

feet, or the peaks of the Andes to the south reaching to 11,000 feet, the Isthmus nowhere attains 1000, that is, one-half the height through which these beds of San Domingo have been elevated since their deposition.

It is to be hoped that Mr. Heniker, to whom we are indebted for this interesting collection, will continue his researches, and clear up the doubt which I have ventured to suggest, whether these fossils belong to the same or to two formations of different geological age.

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*Descriptions of new Species of Fossil Shells found by J. S. HENIKER, Esq. By Mr. GEORGE B. SOWERBY.*

CONUS HAYTENSIS.

Testa oblongo-turbinata, conica, lævis, crassiuscula, spirâ subproductâ, spiraliter striatâ, anfractibus primis subcoronatis, ultimi margine postico rotundato anguloso, ad basin striato; aperturâ amplâ, postice rotundato-emarginatâ; canali subreflexo.

A variable species; at the same time it cannot be confounded with any known species.

CONUS SYMMETRICUS. PL. IX. fig. 1.

Testa turbinata, crassiuscula, breviscula, granulosa, spirâ brevi, spiraliter striatâ, anfractuum marginibus angulatis; ultimo anfractu zonis angustis, pluribus, elevatis, granosis, lateribus æqualibus, canali subproducto, leviter reflexo.

A beautiful small Cone, having the last volution covered with granular zones.

CONUS STENOSTOMA.

Testa turbinata, regularis, crassa, lævigata, spirâ mediocri, subacuminatâ, lineis incrementi obsoletis solum conspicuis; anfractibus primis leviter subcoronatis, ultimo postice angulato, mediane et antice transversim lirato, liris subdistantibus, subprominulis; aperturâ angustâ, labii externi sinu postico magno.

Remarkable for the narrowness of its mouth and the great size of the posterior sinus of the outer lip, as evidenced by the lines of growth on the spire.

CONUS PLANILIRATUS.

Testa turbinata, crassa, transversim sulcata, spirâ breviter acuminatâ, lævi, substriatâ; anfractu ultimo liris elevatis, numerosis, confertis, superne planis cincto; interstitiis longitudinaliter tenerrime striatis.

About twenty prominent, flat-topped ridges may be counted on the last volution.

CONUS MARGINATUS.

Testa subturbinata, utrinque subæqualis, sulcata, spirâ conicâ, subacuminatâ, anfractuum marginibus prominulis; anfractu ultimo transversim costellato, costellis 16 acutangulis.

Deeply grooved externally, and having the edge of the volutions composing the spire rather prominent.

## CONUS DOMINGENSIS.

Testa turbinata, subpyriformis, crassiuscula, lævis, spirâ elevatâ, spiraliter striatâ, anfractibus primis subcoronatis, marginibus subelevatis, ultimo anfractu postice subventricoso, antice striato, striis granosis, moniliformibus.

This is a somewhat variable species, particularly in the elevation of the spire.

## CONUS SOLIDUS.

Testa turbinata, conica, crassa, lævis, spirâ subproductâ, lævi, anfractuum marginibus rotundato-elevatis; anfractu ultimo striato, striis paucis, subobsoletis, canali recto.

This fossil is remarkable for retaining some traces of its living colours, the spire is marked with light rusty-brown dashes, and there are three rows of spots of the same colour on the last volution.

## CONUS CATENATUS. PL. IX. fig. 2.

Testa oblongo-turbinata, spirâ productâ, mucronatâ, anfractibus canaliculatis, ultimo anfractu lævi, antice obsolete sulcato, liris nonnullis granosis, sulcis alternantibus, granis paucis, parvis, distantibus.

## CONUS CONSOBRINUS.

Testa oblongo-turbinata, crassiuscula, granulosa, spirâ conicâ, elevatâ, coronatâ, spiraliter striatâ, ultimo anfractu zonis elevatis, angustis plurimis granosis, canali subproducto.

Also a variable species; in one specimen the granose zones only cover half the shell. It bears some resemblance to *Conus cedo-nulli*.

## OLIVA CYLINDRICA.

Testa subcylindrica, spirâ brevi, retusâ, labii columellaris dentibus validis, obtusiusculis, calli umbilicali dentibus sex ad septem elongatis, quorum altero brevi.

## CYPRÆA HENIKERI. PL. IX. fig. 3.

Testa obovata, ventricosa, inflata, lævis, dorso postice irregulariter tuberculifero, lateribus, præcipue sinistro, obsolete granosis; extremitatibus, posticâ brevissimâ, anticâ subproductâ, aperturâ angustâ, marginibus dentatis, dentibus paucis, magnis, rotundatis, canali brevissimo, reflexo.

