PROCEEDINGS

OF

THE AMERICAN ASSOCIATION

FOR THE

ADVANCEMENT OF SCIENCE.

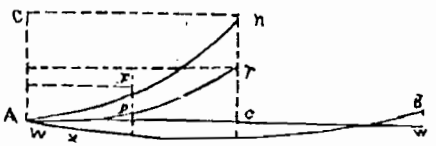
THIRD MEETING,

HELD AT CHARLESTON, S. C., MARCH, 1850.

PUBLISHED BY THE LIBERALITY OF THE CORPORATION OF CHARLESTON.

CHARLESTON, S. C.
STEAM-POWER PRESS OF WALKER AND JAMES.
1850.

2. The deflection of a beam supported at the ends, and uniformly loaded, will be to the deflection of the same beam, when the whole weight is on the centre, as 5 to 8.

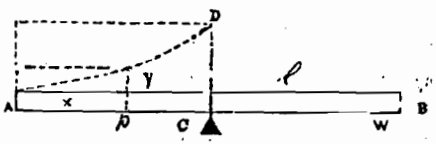


When the whole weight is at the centre, let w represent the weight upon one of the supports; the strain upon any section at the distance x will be represented by wx, and the deflection, as in the last proposition, by wx^2. It will, therefore, as in the last case, correspond to the abscissa of a common parabola, of which x is the ordinate. The sum of these deflections, or the whole deflection, will be proportional to the area $ApnC$=one-third of rectangle $Aonc$.

Let the beam be now supposed to be uniformly loaded, and let the deflection due to the extension of the fibres at the distance x be ascertained. It is evident that the weight upon the points of support will be the same as formerly. The reaction of the point A may be represented by a force equal to w acting upwards; its leverage at the distance x will be wx, and the deflection due to it wx^2, as before; but the effect of the uniformly distributed load upon the part x diminishes this deflection, since it acts in the opposite direction; its effect will be $\frac{w}{2l}x^3$, and the whole deflection will therefore be $(wx^2 - \frac{w}{2l}x^3)$. The expression $\frac{w}{2l}x^3$ is represented by the area $Apnc$, which we have already shown to be one-eighth of rectangle An. Hence the deflections will be as $\frac{1}{2}-\frac{1}{8} : \frac{1}{2}$, or as 5 to 8; which agrees with the results obtained by other methods.

3. To determine the extension of the fibres when a beam is supported at the ends and loaded in the middle.

A beam supported at the ends and loaded in the middle is in the same condition as a beam resting upon a fulcrum in the middle and loaded with equal weights at the ends.



Let l= one-half the whole length, w=the weight on A, x=distance of any section from A, e=the maximum extension, which will be at C.

Now, as the extension at any distance is in proportion to the strain, it will evidently be in proportion to x, and we have, therefore, $l : x :: e : \frac{ex}{l}$ = extension at the distance x. But the deflection being as the extension and distance directly, and inversely as the depth, it will be as $\frac{ex}{l} \cdot \frac{x}{d} = \frac{ex^2}{ld}$. Call this expression y; we have, therefore, $y = \frac{e}{ld}x^2$ = the equation of a parabola, of which x is the ordinate and y the abscissa.

The whole deflection being equal to the sum of these abscissas, will be represented by the area $ACD = \frac{1}{3}$ rectangle $AD = \frac{1}{3}l \cdot (\frac{e}{ld}l^2) = \frac{el^2}{3d}$. The deflection of the part BC being equal to that of AC, the whole deflection will be $\frac{2}{3}\frac{el^2}{d}$. Whence $\frac{3d \times (\text{deflection})}{2l^2} = e$.

By observing the deflection produced by a given weight, and substituting its value in the above expression, the value of e can be ascertained. In cast iron, when the weight is 15,300 lbs. per square, it is found to be $\frac{1}{1204}$ of an inch for a length of one inch.

On the Carcinological Collections of the United States, and an enumeration of species contained in them, with notes on the most remarkable, and descriptions of new species; by Prof. LEWIS R. GIBBES.

I HAVE in the last few years visited the Cabinets of Natural History belonging to the Societies devoted to that Science in the cities of Boston, New-York and Philadelphia, and examined the collections of Crustacea contained in them. With permission of the respective Societies, I labelled their specimens in a mode nearly uniform in all, and furnished each with a Catalogue of those belonging to their Cabinet. I now propose embodying these separate enumerations in one to be laid before the Association, enlarging it in some measure by the enumeration of those in my own Cabinet, (the largest I believe at the South,) adding notes on the most remarkable species among those already described, and short descriptions of those that are new, chiefly from my own collection. These new species will be indicated by an * prefixed, and species already described, I have found it necessary to change, by a †. I shall thus endeavour

to present a view of the present state of the Carcinological Collections of the United States, and of the facilities that may be enjoyed by those studying this department of Natural History, due allowance being made for additions that may be made to collections where the proprietors are tolerably active, and losses that may be sustained by the ravages of insects, and by accidents that will occur in handling specimens so fragile as those of Crustacea. The Cabinet of the Boston Society of Natural History, was examined in 1845 and 1846; that of the Lyceum of Natural History, of New-York, in 1846 and 1847; that of the Academy of Natural Sciences, of Philadelphia, in 1847; the enumeration may be considered as representing the state of my own Cabinet at the end of 1849. These collections will be referred to as the Boston, New-York, Philadelphia and Charleston Cabinets. The American Museum in New-York has a small collection of Crustacea in good condition, and on examining it I found several species not contained in the other Cabinets; I regret therefore not having inquired for collections in public museums in other cities. These unique specimens of the American Museum are included in the following enumeration. In the rooms of the Patent Office at Washington, the collection of Crustacea of the Exploring Expedition are exposed to public view, but I sought no opportunity of studying them more closely, not regarding them as open to the public for that purpose. There were several already known species among them, which, however, I then saw for the first time, and should be glad of an opportunity to examine the collection at some future day. Only the Podophthalmian Crustacea are included in the following Catalogue, not only because I have paid less attention to the lower orders, but also because few of them are found in the collections.

To increase the value of this Catalogue, I will add the localities for the species proceeding from the Coast or Territory of the United States, distinguishing these localities by *italics*.

ENUMERATION OF CRUSTACEA.

DECAPODA.

A. BRACHYURA.

I. FAMILY OXYRHINCHA.

1. TRIBE MACROPODIANA.

LEPTOPODIA SAGITTARIA, LEACH—Philadelphia Cabinet. From the West Indies and the Gulf of Mexico, not yet positively known to inhabit the Coast of the United States.

LEPTOPODIA QUADRATA, SAY—Philadelphia Cabinet. Of SAY'S original specimen, all that remains is the stomachal region of the shell, with the eyes and rostrum attached. This was found in *Charleston Harbour*. I do not know that a second specimen has ever been found.

STENORHYNCHUS PHALANGIUM, LAMK—Boston Cabinet.

STENORHYNCHUS LONGIROSTRIS, M. EDW.—Charleston Cabinet.

INACHUS SCORPIO. M. EDW.—Boston Cabinet.

INACHUS THORACICUS, ROUX—Boston and Charleston Cabinet.

2. TRIBE MAIANA.

LIBINIA CANALICULATA, SAY—Boston, New-York, Philadelphia, and Charleston Cabinets. From the *Coast of the United States*, from Massachusetts to South-Carolina. In a collection of Crustacea brought me from Key West, by Dr. WURDEMANN, there are no specimens of this crab, nor do I recollect seeing it in other collections from the same place.

LIBINIA DUBIA, M. EDW.—Boston, New-York, Philadelphia, and Charleston Cabinets. From the *Coast of the United States*—Key West to Charleston. I do not know how much further North it ranges, nor whether the specimens in each of the northern collections proceeded from the adjacent coast. DE KAY regards this as the young of the preceding, but I regard them for the present, at least, as distinct species, although it must be acknowledged no absolute character can be indicated by which they may at once be separated.

The distinctive characters are rather comparative than absolute, *L. dubia* is more pyriform and less circular in outline, as viewed from above, than the preceding; the central region of its shell is less depressed, and the spiniform tubercles fewer; or more accurately, what may be termed the spines proper, on the surface of the shell and around its lateral edges, are, with few exceptions, precisely the same in number and position in both species, but *L. canaliculata* has in addition, a number of spiniform tubercles, appearing like undeveloped spines, distributed between the spines proper. These differences are not those of sex, for I have males and females of both forms; nor of locality, for I have both forms from Charleston Harbour; nor of age, at least, not of size merely, as my specimens exhibit all ranges of sizes for each set of characters. Possibly, the internal anatomical details would furnish some distinctive character. *L. dubia* appears to be the most prevalent form along the southern coast.

Libinia affinis, Randall—Philadelphia Cabinet. This so closely resembles *L. dubia*, that if from the Atlantic coast, I should not regard it as different, but as it comes from Upper California, I cannot venture to pronounce them the same.

Herbstia parvifrons, Randall—Philadelphia Cabinet. From Western Coast of America.

Pisa tetraodon, Leach—Boston, New-York, and Charleston Cabnets. From the Coast of Europe.

Pisa bicorna. Boston, New-York, and Charleston Cabinets. My specimens are from *Key West*, where it appears to be common. Shell triangular, tuberculous, branchial regions developed, and each armed with a single moderate spine; rostrum of moderate length, horns diverging from their base; terminal tooth of the basilar segment of the external antennæ prominent, surpassing in length the anterior angle of the upper orbitar edge; ocular peduncles not closely sheathed by the orbits but capable of being folded back; lower orbitar edge with a notch, which is smaller in proportion than in the *P. tetraodon*; claws or first pair of feet, in the male with large hand, finger and thumb, when closed, touching by their sharp finely serrated edges at their tips, and leaving a wide opening between them elsewhere, as in *P. tetraodon*; body covered moderately with a brownish down, hands bare, and marked with reddish brown spots, (in the dry specimen,) on a light ground. In the female, first pair of feet but little larger than the rest, finger and thumb in closing, fitting nearly accurately. This species I regard as the *Pericera bicorna* of

Milne Edwards, and have so labelled it in some of the collections, but it will be seen by the description that it really belongs to the genus *Pisa*.

