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PAPERS AND PROCEEDINGS

AND

REPORT

OF THE

ROYAL SOCIETY

OF

TASMANIA,

FOR

1876.



TASMANIA :

PRINTED AT THE "MERCURY" STEAM PRESS OFFICE, HOBART TOWN.

—
1877.

doubt at night the inflamed gases would present the appearance of a column of fire, but in the day-time, to one who had seen what I had that day seen, the upper crater looked rather curious than imposing. The great heat did not allow a nearer approach than about forty yards' distance.

Nothing now remained but to return to the two natives, who, worn out and dispirited, had laid down about a mile and a half away some 500ft. below the level of the craters, and there we slept.

Few living men, perhaps, have looked on such a scene with such surroundings as I did that night. The night was clear with us. Over our heads spread the vault of heaven, starlit and moonlit; and all around, scarred and furrowed like an ancient world destroyed by fire, lay the great grey round face of Mauna Loa; above us its two craters sent up rolling volumes of lurid smoke. To the northward Mauna Kea reared its crest of snow into the moonbeams, looking down nearly 14,000ft. upon the mingled gloom and glare of the intervening valley, along which flowed the eruption, running downwards to the forests, and burning its way through them for miles and miles into the far distance by Hilo. To the east and south, before us, the low dark woodlands fringing the coast, slept in shadow with the sea beyond.

Solemnly grand and impressive it was, but it became sublime when clouds gathered some thousand feet below us; their upper surface as we looked down on them, shining white in moonlight, yet through which the lightning flashes played, and deepest thunders reverberated—still we were in perfect calm—and over and beyond the thunder storm I could look upon the glitter of the moon's rays on the placid sea—like Dante, with whose genius the scene so well accorded—

—————"Di lontano
"Conobbi il tremolar della marina."

Such was my last night on Mauna Loa.

In the morning, rising at the first sign of dawn, very great and sustained exertion, not without much suffering from thirst, and with bleeding feet, brought us back long after nightfall to my friend Stuart-Wortley, and to what seemed to us the comforts and luxuries of the old grass hut above Kilauea.

ON SOME NEW TASMANIAN MARINE SHELLS.

[SECOND SERIES.]

BY THE REV. J. E. TENISON-WOODS, F.G.S., &c., COR. MEM.
ROY. SOC. TAS., N. S. WALES, &c.

In the Proceedings of the Royal Society for last year (1875), I published descriptions of 82 new marine shells occurring in the Tasmanian seas. I have now to bring under the notice of the Society an equal number which have been derived from the following sources:—1st. From Mr. Ronald Gunn, F.L.S., the eminent botanist, so long connected with your Society, whose extensive collections, extending over many years, were placed at my disposal for description and type specimens of all presented to the Museum. 2nd. From the collections made by Mr. W. F. Petterd, during some years past, which were purchased by a few gentlemen and presented to the Society, to which also several new and rare species were added by the collector. Mr. Petterd has proved himself to be an industrious and most painstaking collector, who has not only had singular advantages for observation in his extensive travels, but has also been able to visit nearly all the Australian museums in the course of his wanderings, and very much enhance the value of his collections by comparison with the types therein preserved. 3rd. From the Rev. H. D. Atkinson, who has continued most successfully his dredging operations and thus largely increased the knowledge of our fauna, as the following pages will show, amongst which are several genera new to the Southern hemisphere, including the important discovery of a *Scissurella*, differing but little from the European *S. crispata*. 4. From Mr. W. Legrand, who continues his zeal and industry on behalf of conchological science, which already owes much to him. 5. From Mr. Augustus Simson, the entomologist, whose duties unfortunately take him so far from the coast that he cannot always render that valuable assistance which his great industry and powers of observation would enable him to do. 6. From Mr. R. M. Johnston, the geologist, of Launceston, who has presented two or three interesting conchological novelties to the Museum, in addition to his very large collection of fossils.

The shells hereafter described comprise rare and peculiar forms, but not departing in any remarkable degree from the molluscan character of the Australian seas as far as at

present known. Some of the smaller shells are not easily distinguished from species occurring in the Eastern Archipelago, Japanese, and E. Australian seas, and no doubt as dredging operations are pursued, these resemblances will be found still stronger. The number of species especially of the smaller forms in Tasmania would be surprising were it not remembered that it is almost a warm sea, with many islands, an extensive coast line, and an almost uninterrupted littoral connection with coral seas within the tropics, and, we may add, almost with the Indian Archipelago.

No. 1. MUREX (PTERONOTUS) ZONATUS. *M.t. subfusiformi tricolata, spira brevi, acuta, solidiuscula, alba, una fascia badia zonata; anfr. 6, convexis (ult. spira valde superanti) costulis transversis rugosis crebre cinctis; nodo uno strenuo varicibus interposito; varicibus haud latis, in 3 series contortas dispositis, continuis, compressis, infra suturas valde emarginatis et in spinam porrectis; in superficie anteriore crenato lamellosis, in cauda attenuatis; ore late ovato; canali postice emarginato et antice canali longo aperto curvato instructo; cauda lata, apice laevi, fauce edentata. Long. 13½. Lat. 9. Long. apert. canali incluso 8. Lat. 3.*

It is sufficient to say of this shell that it is a small white species of the peculiar form of Murex common in South Australia and formerly common in Europe, during the earlier tertiary periods. It is distinguished by a conspicuous broad brown zone on a white ground. The three wing like varices are not very much expanded. Flinders Island. R. M. Johnston.

No. 2. TYPHIS ARCUATUS. Hinds. Voy. Sulphur. A small specimen of this shell has been dredged from 10 fathoms sand by Rev. H. D. Atkinson at Long Bay. It is paler than the described species, smooth with rounded broad varices which are bent back so as to become confluent with the tubes which crown the whorls.

TROPHON ASSISI. *n.s. T.t. ovato-fusiforme, griseo-olivacea; anfr. 6, convexis, superne angulatis, eleganter costatis, et peculiariter longit. crebre, tenuissime, lamelloso-striatis; transversim spiraliter conspicue liratis, liris alternantibus, sup. cost. transeuntibus; sutura impressa; costis elevatis, angustis, in ult. anfr. 11; apertura ovata; labro acuto, tenui; canali longo, obliquo, intus purpurascens. Long. 12. Lat. 5½. Long. canal. 3½.*

Shell ovately fusiform, greyish olive; whorls, 6, convex, angular above, elegantly ribbed and peculiarly thickly striate lengthwise, with very fine lamellose striae; transversely conspicuously lirate, liris alternating, and passing over the ribs, suture impressed; ribs elevated, narrow, 11 in last whorl, aperture ovate, outer lip thin, acute, canal long oblique, purple within.

In form resembling *T. paivæ*, Crosse, and *T. hanleyi*, Ang. but easily distinguished by its long canal and peculiar lamellose striations. N. Coast. W. F. Petterd.

No. 2. RANELLA EPITREMA. *n.s. R.t. late ovata, alba, vel pallidissime fulva, ad suturas conspicue profundeque canaliculata; anfr. 6, liratis et nodosis, liris magnis et parvis alternantibus, supra varices transeuntibus; nodis in spirâ costiformibus, in ult. anfr. 4 series transversalibus; varicibus ad suturas curvatis, in seriem non sequentibus sed aliquantulum a seipsis semotis; apertura ovata; labro conspicuo, marginato, intus dentato, labio reflexo; canali obliquo breve vix recurvo. Lat. 23. Lat. 16. Mil.*

This very remarkable Ranella is distinguished by its deep canaliculate suture which causes the varices to overlap in a singular hooked manner. It does not appear to have any living congeners in any way resembling it and none fossil.

No. 4. MITRA FRANCISCANA. *n.s. M.t. anguste ovata, sub-turrita, solida, alba, late pallide castanea fasciata (ult. anfr. fasc. 2) vix nitente—anfr. 7, declivis tenuiter convexis, spiraliter multi-liratis, liris regularibus, subdistantibus, et costis obsoletis longitudinalibus decussatis—apertura spira vix æquanti, anguste ovata, sutura bene impressa, labro acuto, columella solida, oblique triplicata. Long. 20. Lat. 7. Long. apert. 9. Lat. 2. Mil.*

Shell narrowly ovate, sub-turreted, solid, white, with a broad pale chestnut band (two on last whorl) scarcely shining; whorls 7 sloping, slightly convex, spirally multi-lirate; liræ regular, sub-distant, and decussate with obsolete longitudinal ribs; aperture scarcely equalling the spire, narrowly ovate; suture well impressed, labrum acute, columella solid, obliquely triplicate. Tamar Heads. W. F. Petterd. Obs. Agreeing in form, size, and general habit with *M. badia* and other similar Australian forms, but differing in being strongly decussate. Most of our Mitras are smooth.