This species bears a general resemblance to *Cypræa Mus* and several others, which occasionally have irregular tubercles on the posterior part of the back; it may however be easily distinguished from all such by the dentition of both edges of the aperture, the teeth in this species, though not numerous, being large and prominent.

## MARGINELLA CONIFORMIS.

Testa oblongo-ovata, antice acuminator, spirâ brevissimâ, submucronatâ, aperturâ rectiusculâ, angustâ, labii externi margine inflexo, lato, crasso, depresso, ad apicem continuo, margine interno crenulato; labio columellari antice incrassato, supra anfractum ultimum extenso, plicis quatuor, prominulis, distantibus, duabus anticis elongatis, obliquis, parallelis, anticâ latus alterum canalis formante, antepenultimâ minus parallelâ, posticâ transversâ.

This species comes nearest to *Marginella Amygdala* of Kiener; it

differs from that species, however, in having a straight narrow aperture, a flat wide outer lip, its inner edge being crenulated, its large, coarse and distant columellar plaits, and in its general shape.

#### VOLUTA PULCHELLA. PL. IX. fig. 4.

Testa oblongo-ovata, lævis, longitudinaliter costata, anfractibus senis subrotundatis, spirâ acuminatâ; costellis plerumque antice subobsoletis; labio externo intus lævi, columellâ plicatâ, plicis anticis majoribus.

There are apparently two varieties of this species, one of which is smaller and rather wider; its ribs are also rather fewer, and more generally somewhat obsolete anteriorly.

#### VOLUTA SOROR.

Testa ovato-oblonga, lævigata, anfractu ultimo oblique longitudinaliter costato, antice transversim striato; margine interno labii externi denticulato, plicis labii columellaris distantibus, posticis parvis.

There is only a single individual of this species, which has lost its spire; it is distinguishable from *V. pulchella* by its greater size, and by the obliquity of the longitudinal ribs.

#### MITRA HENIKERI. PL. IX. fig. 5.

Testa oblongo-fusiformis, utrinque acuminata, anfractibus septem, spiraliter sulcatis, sulcis majoribus minoribusque alternantibus, ad basin decussatis; margine labii externi crenulato; plicis columellaribus duabus posticis validis, anticâ solitariâ obsoletâ.

This species is nearest in form to the recent *M. filosa*, which has four plicæ on the columella.

#### MITRA VARICOSA.

Testa oblongo-subfusiformis, anfractibus subventricosis, liris majoribus minoribusque asperis alternantibus, varice asperâ prope suturam distinctâ; plicis columellaribus posticis duabus, validis, tertiâ obsoletâ.

Remarkable for its two prominent columellar plicæ, and for the spiral varix placed at the posterior part of the volutions near the suture. A fragment only exists.

#### COLUMBELLA HAITENSIS.

Testa ovalis, anfractibus senis, spiraliter striatis, transversimque costellatis, anfractu ultimo ventricoso; aperturâ latiusculâ, canali brevi, reflexâ, extus striatâ; suturâ validâ; columellâ postice rugulosâ; labio externo intus dentibus quatuor ad quinque induto.

A very small species, not quite three-eighths of an inch in length, and nearly one-eighth in width.

#### COLUMBELLA VENUSTA. PL. IX. fig. 6.

Testa oblongo-acuminata, crassa, anfractibus 9, subventricosis, longitudinaliter costellatis, costellis flexuosis, transversim sulcatis, sulcis crebris, costellas decus-

santibus; suturâ validâ; margine interno labii externi dentibus elongatis 7 ad 8 labio columellari intus ruguloso; canali brevi, leviter reflexâ.

This very elegant *Columbella* differs entirely from any other known species.

#### TEREBRA SULCIFERA.

Testa aculeiformis, anfractibus plurimis, oblique transversim sulcatis, prope suturam incrassatis, sulcis spiralibus duobus prope suturam admotis, tertio antico subobsoleto ad basin anfractûs remoto.

#### TEREBRA INÆQUALIS.

Testa turrito-subulata, subcylindracea, anfractibus planulatis, longitrorsum plicato-costellatis, postice lineâ impressâ cinctis, costellis posticis obliquis, anticis arcuatis; anfractu ultimo antice subangulato; columellâ antice buplicatâ.

The deep impressed spiral line divides the volutions into unequal parts.

#### TEREBRA BIPARTITA.

Testa turrito-subulata, acuminata, anfractibus planulatis, longitrorsum plicato-costellatis, postice lineâ impressâ costellis decussatâ cinctis, costellis posticis subevanidis, anticis subarcuatis; anfractu ultimo antice rotundato, columellâ antice lævi.

