, Crawfordsville, Ind.

RUDYARD KIPLING.—If continual talk about him in the newspapers is an indication, Rudyard Kipling must be the most popular of living authors. A vast number of readers must, therefore, welcome a cheap edition of his "Departmental Ditties, Barrack Room Ballads and Other Verses," just issued by the famous cheap-book publishing house, Hurst & Co., 135 Grand St., New York, at the price of only 35 cents postpaid.

WANTED.—To exchange my entire collection of typical singles with complete data for sets. Collectors of singles send list of sets. Will pay boot. H. S. WARREN, Foot of Wayne St., Detroit, Mich.

WANT NESTS and EGGS of Owls, Hawks, Ducks, Bittern, Chimney Swift, Brown Thrasher, etc. Will pay good prices if in a fair condition, especially the nests, and any one with a large amount of nests would like to communicate. CHAS. C. OWEN, Silver Bay Museum, Silver Bay, N. Y. D2t

TO EXCHANGE.—For 1st class sets, 50 singles at 2/3 catalogue rates, also 200 different Foreign and U. S. Postage Stamps for \$3.50 in sets. Send for lists. HARRY CUTLER, Saranac, Mich.

FOR SALE.—Fine specimens of American Turquois. Will cut good settings at 25c to \$1. This is a good chance to get a fine stone cheap. ROBERT BURNHAM, 143 Gallup St., Providence, R. I.

TO EXCHANGE:—I have a fine lot of Land, Fresh Water and Marine Shells to exchange for Indian relics. BENTON HOLCOMB, West Granby, Hartford Co., Conn. s3t

WANTED:—Auk single copies or volumes previous to and including 1896. Will give cash or Davies' new Nest and Egg book. Write what you have. JAMES H. HILL, New London, Conn., P. O. Box 485. a 4t

WANTED.—A few finely marked sets, clean and perfectly prepared of 331, 333, 337, 339b, 343, 355. Will give good exchange in rare species. THOMAS H. JACKSON, 343 E. Biddle St., West Chester, Pa. D4t

BICYCLES.—"Pattee" used two seasons, good condition, new tire, cost \$75.00; "Waverly" used one season, \$75.00 wheel. Will sell either or both cheap for cash or will swap for eggs in sets, books on Natural History or an A No. 1 collection stamps. FRANK H. LATTIN, Albion, N. Y.

TO EXCHANGE.—Several 1st class sets of each of following: A. O. U. 263, 339, 388, 394, 529, 619, 622a, 652, 659, 687, etc. Wanted Kodak or sets. L. M. TERRILL, Mount Royal Vale, Montreal, Que.

FOR EXCHANGE at one-third to three-fourths catalogue rates, rare eggs from Labrador and Newfoundland, which are not first class, including the following species: Brunich's Murre, Kittiwake, Red-breasted Merganser, Greenland Eider, Semi-palmated Sandpiper, Semi-palmated Plover, Willow Ptarmigan, Reinhart's Ptarmigan, American Roughleg, Short-eared Owl, Northern Raven, Redpoll, White-crowned Sparrow, Tree Sparrow, American Pipit, Gray-cheeked Thrush, etc. Strictly first class sets of common species taken. I guarantee the authenticity of all my eggs. To obtain a large series of eggs of the Spotted Sandpiper at once I offer 25 per cent. above Lattin's list in the following sets: 27-71 5-2, 40 1-1 1-2, 106 20-1, 130 1-9 1-10, 159 1-3 1-4, 274 1-2 3, 528 1-3, 554 1-2 2-3 1-4, 697 1-2. Correspondents desired, who, during the coming year, may be able, for good exchange or reasonable cash price, to procure for me living birds of the following species: Redpoll, Crossbill, Evening Grosbeak and especially Pine Grosbeak. Address Lock Box 27, Arlington, Mass.

HOW TO MAKE MONEY! If you are out of employment and want a position, paying you from \$50 to \$100 monthly clear above expenses by working regularly, or, if you want to increase your present income from \$200 to \$500 yearly, by working at odd times, write the GLOBE CO., 723 Chestnut St., Phila., Pa., stating age, whether married or single, last or present employment, and you can secure a position with them by which you can make more money easier and faster than you ever made before in your life. Jlyr

WANTED.—First class sets of eggs, with or without nests. Can offer first class singles of 273, 293a, 333, 360, 373, 385. Also 721 1-5. ABBOT PETERSON, 305 Chestnut Avenue, Jamaica Plain, Mass.

WANTED.—An active collector (who can make A 1 bird and mammal skins) in Florida, Maine (sea coast), Michigan (pine belt), North Carolina (sea coast), and Texas (Rio Grande.) W. E. SNYDER, Beaver Dam, Wis.

TO EXCHANGE.—Books, Vol's Magazines and Papers, Eggs, Banjo, Curios, stamps and other articles for drawing and carving tools, books on carpentry and wood carving. F. L. BURRILL, No. 4 Pearl ave., Amesbury, Mass.

A FINE collection of eggs in sets, many rare western; also valuable minerals, choice ornamental nursery stock, including many new Colorado plants, shrubs and seeds. Will give liberal exchange for field or opera glass, Edison's mimeograph, 4x5 photographic lens, standard or scientific books &c. Write for particulars stating what you have and want. D. M. ANDREWS, Nurseryman, Boulder, Colorado.

I WILL EXCHANGE eggs, shells, or curios from this locality for foreign stamps. I also want U. S. revenue. W. H. HILLER, 147 W. 23d st., Los Angeles, Calif.

FOR SALE.—A few nice skins of Snowy Owl, females and young males at \$1.00 each, to clear for this winter's stock; also Long Crested Jay 30c, Sharp-tailed Grouse and Ruffed Grouse, Parties wishing to secure Moose, Elk, Prong Deer and Mule Deer heads, antlers scalps or hides mounted, or in pickle or dressed for robes, or wishing to obtain skins of any birds or animals from on skeletons may correspond with me. CHRIS P. FORGE, Carman, Manitoba.

LE CONTE'S SPARROW—My duplicate sets have been quickly taken for a round sum. I hope to take next season perhaps eight sets. They will be partly available for choice exchange. Advance orders booked in order of mailing. State, when ordering, what you think should be the exchange price of these eggs. A set or two of A. Bairdii may also be taken. Suggest price for these also. P. B. PEABODY, Hallock, Minn.

HAVE YOU a good double barrel breech loading shot gun, 10 bore, or revolver of the higher grades, you want to sell or trade for 32 Winchester rifle, model 1873, with reloading tools. Elgin, Waltham, Springfield or Swiss watches, birds eggs, books, papers, telescope, V nickles, if so write me. Will sell any of my goods reasonable. C. B. VANDERCOOK, Odin, Ills.

TEN showy singles including African Ostrich \$1.00 prepaid. 25 second-class eggs 25 species 50c prepaid. List first-class sets free. *Birds* yearly subscriptions \$1.30, *Auk* \$2.65, *Recreation* 85c, *Popular Science News* \$1.45, *Cosmopolitan* 85c. Send 25c stamps for 10 specimen copies of natural history and popular magazines. Elliott's new book "Wild Fowl" \$2.00, "Byways and Bird Notes" (Thompson) 50c, Davies' Nests and Eggs \$1.70. *Osprey* volume 1 complete \$2.65. BENJAMIN HOAG, Stephentown, New York.

PUBLICATIONS, EGGS, BOOKS WANTED. I will allow 50c each for any back number of the "Auk" you may have, if in good condition and sent prepaid. You to take your full pay in Eggs, Shells (showy or scientific), Corals, Echinoderms, Fossils, Minerals, Curios, Novelties, &c. as listed in the Premium List I can also use on same terms the following numbers of the OOLOGIST at prices quoted: June, 1888, 25c; July-Aug., 1886, 20c; Jan.-Feb., 1887 or Dec., 1886 with same attached, 10c; June-Sept., 1887, 15c; Apr., 1889, 15c; Jan.-Feb., 1886, 10c; Jan., 1895, 5c; March, 1897, 5c; May, 1897, 5c. All must be complete, clean, and in good condition. I will also accept back No's of *Ornithologist and Oologist*, *Recreation*, *Insect Life*, any issue and in any quantity at 5c per copy on same terms. (I will allow 25c for Oct., '93 and Feb., '94 "Nids," also for October and December '96 *Osprey*.) If you have other publications along my line. Write and state what is wanted. I can also use books on subjects pertaining to Natural History if in good condition and cheap. also A No. 1 sets of eggs with data at 1/2 "Standard" rates. Lists of books and eggs must be submitted for my selection or approval before sending. Address at once FRANK H. LATTIN, Albion, N. Y.

CABINETS. Send 10 cts for photo of our specialty—SelfLocking. T perches—Oak samples by mail 8c, 10c and 15c: also stands, shields, glass cases, game panels, &c. Cabinets to order. HANAFORD CABINET CO., 139 and 141 W. Fulton St., Grand Rapids, Mich. 58MOTf

TRY THE NEW HOME



WRITE FOR CIRCULARS showing the different styles of Sewing Machines we manufacture and their prices before you purchase any other.

THE NEW HOME SEWING MACHINE CO.
ORANGE, MASS.

28 Union Square, N. Y. Chicago, Ill. St. Louis, Mo.
Dallas, Tex. San Francisco, Cal. Atlanta, Ga.

FOR SALE BY

E. W. WILCOX.

Marine Shells and Curios.

I am now in a position to furnish in quantity all of the best species collected on the Gulf Coast and will be pleased to furnish prices on application. Best of reference given and satisfaction guaranteed. Collections sent on approval to parties giving satisfactory reference. Any not approved can be returned at my expense. Address all orders to A. J. BARNES, Dunedin, Fla.

Many Subscriptions to

THE OOLOGIST

have expired, or will expire with this issue. In the future the Publisher requires CASH IN ADVANCE. Hence, if you are one of the delinquent subscribers, your subscription should be forwarded by return mail, if you wish the OOLOGIST continued to your address.

ROBERT BURNHAM,

DEALER IN

PRECIOUS STONES, OPALS, CURIOS AND FINE MINERALS.

Cutting and polishing Agates and Gem Stones, and setting the same in solid gold settings a specialty.

143 Gallup St., Providence, R. I.



PRICE LIST OF GEMS.

OPALS.