No. 5. MITRA GRANATINA. *n.s. M.t. fusiforme-turrita, nitente, castanea, pallide zonata; anfr. convexis, vix rotundatis, regulariter costatis et sulcatis; costis parvis, granosis, in ult. anfr. 18; interstitiis cancellatis (i.e., transversim striatis, sulcatis, et longitudinaliter subtilissimè striatis); apice sub-acuto; spira ult. anfr. æquanti; apertura angustè pyriformi; labro arcuato, tenui; columella triplicata, solida. Long. 19, lat. 10. Long. apert. 12. Lat. 3½ mil.*

This unique specimen was in the collection of Mr. Ronald Gunn who had obtained it from the North Coast. It was labelled with the above name by W. Swainson and marked with his initials, though I cannot find that he ever described it. In shape it is not unlike our common Mitra, except that the spire and last whorl are about of equal length. Its shining, almost enamelled appearance and close granulose fine ribs distinguish it from all other Tasmanian forms.

No. 6. MARGINELLA STANISLAS. *n.s. M.t. parva, elliptica, polita,*

nitente, pellucida, alba, vel quadrixonata maculis fulvis varie interruptis; spira vix exserta, obtusa; apertura angusta, antice latiore et emarginata; columella antice oblique quadruplicate, labro vix incrassato. Long. 6, lat. $2\frac{3}{4}$ mil.

Shell small, elliptical, polished, shining, pellucid white or marked with four zones of variously interrupted brown spots, spire scarcely exserted, obtuse, aperture narrow, wider and emarginate anteriorly, columella obliquely quadruplicate, lip scarcely thickened. Blackman's Bay. W. F. Petterd and Legrand. The zones of color and absence of any determinate spire and the thin lip distinguish this shell.

No. 7. *CONUS CARMELI*. n.s. *C.t. oblongo-rhombiformi, tenui, nitente, alba, una linea pallide rufo maculata zonata; anfr. 8, tenuiter spiral. liratis, liris acutis, interstitiis long. striatis; spira brevi ad suturas canaliculatis et liratis; 2 ult. anfr. tuberculato coronatis; nucleo mammilato, apertura lineari, labro acutissimo.* Long. 22, lat. 9.

Shell oblong, rhombiform, thin, shining, white, zoned with one pale red spotted line; whorls 8, finely spirally lirate; liræ acute, interstices striate lengthwise; spire short, canaliculate and lirate at the sutures, two last whorls tuberculately coronate; nucleus mammilated, aperture linear, labrum very acute. North coast. W. F. Petterd.

CONUS TASMANICUS. *Mihi* (vide Proc. 1875). This name being preoccupied by Sowerby I propose the name *C. macleayana* for my species as a slight acknowledgment of the great services rendered to natural science in Australia by the learned President of the Linnean Society of New South Wales.

No. 8. *COLUMBELLA XAVIERANA*. n.s. *C.t. elongato fusiformi turrita, spira quam apertura longiore, conica, apice acuto, lævi, polita, strigis obliquis, albis, et castaneis latis et undulosis eleganter variegata; sutura subcanaliculata; anfr. 8, planatis; apertura ovata, labro crasso, labio inconspicuo; columella conspicue striata.* Long. 12, lat. 4 mil.

A rather long smooth shell, conspicuously flamed with undulating chestnut longitudinal broad lines of color which under the lens are sometimes seen to be flecked with white. The genus is, however, so variable in the matter of color that it may be only a variety of some already described. N. coast. W. F. Petterd.

No. 9. *COLUMBELLA MILTOSTOMA*. n.s. *C. t. parva, ovata, spira, conica acuta, lævi, nitente, alba; anfr. 6, planatis, ultimo tumido; sutura obsolete marginata; apertura spira æquanti, ovata, eleganter rufo marginata; labro incrassato intus conspicue dentato; labio reflexo, tuberculato; columella spiraliter striata, striis 4, ad labrum posticum pertingentibus.* Long. 6, lat. $3\frac{1}{2}$.

A small white smooth tumid species easily distinguished by

its mouth, which is delicately margined with red. The labrum is thickened and conspicuously toothed within. N. coast. W. F. Petterd.

No. 10. *ANCILLARIA MARGINATA*. *Var-tasmanica*. *A.t. ovato-fusiformi, solida, spira pyramidalis, quam apertura brevior, oblecta, spiraliter bicarinata, undique alba, anfr. ventricosi, balteo calloso albo superne marginatis: ultimo anfr. antice balteis sic compositis ornato—primo 2 striis æquidistantibus spiralibus, deinde varice crasso, lato, rotundato, deinde balteo, lato, planato, tandem 4-5 plicis spiralibus; labio sub-acuto, tenui; labro postice calloso; apertura lata, basi late emarginata.* Long. 40, lat. 19. Apert. long. 24, lat. 9.

This species is a smaller white variety of *A. marginata*, Lam., at least so it appears to me, for the forms closely resemble each other. In Sowerby's Thes. Con. Ancil., pl. 3, fig. 47, the above variety appears to be figured. King's Island, Bass' Strait, and Circular Head. W. F. Petterd.

No. 11. *COMINELLA TENUICOSTATA*. n.s. *C.t. tenui, ovata, acuta, subturrita, longitudinaliter confertim plicato-costata, liris minutis confertissimis æquidistantibus cincta; pallide lutea, maculis fulvis plus minusve nebulosa; anfr. 7, convexis, supernè subangulatis, declivis; ultimo circiter $\frac{2}{3}$ totius testæ æquante; costis latis, subdeclivis, in ult. anfr. 14-16, lævibus, aut vix liratis, interstitiis æquantibus; apice naticiforme, (2 vel. $2\frac{1}{2}$ anfr.); sutura sat impressa; cauda brevi, truncata, labro acuto, paulatim expanso, columella concava, planata, et retro spiraliter sulcata, apertura late ovata.* Long. 21, lat. 11.

A somewhat turreted, very closely ribbed shell with fine spiral striæ very distinct in the interstices, of yellow color and light brown cloudy spots. It has only as yet been found at Eagle Hawk Neck, and was placed in my hands by Mr. W. Legrand.

No. 12. *PURPURA PROPINQUA*. n.s. *P.t. "P. littorinoides" simillimi, sed major et crassior, magis depressa, late ovata, apice semper decollata; anfr. 4, ad angulum unicarinated, spiraliter, 6-costatis, costis lamellosis interstitiis paulo superantibus; spatio inter carinam et suturam oblique corrugato striato; ult. anf. indistincte plicato, fauce fulva.* Long. 13, lat. 8, mil.

This shell so closely resembles my *P. littorinoides*, that no better description can be given than to say that it is broader, shorter, with fewer whorls, and the spiral liræ become six stout corrugated ribs with a corrugated one at the angle. The aperture is fulvous. It is intermediate between the species just mentioned, and Mr. Angas's *P. flindersii* of Spencer's Gulf, South Australia. The difference may be due to climate. I am not aware if *P. littorinoides* is found on the N. coast. Future observers must solve the question of the specific distinction of these three shells which are different enough at their various stations, many hundred miles apart, but may

possibly graduate one into another as they are traced north or south.*

North West Coast extremely abundant on the rocks at low water. W. F. Petterd.

No. 13. *PLEUROTOMA PHILIPINERI*. n.s. *P.t. elongato-ovata, turrita, solidiuscula, nitente, pallide castanea, ad suturas fulvo punctata; spira conica, quam apertura paulo longiore; anfr. 9, convexis, declivis superne angulatis et canaliculatis, ad angulum et suturam granulosis, undique spiraliter latis et long. tenuissime striatis, liris latis, rotundatis; interstitiis 2-3 lirulis instructis; apice acuto nucleo laevi rotundato; apertura late ovata, labro acuto, sinuato, profundo; labio reflexo, albo; fauce polita; canali brevi, vix recurvo. Granis ad angul. latis, numerosis. Long. 34, lat. 15. Long. apert. 15, lat. 8 mil.*

Shell elongately fusiform, ovate, turreted, rather solid, shining, pale chestnut, at the suture dotted fulvous; spire conical a little longer than the aperture; whorls 9, convex, sloping, angular above and canaliculate, granular at the angle and sutures; spirally lirate and very finely striate lengthwise all over the test; liræ broad, rounded; interstices furnished with 2 or 3 lirulæ; apex acute, nucleus smooth rounded; aperture widely ovate, labrum acute, sinus broad and deep, lip reflected, white, throat polished, canal short, scarcely recurved. The granules at the angle wide and numerous. N. W. Coast. W. F. Petterd. Obs. A very large species closely allied to many of our tertiary forms.