This species somewhat resembles *T. duplicata*, particularly in its general shape.

#### CASSIS SULCIFERA. PL. X. fig. 1.

Testa ovato-trigona, crassiuscula, anfractibus senis, longitudinaliter sulcatis, ultimo seriebus duabus ad tribus tuberculorum ornato, serie posticâ eminentiore; aperturâ latâ; margine interno labii externi dentato, dentibus paucis distantibus; labio interno transverse costellifero; costellis anticis prominentioribus.

#### CASSIDARIA LÆVIGATA. PL. X. fig. 2.

Testa ovata, utrinque subacuminata, plerumque lævis, nonnunquam transversim striata, anfractibus senis, varicibus tenuibus nonnullis ornatis; aperturâ oblongâ, postice acuminatâ, margine interno labii externi dentato, dentibus elongatis pliciformibus; labio columellari antice posticeque ruguloso.

Variat testâ majori, ventricosiori.

#### ONISCIA DOMINGENSIS. PL. X. fig. 3.

Testa ovato-oblonga, subventricosa, crassiuscula, anfractibus senis, coronatis, decussatim costatis, postice subplanulatis; aperturâ elongatâ, postice acuminatâ, margine interno labii externi transversim costellifero, costellis sub-bifariam coordinatis; labio columellari granuloso.

When young the granules of the columellar lip are indistinct, and do not extend so as to cover the lip, but when full-grown the columellar lip is entirely covered with granules; in which character it differs from *O. cancellata*. It is also distinguished from that species by the nature of the denticulations on the inside of the outer lip, which in *O. Domingensis* are extended across the lip. It is worthy of remark, that *O. cancellata* is a Chinese species.

## STROMBUS AMBIGUUS.

Testa ovato-elongata, postice acuminata, transversim dense striata, anfractibus octo, primis transversim costellatis, anticis duobus tuberculiferis, tuberculis parvis, rotundatis; aperturâ latiusculâ, labio externo extus varice distinctâ, intus ruguloso, labio columellari intus postice ruguloso.

Distinguished from *Str. bifrons* by the rugulosities at the posterior inner part of the columellar lip, as well as by the form of the tubercles.

## STROMBUS HAITENSIS. PL. IX. fig. 7.

Testa suboblongo-turbinata, transversim sulcata, spirâ pyramidalî, acuminatâ, subundulatâ, varicosâ, anfractibus novem, ultimo ad dorsum tuberculato, tuberculorum seriebus duabus, alterâ posticâ, tuberculis subdepresso-acuminatis; alterâ anticâ, tuberculis duobus vel tribus sistente; tuberculo parvo prope labium remoto; aperturâ elongatâ, labii externi crassi margine inflexo.

A species which closely resembles *Str. inermis* of Swainson, from which it may be distinguished by its peculiarly-arranged tubercles.

## STROMBUS PROXIMUS. PL. IX. fig. 8.

Testa ovato-oblonga, antice posticeque acuminata, transverse striata, anfractibus novem, posticis transversim costellatis, varicosis, anticis duabus tuberculiferis, tuberculis acuminatis, ultimo nonnunquam seriebus tuberculorum duabus; aperturâ latiusculâ, subexpansâ, intus lævissimâ, canali subreflexo.

This differs from *Str. gracilior*, Sow. (to which species it is most nearly allied), in having the inner part of both lips quite smooth, the outer surface of the two last volutions distinctly striated, and in the first volutions being transversely ribbed and not tuberculated.

## STROMBUS BIFRONS. PL. IX. fig. 9.

Testa ovato-oblonga, utrinque acuminata, transversim striata, anfractibus octo, primis transversim costellatis, anticis duobus postice tuberculatis, serie tuberculorum unicâ, tuberculis acuminatis; aperturâ latiusculâ; labio externo extus varice unicâ subdistinctâ intus ruguloso, labio columellari lævissimo.

This species bears some resemblance to *Str. Columba*, but is very easily distinguished.