Australian.....	50c to \$40.00 per kt.
Hungarian.....	50c to 50.00 "
Mexican.....	10c to 20.00 "

Opal Scarf Pins set in Solid Gold in four sizes, as follows: 75c, \$1.25, 2.50, 3.50.

STUDS.

Screw or Separate Back. \$1.00 to \$3.00. Clusters, to order.

EAR RINGS.....\$2.00 to \$5.00

RINGS, ETC., SET TO ORDER.

Prices an application for special settings or extra fine stones.

AMETHYST, TOPAZ, MOONSTONE, BLOODSTONE, AGATE, CROCIDOLITE, &c. In all forms and sizes for Rings, Pins, Charms, 10c to \$5.00.

Tourmaline.....	50c to \$15.00 per kt.
Aquamarine.....	50c to 5.00 "

Part Exchange will be accepted in payment during the next thirty days.

Good Live Agents Wanted

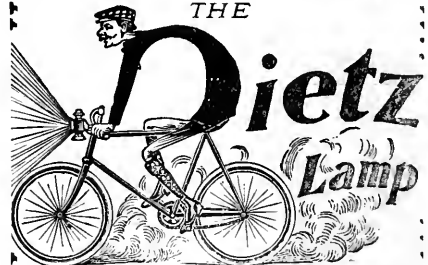
in all parts of the world.

Liberal cash commission paid.

BE GOOD

It is a hard task for the average man, and requires the showing forth of many excellent qualities. But for a Bicycle Lamp to be good, really requires but two things:

- 1st. To Give a Good Light.
- 2d. To Stay Allight In Spite of Wind and Jar.



beautifully combines these two good qualities. It also has the other and lesser virtues belonging to the

Perfect Bicycle Lamp.

Therefore as one step in your effort to

BE GOOD

BE WISE, and buy one of them

AND YOU WILL BE HAPPY.

Send for circular or, better still, send \$1.50 which is the reasonable price at which we will one, delivered anywhere.

R. E. DIETZ COMPANY

60 Laight Street

Established 1840 NEW YORK CITY

Marine Curios and Shells.

I make a specialty in collecting, preparing and selling anything in the line of Marine Specimens obtainable on the Gulf Coast. I sell to the Collector as well as to the Retail, Wholesale and Jobbing trade.

J. H. HOLMES, Dunedin, Fla.

MINERALS SHELLS, etc. The White City Collections. 50 fine cabinet specimens, \$3. 50 smaller size, \$2. 50 amateur size, \$1. Printed name and locality with each specimen. 50 Shells, Corals, and Marine Specimens, only \$3. 100 Fossils, including fine Fish, Trilobite, Crinoids, Corals, Sponges, several fine Ferns, etc., only \$3. A great variety Unios with one valve highly published from 35c to \$1, very showy. Taxidermy in all its branches at reasonable prices. Illustrated catalogue by mail, 10c. J.M. WIERS, Naturalists Agency, 357 W. VanBuren St., Chicago, Ill.

MEXICAN COINS. 1c, 2c and 5c nickel uncirculated, and 1c copper. Set of 4 prepaid for only 12c. The nickel coins were in circulation only a few months in '82-'83 may become exceedingly rare in a few years. ROBERT BURNHAM, 143 Gallup St., Providence, R. I.

AN EXTRAORDINARY CHRISTMAS OFFER. \$10.00 BOOK FREE.

To each of our patrons who favor us with an order for Books, Pamphlets, or Publications, on or before January 1, 1899, to the amount of \$10.00 or over, we will send by express at their expense a new copy of that magnificent work,

“Davie’s Methods in the Art of Taxidermy,”

without additional charge, or in other words, make them a Christmas present of the book. This elaborate work was published at \$10 per copy, and the publishers supply has been exhausted for nearly a year, we possessing the few unsold copies, and if any remain after January 1st they will be held at \$7.50 cash per copy—our present regular price. Remember every purchaser whose order amounts to \$10 or over receives a copy *gratis* and if your order amounts to \$50 or even \$100, or if you send in half a dozen \$10 orders you get only the single copy. That is we wish to present each patron a single copy, but no more.

Faithfully,

FRANK H. LATTIN, ALBION, N. Y.

N. B.—This offer also includes all popular and recent works on Ornithology, Natural History and Out Door Life, not on our lists you simply including them in your order at Publisher’s *regular* price.

Bendire’s “Life Histories of North American Birds,”

Recognized the world over as the most valuable addition to the literature bearing on American Ornithology of the decade. The Government (its publishers) supply has long been exhausted and during the past two years every copy we could secure has had two or three purchasers waiting who have paid us anywhere from \$7.50 to \$10.00 per copy and considering themselves fortunate to secure them at even the latter figure. We have just secured a few complete sets from an unexpected source and offer them by Express at purchaser’s expense at the following exceedingly liberal rates:

Vol. I, \$9.00; Vol. II, \$7.00; or both Vols. I and II for \$16.00.

REMEMBER, however, that if you send us the \$16 for both Vols. I and II on or before January 1st that your order will come under our “Extraordinary Christmas Offer” and that you will in addition to the set of Bendire’s get a copy of Davie’s “Methods in the Art of Taxidermy,” without additional charge—thus really making your set of Bendire’s cheaper than you could obtain them three or four years ago when they were among the “obtainables.”

FRANK H. LATTIN, ALBION, N. Y.

Lattin’s Standard Catalog of North American Birds Eggs.

Enlarged (contains 72 pages) revised, corrected and brought up to date of going to press—March, 1896. Giving all of the new A. O. U. changes and additions. Also divided and subdivided into orders, sub-orders, families, and sub-families.

Values are based on the 1893 ones which were determined by the compiler, from invaluable notes, suggestions and assistance from Major Chas. E. Bendire, J. Parker Norris, Esq., and Captain B. F. Goss. In addition to these notes, which have been carefully reworked, the compiler has had suggestions from over FORTY LEADING AMERICAN OÖLOGISTS, all of which were carefully considered and where advisable, adopted. Lattin’s Catalogue has long been recognized by leading Oölogists as the “Standard.” The compiler intends to issue a new one as soon as this edition is exhausted and desires the assistance of every working Oölogist, in making values, etc. On this account he has concluded to close out this edition at the following rates, postpaid (regular price was 25 cents per copy.) Single copy 10 cents; 3 for 25 cents; 7 for 50 cents; 15 for \$1.00.

Address, FRANK H. LATTIN, ALBION, N. Y.

AUCTION SALE.

Mounted Birds, Shells, Minerals, Opals, Curios, Gems, &c.

The following articles will be sold at auction, January 15, 1899. All bids must be received by mail by 4 p. m. on that day.

The highest bidder in each case will be notified of his purchase and can remit or have goods sent C. O. D.

I have placed a reserve price on each lot and no lower bid will be considered. Parties not wishing the whole of any lot can bid on any part of it. Address all bids to