No. 14. *DRILLIA INCRUSTA*. n.s. *D.t. parva, fusiforme-turrita, angusta, solida, badia? (alba fere undique incrusta) anfr. 7, convexis, carinatis et costatis; costis 8-9 latis, rotundatis, elevatis; carinis 2-3, (ult. anfr. 7-8) supra cost. transeuntibus; interstitiis spiraliter subtilissime concinne striatis; apertura $\frac{1}{2}$ long. testæ, angusta; labro extus varicoso, marginem versus acuto; sinu omnino postico, conspicuo. Long. 7, lat. 3 mil.*

Shell small, fusiformly turreted, narrow, solid brown? (almost always encrusted with white), whorls 7, convex, keeled and ribbed; ribs 8 to 9 broad, rounded raised; keels 2-3 (in the last whorl 8-9 passing over the ribs; interstices, spirally very finely and neatly striate; aperture $\frac{1}{2}$ the length of the shell, narrow; outer lip varicose outside but acute towards the margin; sinus entirely posterior and conspicuous. Blackman's Bay and N. Coast. W. F. Petterd.

No. 15. *DRILLIA MINUTA*. n.s. *D.t. minuta, fusiforme turrita, elongata, tenui, rufo-castanea saturata; anfr. 6, (apice incluso) convexis, spiraliter multi-carinatis, inter carin. tenuiter crebre longitud. latis; apice (2 anfr.) subinflato, spiraliter aequaliter striato;*

* Since writing the above I have found *P. littorinoides* in Port Phillip, Western Port, Apollo Bay, Loutit Bay, all in Victoria. Some specimens had a *Nassa*-like mouth, that is, teeth on the outer lip. I think a new genus should be erected for the species.

apertura quam spira brevior, elongato-ovata, labro tenui, sinuato; labio inconspicuo, canali brevi. Long. 3, lat. 1 mil.

Shell minute, fusiform, turreted, elongate, thin, saturated a reddish chestnut, whorls including the apex 6, convex, spirally many keeled, between the keels thickly and slenderly longitudinally lirate; apex of two subinflated whorls which are spirally and equally striate; aperture shorter than the spire, elongately ovate, outer lip thin sinuous, inner lip inconspicuous. Long Bay. Rev. H. D. Atkinson.

No. 16. *DRILLIA WELDIANA*. n.s. *D.t. pyramide-fusiforme, turrita, spira quam apertura longiore, crassa, polita, late fulvo zonata et nebulosa; anfr. 7, crebre oblique costatis et subtilissime cancellatis; costis superne per sinum depressis; apice acuto, apertura anguste ovata; postice tuberculo albo conspicuo, insignito, labro extus valde incrassato, labio reflexo, canali breve, acuto, columella retro oblique lirata. Long. 25, lat. 10 mil. North coast. W. F. Petterd. Only one specimen found.*

Shell pyramidal, fusiform, turreted, spire longer than the aperture, thick, polished, broadly zoned and clouded with brown, whorls 7, closely, obliquely ribbed and very finely cancellate, ribs depressed above by the sinus, apex acute, aperture narrowly ovate and distinguished by a conspicuous posterior white tubercle, outer lip very much thickened outside; lip reflected, canal short, acute, columella obliquely lirate behind.

This somewhat large and peculiar *Drillia* is remotely allied to *Pleurotoma fucata*, Reeve, the habitat of which he does not give.

No. 17. *MANGELIA ST. GALLÆ*. n.s. *M.t. parva, elongato-fusiformi, turrita, pallide fulva, eleganter albo fasciata; anfr. 9, convexis, superne angulatis, regulariter long. costatis, costis elevatis, distantibus (ult. anfr. 9); in spira bicarinatis, et lineis confertissimis sup. cost. transeunt. concinne inter carinas spiraliter striatis; apice laevi (3 anfr.) rotundato; apertura spira vix æquanti, ovata, labro acuto, sinu postico, lato; columella retro oblique striata. Long. 7, lat. 2 $\frac{1}{2}$.*

VAR? BENEDICTI. Sine carinis, striis et fasciis albis irregulariter cincta brevior et solidior.

Shell small, elongately fusiform, turreted, pale fulvous, elegantly banded with white; whorls 9, convex, angular above, regularly ribbed lengthwise, with raised distant ribs, 9 in last whorl; bicarinate in the spire, and spirally striate between the keels, with very close, neat lines, which pass over the ribs; apex smooth and rounded, of 3 whorls, aperture scarcely equalling the spire, ovate, lip acute with a posterior broad sinus, columella obliquely striate behind. Variety? *M. benedicti*, without keels, but irregularly girdled with striæ and white bands. Long Bay, Rev. H. D. Atkinson; N.W. Coast, W. F. Petterd.

No. 18. *MANGELIA DE SALESII*. n.s. *M.t. parva, elongato-fusiformi turrita, albida, pallide lutea et irregularitar, albo et fulvo zonata, solida*; anfr. nucleo incluso 7, convexis oblique eleganter crebre costatis et creberrime spiraliter liratis; costis in ult. anfr. 14, rotundatis subelevatis; liris parvis, distantib. subelevatis, regular. sup. cost. trans.; apice 2 anfr. levi, elongato; sutura profunda; apertura $\frac{1}{2}$ long. testæ, ovata, labro incrassato, intus conspicue dentato, sinu lato, conspicuo, postice; canali longiusculo; columella inconspicua, retro fulvo intus et crebre oblique lirata. Long. 7, lat. 3.

Shell small, elongately fusiform, turretted, whitish, pale yellow, and irregularly zoned, with white and fulvous, solid; whorls, including the nucleus 7, convex, elegantly thickly obliquely ribbed, and thickly spirally lirate; ribs in last whorl 14, rounded, subelevate; liræ small, distant, subelevate, regular, passing over the ribs; apex of two whorls, smooth, elongate; suture deep; aperture $\frac{1}{2}$ length of shell, ovate, lip thickened, conspicuously dentate within; sinus broad, conspicuous, posterior; canal somewhat long; columella inconspicuous, a more intense fulvous behind, and thickly obliquely lirate. Long Bay, 5 fathoms, Rev. H. D. Atkinson. Obs. Distinguished by its stouter habit, closer ribs, regular transverse liræ, and toothed outer lip. Two specimens, one a dead shell with the liræ somewhat irregular. Also Islands, Bass Straits, Petterd.

No. 19. *DAPHNELLA TASMANICA*. n.s. *D.t. parva, tumide ovata, albida? tenui, opaca*; anfr. 6, convexis, subangulatis, concinne carinatis, carinis parvis rotundatis, elevatis, et liris regular. distant. parvis eleganter cancellatis; carinis ult. anfr. alternantibus; sutura profunde impressa; apice obtuso, cancellato; apertura late ovata; labro tenui, postice profunde sinuato; labio inconspicuo, columella longa, contorta, canali brevior. Long. 6, lat. 3.

Shell small, tumidly ovate, whitish, thin opaque, whorls 6, convex, subangulate, neatly keeled, keels small, rounded, elevated; and elegantly cancellate, with regular distant small liræ; keels in the last whorl alternating; suture deeply impressed, apex obtuse, cancellate, aperture widely ovate, labrum thin, deeply sinuated posteriorly; lip inconspicuous, columella long, twisted, canal somewhat short. Long Bay, Rev. H. D. Atkinson; and Blackman's Bay, Petterd.

No. 20. *DAPHNELLA VARIX*. n.s. *D.t. ovata, utrimque attenuata, solida, partim translucida, alba, castanea pallidissime nebulosa, polita*; anfr. 6, convexis, in spira regular. costatis, costis numerosis, obliquis, nitentibus; interstitiis regular. et distant. striatis, striis latis sup. cost. non trans.; ult. anfr. valde longiore, obsolete tantum costato sed valide striato; spira obtusa, apice depresso; apertura elongata, ovata, utrimque acuta; labro incrassato, varicoso, extus pallidissime lutea postice inconspicue sinuato, columella arcuata, antice attenuata. Long. 13, lat. 6. Long. aper. $7\frac{1}{2}$, lat. 2. Long. ult. anf. 10.

