

The Conchologists' Exchange.

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A Publication Designed for Conchologists and Scientists generally.

ISSUED MONTHLY

BY

WM. D. AVERELL,

EDITOR AND PUBLISHER.

Correspondence upon Conchology, as well as reliable items of interest concerning the Mollusca, their habits, localities, etc., kindly solicited from all.

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WE present our readers with a double number this time; those for March and April being combined in order to more comfortably provide for future issues. It is proposed to make the number for May twelve pages in size, instead of eight as heretofore, and to have it well on its way to our readers by the 15th of the month.

EROSION OF FRESH-WATER SHELLS.

BY REV. WM. M. BEAUCHAMP.

(No. II.)

IT may prove a mistake to suppose that the erosion of shells is caused by the presence of lime in the water, and I judge it is often due to the emission of carbonic acid gas from plants acting upon the lime of the shell. Seneca River in New York, flows for a long distance through gypsaceous shales (sulphate of lime), and its shells are but moderately eroded, though affected by vegetable coating. In Onondaga and Cross Lakes, in the same formation, living shells are rarely eroded, while dead shells soon become rotten in the abundant marl. On the other hand Beaver Lake, a shallow pond a mile from and above the level of Seneca River, produces *Unio complanatus*, small and much eroded, and the large *Anodonta fragilis* is often worn entirely through the beaks. The pond has mucky shores and is filled with water weeds. Oneida Lake, 22 miles long, shallow, and in a level country, is another case in point. It is difficult to find a fair specimen of *Unionidæ* there, and at its outlet the little *Unio Novi-Eboraci* is very badly eroded. Still further north and in a sandy region, Salmon Creek furnishes *Melantho deciusus* with the apex squarely cut off, a rare thing in this part of the country.

THE liberal inducements placed before you in the handsome PREMIUM LIST, found in another column, should enliven your interest in "The Conchologists' Exchange" and make it what we propose it shall be at all hazards—the most successful paper of its kind in the country.

BRIEF NOTES ON THE LAND AND
FRESH-WATER SHELLS OF
MERCER CO., ILL.

BY WILLIAM A. MARSH.

(Continued.)

15.—*Unio graniferus*, Lea.

This is a deep-water shell and is rather rare. It has been thought by some conchologists to be identical with *U. verrucosus*, Barnes, but such is not the case. It is a thick, heavy species and usually thickly covered with tubercles. The nacre is either of a chocolate or copper color and very shining. I have never found it near the margin, but always near the channel of the river; being one of those species that remains very inactive and is found buried deeply in the sand and gravel beds.

16.—*Unio gibbosus*, Barnes.

This is a fine species and is nowhere abundant in this locality. I have never found more than a dozen specimens in the river, but it is more common in Pope and Edwards creeks. It is somewhat variable; the river forms being solid and very gibbous in outline, while the creek forms are nearly as straight as the *U. rectus*, Lamarck, with very much thinner shells and narrower teeth. The epidermis is dark brown, usually rayed, but very obscurely. Nacre either copper or chocolate colored. The beaks when perfect are coarsely granulated.

17.—*Unio gracilis*, Barnes.

This is a winged or bialate shell, very thin and fragile, but owing to the peculiar texture of the epidermis it does not crack badly. It is found in the river abundantly and inhabits both shallow and deep water, and also occurs, although very sparingly, in Pope and Edwards creeks. *Gracilis* is usually finely rayed, but it is often found devoid of rays. It is very active in its movements and I have often found this

species with *U. laevissimus* in great numbers in the river very remote from the channel, crawling around in the sand in water but a few inches in depth. As far as my observations go it is our most active species.

18.—*Unio Higginsii*, Lea.

A thick and heavy shell with a dark brown epidermis; teeth very large; shell oblique in outline; nacre white or salmon color. It is found only in the river and is very rare, as I never found more than a dozen specimens. Habitat, deep water, near the channel. The young are beautifully rayed but the rays become obsolete with age. It resembles *ellipsoidis* somewhat but differs in outline. In its teeth and in its high, massive incurved beaks it also resembles *orbiculatus*. Hild., somewhat, but differs very materially from that species in its outline, teeth and beaks, while it is very much more inflated. There is a wide difference between the sexes of this species.