* Pisa mutica—Charleston Cabinet. This small species was found in *Charleston Harbor*, off White Point Battery. Length of rostrum, reckoned from interantennary spine, one-fourth the length of the rest of the body, horns united for the lower third, diverging afterwards; body triangular, without tubercle or spine, of moderately uniform convexity, stomachal region somewhat developed; eyes capable of folding back, the orbit incomplete, especially on the lower side, no spine on the upper orbitan edge; basilar segment of the external antennæ narrow, without any spine, and the antennæ visible on each side of the rostrum when viewed from above. Length 0,45 of an inch from tip of rostrum to posterior edge of carapace. Female with eggs.

Lissa fissirostra, Say—Boston, Philadelphia and Charleston Cabinets. *Northern coast of United States*, as far south as Long Island, according to DeKay. Although the form of the rostrum forbids our retaining this species in the genus *Lissa*, I continue to use Say's original name, as I have had no opportunity of comparing it with *Hyas coarctata* from the British coast, with which some of our naturalists regard it as identical. It appears to me to resemble *Hyas aranea*, judging from Herbst's figure. The first segment of the moveable portion of the external antennæ is very slightly enlarged externally.

* Hyas aculeata—Boston and Charleston Cabinets. Brought *from Key West* by Dr. Wurdemann, *from Florida* by Mr. Bartlett. Body sub-rotund, convex, somewhat tuberculous above in the female, smooth and polished in the only male specimen I have, lateral edges armed with five spines on each side, not including the angles of the orbits, the middle spine and the one anterior to it sometimes appearing united, forming a bifurcated spine, particularly in the male; orbits directed forwards and outwards, with a spine at outer angle, two at the inner, one above and one below, an obsolete fissure at the upper edge of the orbit, and another at the lower; first moveable segment of the external antennæ flat, broad, extended into a wing externally, which also projects forwards for half the length of the next segment, and both segments clothed with ciliæ; rostrum bifid, short, barely the length of the first segment of the external antennæ; third segment of the external jaw-feet dilated outward at the external angle. Length one inch.

CHORINUS HEROS, LEACH—New-York, Philadelphia and Charleston Cabinets. *From Key West.* The specimens I have labelled thus in the collections are nearly uniform in size and appearance, agree in the main with the description of M. EDWARDS, but are little more than an inch in length, with the first pair of feet scarcely reaching to tip of rostrum. They may be the young, or it is possible that they form a distinct species; but I will not venture to decide without a further supply of specimens.

MITHRAX SPINOSISSIMUS, M. EDW.—Philadelphia and Charleston Cabinets. My specimens are *from Key West.* An individual in the Philadelphia collection is of unusual size. Shell 7 inches in length, as many in breadth, and 3 inches thick; hand and finger 7 inches long, 2 1-2 broad; whole length of one of the first pair of feet 13 inches. Several fine specimens of this crab in the American Museum, New-York.

MITHRAX VERRUCOSUS, M. EDW.—Boston and Charleston Cabinets. My specimens are *from Key West.*

MITHRAX HISPIDUS, M. EDW.—Boston, New-York, Philadelphia and Charleston Cabinets. Those in the Boston Cabinet were brought *from Florida* by Mr. BARTLETT; the one in my own (a young male) was *taken off Charleston Harbor.*

MITHRAX SCULPTUS, M. EDW.—Boston, New-York, Philadelphia and Charleston Cabinets. My specimens are *from Key West,* where it appears to be very common.

MAIA VERRUCOSA, M. EDW.—Boston, New-York and Charleston Cabinets.

MICIPPA CRISTATA, LEACH—New-York Cabinet. This species is rare in our cabinets, there being only a single shell at New-York.

PERICERA CORNUTA, M. EDW.—Boston, Philadelphia and Charleston Cabinets. There is also a specimen in the American Museum, New-York. That in my Cabinet came *from Key West.* The specimen in the Philadelphia Cabinet has been described by Dr. RANDALL (Jour. Acad. Nat. Sci., vol. viii, p. 108,) as new under the name of *Chorinus armatus;* his description will be found to apply to *Pericera cornuta* in every respect, and a reference to the figure given in HUGHES' Natural History of Barbadoes, pl. 25, fig. 3, or to HERBST, pl. 59, fig. 6, will complete the proof that it has been already described.

PERICERA TRISPINOSA, M. EDW.—Charleston Cabinet. *From Key West,* brought by Dr. WURDEMANN.

ACANTHONYX LUNULATUS, M. EDW.—Boston and Charleston Cabinets.

EPIALTUS BITUBERCULATUS, M. EDW.—Charleston Cabinet. Brought *from Key West* by Prof. W. H. HARVEY, and agrees perfectly with MILNE EDWARDS' description and figure of individuals said to come from the coast of Chili.

EPIALTUS PRODUCTUS, RANDALL—Philadelphia Cabinet.

EPIALTUS NUTTALII, RANDALL—Philadelphia Cabinet. *From Upper California.* A single shell of *E. Nuttalii* is in the New-York Cabinet. These two species appear to be new and well-marked.

3. TRIBE PARTHENOPIANA.

LAMBRUS LONGIMANUS, LEACH—Boston Cabinet.

LAMBRUS ANGULIFRONS, M. EDW.—New-York Cabinet.

LAMBRUS ECHINATUS, M. EDW.—Philadelphia Cabinet and American Museum, New-York.

LAMBRUS MEDITERRANEUS, ROUX—Boston and New-York Cabinets.

PARTHENOPE HORRIDA, LEACH—Philadelphia Cabinet.

CRYPTOPODIA FORNICATA, M. EDW.—Boston Cabinet. Shell in outline triangular, with the lateral angles much rounded, and the posterior edge, the base of the triangle, nearly straight, latero-anterior edges dentate; from each orbit a ridge runs backwards, curving outwards, and becomes effaced before reaching the edge of the shell, and from these two ridges the surface of the shell slopes down outward and forwards; at the middle of the length of the shell a transverse ridge connects these, and from it the surface of the shell slopes backwards; third segment of first pair of feet dilated towards articulation, with carpus, dentated on anterior edge; hand triangularly prismatic, upper and outer edges lamellar, with prominent and distant teeth; third segment of the other feet furnished with lamellar laciniate teeth, only the second and third pair when extended, exhibiting their tips beyond the vaulted edge of the shell. This description of a well-known species is given to introduce more distinctly the following new one from our own coast.

* CRYPTOPODIA GRANULATA—Charleston Cabinet. Shell triangular, with the lateral angles sharp, middle two-thirds of posterior edge prominent in a regular curve, latero-anterior edges slightly crenate; ridges from the orbits running back but a third of the length of the shell, and meeting with a short transverse ridge; from the two extre-

mities of this, two ridges run backward, parallel with the latero-anterior edges of the shell, until they reach the posterior edge at the two extremities of its curved portion, and with it circumscribe a sub-triangular space, in the centre of which is a tubercle; third segment of first pair of feet not at all dilated, or but slightly so; the four other pair without spines, and when folded, wholly concealed under the lateral arches of the shell—when extended, exhibiting their two last segments; upper and outer edges of the hand, which is triangularly prismatic, granulate, as also the posterior edge of the shell, the two ridges running to it, the transverse ridges of the segments of the abdomen, and other lines on the body. Rostrum lamellar short, but well-marked. Length 0.45 of an inch, breadth 0.60; length of preceding species an inch and a half nearly, breadth two and a half. The first specimen of this species was obtained by Dr. T. L. BURDEN, of Charleston, near Kiawah Island, drawn up on a bit of sponge by a hook and line; a second was found by myself at the eastern end of Sullivan's Island, the day after the gale in October, 1848, and a third and fourth I obtained on the 18th August, 1849, at *White Point Shoal, Charleston Harbor;* of these, two were females, of the size given above—the others, males, of only half those dimensions. Abdomen of seven segments in both sexes.

2. FAMILY CYCLOMETOPA.

1. TRIBE CANCERIANA.

CANCER LIMBATUS, M. EDW.—Philadelphia Cabinet.

CARPILIUS CORALLINUS, M. EDW.—Boston, New-York, Philadelphia and Charleston Cabinets. From the West Indies.

CARPILIUS MACULATUS, M. EDW.—New-York Cabinet. From the West Indies.

CARPILIUS CONVEXUS, RUPPELL—New-York Cabinet. RUPPELL's specimens were from the Red Sea.

* CARPILIUS LIVIDUS.—This small species is in the New-York Cabinet, sent from the Sandwich Islands. Shell dark livid or purple color when taken out of spirits, moderately convex, smooth without furrows, slightly punctate; middle portion of the frontal edge slightly prominent; latero-anterior edges obtuse, terminated behind by an obtuse tooth or tubercle; length three-fourths of an inch.

* CARPILIUS PRÆTERMISSUS.—Specimens of this species are in the Boston, New-York and Charleston Cabinets, and I have more than once seen them in the small cases of Chinese insects brought to this country, but have not been able to find either figure or description of it in any of the works to which I have access; these are so few as perhaps hardly to warrant the step I have taken—that of imposing a name on it. Shell arched anteriorly, narrowed posteriorly, convex longitudinally, smooth and polished, with no distinction of regions, marked with about 25 reddish colored spots distributed symmetrically on a light ground; latero-anterior edges obtuse, without dentation of any kind, and wanting even the rounded tubercle, in which they terminate in the other species of the genus; front with a minute fissure, curved in outline, so as to present four lobes very slightly prominent, and marked transversely with a punctate line; orbits oval, without tooth or fissure; the hiatus between their lower edge and the front filled by the basillar segment of the exterior antennæ, which joins the front, the moveable peduncle lying in the fissure; hands robust, moderately compressed, punctate, without crest, spine or tubercle, fingers trenchant, not spoon-shaped; four last pair of feet compressed, without crest or spines, marked with spots like the body.