Shell ovate, attenuate each way, solid, partly translucent, white, clouded with very pale chestnut, polished; whorls 6, convex, regularly ribbed in the spire, ribs numerous, oblique, shining; interstices regularly and distantly striate, striæ broad, not passing over the ribs; last whorl much longer than the others, only obsoletely ribbed, but validly striate, spire obtuse, apex depressed, aperture elongate, ovate, acute each way; labrum thickened, varicose, very pale yellow outside, sinus posterior, inconspicuous, columella arcuate, attenuate, anteriorly. Tamar Heads, R. M. Johnston. Obs. A single specimen somewhat worn. Much the appearance of a *Marginella* seen from behind.

No. 21. *SIPHONALIA CASTANEA*. n.s. *S.t. parva, elongato fusiformi, turrita, levi, nitente, castanea saturata et obscure badia zonata*; anfr. 7, convexis, declivis, conspicue costatis (ult. anfr. 7) costis altis, latis, medio convexis, levibus, in spir. continuis lineis subobliquis; sutura impressa; apertura $\frac{1}{2}$ long. testæ; labro simplici, canali brevi obliquo, labio reflexo, columella antice canaliculata. Long. 11, lat. 4.

Shell small, elongately fusiform, turretted, smooth, shining, saturated with chestnut colour, and obscurely zoned with brown; whorls 7, convex, sloping, conspicuously ribbed, ribs 7 in last whorl, high, broad, convex in the middle, smooth, continuous in a sub-oblique line along the spire; suture impressed; aperture $\frac{1}{2}$ length of shell; labrum simple; canal short oblique; lip reflected; columella anteriorly canaliculate. N.W. Coast, W. F. Petterd. Smaller, and more turretted than any of the four described Australian and Tasmanian species. Color, a uniform deep chestnut, on which the zone of brown is not easily seen.

No. 22. *SIPHONALIA PULCHRA*. n.s. *S. parva, subpellucida, albida, nitente*; fusiforme-turrita; anfr. 8 superne obtuse angulatis, convexis, declivis, crebre eleganter costatis (costis ult. anfr. 18) interstitiis æquantib. et regulariter liris clathratis; liris parvis, validis ad sutur. parviorib., supra. cost. transeuntib.; sutura bene impressa et linea castanea lata ornata; apert. quam spira breviori, ovata; labro tenui, simplici; columella contorta; basi concava, lirata, castanea; canali subelongato, antice fulvo tincto, apice subinflato levi. Long. 7, lat. $3\frac{1}{2}$ mil.

Shell small, subpellucid, whitish, shining, fusiformly turretted; whorls 8, obtusely angular above, convex sloping, closely and elegantly ribbed; ribs in last whorl 18, equaling the interstices, and regularly latticed with liræ, liræ small valid, smaller at the sutures, passing over the ribs; suture well impressed, ornamented with a broad chestnut line; aperture shorter than the spire, ovate, outer lip thin, simple, columella twisted; base concave, lirate, chestnut; canal subelongate, anteriorly tinted fulvous brown, subinflated and

smooth. A very elegant species. Chappell Island, Bass Strait. Legrand.

No. 23. CERITHIOPSIS ALBOSUTURA. n.s. *C.t. elongata*, pyramidalis, carinata, badia saturata, marginibus spirae planatis, suturis impressis, marginatis, et peculiariter albo lineatis, quasi lanuginis; anfr. 9; nucl? (decollatis) radiatim creberrimè latis; liris minutis, inter carinulis tantum et supra non transeuntibus; carinis tribus, spiralibus, laevibus, rotundatis, haud extantibus, supra paulo pullidioribus, interstitiis aequalibus, concavis; basi vix concava, radiatim et undulatim sulcata; columella recta, spiraliter retro plicata; canali brevi, aperto; labro tenui, tenuiter undulato. Long. 12, lat. 2½ mil. Islands in Bass' Straits. W. F. Petterd.

There is a tricarinate dark brown species of this genus in the West Indies, *C. terebellum*, C. B. Adams; and one from the Mediterranean, *C. trilineatum*, Phil., which resemble the above very closely. Considering what we have learnt from deep sea dredging as to the wide range of species, these three may possibly be the same. *C. trilineatum* is a little swollen on the spire. The special peculiarity of this species is the white suture which is more like a white cottony incrustation than a coloring of the substance of the shell, and this appearance occurs at intervals in the interstices between the keels.

No. 24. TURRITELLA TASMANICA. n.s. *T.t. parva*, acuminato turrata, alba tenui; anfr. 11, angulatis, carinatis et subtilissime valde sinuoso-striatis; carinis praecipuis, 2, sed parvioribus instructis; interstitiis striis spiralibus, tenuibus aequidistantibus cinctis; basi convexa, spiraliter lirata, apertura quadrata; columella alba, encausta, bene definita. Long. 13. lat. 4, mil.

Shell small, acuminate, turreted, white thin; whorls 11, angulate and keeled, and with very fine widely sinuated striæ; principal keels 2, but furnished with smaller ones, the interstices girdled with fine equidistant spiral striæ; base convex, spirally lirated, aperture quadrate, columella white, enamelled, and well-defined. Long Bay, Rev. H. D. Atkinson. Obs. Differing from *T. sinuata*, Reeve (Icon. pl. II. fig. 62), in the whorls and prominent keels besides being smaller and destitute of color. I suppose that the mouth is sinuous from the striæ, but no specimen with a perfect labrum has been seen by me.

No. 25. DENTALIUM TASMANIENSIS. n.s. *D.t. parva*, solida, alba, gracile, lente crescenti, vix curvata, aequaliter 8 costata, interstitiis aliquando subcostatis, apice integro. Long. 10½, lat. 1½. Lat. apicis ½ mil. North West coast. W. F. Petterd.

This is a gracefully tapering shell, curved slightly, with valid ribs and often smaller ones in the interstices.

No. 26. DENTALIUM WELDIANA. n.s. *D.t. parva*, subcylindrica, nitente, albida, subpellucida, vix curvata, obsolete aequaliter costata, apice integro. Long. 10 (decoll), lat. 1½. Lat. apicis 1. North Coast. W. F. Petterd.

An almost cylindrical shell, sub-pellucid and shining with obsolete ribs.

No. 27. PHASIANELLA PULCHELLA. n.s. *P.t. minuta*, tumide ovata, apertura quam spira longiore, laevi, nitente, polita, intense olivacea, lineis tenuibus, distantibus, regularib. maculatis cincta, et flammulis latis albis, castanea nebulosis a suturis procedentibus ornata; apertura late ovata; labro tenui; columella alba, conspicue linea olivacea, maculata, marginata; basi convexa, punctis lineata operculo caeruleo albo, extus laevi, nitente, tumide convexo. Long. 3½, lat. 2 mil.

Shell minute, tumidly ovate, aperture longer than the spire, smooth, shining, polished, intense olive with girdles of fine regular distant spotted white lines, and ornamented with broad flames of clouded chestnut proceeding from the sutures, aperture broadly ovate, lip thin, columella white conspicuously margined with a spotted olive line; base convex with punctate lifes; operculum bluish white, smooth shining and tumidly convex outside. Long Bay, 3 fathoms, sand. Rev. H. D. Atkinson. Two specimens of this elegant species were found, in both of which the operculum was *in situ*. The coloring was constant, but in all the genus this varies almost infinitely. There is a small species described by Angas, *P. rosea*, which is rose red. Still, the above may possibly be a variety.

TURBO (NINELLA) STRAMINEA. Martyn. A small variety of this shell was found by Mr. Gunn on the N. Coast. As the species is known to vary very much, and is thus identified with *T. torquatus*, Gmel. and *T. lamellosus*, Brod., I may mention that Tasmanian specimens are small, and vary from all the above types. There is a strong rounded keel on the lower whorls which are black spotted; the mouth is slightly angular at the keels, the summit of the whorl tuberculate and the suture channelled. Diam. 20 Alt. 17, mil. The operculum has two spiral ridges, not unlike the convolutions of the human ear.

No. 28. TURBO (LUNELLA) SIMSONI. n.s. *T.t. parva*, turbinata, solidiuscula, anguste umbilicata, superne depressa, basi convexa, olivacea, strigis nigris rufisque numerosis radiatim variegata; anfr. 4, ad suturas conspicue fimbriatis, transversim tenuissime confertissimeque striatis; anfr. ult. medio late planato, carinato, superne fimbriato, ad peripheriam acute angulato; apertura rotundata, fauce argentea, margaritacea, labio acuto, triangulato, anguste caeruleo marginato; columella alba, planata, et subtuberculata, antice acuta; operculo calcareo, albo interne planato et regulariter, multispirale, extus valde convexo in medio, margine planato. Long. 9, lat. 12 mil.