19.—*Unio laevissimus*, Lea.

This remarkably fine species is found here rather sparingly in the Mississippi River and its sloughs and lakes. Like *gracilis* it is an alated or winged shell and although it closely resembles *gracilis* in some respects, it is a very distinct species. At certain seasons of the year it seems to be very active and may then be found out on the sandbars where the water is very swift and but a few inches in depth. The handsomest specimens of this shell are found in the river sloughs having a muddy bottom, where it seems to be more abundant than in the river.

20.—*Unio ligamentinus*, Lam.

This species attains a very great size and is found here only in the river, in deep water and is quite common. There are two quite distinct varieties, one having a white pearly nacre and beautiful green rays when young; while the other has a pink nacre with very dark green rays and, when young, strongly resembles the young of *crassidens*. Professor R. E. Call in the Bulletin of the Des Moines Academy of

Science, page 54, says that the types of my *Unio Uptonii* came from the Mississippi River in the western border of Mercer County. This is a mistake as my types of *Unio Uptonii* came from Kishawaukee River, Winnebago County, Illinois, and I have never laid any claims to having found this shell in Mercer County. There are a number of Southern species closely resembling *Unio ligamentinus*. The light-colored variety is often received from collectors as *Unio crassus*, Say, but Mr. Lea said that the true *crassus* of Say was an European species.

21.—*Unio luteolus*, Lam.

This is a handsome and extremely variable species and is probably the most widely distributed *Unio* in North America, having been found as far north as the Red River of the North, and is also reported from Texas. There are many Southern species very closely resembling *luteolus*. It is found here in Pope and Edwards Creeks and abundantly in the sloughs of the Mississippi River. There seems to be four varieties of this shell here; one variety, found in Pope Creek, is entirely devoid of rays, in this respect closely resembling the Southern form, *Unio stamineus*, Con.; the second variety, found in Edwards Creek, is quite flat and beautifully rayed; the third variety, found in the river sloughs, is very much inflated and the male differs greatly from the female in outline, while the fourth variety is found in the river proper, and is very difficult to separate from the green variety of *Unio ligamentinus*. Lamarck, as it is a thick, solid variety and very straight on the dorsal and ventral margins.

22.—*Unio lacrymosus*, Lea.

A fine pustulose species found sparingly in the river sloughs and in the small lakes on the Bog Island, and seems to delight in the muddy bottoms of the sloughs and lakes. *Lacrymosus* is certainly closely allied with *asperimus*, Lea, if not identical with it. In most cases I have found it associated with three of our rarest species, viz: *multiplicatus*, *Mississippiensis*, and *Margaritana confragosa*.

23.—*Unio monodontus*, Say.

This very rare species in any locality is really a *Margaritana*, but was described as a *Unio*, and is generally classed as such. It occurs here only in the river and it certainly is a rare occurrence to find it here at all. I have never found one alive, but frequently find dead shells, which is probably owing to its very peculiar habits. I am informed that this species is usually found in or near the channel of the river, deeply imbedded in loose gravel and usually sheltered by some large rock, and seldom if ever moves unless disturbed by some agency no. its own.

24.—*Unio metanever*, Raf.

A beautiful pustulose species found very abundantly in the Mississippi river in deep water. It is a thick, heavy shell, usually covered with very beautiful arrow-head markings, although a variety, which we also have here, is provided with a very dark green epidermis and is entirely destitute of rays. It is a sluggish species and is found near the channel of the river, usually embedded in the banks of coarse gravel and sand. Years ago it occurred rarely in Edwards Creek, but is now extinct in that stream.

To be continued.

NEW LOCALITIES.

Ed. Conchologists' Exchange,

Sir:—A new locality, and the only one I have found, for *Unio amygdalum*, Lea, is Lake Dias, Volusia Co., Florida. *Unio occultus*, Lea, I have found in Lake Monroe, also, at the inlet of Lake Woodruff, but it is rare.

S. Hart Wright, M. D..

March 15, 1887. Lake Helen, Fla.