LAGOSTOMA NODOSA, RANDALL—Philadelphia Cabinet, Sandwich Islands.

XANTHO FLORIDUS, LEACH—Boston and New-York Cabinets.

XANTHO RIVULOSUS—M. EDW.—Charleston Cabinet.

* CHLORODIUS FLORIDANUS—Charleston Cabinet. Brought *from Key West* in numbers, by Dr. WURDEMANN in 1845, and lately by Prof. W. H. HARVEY. Shell depressed, broader than long, rendered uneven by low prominences, separated by shallow groves, these prominences or flat knobs marked with transverse plications; front, of two truncated lobes, separated by a fissure, anterior edge of lobes grooved; latero-anterior edges armed with five triangular teeth pointing forwards, the anterior one forming the angle of the eye; basal portion of external antenna filling the hiatus and touching the front, the peduncle being lodged in the hiatus; third segment of the anterior feet short, just reaching edge of shell, carpus and hand, stout in the male, somewhat corrugated, spotted with red, finger and thumb brownish black, toothed on their opposing edges, spoon shaped at tip, with a tuft of hair in the cavity; other pairs of legs villose; third segment of foot jaws slightly notched on its anterior edge. Length 0.75 of inch, breadth 1.10 of inch.

PANOPEUS HERBSTII, M. EDW.—Boston, New-York, Philadelphia

and Charleston Cabinets. Common on *Coast of New-York*, according to DEKAY; common in *Charleston Harbour;* brought me *from Key West* by Dr. WURDEMANN.

PANOPEUS LIMOSUS, M. EDW.—Philadelphia and Charleston Cabinets. *Coast of New-York*, DEKAY; I have obtained them on the coast of *South-Carolina*, and have them from *Smyrna*, *Fla.*, and from *Key West.*

* PANOPEUS WURDEMANNII—Charleston Cabinet. Brought me from *Enterprize*, *Fla.*, by the late Dr. F. WURDEMANN, who recognized as distinct from *P. Herbstii*, the young of which it most nearly resembles, and whose females are also frequently found carrying their eggs in the usual manner, when not larger than the present species. This species is, however, easily distinguished; the anterior edge of the front is marked by a grove, (not apparent in either of the preceding species,) whose borders are formed by finely granulated ridges; the surface of shell also is marked by a few distinct transverse ridges, which never appear so well marked in *P. Herbstii*, even when of larger size; the finger and thumb in this species are white; length 0.5 of inch, breadth 0.7 of inch.

PSEUDOCARCINUS RUMPHII, M. EDW.—Boston and Charleston Cabinets; also, in the American Museum, New-York.

† PSEUDOCARCINUS MERCENARIUS—Boston, Philadelphia and Charleston Cabinets. This is the *Cancer mercenaria* of SAY, (Jour. Acad. Nat. Sci., vol. i, p. 448,) abundant along our Southern Coast, from *Charleston Harbour to Key West*, and known as the Stone Crab. It is referred by MILNE EDWARDS, with some doubt, to the genus *Xantho*, of LEACH, (M. EDW. Hist. Crust. tome i, p. 399,) and also by DEKAY, (New-York Fauna, Crustacea, p. 4,) and I have so labelled it in the Boston Cabinet; but I have no hesitation in referring it to M. EDWARDS' own genus *Pseudocarcinus*, and feel confident he had it before him when writing his description of *Pseudocarcinus ocellatus*, (op. cit., p. 409.) His description applies in every particular, but is short. The country of his specimens he says is unknown.

ETISUS LÆVIMANUS, RANDALL—Philadelphia Cabinet.

PLATYCARCINUS PAGURUS, M. EDW.—The only specimen of this species that I have seen, is in the American Museum in New-York, apparently of full dimensions, 5 or 6 inches in length, 8 inches in breadth.

PLATYCARCINUS IRRORATUS, M. EDW.—Boston, Philadelphia and

Charleston Cabinets; also, in the American Museum, New-York. This is the *Cancer irroratus* of SAY, or rather what he regarded as the female of the species so named by him. It is found on the coast of the New-England States, I have not met with it at the south.

PLATYCARCINUS SAYI, DEKAY—Boston, New-York and Charleston Cabinets. This species was regarded by SAY as the male of his *Cancer irroratus*, and was separated from that species by Dr. A. A. GOULD, as *Cancer Sayi.* I have collected it on the *Coast of Massachusetts*, and on the *Coast of New-Jersey;* I have also a specimen taken by fishermen off *Charleston Harbour*, and have seen one other specimen taken on the *Coast of South-Carolina.*

PLATYCARCINUS PRODUCTUS, RANDALL—Philadelphia Cabinet. A distinct species from the three others, brought from the Western Coast of North America.

PILUMNUS ACULEATUS, M. EDW.—Philadelphia and Charleston Cabinets. The *Cancer aculeatus* of SAY. My specimens are from the *Coast of South-Carolina*, inhabiting sponges, &c.

PILUMNUS VILLOSUS, RISSO.—Charleston Cabinet.

ERIPHIA SPINIFRONS, LATR.—Boston, New-York and Charleston Cabinets.

ERIPHIA GONAGRA, M. EDW.—Boston, Philadelphia and Charleston Cabinets. My specimens are *Key West*, whence Dr. WURDEMANN brought me several.

TRAPEZIA CYMODOCE, GUERIN—Philadelphia and Charleston Cabinets.

2. TRIBE PORTUNIANA.

CARCINUS MÆNAS, LEACH—Boston, New-York, Philadelphia and Charleston Cabinets. *From the Coast of New-England States.*

PLATYONICHUS OCELLATUS, LATR.—Boston, New-York, Philadelphia and Charleston Cabinets. Dr. GOULD enumerates it among the Crustacea of *coast of Massachusetts*, I have collected it on the *coast of New-Jersey*, and on the *coast of South-Carolina*, and a single specimen was brought me from *Key West.* It is the *Cancer ocellatus* of HERBST, and the *Portunus pictus* of SAY.

PORTUNUS PUBER, LEACH—New-York Cabinet.

PORTUNUS PLICATUS, M. EDW.—Boston and Charleston Cabinets.

PORTUNUS MARMOREUS, LEACH—New-York and Charleston Cabinets.

PORTUNUS CORRUGATUS, LEACH—Boston and Charleston Cabinets.

PORTUNUS RONDELETII, RISSO—Boston and Charleston Cabinets.

LUPA TRANQUEBARICA, M. EDW.—Boston and New-York Cabinets.

LUPA DICANTHA, M. EDW.—Boston, New-York, Philadelphia and Charleston Cabinets. Inhabits *coast of Massachusetts*, according to GOULD; I have seen it in abundance in the markets of *New-York and Philadelphia;* it abounds in *Charleston Harbour*, and I have specimens from *Key West.* Demerara is the most southern point from which I have seen it. In the specimens from Charleston Harbour and northwards, the middle spines of the front are obsolete, but distinct in those from Key West and Demerara. This crab is the *Lupa hastata* of SAY.

† LUPA SAYI—Boston and Charleston Cabinets. This crab is not uncommon on the *coast of South-Carolina*, whence my specimens proceed, and I regard it as the *Lupa pelagica* of SAY, but as it is not the *Lupa pelagica* of LEACH, MILNE EDWARDS and others, I have attached to it the name of its first describer; his description applies perfectly to it, but the specimen to which his original label is affixed in the Philadelphia Cabinet, does not belong to this species; perhaps some interchange of labels has taken place. DEKAY, in the Fauna of New-York, pl. 6, fig. 8, gives a recognizable figure of it, but that will scarcely give an adequate idea of the beauty of its coloration when first taken from its native element.

LUPA CRIBRARIA, M. EDW.—Philadelphia and Charleston Cabinets. *From coast of South-Carolina and from Key West.* This is the *Lupa maculata* of SAY, and appears to be the same as LAMARCK's *Portunus cribrarius*, and as the latter specific name is the prior one, I have retained it.

LUPA SPINIMANA, LEACH—Boston Cabinet, and also in the American Museum, New-York.

LUPA RUBRA, M. EDW.—Philadelphia and Charleston Cabinets. My specimens are from *Key West*, by Dr. WURDEMANN.

LUPA FORCEPS, LEACH—New-York Cabinet.

THALAMITA PULCHRA, RANDALL—Philadelphia Cabinet, appears to be very near *T. erythro-dactyla*—M. EDW.

PODOPHTHALMUS VIGIL, LEACH—Philadelphia and Charleston Cabinets. From the Sandwich Islands.

3 FAMILY CATOMETOPA.

3. TRIBE THELPHUSIANA.

THELPHUSA FLUVIATILIS, LATR.—New-York and Charleston Cabinets. From the Mediterranean.

THELPHUSA INDICA, LATR.—Boston Cabinet,

POTAMIA DENTATA, LATR.—Boston and Philadelphia Cabinets. The *Boscia dentata* of M. EDWARDS,—*Potamia* is the prior name.

POTAMIA LATIFRONS, RANDALL—Philadelphia Cabinet. Distinct from *P. dentata*, LATR.

TRICHODACTYLUS QUADRATUS, M. EDW.—Boston Cabinet.

2. TRIBE GECARCINIANA.

ORTHOSTOMA DENTATA, RANDALL—Philadelphia Cabinet. A distinct genus, but I do not feel confident that it has its proper place in the systematic arrangement.

UCA UNA, LATR.—New-York and Philadelphia Cabinets.

CARDISOMA CARNIFEX, LATR.—Philadelphia Cabinet.

CARDISOMA GUANHUMI, LATR.—Boston, New-York, Philadelphia, and Charleston Cabinets. My specimens are from *Key West, Fla.*

GECARCINUS RURICOLA, LATR.—Boston, New-York, Philadelphia and Charleston Cabinets.

GECARCINUS LATERALIS, M. EDW.—Boston and Philadelphia Cabinets.