This shell is closely allied to our *T. undulatus*, Chem., but is much smaller, and has hitherto been confounded with it. Its smaller size, the red and black flammules, and the peculiar raised rounded carina on the upper edge of the last whorl which continues round the suture as a kind of hem, easily distinguish it. If I mistake not I have found it myself in

Robe., South Australia, and then imagined it to be the young of *T. undulatus*. I am now of opinion it is a full grown shell from specimens brought to me by my industrious friend and collector, Augustus Simson, to whom I have dedicated it. Common at George's Bay Heads, A. Simson; and Blackman's Bay, W. F. Petterd.

No. 29. *CARINIDEA TASMANICA*. n.s. *U.t. parva, orbiculata, valde depressa, anguste, umbilicata, tenui, sordide virente, aliquando albida nitente sed saepius rosea incrusta; anfr. 5, obsolete oblique costatis et striatis, ad periph. conspicue carinatis, carina acuta, undulosa, irregulariter dentata; apert. circulari, fauce margaritacea, labio medio acute sinuato, labro arcuato conspicue reflexo, umbilico partim obtegente, basi convexa tuberculis obsolete ornata. Operculo calcareo, extus spirale albo nucleo castaneo; ult. anfr. convexo incrassato. Maj. diam. 8, min. 7, alt. 4.*

Shell small, orbicular greatly depressed, narrowly umbilicate, thin, sordidly green, sometimes whitish shining, but often encrusted with a rose coloured nullipore, whorls five obsoletely obliquely ribbed and striate, conspicuously keeled at the periphery, keel acute, undulose, irregularly toothed, aperture circular, throat pearly, lip acutely sinuate in the middle, inner lip arcuate, conspicuously reflected, partly covering the umbilicus, base convex ornamented with obsolete tubercles, operculum calcareous, spiral outside white, with a chestnut nucleus, and the last whorl convex and thickened. Common on the east and south coasts, and probably South Australia. I have always hitherto regarded this as a young variety of *Trochus aureus*, Jonas (*Labio*), but the form is so constant and so very distinct that I have decided on describing it a distinct shell. Careful observations on its growth can alone settle its position finally. The operculum is nearly always *in situ*.

No. 30. *GIBBULA MULTICARINATA*. n.s. *G.t. parva, orbiculata, subdepressa, solida, nitente, pallide castanea, fulvo punctata et nebulosa; anfr. 4, carinatis et liratis, (carinis in ult. anfr. 4); interstitiis liratis; carina ad peripheriam majuscula; ad suturam granosa et regulariter fulvo punctata; apice albo, levi; basi convexa, subdistanter lirata; umbilico spiraliter striato, albo marginato; apertura subquadrata; labro producto, tenui; columella crassiuscula, obsolete tuberculata. Maj. diam. 8, min. 6, alt. 5½ mil.*

A small orbicular, depressed solid shell, shining and pale chestnut in colour, but more or less spotted and clouded with brown; whorls four, keeled and lirate (four keels in the last whorl); interstices lirate; keel at the periphery somewhat larger; granular and regularly brown spotted at the suture; apex white, smooth; base convex, rather distantly lirate; umbilicus spirally striate with a white margin; aperture subquadrate; outer lip produced, thin; columella rather thick and obsoletely tuberculate. N. W. Coast. R. Gunn. Differing

from *G. coxi*, in its smaller size, smooth shining habit and colour.

No. 31. *GIBBULA DOLOROSA*. n.s. *G.t. parva, turbinato-conoidea, solida, lirata, subnitente, atro-purpurea, apice margaritacea, rosea; anfr. 4-5, convexiusculis, liris latis, rotundatis, aequalibus cinctis, et transversim oblique obsolete, striis incrementi decussatis; basi convexa, lirata, purpurea; umbilico angusto, perpendiculariter striato; apertura rotundata, splendide iridescenti; intus lirata; columella marginata. Diam. maj. et alt. 7.*

A somewhat tumidly conical small solid shell, umbilicate and lirate, specially distinguished by its blackish purple hue, while the apex is pearly and rose colour. The mouth is splendidly iridescent, and the columella is marginate. Bass' Straits. W. H. Petterd. Rare.

No. 32. *GIBBULA WELDII*. n.s. *G.t. parva, depresso-turbinata, carinata, sub-late umbilicata, solida, nitente, albida, lineis obliquis tenuibus et maculis fulvis eleganter ornata; anfr. 5, quadratis, superne et infra carinatis, carinis rotundatis, elevatis, maculis fulvis conspicuis, undique (carinis exceptis et ult. anfr. inter carinas) liratis; apice obtuso basi planata, striata, lineis roseis radiata; apertura rotundata, peristoma continua incrassata; columella arcuata, conspicua, umbilico marginato, margine alba, et intus liris spiralibus et aequalibus insignito. Long. 7, lat. 6½, alt. 6.*

A small depressedly turbinate shell, white shining and porcellaneous, keeled and lirate throughout except on the keels and on the last whorl between them. It is prettily marked with brown spots on the keels and fine diagonal lines of the same colour on the whorls; on the base, which is lirate, it is radiately marked with fine rose lines. The umbilicus is white margined and spirally lirate. Rare. Bass' Straits. R. C. Gunn.

This shell may turn out to be *G. porcellana*. A. Adams, Zool. Proc. 1851, p. 186, sp. 28, but I had no specimens of the latter for comparison.

No. 33. *MARGARITA (MINOLIA) TASMANICA*. *M.t. orbiculato turbinata late et perspective umbilicata, pallide rufa et nebulis albis variegata, insuper maculis roseis, minimis, angulatis indistincte cincta; anfr. 5 rotundatis, rapide crescentibus, creberrime tenuissimeque transversim sulcatis, et long. oblique striatis; apice subexserto, acuto; periphæria obtuse angulata; basi convexiuscula, striata; umbilico simplici, peramplo, spiræ ad apicem patefaciente; apertura rotundata; peristoma vix continua tenui. Maj. diam. 9, min. 8, alt. 5.*

Shell orbicularly turbinate, widely and perspective umbilicate, clouded with pale red and white, and indistinctly zoned with small pale angular rose spots; whorls 5, rounded, rapidly increasing, thickly and finely spirally grooved, and transversely obliquely striate; apex somewhat exserted and acute, periphery obtusely angulate; base rather convex, striate, umbilicus simple, ample, showing the interior of the spire to the apex, aperture rounded, peristome thin and not quite con-

tinuous. Bass' Straits, R. Gunn. Long Bay, Rev. H. D. Atkinson. Not common.

There is a shell somewhat like this in Dr. Cox's collection marked *M. pulcherrima*, but without any reference. It differs from *M. tasmanica* by the raised liræ being connected by innumerable fine close transverse riblets. It comes nearest to the New South Wales *M. angulata*, Adams, of which it may possibly be only a variety, but the upper part of the whorls are not angular. Color cannot be relied on as it is very variable in the genus.

No. 34. CLANCULUS DOMINICANA. n.s. *C.t. parva, depressa turbinata, late umbilicata, solidiuscula, atro-badia obscure maculata et nebulosa; anfr. 6, convexiusculis, 5 carinis granosis cinctis, interstitiis liratis, oblique crebre concinne striatis, striis supra liras (non gran.) transeuntib.; apertura oblique quadrata; labro intus incrassato, fauce margaritacea, columella obsolete unidentata, sub-reflexo; umbilico albo, lævi; basi planata, spiral. lirata, liris lævibus.* Maj. diam. 10, min. 8, alt. $7\frac{1}{2}$ mil.

Shell small, depressed, turbinate, broadly umbilicate, rather solid, bluish brown and obscurely spotted and clouded; whorls 6, rather convex, obliquely, thickly, and neatly striate, striæ passing over the liræ but not over the granules, aperture obliquely quadrate, lip thickened within, throat pearly, columella obsoletely unidentate subreflected, umbilicus white, smooth; base flattened spirally and smoothly lirate. South coast. Rare. W. F. Petterd. Differs from known species in the smoothly lirate base and the absence of tubercles round the lip, columella or umbilicus.

No. 35. CLANCULUS RAPHAELI. n.s. *C.t. parva, depresso conica, solidiuscula, atro-olivacea, ad suturas autem albo tessellata; anfr. 4-5, planatis, liris spiralibus, irregularibus, granulosus cinctis, aliquando alternantibus, aliquando lineis granulosus, minutissimis, intercalantibus; granis in margin. anfr. majoribus; undique lineis obliquis transversalibus instructis; ult. anfr. ad peripheriam sub acute angulato; sutura canaliculata; basi planata, lineis granulosus spiralibus et striis obliquis ornata; umbilico albo; apertura quadrata, argentea, margaritacea, conspicue lirata, columella lata, antice conspicue tuberculato, labro dentato.* Maj. diam. 6, min. $5\frac{1}{2}$, alt. 6.