Robert Burnham,

143 Gallup St., Providence, R. I.

1	1 specimen Arcadiolite, N. S., 2x3, fine	\$ 10	65	1 "	Heulandite, N. S.	10
2	1 " " " " 4x4	25	66	100 lbs.	Hornblende, Mass.	8 00
3	10 lbs. Agatized Wood, Ariz., fine	2 00	67	200 lbs.	Hematite, R. I.	16 00
4	100 lbs. Actinolite, Mass., good	6 00	68	40 lbs.	Pyrite, Col.	3 00
5	100 lbs. Alabaster, Italy, fine	10 00	69	1 specimen	Lava, Ves.	10
7	100 lbs. Albite, N. H., fine	5 00	70	1 "	Leopards, N. C.	25
8	1 specimen Allanite, N. H., 2x3, fine	10	71	1 "	Malachite, Chili.	15
9	1 " " " " Analcite, N. H., 2x3, fine	10	72	10 lbs.	Margaite, Mass.	1 50
10	1 " " " " Amber Baltic Sea	10	73	1 specimen	Masonite, R. I.	10
11	1 " " " " Ankerite, Penn., 2x3	10	74	1 "	Pearl spar, N. Y.	10
12	1 " " " " Andalusite, Mass., good	05	75	10 lbs.	Petrified Wood, Ariz.	80
13	1 " " " " " " " " fine	15	76	10 lbs.	Phyllite, R. I.	70
14	1 " " " " Antimony, Japan, 2x2, fine	15	77	1 specimen	Pyrolusite, Col.	15
15	1 " " " " " " " " 3x4, fine	25	78	10 Quartz	Chrystals, N. Y. and Ark.	20
16	1 " " " " Asbestos, Mass.	10	79	10 "	" " " " " "	30
17	1 " " " " " " " " 3x4	25	80	10 "	" " " " " "	50
18	1 " " " " Azurite, Col.	05	81	10 "	" " " " " "	1 00
19	1 " " " " " " " " 2x3, fine	15	82	100 lbs.	Rhomb Spar, R. I.	5 00
20	1 " " " " Barite, Eng., 2x3, good	10	83	10 lbs.	Scapolite, Mass.	60
21	1 " " " " " " " " 3x4, fine	35	84	1 specimen	Selenite Crystal, Ark.	10
22	100 lbs. Beryl, N. H., good	6 00	85	10 lbs.	Seyberite, Me.	1 00
23	1 specimen Biotite (15 lbs.), Mass., Matrix	1 10	86	4 specimens	Silver Ore	1 00
24	1 specimen Biotite, Mass., 2x3	05	87	1 spec.	Smoky Quartz Crystal, Col.	05
25	1 " " " " " " " " 3x4	10	88	1 "	" " " " Col.	15
26	1 " " " " Black Spinel, N. Y., mat.	25	89	1 "	Sodalite, Me.	10
27	1 " " " " " " " " " "	10	90	1 "	Specular Iron, 2x2 Ala.	10
28	1 " " " " Bowenite, R. I.	10	91	10 lbs.	Sphalerite, Mo.	70
29	1 " " " " Bornite, Col.	10	92	1 specimen	Spene, N. Y.	50
30	1 " " " " Brookite, Ark.	10	93	10 lbs.	Stilbite, N. S.	50
31	40 lbs. Brown Spar, R. I.	2 40	94	5 lbs.	Spodumme, Mass.	40
32	1 specimen Brucite, Pa.	10	95	1 specimen	Sulphur, 4x4	30
33	40 lbs. Buharstone, France	3 00	96	1 "	" " " " Crystal	15
34	1 specimen Calamine, N. Y.	15	97	1 "	Tourmaline, Mass.	25
35	40 lbs. Calcareous Tufa, N. Y.	2 40	98	1 "	Tremolite	25
36	40 lbs. Cantrite, Me.	4 00	99	1 "	Troosite Matrix Xtal.	25
37	1 specimen Catlinite, Minn., 3x5	30	100	1 "	Obsidian (10 lbs.) Mex.	2 25
38	1 " " " " Cerargyrite, Nev., 1 oz.	35	101	1 "	Wollastonite	10
39	1 " " " " Chabazite, N. S.	10	102	1 "	Zincite, N. J.	10
40	1 Chalcedony on Coral, Fla.	20	103	10 Zircon	Crystals	35
41	10 lbs. Chalcocopyrite, Col.	75	104	10 lbs.	Zoelite, Mass.	80
42	1 specimen Chlorite, R. I.	10	105	1 specimen	Nuttallite, 4x5, 2 lbs., Mass	15
43	1 " " " " Chrysocolla, Col.	10	106	1 "	Pink Wernerite, 4x5, 2 lbs., Mass.	15
44	10 lbs. Cinnabar, Cal., fine	4 00	107	4 specimens	Boltonite, 3x3, 1 lb., Mass	12
45	1 specimen Columbite, Conn.	10	108	1 Epidote	in Actinolite, 4x5, 3 lbs., Mass	25
46	400 lbs. Coquina	16 00	109	1 Grey Epidote,	4x4, 1½, Mass.	25
47	1 specimen Copalite, Africa	10	110	1 Grey Epidote,	1½x1½	25
48	1 " " " " Cyanite, Conn.	05	111	1 specimen	Kyanite, Conn., 4x5, 3 lbs.	25
49	10 lbs. Cyanite, Conn.	1 00	112	1 "	Selenite, Mich., 4x6, 1½ lbs.	25
50	1 specimen Diamond, Africa	2 00	113	1 "	Magnesite, Greece	25
51	15 lbs. Diaspore, Mass.	3 75	114	1 "	Porphyritic Granite, N.H.	20
52	15 lbs. Elaeolite, Ark.	90			5x5, 5 lbs.	75
53	40 lbs. Emery, Mass.	3 60	115	1 specimen	Apatite Crystals, N. B., 2x3½	75
54	40 lbs. Epidote, Mass.	3 60	116	1 specimen	Pearl Spar, base, 4x5, 2 Galenite Crystals, 2x2½, 1½x1½ cut by large Calcite Crystals, beauty	1 00
55	1 specimen Flint, Eng.	10	117	1 specimen	smoky Quartz, R. I.	15
56	1 " " " " Franklinite, N. J.	10	118	4 "	Stilbite, 4x4, N. S.	1 50
57	100 lbs. Galenite, Col.	10 00	119	1 "	Smoky Quartz Crystal, 5x5, N. C.	75
58	10 lbs. Galenite, Mass., rare	1 00	120	30 Arrowheads,	different States	90
59	200 lbs. Granite in Matrix, Mass.	18 00	121	10 "	" " " " " "	75
60	400 lbs. Quartz, R. I.	20 00	122	10 "	Obsidian, Mexico	2 50
61	200 lbs., " " " " Geodes, Ill.	16 00	123	10 "	" " " " " "	5 00
62	100 lbs. Chalcedony Geodes, Ill.	10 00	124	10 "	" " " " " "	7 50
63	1 specimen Grapulite, Europe	15	125	10 "	" " " " " "	10 00
64	1 " " " " Bloodstone, Europe	25	126	1 Obsidian	Knife, Mexico	25
			127	1 "	" " " " " "	25
			128	1 "	" " " " " "	40
			129	1 "	" " " " " "	50
			130	1 "	" " " " " "	75
			131	1 "	" " " " " "	1 10
					Mounted Birds on Stands.	
			132	Cooper's Hawk	pouncing on Quail	5 00
			133	American Golden-eye	(see Duck)	3 00

134	Murre, Common Gulleot	1	50	184	1 Epidote, Mass., 5 inch, good	25
135	Rocky Mountain Screech Owl	5	00	185	1 doz. Opals (fine) Mexico	50
136	Rose-breasted Grosbeak	1	01	186	1 doz. " " "	1 00
137	Black and White Warbler.			187	1/2 doz. " " "	1 00
138	Crossbill (Am.)			189	1/2 " " precious Opals, Australia	1 00
139	Chewink, Towhee.			190	1/2 " " " "	1 50
140	Red and Yellow-shouldered Blackbird.			191	1/2 " " " "	1 50
141	Red-shafted Flicker.			192	2 " " " "	2 00
142	Yellow-headed Blackbird.			193	1 " " " "	2 00
143	Wilson's Tern.			194	1 " " " "	3 00
144	Blue Jay.			195	1 " " " Mex. or Aus	5 00
145	Least Sandpiper.			196	1 " " " "	10 00
146	Meadow Lark.			197	1 Tourmaline, S. Paris, Me., fine 1/4 Kt	8 00
147	Sparrow Hawk.			198	1 " " " " 3/4 Kt	12 00
148	Meadow Lark.			199	1 " " " " 1-16Kt	6 00
149	Great Blue Heron.			200	1 " " " " good 1/4 Kt	2 00
				201	1 Aquamarine " " fine 5/8 Kt	6 00
				202	1 " " " " 3/8 Kt	4 00
				203	1 " " " " 3/8 Kt	3 50
				204	1 Red Carbuncle, 10mmx14mm fine	1 50
				205	1 Amethyst Carbuncle, 8x12, fine.	1 50
				206	1 " " " Faceted 8x12 fine	1 00
				207	1 American Turquoise, 3/4 in. x 9-10, fine.	2 00
				208	1 " " " 3 1-16 in. x 1 1/4 fine	1 00
				209	1 Topaz, faceted, 3/4 in. fine.	1 00
				210	1 pr. Sardonyx for sleeve buttons, fine	75
				211	1 pr. Onyx, do	75
				212	4 oz. Rough Opals, specimens different colors to show all kinds and conditions	25
				213	4 oz., better quality	59
				214	4 oz., still better	1 00
				215	1 Topaz specimen crystal	20
				216	1 Ruby " "	20
				217	1 " " large	50
				218	1 Emerald " "	40
				219	1 Sapphire " "	15
				220	1 Diamond	2 00
				221	1 Skookum Stone	
				222	1 Maple Desk 150 years old. Can send drawing. Perfect proof of age and history will be sent on request.	40 00
				223	2 Chairs, solid mahogany, very old, in good repair, each	5 00
				224	1 Table Cloth 6 yards long, 6 napkins. These were the property of Maximilian and used by him in Mexico. Have the coat of arms of Austria. Are very heavy linen.	75 00
				225	1 doz fine hand-painted calendars, 1899, each	15
				226	1 doz. photo views of Providence	15
				227	1 doz. books flowers of New England, hand-painted, each	50
				228	1 Arctic Fox skiu, white	5 50

Fresh Water Shells, polished.

150	1 pair Unio Solidus, rare	75
151	1 " Unio Alatus, Wis.	1 50
152	1 " Unio rectus.	75
153	1 " Unio gibbosus "	75
154	1 " Unio Ligamulines, Wis	85
155	1 " Unio Plicatus, Wis	95
156	1 " Unio Metanever, "	75
157	1 " Unio Trigonus "	1 00

These shells are polished and shine like a mirror.

158	1 dozen Scalloped shells, pierced and polished	25
159	1 Hermite Crab and Shell	10
160	1 Horse Shoe Crab, small	10
161	1 " " 8 inch	20
162	1 Sea Urchin (sand dollar)	05
163	1 dozen Sea Urchins eggs	10
164	1/2 dozen stu. geon plates	20
165	1/2 " " Sea Urch. 4x6 for painting	25
166	1/2 gallon mixed shells	30
167	1/2 doz. White Murex	58
168	1/2 " Pink Murex	68
169	1/2 " Conch Shells	50
170	1/2 " Helmet or Queen Shells	1 00
171	1 doz. large Alligator Teeth	35
172	Large Turtle Shell, (gopher) Fla	75
173	1 Saw-fish-saw, 11 inches, Fla	15
174	1 Trunk Fish "	30
175	1 Porcupine Fish, 5 " "	25
176	Pistol used 50 years ago	50
177	1 piece Mexican Onyx, 8 square in.	25
178	1 " " 16 " " fine	1 00
179	10 " Fossil Coral, 50 square in., fine	2 00
180	11 " black and white Agate, 45 " good	1 60
181	10 " red and white Agate, 40 " "	1 50
182	1 " Moss Agate, Brazil, 4 inch "	25
183	1 " " " 3 " "	10

Advertise in The OÖLOGIST.

The "Country Gentlemen" is the leading Agricultural newspaper in America, and in soliciting advertising for its columns it makes its strongest hit in the following statement:

"AS TO QUANTITY OF CIRCULATION

it publishes many more 'Want Ads' than all other papers combined. You doubtless know what a 'Want Ad' circulation must be and always is?"

From this same stand point the OÖLOGIST's ranks among publications devoted not only to Ornithology but Natural History as well, is identical to that of the COUNTY GENTLEMEN among agricultural publications.

Mr. W. Raine, of Toronto, who purchased \$20 worth of space in the OÖLOGIST for '98 and who has patronized its columns to a greater or less extent for the past ten years, under date of March 2d, writes:

"I do not wish to jolly you but I must say that the OÖLOGIST is the best advertising journal of its kind in this continent. You should see the pile of letters I have received the past two weeks. Many from my old correspondents of years standing. For 12 years I have advertised in every Ornithological journal published in the United States, but none bring as good results as the OÖLOGIST."



"Methods in the Art of Taxidermy,"

BY OLIVER DAVIE.

Author of "Nests and Eggs of North American Birds," etc.