3. TRIBE PINNOTHERIANA.

PINNOTHERES OSTREUM, SAY—New-York and Charleston Cabinets. From the *Coast of New-York* and *Coast of South-Carolina*, most probably its range is from Cape Cod to Key West.

PINNOTHERES MACULATUS, SAY—New-York and Charleston Cabinets. From *Coast of New-York* and *Coast of South-Carolina.* Pinnotheres is masculine, but SAY, misled perhaps by the termination in the European species *P. pisum*, everywhere regards it as neuter. The accent is on the penult.

PINNOTHERES BYSSOMIÆ, SAY—Philadelphia Cabinet; SAY's original specimen and label.

4. TRIBE OCYPODIANA.

OCYPODE ARENARIA, SAY—Boston, Philadelphia, and Charleston Cabinets. My specimens are from the *Coast of South-Carolina* and from *Key West.*

OCYPODE RHOMBEA, M. EDW.—Boston Cabinet.

OCYPODE FABRICIUS, M. EDW.—New-York Cabinet.

GELASIMUS PLATYDACTYLUS, M. EDW.—Philadelphia and Charleston Cabinets.

GELASIMUS VOCANS, M. EDW.—Boston, New-York, Philadelphia, and Charleston Cabinets. *Coast of Atlantic States*, from Massachusetts to Key West. I do not know whether those inhabiting our coast, those inhabiting the West Indies, and those proceeding from Brazil, form one species, as M. EDWARDS appears to regard them, or as several, as others appear to have arranged them, not having had the means of effecting a comparison.

5. TRIBE GONOPLACIANA.

PSEUDORHOMBILA QUADRIDENTATA, M. EDW.—The only specimen of this crab that I have seen is in the American Museum in New-York —a fine specimen.

GONOPLAX RHOMBOIDES, DESM.—Boston and Charleston Cabinets.

MACROPHTHALMUS COMPRESSIPES, RANDALL.—Philadelphia Cabinet. Distinct from the other species of the genus. *M. podolphthalmus* of the voyage of the Bonite is a synonyme of this species.

6. TRIBE GRAPSIANA.

SESARMA AFRICANA, M. EDW.—Boston Cabinet.

SESARMA RECTA, RANDALL—Philadelphia Cabinet.

SESARMA RETICULATA, SAY—Boston, New-York, Philadelphia, and Charleston Cabinets. Those in the Philadelphia Cabinet were said to have been found on the *Coast of New-Jersey.* I have obtained them on the *Coast of South-Carolina*, and I have specimens *from Key West.* In South-Carolina they are by no means as abundant as the next species.

SESARMA CINEREA, SAY—Boston, New-York, Philadelphia, and Charleston Cabinets. This is the *Grapsus cinereus* of Bosc. Abundant *in Charleston Harbour*, and exists also *at Key West.* MILNE

EDWARDS, (op. cit, tome, ii, p. 75, note) confounds this species, and the preceding, and so does DEKAY, (New-York Fauna, Crustacea, p. 15,) but they are quite distinct and readily distinguished; *S. reticulata*, has a thicker body than *S. cinerea*, and is every way more robust; the latter has no tooth behind the exterior angle of the orbit, the former, a small but very perceptible one, sometimes becoming quite prominent, and also a granulated line on the crest of the hand, which is wanting in the latter. This enables me to say that Dr. DEKAY, while writing his description of *S. cinerea*, had *S. reticulata* before him, and probably the want of specimens of both species, prevented him from seizing the distinctive characters.

SESARMA PISONII, M. EDW.—Boston, New-York, and Charleston Cabinets. My specimen was sent me *from Key West*, by S. R. MALLORY, Esq.

GRAPSUS DENTATUS, LATR.—Boston, Philadelphia, and Charleston Cabinets—also, in the American Museum, New-York. The specimens in my Cabinet are *from Key West.* Those in the Philadelphia Cabinet are said to be from Surinam, and being regarded by Dr. RANDALL as new, were described by him as *G. longipes.* (Jour. Acad. Nat. Sci. vol. viii. p. 125.) In my note on this species, appended to the Catalogue sent to the Academy, I see, that in seeking for a reason for the error of Dr. R., I have committed the strange mistake of regarding Surinam as not a locality for this species; as it is an inhabitant of the West Indies and Brazil, I can perceive no reason why it should not inhabit Surinam.

GRAPSUS LIVIDUS, M. EDW.—Boston and New-York Cabinets. The specimen in the Boston Cabinet was brought *from Florida*, by Mr. BARTLETT.

GRAPSUS PICTUS, LATR.—Boston, New-York, Philadelphia and Charleston Cabinets. My specimen is *from Key West.*

GRAPSUS RUDIS, M. EDW.—Philadelphia Cabinet. From the Sandwich Islands. This is the same as *G. hirtus* of RANDALL, and M. EDWARDS' name is the prior one. With him I regard *G. rudis* as distinct from *G. pictus*, though it differs only in the following particulars: The shell is clothed with numerous but distinct transverse lines of hairs; the front is not so perpendicularly turned down, the four lobes of the front are more tuberculous, and the limbs are smaller when compared with the body.

GRAPSUS VARIUS, LATR.—Boston Cabinet.

* GRAPSUS TRANSVERSUS.—Boston and Charleston Cabinets. This

species was brought me *from Key West*, by Dr. WURDEMANN, in 1845, and lately by Prof. W. H. HARVEY, from the same place, where it appears to be common. Those in the Boston Cabinet were, I believe, also brought from Florida by Mr. BARTLETT. Shell broader than usual in the genus, and narrowed posteriorly, the length being only three-fourths the breadth, with a well marked tooth on each side, behind that which forms the external orbitar angle, marked with many transverse slightly elevated lines of fine granules, of a darker color than the rest of the shell, producing the appearing of fine plications; several of those lines converge to the lateral tooth on each side, they are most distinct on the anterior portion of the shell, and become obsolete on the hinder part; front, a little more than half the breadth of the shell sloping gently downwards and forwards, edge slightly sinuous as if bilobate, marked above with the four elevations peculiar to the genus, moderately developed; third segment of the exterior jaw-feet dilated and rounded on the outer side; hands smooth polished, with a corrugated area on the crest, and an elevated line on the outside near the lower edge, running to the tip of the finger. By these characters, it will be seen that it belongs to M. EDWARD'S second division of the genus, or RANDALL'S genus, *Pachygrapsus*, if that be adopted.

PACHYGRAPSUS CRASSIPES, RANDALL—Philadelphia Cabinet.

PACHYGRAPSUS PARALLELUS, RANDALL—Philadelphia and Charleston Cabinets. These appear to be distinct from the described species of the genus *Grapsus*.

NAUTILOGRAPSUS MINUTUS, M. EDW.—Boston, New-York, Philadelphia and Charleston Cabinets. This is the *Grapsus cinereus* of SAY, described in Jour. Acad. Nat. Sci. vol. i., p. 99, supposing it to be the *Grapsus cinereus* of Bosc.; on p. 449, the name is changed by him to *G. pelagicus*, on finding the true *G. cinereus* of Bosc, the *Sesarma cinerea* of late writers. This species has never been found on our coast, as far as I am aware, but it is not uncommon in the *Gulf Stream*, off the coast, *from the Gulf of Mexico to New-York*, clinging to marine animals and vegetables.

PLAGUSIA CLAVIMANA, LATR.—New-York and Philadelphia Cabinets. In the Philadelphia Cabinet there are young individuals brought from Santa Cruz, by Dr. R. E. GRIFFITH, and one individual said to be from the Pacific; no perceptible difference existed between those from different localities.

PLAGUSIA SQUAMOSA, LAMK.—Boston, New-York, Philadelphia and Charleston Cabinets. My specimens are *from Key West*, brought by

Dr. WURDEMANN, and *from Charleston Harbor*, obtained by Dr. EDMUND RAVENEL on the Breakwater on Sullivan's Island, three or four years since. It seems to have made its appearance on our coast, or at least on that of Sullivan's Island, only since the construction of the Breakwater, as it never presented itself before to Dr. RAVENEL, during a residence of more than twenty successive summers. This is the *P. depressus* of SAY, but not the *P. depressa* of other authors. I have never seen specimens of the *P. squamosa* of the Red Sea and Indian Ocean, to ascertain by comparison how far it differs from that species, but it agrees so completely with the descriptions and figures of it that I will not decide to separate it. If distinguished from that, it will take the name *P. Sayi*, assigned to it by Dr. DEKAY.

4. FAMILY OXYSTOMA.

3. TRIBE CALAPPIANA.

CALAPPA GRANULATA, FABR.—Boston and New-York Cabinets.

CALAPPA MARMORATA, FABR.—Boston, Philadelphia and Charleston Cabinets; also in the American Museum, New-York. The specimens in my Cabinet are *from Key West*, where they are called Box Crabs, as I was informed by Dr. WURDEMANN, who brought them. I have also a specimen, said to have been taken by fishermen *off Charleston Harbor*.

CALAPPA LOPHOS, FABR.—Boston Cabinet.

CALAPPA CRISTATA, FABR—Boston and Philadelphia Cabinets.

CALAPPA TUBERCULATA, FABR.—Philadelphia and Charleston Cabinets.

PLATYMERA GAUDICHAUDII, M. EDW.—Boston and New-York Cabinets.

ORYTHIA MAMILLARIS, FABR.—The only example of this species that I have seen is a very good specimen in the American Museum, at New-York.

HEPATUS FASCIATUS, LATR.—Boston, New-York, Philadelphia and Charleston Cabinets.