Shell small, depressedly conical, rather solid, blackish olive but tessellated with white at the sutures; whorls 4-5 flattened, girdled with irregular spiral granulose liræ, sometimes alternating and sometimes with minute granulose lines intervening; granules larger at the margins; shell universally covered with minute transverse oblique lines, last whorl sub-acutely angular at the periphery; suture canaliculate, base flattened ornamented with spiral granulose lines and oblique striæ. George's Bay, Simson; and Long Bay, W. F. Petterd.

No. 36. CLANCULUS ANGELI. n.s. *C.t. parva, turbinata, depressa, orbiculari, solidiuscula, sordide alba et rufo nebuloso, undique irregulariter carinata, interstitiis tenui irregulariter concinne oblique liratis et peculiariter*

punctatis; carinis majoribus lævibus vel obsolete granosis; anfr. 5, convexis, ult. obtuse angulato, basi plana vel leviter convexa, spiral. lirata, liris æqualibus et badia punctatis; interstitiis transversim concinne striatis; apertura subquadrata, labro crebre dentato, fauce intus conspicue lirata; columella obtuse unidentata, margine umbilici regulariter tuberculato tuberculis, granosis rotundatis. Maj. diam. 6 min. $5\frac{1}{2}$. Alt. 5 mil.

Shell small, turbinate, depressed, orbicular, rather solid, sordid white and clouded red, irregularly keeled all over, with the interstices finely, irregularly, neatly, obliquely lirate, and peculiarly punctate; larger keels smooth or obsoletely granular; whorls 5, convex, last obtusely angular; base flat or slightly convex, and spirally lirate with equal liræ and spotted brown, interstices transversely neatly striate; aperture subquadrate, lip closely dentate, throat conspicuously lirate, columella obtusely unidentate, margin of the umbilicus regularly tuberculate with rounded granular tubercles. Long Bay, 10 fathoms, sand, Rev. H. D. Atkinson; Blackman's Bay, W. F. Petterd.

No. 37. DILOMA AUSTRALIS. n.s. *D.t. oblique turbinata, subconica, ad peripheriam obtuse angulata, pallide lutea et lineis pallide fulvis, numerosis, undulose obliquis variegata, subnitente, anguste umbilicata; anfr. 6, via convexis, obsolete liratis, apertura oblique quadrata; fauce argentea, margaritacea; labro intus incrassato, margine lato conspicuo, postice producto; columella oblique arcuata, haud tuberculata; basi tantillum convexa, tenuiter et regulariter spiraliter lirata; umbilico albo, radiatim striato.* Diam. maj. 16, min. 14, alt. 13.

Shell obliquely conical and turbinate, obtusely angled at the periphery, pale yellow and variegated with numerous pale brown undulating and oblique lines, somewhat shining, narrowly umbilicate; whorls 6, scarcely convex, obsoletely lirate; aperture obliquely quadrate; throat silvery and pearly; lip thickened within with a broad conspicuous margin posteriorly produced; columella obliquely arcuate, not tuberculate; base very slightly convex, finely and regularly spirally lirate; umbilicus white, radiately striate. North Coast. Rare. W. H. Petterd.

I think this shell has been confounded with *Trochocochlea striolatus*, Wood. It is only doubtfully referred to *Diloma* as it has an umbilicus. But the genus itself is a very questionable one.

No. 38. MONILEA TURBINATA. n.s. *M.t. turbinato-conoidea, ad apicem usque perspective umbilicata, carnea-albida, strigis et maculis pallide fuscis nebulosa; anfr. 6, rotundatis, superne obtuse angulatis et subcanaliculatis, spiraliter sulcatis, et liris numerosis (12 circiter) maj. et min. alternantibus, angulatis; sutura impressa; apice obtuso, iridescente; ult. anfr. ad peripheriam angulato; basi convexa, lirata et tenuiter, spiraliter transversim striata; apertura transverse ovata; labro incrassato, margaritacea, intus lirato; columella brevi, declivi-concava; margine umbilici tricostrato, 4 tuberculis terminato.* Long. 18, lat. 20, alt. mil.

Shell turbinate conical, perspective umbilicate to the

apex, fleshy whitish, clouded with pale brown spots and streaks, whorls 6, rounded, obtusely angulate and subcanaliculate above, spirally sulcate, and girdled with numerous (about 12) liræ alternating great and small; suture impressed; apex obtuse and pearly; last whorl angulate at the periphery; base convex, lirate and transversely slenderly, spirally striate; aperture transversely ovate; lip thickened and nacreous, lirate within; columella short, sloping, concave; umbilical margin 3 costate, terminated with four tubercles.

North Coast. R. C. Gunn. Closely allied to *Monilea corrugata* of New South Wales, but more conical, the whorls not granular, umbilicus wider and terminating in four tubercles. Rare.

No. 39. *ETHALIA TASMANICA*. n.s. *T.t. orbiculari, depressa, umbilicata conspicue radiatim costata, lirata, alba, sparsim rufo punctata; anf. 5, declivi-costatis, costis latis, rotundatis lævibus; ultimo obtusè ad peripheriam angulato, superne 8-costato, interstitiis latis, concavis, transversim liratis, liris 4-5 rufo punctatis; basi valde convexa, spiraliter lirata, liris 5, lævibus; callositate opaca, alba, polita, coarctata, circa umbilicum parvum gyrante; apertura rotundata, intus lirato; labro postice supra peripheriam expanso et subcalloso; columella concava dente acuto terminata; apice rotundato, levi, polita, convexo.* Maj. diam. 12½, min. 10, alt. 7½.

This is the only shell of this genus found in the Australian seas. Mr. Gunn assured me that he found it on the north coast, or I certainly should have thought a mistake had been made. In the Mazatlan catalogue of the Brit. Mus., p. 250, Mr. Phil. Carpenter says:—"Ethalia is a small group of Mazatlan shells of the general aspect of *Vitrinella*, and agreeing with *Globulus* in having a callous base differing from the typical sp. of that genus: 1st. In being frequently sculptured; 2nd. In the callus winding round generally not covering the umbilicus; 3. In the outside of the callus not being glossy, but having a glossy portion scooped out near the columella. The labium is generally not reflected over the body whorl. Some of the small white shells described as *Rotellæ* are probably referable to this form. Mr. Cuming states that the species he found were deep water shells, while *Globulus* is littoral.

No. 40 *ADEORBIS PICTA*. n.s. *A.t. orbiculari, subdepressa, profundè perspective umbilicata, longitud. tenuiter striata, polita, pallidè carnea, lineis 4, parvis, rufo et albo maculatis tenuiter zonata, et nebulis magnis irregularibus, sanguineis variegata; anf. 5, superne obtuso angulatis, planatis, subcanaliculatis; basi rotundata, subtilissime striata, rufo et albo punctata; apertura rotundata; peristoma supra peripheriam ultimi anfractus valde expansa, callositate ad columellam supra ad labrum continuata; columella antice bituberculata; fauce intus lirato.* Long. 8, lat. 13, mil.

From the collection of R. C. Gunn, and stated to come from the N.W. Coast, but so unlike a Tasmanian shell that this unique specimen suggests a doubt as to the habitat. Its

red smooth shining appearance renders it extremely like a *Rotella*, but it has an umbilicus.

No. 41. *CYCLOSTREMA JOSEPHI*. *C.t. parva, oblique turbinata, crassa, late umbilicata, alba, opaca, pallidissime castanea maculata; anf. 5, rotundatis, creberrime concinne striatis; sutura impressa, apertura orbiculata, labro crasso, postice producto, columella obliqua, basi rotunda, umbilico oblique striato.* Long. 3, lat. 3, mil.

Shell small, obliquely turbinate, thick, widely umbilicate, white, opaque, spotted with very pale chestnut; whorls 5, rounded, very closely and neatly striate, suture impressed, aperture orbiculate, lip thick, produced posteriorly, columella oblique, base round, umbilicus obliquely striate. Blackman's Bay. W. F. Petterd.

No. 42. *CYCLOSTREMA MICRA*. n.s. *C.t. minuta, turbinata, alba, polita, lævi, perspective umbilicata; anf. 5, exacte rotundata, apertura simplici, orbiculata, acuta, haud reflexa.* Diam. 1½ mil., Long Bay. Rev. H. D. Atkinson.

