

My Bittern Bog,

By P. B. Peabody.

Ptarmigans,

By Morris Gibbs.

A Day A-Field,

By Glen M. Hathorn.

Editorials,

Edited and Published by Glen M. Hathorn.

# THE GREATEST PHOTOGRAPHIC OFFER EVER MADE!

# **NEHRING'S**

Set of

## CONVERTIBLE AMPLISCOPES

Put up in a neat case containing:

I COPYING AND ENLARGING LENS.

I PORTRAIT LENS.

I WIDE ANGLE LENS.

I TELE PHOTO LENS.

I ORTHOCHROMATIC RAY SCREEN.

These Lenses can be used with any Camera made fitted with a Rectilinear or Anastigmat Lens.

Price, per set, containing the above Lenses:

4x5-\$5.00. 5x7-\$6.00.

The above Lenses can also be had singly at \$2.00 each in the 4x5 and \$2.25 each in the 5x7.

Special prices will be quoted on larger sizes.

U. NEHRING,

16 E. 42d Street.

NEW YORK.

## The Bittern.

Vol. 1. Cedar Rapids, Iowa, June, 1900. No. 1.

### My Bittern Bog.

JBy D. JB. Deabody.

Even a very little exercise of the ornithological faculty, afield, backed by a modicum of common sense, will often demolish many a fine-spun book theory; or puncture a favorite popular delusion. Our ornithological Fathers thought that swallows lay dormant in the mud, over winter but the veriest beginner now knows better.

Likewise, the ornithological faddist would seem long to have believed that our unique friend, the American Bittern, not only lives, but has his nascent being, in the bogs. But those of us who found, with wonder, our first bittern nest on upland ground, among the moccasin flowers and the hazel bushes, and have gone on finding others quite similarly situated, as a rule, must have our little smile at some of the things we see in print, regarding the Bittern's nesting habits.

Seriously, save where the Bittern makes his summer home among the great marshes, his marked preference for a nesting-site is a rather elevated bit of ground among the weeds and upland shrubs. We may venture two reasons for this habit: dread of his ancestral foes, the mink and the skunk; and a corresponding fear of the water overflowing. Yet even on the upland sites, whereon no standing water can invade, the nest is usually well built of weeds and grass. While generally well concealed by the natural surroundings, it is not canopied, for manifest reasons.

The ardent bird-student must confess to having, in general, among the nests of every species of bird whose habits have most greatly interested him, some one or two that stand out in his memory with special prominence. One of such, with the writer, is a Bittern nest.

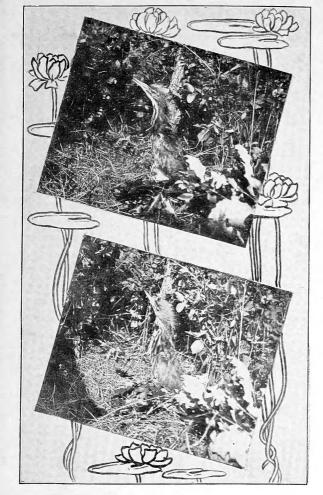


Photo by P. B. PEABODY.

In this particular case, My Bittern Bog was an upland knoll. Amid thick growths of hazel, ivy, and golden-rod the mother Bittern had scratched a rudimentary hole; assembled three sticks, a weed or two and a tiny wisp of hay; and laid one egg thereon.

Later, four other eggs were added; and the nest built up about them into a neat and goodly bed. In due time, the eggs were hatched. Two exquisite negatives were fortunately secured, when two of the young were one and two days old, respectively; the other eggs being, as yet, unhatched.

At this stage, the little fellows, quite radiant in their tall, wavy pompadours, were utterly fearless. But six days brought a change. The gawky changelings now made impudent faces at the camera; and would habitually straddle off into the grass just as all was ready, and one was waiting for a fine pose.

During these visits the mother bird seemed quite indifferent to human presence; flushing at a dozen feet or so, and leaving the site at once. The food of the young, from first to last, seemed to be frogs and craw-fish, altogether. There was no water nearer the nest

than forty rods; and it was impossible to say how the growing young were supplied with moisture.

Apparently, the mother led the young away from the nest, on finding human visits quite incessant. For this reason, and because of the ever-growing fear in the young birds, it became necessary to tether a couple of the ridiculous things for photographic purposes. No inconvenience or hindrance seemed to result from this novel confinement.

The accompanying photographs show one of the birds at three weeks old,-the mature feathers being at that time quite full grown. The stake-like pose was incited by my pointer, who came within some twenty feet of the nest-though hardly in sight-amid his incessant quest. None of the birds had ever taken this pose before. Their only greeting to me, -and it had been a frequent one,-was an open-beaked hissing, with all the stridence of a watchman's rattle; no posing in all that, -as most of my photographic studies testify. I fell to wondering, after I had snapped the hundredth part of a second's time upon that rigid simulation, how that three-week's-old baby knew that my pointer

was a dog; and why it was that he had never looked at me that way.

The conditions under which these Bitterns matured, having thus been quite abnormal, one can venture no theories regarding the nesting habits of these birds, from hatching to maturity. I might, however, state my experience with a brood that hatched, three seasons before, about a mile from the site indicated, at the top of a rather high, bushy knoll skirting the wooded river. In lateJune, I found a full-grown young one at the base of this knoll; in a bit of meadow; he having wandered thither from the nest; which I found, five minutes later, amid dense hazels and at the edge of a path. One full-grown young was still on the nest,-which was a mass of excrement and food-remains. This, -I regret to say,-I neglected to examine. Mamma Bittern was close by; but flushed at once, and flew away.

But I have not told of my Bittern Bog, for there WAS a bittern bog. It lay in Southern Minnesota, winding, snake-like, amid dense poplar, cherry and black-oak brushland. I found the rude nest, half-way across the narrow belt of coarse grass, in a few inches of water, when there were two eggs. When I visited the spot again, I found that one egg had been added; but that one had been sucked by crows,—the other two having been removed ten feet from the original site, by the parent birds.

Not satisfied with the look of things, I began a search,—this time amid denser dead grass; arguing that, if crows had once despoiled the nest, the Bitterns would seek a more secluded site. And sure enough, I found the new nest in a clump of dead grass, two hundred feet from the original spot. It contained two eggs. The concealment was complete; and I was glad, indeed, to learn that experience may leave even a Bittern not only sadder,—but wiser.

HALLOCK, MINN.

Written for THE BITTERN.

### Ptarmigans.

By Morris Gibbs.

There are accounted four species and four varieties of Ptarmigans in America. haps the varieties are unstable; it is quite likely, as scientists are apt to multiply the creatures of this and other lands, and, for the sake of the study and glory, bring a slight differentiation to the notice of the public. Commonly considered, there are three wellknown species,-namely, the Willow, Rock and White-tailed Ptarmigans. These are mainly found north of the northern boundaries of the Union, and it is rare to hear of specimens being taken in the states east of the Big River; but in the range of the Rockies and Cascades these birds are taken as far south as the 32nd parallel; and are exceedingly common as low as the 36th parallel, where they nest and find quarters suitable to their requirements, and are comfortable at an elevation of 6,000 to 10,000 feet up the mountains, which makes the conditions correspond with the much more northern latitudes generally selected by most of these birds of the snow fields.

The winter costume of the Ptarmigan is a coat of pure white, with the exception of the central tail feathers, which are black, tipped with white. This plumage makes the chances of the birds good for escaping observation when pursued by their enemies. The birds are naturally unsuspicious and when pursued, if not too closely, will rely on their coloration, or lack of it,—as we may say in this case,—in their method of escape. It is very difficult to discover a crouching bird on the snow, and it is not rare to run on a pair or more and get them up before one is aware of their presence. These birds burrow in the snow when pursued, after the manner of the Canada Grouse and others of the family. They are also said to burrow in snow to seek protection from the cold, which is a reasonable conclusion.

Ptarmigans are found at the extreme north and have been recorded by all of the arctic

expeditions, and at times they have formed an agreeable part of the winter fare of the northern explorers. The flesh is excellent at most times, but at certain seasons the birds are given to feeding on certain coniferous buds, after the manner of the Canada Grouse, and the common ruffed grouse and others, and the flesh has, at times, a rather too strong balsamic flavor, which renders it unfit for a critical taste. In Europe, where this bird is held in high repute, thousands are yearly taken into England and France for the table. These birds are mainly imported from Scotland, Norway and Sweden, and the same species, which is taken in Europe, is said to be taken in the northern part of this continent.

The summer plumage of the Ptarmigans is a grayish, spotted with brown, and as different from the winter coat as could possibly be. In the spring the hens seek suitable spots, often beneath the sheltering branches of drooping evergreens, and constructing a rude hollow, deposit from eight to a dozen or more eggs of a buff color, spotted with brown and chocolate. They are very handsome, and among the most attractive of the eggs of the grouse family.

Ptarmigans are not easily domesticated; in truth, I have yet to learn where they have been successfully kept in confinement. When caged they always pine away and succumb. It is quite possible that these birds might be kept in confinement if given ample space, and if housed at an elevation of 5,000 feet or more, but they cannot be reared in quarters much below the snow line.

In flight, the Ptarmigans are quite like their relatives of the family, but they lack the dash of the ruffed grouse, and on good grounds for this kind of sport it is not difficult to bag them. When we consider the unsuspicious nature of the birds, it is a wonder that all are not killed off, which would be the case were it not for the fact that they select quarters far removed from the selected grounds of the average destructive gunner.

It is not a difficult matter toget close enough to a bird to take a photo, but it is not so easy to have all the conditions correct for a perfect picture. There are many points in the matter of adjustment, light, etc., which are essential, and which are not easy to secure on the instant. No one will understand this point better than a photographer who has tried to take pictures of living animals in the field.

Kalamazoo, Mich.

Written for THE BITTERN.

### A Day A=field.

IBy Glen M. Hathorn.

"The robin and the bluebird piping loud, Filled all the blossoming orchards with their glee."

After half an hour's drive, I came to a large clearing through which the lake could be seen, slumbering peacefully under a heavy fog, which hung like a cloud over the water, and the green hills beyond.

It was not yet four o'clock, but the eastern sky was bathed in a flood of red and gold where the god of day was soon to burst forth.

After tying my horse, I slung my camera and my boots over my arm, and started for the swamp. Half a dozen Red-winged Blackbirds shouted defiance to my further progress as I crashed through the reeds and rushes that lined the shore, and a Least Bittern awakened by the noise, flew lazily off its roosting place and disappeared in the fog.

Seating myself on a log, I proceeded to remove my shoes and replace them with the rubber boots. This done, I moved around to the other side of a little hillock and surprised

a Spotted Sandpiper probing in the mud for its breakfast.

He eyed me curiously for a moment, then strutted around to the other side of the bog and peered at me from his concealment.

Satisfying himself that he was in no immediate danger, he half walked, half flew, to his morning meal again. But as soon as I took another step forward he flew off, and I did not see him again.

After plodding around in the mud for some minutes,—during which time I accidently filled one of my boots with water,—I found a hole in an old birch-post which had once been part of a fence. A Prothonotary Warbler flew from a hole in the opposite side in response to a sharp rap from a stick which I carried. I was delighted, for this was the first nest of this species that I had ever found. It contained three eggs.

This post had probably been used by this same pair of birds for some time, as there were four holes at different heights from the one occupied by this year's nest, and they all contained remains of old nests.

Further on, I came across a Yellow Warbler's nest, which was placed in the fork of a willow that stood ten feet or more from the edge of the lake. The pretty little wool lined nest contained two fresh eggs, one of which had probably been layed but a short time before my arrival.

The female was on the nest when I arrived, but flew off into a bush at my approach. I could hear the male singing a short distance away, and I proceeded thither. I caught sight of him several times, as he eyed me suspiciously from his concealment, jerking his head in all directions as if to make sure his eyes did not deceive him. After watching him for a few moments, I passed on toward the railroad track.

One thing that surprised me was the number of White-breasted Swallows that skimmed over the lake. There were scores of them, too, perched on the telegraph wires, and at my approach they would fly off, and after performing a few ariel feats over the water, would return to their resting place again.

Further on, I came to a path which led to the woods and I decided to follow it and see what forms of bird life I could see there.

No sooner had I reached the shade of the trees than I espied a male American Redstart, fluttering about through the trees and hazelnut bushes that lined the path on either side.

I searched a few minutes for its nest, but none could be found.

The Redstart seems to be the most common of our Warblers, and large numbers of them are seen during the entire summer. They are of a retiring disposition, however and love to frequent cool, shady woods, and moist lowlands, where the under-brush is thickest.

Robins, Blubirds and Brown Thrashers could be seen on every hand; while overhead the Chimney Swifts twittered gaily as they circled round in pursuit of their insect prey. What a morning it was. The very air was laden with the scent of wild flowers and the music of the birds. Seating myself under a shady tree, I ate my lunch, and after a few moments rest I continued my journey.