PUBLICATIONS RECEIVED.

List of Unionidæ received during 1885 and 1886, from Wm. A. Marsh, Aledo, Ill.—Canadian Etomologist.—Science Observer (The Proceedings of the Boston Scientific Society).

Bulletin of the Brookville (Ind.) Society of Natural History.

Land Shells of the Hawaiian Islands, by Mr. D. D. Baldwin, from the author.

RECORD OF A TWO DAYS' DREDGING CRUISE IN TAMPA BAY, FLORIDA.

BY CHARLES T. SIMPSON.

(Concluded.)

Locality; Tampa Bay, Florida, from mouth of Manatee River to Point Pinellas, Mullet Key and return. Depth, one to six fathoms. Date, August 3d and 4th, 1885.

SPECIES	LIVING	DEAD
<i>Melampus, coffeus</i> , L. (Small.)		I
<i>Ostrea virginica</i> , Gmel. (Living ones small and attached to other shells.)	Many	Many
<i>Anomia glabra</i> , Verrill	Many	
<i>Pecten dislocatus</i> , Say (Distorted.)	I	Many valves
<i>Plicatula ramosa</i> , Lam	Many	Many
<i>Mytilus exustus</i> , Orb (Very dark colored.)	6	
<i>Mytilus cubitus</i> , Say (All attached to shells.)	Many	
<i>Arca floridana</i> , Con. (Young. Covered with small oysters.)		Many valves
<i>Pectunculus pectinatus</i> , Lam.	Many	
<i>Nucula eborea</i> , Con. ?	Several	Odd valves
<i>Cardium muricatum</i> , L. (All young.)	Many	
<i>Cardium magnum</i> , Born (Very young.)	2	
<i>Lævicardium Mortoni</i> , Con. (Mostly dark colored.)	Very many	
<i>Lucina linteana</i> , Con.	Many	Many
“ <i>squamosus</i> , Lam.	Several	
“ <i>floridana</i> , Con. (Fresh.)		I

SPECIES	LIVING	DEAD
<i>Lucina trisulcata</i> , Con	2	Many
“ <i>pecten</i> , Lam	3	Valves
“ <i>costata</i> , Con		Many
“ <i>crenulata</i> , Con.	3	5
<i>Cardita floridana</i> , Con. (Very young.)	I	
<i>Crassatella lunulata</i> , Con (Some of these finely marked.)	Many	
<i>Venericardia perplana</i> , Con (Not found living elsewhere.)	Many	
<i>Parastarte triquetra</i> , Con.	3	
<i>Pleuromeris tridentata</i> , Say	Very many	Odd valves
<i>Venus ortonii</i> , Con (The young <i>fulgurians</i> form.)		I
<i>Venus cancellatus</i> , Gmel. (Small.)	I	
<i>Venus interpurpureus</i> , Con. (Rare.)	I	
<i>Venus inæquivalvis</i> , Orb. (Not found living elsewhere.)	5	
<i>Cytherea Conradina</i> , Dall (Many finely marked with chevron lines. Several brown specimens.)	Many	Many
<i>Cytherea maculata</i> , L.		I
“ <i>gigantea</i> , Chem (In shallow water.)		Many
<i>Dosinia discus</i> , Rve		2
“ <i>tenuis</i> , Dkr		½
<i>Ræta canaliculata</i> , Say		½
<i>Tellina brevifrons</i> , Say	I	
“ <i>Souleyetiana</i> , Recl.	Many	Many
“ <i>mera</i> , Hanley		Many
<i>Semele cancellata</i> , Orb (Very many valves.)		Many
<i>Cummingia tellinoides</i> , Con		½
<i>Solecurtus divisius</i> , Speng		6
<i>Corbula nasuta</i> , Say.	Many	Many
“ <i>Swiftiana</i> , Ad.	Many	Many
<i>Rocellaria ovata</i> , Sby		I
<i>Pandora Bushiana</i> , Dall	6	Valves
“ <i>trilineata</i> , Say.	175	Several

(The true *Pandora trilineata* of Say. Mr. Dall has shown (Bulletin Mus. Comp. Zoology P. 312), that the New England shell usually bearing this name is another species.)