Shell minute, turbinate, white, polished, smooth, perspective umbilicate, whorls 5, exactly rounded, aperture simple, orbiculate, acute, not reflected.

No. 43. *CYCLOSTREMA WELDII*. n.s. *C.t. depresso-turbinata, minima, albida, subdiaphana, tenui; nitente, umbilicato; anfr. 6, depressa, convexis, lævibus; apertura, orbiculata, postice subversa; umbilico marginato.* Diam. mag. 2, alt. 2 mil.

Shell depressed turbinate, minute, whitish, somewhat translucent, thin, shining, umbilicate; whorls 6, depressed convex, smooth (though there are faint traces of transverse striae, probably lines of growth): aperture orbicular, somewhat everted posteriorly, umbilicus marginate. Long Bay, 20 fathoms. Rev. H. D. Atkinson.

No. 44. *CYCLOSTREMA SUSONIS*. n.s. *C.t. minuta, orbiculari, depressa, alba, polita; anf. 4, rotundatis; spira parum exserta, translucente; apertura simplici, orbiculata, umbilico amplo, haud marginato.* Diam. 1½ mil.

Shell minute, orbicular, depressed, white, polished, whorls 4, rounded, spire slightly exserted, translucent, aperture simple, orbicular, umbilicus ample, not marginate. N. Coast, R. Gunn; and Blackman's Bay, W. F. Petterd. Obs. Minute, much smaller than the preceding, with fewer whorls, and perfectly devoid of ornament.

No. 45. *CYCLOSTREMA SPINOSA*. n.s. *C.t. minuta discoidea, superne planata vel concava, alba, undique obsolete radiatim striata; anf. 4, superne acute angulatis, fimbriatis et spinis coronatis; infra rotundatis et conspicue unicarinatis; spinis triangulatis, lamellosis, concavis; umbilico peramplo; apertura rotundata postice conspicue sinuata.* Diam. 2 to 3 mil.

A minute shell, flattened above and unicarinate beneath, easily distinguished by its crown of hollow triangular spines,

one of which occurring on the lip causes a deep sinus in the aperture. Long Bay. W. F. Petterd.

No. 46. CYCLOSTREMA IMMACULATA. n.s. *C.t. parva, discoidea, superne planata, alba, undique confertim tenuissime undulose striata; anfr. 4, superne angulatis coronatis et radiatim costatis, infra rotundatis, 2 carinis obsoletis granulosis instructis; umbilico peramplo, margine eleganter dentato; apertura orbiculari, dentata. Diam. 3 mil.*

Shell small, discoid, flattened above, white, thickly, very finely undulately striate all over; whorls 4, angular above, coronate and radiately ribbed, rounded below, and furnished with two rounded obsolete granular keels, umbilicus very ample, with an elegantly dentate margin; aperture orbicular, toothed. Long Bay and Blackman's Bay. W. F. Petterd.

No. 47. LIOTIA INCERTA. n.s. *L.t. minuta discoidea depressa, spira omnino plana, tenui, opaca, undique regulariter et tenuiter spiraliter lirata, profunde, late, perspective umbilicata; anfr. 4, biangulatis, regulariter et distanter costatis; costis elevatis, sublamellosis et cucullatis; liris supra cost. transeunt. apertura tenui, integra, haud incrassata; basi convexa. Diam. 5 mil. N.B.—Margaritacea, costis ætate divisis, et rarius spinosis, numerosis.*

Shell minute, discoid, depressed, spire quite flattened, thin, opaque, regularly and finely lirate all over, deeply, widely, perspective umbilicate; whorls 4, biangulate, regularly and distantly ribbed, ribs raised, sublamellose, and, as it were, hooded; liræ passing over the ribs, aperture thin, entire, not thickened, base convex. Long Bay. Rev. H. D. Atkinson. Obs. The transverse ribs divide in this shell as it grows older, and sometimes are even covered with numerous spines. It is also nacreous, which makes its generic position very doubtful, especially as the mouth is not thickened. I only provisionally class it as a *Liotia*.

No. 48. FOSSARUS TASMANICUS. n.s. *F.t. parva, depressa, sub-orbiculata, anguste umbilicata, solidiuscula, pallide lutea, carinis spiralibus et liris obliquis undique conspicue clathrata; carinis elevatis, rotundatis; liris, sublamellosis regularibus, subdistantibus; anfr. 5 angulatis, inter carin. quasi canaliculatis; sutura canaliculata; apertura orbiculata, intus lævi; labio vix reflexo. Diam. 2 mil.*

Shell small, depressed suborbiculate, narrowly umbilicate, rather solid, pale yellow, latticed all over with spiral keels and oblique liræ, keels raised, rounded, liræ sublamellose regular, subdistant; whorls 5, angular, canaliculate between the keels, suture canaliculate, aperture orbicular, smooth within, lip scarcely reflected. Long Bay, Rev. H. D. Atkinson; Blackman's Bay, W. F. Petterd. This shell has characters intermediate between the genera *Euchelus* and *Vanikoro*, but I think belongs more completely to the genus in which I have placed it.

No. 49. FOSSARUS BULIMOIDES. n.s. *F.t. minuta, ovata, subumbilicata, tenui, alba, subpellucida, undique tenuiter regulariter lirata, transver.*

oblique striata; apice obtuso; anfr. 4, rapide crescentibus, convexis, declivibus; apertura spira æquanti, ovata, postice angusta, labro acuto, labio incrassato, conspicuo. Long. 3, lat. 2 mil.

Shell minute, ovate, subumbilicate, thin white, subpellucid, finely and regularly lirate all over and obliquely transversely striate; apex obtuse; whorls 4, rapidly enlarging, convex, sloping; aperture equalling the spire, ovate, narrowed posteriorly, outer lip acute, inner lip thickened, conspicuous. Long Bay, Rev. H. D. Atkinson.

No. 50. SCISSURELLA ATKINSONI. n.s. *S.t. parva, tenui, pallide lutea vix translucida, haud nitente, oblique suborbiculari, ad basim dilatata, spira minus exserta sed aliquantulum complanata; anfr. 4, vix, convexis, rapide crescentibus, superne fasciatis, tenuiter cancellatis, basim versus subcarinatis (liris longitud. sub fasc. declivis, supra curvatis); sinu inconspicuo, fascia sinus prominente, marginibus elevatis, longitrorsum distanter arcuatim retrorsimque liratis; fissura elongata, antice attenuata non longe ab ore perforante; apertura orbiculari simplici; labro acuto; labio sub-reflexo, curvato; infima facie cavum infundibuliforme ferente. Long. 2, lat. 1 mil.*

This most interesting shell is the first of the genus found in Australian waters. It was dredged from a sandy bottom at six to ten fathoms by the Rev. H. D. Atkinson, and Blackman's Bay, W. F. Petterd. After a careful comparison, I must say that the species is so near the British *S. crispata* that the differences are almost inappreciable. There were only three specimens seen by me, and in all these the slit was closed, and the sinus not perceptible on the lip. The fascia of the sinus does not extend to the two last whorls of the spire. Prof. Morris in his observations on this genus (Moll. Great Oolite, Palæontograph Soc., 1854, p. 81), accounts for the foramen by supposing the animal to keep the siphon stationary during a considerable period of the formation of the shell matter in advance. He says: "When the animal was forming new shell in advance of the aperture, the fissure was not advanced forward with it, but the anal syphon remained in the same position until a considerable progress had been made in the formation of new shell. At length that organ was withdrawn to be protruded from the aperture and the formation of a new fissure immediately commenced." In this state it shows that the genus *Trochotoma* would be a *Pleurotomaria*. Both genera have been rather arbitrarily separated from *Scissurella* and from each other. In the three specimens submitted to me one had the outer lip broken, and the fissure then was like a *Pleurotomaria*. I separate the Tasmanian species from the British one only to promote further investigation. There is no difficulty in supposing them identical, as we have other instances of British species appearing in Australian seas, while they are utterly unknown in intermediate seas. In the same way in our flora we have

many European weeds which do not occur in the intervening countries, and they have for a certainty not been introduced. A *Pleurotomaria* has been described fossil by Prof. M'Coy as from the tertiary beds of Geelong.