Another merry little fellow that I saw perched on a wire was a Black-throated Bunting. This one had a nest in a small clover field not far from where he sat serenading, which contained four light blue eggs, resembling, somewhat, those of the Bluebird, but a trifle larger. The nest was a very pretty one, and caused me to pause and adjust my photographing apparatus and take a picture of it.

After strolling through the woods for an hour or more, I decided to return home, and so I retraced my steps back again, past the old lake. When I arrived at the water's edge, I heard an American Bittern, but I could not tell by the sound in what direction to look for him. In due time I saw the old fellow stalking through the long, rank marsh grass, stopping now and then, ruffling his feathers and giving vent to his KA WHACK, which sounded very much like some one pounding on a log with a heavy maul.

By the time I arrived at the place where my horse was tied, the shadows of evening began to fall. The hoarse croak of the bull-frogs, the singing of vespers by the Wood Thrushes, the heavy breeze that swept across the lake, all these made a great impression on me, as I slowly left the place to the fire-flies, glowworms and night-owls.

CEDAR RAPIDS, IOWA.

### THE BITTERN.

A Bi-Monthly Publication Devoted to the Interests of the Student.

### GLEN M. HATHORN, Editor and Publisher, CEDAR RAPIDS, IOWA.

#### TERMS OF SUBSCRIPTION:

One Year, Postage Prepaid in the United States, Canada and Mexico - - - - - 50 Cents.

Single Copies - - - - - 10 Cents.

Advertising Rates Made Known on Application.

#### Entered at the Cedar Rapids Postoffice as Second Class Matter

June, the month of roses, has brought forth a new flower in the form of a magazine called THE BITTERN.

We have tried very hard to make this, our first number, an extra good one; and how well we have succeeded we leave with our readers to judge.

The main objects of this publication are the protection and the study of birds.

We make no great promise other than this: we shall spare neither time nor pains to make this little magazine a "thing of beauty and of joy forever."

On May 2d, last, while going to work, I saw a Loon, Urinator imber, on Cedar Lake, near

this city.

This is the first record of this species ever having visited this locality, and I was quite surprised to see this great diver at such a time and place.

My attention was called to the bird by a man who sat fishing, within less than one hundred yards from where the bird was feeding

We wish to publicly thank Mr. P. B. Peabody and Mr. Morris Gibbs who have so kindly written articles for this number. The reader will, we feel sure, enjoy reading anything written by these well-known ornithologists, and we hope to hear from them again in the near future.

We would like to get a number of photographic gems of bird life, and will pay cash for such, if same are sent to the editor, with the privilege of returning if not satisfactory.

When writing to advertisers you will confer a great favor upon us by mentioning The Bittern. It will please them, and at the same time, help us.

We are expecting another illustrated article from Mr. P. B. Peabody. Watch for it.

Articles and items of interest solicited from all.

### JAMES P. BABBITT,

Wholesale and retail dealer in

### TAXIDERMISTS' SUPPLIES, BIRD SKINS, EGGS AND PUBLICATIONS.

Fine Imported Glass Eyes a Specialty.

Illustrated Catalogue and large monthly bulletin of bargains in Bird Skins and Eggs free upon application.

Taunton, Mass.

#### REVENUES

\$2.00 Conveyance, 5c. \$2.00 Mortgage, 6c. 40c., 1898 Rev. with the two above, 14c.

Favorite Album, printed on one side of paper, heavy pasteboard covers. Contains space for U.S. postage, revenue, telegraph and envelopes. 20c Post Free.

Special Prices to Dealers.

No. 15, 1900 Wholesale List Just Out

Star Stamp Co.

Coldwater, Mich.

#### REVENUES

1898 40c and \$1, fine\$	10   1898 \$10 black	1 50
1898 53 brown	15   1898 \$50 bistre	2 75
1898 \$5 orange brown	20   1898 \$5 periodical, sur	4 00

#### PRIVATE PROPRIETARIES.

Antikamia 2½c	15	Od Chemical Co. 21/2\$	4.5
Hostetters 2½c	10	Di-1- Ditt. Of	
I & I 5/0	10	Pink Pills 2½c	15
J. & J. 5/8C	05	Piso Co. 5/8c	05
Matchanus %c	20	Radway's 5/8c	05
1 1/4 C	08	Dr. Warners 3½c	15
	20	Marchands 2½c	10
-/80	40	marchanus 4/20	10

Can furnish pairs of Antikamnia, Pink Pills, Piso and Radways same rate. Orders under 50c postage extra. Send for my price list of 1899 envelopes which includes nearly all varieties.

### D. T. EATON,

Muscatine,

Iowa.

# APPROVAL SELECTIONS...

\*APPROVAL SELECTIONS TO MEDIUM COLLECTORS IS MY SPECIALTY.

There are many such collectors who take the **Weekly** who would do well to write to me for approval sheets at **50 per cent. discount**.

I AM OPEN TO BUY JOB & &

\*\*LOTS OR COLLECTIONS

FOR CASH. & & & & &

\*\*

N. W. CHANDLER, Collinsville, III.

### GUIDE TO TAXIDERMY

Will teach you how to skin and mount

## BIRDS, FISH and ANIMALS.

It contains 100 pages of valuable information and will be sent postpaid for  ${\bf 35c}$ .

#### **NESTS AND EGGS**

Of North American birds, by Oliver Davie, latest edition, 500 pages, bound in cloth. Regular price, \$2.25, my price \$1.50 postpaid. We will send you a nice egg drill, blowpipe and embryo hook in case with data blanks for 35c postpaid. Send 10c for our 1900 catalog with colored plates of birds' eggs.

### CHARLES K. REED,

Dealer in Naturalists' Supplies.
77 Thomas St. WORCESTER, MASS.

#### WE BUY STAMPS

AND COLLECTIONS

What can you offer us? Send on approval at once with lowest Cash Price or for an offer, or correspond with us. IT WILL PAY YOU.

L. B. DOVER & GO., St. Louis, Mc.

### We Buy Stamps

And Old Collections for Cash. What can you offer us?

### STANDARD STAMP CO.,

INCORPORATED.

4 Nicholson Place.

ST. LOUIS, MO.

### THE CASH IS READY. 1 WANT TO BUY STAMP COLLECTIONS.

Do You want to sell Yours?
If so, write me AT ONCE.

Also good lots of salable stamps wanted at all times.

### C. A. Stegmann, St. Louis, Mo.

Reference-Publisher of this paper.

#### TWO RARE INVERTED STAMPS!

Salvador, 1896, 15c. on 24c., purple, surcharge inverted.

This stamp is uncatalogued at present, and we consider same a very rare stamp. Our guarantee goes with each stamp sold. For the present they go for only \$5.00.

BURTON & BURTON,

Lake Geneva, Wis.

### GIBBS'

Celebrated Process of RAPID TAXIDERMY.

In practical use for over 25 years. Used everywhere in America. Hundreds of Testimonials.

# Be Your Own Taxidermist!

Naturalists, Collectors, Gunners, Anglers, Outers, Boys, Girls, and all others interested in nature and anxious to preserve the specimens taken in the woods and field, have all felt the need of a simple method of preservation, which is free from intricacies and inexpensive.

On receipt of \$1.00, cash or stamps, I will send full printed instructions for mounting birds, heads, mamals, etc., and all materials for mounting and preserving specimens—including prepared compound, together with full directions for dressings skins with the hair on for rugs and robes.

Remember, I guarantee sa isfaction or money

refunded.

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



AUGUST.

	CONTENTS	W.
The Loon,	By Morris Gibbs.	20
Notes, -	By Quirinus.	28
An Odd Bird,	By Morris Gibbs.	32
A Mourning D	Dove's Nest, Page By The Editor.	37
Editorials, -	Edited and Published by Glen M. Hatho	rn. 💀

# THE GREATEST PHOTOGRAPHIC OFFER EVER MADE!

# NEHRING'S

Set of

# CONVERTIBLE AMPLISCOPES

Put up in a neat case containing:

I COPYING AND ENLARGING LENS.

1 PORTRAIT LENS.

I WIDE ANGLE LENS.

I TELE PHOTO LENS.

1 ORTHOCHROMATIC RAY SCREEN.

These Lenses can be used with any Camera made fitted with a Rectilinear or Anastigmat Lens.

Price, per set, containing the above Lenses:

4x5-\$5.00. 5x7-\$6.00.

The above Lenses can also be had singly at \$2.00 each in the 4x5 and \$2.25 each in the 5x7.

Special prices will be quoted on larger sizes,

U. NEHRING,

16 E. 42d Street.

NEW YORK.

# The Bittern.

Vol. 1. Cedar Rapids, Iowa, August, 1900. No. 2.

### The Loon.

By Morris Gibbs.

One of the most interesting birds in America is the Loon, or Great Northern Diver, as it is also called. This well-known species is found at the north as far as anglers penetrate into the British possessions, for the purpose of luring the finny prizes. The Loon is possessed by the same spirit that stimulates the angler, only with him it is a matter of a living, while with the fisherman it is generally an outing. In the winter the big diver goes well to the south; nearly always to the south of the ice belt, and I have seen them swimming and fishing on the salt water in the southern part of Florida, seemingly as much at home

as on the fresh water lakes of Maine and Canada.

This bird is well known to those who have their eyes open to observation of the creatures of forest and stream, lake and river, but to that class who do not observe on land and water, he remains a shrouded mystery, even when abundant. Considered from all points, for its odd ways in the water, remarkable anatomical structure, curious nesting habits and astonishing call-notes, or song, if you wish to call it so, this bird of great swimming and diving powers is one of our most interesting species. Carefully observed, the habits will be found so very odd as to command our strict attention, and our admiration will increase as we endeavor to comprehend their ways and manners.

To the lake angler, wherever found, from the Rangelys and Adirondacks to the clear waters of northern Michigan and Minnesota, the Loon is a familiar figure. In the spring many go to the far north to nest but many remain within our boundaries. It usually arrives in the northern part of the Union from middle March to the first of April, and not rarely comes before the ice is all gone from the lakes, and sometimes feeds from the open spots in the rivers.

That the birds are mated on arrival seems probable, as the same pair of birds occupy the identical nesting site, or its immediate neighborhood, for many years. In cases where three or more birds are seen in proximity on the same lake, there is occasional evidence of dispute, but the retirement of all but a single pair soon occurs, and then the lucky swain and mate are left in undisputed possession of the pond or lake. On larger lakes it may prove that two or more pairs of birds are occasionally found nesting, but in the smaller lakes that I have visited, it is rare to find more than one nest on a body of water. Many pairs rear their young on ponds of from ten to a hundred acres extent, the old birds seldom feeding to any extent on the pond where the nest is situated, but feeding on larger lakes near, and from this reason the nests are difficult to find, for it is not a sure indication that a nest is at hand when we see the old birds about.

About the tenth of May or rather earlier the nests are begun, the first evidence of a selected site being the devotion of a pair to a certain section of the pond. The point chosen is generally at from twenty to forty rods from the shore, and is dependent on the

shallow water, for the Loon is pre-eminently an aquatic species and never sets foot on dry land or near it. A bog well out in the lake, an old muskrat house or one of those peculiar formations found rising from the bottom, evidently of vegetable formation, but difficult to account for, is selected as a basis for the Loon's nest. On this foundation of bog, or levelled muskrat's house, is spread more or less material, mainly of aquatic plants. mass is soft and pliable. Elevation and dryness seem unnecessary to the Loon's idea of housekeeping, and they select, contrary to the advice given in the good book, the very lowest places to be found actually above the surface of the water. The rains may come, as they often do, and the winds may blow and the old birds care not, even if the eggs are partially submerged. She sets with the greatest patience for we lover three weeks, awaiting the time when she shall be rewarded for the work of love which reason dictates. I cannot say that these partially submerged eggs hatch, but I think they do, and it may be added in support of this that young birds have been seen swimming about the nest after the nest has been found deluged.

The nest or properly depressions, for that is all there is to them, are oblong in shape:

the shape is to accomodate the long body of the big bird. The eggs are placed at about two-thirds of the distance from the front of the nest: or to be more explicit, the eggs are placed well back from the center to receive the warmth of the mother's abdomen. The eggs, two in number, lie side by side in this trough-like depression, and from their situation one can always tell which way the old bird sets on the nest. The bird invariably sets with her head to the sea; in other words she always faces deeper water. At the slightest evidence of danger the old bird pitches from her nest and does not reappear until she swims from twenty to thirty yards beneath the surface.

Perhaps no bird possesses greater ability to avoid the dangers from rifle and shot gun, than the subject of this sketch, and it is to be doubted it as a diver on fresh water, though there may be some sea birds which are more gifted, but I doubt it. Every hunter north of the 35th. parallel has had some experience in shooting at the loon, and all can testify to his crafty ways and numerous, I might almost say, invariable escapes. There are two ways that the Loon may be secured and they are both of rare occurrence. One manner is to

conceal one's self and fire at the unsuspecting bird when he comes within distance. But even this manner of capture often fails, for when the bird comes within shooting distance, and unconsciously, which is rarely the case, even then the bird often dives at the flash. The other way,—and this way rarely fails,—is to get the doomed bird between two or more shooters. In this case the Loon gets rattled, so-to-speak, and is keeled over on the narrow river or mill-pond; how many land loons would fail as well? And yet I have seen a doomed bird surrounded on a small mill pond and with not a ghost of a chance to escape by flight,—and the bird knew it,—keep several shooters firing for an hour before succumbing to the inevitable. The Loon can dive at the flash and I have observed that act scores of times, and so quick are his movements that he can escape the death dealing shot or bullet almost every time.