Containing Ninety Full Page Engravings, over Five Hundred Figures minutely illustrating the most practical methods practiced in the art. It teaches in detail, step by step, the Skinning and Stuffing of Birds, Mammals, Crustaceans, Fishes and Reptiles, together with illustrations of forms and Attitudes of the Animal Kingdom. The text is by OLIVER DAVIE, who has made Taxidermy his life study and profession. The originals of the illustrations were made in India ink from time to time as the actual subjects could be obtained from which to make the various procedures. They were drawn by the eminent Bird and Mammal artist, Theodore Jasper, A. M., M. D., whose experience in the Art of Taxidermy extends over a period of fifty years. Every illustration by this artist is a *work of art*. Among these engravings are reproductions from photographs of actual work by American Taxidermists. Each copy of this book is enclosed in box for shipment and is sent *prepaid* upon receipt of price.

**In one Quarto Volume, Silk Cloth,
Gilt top, untrimmed edges, \$7.50.**

(Publisher's price is \$10.)

THE NIDOLOGIST.

By a recent purchase I have obtained all the remaining back numbers of this valuable magazine from its Publisher

The "Nid" was, during its existence, the most popular of all O. and O. publications and was the pioneer illustrated "Bird" magazine.

Back numbers are just as valuable to the collector *today* as they were on the date of issue. Now is the time to fill gaps in your file or to obtain complete volumes. Send your list of wants and obtain prices.—I will make them right.

I now quote, prepaid:

Volume I, lacking No's 2, 4, 6,	\$2.00.
" II, complete,	1.00.
" III, "	2.00.
" IV, "	1.00.

Volumes I to IV, as above, 5.00.

I will send you a package of 14 back numbers all different, my selection, for 75 cents.

Or a package of 25 all different, my selection, for only \$1.25.

Special Numbers.—Vol. II, No. 3 (Nov. '94) contains colored plate of set of four eggs of White-tailed Kite, 15c.

Vol. III, No. 4-5 (Dec. '95) contains full half-tone group of A. O. U. officers and members (41 in all) including Bendire, Ridgway, Coues, Allen, Brewster, Fisher, Sennet, Snufeldt, etc., 25c.

Vol. IV, No. 1 (Sept. '96) contains colored plates of nest and eggs of Western Evening Grosbeak, 20c.

Every person interested in Ornithology and Oology should possess the three special numbers—regular price 60 cents—until Easter will mail the three for **only 30 cents**.

I WANT and will allow good exchange or cash prices for the following issues September, October, November and December, 1893; February, 1894; September and October, '95. Address FRANK H. LATTIN, ALBION, N. Y.

Books.

"Insects injurious to Forest and Shade Trees." Packard, 306 illustrations, 922 pp., text, 40 plates [12 colored.] Second hand but binding in fair condition, full index, postpaid by mail for only.....	\$2 30
"The Architecture of Birds." A treatise on Bird's Nest and Nesting habits. Published in 1833, leather bound, 390 pp., 78 illustrations. Complete and in fine condition considering extreme age. Binding whole, postpaid for only.....	2 00
Maynard's "Key to Eggs of North American Birds," last edition, new, 10 colored plates and cloth binding prepaid.....	1 70
Davie's "Nest and Eggs of North American Birds," 2nd edition, illustrated, paper, prepaid.....	85
Davie's "Naturalist's Manual," a key to the Thrushes, Warblers, Swallows, Wrens and Tanager. Gives full directions for collecting bird's eggs and skins, mounting birds and collecting and mounting insects, 125 pp paper.....	35
Cook's "Birds of Michigan," 168 p., illuminated paper covers, many illus.....	50
"Penkese," a history of the Agassiz Natural History School at Buzzard's Bay, Mass., with extracts from Prof Agassiz's lectures, 95 p., with plate, paper.....	25
Maynard's "Butterflies of Eastern North America," 80 p., life sized colored illustrations of 100 species, cloth. Rare and out of print.....	5 00

Mineral Collections.

No. 1. 75 varieties minerals, all labelled and placed each one in a tray [2x1x¼ inches.] Every one true to name. Will be carefully packed in the trays and shipped by express or freight F. O. B. for only.....	2 00
No. 2. 100 varieties minerals glued in Base, each one on labelled space. Second-hand but in fair condition and complete. Specimens small but fine, showy, varieties. Sent by mail postpaid for only.....	1 00

Shell Collection.

50 varieties shells all labeled with name and locality and placed each one in tray, 2x1x¼ inches. There are 2 to 4 of a kind of some small ones. Will be carefully packed and shipped with trays by express F. O. B. on receipt of.....	\$ 2 00
Above collection without trays by mail postpaid for only.....	1 50

Curios.

Saw-fish saw, a new lot of those oddest of sea curios. 8 to 10 inches long and perfect, postpaid.....	\$ 28
Fine lot of the long South American Porcupine Quills, postpaid.....	06
Shark Teeth, clean and bright, postpaid.....	04
Eye-stones from Fla., genuine, perfect ones, postpaid.....	05
Lucky Tooth of Cod, fine lot of these strange shaped teeth at.....	02
One of each above 5 curios, postpaid.....	40
Blue Starfish [7 in.].....	35
" [8½ in.].....	50
Giant Starfish [14 in.].....	65
Postpaid at prices.	
Address, ERNEST H. SHORT, Albion, N. Y.	

BOOKS FOR THE NATURALIST.

Starred (*) titles are second-hand copies, but as a rule the inside pages are "good as new. Many are practically new, but previous owners' name has been written within.

The unstarred titles are for new books, in a few instances the covers are slightly shelf-worn. Many volumes and sets cannot be duplicated—hence the necessity of sending your order early. When ordering always state whether you have a second choice, or whether you wish money refunded, in case books ordered have been sold.

Many of the volumes offered in this list are taken from my private library and I offer them for sale: First, because I need the room for other books, and Second, because I need the cash to purchase these "other books." See *additional books in future Oölogists*.

IMPORTANT! Lack of time and space prevents my listing more books this month. I have hundreds of other publications in stock and can procure *anything* obtainable. Write your wants.

Remit in most convenient manner, but do not send sums of \$1.00 or over loose in your letter. All books are PREPAID at prices quoted. Address all orders plainly and in full to

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

Beddard's, "Animal Coloration," [\$3.50]... 2 00	"Bulletins of the U. S. National Museum," Nos. 1 to 46 (11 Nos. paper bound, bal. in cloth)..... 30 00
Bendire's "Life Histories of North American Birds." Vol. I..... 9 00	"Reports of National Museum," for years '86, '87, '88, '89 and '91..... 4 00
Vol. II..... 7 50	"Smithsonian Reports," for years '84, '85, (2 vols.), '86, '87, '88, '90, '93, '94, '95..... 7 50
"Bulletin of the Nuttall Ornithological Club," <i>very rare</i> , Vol. III unbound..... 3 00	"U. S. Fish Commission Reports, 1873 to 1887 (lacks '77-'78), 11 large cloth vol., also '94 and '97 in paper, lot 13 vols..... 8 00
Do do, 12 No's, Vol. I lacks No. 2; Vols. II, III, complete; Vol. VI, No. 1 unbound, 12.00..... 7 50	"Hayden Survey Reports," 1867 to 1878, 13 vols..... 7 50
"Auk," Vols I to VII, elegantly bound, cloth and leather, (\$35.00)..... 24 00	"Bulletins of Hayden Survey," Vols. II, and VI, [2 vols.]..... 5 00
Vol. XII, unbound..... 2 25	"Annual Reports of Bureau of Ethnology," 1884 to 1893, 9 vols..... 12 00
Vol. XIII, unbound..... 2 00	"Annual Reports U.S. Geological Survey," 1880-1896, 27 vols..... 18 00
"Ornithologist and Oölogist," 10 vol. (IX to XVIII), 6 in, half morocco, bal. unbound (\$30.00)..... 10 00	Bulletins of the American Museum of "Natural History," Vols. III to IX, complete, [\$30.00]..... 10 00
Do do, 9 vols, X-XVII, 7 bound in cloth and leather, 2 unbound, 18.00..... 7 50	"Scientific American," over 700 back numbers of past 40 years [55 to '97]. Few if any duplicates. Many unobtainable at any price. Publisher's original price about \$50. Lot, only..... 10 00
"Nidologist," Vol I to IV complete, lacking 3 Nos. of Vol. I..... 3 00	Cope, "Vertebrata of Tertiary Formations," 4to, 1043 pp, 134 plates..... 4 00
"The Osprey," Vol. I complete (Vol. II, \$1) 3 00	Lesquereaux, "Cretaceous and Tertiary Floras, 4to, 295 pp, 60 plates..... 2 50
Coues, "Key to North American Birds," 1st Ed. <i>rare</i> , (\$7.00)..... 3 00	Leidy, Fresh Water Rhizopods of North America, 4to, 335pp, 48 ill., 1190 col. figs. 4 00
Davie, "Methods in the Art of Taxidermy" (\$10), now out of print and publishers supply exhausted, will soon be very rare 5 00	Scudder, "Tertiary Insects of North America, 4to, 734pp, 23 plates..... 2 50
Morris, "Nests and Eggs of British Birds," 3 vol. cloth, 1875, 233 col. plates, (\$18)..... 12 00	Thomas, "Acridae of North America," 262 pp, 4to..... 1 50
Wilson & Bonaparte, "American Ornithology," (\$7.00) two nail holes in cover, new 3 50	"Science," Vol. I to XXII, complete. [I to XI in cloth, balance loose]..... 25 00
Studers, "Ornithology or Science of Birds," from text of Brehm. illus. by Jasper. folio, half morocco (\$15.00)..... 8 00	"Nature," Vol. XXXI to XXXIV, unbound, cost \$12..... 4 50
Vennor, "Our Birds of Prey, or the Eagles, Hawks and Owls of Canada" 30 photo plates, (\$12.00)..... 5 00	"Insect Life," Vols. I to VII, complete..... 7 00
Brewer, "Wilson's American Ornithology," half morocco..... 4 00	"Microscopical Bulletin," Vol. I to IX, complete..... 3 00
Gentry, "Life Histories of the Birds of Eastern Pennsylvania," 2 vols., out of print..... 2 50	"The American Monthly Microscopical Journal," Vol. IX to XIII, complete..... 3 00
Stearns and Coues, "New England Bird Life," Part I, Singing Birds (\$2.50)..... 1 25	Wood, "Animate Creation," popular edition of 'Our Living World,' revised and adopted to American Zoology by Holder," 60 parts, complete, 30 page oölographs, 60 plates and in addition profusely illustrated, [\$15]..... 7 50
Dixon, "Rural Bird Life," (\$2.50)..... 1 50	Wood "Animate Creation" complete, elegantly bound in three full morocco vols., \$24.00..... \$15 00
Stejneger, "Ornithology of Commander Is. and Kamschatka," 390 pp., 32 col. plates, map, &c..... 3 00	
Ridgway, "Ornithology of Illinois," 1 vol. 32 plates, 1889..... 3 50	
Hatch, "Birds of Minnesota"..... 2 00	
"THE OÖLOGIST," complete file, 1884 to date..... 5 00	
"Proceedings of U. S. National Museum," 12 vol. cloth, (vols. I to IX, XII, XV and XVI)..... 15 00	

"Scientific American" 1859-1860 in 20 vols. well bound in boards, good condition. \$60.00, only.....\$15 00
 Pennsylvania State 2d Geological Survey, 100 vols. cloth, many plates, maps, figs., &c. thousands of pages, \$100.....\$20 00

JARDINE'S (SIR WILLIAM) NATURALIST'S LIBRARY. Post 8vo. Each volume contains 200 to 350 pp., cloth and gilt, gilt edge, plates engraved on steel and beautifully colored from nature, also many wood cuts, original set of 29 vols. cost \$50.00. Binding poor, text and plates nearly as good as new. Edinburgh, 1835-1840.