SPECIES.	LIVING.	DEAD.
Dentalium diparile, Orb . . .	Many	Many
Cerithium muscarum, Say . . .		16
Trochus tampaensis, Con . . .	2	
Pleurotoma Simpsoni, Dall. N.S.	2	
" limonitella, Dall . . .	7	
Cautharus coromandelinus, Lam . . .		1
(Old and broken but very large.)		

General Results.—A very large number of bivalves both as to species and individuals, and a great many young and small adult shells. *Columbella mercatoria* was not obtained at any other time North of the Lower Keys.

DESCRIPTION OF NEW GENERA OR SUBGENERA OF

HELICIDÆ.

BY C. F. ANCEY.

(Continued from No. 5, page 20.)

V. *Bertia*, Ancey. "Testa maxima, sinistrorsa, solida, sat minute umbilicata, nitidula, subtus nitida flavaque, nigro late fasciata, superne brunnea. Spiro elevato fornicata, globosa obtusissima. Anfractus sat numerosi, regulariter crescentes, ultimus tumidus, rotundatus. Apertura obliqua, peristoma simplex, acutum, ad umbilicum eversum."

Type. *Nanita Cambodgiensis*, Reeve.

Geog. distribution. Indo-China.

This very fine shell has been referred by some authors to *Rhysota* and by others to *Ariophanta*, probably on account of its large size and sinistrorse shell. It widely differs from both. The *Rhysota* have a large, heavy shell, but the characters of the aperture and umbilicus are quite distinct; while *Ariophanta*, *Desm.*, are furnished with a thickened peristome.

VI. *Rhysotina*, Ancey. "Testa solida, imperforata, semi-globosa vel subdepressa, fulva absque nitore, spiraliter impressa. Spira convexo-elevata vel convexo-conoidea, apice lævigata. Anfractus modice numerosi, regulariter crescentes, sutura parum profunda separati, ultimus rotundatus, major, subtus convexus et in umbilici loco depressus. Apertura substricta, peristomate obtusato, prope columellam obtuse lateque plus minusve dentato."

Types. *Helix Welwitschi*, Mor. and *H. hepatizon*, Gould.

Geog. distribution. Island of Sao-Tome.

The present series is certainly more closely allied to *Cælatura* than to any other group of *Helices*. It bears no relation to the Canarian group of *Helix malleata*, as suggested by several conchologists.

VII. *Sheldonia*, Ancey. "Testa fragilis, imperforata, gobosa, quasi sericatulata, glabra. Spira convexo-elevata, obtusa; anfractus minus numerosi, rapide accrescentes, ultimus globosus, antice non deflexus, maximus, margo columellaris tenuissimus. Peristoma simplex acutum."

Types. *Helix Trotteriana*, Bens., *H. phytostylos* Bens., *H. Natalensis*, Pfeiffer and perhaps *Cotyledonis*, Bens.

Geog. distribution. South Africa.

Sheldonia resemble *Cysticopsis*, but are apparently related to *Ærope*.

VIII. *Bermudia*, Ancey. "Testa lenticularis, solida, oblique striata, epidermide ochracea induta, umbilico cylindrico prædita, acute carinata, circa umbilicum angulosa. Anfractus 5 regulariter crescentes, applanati, ultimus non antice deflexus. Apertura obliqua, peristoma simplex, acutum basi intus albo incrassatum, margo columellaris crassus, cum basali angulum efficiens. Animal Zonitidarum instar."

Type. *Helix Bermudensis*, Pfeiffer.

Geog. distribution. Bermuda.

IX. *Atlantica*, Ancy. "Testa externe characteribus *Heicis rotundatæ gaudens*, "supra grosse plicatula, infra lævior, ad periphream subangulata, seriebus remotis dentium "ut in *Polygyrella*, *polygyrella*, Bland et "Cooper exornata "in interiore palato ultimi "anfractus."

Type. *Helix semiplicata*, Pfeiffer.

Geog. distribution. Madeira.