* HEPATUS DECORUS—Charleston Cabinet. I have for several years past, separated, under the above name, this species from the preceding, with which it undoubtedly has been confounded by carcinologists, except HERBST. It is *common in Charleston Harbour*, and at times its exuviæ are abundant on the beaches. I have specimens of all sizes, from half an inch in length up to two inches, exhibiting the series of changes it

undergoes as it advances in age. The two species, *H. fasciatus* and *H. decorus*, resemble each other closely in the size and form of the body and the dentation of its latero-anterior edges, in the form and armature of the carpus and hand, and in the form and colored markings of the four hinder pair of feet. They differ in the markings of the shell. In the *H. fasciatus*, (of which I have only seen adult individuals,) the spots, which are deep red on a pale ground, are small and distributed in transverse bands slightly convex forward, or, in some specimens, are broken up into smaller spots and dots, and scattered irregularly over the whole surface. In *H. decorus*, the spots, in adult individuals, are large, of a light red color, bordered with a deeper tint of red, and symmetrically disposed on the two sides of the shell; this longer diameter, when not circular, being frequently in the direction of the length of the shell, In young individuals, or at least smaller ones, the spots still retain their large size compared with that of the shell, the same character of coloration, that is, a pale disk, with darker border, but their longer diameter is transverse, and they are so arranged as to run in transverse curved bands, with the convexity forwards, and occasionally their extremities run one into another, so that they form a continuous band from one side of the shell to the other; the transition from the latter of these forms to the former can be easily traced when a number of shells of different sizes are compared. In *H. decorus* there are on each of the branchial regions on the two sides two transverse *lines* of granules, separated by a wide space, the anterior one being the longer; these are most distinct in small specimens, and become less so in the larger, and not unfrequently are entirely effaced. In *H. fasciatus*, in the same positions, there are *groups* or *patches* of granules irregularly distributed and well-marked in the large individuals; DESMAREST's figure (Consid. Gen. Crust., pl. 9, fig. 2,) exhibits the position of these groups and the distribution of the granules. In *H. fasciatus* there is a granulated ridge running from the external angle of the eye outwardly to the denticulated edge of the shell, quite distinct in the older individuals. In the *H. decorus* this ridge is equally distinct in young individuals before the change in the markings of the shell has taken place; afterwards it becomes fainter, and in some full-sized specimens no trace of it is left. These characteristics indicate that there are two distinct species, and that *H. fasciatus* is the lower form of the two, since it retains in adult age the characters presented by the other only in its early stages. It is proper to add that I have never seen an individual of *H. fasciatus* on our coast, where *H. decorus* is common. This is undoubtedly the *Cancer decorus* of HERBST—Naturgeschichte der Krabben und Krebsen, Band ii, s. 154, Tab. 37, fig. 6—and I am glad to be able to establish one of the species of that industrious collector, long overlooked by carcinologists; MILNE EDWARDS makes no reference to it. The *Platycarcinus decorus*, indicated on page 20 of the Bulletin of Proceedings of the Academy of Natural Sciences of Philadelphia, by the committee on my catalogue of the Crustacea in their Cabinet, is, I have no doubt, the *Hepatus decorus*. HERBST says that unfortunately he had only a shell of this crab, and that its fatherland is unknown.

HEPATUS CHILIENSIS, M. EDW.—New-York Cabinet.

2. TRIBE LEUCOSIANA.

LEUCOSIA URANIA, LEACH—Boston Cabinet.

LEUCOSIA CRANIOLARIS, LEACH—New-York Cabinet.

ILIA NUCLEUS, LEACH—Boston, New-York and Charleston Cabinets.

*ILIA ARMATA—New-York Cabinet. This new and well-marked species I found in the Cabinet of the Lyceum of Natural History of New-York, and presented a description to be published in their proceedings, which I will here transcribe. Body sub-globose, sub-circular in outline, with posterior edge lamellar, straight, projecting with the angles slightly rounded, surmounted by a single large sub-lamellar, acutely-pointed dentiform process, slightly curved upwards at top; surface of shell granulate granules, most distinct on anterior and lateral parts, and on upper surface of the tooth or process above mentioned; anterior feet moderately long, nearly twice the length of body, slender, third segment tapering from the articulation near the body to the other, granulate granules largest near the body and on the upper surface, carpus short, hands long, slender, tapering to articulation of finger, finger and thumb filiform, the former articulated in a direction at right angles to that of the carpus and hand; legs of four last pair slender, with long and slender tarsi; abdomen having the fourth, fifth and sixth segments in one, in the only individual seen, a female; length of body one inch; country unknown.

GUAIA PUNCTATA, M. EDW.—Philadelphia and Charleston Cabinets; also in the American Museum in New-York. My specimens are *from Charleston Harbour;* I have found it also abundant on the *coast of Georgia.* This crab has been frequently confounded with *Ilia punctata* of MILNE EDWARDS, the *Leucosia punctata* of previous writers, for want of attention to the slender fingers and to the peculiar contorted

form of the hands in the genus *Ilia*. The *Leucosia punctata* mentioned by SAY, (J. A. N. S., vol. 1, page 458,) as very common on the Southern coasts, and the *Ilia punctata* of DEKAY, (op. cit., p. 17,) are undoubtedly *Guaia punctata*, and must rank as its synonymes. The country of the true *Ilia punctata* of M. EDW. appears to be unknown. I have not been able to obtain access to a copy of BROWN'S Jamaica, to examine his descriptions and figures of *Ilia punctata* and of *Guaia punctata*, referred to by M. EDWARDS.

† GUAIA ORNATA—Philadelphia Cabinet. This is a very distinct and pretty species of the genus *Guaia*, from Upper California, described by Dr. RANDALL as *Ilia ornata*, (J. A. N. S., vol. viii, p. 129,) but really belongs to the genus to which I have referred it. Probably, for want of specimens at hand really belonging to *Ilia*, Dr. R. overlooked its peculiar characters.

3. TRIBE CORYSTIANA.

ATELECYCLUS CRUENTATUS, DESM.—New-York Cabinet.
ATELECYCLUS CHILENSIS, M EDW.—New-York Cabinet.

4. TRIBE DORIPPIANA.

DORIPPE LANATA, LAMK.—Boston Cabinet.
DORIPPE QUADRIDENTATA, LATR.—New-York Cabinet.
DORIPPE SIMA, M. EDW.—New-York and Charleston Cabinets.
CYMOPOLIA CARONII, ROUX—Boston and Charleston Cabinets.

B. ANOMOURA.

1. FAMILY APTERURA.

1. TRIBE DROMIANA.

DROMIA VULGARIS, M. EDW.—Boston and New-York Cabinets.

DROMIA LATOR, M. EDW.—Boston, Philadelphia and Charleston Cabinets. My specimen is *from Key West.*

2. TRIBE HOMOLIANA.

HOMOLA SPINIFRONS, LEACH—New-York Cabinet.

LITHODES ARTICA, LATR.—Boston Cabinet. The specimen was obtained on the *coast of Massachusetts.*

8. TRIBE RANINIANA.

RANINA DENTATA, LATR.—Philadelphia Cabinet. Two fine specimens. Dimensions of largest; shell 4 1-2 inches long and as many broad, shell with abdomen extended 7 inches; breadth of hand, finger excluded, 1 1-4 inch, finger included, 2 1-2 inches; length of thumb or moveable finger, 1 1-2 inch; length of one of the first pair of feet, thumb extended, is 7 inches.

RANILIA MURICATA, M. EDW.—Boston and Charleston Cabinets. The specimens were brought *from Florida* by Mr. BARTLETT. M. EDWARDS' description was drawn from a single specimen in bad condition in the Cabinet of the Museum of Natural History at Paris, and no figure of it has been given. I have a colored drawing of it made two or three years since, and hope to publish it with a description in the course of the year, in the Boston Journal of Natural History.

2. FAMILY PTERYGURA.

1. TRIBE HIPPIANA.

ALBUNEA SYMNISTA, FABR.—Boston, Philadelphia and Charleston Cabinets. My specimens are only fragments of the exuviæ of this species, found by me on the beach at Sullivan's Island, at entrance of *Charleston Harbour.* I cannot decide without specimens of the foreign species for comparison, whether this is new or not; the short description of M. EDWARDS and others, apply to it in nearly all particulars.

ALBUNEA SCUTELLATA, DESM.—Charleston Cabinet. Fragments from *Charleston Harbour.* The preceding remarks apply here also, but it is to be observed the country of this species is not given by DESMARESM and MILNE EDWARDS. I believe this is the first notice that has been given of the existence of these two species on this continent.

BLEPHARIPODA OCCIDENTALIS, RANDALL—Philadelphia Cabinet. A well marked genus; the individual is a female, abdomen with appendages, first pair of feet cheliform; hence near Albunea, but quite distinct.

REMIPES TESTUDINARIUS, LATR.—Boston Cabinet.

HIPPA EMERITA, LATR.—New-York and Charleston Cabinets. The specimens in these two Cabinets are from the coast of Brazil, and enable me to make a comparison with our own species.

HIPPA TALPOIDEA, SAY—Boston, N. York, Philadelphia and Charleston Cabinets. Since receiving the Brazilian specimens, I have not had an opportunity of again examining individuals *from the coast of Massachusetts and New-York*, but have little doubt that they agree with those in my Cabinet *from Charleston Harbour, and from Key West.* On comparing the Brazilian and Carolina specimens, the difference between them is obvious, though perhaps not easily conveyed in words, being one of degree, no absolute character presenting itself for distinguishing them. The chief points of difference are in the rostrum, form and size of the terminal segment of the first pair of feet, and of the third segment of the exterior jaw feet, and in the degree of serrature of the latero-anterior edge of the shell. In the *H. emerita*, the rostrum is acute and nearly as prominent as the adjacent teeth of the rostral sinus, in the *H. talpoidea*, it is rounded at tip, less prominent, sometimes almost obsolete in the first species, the terminal segment of the first pair of feet is oval or ovate, rounded at tip; in the second, narrower, more lanceolate, sometimes acute at tip. A similar difference exists in the third segment of the exterior jaw-feet, which is broad, and dilated posteriously in *H. emerita*, and is narrow and elongated in *H. talpoidea;* in the former, the serrature of the latero-anterior edges is minute, but very distinct; in the latter, it is indistinct or obsolete; also the spines on various parts are more robust and strongly marked in *H. emerita*, than in *H. talpoidea*, as the three spines, on the large basilar segment of the external antennæ, the spine on the fourth segment of first pair of feet, and the prolongation of the fifth. The Brazilian specimens, three in number, all females, with eggs, presented a complete agreement in their characters, as did also three out of four Carolina specimens, all four also females; the fourth, was more marked than the others, rostrum scarcely visible, last segment of the first pair of feet narrow and acutely pointed; third segment of jaw-feet, narrow, and tapering anteriorly.