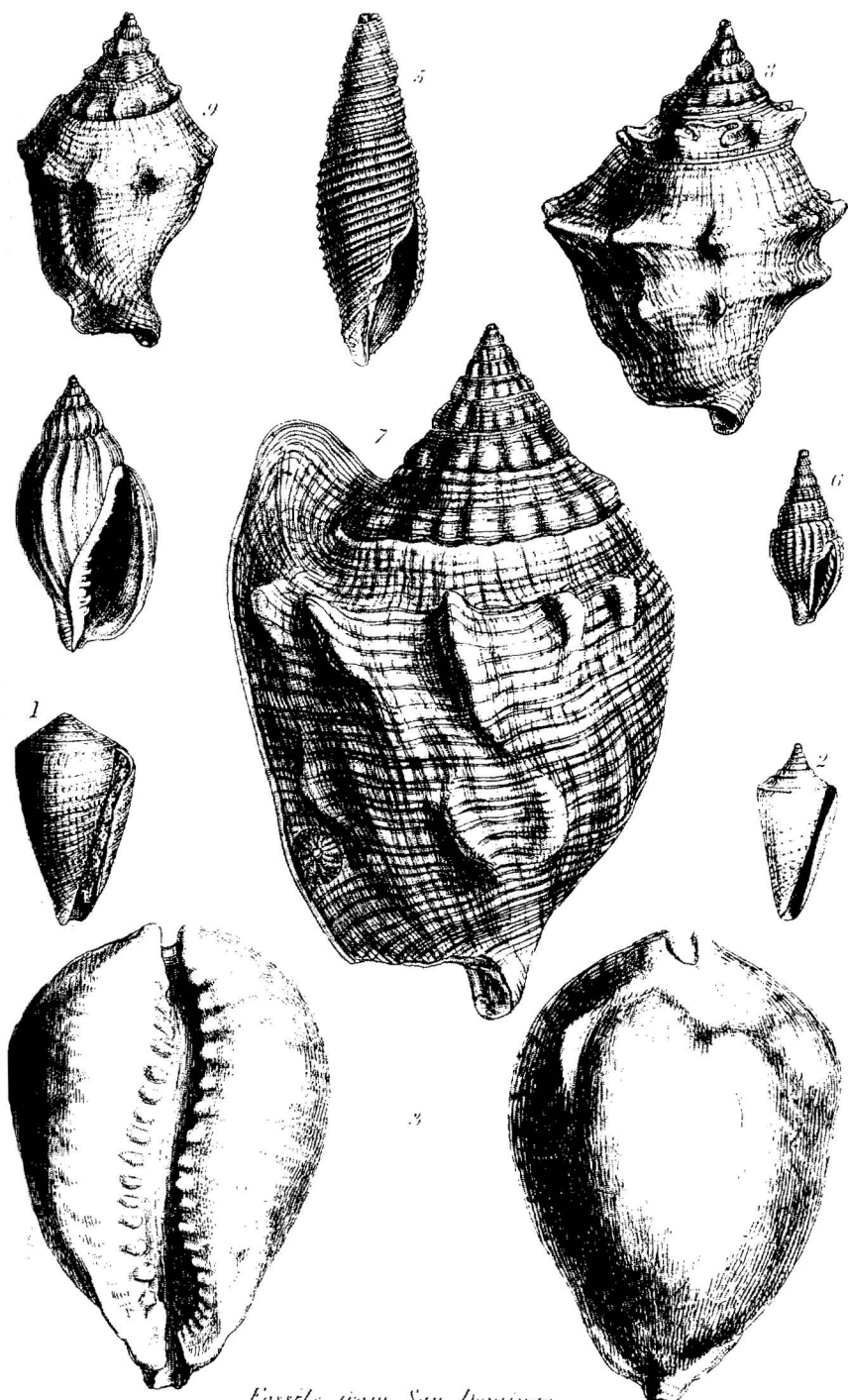
## TRITON SIMILLIMUS.

Testa ovato-elongata, postice acuminata, distorta, varicibus quatuor ad quinque indistinctis, anfractibus octo, liris elevatis clathratis, tuberculiferis ornatis; columellâ profundiuscule excavatâ, ad laterem canalî dentibus rugosâ, callositate postice armatâ; labro subplano, margine interno dentato, dentibus validis, tertio maximo; margine labri externo dentibus mediocribus, continuis; canali subreflexo; anfractûs ultimi parte posticâ internâ dentibus duobus oblongis, magnis.