Humming-birds, Vol. I, 36 colored plates; with portrait and memoir of Linnaeus.....\$1 15
 Humming-birds, Vol. II, 32 Col. Pl., Por. and Mem. of Pennant..... 1 15
 Peacocks, Pheasants, Turkeys, &c., 20 Col. Pl., Por and Mem. of Aristotle..... 1 30
 Birds of the Game Kind, 32 Col. Pl., Por. and Mem. of Sir Thomas Stamford Raffles..... 1 15
 Columbidae (Pigeons), 32 Col. Pl., Por. and Mem. of Pliny..... 1 30
 Parrots by Selby, 32 Col. Pl., Por. and Mem. of Bewick..... 1 15
 Birds of Western Africa by Swainson Vol. I, 34 Col. Pl., Por. and Mem. of Bruce..... 1 50
 Birds of Western Africa by Swainson, Vol. II, 34 Col. Pl., Por. and Mem. of LeVailant..... 1 45
 Birds of Prey of Great Britain and Ireland, 36 Col. Pl., Por. and Mem. of Sir Robert Sibbald..... 1 50
 Flycatchers; their Natural Arrangement and Relations by Swainson, 33 Col. Pl., Por. and Mem. of Bacon Haller..... 1 45
 Lions, Tigers, &c., 38 Col. Pl., Por. and Mem. of Cuvier..... 1 40
 Deer, Antelope, Camels, &c., 35 Col. Pl., Por. and Mem. of Camper..... 1 25
 Goats, Sheep, Wild and Domestic Cattle, &c., 33 Col. Pl., Por. and Mem. of John Hunter..... 1 30
 Elephants, Rhinoceroses, Tigers, &c. &c., 31 Col. Pl., Por. and Mem. of Sir Hans Sloane..... 1 25
 Whales, 32 Col. Pl., Por. and Mem. of Lacepede..... 1 30
 A History of British Quadrupeds, 36 Col. Pl., Por. and Mem. of Ulysses Aldrovandi..... 1 50
 Walrus and Seals and the Herbivorous Cetacea, Mermaids, &c., by Hamilton, 33 Col. Pl., Por. and Mem. of Francois Peron..... 1 50
 Dogs, Foxes, Hyenas, &c. by Smith, 32 Col. Pl., Por. and Mem. of Don Felix D'Azara..... 1 50
 Fishes of the Perch Genus, &c., 32 Col. Pl., Por. and Mem. of Sir Joseph Banks..... 1 00
 Fishes, particularly their Structure and Economical uses, &c., by Bushnan, 33 Col. Pl., Por. and Mem. of Salviani..... 1 10
 Introduction to Entomology by Duncan, 38 Col. Pl., Mem. of Swammerdam and DeGeer..... 1 35
 Coleopterous Insects by Duncan, 32 Col. Pl., Por. and Mem. of Rae..... 1 35
 British Diurnal Lepidoptera (Butterflies) by Duncan, 36 Col. Pl., Por. and Mem. of Werner..... 1 25
 British Nocturnal Lepidoptera (Moths, Sphinxes, &c.) by Duncan, 32 Col. Pl., Por. and Mem. of Madam Merian..... 1 35
 Foreign Butterflies by Duncan, 33 Col. Pl., Por. and Mem. of Lamarck..... 1 20
 Honey-bee, 32 Col. Pl., Por. and Mem. of Huber..... 1 50

BUFFON'S NATURAL HISTORY (Barr's Buffon"), containing a Theory of the Earth, a General History of Man, of the Brute Creation and of Vegetables, Minerals, etc. From the French with notes by the translator. Ten vols., minus Vol. VI, of about 350 pp. ea. Illustrated by about 200 old copper plates. 12 mo., calf, fine condition. Published in London in 1797. Lot, 9 vols. only.....\$5 00

BUFFON'S ("Barr's Buffon") of Natural History of Birds, Fish, Insects, Reptiles, etc., 5 vols. London 1798 with a supplementary vol. by Sonnini & Virey "containing a description of rare and curious birds discovered since the death of Buffon." London, 1808. Six vols. of about 350 pp. e., over 200 old copper plates, 12mo., calf, fine condition. Lot, six vols.\$4 50

GILISS, U. S. Naval Astronomical Expedition to Southern Hemisphere, 1849-52, Vol. II. The Andes and Pampas; Minerals; Indian Remains; Mammals; Birds by Cassin; Reptiles, Fishes and Crustacea; Shells; Plants; Fossils. 4to., 42 plates, many colored, 300 pp.\$5 00

PERRY, Narrative of the Expedition of an American Explorer to the China Seas and Japan 1852-54. Agriculture; Geology; Birds by Cassin, 32 pp.; Fish; Shells; Botany; etc., etc. 4to., nearly 500 pp., 40 plates, mostly colored, many folding maps, charts, etc.\$3 00

Cruise of the Corwin in the Arctic Ocean, 1855. Seal Fisheries and Sea Otter Hunting Grounds; Exploration of Kowak River; Birds and Fishes of Kowak River and other portions of Alaska by Townsend; Exploration of Noatak River. 4to., 4 colored plates, over 50 illus., maps, 102 pp..... \$3 00

Pacific R. R. Surveys. Reports of Explorations and Surveys for a Railroad from Mississippi River to the Pacific. 4to., 1855. Cost the Government nearly \$20 to publish set of 13 volumes.

Vol. I. General Report etc., of various routes explored, etc., etc. 800 pp..... \$2 50
 Vol. II. Reports by Beckwith, Lander, Pope, Parke, Emory, etc. on routes near 38th, 39th, 41st, 32d, etc. parallels. Geology by Schiel & Blake. Botany by Torrey & Gray. 36 plates, 600 pp.....\$2 75

Vol. IV. Botany of the expedition by Torey, Bigelow, Engelmann, Sullivant, etc. Also Zoology, Astronomy, Meteorology, etc. 500 pp. 36 plates..... \$3 00

Vol. V. Explorations in California. Devoted almost wholly to Geology and Botany. 65 plates, 500 pp.....\$3 00

Vol. VII. Explorations from San Francisco to Los Angeles west of Coast Range; and the Pimas Villages on the Gila to Rio Grande, and San Diego to Ft. Yuma. (Geology, Botany, etc.) 50 pl., 400 pp.....\$2 50

Vol. IX. Pt. 2. Baird, Cassin and Lawrence. Ornithology of the entire Survey. 1062 pp.\$3 50

Vol. XII. Book 1. Explorations from St. Paul to Puget Sound. General Report and Narrative. 400 pp., 70 pl.....\$3 00

Vol. XII. Book 2. Explorations from St. Paul to Puget Sound. Natural History:—Botany 6 pl., 76 pp. Zoology, Insects, Mammals, Birds, by Cooper & Suckley, 150 pp., text and 9 colored plates; Reptiles, Mollusca and Crustacea, 50 pl., 500 pp.....\$4 50

Point Barrow, Alaska Expedition, 1884. Narrative; Ethnology; Meteorology; Magnetism, Tides, etc. Natural History (110 pp. by Murdoch, Mammals, Birds, 25 pp., 2 col. pl., Fishes, Insects, Invertebrates and Plants.) 4to., 700 pp., many illus.....\$5 00

Friedlander, International Zoologists' (Naturalists') Directory, 1895. 740 pp..... \$2 50

Gentry. Life and Immortality or Soul in Plants and Animals, 1897. (\$3.50).....\$2 50