After careful observation on the flight of birds, I can assert that the Loon is the poorest bird in raising from the water that there is in my neighborhood, and probably there are no poorer,—excepting the penguins which cannot raise above the surface. The Loon cannot spring into the air as do the

gulls, but makes the most clumsy and laborious efforts to get above the surface; making a great splashing and churning the water into a foam. After plowing along for two or three rods the body is fairly out of the water, but the wings beat the surface for several rods more before the bird fairly flies. I have heard that a Loon could not rise and fly away from a small pond, and I believe it fully, if the pond is surrounded at the water's edge with bushes. Many may wonder why the bird does not fly in a circle when rising. This would seem practicable, but the Loon seems incapable of turning when it first rises, and at all times flies in a nearly direct line. It is much like a big war vessel and requires ten times as much space to turn in, relative size considered. It would be an interesting experiment if one of these birds could be placed on a small, bush surrounded pond and find if the bird could leave the water. Sometimes we hear of Loons being found frozen on the banks of small ponds. Is it not probable that these birds were hemmed in through their inability to navigate in small quarters?

Two eggs are laid in a nest, and they are very large, being nearly, or quite, four inches long, of an elliptical shape; they are dark colored and spotted with dark or brown.

The young on their appearance, immediately take to the water, swimming and diving in a manner to convince us that this is their proper home from the first. They quickly learn to conceal themselves, and are taught to ride on the back of the old bird. It is most interesting to observe a family soon after the appearance of the young, and it has been my good fortune to twice watch their movements. Nothing could be more appropriate than the perching of the young on its mother's back, and in this position I have observed them as they rode about propelled by the tireless paddles of the old bird.

When the mother apprehends danger, she dives, and the little ones disappear with her. Now it is natural that the young ones should attempt to follow the old one, but after hearing that the young reappeared with the old one and at a considerable distance, I was convinced that the mother must aid her young in their flight, as we may call it through the water. The good fortune to witness the performance came to me at last, or at least that portion that mortals are permitted to see. An old bird accompanied by two young was seen in a little bay on the lake, and we hastened to make her dive so that we might catch the young for examination. When first obser-

the mother,—as we took her to be; but they were quickly brought to her by a deep atridulous note, when she observed the approaching boat. She then lowered her body in the water and the young secured seats on the deck. We then rowed rapidly and the old bird dived, and saw the young disappear at the same time, each chick having evidently seized hold of a feather. When the young came to the surface many yards away they were behind the old bird, from which I judge that the tail feathers are used as tow ropes.

The expression,—to laugh like a loon,—and silly as a loon, together with the term,—crazy as a loon, are probably all from the peculiar weird notes, which once heard are not easily forgotten. To me the notes are ecstatic music,—made so from associations in many an outing at the edge of the crystal lakes of the north.

The Loon is not necessary to the fisherman, and is often considered a nuisance from its fish-eating habits. Nevertheless, it has a right on our lakes, I think, as it was here sometime before aggressive man; and many of the nature-loving modern anglers have a sentimental regard for this weird, mysterious bird, for it, like the clattering kingfisher, is the fisherman's companion.

KALAMAZO, MICH.

Written for THE BITTERN.

# NOTES.

The Black Tern nests plentifully on the Great Lakes and is unusually abundant on the St. Clair flats, but the species is not found to any extent in the interior of the state of Michigan. On the 27th of last May, Carl Bloom found a nest and three eggs of this graceful bird on a muskrat's house at Long Lake, Kalamazoo County, Mich., which is the first record for this section. These birds have changed their nesting quarters, which is not unusual in the terns; and this is another instance of the changes probably as a result of civilization. Over sixty birds have been affected by the advance of civilization to my knowledge.

Collectors are filled with an adventurous spirit, and if any of the readers will take the

pains to examine into the subject they will find that the lovers of birds are almost invariably given to travel and adventure. I have found this to be so in almost every case, and will mention one neighborhood as an illustration. In Kalamazoo County, Michigan, always noted for its collectors, the following enthusiastic observers have made fame, if not fortune, in this neighborhood, as well as in other states. This list embraces the most of the old time collectors, some of them having been known to their brother observers for over a quarter of a century.

Most important is Benjamin Syke, who is at home anywhere in the woods. He has collected north and south and has travelled afoot through the pineries of the Lake region, and navigated alone and in a canvas boat the lagoons and rivers of Florida. He knows the songs of all the birds north and south, and is the most resourceful woodsman and agreeable companion that ever climbed a tree or waded a marsh.

George Sudworth is another extensive traveler and careful observer, and the finest skin maker in the country. He is now devoted to forestry and is in that department at Washington, but he writes me that he feels the spirit come upon him to drop everything and get out among the birds. Mr. Sudworth is a conscientious worker in anything he undertakes, and has made a success of his botanical work.

Dr. Morris Gibbs, who has been well known as a writer on many branches of natural history for over twenty years, has observed in many states, north and south. He is as familiar with the snakes, turtles and fish, as he is with the birds and flowers.

Fitz Henry Chapin and Frank Judson, two old time "hawkers," are last reported from the Klondike region, and Mr. Chapin is so well satisfied with that quarter that he returned there a second time. So much for adventure.

K. R. Willhelm, than whom there never was a more intrepid climber, has gone to Southern California, seeking new worlds to conquer. Smooth sycamores, fifteen feet in circumfrence and fifty feet to the first limb are nothing to him.

Captain Joseph Westnedge was in the Spanish war, and his brother, Dr. Richard Westnedge, was a surgeon in the Philippines where he lost his life from fever. Poor Dick was an ornament to his profession, as he was to the ornithologist's brotherhood.

Oliver Daniels, another worker but little known in the columns, is an enthusiast in the bird line. In 1897 he wheeled on his bike from Michigan to Florida solely to gratify his love for outdoor life, and to be among the birds. His wheel was stolen and he returned by rail. Mr. Daniels was in the entire siege of Santiago, and after a lay-off from duty on his return, promptly enlisted for the Philippines where he is now in the brush and marshes.

QUIRNUS.

Portage, Mich.

Written for THE BITTERN.

### An Odd Bird.

By Morris Gibbs.

Have my readers ever heard of a bird that never builds a nest of its own, nor cares for its own young? There is such a bird in this country and it is known as the Cowbird, Cow blackbird or Cowpen, because of its habit of remaining near the cows where it feeds on the ticks and other parasites which infest cattle as well as sheep. It is undoubtedly a very useful bird, but because of its habitual inattention to household duties it is execrated and considered as occupying a very low position in the scale of bird life in which we expect, from comparison, to find all the better sentiments of the home life and affection for eggs and young.

When the season arrives for nest building, the mother cowbird looks about for other birds' nests in which to deposit her own speckled eggs. After finding a suitable nest, the sly bird waits until the rightful owner is from home, and then steals to the nest and lays her egg along with the eggs of the right-

ful owner. Strangely enough, the birds thus imposed upon do not seem to understand the imposition and therefore accept the uncalledfor donations and set on the eggs, hatch them and rear the alien young as their own. It is quite probable that many species of birds are never aware of the imposition, as the cowbird's eggs much resemble those of many species of birds, but this is not the case in half the instances, for while the egg of the imposter is light colored, white, in fact, and covered with small dots of brown, they are frequently laid in the nests of the Woodthrush which lays blue, unmarked eggs, as well as in over a score of other species of birds' nests, which contain entirely dissimilar eggs, both as to size and color. For instance, I have found three of these speckled eggs in a nest where the bluebirds had laid five eggs. queer subject of this sketch often lays its eggs in the nests of much smaller species than itself, and it is not unusual to find these unsolicited deposits in the nests where the eggs of the rightful owners are not of more than half the weight of the Cowbird's.

But notwithstanding that the large majority of the birds accept the orphan eggs and rear the imposed foundlings as if they were their own, a few species of birds attempt,

often successfully, to evade the task of rearing the young of others. The little yellow warbler, a species which is frequently imposed upon by these advocates of foundling's homes, often successfully circumvents the plebeian Cowbird in the following interesting manner: The Cowbird in its anxiety to secure a preferred position, often lays an egg or two in the warbler's nest before any eggs are deposited by the rightful owner. The little warbler resents this intrusion by building a platform ever the large eggs, thus making a double storied nest, and in this second story lays its own eggs. But even this attempt is not always sufficient to prevent the evil, as the persistent Cowbirds not rarely lay more eggs in the "up stairs" section, and thus accomplish their object. In rare instances, the warbler has been known to build a second platform over these additions, sometimes going so far as to entomb one or two of its own eggs in order to avoid the necessity of sitting on these aliens. I have one of these threestoried nests in which there is a cowbird's egg in the lower story and which is nicely covered with nest material. Then two eggs were laid by the rightful owners, when another Cowbird's egg was deposited with the smaller ones. After this imposition, the determined pair, perhaps from former years of experience, began a second time to evade the work of the spoliators, and entombed their own two eggs with the unsought additions. When discovered, their work of love had advanced to the stage where the remainder of the set, three eggs, reposed safely in the third, or upper story. The nests containing two and three stories are more common than is generally supposed, but are not discovered as the fact is not recognized unless a careful examination is made by the observer.

This trait, more noticeable in the yellow warbler, shows reasoning of a marked degree, and eminently worthy of our attention, undisputed proof of thought. and gives There are other birds which attempt to save themselves from the encroachments of these spoliators but very few that are as successful as the little warbler. I have found several nests of the Red-eved vireo which held a Cowbird's egg partially covered with the nest bottom, but as a rule the imposed-on owners accept the charge and hatch the whole brood and take good care of the foundlings. It has even been proven in the case of those little birds that they lay smaller eggs than the imposter's, that the young aliens thrive best by right of size, and secure more food to the detriment of their little foster brothers. I have often seen a small sparrow or warbler feeding a great hulking young Cowbird, which was all of twice the bulk of its tender foster parent.

Kalamazoo, Mich.

Written for THE BUTTERN.

## A Mourning Doves' Mest.

Mourning Dove's ofttimes select some very queer places for their nests. I have found them on the ground; on stumps, about two feet high, and a variety of other places.

On June 3rd., 1899, while strolling through a pasture lot, I found the Mourning Doves'

nest here shown.

It was placed amid a tangle of wild grape vines and thorn bushes, in plain view from a



road not more than twelve feet from the nesting site.

I had intended to take a series of pictures of the young, when hatched; but my hopes were shattered, one fine morning, when arriving at the nest, to find it empty.

The nest was built entirely of roots; coarse ones being used for the foundation, and rootlets for a lining.

THE EDITOR.

#### THE BITTERN.

A Bi-Monthly Publication Devoted to the Interests of the Student.

#### GLEN M. HATHORN, Editor and Publisher, CEDAR RAPIDS, IOWA.

#### TERMS OF SUBSCRIPTION:

One Year, Postage Prepaid in the United States, Canada and Mexico - - - - - 50 Cents.

Single Copies - - - - - 10 Cents.

Advertising Rates Made Known on Application.

#### Application Made for Admission as Second Class Matter.

Published at 321 Second Ave., Cedar Rapids, Iowa.

We have received so much encouragement since our first number was published that we are already contemplating the enlargement of "the little magazine."

Some how or other we take great pride in this number; no doubt the reader will be pleased at the quality and quantity of its contents.

We are aiming at a standard, and when that standard is reached, (may it be soon) we intend to maintain that standard, which we have been striving for, and will, in all probability soon reach.

Reader, can you help us?

Quails seem to be unusually abundant this summer, and every morning for the past two or three weeks I have heard them whistling in the gardens and pastures near my home. Domestic duties now being o'er, Bob-white is free again to pour fourth his joy in the same way he did before said duties began.

Now that the nes ing season is over, there is very little to do along ornithological lines until the fall migration begins. These fall migrations, by the way, tax the brain fibres of some of our oldest observers, on account of the change in plumage of so many of our birds.

Strangely enough, the first three requests for sample copies of this magazine came from Canada. Our brothers over the border are not so slow as they might be. Perhaps they know a "good thing" when they it.

Remember, this is the students' magazine, and we are always glad to get articles and items of interest from all field workers and observers.

Please do not forget to mention The Bittern when writing to advertisers.

Will be with you again on October first.

### JAMES P. BABBITT,

Wholesale and retail dealer in

## TAXIDERMISTS' SUPPLIES, BIRD SKINS, EGGS AND PUBLICATIONS.

Fine Imported Glass Eyes a Specialty.