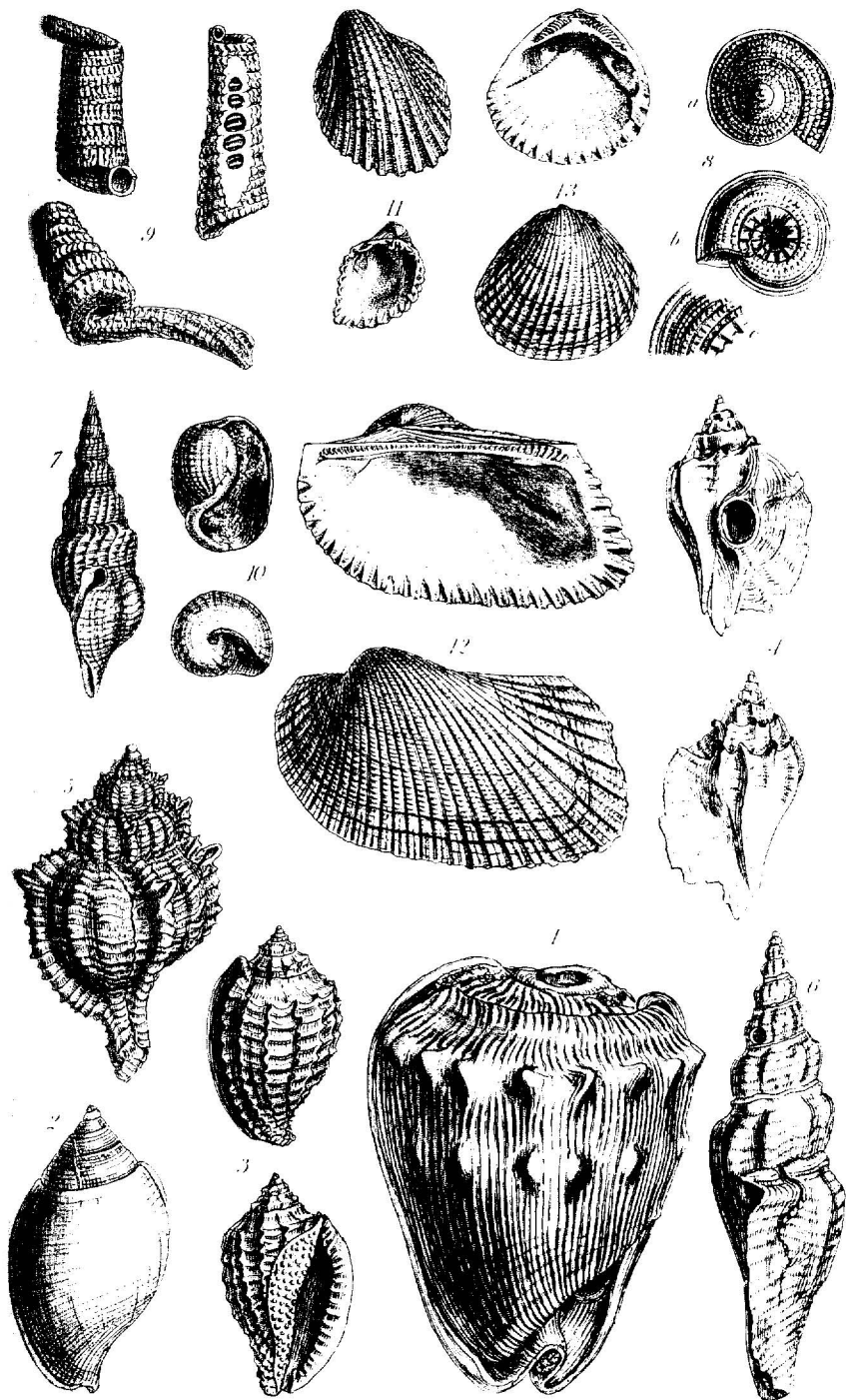
Nearly related to *Tr. decipiens* of Reeve, but distinguishable by the greater coarseness of the decussating ridges and the tubercles formed at their junction.

## TYPHIS ALATUS. PL. X. fig. 4.

Testa ovato-oblonga, subfusiformis, transversim striata, anfractibus senis, quadri-



*Fossils from San Domingo*



Fossils from San Domingo.

fariam varicosis, costellis brevibus intermediis; varice ultimo lato, tenui, radiatum striato, canali longiusculo, oblecto.

Distinguished by the tenuity and great extent of the wing-like varix from all known species.

#### MUREX DOMINGENSIS. PL. X. fig. 5.

Testa subovata, utrinque subacuminata, trifariam varicosa, anfractibus senis, longitudinaliter costellatis, spiraliter valide striatis; varicibus prominentibus, rotundatis, marginibus paucispinosis, spinis brevissimis; labio columellari antice ruguloso; canali breviusculâ.

#### PYRULA CONSORS.

Testa obovata, ventricosa, lævis, transversim striata; anfractibus quinque, primis tuberculatis, ultimo seriebus duabus ad tribus postice, antice serie solitariâ ornatis; aperturâ oblongâ, latâ; canali lato, brevi; columellâ antice subangulatâ, planulatâ.