- Rowley. The Art of Taxidermy. Valuable, just out. 20 pl., 59 figs., 244 pp. \$1 50
- Kingsley. The Naturalists' Assistant. \$1 25
- Maunder & Heldsworth. The Treasury of Natural History or Popular Dictionary of Natural Sciences. Over 900 figs., 810 pp. \$1 75
- Boulenger. Reptiles and Batrachians of British India. 213 figs., 542 pp. \$3 40
- Day. Fishes of British India, 2 vols., \$11 figs., 1058 p. \$7 00
- Blanford. Mammals of British India. 200 figs., 618 pp. \$4 00
- Hog Cholera by Bureau of Animal Industry. 16 pl., 198 pp. \$1 00
- Morse. First Book in Zoology. Illus., 190pp. \$ 90
- Morgan. Animal Sketches. \$1 50
- *Tenney. Young Folks' Fishes and Reptiles (\$1.00) 109 figs., 142 pp. \$ 50
- *Steele. Fourteen Weeks in Zoology. 413 figs., 308 pp. \$ 75
- Macalister & Packard. Zoology of the Invertebrates. 77 figs., 144 pp. \$ 55
- Silloway. Some Common Birds. \$1 25
- *Wood. My Feathered Friends. Ills. 490pp. \$ 90
- Wood. Curiosities of Ornithology. 10 col. pl. \$1 50
- Raine. Bird-Nesting in Northwest Canada. Cloth. \$2 00
- Ingersoll. Friends Worth Knowing. Illus. 258 pp. \$1 00
- Swann. The Birds of London. 136 pp. \$1 00
- Van Dyke. Game Birds at Home. \$1 25
- Adams. Nests and Eggs of Familiar Birds. London, 1871. 86 col. eggs. \$1 50
- Bailey. Our Own Birds. \$1 25
- Oologist and Young Oologist. Vols. I, II and III in full morocco. \$2 00
- Elliot's. North American Shore Birds. 74 pl. Cover soiled. \$1 50
- Willcox. Pocket Guide to Common Land Birds of New England. 170 pp. \$ 75
- Geology of the Black Hills, by Newton, Jenney, Whitfield, Cassin, Gray and Tuttle. 4to., 566 pp., 19 pl. With large atlas. \$5 00
- Owen. Report on Geological Survey of Wisconsin. Iowa, Minnesota and Nebraska, 1852. 4to., 638 pp., 75 illus. \$2 00
- *Lyell. A Manual of Elementary Geology. 4th ed., 500 figs., 512 pp. \$1 50
- Thomas. Catalogue of Prehistoric Works East of Rocky Mountains. 17 pl., 246 pp. \$2 00
- Richardson's Model Herbarium and Plant Record. A bound volume for mounting and describing 50 botanical specimens, with a 28 pp. book of instructions, etc. \$1 00
- Goodale. Physiological Botany. 214 figs., 534 pp. \$1 50
- Brown. Atlas of Fossil Conchology of Great Britain and Ireland with descriptions and illustrations of all species. 98 full page tinted steel plates containing 3500 figures. Royal 4to. London, 1889. (\$20.00) New. \$10 00
- Woodward & Tate. Manual of Mollusca—Recent and Fossil Shells. 300 figs., 23 pl. (showing nearly 600 shells), 620 pp. \$3 00
- PACKARD, A. S. Monograph of the Bombycine Moths of America and of Mexico including their Transformations and Origin of the Larvae Markings and Armature. 50 plates, mostly colored, 10 maps. &c. 550 pages, 4to. 1895. \$5 00
- Hampson. Moths of British India, 1892, 333 fig., 528pp. \$3 00
- Forbush & Fernald, The Gypsey Moth, 65pl., 596 pages. \$2 50
- Stevenson, Ceremonial of Hasjelti Dailjis and Mythical Sand Painting of the Navajo Indians, 32 colored plates, 60 pages, (8)
- Murdock, Ethnological Results of the Pt. Barrow (Alaska) expedition, 428 figs, 442pp (9) 3 25
- Bourke, The Medicine Men of the Apache, 20 figs, 8 pl., 162 pages (9). \$1 00
- Mallery, Picture Writing of the American Indians, 54pl, 1290 figs, 822 pages (10). \$3 50
- Thomas Mound, Explorations, 42 pl., 342 figs, 742pp, (12). \$3 50
- Stevenson, The Sia, 25pl., 20 fig, 158pp (11). \$1 25
- Turner, Ethnology of the Ungava District, Hudson Bay Ter., 8pl., 135fig., 152pp(11). \$1 25
- Holmes. Ancient Art of the Providence of Chiriqui, Columbia, 358 figs., 252pp, (6). \$2 00
- Thomas, Aids to the Study of the Maya Codices, 30 figs., 120 pages (6). \$ 75
- Dorsey, Osage Traditions, 26 pages, (6). \$ 35
- Boas, The Central Eskimo, 9 pl., 156 figs., 280 pages, (6). \$2 00
- Powell, Indian Linguistic Families North of Mexico, 142 pages, (7). \$ 75
- Hoffman, The Midewiwin or "Grand Medicine Society" of the Ojibwa, 22pl., 49 fig., 158pp, (7). \$1 25
- Mooney, The Sacred Formulae of the Cherokees, 110 pages, ill., (7). \$ 50
- Mindeleff, A Study of Pueblo Architecture: Tუსany & Cibola, 91 pl., 114 figs, 228pp (8). \$2 25
- Dorsey, A Study of Siouan Cults, 6 pl., 45 fig., 194 pages, (11). \$1 00
- Holmes, Prehistoric Textile Art of Eastern U. S., 9 pl., 28 figs, 46pp, (13). \$ 50
- Fowke Stone Age, 250 figs., 132 pages, (13). \$2 00
- Mindeleff, Aboriginal Remains in Verde Valley, Arizona, 41 pl., 27 figs., 81 pages, (13). \$ 85
- Dorsey, Omaha Dwellings, Furniture and Implements, 22 fig., 26 pages, (13). \$ 35
- Mindeleff: Casa Grande Ruin, 10 pl., 9 fig, 32pp, (13). \$ 35
- Cushing, Outline of Zuni Creation Mythology, 128pp, (13). \$ 75

Ornithology and Oology.

- Coues, E. Key of North American Birds. 6 98
Check List of American Birds. 2 95
- Langille, Rev. J. H. Our Birds in their Haunts. 1 80
- Merriam, Florence A. Birds through an Opera Glass. 68
- Raine, Walter. Bird Nesting in Northwest Canada. 1 80
- Barrow's, The English Sparrow in North America, 400 pp. 65
- Ridgway, Catalogue of Old World Birds in National Museum. 10
- *Warren, Birds of Pennsylvania, 100 colored plates. 3 24
- Short, Birds of Western New York, '96 ed. 10
- The Wilson Quarterly and Semi-Annual, the official organ of the Wilson Ornithological Chapter. Six issues, viz: Vol. I, No. 2; Vol. II, Nos. 1 and 2; Vol. III, No. 1; Vol. IV, No. 1 and 2. Nearly 300 pages of valuable contributions to Ornithology (1.70). 5

Cook, A. J., Birds of Michigan. This copy is the 1893 report of the Michigan Board of Agriculture which contains 626 pages and is bound in cloth, 165 of these pages, illustrated with 115 engravings, are devoted to the Birds of Michigan in addition to which and the annual report the following Bulletins are also published in the volume: "Vegetable Tests" 27 pages; "Spurry, <i>Spergula arvensis</i> ," 6 pages; "Flat Pea, <i>Lathyrus silvestris</i> ," 5 pages; Fruit Notes and Spraying 17 pages; Potato Experiment, 59 pages; Honey Analysis, 13 pages; Inspection of Fertilizers, 12 pages; Locust and Horn Fly, 6 pages; Soils of Michigan, 13 pages; Eighty New Strawberries, 13 pages; Report of exhibit at Columbian Exposition, (Entomological, Botanical, Chemical, &c.) 37 pages; Forestry, 21 pages.....	97	Ridgeway, American Falconidae, 92p.....	75
Shufeldt, M. D., R. W., "Scientific Taxidermy for Museums." 71 full page plates, 67 pages, text, unbound.....	1 10	American Heriodynes, 34p.....	50
Young Oologist, Vol. I and II, cloth bound.....	65	Aquatic and Fish Eating Birds, 52p.....	50
Oologist, Vol. III and IV, cloth bound.....	60	Catalogue of North American Birds, 84p.....	35
Vol. IX, '92, 300 pages, cloth bound.....	67	Directions for Collecting Birds.....	25
Thirty back numbers, issued from 1890 to 1896, inclusive, my selection.....	63	Hummingbirds, 132p, 46 plates, 47 fig.....	2 00
Oologist and Young Oologist. Eighty back numbers. All different. (4.00). Lot prepaid only.....	1 40	Nomenclature of N. A. Birds, 94p.....	35
Twenty back numbers issued prior to 1890, my selection, prepaid.....	41	Sennett, Ornithology of Lower Rio Grande 136p.....	1 25
Almost any back issue can be furnished. Send stamp for list and prices.		Shufeldt, Comparative Oology of North American Birds, 34p.....	50
Natural Science News. Vol. I complete, 52 numbers, only six complete vols. left. Will send you one for only.....	1 00	Smithsonian Instructions for Collecting Nests and Eggs.....	25
Vol. II complete, 14 numbers, only.....	30	Thompson, Birds of Manitoba, 188p.....	1 50
Ornithological and Natural History Publications can furnish back No's of almost anything published in America during the past 25 years. Write wants.		Tristram, Field Study in Ornithology.....	25
Fill your gaps while you can. I can now furnish odd numbers, complete volumes and in some cases complete files of the following and dozens of others: <i>Auk, Nidologist, Osprey, Ornithologist and Oologist, Science, Popular Science Monthly, Nature, Canadian Entomologist, Insect Life, American Naturalist, Archaeologist, Nautilus, Microscopical Bulletin, Microscope, Microscopical Journal, Hoosier Naturalist, Oregon Naturalist, Iowa Ornithologist, Sunny South Oologist, Taxidermist, Mineral Collector, Hawk-eye Ornithologist and Oologist, Wisconsin Naturalist, Old Curiosity Shop, Ornithologist and Botanist, Bay State Oologist, Collector's Monthly, Random Notes, &c., &c.</i>		A. O. U. Check List of North American Birds. Last edition, cloth.....	1 90
Coues, American Ornithological Bibliography Systematically Arranged by Families, 536p.....	2 00	Apgar, A.; Pocket Key of the Birds of the Northern United States East of the Rocky Mountains (50).....	40
Do do do. Faunal Publications, other than North American, 92p.....	75	Chamberlain, New and revised edition. Nuttall's Land, Game and Water Birds, colored plates and many illustrations, 2 vols.....	6 50
Coues & Prentiss, Avi Fauna Columbiana, (Birds of District of Columbia) revised edition, 134 p. 100 fig.....	1 50	*Chapman, Frank M., Birds Found within Fifty Miles of New York City (50).....	30
*Fisher, Hawks and Owls of U. S. 210p. 25 colored plates.....	3 00	Chapman, Frank M., A Handbook of the Birds of Eastern North America.....	2 85
Hatch, Birds of Minnesota, 488p.....	2 50	Earl, Thos. M., Pets of the Household, Their Care in Health and Disease (50).....	25
Leverkuhn, <i>Fremde Eier im Neste</i> , 214p.....	1 00	Goss, Col. N. S., History of the Birds of Kansas (7.50).....	5 60
Lucas, History and Anatomy of Great Auk, 38p, 2 plates.....	35	McIlwraith, Thomas, Birds of Ontario (2.00).....	1 65
Merrill, Ornithology of Southern Texas, 56p, 3 plates.....	75	Ridgway, Robt., Manual of North American Birds (7.50).....	6 50
Ingersoll, E., Birds' Nesting [1.25].....	1 00	Stearns, W. A., Bird Life in Labrador [75].....	60
Maynard, Chas. J., Eggs of North American Birds.....	1 90	*Morris, Nests and Eggs of British Birds. Vol. 2, 154 colored plates, 1859.....	6 00
		Wilcox, Common Land Birds of New England.....	60
		Eliot, List of Described Species of Hummingbirds.....	13
		Louck's, Life History and Distribution of the Prothonotary Warbler in Illinois.....	30
		Cooke, Bird Migration of Mississippi Valley, 312 pp.....	1 00
		Birds of Colorado, 142 pp.....	1 00
		Stejneger, Arrangement of American Turdidae, 36 p., many fig.....	50
		Ornithological Explorations in the Commander Islands and Kamtschka 382 p., 7 col. pl., cloth.....	3 00
		Reid, Birds of Bermuda, 122 p.....	1 00
		Coues, Birds of Dakota and Montana, 118	1 20
		Check-list of N. A. Birds, 137 p.....	75
		Passer domesticus, 20 p.....	25
		Publications Relating to British Birds	1 00
		Coues & Kidder, Ornithology of Kerquellan Island, 51 p.....	50
		Davie, Nest and Eggs of N. A. Birds, 2d ed., 184 p., 7 pl.....	1 00
		Evermann, Birds of Carroll County, Ind. 20 p.....	45
		Ornithology of Death Valley Expedition, 158 p.....	1 00
		Foster, Biographical Sketch and Published Writings of Geo. N. Lawrence, 124 p., pl.....	60
		Address,	
		FRANK H. LATTIN, ALBION, N. Y.	