2. TRIBE PAGURIANA.

PAGURUS BERNHARDUS, LATR.—Boston and Philadelphia Cabinets. This species has been found on the *coast of the eastern States*, and the specimens, I believe, are deposited in the Cabinet of the Boston Soc. Nat. Hist.

PAGARUS CALLIDUS, ROUX—Boston Cabinet.

PAGURUS PUNCTULATUS, OLIVIER—New-York and Philadelphia Cabinets.

PAGURUS GRANULATUS, OLIVIER—Boston, Philadelphia and Charleston Cabinets. My specimens are *from Key West.*

PAGURUS ANGULUS, OLIVIER—Philadelphia Cabinet.

PAGURUS VITTATUS, BOSC.—Charleston Cabinet. This species is very abundant in *Charleston Harbour.* I have it also *from Key West.*

PAGURUS POLLICARIS, SAY—Boston, New-York, Philadelphia and Charleston Cabinets. Enumerated among the Invertebrata of *Massachusetts* by Dr. GOULD; *coast of New-York*, Dr. DEKAY. My specimens are *from Charleston Harbour*, and I have them also *from Key West.*

PAGURUS LONGICARPUS, SAY—Boston, New-York and Charleston Cabinets. From *coast of Massachusetts*, Dr. GOULD; *coast of New-York*, Dr. DEKAY; rather common in *Charleston Harbour.*

PAGURUS CARINATUS, RANDALL—Philadelphia Cabinet.

PAGURUS SYMMETRICUS, RANDALL—Philadelphia Cabinet.

PAGURUS DECORUS, RANDALL—Philadelphia and Boston Cabinets.

PAGURUS LÆVIMANUS, RANDALL—Philadelphia Cabinet.

PAGURUS LATENS, RANDALL—Philadelphia Cabinet.

* PAGURUS TRICOLOR—Charleston Cabinet. Brought *from Key West* by Dr. WURDEMANN. Opthalmic ring without rostriforme process, ocular peduncles equal in length to the basilar portion of the external antennæ, and longer than their spiniform process, blue, cornea black, with white dots; rostrum reduced to a mere acute tooth, scarcely perceptible; anterior feet deep brown, spotted with white, tips of fingers black, carpus granulated and heiry; two following pairs of feet sky blue, annulated with orange at the upper part of each segment, just beneath articulation, tarsi yellow with brown spots, and an orange ring just beneath the articulation; external antennæ orange, first segment of internal antennæ blue, second blue beneath, orange above, tuft at the extremity orange; shell, blue, anterior portion subquadrilateral with four black spots; length of body and abdomen one inch.

CENOBITA DIOGENES, M. EDW.—Boston, Philadelphia and Charleston Cabinets. The specimens of the Charleston Cabinet are *from Key West.*

3. TRIBE PORCELLANIANA.

PORCELLANA CINCTIPES, RANDALL—Philadelphia Cabinet.

PORCELLANA PLATYCHELES, LAMK.—Charleston Cabinet.

PORCELLANA SOCIATA, SAY—Philadelphia and Charleston Cabinets. In the Philadelphia Cabinet is SAY's original specimen, collected on the coast of Georgia, without the label however. I have specimens *from the coast of S. Carolina* and *from Key West.* I have not been able to identify MILNE EDWARDS' *P. pilosa* with this species nor with any of the following; he says it is from the environs of "Charlestown," in the United States. Nor have I been more successful in identifying LEACH's *Pisidia Sayana*, (DESM. Consid. Gen. Crust., p. 199,) nor the *Porcellana galathina* of Bosc, either as described by himself with figure, (Hist. Nat. Crust. tom. 1, p. 299, 2d edit.,) or by DESMAREST, (op. cit. p. 199.)

* PORCELLANA OCELLATA—Charleston Cabinet. *Coast of South-Carolina.* Front trifid, middle lobe most prominent, with central depression, in some individuals sub-acute, with sub-dentate edges, outer angle of the eye acute, but without spine, shell with a distinct border running backwards two-thirds its length; carpus short, with projecting lobe at base of inner edge, this edge without spines, outer edge with a slightly raised border, with a single spine at articulation with hand; hand sub-triangular, lower edge ciliate; shell smooth, without spines, with whitish spots, when recent, on a reddish ground, which is frequently deeper around the spots; posterior part of shell and abdomen with reddish longitudinal bands, hand and carpus of large claw marked like shell, feet with transverse reddish bands, in which the ocelli may be frequently perceived. All these markings are less distinct in the dry specimen.

* PORCELLANA ARMATA—Boston and Charleston Cabinets. *From Florida.* Front not trifid, middle portion prominent, lateral portions rounded; eyes prominent, outer angle of orbit obtuse, a little distance behind it, on the edge of the shell, an acute spine, from which an indistinct border runs back, carpus twice as long as broad, anterior edge with three acute teeth, posterior edge bordered with four or five small spines, hand sub-triangular, lower edge serrate, with small spines; third segment of the three following feet, with two or three spines on the upper edge, one at the anterior termination of the lower edge; shell brownish red in the dried specimen, rugulose with small transverse piliferous lines, these are apparent also on the feet, and more distinct on the carpus and hand where the lines are granulate.

* PORCELLATA SEXSPINOSA—Charleston Cabinet. Collected at *Key West* by Dr. WURDEMANN. Front not trifid, middle portion prominent, lateral portions rounded, very slightly prominent; on each side of the front, just over the eye, there is a spine forming, as it were the inner angle of the orbit, the outer angle of the orbit is also formed by a spine, short, but very distinct; behind which, at a little distance on the shell, there is another, from a marked ridge runs backward, forming a border to the shell, but before reaching the posterior edge, turns upward and forms one of the transverse lines on the back; basal joint of the external antennæ with a stout spine; carpus moderately long, with five broad teeth on the anterior edge, the last forming the angle at the articulation with the hand, outer edge with five or six small spines, hand sub-triangular, serrate and slightly ciliate on lower edge; shell covered with long transverse, distinct, piliferous lines, giving it a well marked rugous appearance, lines generally extending one-third the breadth of the shell; carpus and hand rugous in like manner on both surfaces, lines running entirely across the carpus; third segment of the legs clothed with similar rugæ, on the upper edge spinous. This I suppose to be the *Porcellana* observed by SAY, and considered by him *P. galathina*, (J. A. N. S., vol. 1, p. 458.)

* PORCELLANA MAGNIFICA—Charleston Cabinet. Brought from *Vera Cruz* by Dr. CLEVELAND, of Charleston. Front resembles that of the two preceding, not trifid, triangular, with a central linear depression; shell with length and breadth nearly equal, as in all the preceding, smooth, polished, punctate, with traces of rugæ near the lateral edges, which are marked with a moderately distinct line, no spines in any part, anterior feet unequal in size, carpus long, about three times as long as broad, and as long as the shell, anterior edge with three distant teeth, posterior marked with a few denticulations near the articulation with hand; hand broad, flat, thumb included sub-triangular, but the lower edge, or anterior edge when folded in repose, is regularly arched from the articulation round to the tip of the finger; palmar portion as long as the carpus; finger and thumb with their opposing edges straight, without teeth, slightly hooked at tip, surface of carpus and hand, shining, but roughened with a multitude of exceedingly minute granulations on the upper surface, on the lower, they are few and scattered, and the surface comparatively smooth and polished; color of shell and anterior feet pale red in dry specimen.

* PORCELLANA MACROCHELES—Charleston Cabinet. Found on the

coast of South-Carolina by Dr. T. L. BURDEN, of Charleston. Totally different in appearance from all the preceding. Body thick, shell transverse, length to breadth as three to four, convex longitudinally, front very slightly prominent, anterior edge nearly straight, eyes small, not prominent; basal segment of external antennæ massive, completely filling up the groove in the shell in which it is placed, and bearing only on its outer angle the moveable peduncle, which is thus entirely separated from the eye; the groove is not prolonged backwards under the lateral portion of the shell as usual, but that course is marked by a fissure; anterior feet unequal, third segment subcubical, rounded posteriorly, with a projecting lamellar lobe anteriorly; carpus as long as the shell, thick, subcylindrical, with anterior edge curved, lamellar projecting, without teeth or spines; the larger hand, long, thick, subcylindrical, anterior edge for three-fifths of its extent straight, ciliate, thumb falcate, acute, finger straight-hooked at tip, with a large tooth on the middle of the trenchant edge; smaller hand more slender and compressed; larger hand with the finger, is twice the length of shell; color pale yellowish white in dry specimen.

MONOLEPIS INERMIS, SAY—Charleston Cabinet. Obtained from the stomach of a fish (*Thynnus vulgaris*, CUV.?) taken at sea, *off the Atlantic coast*, on a voyage from New-York to Charleston, in 1846.

MONOLEPIS SPINITARSUS, SAY—Philadelphia Cabinet. The specimen described by SAY, with his label, *from the coast of South-Carolina.*

C. MACROURA.

1. FAMILY LORICATA.

1. TRIBE GALATHEANA.

GALATHEA STRIGOSA, DESM.—New-York Cabinet.

GALATHEA SQUAMIFERA, LEACH—Boston and Charleston Cabinets.

2. TRIBE SCYLLARIANA.

SCYLLARUS ARCTUS, FABR.—Boston, New York, Philadelphia and Charleston Cabinets.

SCYLLARUS LATUS, LATR.—New-York Cabinet.

SCYLLARUS SQUAMMOSUS, M. EDW.—Philadelphia Cabinet.

SCYLLARUS EQUINOXIALIS, FABR.—New-York, Philadelphia and Charleston Cabinets. My specimen is *from Key West*, sent by S. R. MALLORY, Esq.