X. *Chryson*, Ancy. "Testa tenuiuscula, umbilicata, nigrescens, hirsuta. Spira vix "elevata, fere plana. Anfractus modice accrescentes, ultimus convexus, magnus, lateribus "rotundatus. Apertura parum obliqua. Peristoma tenuiter incrassatum et reflexum, coloratum, bidentatum, scilicet; dente uno in margine dextro extus cicatricem impressam efformante, alteraque basali."

Type. *Helix auridens*, Rang.

Geog. distribution. Mountains of Martinique, W. I.

This shell is certainly more closely allied to *Dentelaria* (which it resembles in color and texture) than to *Cepolis*, Monfort, as stated by Pfeiffer.

XI. *Traumatophora*, Ancy. "Testa sat "magna, modice solidula, depressa, umbilicata "rubro-fulva, sub lente exiliter granulosa. Spira subelevata; anfractus 5-6, ultimus antice "distincte strictus et ad aperturam obliquam "deflexus. Apertura intus in palato dentibus "3 parallelis et oblique sitis elongatisque extus "profunde scrobiculatis armata et constricta. "Peristoma labiatum et reflexum."

Type. *Helix triscalpta*, von Martens.

Geog. distribution. Central China (Kiaing-se).

This very remarkable species, I think, is very near *H. augusticollis*, Martens, another Chinese form, and the type of *Stegodera*, Martens. The texture and color are precisely the same.

To be continued.

CORRESPONDENCE.

Editor Conchologists' Exchange:

Sir: * * * The eleven species of Pupa collected in this vicinity are as follows: *Pupa armifera*, Say; *contracta*, Say; *pentodon*, Say; *curvidens*, Gould (probably *pellucida*, Pfr.); *fallax*, Say; *corticaria*, Say (Vert.) *Gouldi*, Binn., very rare; *ovata*, Say, *miliun*, Gould; *P. edentula*, Drap. (same as *Vertigo simplex*, Gould), and a *Vertigo* unknown to me, with from three to four small, fine teeth, and no impression or crest outside near the aperture. In the Fall of 1885, I found two weathered specimens at Columbus, O., and two good ones yesterday in drift on Tuscarawas River.

V. STERKI, M. D.,

Feb. 12, 1887. New Philadelphia, Ohio.

Editor Conchologists' Exchange:

Sir: In the sixth number of 'The Conchologists' Exchange, 1886, p. 26, Mr. Harry A. Pilsbry, has remarked that several of the names I proposed for some groups of Helices were preoccupied in other departments of Natural History. The same conchologist suggested in the article named that *Pristina*, (used by myself) should be replaced by *Anceya*.

I am very thankful to Mr. Pilsbry for naming the group of *Zonitida* I allude to, after me, but a remarkable clausiloid genus, found by the celebrated French traveller, Mr. Victor Giraud, at the southwest end of Lake Tanganyika, and published by my friend Mr. Bourguignat in 1885, was called *Anceya*; *Anceyella* is also used in Conchology for a cyclostomoid shell. I propose for *Pristina* Anc. (*Anceya*, Pilsbry, not Bourg.), the name of *Pristiloma*. I also propose to name *Calospira*, Anc. (not Hall), after Mr. Averell, the honorable editor and publisher of "The Conchologists' Exchange," *Averellia*, Anc., and *Pacilostola*, Anc., after Mr. H. A. Pilsbry, *Pilsbrya*, Anc.

* * * * *

I have just received a very interesting form of *Gastrodonta multidentata*, Binney, collected by Mrs. George Andrews in the mountains of Eastern Tennessee. This shell which I distin-

guish as variety *umbilicaris*. is characterized by its more compressed form, less high body-whorl, larger umbilicus and by the absence (under a lens), of any radiating striae. The shell under consideration is certainly not the same as *Gastrodonta significans*, Bland, also found in the same region. It is *not* whitish as in the latter, and is closer to multidentata than to any other.

In the same set of fine shells was a magnificent specimen of *Mesodon dentiferus*, Binney, of no less than 28 mill. in diameter, and of a coarser sculpture than in the type; this fine shell (from N. Carolina) which may be called var. major, is probably the same as the one mentioned by Mr. W. G. Binney in his "Manual of N. A. Land Shells," 1885, is of a darker colour and furnished with more impressed revolving lines than the northern form of the species.