BOOKS FOR THE NATURALIST.

Starred (*) titles are second-hand copies, but as a rule the inside pages are "good as new." Many are practically new, but previous owners' name has been written within.

The unstarred titles are for new books, in a few instances the covers are slightly shelf-worn. Many volumes and sets cannot be duplicated—hence the necessity of sending your order early. When ordering always state whether you have a second choice, or whether you wish money refunded, in case books ordered have been sold.

Many of the volumes offered in this list are taken from my private library and I offer them for sale: First, because I need the room for other books, and Second, because I need the cash to purchase these "other books." See *additional books in future Oölogists*.

IMPORTANT! Lack of time and space prevents my listing more books this month. I have hundreds of other publications in stock and can procure *anything* obtainable. Write your wants.

Remit in most convenient manner, but do not send sums of \$1.00 or over loose in your letter. All books are PREPAID at prices quoted. Address all orders plainly and in full to

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

Jordan, Science Sketches (1.50).....	1 25	Synopsis of U. S. Collections, Gt. Int. Fish Ex., 106 p.....	50
Bilby, Young Folks' Natural History.....	40	Fishes of St. Johns River, East Coast and Penracola, Fla., 48 p.....	50
Gill, Catalogue of the Fishes of the East Coast of North America.....	16	Gill, Bibliography of Fishes of Pacific Coast, 74 p.....	50
Fauna of Death Valley, Expedition. Birds, Reptiles, Fishes, Insects, Mollusks, Trees and Shrubs, Cactuses and Yucas, Localities.....	1 13	Jordan, Review of Rafinesque's Memoirs on N. A. Fishes, 53 p.....	35
Fauna of British India, including Ceylon and Burmah.		Contributions to N. A. Ichthyology—(<i>Etheostomatidæ</i> , <i>Perchidæ</i> , <i>Siluridæ</i> , etc., etc.) 120 p, 45 plates.....	1 00
Moths, 1 vol., 330 cuts.....		— & Brayton, Fishes of Alleghany Reg. of So. Car. Ga. and Tenn., 96 p.....	50
Mammals, 1 vol., 203 cuts.....		Synopsis of Family <i>Catostomida</i> ("Suckers"), 140 p.....	75
Fish, 2 vols., 340 cuts.....		— & Gilbert, Synopsis of Fishes of N. A., 1018 pp.....	3 50
Reptiles and Batrachia, 1 vol., 140 cuts..		— et al, Fish of E. Fla.; Des. of many Pacific Fish (Calif.-Alaska), etc., 132 p.	75
Five volumes, 2,750 pages, 1 000 illustrations.....	11 00	Fishes of Pacific Coast of U. S., 72 p.....	50
Burroughs, Riverby (1.25).....	1 00	— & Gilbert, Fishes of Pensacola, Fla. and Galveston, Tex., 66 p.....	50
Penikese, The 23 issues of Natural Science News. This valuable serial on Agassiz's famous summer school at Penikese Island, written by an eminent Professor who spent both seasons at the Island.....	25	— & Gilbert, Fishes of Charleston, South Carolina; Panama, 52 p.....	35
Penikese, book form, paper covers (50)...	35	Fishes of Key West, Fla., 48 p.....	35
Bailey, The Prairie Ground Squirrel or Spermophiles of the Mississippi Valley.....	66	List of Fishes of W. I., 55 p.....	35
Ichthyology, Conchology and Sea Products.		Catalogue of Fresh Water Fishes of N. A., 36 p.....	25
*Dana, Jas. D., Corals and Coral Islands (5.00).....	2 67	Kidder, Animal Heat of Fishes, 24 p.....	25
Pilsbry, H. A., The Manual of Conchology. Issued in 8vo form in quarterly parts. Each part contains 64 or more pages of letter press and 15 to 20 plates. Of Marine Univalves, 15 vols., 60 parts, have appeared. Of Terrestrial Molluscs, 9 vols., 36 parts, have been published, completing Helix with Index. Fine edition, both colored and Indiantinted plates, per part \$8 00; Sample part of fine edition on "Tree Snails," cost \$8.00.....	3 65	Lockington, Pleuronectidæ of San Francisco, 40 p.....	35
*Chenu, Manuel de Conchyliologie et de Paleontologie Conchyliologique, Vol. I.—Univalves, 3707 figures.....	7 56	McMerrich, Actinia of the Albatross Expedition with Classification of Anthozoa, 98 p., 15 pl.....	75
Clarke, Common Sea Weeds, col pl.....	45	Rathbun, Economic Crustaceans, Worms, Echinoderms and Sponges, 32 p.....	35
Wood's Common Shells of the Sea Shore	45	Scientific Investigation of the Sea and Fresh Waters, 112 p.....	75
Tryon, Strepomatidæ, American Melanians, 838 figures, 436pp.....	2 81	Catalogue of Recent Echni, 38 p.....	35
Goode, Fishes of the Bermudas, 82 p.....	50	Crabs of Family Pericleridæ, 46 p., 13 pl.....	50
Exhibit of U. S. Fisheries and Fish Culture at Berlin, 264 p.....	1 25	Crabs of Family Malidæ, 42 p., 6 pl.....	50
Descriptive Catalogue of Collections from U. S. to Gt. Int. Fish. Ex., London, '83, 1334 p.....	3 50	Smith, Crustacea Dredged in 64 to 325 fathoms off S. N. E. Coast, 40 p.....	35
		Crustacea of Labrador.....	25
		Brachyura and Anomura of S. Coast of N. E., 56 p.....	50
		Stearns, West American Shells, 22 p., 3 pl.	35
		Shells from W. Coast of S. A., 30 p.....	25
		West African Mollusks, 24 p.....	25
		Mollusks of Galpagos Is., 98 p., 2 pl.....	75