THENUS ORIENTALIS, LEACH—Boston, New-York and Charleston Cabinets.

IBACUS ANTARCTICUS, LEACH—Philadelphia Cabinet, from Sandwich Islands, I believe.

IBACUS PARRÆ, M. EDW.—Philadelphia Cabinet. I insert under this name an individual in the Philadelphia Cabinet marked as "brought from Santa Cruz by R. E. GRIFFITH," but it agreed in character with the preceding species and with M. EDWARDS' description of it, the spine being *present* on the fifth pair of feet, the *absence* of which makes his *I. Parræ* a native of the Antilles. Are the two species really one? or is a closer comparison yet required of the analogous species of the Gulf of Mexico and of the Pacific?

*IBACUS NOVEMDENTATUS—New-York Cabinet. I will, for the present, indicate under this name, an individual in the above mentioned Cabinet, which resembles *I. Peronii*, and I believe I so labelled it provisionally; but it is distinguished by the following characters: It has nine teeth on the lateral edges of the shell, instead of seven, that is, eight behind the lateral fissure of the shell, instead of six, as in *I. Peronii*, and one before the fissure, as in that species, forming the anterior angle of the shell; the last segment of the exterior antennæ have on their anterior edge six or seven teeth, instead of three or four, as in *I. Peronii;* of these six or seven, three are broad and prominent, the others small and intermediate; and, lastly, the fourth segment of the external jaw-feet is traversed by seven or eight deep fissures, not mentioned in M. EDWARDS' description of *I. Peronii*, but may exist, for it is proper to add that I have not seen a specimen really belonging to that species. DESMAREST, I find, mentions these fissures or deep grooves in his character of the genus, which, however, only includes *I. Peronii.*

3. TRIBE PALINURIANA.

PALINURUS VULGARIS, LATR.—Boston Cabinet.

PALINURUS AMERICANUS, M. EDW.—Boston, Philadelphia and Charleston Cabinets; also in American Museum, New-York. I have specimens *from Key West.*

PALINURUS INTERRUPTUS, RANDALL—Philadelphia Cabinet.

2. FAMILY FOSSORES.

CALLIANASSA MAJOR, SAY—New-York and Charleston Cabinets. My specimens are *from Coast of South-Carolina* and *Charleston Harbour*. With regard to SAY's description, it must be observed in applying, that he erroneously supposes the hand to be abnormally constituted and to be two-jointed; what he calls first joint of hand is really the carpus; his carpus is the third joint or segment, and so on. The crustacean described by Dr. DEKAY as *Gonodactylus setimanus* (op. cit., p. 34,) belongs to this genus, as can be seen from the description and figure, and I regard it as belonging to this species. Most probably the individual he obtained had lost the large anterior foot so striking in this genus, and the error was thus induced. But I have examined the specimen preserved in the New-York Cabinet with his label, and it does not belong to the *Stomapoda*, as the branchiæ are in the position usual in *Decapoda*, under the shell, and it is in fact a *Callianassa*. The necessity for this and other corrections I communicated to Dr. DEKAY, with the wish that he would himself make them public; he communicated them to the Lyceum of Natural History of New-York, but I cannot learn that they have been published. With the same motive I made a similar communication to Dr. RANDALL, but his distance from the specimens, and other engagements, induced him to entrust the office of correcting these errors to me. As Dr. RANDALL has made this request, and as Dr. DEKAY's corrections do not appear to have been published, I have inserted in this paper the corrections requisite in both cases, influenced by that friendly consideration for both gentlemen which a consciousness of one's own liability to error should ever induce for the errors of others.

* CALLIANASSA GRANDIMANA—Charleston Cabinet. This species was brought *from Key West* by Dr. F. WURDEMANN, and is easily distinguished from *C. major* by its large anterior claw or foot. The second segment is slender and narrow near its articulation with the first, and is dilated and incurved as it advances, with distant granules on its lower edge; the third segment is broader, dilated so as to form below a sharp serrated edge, which is truncated as it approaches the posterior articulation, inner surface of the segment is nearly plane, on the middle of the outer is a longitudinal obtuse ridge; the carpus

is united with the preceding segment by a small articulating surface near its upper edge, somewhat inflated externally, the breadth, or rather the depth, nearly twice as great as the length, the posterior lower angle rounded, forming an edge without any trace of serrature; the hand broader, or rather deeper, than the carpus, and its length, exclusive of the finger, is nearly double that of the carpus, inflated on the internal surface, and more so on the external, lower edge ciliate, and with a few small distant serrations; whole surface of hand, as well as of carpus, smooth and polished.

GEBIA AFFINIS, SAY—Charleston Cabinet. *From Charleston Harbour.*

3. FAMILY ASTACIDÆ.

ASTACUS FLUVIATILIS, FABR.—Philadelphia Cabinet.

ASTACUS BARTONII, FABR.—Boston, New-York, Philadelphia and Charleston Cabinets. Inhabits *Massachusetts*, Dr. GOULD; *New-York*, Dr. DEKAY; I have it *from New-Jersey*, from the upper part of *South-Carolina*, and *from Alabama*.

ASTACUS AFFINIS, SAY—Boston, New-York, Philadelphia and Charleston Cabinets. My specimens are *from Florida*.

ASTACUS BLANDINGII, HARLAN—New-York, Philadelphia and Charleston Cabinets. My specimens are from the low country of *South-Carolina*.

ASTACUS PELLUCIDUS, TELLKAMPF—Boston and Charleston Cabinets. From the *Mammoth Cave, Kentucky*.

HOMARUS AMERICANUS, M. EDW.—Boston and New-York Cabinets. From the coast of the *Northern States*.

NEPHROPS OCCIDENTALIS, RANDALL—Philadelphia Cabinet. From west coast of North-America.

4. FAMILY PALEMONIDÆ.

1. TRIBE CRANGONIANA.

CRANGON SEPTEMSPINOSUS, SAY—Boston, New-York and Charleston Cabinets. From the *coast of the Northern States* I think SAY must be mistaken when he says (op. cit., p. 26,) that this species is found as far south as East Florida. I have never met with it at the South, and can scarcely believe that I have overlooked it.

CRANGON CATAPHRACTUS, M. EDW.—Boston Cabinet.

2. TRIBE ALPHEANA.

ATYOIDEA BISULCATA, RAND.—Philadelphia Cabinet. From Sandwich Islands.

ALPHEUS DISPAR, RAND.—Philadelphia Cabinet. From Manilla. Hardly distinct from *A. brevirostris*, M. EDW.

ALPHEUS LÆVIS, RAND.—Philadelphia Cabinet. From Sandwich Islands.

ALPHEUS HETEROCHELIS, SAY—Charleston Cabinet. *From Charleston Harbour* and *from Key West.* I am strongly induced to believe that the *A. armillatus* of M. EDWARDS is the same as this species; the "circular depression around the large hand," mentioned by him, among its characters, corresponds exactly with the "abrupt constriction near the fingers" in SAY's description.

ALPHEUS MINUS, SAY—Charleston Cabinet.—*From Charleston Harbour* and *from Key West.* SAY puts the specific name in the neuter gender.

* ALPHEUS FORMOSUS—Charleston Cabinet. Brought *from Key West*, with the two preceding, by Dr. WURDEMANN. Size of *A. heterochelis*, but readily distinguished from it by the rostrum and hand; rostrum large and well-formed, arising a little distance behind the edge of the shell by a broad base, and running forward to an acute point, projecting beyond the anterior edge of the shell, which it overhangs; a small spine on the vaulted part of the shell over each eye; hand smooth, moderately compressed, slightly contorted, without constriction or depression on the hand, and not presenting the deformed appearance of the hand in *A. heterochelis;* a single spine on the hand on the inside at the articulation of the thumb; *A. heterochelis* has no spines over the eyes; these are present in *A. minus*, but the rostrum which springs from the edge of the shell is scarcely larger than they, so that the anterior edge appears tridentate.

* PONTONIA DOMESTICA—Charleston Cabinet. Found on the *coast of South-Carolina*, inhabiting the living shells of *Pinna muricata* and *P. seminuda*, sometimes in company with *Pinnotheres maculatus.* Rostrum broad, depressed, projecting, acute, body stout, smooth, with a small spine on the outside of the insertion of the external antennæ; hand, excluding the finger, as long as the shell, inflated, but only about half the diameter of the body; finger broad, with two teeth, thumb slender, arched, with a single tooth fitting between the two on the finger when closed. This, I believe, is the first time this genus has been indicated as belonging to America.

3. TRIBE PALEMONIANA.

HIPPOLYTE MARMORATA, M. EDW.—Philadelphia Cabinet, Sandwich Islands.

HIPPOLYTE ACULEATA, M. EDW.—Charleston Cabinet. Taken by me from the stomach of a Cod or Haddock, on the *beach, at Lynn, Mass.*, brought in by fishermen.

HIPPOLYTE GRACILIPES, RAND.—Philadelphia Cabinet. The specimen so labelled was in bad condition, but certainly belonged to genus *Palemon.* Perhaps some interchange of labels had taken place.

*HIPPOLYTE WURDEMANNI—Charleston Cabinet. Brought *from Key West*, in 1845, by Dr. F. WURDEMANN. Found last year in *Charleston Harbour*, by JAMES JOHNSON, Esq., of Charleston. Rostrum springing from the middle of the shell, and running forwards to the base of the last segment of the peduncle of the internal antennæ, and to about two-thirds the length of the lamellar appendage of the external antennæ, with four teeth on its upper edge, (not including the spine at the tip,) and a fifth at the base, separated from the others by double interval, three or four teeth on lower edge, a spine on the anterior edge of the shell above the base of the external antennæ, feet of second pair slender, filiform, multiarculate, longest nearly twice the length of shell and rostrum together.