This species nearly resembles *P. Melongena*, Lam., which is a recent species from the West India islands: it may be distinguished by its shorter figure, by being more ventricose, by the pointed tubercles on the spire, and its shorter and wider canal.

#### FUSUS HENIKERI.

Testa elongato-fusiformis, gracilis, postice elongato-acuminata, anfractibus plurimis, ventricosis, longitudinaliter costiferis, spiraliter liratis, costis rotundatis, liris acutis; canali elongatâ, extus liratâ, margine interno labii columellaris ruguloso; labii externo intus sulcato.

Remarkable for being distinctly longitudinally ribbed and spirally grooved; the inside of the outer lip is also grooved, and the inner edge of the columellar lip is rugulose.

#### FUSUS HAITENSIS.

Testa elongato-fusiformis, gracilis, postice elongato-acuminata, anfractibus plurimis, ventricosiusculis, undique spiraliter liratis, liris prominentibus acutis, medianâ duplicatâ majori, longitudinaliter costatis, liris costas decussantibus; canali validâ, liris posticis distinctis, anticis subobsoletis.

Most like *F. Toreuma*, Desh., but distinguished by the central elevated ridge being formed of two lines, and being more prominent than the remainder.

#### FASCIOLARIA SEMISTRIATA.

Testa oblongo-fusiformis, anfractibus senis, antice posticeque spiraliter striatis, mediane lævibus; striis duabus elevatis prope suturam conspicuis.

This species most nearly resembles *F. fusiformis* of Reeve; it may, however, be easily distinguished, by the middle part of the volutions being free from the spiral striæ.

#### FASCIOLARIA INTERMEDIA.

Testa oblongo-fusiformis, anfractibus senis, primo lævi papilliformi, secundo, tertio et quarto tuberculatis, cæteris ventricosis, lævibus; canali longiusculo.

A single specimen with a papillary apex, like that of *F. papillosa*, Sow. Tank. Cat.



## TURBINELLUS VALIDUS.

Testa oblongo-subfusiformis, lævis, postice acuminata, antice coarctata, anfractibus 6 ad 8, subventricosis, spiraliter striatis, posticis transversim obtuse costatis, intermediis subtuberculatis, anticis duobus postice tuberculatis; suturâ canaliculatâ, margine levatâ; aperturâ magnâ, canali valido extus striato.

This species somewhat resembles *T. Scolymus*: it differs, however, materially in its general form not being hexagonal; in the suture, whose margin is elevated and with a narrow channel; and in its tubercles, which are small and rounded.

## TURBINELLUS HAITENSIS.

Testa subtrigona, turbinata, transversim striata, tuberculata, spirâ subdepressâ, subacuminatâ; anfractibus senis, postice anguliferis, ad angulum tuberculiferis, lateribus declivibus; antice seriebus duabus tuberculorum, quarum postica multo major; labio columellari quadriplicato; canali extus subtuberculato.

The flatness of the spire at once distinguishes this from *T. pugilaris*, Lam.

## PLEUROTOMA HENIKERI. PL. X. fig. 6.

Testa elongato-acuminata, crassiuscula, rudis, anfractibus novem, spiraliter liratis, longitudinaliter rotundato-costatis, infra suturam uniliratis, deinde lævibus subconcavis; aperturâ oblongâ, latiusculâ, labio externo valido, crasso, sinu postico distincto, columellari crassiusculo; canali breviusculo, subumbilicato, subreflexo.

In general form this species resembles *Pl. maura*, Sow.; there are, however, several characters by which it may be distinguished.

## PLEUROTOMA VENUSTA. PL. X. fig. 7.

Testa acuminato-turrita, crassa, anfractibus rotundatis, confertim costellatis, interstitiis transversim liratis, ad suturam subdepressis, labio externo crassiusculo, patulo, sinu postico lato, profundo; canali brevissimo, subrecurvo; ultimi anfractûs tuberculo dorsali oblongo, conspicuo.

In shape this species resembles *Pl. gibbosa* of Kiener and *Pl. pallida* of Sowerby.

## PLEUROTOMA CONSORS.

Testa elongata, acuminato-turrita, anfractibus postice concavis, lævibus, mediane et antice spiraliter liratis, liris costis longitudinalibus decussantibus granulis formantibus; suturâ undulatâ, lirâ parvâ levatâ anticâ; canali mediocri.

This species bears some general resemblance to *Pl. militaris* of Reeve.