Illustrated Catalogue and large monthly bulletin of bargains in Bird Skins and Eggs free upon application

Taunton, Mass.

50	Varitie	s Foreign	Stamps			\$ .05
100	6.6	6.	**	-	-	
150	6.	6.6	66	_	-	.10
10	6.6	Caulan S	t	-	-	.15
15	66	Ceylon St	tamps, ia Stamps		_	.15
, ,		Price	List Free		-	.15
		3F A TO FF :				

#### CLARK W. BROWN,

516 Irving Ave,

Syracuse, N. Y.

### GUIDE TO TAXIDERMY

Will teach you how to skin and mount

## BIRDS, FISH and ANIMALS.

It contains 100 pages of valuable information and will be sent postpaid for  ${\bf 35c.}$ 

#### **NESTS AND EGGS**

Of North American birds, by Oliver Davie, latest edition, 500 pages, bound in cloth. Regular price, \$2.25, my price \$1.50 postpaid. We will send you a nice egg drill, blowpipe and embryo hook in case with data blanks for 35c postpaid. Send 10c for our 1900 catalog with colored plates of birds' eggs.

### CHARLES K. REED.

Dealer in Naturalists' Supplies.
77 Thomas St. WORCESTER, MASS.

### We are Headquarters for

Mounted Tarantulas, Scorpions, Horned Toads, Tarantula Hawks, Centipedes, Trap Door Spiders and Nests and Fine Specimen Collections and All Kinds of California Curiosities.

We make a beautiful line of goods from Orange-wood and other California woods; also from Redwood Bark from the famous big tree of California. Pincushions from Yucca or Spanish Bayonet in all sizes.

Our wholesale price lists sent to dealers only.

### TUTTLE & BARNES,

Pasadena,

California.

### Fine Florida Shells....

Parties desiring to purchase Florida shells in large or small quantities will save money by writing for prices before purchasing elsewhere, as I have every facility for furnishing collectors or dealers with all of the best species collected off the Florida coast.

Wholesale price list furnished for stamp. Address all orders to

A. J BARNES,

Dunedin.

Florida.

## Wants, Exchanges and For Sales.

Brief Want, Exchange or For Sale notices inserted in this department for 25 cents per 25 words. Additional words one-half cent each. No notice inserted for less than 25 cents.

To Exchange.—The following articles are for exchange: One set of two volumes bound, of the Mineral Resources of the United States; 1400 pages; Illustrated. Everything from crude petrolium to crystals and gems. Just jssued, brand new. Also a Stevens target pistol; 22 calibre; good as new; ten inch barrel; cost \$10.00 Will exchange the above for rare stamps or anything else that I want. What have you? MORRIS GIBBS, M. D., Kalamazoo, Mich.

Wanted.—Nos. 4, 5, 6, 8, 10, 11, Vol. 1 of Nidologist; Nos. 2-4, Vol. 1 of Osprey. Liberal price paid. Guy O. Rich, M. D., Toy Building, Sioux City, Ia.

FIRST CLASS birds' eggs, both common and rare, to exchange for minerals, fossils, arrowheads, spearheads, flint and stone implements, sea shells or curios of any kind. Write what you have. R. F. GREENE, Arkansas City, Kansas

WANTED.—Coues' Key or Ridgeway's Manual, latest edition, good as new. State lowest cash price. A. E. PRICE, Grant Park, III.

WANTED —Some good bird pictures. Send to the EDITOR, with lowest cash price.

### GIBBS'

Celebrated Process of

### RAPID TAXIDERMY.

In practical use for over 25 years. Used everywhere in America. Hundreds of Testimonials.

## Be Your Own Taxidermist!

Naturalists, Collectors, Gunners, Anglers, Outers, Boys, Girls, and all others interested in nature and anxious to preserve the specimens taken in the woods and field, have all felt the need of a simple method of preservation, which is free from intricacies and inexpensive.

On receipt of \$1.00, cash or stamps, I will send full printed instructions for mounting birds, heads, mammais, etc., and all materials for mounting and preserving specimens—including prepared compound, together with full 'directions for dressing skins with the hair on for rugs and robes.

Remember, I guarantee satisfaction or money

refunded. Mention THE BITTERN and address

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

For a limited time I will send my complete process, including compound, on receipt of \$3.00 worth of postage stamps, averaging 10c or higher, or other exchange. What have you?



OCTOBER.

CONTENTS	4
Robin Redbreast, Page 41	4
The Black-Throated Bunting, Page 43 By Glen M. Hathorn.	4
The Great-Crested Flycatcher, Page 45 By Morris Gibbs.	1
The Fieldfare, Page 50 A	P
Editorials, - Edited and Published by Glen M. Hathorn.	7
	Ч

## THE GREATEST PHOTOGRAPHIC OFFER EVER MADE!

## NEHRING'S

Set of

## CONVERTIBLE

Put up in a neat case containing:

I COPYING AND ENLARGING LENS.

I PORTRAIT LENS.

I WIDE ANGLE LENS.

I TELE PHOTO LENS.

I ORTHOCHROMATIC RAY SCREEN.

These Lenses can be used with any Camera made fitted with a Rectilinear or Anastigmat Lens.

Price, per set, containing the above Lenses:

4x5-\$5.00. 5x7-\$6.00.

The above Lenses can also be had singly at \$2.00 each in the 4x5 and \$2.25 each in the 5x7.

Special prices will be quoted on larger sizes,

U. NEHRING,

16 E. 42d Street.

NEW YORK.

## The Bittern.

Vol. 1. Cedar Rapids, Iowa, October, 1900. No. 3.

### Robin Redbreast.

By William Allingbam.

Good-bye, good-bye to Summer!
For Summer's nearly done;
The garden smiling faintly,
Cool breezes in the sun;
Our thrushes now are silent,
Our swallows flown away,—
But Robin's here in coat of brown,
And scarlet breast-knot gay.
Robin, Robin, Redbreast,
O, Robin, dear!
Robin sings so sweetly
In the falling of the year.

Bright yellow, red, and orange,
The leaves come down in hosts;
The trees are Indian princes,
But soon they'll turn to ghosts;
The leathery pears and apples
Hang russet on the bough;

It's Autumn, Autumn, Autumn late,
'Twill soon be Winter now.
Robin, Robin Redbreast,
O, Robin, dear!
And what will this poor Robin do?
For pinching days are near.

The fireside for the cricket,
The wheat stack for the mouse,
When trembling night winds whistle
And moan all 'round the house,
The frosty ways, like iron,
The branches plumed with snow,—
Alas! In winter dead and dark,
Where can poor Robin go?
Robin, Robin Redbreast,
O, Robin, dear!
And a crumb of bread for Robin,
His little heart to cheer.

Note—The Old World Robin here referred to is quite different in appearance and habits from the American Robin. It is only about half the size of the latter. Its prevailing color above is olive green, while the forehead, cheeks, throat and breast are a light yellowish red. It does not migrate, but is found at all seasons throughout temperate Europe, Asia Minor, and northern Africa.—EDITOR.

## The Black=throated Bunting.

JBy Glen M. Hathorn.

This cheerful and abundant little bunting is one of the first of our meadow birds to arrive in the spring; and his coming is by no means unheralded, for from weed stalk, fence post and thorn bush comes the merry ditty, "chick, chick, chee-chee-chee," repeated at short intervals at all hours of the day.

The dickcissal is socialistic in his beliefs, and every level field, or upland meadow is occupied by a pair or more of them; and I have found as many as seven nests in a clover-field not more than half an acre in extent. In fact, the clover-field seems to be their favorite nesting place, although the thistle is quite frequently the place selected for a nesting site. All the nests which I have found this season were in clover-fields and the nests, with but one exception, were built in thistles, which stood admidst the clover blossoms.

Spiza americana seems to be a rather late

nester, for I have never found a nest containing eggs before the eleventh of June, which was the earliest of any found within the past five years. This set, taken in 1895, contained four fresh eggs, and was found in a clover patch about three blocks from my home.

On Sunday June 22d, of this year, I found a set of four fresh eggs; and one week later, June 29th, found another set of three eggs which were perfectly fresh. This nest also contained an egg of the cowbird, which I threw away.

The eggs are of a beautiful shade of blue in color, unspotted and quite oval in shape. They resemble, very much, the eggs of the bluebird, but are a trifle larger.

The nest is neatly made of grasses and weed stems, lined with finer grasses and a few horse hairs. The inside of the nest is as pretty a piece of bird architecture as can be found, benig cup-shaped and round as a ball.

I have never found a nest which contained more than four eggs; and one set found on July 8th. '97, contained but two slightly incubated eggs. The average measurments are about .75 x .85 inches.

The food of the dickcissal consists of cankerworms, insects, caterpillars and the seeds of various grasses.

Although a rather plain bird in appearance, and possessing no song, it is, nevertheless, an interesting bird, and one deserving of our protection on account of the immense number of insects and worms destroyed every year. Its visit with us extends through the months of May, June, July and August. They leave for the south in early September, spending the winter beyond the limits of the United States.

Cedar Rapids, Ia.

## The Breat=Crested Fly=Catcher.

By Morris Gibbs.

Though of little use to describe the plumage of most of our somber-hued fly-catchers, this, one of our largest representatives of an interesting family, is so well defined that a few features of identification will be offered.

Its size is about that of the Kingbird, its near relative, and it may, like all the flycatchers, be told by its broad, flattened beak. The most noticeable point is the prominent crest; its lower parts are bright sulphur yellow.

It is the third member of the family to arrive from the south, and can be relied on to appear in the last week in April, or early May. Like many of our common birds, this species is not generally known to our people, and it is but little understood even by those who pretend to know-in a general way,-all the birds of a neighborhood, for it is a retiring species, being more often heard than seen. I have frequently asked acquaintances in the country to give the name of this bird, which was screaming in the woods, and have met with very few who could name the bird, though several observing country lads could describe the plumage and habits in a manner to show that they had studied it.

All of the flycatchers have uncouth, strident notes, and though some of them have redeeming qualities in strains of rare sweetness, this species has no soft or agreeable notes. In the month of May, as we walk in the woods, a series of coarse, defiant screeches is heard, intermingled with chattering screams, all uttered in the most discordant key. These noises are the love notes of this peculiar bird.

Not long after arrival, the birds seek their mates. Observations strongly point to the continual alliance of a mated pair, and I think it is but fair to our beautiful birds to say that nearly, if not quite all, of our species are undoubtedly constant in their choice, and that the alliance continues until one or the other of the pair dies.

After choice of location for a home is made—nearly always in the immediate vicinity of last year's habitation—the pair begins the construction of a nest. In all exceptions to a rule, it is observed that there are peculiarities which are interesting. The Great-crested Fly-catcher exemplies this oddity to a remarkable degree.

All fly-catchers in this region build their nests openly, unless we except the common pewee, which has modified its habit through the influence of man; but the Great-crested Fly-catcher differs from all others by select-

ing a hollow in which to construct its nest. The nest may be found in a limb, a hollow in a telegraph pole, a gate post, or in a decayed rail of an old worm fence. The cavity selected is often very extensive, and this striving pair usually fill up the space after the manner of the nuthatch and that pernicious, pertinacious hustler, the European sparrow. Into the interior is carried a great variety of material, including twigs, grass, leaves, and, strangely enough, the cast-off skin of a snake is found in the nest, generally. Occasionally, the skin is absent, but more often there are two or more pieces, and I have seen five pieces quite probable from the same snake, but torn in removal. When the slough from the snake's head is found, it is easy to identify the species by the impressions of the head plates, and in this way I have proven that, of the more than a score of species of serpents in Michigan, three kinds, to my knowledge, furnish skins for these nests. They are the water snake, garter snake and blue racer. Undoubtedly the marks of all our serpents are used by these birds, but these mentioned are common and more often made available. If the complete skin slough, or even the head portion is found, it is an easy matter to identify by one versed in snakes,

The largest section of a skin that I can learn of in a nest, was a piece nearly three feet long. These shed skins are very light, therefore their weight is no hindrance to the birds. Someone has started a theory that these birds select snake holes for nesting and that the skins are already there. This is not reasonable, for if it were a fact then wrens, bluebirds, and other nests of builders would also contain skins. Moreover, the Greatcrested Fly-catcher often selects situations to which a snake could not climb.

To what deep law this peculiarity in nest construction is subservient, it will be difficult to demonstrate, but that there is a reason for this habit, is undoubted.

The eggs, five or six in number, are among the most singular in markings. The ground color is buff, and it is marked with lines of purple and lilac. These markings look exactly as if put on with a pen, and are remarkable in their irregularity.

In late August, these birds disappear for the south where they remain for the winter.

KALAMAZOO, MICH.

### The Fieldfare.

The Fieldfare is a European bird of the thrush family; in form, size, proportions of parts and characters of the plumage, it resembles the migratory thrush or American robin.

Thelength is between ten and eleven inches; the extent of wings seventeen and one-half inches; the tarsus one and one-fourth inches, and the weight about four ounces. It is a stout bird, and from its long tail and wings rather elegant in form.