* HIPPOLYTE PALUDOSA.—Charleston Cabinet. Obtained a few years since, in fresh water ponds, in St. Andrew's Parish, South-Carolina, and presented to me by F. S. HOLMES, Esq. The specimens were not quite perfect, having lost some of their feet and antennæ. Rostrum springing from the anterior part of the shell, long, projecting beyond the peduncle of internal antennæ, and a little beyond the lamellar appendage of the external antennæ, six to seven teeth on upper edge, three on lower, a spine on edge of shell, over the base of the external antennæ. This I believe to be the first announcement of fresh water species of *Hippolyte* in the United States. MILNE EDWARDS appears to regard *Hippolyte* as masculine; it surely is feminine and I have so regarded it.

RHYNCHOCINETES TYPUS, M. EDW.—New-York Cabinet. A fine specimen of a remarkable genus of M. EDWARDS, very near *Hippolyte*, but with the rostrum articulated with the shell, and moveable.

PANDALUS ANNULICORNIS, LEACH—Charleston Cabinet. Taken by myself from the stomach of a Cod or Haddock, at *Lynn, Mass.*

PALEMON SERRATUS, FABR.—Boston Cabinet.

PALEMON SQUILLA, FABR.—Boston Cabinet.

PALEMON LOCUSTA, FABR.—Boston Cabinet.

PALEMON VULGARIS, SAY—New-York and Charleston Cabinets. *Coast of Massachusetts*, Dr. GOULD; *New-York*, Dr. DEKAY; common *in Charleston Harbour;* on Coast of *Florida*, SAY.

PALEMON CARCINUS, OLIVIER—Boston, Philadelphia and Charleston Cabinets.

PALEMON JAMAICENSIS, OLIVIER—Boston and Charleston Cabinets. Also in American Museum in New-York. My specimens are from the Island of Cuba, brought by Dr. WURDEMANN.

PALEMON PUNCTATUS, RANDALL—Philadelphia Cabinet. Supposed to come from the East Indies.

PALEMON SPINIMANUS. M. EDW. Charleston Cabinet. Brought with *P. jamaicensis*, from Cuba, by Dr. WURDEMANN.

PALEMON GAUDICHAUDII, M. EDW.—Philadelphia Cabinet. Two fine specimens of this species of M. EDWARDS, first brought from Chili by GAUDICHAUD.

PALEMON GRANDIMANUS. RAND—Philadelphia Cabinet.

PALEMON GRACILIMANUS, RAND—Philadelphia Cabinet.

4. TRIBE PENÆANA.

SICYONIA SCULPTA, M. EDW.—Boston Cabinet.

PENÆUS BRASILIENSIS, LATR.—Charleston Cabinet. Under this name, I wish to indicate a species, which occasionally is met with on the *Coast of South-Carolina*. It agrees generally with M. EDWARDS' description of *P. caramote*,—having the rostrum running back to the posterior edge of the shell, with a sulcus on each side, continued equally far, and a third groove on the posterior part of the crest of the rostrum, also continued to the posterior edge of the shell—and I have sometimes so labelled it, but it has no spines on the base of the third pair of feet. My referring it to *P. brasiliensis*, LATR., is based on an assumption, it must be observed, that that species is Brazillian, and may occasionally visit our coast. I have not seen LATREILLE's description of it, and, therefore, cannot say that ours is new. Full grown individuals of this species are occasionally found in the shrimp trays in the market, containing the following species. Once in our market I saw a tray full of half grown individuals of this species.

PENÆUS SETIFERUS, M. EDW.—Boston, Philadelphia, and Charleston Cabinets. Abundant at certain seasons in *Charleston Harbour*. With the preceding known as Shrimps in our market.

STOMAPODA.

PHYLLOSOMA COMMUNIS, LEACH—New-York Cabinet.

PHYLLOSOMA STYLICORNIS, M. EDW.—New-York Cabinet. These specimens are the only representatives of this curious genus in our Cabinets.

SQUILLA MACULATA, FABR.—Philadelphia Cabinet.

SQUILLA VITTATA, M. EDW.—American Museum, New-York.

SQUILLA BOUVIOUANA, LATR.—Boston, New-York, and Charleston Cabinets. My specimen was presented to me by Dr. T. L. OGIER, of Charleston, to whom it had been brought by a fisherman, who had taken it *off Charleston Harbour*.

SQUILLA MANTIS, FABR.—Boston Cabinet. It is somewhat surprising that MILNE EDWARDS, in his description of this species, does not allude to the differences pointed out by SAY, between this species and his *S. empusa*. In this species, of the last four last thoracic segments, all but the last are bifurcate or bilobed at their exterior terminations, as it is tolerably well exhibited in the figure of HERBST, pl. 33. fig. 1; the anterior one, (or that just behind the large plate or shell of the animal,) is bifurcate, the two spines being in the same *horizontal plane* or one *anterior* to the other, and the two following segments are bilobate over the base of the feet. The lateral edges of the shell are not angulated, but rounded with tolerably uniform curvature. The figure in the Encycl. Method, pl. 295, fig. 1, is so coarsely executed, like several other figures in that work, that it can scarcely be regarded as an adequate representation; it exhibits, however, the two bilobate segments; the other figure, pl. 324, is of another species, *S. raphidea*, M. EDW., SEBA's fig. pl. 20, fig 2, is a better one. DESMAREST's figure of *S. mantis*, pl. 41, fig. 2, is referred to by MILNE EDWARDS in his description of that species, but it is really a figure of *S. scorpio*, LATR, described by him two pages beyond. The figures of DEGEER, pl. 34, fig. 1, and of LATREILLE, Hist. Crust., pl. 55, fig. 3, referred to by M. EDWARDS, I have not seen.

SQUILLA NEPA, LATR.—Philadelphia Cabinet. Also in the American Museum, New-York.

SQUILLA EMPUSA, SAY—Boston, New-York, Philadelphia and

Charleston Cabinets. This species is quite distinct from *S. mantis*, as was pointed out by SAY. Of the four last thoracic segments, the most anterior, or one just behind the shell, is bifurcate, but the two spines are in the same *vertical plane*, or one *above* the other, when the animal is in the usual position for locomotion, and the two following segments are not bilobate. *S. dubia*, M. EDW., and *S. Desmarestii*, RISSO, have a similar conformation. Dr. DEKAY, (op. cit. p. 33) does not allude to these characters, which distinguish it from *S. mantis*, though he insists on the distinctness of the two species. In this species there is also an obtuse angle on the lateral edges of the shell, which is wanting in *S. mantis*. Found on the *Coast of Rhode Island*, according to SAY; *New-York*, DE KAY; frequently taken in *Charleston Harbour*, whence my specimens are derived; *Coast of East Florida*, SAY.

* SQUILLA NEGLECTA—Charleston Cabinet. Obtained in *Charleston Harbour*. This new species resembles in many points, *S. empusa*, but is readily distinguished by the following characters. The thoracic segment just behind the shell is bifurcate, as in that species, with one spine above the other, but the uppermost is not narrowed gradually to an acutely pointed termination, bat its two edges are parallel, and the extremity is rounded, so that it is spatuliform and not spiniform, the median crest of the last abdominal segment terminates posteriorly in an acute spine, twice as long as in the preceding species.

SQUILLA DUBIA, M. EDW.—Boston and Charleston Cabinets. My specimens were obtained *in Charleston Harbour*, but it appears to be rare. Readily distinguished from *S. empusa*, by there being only four or five denticulations between the large terminal teeth of the last abdominal segment, and three or four between these teeth and the next large ones; as in *S. mantis*, there are six teeth to the claws. A good idea of this species may be obtained from DESMAREST's figure, of *S. mantis*, pl. 41, fig. 2, which, I feel confident, was drawn from a specimen of *S. scorpio*, LATR., a species closely allied to this; only four teeth, however, instead of five, on the claws, are distinctly indicated in the figure.

SQUILLA DESMARESTII, RISSO.—Boston Cabinet.

SQUILLA STYLIFERA, LAM.—Philadelphia and Charleston Cabinets.

SQUILLA CERISII, ROUX. New-York and Philadelphia Cabinets.

GONODACTYLUS CHIRAGRUS, LATR.—Boston, Philadelphia, and Charleston Cabinets. My specimens are *from Key West.*

GONODACTYLUS SOYLLARUS, LATR.—Boston Cabinet.

GONODACTYLUS STYLIFERUS, M. EDW.—Philadelphia Cabinet.

The preceding enumeration contains 250 species, of which 22 are described as new. Of those enumerated, 94 belong to the Atlantic Coast of the United States, of which 19 are new, and 10 more, though already described, yet were not distinctly recognized as belonging to our Fauna. The species of Podolphthalmian Crustacea, known to belong to our Fauna, but not embraced in the above enumeration, are *Pilumnus Harrisii*, GOULD; *Pinnotheres cylindricum*, SAY; *P. depressum*, SAY, *Porcellana pilosa*, M. EDW., *Crangon boreas*, FABR., and *Mysis spinulosus*, LEACH, giving 100 species to our Fauna.

There are several undetermined, and in some cases, most probably undescribed forms, both native and foreign, in my Cabinet, as also in the others, but the want of works of reference, and particularly want of specimens, deter me from describing at present. I have made several attempts to obtain correspondents on the coast of the northern States, and in Florida and Cuba, as also in Europe, for exchange of specimens, but so far without success.

On the Morphological Difference of Organs, by Prof. AGASSIZ.

[Not received.]

Meteorological and Mortuary Chart of New-Orleans, for 1849, *by* Dr. E. H. BARTON, *of New-Orleans.*

A REPORT on this Chart was given by Prof. LECONTE, to whom it had been referred, accompanied by remarks on the importance and difficulties of Mortuary Statistics.

Observations on the Geology of Ashley River, South-Carolina; by F. S. HOLMES, Esq., *of Charleston, S. C.*

THE first exposure of the Eocene Marl, so extensively developed on Ashley River, occurs one mile below Ashley Ferry, and about six miles in a direct line North-West of Charleston. The estimated thickness of this bed, called by Mr. RUFFIN, "the great Carolina Marl Bed," is about eight hundred feet, as determined in boring the