## PLEUROTOMA HAITENSIS.

Testa turrito-acuminata, elongata, spiraliter striata et lirata, liris in utroque anfractu quatuor, centrali conspicuo, in ultimo anfractu septem, tertio conspicuo sinu distincto; canali longo, oblique lirato; interstitiis linearum incrementi obsolete decussatis.

In general appearance this species resembles *Pl. virgo*: it differs, however, in the circumstance that in *Pl. virgo* the second ridge is generally the one that is decurrent with the notch, whereas in our fossil it is the third; this ridge has also a second line marking its edge.

## PLEUROTOMA JAQUENSIS.

Testa fusiformi-turrita, anfractibus 7 ad 8, transversim costatis, postice sublævibus, antice spiraliter striatis; costis validis, rotundatis, striis distinctis supra costas decurrentibus; aperturâ ovatâ, canali breviusculo, lato, extus striato, subrecurvo; suturâ costellâ spirali, undulatâ indutâ.

Aperture and canal about two-fifths the length of the shell. This species is nearly related to *Pl. oblonga*.

## CERITHIUM UNISERIALE.

Testa acuminato-turrita, antice ventricosa, anfractibus spiraliter striatis, serie unicâ tuberculorum ornatis, suturâ distinctâ adpressâ, obsolete crenatâ, ultimi anfractûs serie tuberculorum minimorum, sutura serie tuberculorum parvorum ornata; striis spiralibus tenuissimis interruptis.

## CERITHIUM PLEBEIUM.

Testa acuminato-turrita, nonnunquam varicosa, anfractibus undecim rectiusculis, spiraliter costatis, costis granosis triseriatis, serie posticâ paululum remotâ; lineâ elevatâ suturæ distinctâ.

## SOLARIUM QUADRISERIATUM. PL. X. fig. 8, a, b, c.

Testa orbicularis, depresso-conoidea, anfractibus senis, superne spiraliter granosis, granis in seriebus quatuor confertis; prope marginem sulco valido postico, margine superne infraque minutissime crenulato, infra cingulis plurimis granosis, quorum primus filiformis, minutissime crenulatus, secundus minutissimus, cæteris majoribus; dentibus umbilici crassis.

In the teeth of the umbilicus this species closely resembles *S. granulatum*, Lam.; in all other characters it differs from every known species.

## PETALOCONCHUS\* DOMINGENSIS. PL. X. fig. 9.

Testa contorta, crassa, tubulo plerumque spirali, anfractibus ad marginem inferiorem angulatis, angulo costulisque longitudinalibus graniferis; costulis nonnullis etiam infra angulum anfractuum graniferis.

This remarkable spiral shell approaches near to *P. sculpturatus* of H. C. Lea, only his species does not appear from his figure to have any granular longitudinal ridges below the angle of the volutions.

## NATICA SUBCLAUSA.

Testa obovata, lævis, anfractibus tribus, ultimo maximo, callo umbilicali magno, crasso, umbilicium fere claudente.

In general form this species nearly approaches to *N. Manilla*; in that species, however, the umbilicus is entirely closed. In another somewhat similar species, which I believe is called *N. Olla* by Valenciennes, the umbilicus is much more open than it is in our fossil.

## BULLA GRANOSA. PL. X. fig. 10.

Testa ovato-subglobosa, ventricosa, tenuis, transversim striata, striis paucis, distinctis, lineas incrementi decussatis, graniferis; columellâ late marginatâ, sulco postico profundo; spirâ inclusâ.

Nearly like *B. hydatidis* in form.

\* *Petalocochus* of H. C. Lea, in Trans. of Amer. Phil. Soc. vol. ix. p. 229. pl. 34. f. 3.

## BULLA PAUPERCULA.

Testa ovato-oblonga, mediane subcoarctata, lævis, antice transversim striata, labio columellari antice incrassato.

## CARDIUM HAITENSE. PL. X. fig. 11.

Testa oblique subovata gibbosa, radiatim costata, lateribus brevibus, costis quatuor et viginti, quadratis, graniferis, interstitiis creberrime rugulosis; angulo postico rotundato ex umbone ad marginem inferiorem posticam decurrente.

Very like *C. subovale* of Brod. and Sow., but wider, and distinguished further by the squareness of the ribs. The grains on the ribs constitute another remarkable character, in which this differs from *C. subovale*.

## ARCA PATRICIA.

Testa æquivalvis, quadrata, infra rotundata, crassissima, lateribus superne subauriculatis; margine inferiori rotundato; latere postico paululum extenso; superficie radiatim costatâ, costellarum lateribus superne angulatis, costellis anticis obsolete granosis; serie dentium cardinis angustâ, postice recurvâ.