The bill, which is that of the thrushes, is orange at the base and brownish black at the end; the inside of the mouth is orange; the edges of the lids yellow, the iris brown; the feet and claws dusky.

They arrive in Great Britain in October and November, and sometimes remain until the following spring, if the weather is mild. I have seen them in December in our door yard picking up crumbs that were thrown out for the chickens. They are quite sociable in winter.

The food consists of hawthorn and other berries, worms, larvae, insects, seeds and grains.

They nest in April and May, in fir and spruce trees, making a neat nest of twigs, grass leaves and pine needles. The eggs, five or six in number, resemble those of the American blackbird.

WM. ROLFE,
Twickenham.

### The Unryneck.

It is a small bird of the woodpecker family, so called from its habit of turning the head in various directions. It is about seven inches long, of a rusty ash color, irregularly spotted and speckled with brown and black; the colors are prettily distributed, and the form is elegant.

The bill is short, straight and acute; the tongue is extensive and ends in a simple horny tip; wings pointed, the first quill very short, and the third the longest; tail rounded

and its feathers soft; the two anterior toes joined together at their origin, and the two posterior unconnected.

It is a summer visitor to Great Britain, spending the winter in north Africa and the warm parts of western Asia. It arrives in April and leaves in early September, so nearly at the same time with the cuckoo that it has been called the cuckoo's mate.

Though having many of the habits of woodpeckers, it does not associate with them. The food consists principally of insects and berries; it generally feeds on the ground.

The nest is made in holes in trees after the manner of the woodpecker, and from six to ten white eggs are laid. WM. ROLFE.

Twickenham.

Last May a friend brought me a wounded bird, which he had caught near Cedar Lake, to identify. I thought at first sight that the bird was a purple gallinule, but it proved, upon closer examination, to be a Florida gallinule, (Gallinula galeata.)

This bird, which had probably been migrat-

ing from Florida or Texas to its summer home in the Carolinas, had injured one of its wings so badly that it could not fly.

KATHLEEN R. HATHORN.

The Mockingbird has no special choice in a nesting place. They nest anywhere and everywhere. In the northern part of Georgia I have found nests in the tallest trees and in bushes but a foot or two from the ground; and I know of a bird that builds its nest year after year in a hollow post.

The blackbirds make the maples ring With social cheer and jubilee; The redwing flutes his o-ka-lee.

EMERSON.

### Our Exchange.

The September-October number of The Condor, edited by Chester Barlow, and published at Santa Clara, Cal., is at hand as we

go to press. The most interesting article is "An Outing Into the Pyramid Peak Region of California," by Chester Barlow. It records the outing of three members of the Cooper Ornithological Club through the Pyramid Peak region, and is illustrated with three This number also contains engravings. "Probable Causes of Bird Scarcity in Parts of the Sierras," by John J. Williams; "Nesting of the Rivoli Humming bird in Southern Arizona," by O. W. Howard, with two illustrations; "Notes on Some Birds of Cape Nome, Alaska," by Joseph Grinnell; and several interesting short articles. All together The Condor is one of the best magazines it has been our pleasure to see. -G. M. H.

Brother Henning, Associate Editor of The Western Ornithologist has favored us with a copy of that magazine for May-June. We have not received the July-August number up to the time of going to press, so will give review of that number in December.—G. M. H.

#### THE BITTERN.

Bi-Monthly Publication Devoted to the Interests of the Student.

#### GLEN M. HATHORN, Editor and Publisher, CEDAR RAPIDS, IOWA.

#### TERMS OF SUBSCRIPTION:

One Year, Postage Prepaid in the United States, Canada and Mexico - - - - - 50 Cents.

Single Copies - - - - - 10 Cents.

Advertising Rates Made Known on Application.

#### Application Made for Admission as Second Class Matter.

Published at 321 Second Ave., Cedar Rapids, Iowa.

Dr. Bert H. Bailey, a graduate of Coe College of this city, and just recently graduated from Rush Medical College of Chicago, has decided to enter the faculty of Coe, and give himself to the study and teaching of natural science in that institution. Dr. Bailey is remembered in Coe college as an enthusiast in this department of study, and he will give Mr. Stookey, the head of the department, just the assistance that is needed. It is not too much to say that Mr. Stookey and Dr. Bailey

together will make the biological department of Coe college one of the finest in the state of Iowa.

Mr. Carl Fritz Henning, Associate-editor of The Western Ornithologist, sent us a clipping from the Boone (Ia.) Standard, written by himself, on the occurance of the Brown Pelican in Iowa. In a letter to the Editor he says:—"Although the specimen was 'strong' when I got it, I made up my mind to save it and thereby obtain an authentic record for our state." The bird is at present in Mr. Henning's collection.

As has already been stated, the publisher of The Bittern intends to enlarge the magazine a little, and should we receive at least 200 more subscribers before November 15th, 1900, we will publish a large holiday number on December first, the printed page being  $3\frac{1}{2}$  x 6 inches in size; printed on good paper, and well illustrated. And from that time on, will publish a magazine that will stand high among the leaders in ornithological journalism.

We are determined to keep in touch with

the working ornithologist, and our December number, as well as the future ones, will be of great benefit to them. Send in your subscription now, and be sure of getting these numbers.

# Our December Number.

WHAT IT WILL CONTAIN. & & &

About 16 pages, each page being  $3\frac{1}{2}x6$  inches.

An illustrated article by P. B. Peabody.

A diagram of a bird to illustrate the terminology of the plumage and limbs.

A photo of "Ye Ancient (?) Editor."

Some interesting notes.

Ditto editorials.

Our review.

An article entitled "THE YELLOW RAIL," by Morris Gibbs.

A few ads.

Wants, Exchanges and For Sales, etc., etc.

Can you be without this interesting number? No? Well then, send in your subscription, or send ten cents for sample copy to

#### GLEN M. HATHORN,

1600 E Avenue, CEDAR RAPIDS, IOWA. If you collect Curios, Coins, Stamps or have a Camera, send

#### 4c for 4 Months

For the largest Monthly of Kind in America. Compare it to any of kind in size and circulation.

# PHILATELIC WEST

#### & CAMERA NEWS.

Sample Free.

ADVERTISERS-DØ YØU WANT MØRE BUSINESS?

Try an Ad. in THE PHILATELIC WEST-It Pays Others? Why Not You?

Largest monthly magazine of kind in size and circulation and organ of the largest societies west of the Mississippi. Has a Curio Department for Curios, Indian Relics, Sea-shells, etc. Largest field of all. Founded 1895.

The only Paper that had a Register at the Camera and Stamp Exhibits at the Omaha Exposition.

More Advertisers Stay, Than Go Away.

Ad Space and Subscriptions exchanged for Stamps. Send stamp for particulars.

Trial Ad. 50c per inch. \$1.00 for 1-4 page. Cash with Copy.

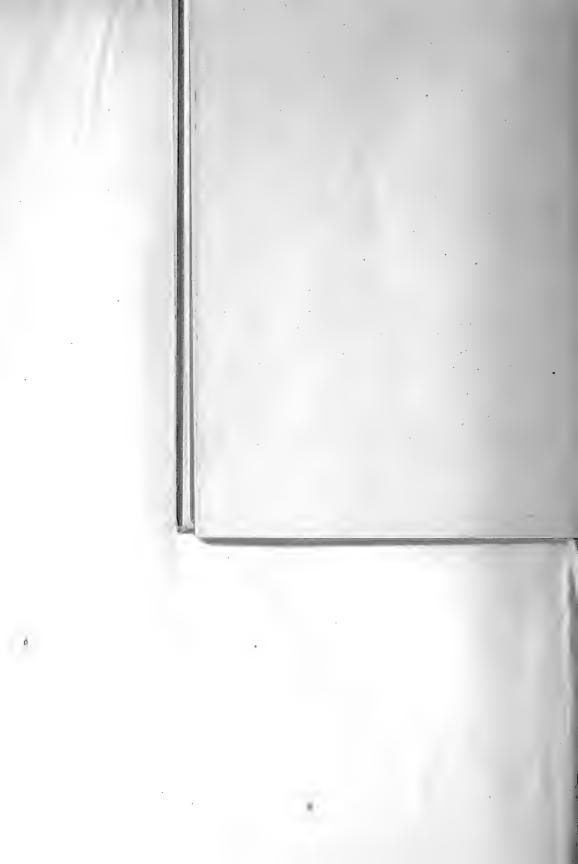
### L. T. BRODSTONE,

Business Manager.

Superior, Neb. - U. S. A.

Regular price 25c per year with one free exchange notice. Wish names of all stamps and curio collectors you know.

Publisher exchanges stamps, camera, sets of eggs, etc., for others. Write him.



## Wants, Exchanges and For Sales.

Brief Want, Exchange or For Sale notices inserted in this depart ment for 25 cents per 25 words. Additional words one-half cent each-No notice inserted for less than 25 cents.

FOR SALE.—Some stamps, on approval. Will be sent to responsible parties only. Perfect Stamp Hinges, 10 cents per thousand, postpaid.

G. M. HATHORN,

Cedar Rapids, Ia

To Exchange.—A collection of over 100 singles and a glass top egg case 2sx30 inches. For eggs in sets with data, or for cash.

HARRY MILLS,

Box 218.

Unionville, Ct.

A1 BIRD SKINS and sets to exchange for sets. Send lists and receive mine.

J. CLAIRE WOOD, 196 Randolph St.

Detroit, Mich.

WANTED.—Photographs of birds for reproduction in The Bittern. Am willing to pay in cash for same or give exchange. Correspondence desired.

GLEN M. HATHORN,

Cedar Rapids, Ia.

1600 E Ave.

Wanted.—Butterflies from all localities. Will give for same cash, birds' eggs, skins and insects from New England States. Correspondence solicited.

G. D. KELLOGG, Egremont Plain, Mass.

#### GIBBS'

Celebrated Process of RAPID TAXIDERMY.

TAXIDERMY.
In practical use for over 25 years.
Used everywhere in America.
Hundreds of Testimonials.

# Be Your Own Taxidermist!

Naturalists, Collectors, Gunners, Anglers, Outers, Boys, Girls, and all others interested in nature and anxious to preserve the specimens taken in the woods and field, have all felt the need of a simple method of preservation, which is free from intricacies and inexpensive.

On receipt of \$1.00, cash or stamps, I will send full printed instructions for mounting birds, heads, mammals, etc., and all materials for mounting and preserving specimens—including prepared compound, together with full directions for dressing skins with the hair on for rugs and robes.

Remember, I guarantee satisfaction or money

refunded.
Mention THE BITTERN and address

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

For a limited time I will send my complete process, including compound, on receipt of \$3.00 worth of postage stamps, averaging 10c or higher, or other exchange. What have you?

VOL. I.

BI-MONTHLY

NO. I.

\$1.00 A YEAR.

20 CENTS A COPY.

# The Bittern

1901

**JANUARY** 

1901

# > Contents > >

A Gallinaceous Bird,		5
	Glen M. Hathorn	
Chuck Will's Widow,		. 6
	Albert F. Ganier	
Editorial,	e se	9
Genus Homo, -		8
	Godwin Osgod	
Nesting of the Great Horn	ned Owl,	ΙI
	CARL FRITZ HENNING	
Notes From the Field,	- ,	7
Notes on News, -	·	14
Publications Received,		10
Some New Books,		Ι5
	CARL FRITZ HENNING	5
The Bronzed Grackle,		I
	P. B. Peabody	
The Flicker, -		10
	HOWARD E. BISHOP	
The Yellow Rail,		. 3
	Morris Gibbs	. 3

PUBLISHED BY GLEN M. HATHORN, CEDAR RAPIDS, IOWA

# COE COLLEGE

**光光光光光光光光光光光光光光光光** 

CEDAR RAPIDS, IOWA

## ....CO-EDUCATIONAL....

#### COLLEGIATE DEPARTMENT

THREE COURSES: Classical, Philosophical, and Scientific.

#### PREPARATORY DEPARTMENT

THREE YEARS COURSE. Gives Thorough Preparation for College.

#### MUSICAL DEPARTMENT

PROF. EZERMAN IN CHARGE. Instructions in all the Departments of Music.

#### **ADVANTAGES**

Fine location, in the midst of a Beautiful City; Railroad Centers; Strong Faculty; Splendid Equipment; Excellent Moral and Intellectual Environment; Moderate Expenses.

FOR CATALOGUE AND INFORMATION, ADDRESS

REV. S. B. McCORMICK, D. D.,

eacheacheanneacheach

# The Bittern

Vol. I.

CEDAR RAPIDS, IOWA, JANUARY, 1901.

No. I:

#### THE BRONZED GRACKLE

BY P. B. PEABODY

Solomon, the wise man, was about right when he said that "there is nothing new under the sun." The inspiring and fascinating fact is, for all this, that the things that are not new are still largely unknown.