C. F. ANCEY,

Feb. 1, 1887.

Berrouaghia (Algiers).

NECROLOGY

The death of Professor Edward Olney, L.L.D., of Michigan University, is reported.

Dr. J. M. Wheaton, ornithologist, of Columbus, Ohio, is deceased.

M. Dubsc, the distinguished French electrician, is reported as having died in October.

Paul Morthier, Professor of Botany at the Academy of Neufchatel, Switzerland, has recently died.

M. Chancourtis, the noted French geologist and Professor in the School of Mines, died suddenly in Paris at a recent date.

Professor Elie Wartmann of Geneva, Switzerland, is dead.

Professor Alexander Butlerow, Russian chemist, is dead at the age of 58.

M. Jules Bouis, an eminent French chemist, died on the twenty-first day of October, 1886, aged 84.

General John T. Beaulieu, F. R. S., founder of the system of magnetic observations in India, recently died at the age of 81 years.

The death of Dr. A. Fischer, a noted African traveler and scientist, is reported.

OUR PREMIUM LIST.

A CHANCE FOR WORKERS KEEN AND BRIGHT.

Send \$1.75 and the names of 5 subscribers, and we will forward to the originator of the club, one copy of Dr. Hays' "Descriptions of the Inferior Maxillary Bones of Mastodons," 29 plates; or, in lieu thereof, 50 cents' worth of shells at List prices.

Prof. J. E. Kingsley's "Naturalists' Assistant," 228 pages, will be sent post-paid for \$5.25 and the names of 15 subscribers.

Woodward's "Manual of the Mollusca," 1880 edition, will be sent free for \$10.50 and the names of 30 subscribers.

Tryon's "Structural and Systematic Conchology," cheap edition, will be sent free for \$17.50, and the names of 50 subscribers.

Tryon's "Monograph of the Terrestrial Mollusca of the United States," plain edition, will be sent free for \$35 and the names of 100 subscribers.

Sowerby's "Genera of Recent and Fossil Shells," 264 plates, 1/2-morocco, 2 volumes, 8vo. sent free for \$52.50 and the names of 150 subscribers.

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For \$87 50 and the names of 250 subscribers, we will send, express prepaid, one of

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NOTE.—Parties desiring to secure the benefits of the above truly liberal offers, must not keep the names of subscribers together with the subscriptions, until they have completed their list, but should send them soon as received, and we will keep an exact account of them.

Young Collectors' Corner.

RECORD OF A SHORT COLLECTING TOUR IN WHITE HARDIN & GALLATIN COUNTIES, ILL.

BY A. A. HINKLEY, DUBOIS, ILL.

WHILE collecting last August in White and Gallatin Counties, Illinois, the writer found *Lithasia obovata*, Say, in abundance in the Little Wabash and Saline Rivers. All specimens taken were covered with a dark ferruginous deposit which being removed presented a dark brown or olivaceous epidermis, many having two faint red bands on the body-whorl. All were decollate, from one to four whorls remaining. The full grown shells were usually .50 to .75 inches long and about .40 inches wide, some unusually large ones being over an inch long and .60 inches wide.

At the Ford of Saline River, near Saline Mines, the bed of the river is almost a level layer of rock with an abrupt fall of twelve to eighteen inches, below which for a short distance the water is broken into small, swift streams and shallow still places nowhere over a foot deep, enough rock being above the water to enable a person to explore the entire bed of the stream without wading. Here the *Lithasias* were found everywhere, but most numerous in the crevices at the fall, where were also found *Pleurocera*, *Vivipara*, *Melantho* and *Lioplax*. *Goniobasis costifera*, Hald., was common in all the small streams of Hardin County, presenting considerable variation.

VALVES.

Shark River near Key East, N. J. is a very interesting locality for the young conchologist to visit.

Mrs. Mary B. A. King, of Rochester, N. Y. is an enthusiastic collector of shells, although in her eighty-ninth year, and received great encouragement from the late Isaac Lea, L.L.D., who named the *Unios* and *Anodontas* in her collection upwards of forty years ago.