Distinguished from *A. grandis* by its form, which is much more rounded at the inferior margin; by the angularity of its radiating ribs, which are moreover rather more numerous; and by the narrowness of the line formed by the row of hinge-teeth, and the recurved posterior termination of the same row.

## ARCA CONSOBRINA. PL. X. fig. 12.

Testa oblonga, obliqua, æquivalvis, radiatim costata, lateribus superne angulatis, antico infra rotundato, postico rotundato-angulato; costis angustis, numerosis, plerumque quadratis, et decussatis, ad basin sulco tenui divisis, posticis fere lævibus, planulatis; areâ cardinali latiusculâ.

In general appearance this resembles *A. labiosa*; the cardinal area is, however, much larger, and the ribs, except some of the posterior, are decussated. Judging from a cast, the two valves appear to be equal.

## PECTEN THETIDIS.

Testa orbicularis, tumida, radiatim costata, costarum marginibus quadratis, ad utrumque latus squamuliferis, squamulis minutissimis, interstitiis rugulosis; auribus inæqualibus, radiatim costatis, costellis squamulosis.

## PECTEN INÆQUALIS.

Testa suborbicularis, tumidiuscula, costellis radiantibus 19, rotundatis, lævibus, subdistantibus, superne lineis decussantibus hic illic sparsim notatis; interstitiis rotundatis, lævibus, æquidistantibus; alterius valvæ costellis angustioribus interstitiis latioribus, lævissimis; auribus inæqualibus, radiatim costellatis.

## PECTEN OXYGONUM.

Testa suborbicularis, subobliqua, tumida, costellis radiantibus 19, superne acutangulis, interstitiisque æqualibus lineis incrementi concinne decussatis; auribus inæqualibus, lævibus, radiatim costellatis, costellis tenuissimis.

## PECTUNCULUS ACUTICOSTATUS. PL. X. fig. 13.

Testa suborbicularis, subobliqua, postice subangulata, radiatim multicostata, costis tenuibus, sulcisque angulatis; areâ cardinali bifariam tenuiter sulcatâ, dentibus cardinalibus ad utrumque latus numerosis, confertis.

A small species, distinguished by its subangular form posteriorly, its angular radiating ribs, and its numerous close-set hinge-teeth. It approaches in general form to *P. Pallium*, Reeve.

## OSTREA HAITENSIS.

Testa oblonga, crassa, plicata, plicis paucis (senis ad septenis), magnis, undulatis, subsquamosis, squamis nonnunquam subtubulosi; limbo interno omnino glabro.

This species appears to be related to *O. imbricata*, Lam.; it differs, however, in its general form, which is oblong and not orbicular, and in the number of external radiating folds, which are only six or seven in our shell.

## SPONDYLUS BIFRONS.

Testa subregularis, rotundata, ventricosa, margine latiusculo, valide denticulato; extus radiatim costata, costis 5 ad 6 spiniferis; areâ cardinali alterius valvæ angustissimâ, alterius latiori.

Nearest to *S. imperialis*, easily distinguishable by the area of one valve being very narrow, and that of the other being rather broader, though still narrow.

2. *Observations on the Silurian Strata of the SOUTH-EAST of SCOTLAND.* By JAMES NICOL, F.R.S.E., F.G.S., Assistant-Secretary Geol. Soc.

DURING a visit to the south of Scotland last autumn I collected some fossils from the older rocks of that district, which appear interesting as adding another link to the chain of evidence by which the true age of these deposits may be ascertained. Taken in connection with the fossils formerly noticed\* and with those procured by Mr. Moore in Wigtonshire†, they may be regarded as rendering the Lower Silurian age of one part of these beds almost certain, so that the connection of the rocks and mountain-chains of this portion of Britain with those of other countries may now be so far traced out.

The fossils which Mr. Salter last year kindly determined were chiefly procured from the only bed of limestone known in the Silurian rocks of the south-east of Scotland. My hopes of obtaining better or more characteristic specimens from that locality were disappointed, and not even a single new form was discovered after a careful search. Indeed, the highly crystalline texture of the limestone, probably occasioned by a mass of trap with which it is always associated, renders it very improbable that this bed will ever add much to our knowledge of the beings existing in the seas in which it was deposited.

My researches in the slate rocks were more successful, especially in the Grieston quarry near Traquair. In this place the rocks consist of clay-slate, sometimes passing into a fine greywacke, and are wrought

\* Quart. Geol. Journ. vol. iv. p. 205.

† Ib. vol. v. p. 7.