Most readers of THE BITTERN are quite familiar with our cosmopolitan "crow blackbird," wisely so called; but, to most casual observers, he is known under but a few of the many phases of his summer life.

Lovers of bird-life look eagerly, always, for the return of familiar friends, among the dwellers of the air, after the winters of our discontent. We are all eager to recognize and to greet our old friends, and then to tell our neighbors the good news of their coming.

To the eager watcher, during migration time, the greatest tantalus lies in the great similarity among many allied races. In such cases, a critical knowledge of bird notes is quite indispensible. At ten years old, we need not be ashamed to make, in our note books, this entry, among arrivals—"blackbirds, March 25th;" but the added years must leave us without excuse if we cannot differentiate.

We early learn, then, the various blackbird chirp notes, that we may greet, with certainty, Bronzed Grackle when he comes. First, arrives the Rusty with his cheerful "chirp," then

Colonel Redwing, with his blithe "jit," oftener, perhaps, a sharp nasal "snit;" latest comes the Brewer's Blackbird. utterly unknown as such, to the mass of untrained observers, modestly proclaiming his presence by a thin, wiry "tip;" and, well amid these general arrivals, fairly proclaimed, when near at hand, by his larger size and his broader tail, is the subject of this sketch, whom, to know of a certainty when first he comes, one must learn to recognize by his strident and resounding "chep." This note, when well learned, by a critical observer is quite as unmistakable as all the other blackbird chirp-notes are, yet quite as elusive and as easily forgotten. must learn them himself if he is to know them; ornithological knowledge is not to be acquired as a parrot learns to talk.

The one purpose of this sketch, after indicating, as above, how one may accurately note the arrival-times of the Bronzed Grackle, in these exact and critical days, is to call attention to certain peculiarities of feeding and nesting habit that might elude the student who has been privileged to know this bird in but one sort of country. One finds his bird acquaintances breeding thus, and he fallaciously argues that they breed thus always, and everywhere. But birds, like men, are

adaptive, and they have each his own idiosyncrasy. The book which shall tell us the substantial part of all that is known about the universal breeding habits of even the best known birds is yet to be written.

Long years ago I climbed a grizzled old white oak tree, with a flicker hole near the dead top. Here a pair of Bronzed Grackles scolded. To tear habit than the facts will warrant. In Wisconsin and Minnesota, at least, one seldom finds more than a half dozen nests together, and seldom this many. All, of course, depends upon the extent of the breeding ground.

The Red River Valley, in northern Minnesota, presents many curious departures in nesting habit among many birds from conditions prevailing else-



NEST AND EGGS OF BRONZED GRACKLE
BY THE AUTHOR

out the rotten wall of wood and bark was the work of a moment; and there, tier upon tier, were the nests of six successive years. All, as I recall, were normal. Were all by one pair of birds? And is this form of breeding as exceptional as it seems?

The caucus-holding habit of this bird, with its concomitant scolding during the days while the young are growing, has given rise to a greater appearance of the colony-breeding where. Each poplar thicket along the streams has, indeed, its two or three nests of the grackles, far up near the top, but the most interesting nest site, and a very common one, is shown by the appended illustration.

All along the Red river and its tributaries, the white willow, a local variety, I think, is found abundant. And everywhere its stems are stung by some insect; so that a single shoot will subdivide minutely, and send out a dozen shoots from the latent bud areas. To a far less extent than one would suppose, this sort of many-ribbed and thickly leaved retreat is used by the birds as a nesting place. But the kingbird, the robin and the bronzed grackle all know a thing or two in this connection, as the illustration shows.

Such sites are almost invariably over water, and such the grackle loves. Far out on the swaying branches, where some sprouty stem invites, the bulky, earth-plastered nests are built; so far out that, in one case, I have trussed the branch with cord, to keep the lusty young from drowning.

Those that are familiar with the normally, much-clouded egg of the bronzed grackle will note with interest, the unusual character of the eggs shown with this sketch. They were

of a clear robin's egg blue, without clouding, and with bold, dark markings of amber.

One reminiscence of the feeding habits of this grackle in breeding time, must suffice in closing. In the sweet old barefoot days, while going to and fro amid the growing corn, there grew familiar the busy forms of the mother grackle, bustling along the lake-shore, fishing for tadpoles and young frogs, amid the lake-weed and the foamcrests of the summer waves. And I can hear, today, the musical stridence of their voices, mingling with the music of the water; and the touch of the cool breeze and the whiff of the lake odors come back to one with a thrill; and these are the things that keep some of us grey-haired fellows from growing old.

#### THE YELLOW RAIL.

BY MORRIS GIBBS.

The rail family is composed of species of birds which are remarkably different in their social life, particularly in reference to their gregarious habit or lack of it. Some there are, as the American coot, which are much given to flocking, and I have seen flocks of over an hundred and huddled together on the water so that a shot would kill a dozen or more. Then there are the Gallinules, less given to flocking, and in the salt water districts the marsh hen or clapper rail, which flies in straggling flocks. Then in a

generally distributed manner we have the Virginia and Carolina rails, the latter in particular being well known over a large part of the union; yet these small rails, though abundant about marshes and well known to the observer, are rarely seen in more than pairs. There is the King rail, or fresh water hen, which much resembles the near relative, the clapper rail—the one in the salt marshes and the other in fresh water regions. All told there are eighteen rails known to North America, fifteen of which are supposed well-

marked species, and three varieties. This according to a not too recent standard catalogue.

In the great lake region there are six well defined species, five of which are well known in suitable sections and one always a rarity wherever found. These Michigan rails are the King rail or fresh water marsh hen, sometimes called mud hen; Virginia rail, Carolina rail, Florida gallinule, American coot, all found abundantly in certain sections and the nesting habits of which are well understood, and one—the yellow rail—which is but little known in North America and scarcely met with in the great lake region.

The yellow rail, porzana noveboracensis (Gmel.), is such a rarity that it may almost be called an anomaly in regard to its appearance. a few quarters in this land, and widely separated at that, where it is said that the subject of this sketch may be found almost to a certainty. But in the most of the states of the union it would be a sorry undertaking for a collector to attempt to make a reputation by hunting the yellow rail. As a matter of ornithological interest I kept careful watch for this elusive bird for over a quarter of a century, but in my trips in many quarters of the north and south I never have been fortunate enough to meet with a specimen in the field. Yet wherever I have been and have met with reliable observers I have heard of the rare captures of this strange yellowish bird.

In Michigan there have not been above a dozen captured, at least as reliably identified, though I doubt not that others have been shot and discarded as no account marsh birds by unobservant gunners. On October 19, 1890, two acquaintances brought me a fine specimen which they had shot at dusk in the marsh near the city of Kal-They were snipe shooting and flushed the little bird from the long grass. Observant of rare creatures, they decided to bring it to me for identification. One point of identity they noticed when the bird was on the wing and which may assist other collectors in marsh shooting—the white spot on the secondaries was plainly to be seen when the bird flew. They also said that the bird rose with greater vigor and flew swifter than does the common sora rail.

My next meeting with this almost straggler was in Wilmington, Ohio, where I visited on my way home from Florida in the first week in May, 1894. A badly mutilated specimen was found in the road, where it had evidently fallen after being killed by flying against an obstruction. Rails are often killed by flying against electric lights and wires, and I know of a dozen instances where soras and Virginias have thus met their death.

About the middle of September, 1900, another badly mutilated yellow rail was brought to me and which was picked up in the center of the city of Kalamazoo, Mich. It was too badly injured to make into a desirable specimen, but was readily identified.

These notes may give an inkling as to the time and route of migration. Very little is known regarding the nesting habits of this interesting bird. The fact that the skins and eggs of this

bird bring high prices is the best of evidence that the bird continues a rarity. The eggs, six to nine in number, are of a rich buff-brown, speckled with reddish dots at the larger end. Because of their rarity impositions are not rarely practiced on unsuspecting well-to-do egg collectors.

#### A GALLINACEOUS BIRD

#### BY GLEN M. HATHORN

PHOTO BY THE AUTHOR

All through the summer I had heard the notes of Bob White as he whistled and called sweet and soft to his mate who, perchance, had already begun housekeeping amid the waving blossoms of the upland meadow, and I often paused in my study and listened as I dreamed of a nest full of eggs that I might some day find.

The day came in June, late June it was, too, when all nature was blossomed out in red and yellow and blue and pink, and the air was laden with the scent of the honeysuckle and the wild rose.

It was a lovely bright day, such a day as one enjoys when out in the open, not too warm to be uncomfortable, but rather warm enough to cause one to pause and dream day dreams as he stood beside some tall field lily and watched the bumble bees, drunken with honey, fly heavily away with their sweet load, or stand and gaze into the depths of the deep blue sky and listen to the rippling notes of the bobolink.

Then suddenly from afar you hear the love call of Bob White; borne on the flower-scented air, it comes to you with a deeper and more holy significance than you had ever imagined it could carry, and your heart bursts into song and leaps for joy at the sound, and you think what a happy old world this is after all.

Sir White had been singing for some time on the same fencepost, and I concluded that something of great importance must be keeping him there, so I bent my steps in his direction.

Having arrived in his immediate neighborhood, he suddenly took wing from the post on which he had been sitting and struck off toward the clover field to the south. I passed on my way, looking to right and left, reached a wire fence and started to climb through, when, quick as a flash, there flew from under me a large bird that so startled me that I lost, for a moment, my wits and tumbled headlong into the grass on the other side.

After gathering myself together and picking up my camera, which I had dropped in my haste, I began a search for the nest, which I thought must be within the radius of a yard or so from the place where I so suddenly entered the field.

And sure enough, directly under the bottom wire of the fence, midway between two posts, I found the nest which contained sixteen slightly incubated eggs, which were so well con-

cealed that had it not been for the flushing of the bird its presence would have never been detected and this ar-



ticle would have remained unwritten.

It being rather late in the day, I made two exposures with my camera,

giving one plate a few seconds more time than the other. Both of them, however, came out very nicely with but slight an advantage to the one here presented.

The nest was composed entirely of long dry grass, the eggs were grassstained and somewhat discolored, but presented a beautiful appearance in the nest.

Having made a few entries in my note book, I came way, leaving the nest of treasures to the rightful owner and bringing home with me a picture that will outlive not only the mother of that precious home, but the writer as well.

#### CHUCK WILL'S WIDOW

BY ALBERT F. GANIER

While in Jefferson county, Mississippi, I found the Chuck Will's Widow a very common resident.

They would begin to call about halfpast six o'clock in the evening and would keep it up until half-past eight; after that time only a few calls could be heard until daybreak, when the woods would again seem to be alive with them.

The notes could not be better described than with the words, *chuck will's widow*, the last note being "jerked" out much quicker than the first two.

After timing several I find that from two to six seconds elapse between each call and that the bird takes a rest at the end of from fifteen to twenty-five calls. At a distance only the last two notes can be heard, and on a still night they can be heard a mile.

The calling notes begin to lessen from the first of July and by the fifteenth no more are heard.

A typical nest was found by myself on June 12 in a thick woods on the side of a gently sloping hill. The two eggs, which were unusually small, were laid on the plain leaves, and so closely did they resemble them that one standing over the nest could not distinguish the eggs from the leaves. I find that the females never make any attempt to make a nest; they do not even pile the leaves together.

The first young of the year were seen on June 22. As I was walking along near the edge of a woods I

flushed two young and an old one. The young flew into a cotton field about fifty feet off. They resembled screech owls more than anything else, for the wings and tail had not reached one-half their full length.

The old bird flew a dozen feet off and began to cluck like a hen.

The Chuck Will's Widow seems to show little preference between the thin

pine woods and heavy mixed woods, as I have found them common in both. In the daytime I have never found them in any other place except on the limbs of low trees.

I also wish to state that their common cry is only uttered when resting, and not, as Mr. Davie says, 'on the wing."

ALBERT F. GANIER.

Vicksburg, Miss.

#### NOTES FROM THE FIELD

BY THE "FIELDERS"

All indications so far this fall (Nov. 18th) point to an exceedingly mild winter for us this year. Last month a neighbor of ours picked ripe red raspberries that grew in his garden. On the 1st of November I found a red clover blossom, the prettiest I have seen this year. If such indications amount to anything we may enjoy a tramp to the woods on Christmas day.

—EDITOR.

On the 31st of last March I heard the song of the golden-crowned kinglet for the first time, although this tiny tilter had been my familiar companion all winter and for many winters in my numerous strolls to the woods. The song was a saucy chatter, quite similar to the opening notes of the ruby-crowned kinglet's ditty, but much feebler.—James McCracken, Chicago, Ill.

The amount of food which a young robin is capable of absorbing is enor-

mous. A couple of vigorous half-grown birds have been fed and in twelve hours devoured ravenously sixty-eight earth worms weighing thirty-four pennyweight, or forty-one per cent more than their own weight. A man at this rate should eat about seventy pounds of flesh per day and drink five or six gallons of water. — BIRDS.