Simpson, Notes on Unionidæ of Fla. and S. E. States, 32 p., 26 pl.	75	Le Conte, Rocky Mt. Coleoptera, 56 p.	35
True, A Review of the Family Delphinidæ, 192 p., 47 pl.	2 00	Marx, Aradidæ of N. A., 98 p.	50
Collecting and Preserving Whales and Porpoises, 24 p., 11 pl.	35	Packard, The Phyllopod Crustacea of N. A., 298 p., 39 pl., 73 fig.	2 00
Verrill, Marine Invertebrata of N. E. Coast of America, 40 p.	35	Rocky Mt. Locust and Other Insects Injurious to Garden and Field Crops of W. States and Tex., 228 p., 9 pl., 67 fig. ..	1 25
Mollusca, Annelida, Echinodermata, etc. from N. E. Coast of America, 54 p.	35	Directions for Collecting and Preserving Insects, 54 p., 55 fig.	40
Winslow, Economic Mollusca, etc., 86 p.	50	Riley, Directions for Collecting and Preserving Insects, 148 p., 140 fig.	75
Williamson, Shells of San Pedro Bay, 42 p., 5 pl.	50	Packard and Thomas 3d Report U. S. Ent. Com., 450 p., 64 plates.	2 50
Brown, The Whale Fishery and Its Appliances, 116 p.	75	— et al, Insect of Death Valley Ex. 34 p.	35
Bidney, A Manual of N. A. Land Shells, 518 pp., 516 fig.	3 50	Catalogue of Published Synopsis, Catalogues and Lists of N. A. Insects with other Information to assist the student, 78 p.	50
Bibliography of N. A. Conchology by American Authors, 650 pp.	2 00	do do do by Foreign Authors.	1 25
do do do by Foreign Authors.	1 25	Smith, Lepidopterous Family, Noctuidæ of Temperate N. A., 234 p., 5 pl.	1 25
Bean, Collection of U. Fishes at Gt. Int. Fish. Ex., 124 p.	50	Lepidopterous Super-family, Noctuidæ, in Boreal America, 424 p.	1 75
U. S. Coll. of European Fishes, 36 p.	25	Revision of Homohadena and Hadena, 52 p., 2 pl.	35
Directions for Collecting and Preserving Fish.	10	Revision of the Mamestra, 80 p., 4 pl.	50
Catalogue of Fishes of Alaska and Adjacent Waters, 34 p.	50	Williston, Synopsis of the N. A. Syrphidæ, 336 p., 12 pl.	1 50
Clark, Fishery Products and Apparatus Used in Preparation, 124 p.	75	Eberhart, N. M., Elements of Entomology Economic Entomology.	30
Collins, Fishing Vessels and Boats and Their Equipment; Economic Condition of Fisherman; Angler's Outfits, etc., 180 p.	1 00	Hyatt's Insects (1.25).....	81
Dall, Index to Names Applied to Sub-divisions of Brachiopoda, 83 p.	60	Thomas, Synopsis of the <i>Acrididæ</i> of No. America, 4to, 262pp.	1 60
Marine Mollusks of the S. E. Coast of U. S., 222 p., 74 pl. con., 700 fig.	3 50	Ethnology and Archæology.	
Instructions for Collecting Mollusks and Other Useful Hints for the Conchologist, 56 p., ill.	50	Eells, Indians of Washingtons, 73 p.	50
Limpets and Chitons of Alaskan and Arctic Regions, 64 p.	50	Mason, Aboriginal Skin Dressing, 38 p., 33 pl.	50
Florida Land and Fresh Water Shells. 35 p	35	Primitive Travel and Transportation, 358 p., 25 pl., 260 fig.	2 00
Mollusca and Brachiopoda of Albatross Exploration, 144 p., 10 pl., 105 fig.	1 50	N. A. Bows, Arrows and Quivers, 50 p., 58 pl.	1 00
Earll, Apparatus for the Capture of Fish, 206 p.	1 00	McGuire, Primitive Methods of Drilling, 132 p., 301 fig.	1 00
Fish Cultural Exhibit, 96 p.	50	Powell, Reports of Bureau of Ethnology 4to, with maps and plates (many colored). Can furnish complete sets. Odd volumes each \$2 to \$5. Write wants.	
Eigenmann, Fishes of San Diego, Calif., 50 p. Fresh Water Fish of So. America, 82 p.	35	Rau, Directions for Collecting Aboriginal Antiquities.	15
Evermann & Jenkins, Fishes from Guaymas, (Mex.) 46 p.	35	Thomas, Directions for Mound Exploration	10
Entomology.		Thompson, Te Pito Te Heuna or Easter Island, 106 p., 49 pl.	1 00
Ashmead, Monograph of N. A. Proctotrypidæ, 472 p., 18 plates.	\$2 50	Wilson, The Swastika: Migration of Industries in Prehistoric Times, 256 p., 25 pl., 374 fig.	2 00
Descriptions of Ichneumonidæ, 66 p.	35	Wilson, Criminal Anthropology, 70 p.	40
Bailman, The Myriapoda of N. A., 210 p.	1 25	Stud of Prehistoric Anthropology, Hand Book for Beginners, 76 p., 20 pl., 287 fig.	1 00
Chambers, Index to Tineina of U. S. and Canada, 44 p.	35	Botany.	
Dodge, Life and Entomological Work of T. Glover, 68 p.	50	Coulter, Manual of Plants of Western Texas, The Polypetalæ, 156pp.	\$ 1 60
Edwards, Bibliographical Catalogue of Transformations of N. A. Lepidoptera, 148 p.	75	Do do do. The Gamopetalæ, 250pp.	1 25
Fernald, Directions for Collecting, Preserving and Transporting Small Moths	15	Do do do. The Apetalæ, Monocotyledonæ, Pteridophyta, 250pp.	1 50
Forel, Ants' Nests, 28 p., 2 pl.	25	Revision of North American Cactuses, 44pp.	35
Grote, N. A. Pyralidæ, 38 p., 14 fig.	35	Plants of Rio Grande, 40pp.	35
		Revision of Echinocactus, Cereus and Opuntia, 112pp.	75
		Carleton, Plants of Oklahoma and Indian Territory, 50pp.	50

Coville, Botany of the Death Valley Expedition, 320pp, 22 plates.....	2 00	Merrill, Hand-book and Catalogue of Building and Ornamental Stones in U. S. Nat. Museum, 372 p.....	1 50
Eggers, Flora of St. Croix and Virgin Isles, 134pp.....	75	Hand-Book of Dept. Geology of U. S. Nat. Museum, 50 p.....	35
Flint, Catalogue of U. S. Materia Medica Collection, 48pp.....	25	Geology: Materials of the Earths Crust, 90 p., 12 pl.....	50
Gray & Hooker, Rocky Mt. Flora, 78pp....	50	The Onyx Marbles, 48 p., 18 pl.....	50
Havard, Flora of Western and Southern Texas, 84pp.....	35	St. John, Geology of Wind River (Wyo.) District, 100 p., 49 pl.....	1 00
Holzinger, Plants of Northern Idaho, 96pp	50	White, Cretaceous Fossils of Western Sts. and Ter., 84 p., 18 pl.....	1 00
Hitchcock & Rose, Flora of Southwest Kansas and Big Horn Mountains, 80pp 8 plates.....	50	Fossils of the Laramie Group, 66 p. 11 pl.	75
Knowlton, Directions for collecting Plants, 40pp, 9 fig.....	25	Relation of Biology to Geological Investigation, 124 p.....	75
Leiberg, Botany of Coeur D'aleine Mountains, Idaho, 84pp.....	50	— & Nicholson, Bibliography of N. A. Palaeontology, 132 p.....	1 00
Merriam, Desert Trees and Shrubs of Death Valley, 60pp.....	35	Cope, Vertebrata of Tertiary Formations, 4to, 1043 pp, 134 plates.....	8 6 00
Rose, Plants of Sonora and Colima, Mexico, 150pp, 13 plates, 10 fig.....	75	Lesquereaux, Cretaceous and Tertiary Floras, 4to, 295pp, 60 plates.....	4 25
Rydberg, Flora of Sand Hills of Neb., 72pp	40	Leidy, Fresh Water Rhizopods of North America, 4to, 335pp, 48 ill., 1190 col. figs	4 25
Flora of Black Hills, Dakota, 80pp.....	40	Scudder, Tertiary Insects of North America, 4to, 734pp, 28 plates.....	3 25
Vasey, Grasses of the Southwest (Desert region of Western Texas, New Mexico, Arizona, South California). Vol. I, 100pp, 50 plates.....	1 00	U. S. Geological Survey, Annual Reports. Can furnish complete sets or odd volumes at from \$1 to \$3 each. Write wants.	
Vol. II, 100pp, 50 plates.....	1 00	Pacific Railroad Survey. Report of Explorations west of Mississippi River, 13 vol., cost \$200, 4to, over 7000 pages, 640 plates, &c., &c. Birds, Mammals, Fishes, Reptiles, Botany, Geology, Palaeontology, &c. Freight at purchasers expense. Only.....	15 00
Grasses of Pacific Slope (California, Oregon, Washington, New Mexico Coast and Alaska). Vol. I, 100pp, 50 plates.....	1 00	Odd volumes \$2 to \$5 each. Write wants.	
Vol. II, 100pp, 50 plates.....	1 00	Hayden, U. S. Geological and Geographical Survey of Territories. Annual Reports. Bulletins, &c. Write wants.	
Grasses of the South, 64pp, 16 plates....	75	Wheeler, Geological Survey west of 100th Meridian. Reports. Write wants.	
Grasses of U. S. and British Amer. 100pp.	75	*Dana, Geological Story (1.15).....	81
Ward, Flora of Washington, D. C. and Vicinity, 266pp:.....	1 50	Dana, Minerals and How to Study Them..	1 35
Burgess, J. T., English Wild Flowers.....	36	*Hitchcock's Elementary Geology.....	50
*Wood, A., Object Lessons in Botany (1.17)	75	Jordan's Elementary Crystallography, with series of nets, for the construction of Crystals (1.50).....	52
*Class Book of Botany (2.92).....	1 13		
Gray Asa, School and Field Book of Botany (1.80).....	1 12		
Manual of Botany, rev. (1.82).....	1 45		
Apgar, Pocket Key to Trees.....	40		
Geology and Mineralogy.			
*Dana, Manual of Geology, 1st Ed., 800 p., over 1000 figs. (85).....	2 00		
Do, do, 2d ed.....	2 50		
*Do, do, 4th (last) ed. nearly 1100pp, 1575 figs.....	4 00		
Dewey, Economic Geology and Metallurgy, 256 p., 34 plates.....	1 50		
Egelston, Catalogue of Minerals and Synonyms, Alphabetically arranged for Museum use, 198 p.....	1 00		
Gurney, Crystallography, 128 p. 46 fig.....	50		
Hayden, Geological Survey of Idaho and Wyoming by Endlich, White, Peale, St. John, et al., 880 p., 76 pl.....	3 00		
Hayden Survey Case containing 7 large Geological Maps of Wyoming, Idaho, Utah, Yellowstone Park etc.....	1 00		
Hayden Survey of Wyoming. Preliminary Report, Geology Paleontology. etc., 512 p.....	2 00		
Hayden Survey, Yellowstone National Park. Geology by Holmes; Thermal Springs, Peale; Topography, Gannet, 528 p., 96 plates, 32 g., 10 maps.....	3 00		
Marcon, Bibliography of Publications relating to Fossil Invertebrates, 334 p.....	1 50		
Catalogue of Mesozoic and Cenozoic Fossils, 54 p.....	35		

NEW ENGLAND MINERALS.

Rhomb Spar, R. I., Beryl, N. H.: Actinolite, R. I.; Galenite, Mass. $\frac{1}{4}$ pound specimens of either *postpaid* for only 10 cents; or the four for only 30 cents.

The above is only a sample of the bargains I am offering in New England Minerals. Write your wants and send for lists. I handle only good fresh material—no rubbish.

ROBERT BURNHAM,

No. 143 Gallup St., PROVIDENCE, R. I.

H. H. & C. S. BRIMLEY,
COLLECTORS, RALEIGH, N. C.

First-class Skins of Birds and Mammals, Bird's Eggs, Reptiles and Batrachia both Alive and in Alcohol. Histological Material. Full data. Send stamp for lists.

Date.....1898.

FRANK H. LATTIN, Publisher, Albion, N. Y.

Enclosed find 50 cents for which send THE OÖLOGIST one year, including one Exchange Coupon and \$1.00 worth of Premiums to the following address

Name.....

P. O. Box or Street Address.....

County..... Post-Office..... State.....

I select the following for my One Dollar's worth of premiums.....

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

Remember.—That for **only 50 cents** every subscriber will receive THE OÖLOGIST, as issued, for one year, and in *addition* will receive by return mail, one exchange coupon and \$1.00 worth of premiums as offered on back of this blank. Write above the ones you prefer and mark on back of this blank a few extras to be used in case we should be out of your first choice. **This offer will hold good until Easter, 1899.**

BE SURE and address all of your letters and orders plainly and in full to
FRANK H. LATTIN, Albion, Orleans Co., N. Y.





AMNH LIBRARY



100103621