Professor John M. Holzinger of Winona, Minn., writes us that The Conchological Club of the State Normal School collected over 45 species of Univalves and 20 species of Bivalves last season in Winona County. The Club added many interesting specimens to its cabinet.

The latest report of the Liverpool Marine Biology Committee shows the great value of marine dredging. Prior to 1853, but 270 species of marine invertebrates were known. The Committee places on record 913 species, of which 235 have not before been found in the locality, 16 are new to British seas, and 7 species and 3 varieties are new to science.

A fine chance is presented to you on page 55 of this number whereby you may secure valuable books to aid you in collecting. A portion of your leisure time may be very profitably devoted to securing subscribers to this *your* paper, and thus we will be enabled to extend our acquaintance and you will receive a handsome reward.

Recipe for cleaning shells:—Mr. B. G. Seebach of Peru, Ill., kindly sends the following: Mix 5 lbs. Sal Soda in 5 gallons of hot water; after the soda has dissolved let the mixture cool. Then put the live shells to be cleaned in this and leave them there for 3 or 4 days. This softens the tissues and the fleshy portions can be removed easily without deteriorating the shells. The mixture may be made in smaller quantities but in the same proportions.

Mr. F. A. Sampson, of Sedalia, Mo., made a trip through Carroll County, Arkansas, in March, 1886, and succeeded in collecting a large number of land and fresh-water shells. His visit there and the lengthy list of shells collected, show that Carroll County is a locality of great interest to the conchologist.

The edible snail, (*Helix pomatia*, Linnæus) is used for food to such an extent in Europe and elsewhere that France and Italy export upwards of 1000 tons annually.

STRIÆ

Evelyn College, Princeton, N. J., is exclusively for young women.

The Linnæan Society has lately elected the Prince of Wales to honorary membership.

Professor Angelo Heilprin is the author of a new work upon the distribution of animal life.

Dr. Lightfoot, the well-known Rector of Exeter College, Oxford, is very ill and no hope is had for his recovery.

Rev. Dr. Henry G. McCook of Philadelphia, is delivering a course of Sunday afternoon sermons on "The Gospel in Nature."

It is said that Professor C. M. Woodward stands a good chance of succeeding Dr. Eliot as Chancellor of Washington University of St. Louis.

Professor D. G. Brinton delivered the first of a series of Friday evening lectures at the Academy of Natural Science, Philadelphia, on February 18th. His subject was "The Prehistoric World in Europe-Palæolithic Age."

Dr. Franz Boas well known for his explorations in the regions about Baffin's Bay and Vancouver's Island, has resigned his position with the University of Berlin to assume charge of the Geographical Department of Science.

EVEN Siberia does not intend to be left behind in the race for improvement in science as news lately received states that a scientific and industrial exhibition will be held at Ekaterinburg from the twenty-seventh of May until the twenty-seventh of September, under the auspices of The Uralian Society of Lovers of the Natural Sciences.

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D'Orbigny, Charles M. Dictionaire Universal D'Histoire Naturelle, Dirige Par M. Charles D'Orbigny; 15 vols.—12 vols. of text and 3 vols. of plates. half morocco; Paris, 1849. Price \$70, Regular price \$75.

Sowerby, J. Genera of Recent and Fossil Shells for the use of Students in Conchology and Geology. Illustrated with 264 original plates. 2 volumes, 8-vo; half morocco. London (N. D.). Price \$15. Regular price \$17.50.

Stephens, James and Francis. Illustrations of British Entomology; or, a Synopsis of Indigenous Insects, containing their generic and specific distinctions. Embellished with colored figures of the rarer and more interesting species. 12 volumes; half roan. London, 1828. Price \$50. Regular price \$55.

Lowe, E. T. Ferns, British and Exotic, 8 vols.; New and Rare Ferns, 1 vol.; British Grasses, 1 vol.; Beautiful Leaved Plants, 1 vol.; Illustrated with beautiful plates in colors. Together 11 vols., royal 8 vo; half levant-morocco; extra gilt tops. London 1872 Price \$95. Regular price \$100.

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