Somewhere in my neighborhood, I think perhaps a mile and a half or two miles from my home, there is a large grove of oak and hickory that is occupied every fall and winter by a large number of crows as their winter roost, and every afternoon from 4 o'clock until dusk you can see them silently winging their way in that direction.— Lewis Sanford, Cedar Rapids, Ia.

Several times this fall I have seen an albino English sparrow in our yard feeding with several of its kind on some berries that grew wild in the garden. The crown of its head is nearly pure white, the white extending down to the nape and gradually losing itself in the natural body color.—

Editor.

Some may think that a tramp to the leafless woods in early spring would be monotonous, but the ornithological student already has his eyes open and is on the lookout for the early nesters. On warm, sunshiny days in February when the balmy zephyrs blow from the west and the cheery voice of the bluebird is heard from somewhere high in the atmosphere you may know that spring is fast approaching and that soon we will have all the birds back again. "The piping bluebird is come again." - FRANK VARCELLS, Marion, Ia.

Mr. Charles R. Keyes, one of the old reliable ornithologists of Iowa, has located in California. Our loss is California's gain. His Iowa friends wish Brother Keyes success in his new home and hope to hear from him often through The Bittern.—C. F. H.

Dr. Amon R. Shearer, Mount Belview, Texas, writes us about the loss of bird life during the September gale. Our readers may look for a few words from his pen in our next issue.—C. F. H.

Our friend, Chas. C. Tryon, who until recently published *The Western Ornithologist*, has accepted a position in the United States army and is doing well in the government service. Brother Tryon expects soon to be ordered to foreign service, though whether it will

be Cuba or Philippines has not yet been decided.—C. F. H.

Donald A. Cohen, Alameda, Cal., business manager of *The Condor*, has returned from his outing, a couple of days' hunting for game and specimens in the mountains and on the marsh, with fair luck.—C. F. H.



PHOTOGRAPHED FROM NATURE

#### **GENUS HOMO**

Common Name—Hathorn.

Habitat—Cedar Rapids and vicinity, sometimes migrating (by the light of the moon) to bordering states.

Description—Crown, light chestnut; other parts, brownish-white; iris, blue. Length—Sixty-six inches.

A few general notes on this rare (?) species might be of interest to the readers of The Bittern, as I doubt if many of you have ever had the opportunity of seeing it in its natural haunts, but the fact of the matter is the writer has a little respect for other people's feelings, and—well, let that pass.

GODWIN OSGOD.

Sigxpdamkciiibtlm, Conn.

#### THE BITTERN

A Bi-Monthly Magazine devoted exclusively to Ornithology and Oology.

GLEN M. HATHORN, - Editor and Publisher Cedar Rapids, Iowa.

CARL FRITZ HENNING, - Associate Editor Boone, Iowa.



Subscription, (in advance) ..... One Dollar per year Single Copies, (postpaid) ..... Twenty cents Advertising rates will be sent on application.

Published on the first of each alternate month at 316 Second Avenue, Cedar Rapids, Iowa.

Advertisements, Articles, Exchange Notices, etc., for publication must be in by the 20th of the month preceding date of issue.

Articles and items of interest solicited from all.
All communications should be sent to the Editor at
1600 E Avenue, Cedar Rapids, Iowa,

Entered at the Cedar Rapids Postoffice as Second Class Matter.

#### **EDITORIAL**

The editor takes great pleasure in announcing to the many readers of THE BITTERN that Mr. Carl Fritz Henning of Boone, Ia., has accepted the associate editorship of this magazine and begins his duties in that capacity with this issue. Mr. Henning held, until recently, a similar position with The Western Ornithologist, where his service was highly appreciated. Being a conscientious worker and well posted student of ornithology, he has won many friends. Mr. Henning will have full charge of our book and magazine review department and will contribute an article occasionally.

Please mention THE BITTERN when answering advertisements.

Chas. C. Tryon of Avoca, Ia., has given up his excellent publication, *The Western Ornithologist*. We are sorry to lose the W. O., as we (Mr. Tryon and I), being brother publishers, had taken a warm interest in each other's welfare and had become, through correspondence, fast friends.

Subscribe for The BITTERN. It is the only ornithological publication in the Mississippi valley, one that is hand in hand with the American ornithologists. Read our announcement on another page and send in your subscription.

W. Nehring, 16 East Forty-second street, New York City, has a very fine set of convertible ampliscopes which he is selling for \$5 for 4x5, and \$6 for 5x7. Write him for circular.

H. E. Williams of Charlotte, Mich., editor and publisher of *The Philatelic Chronicle*, has kindly credited us with a year's subscription to that magazine. The price is 25 cents per year.

Frank H. Lattin of Albion, N. Y., has sent us a copy of his "Standard Catalogue of North American Birds' Eggs," for which he has our thanks.

The editor would like to get the address of A. Mowbray Semple. Should any one know of his whereabouts please let me know.

Our next number will appear promptly on March 1st. Will you have one?

THE BITTERN has taken the place of The Western Ornithologist.

#### THE FLICKER

The Flicker, which is also known as the Golden Winged Woodpecker, Clape, Pigeon Woodpecker, Yellow-hammer, Highhole or Highholder, Yarup, Wakeup, Yellowshafted Woodpecker and by other names, is a species of woodpecker and is quite common during the months of August and September in this part of Pennsylvania.

It is about the size of a meadowlark, being in length about twelve and one-half inches, extent about twenty inches, and, like the meadowlark, can be distinguished from other birds while flying by the conspicuous white feathers of the tail.

The under surface of the wing and tail feathers is gumbage-yellow; there is a crescent of bright red on the upper part of the neck and the breast is covered with round black spots, while the neck and sides are ashy.

He differs from most other woodpeckers in that he is frequently seen on the ground, hopping around in meadows or along the road in search of food. His favorite place to light is on a dead limb in the very top of a tree.

The shrill cry of the Flicker in autumn is a great deal like that of the Blue Jay and I have frequently, while in the woods, mistaken a Flicker for a Blue Jay.

The Flicker commonly lays about six eggs, which are of a white color.

HOWARD E. BISHOP.

This number of THE BITTERN, owing to change of printer and the increased size, was unavoidably delayed. The March number will appear promptly on the first of that month.—EDITOR.

#### **PUBLICATIONS RECEIVED**

Bird Lore, II, No. 5, October, 1900.

Birds and Aature, VIII, Nos. 3 and 4, October and November, 1900.

Condor, The, No. 6, November and December, 1900.

Aotes on Rhode Island Ornithology, I, Nos. 1, 2, 3, 4, 1900.

Oologist, XVII, No. 8, September and October, 1900.

Philatelic West and Camera News, The, XIII, No. 3, November, 1900.

Philatelic Chronicle, The, II, No. 7, November, 1900.

Popular Science (Lillard & Co.), XXIV, Nos. 10, 11, 12, October, November and December, 1900.

Proceedings of the Nebraska Ornithologists' Union at its first annual meeting (Lincoln, Neb., Dec. 16, 1899), January, 1900.

Wilson Bulletin, No. 31, 1900.

RECREATION, XIII, Nos. 4, 5, October and November, 1900.

THE MAINE SPORTSMAN, VIII, October and November, 1900.

NATIONAL SPORTSMAN, V, Nos. 1, 2, 3, 4, July, August, September and October, 1900.

 $\ensuremath{\mathrm{Book}}$  Reviews, VIII, October and November, 1900.

THE CRITIC, XXXVII, No. 5, November, 1900. THE OUTLOOK, 66, Nos. 10, 11, November, 1900.

We had intended to call this number of THE BITTERN the December number, but owing to the change in printer, increase in size, etc., we were delayed nearly a month, so we decided to call this the January, 1901, number, and thus begin with the new century as well as the new year.

This is only a sample of what our readers may expect during the year.

If you wish to secure a complete file for 1901, it is essential that you send in your subscription at once, as we will only be able to supply back numbers for a very short time.

"Son, go hump thyself."

THE EDITORS.

#### NESTING OF THE GREAT HORNED OWL

#### BY CARL FRITZ HENNING

The Great Horned owl, the largest of the resident raptores that breed within the borders of Boone County, chooses the "Ledges" and vicinity as their favorite resting place. Here the "inorganic and organic worlds have conspired to make this one of the most picturesque spots in the region." Among the crevices of the ledge, sandstone, which in places on the Des Moines River, and at the mouth of Peese creek, is a hundred feet, and upwards, in thickness, this powerful and destructive owl rears its young.

Often an old hollow tree is used, but more frequently the last year's nest of the Red-tailed hawk. It was in an old nest of this species that I secured two pretty eggs of the Great Horned Owl, on the 2d of February in 1899.

Ordinarily, Nature is still resting and recuperating in the long sleep begun in December, but this year there were encouraging "signs of spring"

"The bare hills glisten in the ascending sun, Whose rays compel the moon to hide In clefts and crevices, his power to shun."

January,—usually a month of extremely cold weather in Iowa,—was, by the 10th, quite the opposite. Bands of Cedar Waxwings were traveling about in great flocks, feeding on junipers whorth berries, and leading a romantic life.

Between the 11th and 21st the weather was extremely mild. At my home the honey bees came out for an airing; in my garden, the hedges, orchard and vineyard were alive with tree sparrows; these are the friendly

little fellows, with their bright chestnut crown, that hop to your very door for crumbs, throughout the mild weather. Take good care of the little visitors; they have traveled a long distance to make the dreary winter cheerful for you with their sweet twitterings, and will not tarry with you much longer.

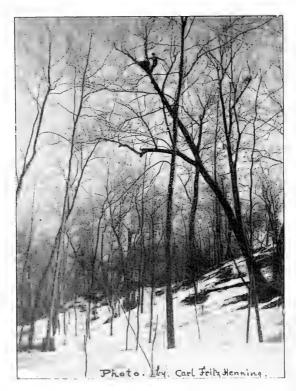
By the time spring is really here, the little feathered friends have again left us, and are on their way to their nesting ground in the Hudson Bay region. By the 22d, flocks of geese, "white winged prophets of the coming spring" were going northward; and the little red-poll linnets,—pretty crimson-tinged birds,—were feeding on maple buds. A more favorable season for early nesting could not have been chosen by the Great Horned Owl.

Enjoying nature in her every mood, I could not,—under the circumstances,—resist the temptation to spend the day in the woods, and arrived at the Ledges, in company with two friends, about 10 o'clock in the morning.

It is only the second of February, but just like spring. The little stream of water steadily rolling by us and passing through the Ledges on its way to Des Moines River, is Peese Creek. The scenery along its banks is beautiful,—the huge rocks and bluffs of sandstone inspire one with awe and wonder.

Following a branch stream, the surroundings become wild and romantic. Nature has taken huge rocks and boulders and scattered them in the wildest confusion. The heavy timber on either side,—the steep and deeply cut ravines,—the sparkling springs flowing over solid rocks,—all adds to the scene of grandeur.

Let us rest here on this fallen monarch of the forest, and take a draught of spring-water,—how cool the very thought,—how refreshing the effect on the heated and tired body. On our approach to the spring we saw half a dozen crows drinking at the little pool, that was formed by the water dripping from an overhanging rock,—they, too, enjoyed the water. Perhaps they intended to take a bath, but their glossy black suits, glistening in the sunshine, showed no signs of neglect, as they slowly flew away.



NEST OF THE GREAT HORNED OWL

Even the rocks over which the water flows,—forming little pools, clear as crystal,—seem to feel the cooling effect, for on them "the greenest mosses cling."

Many birds, jolly little chickadees, friendly nuthatches,

"Shrewd little hunters of woods all gray Whom I meet on my walks of a winter day." Boisterous woodpeckers and merry companies of sweet lisping red-poll linnets, are near us.

Look across the little valley,—there where huge bluffs of sandstone are,—see how the great trees with bare branches "almost as distinctive as that of leaves" outline beautiful patterns against the blue sky. A little to the left, perhaps a half mile, is a deep ravine,—on either side this deep cut gorge is covered with timber.

At the entrance to, and near the foot of the ravine, stands a monarch of the forest, and in its topmost branches we can see an old hawk's nest,—tree and nest are clearly outlined. My companions tell me that a pair of red-tailed hawks built this nest last spring and reared its young in the home among the branches. Later in the season a pair of pigeon-hawks used the same nest.

This ravine had been the favorite "roosting" place of several Great Horned Owls throughout the winter, so we crossed over to investigate.

We followed a well worn path that had been made by the little herd of cattle that grazed here during the summer months,—now and then in some secluded and well protected spot a tiny flower would show itself.

"Oft I have walked these woodland ways, Without the blest foreknowing, That underneath the withered leaves The fairest flowers were growing."

Nearing the nest, which was in a basswood about sixty feet up, we began to look about for signs of life, but could not discover, from where we stood, that the nest was occupied, although it had the appearance of having been repaired quite recently,—a few new sticks and twigs seemed to

have been added to the edge of the structure.

Walking around the top of the ravine in order to obtain a better view of the nest if possible, I found some owl "pellets" beneath a neighboring tree; here was at least evidence that an owl had been in the vicinity—but we could not discover that the nest was occupied.

One of my companions carried a small rifle,—to use in case we came across a gray or fox squirrel,—and concluded to take a "snap-shot" at the nest. This was rather risky, for if the nest contained eggs, the chances were that they would get broken, and if there was no owl on the nest, we would never be the wiser, anyway, unless one of us climbed up to the nest. But of this we did not think; my friend took a snap shot at the nest, and awaited the result.

Look—there from over the top of either side of the bulky nest strethes a large wing; a great head raises up and out of the nest as if in great agony, and falls forward over the edge,—suddenly the great body plunges and falls dead at our very feet; the life blood of this greatest of all nocturnal raptores, slowly sinks into the wet snow that still covers the ground in this part of the heavily-wooded ravines.

My friend, who was born and raised near the ledges, is an expert climber, and soon reaches the nest,—a large, bulky affair. The outside was made of coarse sticks, lined with finer sticks, twigs and rootlets, and then lined with feathers from the breast of the owl.

The eggs, beautiful pure white ones,—two in number,—were safely brought to the ground, and are now in my private collection.

The owl, a great beautiful bird, I took home and afterwards mounted.

Shooting an owl without seeing one, was at the time, considered a lucky shot. But as I now afterward recall that early spring day at the Ledges, and imagine I again hear the sweet lisping notes of the red-poll linnets and the joyous notes of the feathered

friends,—the beautiful woodland scenery with its refreshing little stream and pool of spring water,—all loses its charm by that one hasty act of ours, that destroyed the life of the Great Horned Owl.

Life was perhaps as sweet to her, and as full of hope as it is to any of us. Think of the sorrow it must have caused her liege lord when, a little later, he discovered the nest robbed of its treasures, and his faithful mate dead.

#### NOTES ON NEWS

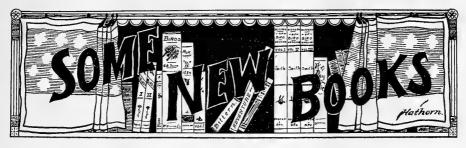
Collectors are filled with an adventurous spirit, and if any of the readers take the pains to examine into the subject, they will find that the lovers of birds are almost invariably given to travel and adventure. I have found this to be so in almost every case, and will mention one neighborhood as an In Kalamazoo County, illustration. Michigan, always noted for its collectors, the following enthusiastic observers have made fame, if not fortune, in this neighborhood, as well as in other states. This list embraces the most of the old-time collectors, some of them having been known to their brother observers for over a quarter of a century.

Most important is Benjamin Syke, who is at home anywhere in the woods. He has collected north and south, and has traveled afoot through the pineries of the Lake region, and navigated alone and in a canvas boat the lagoons and

rivers of Florida. He knows the songs of all the birds north and south, and is the most resourceful woodsman and agreeable companion that ever climbed a tree or waded a marsh.

George Sudworth is another extensive traveler and careful observer, and the finest skin-maker in the country. He is now devoted to forestry, and is in that department at Washington, but he writes me that he feels the spirit come upon him to drop everything and get out among the birds. Mr. Sudworth is a conscientious worker in any thing he undertakes, and has made a success of his botanical work.

Dr. Morris Gibbs, who has been well known as a writer on many branches of natural history for over twenty years, has observed in many states, north and south. He is as familiar with the snakes, turtles and fish, as he is with the birds and flowers. REVIEW 15



ALL BOOKS, MAGAZINES, ETC., FOR REVIEW SHOULD BE SENT TO THE ASSOCIATE EDITOR,

CARL FRITZ HENNING, 922 EIGHTH STREET, BOONE, IOWA

THE LIGHT OF DAY, Religious Discussions and Criticisms from the Naturalist's Point of View, by John Burroughs. Houghton, Mifflin & Co.

This neat little book is uniform with the Riverside edition of Burroughs' works and is a serious consideration of very important questions and will be read with interest even by those who differ from its conclusions.

C. F. H.

BIRD STUDIES WITH A CAMERA, by Frank M. Chapman. Pp. 214, with numerous half-tone illustrations. D. Appleton & Co., New York. Cloth. \$1.75.

This, the latest of Mr. Frank M. Chapman's charmingly written books on nature, will be welcome to bird students throughout the United States. The author is a keen observer and writes with rare grace and sincerity and is to be congratulated on his phenomenal success in photographing birds in nature-they are remarkable illustrations of wild life and show what can be done with a camera in the hands of a naturalist. The essays are charming and well written, especially the chapter describing the chickadees with their family of nine little ones. Other chapters, "The Least Bittern," "Two Herons," "Where Swallows Roost," "Two Days with the Terns," "Perce and Bonaventure," "The Magdalens," "Bird Rock," "Life on Pelican Island," are equally good. "Bird Studies with a Camera" is one of the most interesting and valuable books of its kind that has been written and will prove useful in making people love and protect our birds. C. F. H.

BIRD HOMES—The Nests, Eggs and Breeding Habits of the Land Birds Breeding in the Eastern United States, with hints on the rearing and photographing of young birds, by A. Radclyffe Dugmore. Illustrated with photographs from nature by the author. Doubleday & McClure Co. Pages xvi–183. Fifty half-tone illustrations and sixteen colortypes. \$2.00 net.

Mr. Dugmore's "Bird Notes" is a beautifully illustrated volume, one in which the camera has been used with great success. The author describes the nests, eggs and breeding habits of the land birds that nest in the Eastern United The work is illustrated with many pretty half-tones and sixteen colorotypes and enriched throughout by a considerable number of pictures of young birds. Mr. Dugmore gives a sensible introduction to his work and clearly tells us that the object of his book is to stimulate the love of birds. Following the introduction are chapters on "Birds' Nests and Eggs," "Egg Collecting and Its Object," "Photographing Nests and Young Birds," "Hints on the Rearing and Keeping Birds," and in chapter V, "Approximate Dates when Birds Begin to Nest," are given. This praiseworthy volume will certainly become a popular work on the nests and eggs of our birds. The author encourages the study of birds in the field rather than the enlargement of the collection in the cabinet, and pleads for their protection.

C. F. H.

NATURE'S CALENDAR—A Guide and Record for Outdoor Observations in Natural History, by Ernest Ingersoll, with twelve illustrations from original photographs by Clarence Lown. New York and London. Harper & Brothers. Cloth, \$1.50. Pages xii–270.

This neat volume is a practical guide to nature's happenings day by day. It is a useful book for the student of nature in which to record his daily observations, and when the notes for the year are complete will have, as the author says in his introduction, "a record full of the sunshine of summer days, the singing of birds, the gaiety of butterflies and blossoms, the aroma of the woods and the plash and sparkle of waters." The author's skill with the pen is well known. The matter is arranged under months with an introductory essay and picture, the calendar following with the mammals, birds, fishes, batrachians, reptiles and insects belonging to that month.

The dates given refer to an ordinary season in the region about New York city. Each page has a wide dated margin to enable the reader to note his own observations.

C. F. H.

SQUIRRELS AND OTHER FURBEARERS, by John Burroughs, with fifteen illustrations in colors after Audubon and a frontispiece from life. Boston and New York. Houghton, Mifflin & Co.

In this neat little volume of 149 pages, fragrant of the out-of-doors, Mr. Burroughs has gathered for the younger readers most of his scattered notes on our smaller mammals—the squirrels, the chipmunk, the woodchuck, the rabbit, the muskrat, the skunk, the fox, the weasel, the mink, the raccoon, the porcupine, the opossum, the wild mice—and has added to

them much interesting new matter. There are also two chapters, essays on "Glimpses of Wild Life" and "A Life of Fear," written in the author's own charming style. Burroughs always interests us. The book will be read by old as well as young. The reproduction of fifteen of Audubon's colored plates of small mammals adds to the interest and value of the book.

C. F. H.

THROUGH THE YEAR WITH BIRDS AND POETS, edited by Sarah Williams, with introduction by Bradford Torrey. Cloth. Richly bound, gilt top, 350 ppg. Illustrated by Walter M. Hardy. Boston. Lee & Shepard, publishers. 1900.

This anthology by Miss Williams forms a splendid collection of the best American poems relating to birds, classified according to the seasons of the year and subdivided by months, each division having an illustrated title page showing some of the birds appropriate to the time of year indicated.

"Through the Year with Birds and Poets" will appeal to every student of nature and lover of our feathered friends. This handsomely bound volume contains 242 poems or extracts of poems. Ninety-nine of our poets are represented. The work is unique and attractive and one of the prettiest of the season, and will certainly prove an acceptable gift book.

\* \*

FEATHERS FOR A YEAR, published by R. H. Russell, 3 West Twenty-ninth street, New York, is the most beautiful bird calendar published, reproducing in the exact colors eleven drawings by H. H. Bennett of life-sized birds characteristic of the season, each drawing described by an appropriate verse.

#### WANTS, EXCHANGES, ETC.

Brief Want, Exchange or For Sale notices inserted in this department for 25 cents per 25 words. Additional words one-half cent each. No notice inserted for less than 25 cents. One notice of thirty words free to each subscriber.

INDIAN RELICS bought, sold and exchanged. Write for lists and other information. Want large flint spears and copper implements. Dr. W. O. FMERY, Crawfordsville, Ind.

EXCHANGE.—Stamps, relics, Indian relics for eggs and Indian relics, or photos of nests and birds, or will pay cash. E. H. PERRIN. Newmarket, Ontario, Can.

Wanted.—Liberal prices will be paid for Nos. 4, 5, 6, 8, 10 and 11 of Vol. 1, Nidologist, and for Nos. 2 and 4 of Vol. 1, of The Osprey Guy C. Ri. H. M. D., Tr. y Bldg., Sioux City, Iowa

NOTICE—Will reliable collectors having strictly firstclass sets, both rare and common, to exchange for same, please send full lists. State catalogued preferred. All answered. A. E. PRICE, Grant Park, Ill.

## GRAND CLUBBING OFFERS

FOR

## 1900-1901

Publ:	ISHER'S PRICE OUR PRICE	Ē.
\$9.50	The Bittern, Success, Current Literature, McClure's, Review of Reviews and Home Magazine	00
$9.5 \ 0$	The Bittern, Success, Current Literature, McClure's Review of Reviews and	
	Cosmopolitan 5.0	0
	(Review of Reviews must be a new subscriber.)	
7.00	The Bittern, Success, Current Literature, McClure's and Home Magazine 5.0	0(
7.00	The Bittern, Success, Current Literature, McClures, and Cosmopolitan 4.2	25
7.00	The Bittern, Success, Current Literature, McClure's, and Pearsons 4.2	25
7.00	The Bittern, Success, Current Literature, Cosmopolitan and Home Magazine 4.0	0
7.00	The Bittern, Success, Current Literature, Pearson's, and Home Magazine 4.0	90
6.00	The Bittern, Success, Current Literature, and McClure's 3.7	75
6.00	The Bittern, Success, Current Literature and Home Magazine	50
6.00	The Bittern, Success, Current Cosmopolitan or Pearson's	60
	(Review of Reviews, new subscriptions, will be sent in place of Current	
	Literature in any of the above combinations if desired.)	
4.00	The Bittern, Success, McClure's and Home Magazine 3.5	25
4.00	The Bittern, Success, McClure's and Cosmopolitan 3.2	25
4.00	The Bittern, Success, McClure's and Pearson's 3.	
3.00	The Bittern, Success and McClure's	
3.00	The Bittern, Success and Home Magazine 2.	
3.00	The Bittern, Success and Cosmopolitan 2.5	
3.00	The Bittern, Success and Pearson's	

You certainly never had a clubbing offer like this one made to you before. Send in you subscription now, and begin with the new year.

#### GLEN M. HATHORN

1600 E AVENUE

CEDAR RAPIDS, IOWA

# This is what you.....

BARKURA RICER RICER BARKURAN

# want for Christmas

Do you wish to learn a profession—one which offers permanent, well-paid, high-class employment to you and one from which you can graduate, if you so desire, into Law or Journalism, or become a partner in some great business? A thorough knowledge of

### Stenography and Typewriting

will enable you to do all this-no other training can be so good



# The Chicago Typewriter

together with a complete course of the Gregg System of Shorthand Instruction taught by mail for \$40

This will enable you to own your own typewriter and become an expert stenographer by utilizing a little spare time each day.

# THE CHICAGO

was awarded Gold Medal at Paris Exposition, is a visible writer, has standard keyboard, and is the most speedy, simple and durable of typewriters, and turns out the most attractive work. Other typewriters sell for \$100, and a course of stenography at school costs about \$75, total \$175. There is no better typewriter on the market than **THE CHICAGO** and the instruction we give by mail is in every way equat to that any school can offer. This is an unprecedented opportunity and you cannot afford to miss it. Address all correspondence to

#### CHICACO WRITING MACHINE CO.,

94-96 Wendell St.,

Dept. S.

MOOLEGAE OLEGAE X ELECAE OLEGAE OLEGAE

Chicago, III., U. S. A.