No. 51. *PARTHENIA TASMANICA*. n.s. *P.t. minuta tumide pyramidalis alba, subumbilicata; vertice nucleoso parvo, verticaliter sito, sub-tumente, anfr. 6, conspicue tricarinate, planatis, et longitud. tenuissime striatis; carinis elevatis rotundatis; suturis junctio 2 carin. pæne occultis ideoque carinis infra et supra suturas quasi ex una carina lata confectis; basi vix convexa, lirata; apertura pyriformi, integra, labio reflexo, axi plica distincte munita.* Long. $1\frac{1}{2}$, lat. vix $\frac{1}{2}$ mil.

A minute tricarinate shell, dredged in Long Bay by the Rev. H. D. Atkinson. The upper and lower keels of each whorl are so closely united as to appear like one broad one in which the suture is concealed, the mouth is entire, the inner lip reflexed and furnished with a very distinct tooth.

No. 52. *ACLIS TRISTRIATA*. n.s. *A.t. parva, elongata, pyramidalis, turritissima, alba, opaca, lævi, vix nitente; anfr. 12, conspicue tri-striatis, striis latis; medio tenuissime concinne long. liratis; sutura impressa, lira parva instructa; nucleo, minuto, lævi; basi convexa; apertura integra pyriformi, postice attenuata, labro tenui, labio reflexo.* Long. 10, lat. 2, mil. North West Coast. W. F. Petterd.

Shell small, elongate, pyramidal, very much turreted, white, opaque, smooth, scarcely shining; whorls 12, conspicuously tristriate with broad striæ, slenderly and neatly longitudinally lirate in the middle of the whorls, suture impressed, furnished with a small raised line; nucleus minute, smooth; base convex, aperture entire, pyriform, attenuate posteriorly, outer lip thin, inner lip reflected.

No. 53. *SYRNOLA MICHAELI*. n.s. *S.t. parva, aciculata, turritissima, lævi, nitente, alba, 2 fasciis castaneis varie interruptis pallidissime zonata; anfr. 12, planatis; apice? (decoll.) apertura semilunata; labro tenui, producto; labio reflexo, umbilico simulante, plica tuberculoso.* Long. 8, lat. 2 mil.

Shell small, acicular, highly turreted, smooth, shining, white, zoned with two variously interrupted very pale chestnut bands; whorls 12, flattened; apex? decollated, aperture semilunate, outer lip thin, produced, lip reflected into a false umbilicus, plait tuberculose. North Coast. W. F. Petterd.

No. 54. *ELUSA BIFASCIATA*. n.s. *E.t. subulata, turrita, tenui, subpellucida, alba, castanea late zonata, zona 2 lineis fulvis marginata, sutura impressa, apice lævi, rotundato; anfr. 12; convexis, creberrime costatis (ult. anfr. 26), costis validis rotundatis, lævibus, nitentibus, interstitiis æqualibus, intus in spira videtur tenuiter lirata; apertura integra, pyriformi, labio reflexo, obsolete plicato, labro antice tantillum producto, intus lævi, basi convexa, striata.* Long. 7, lat. $1\frac{1}{2}$. Blackman's Bay. Rare. W. F. Petterd.

The genus *Elusa* was established by Adams for turreted subulate shells with ribs, a plait on the columella and often lirate within. In this species the three last whorls are not

lirate within but the upper ones are conspicuously so, as the shell is quite translucent. It is very elegant in form. The band of color bordered by two darker lines is only seen on the last whorl; the suture covers the line on the spire so that there the whorls seem half white and half chestnut with a line of deep coloring on the boundary. It is shining, and the ribs are numerous, 26 in last whorl.

No. 55. *TURBONILLA MACLEAYANA*. n.s. *T.t. elongatissima, turritissima, solidiuscula, alba, nitente; anfr. 15, planatis, oblique costatis; costis (11-14 in ult. anfr.) lævibus, elevatis, rotundatis, a sutura ad suturam attingentibus, interstitiis æquantibus, sutura sat impressa, apertura quadrata, apice? (decoll.)* Long. 8, lat. 1 mill.

Shell very long and turreted, rather solid, white, shining, whorls 15, flattened, obliquely ribbed, ribs (11-14 in the last whorl) smooth, raised, rounded, reaching from suture to suture, equalling the intervals in size, suture well impressed, aperture quadrate, apex? (decollated). Long Bay. W. F. Petterd. Easily distinguished by its small size and turreted habit. It appears to me, however, in shells of such uniform character as *Turbonilla*, that we are often dealing with varieties instead of species, and the above may be a case in point. If we knew the conditions of growth in these shells we might decide how far they are dependent on very local influences.

CINGULINA AUSTRALIS. Nobis. (vide Pro. Roy. Soc. Tas., 1875.) *Descriptio emendata*. Pro. "carinis in ult. anfr. 5, deinde 4, 3, etc." Et pro lege "carinis in ultimo anfr. 5, deinde 3, usque ad apicem." Et pro "basi convexa liris spiralibus (2) elevatis, rotundatis, ornata;" lege "basi convexa, liris spiralibus, elevatis, rotundatis ornata; apice lævi subinflato."

In the description of the above shell a mistake was made. Instead of "keels in the last whorl 5, then 4, then 3." It should be, "keels 5 in the last whorl, then 3 to the apex." The base is also spirally keeled in continuation of the last whorl, and not, as stated, with two spiral rounded liræ. The apex is smooth.

TRIFORIS TASMANICA. Miki. A variety of this shell is found at Blackman's Bay, in which one of the three granulose ribs is represented by a smooth narrow keel, and the last whorl scarcely granular, but with four or five grooves. The shell is very variable, new species should be very cautiously accepted.

No. 56. *STYLOPTYGMA TASMANICA*. n.s. *S.t. parva, elongato-fusiforme, antice rotundata et latiore, lactea, translucens; nucleo hyalino, inflato, rotundato, transverso; anfr. (nucleo excluso) 7, tumidiusculis, politis, obsolete striatis; sutura late marginata, vix obliqua, impressa; apertura pyriforme; plica inconspicua, obliqua.* Long. 4, lat. 1, mil.

Shell small, elongately fusiform, rounded and broader anteriorly, milky white, translucent, nucleus hyalino inflated, rounded, transverse; whorls, exclusive of the nucleus, 7,

rather tumid, polished, obsoletely striate, suture widely marginate and scarcely oblique, impressed; aperture pyriform, plait inconspicuous, oblique. Rare. Blackman's Bay. W. Legrand and W. F. Petterd.

No. 57. *STYLIFER TASMANICA*. n.s. *S.t. parva, pyramidata, lactea, pellucida, laevi, nitente*; anfr. 7, *convexis, sutura impressa, vix declivi, apertura oblique pyriforme, apice mammilato, sinistrorso, labro producto, incurvo, antice et postice emarginato, labio inconspicuo sed reflexo*. Long. 4, lat. 1½.

Shell small, pyramidal, milky white pellucid smooth, shining; whorls 7, convex, suture impressed scarcely sloping, aperture obliquely pyriform, apex mammilated, sinistral, outer lip produced, incurved, emarginate at each side, inner lip inconspicuous but reflected. Blackman's Bay. W. F. Petterd.

DUNKERIA FASCIATI. *Mihi*. (vide Proc. Roy. Soc. Tas., 1875) should be, I think, *Alvania fasciata*, in which section are deposited turretted *Rissoidea* with tumid whorls. Even then I think the genus needs revision. In the species in question I should amend the diagnosis by saying that "bicarinate" hardly applies to more than the upper whorls, and otherwise the species is regularly and equally clathrated.

No. 58. *RISSOA (ALVANIA?) CHEILOSTOMA*. n.s. *R.t. turrita, parva, elongata undique regulariter clathrata, lutea, solida, vix nitente*; apice pallidiore, sed non aliter conspicuo; anfra. 7, *convexis, regulariter crescentibus*; sutura profunde impressa et tenuiter uno-lirata; apertura producta, ovali, integra, conspicue bilabiato; basi convexa, lirata. Long. 3, lat. 1 mil.

A minute turretted yellow shell, conspicuously latticed throughout, with a produced aperture which is bilabiate and entire. Dredged by Rev. H. D. Atkinson at Long Bay in 20 fathoms shell sand. The entire bilabiate mouth and turretted habit easily distinguish it from *Rissoa (Alvania) fasciata*.

No. 59. *RISSOA AGNEWI*. *R.t. turbinato-turrita, solidiuscula, subdiaphana, nitente, varie lutea ac fulva nebulosa, apice turbinato, laevi*; anfr. 6, (nucleo incluso), *conspicue 4-carinatis*; carinis validis, elevatis, angustis, levibus, nitentibus; interstitiis longitud. tenuissime striatis; apertura integra, ovata; labro producto; labio inconspicuo. Long. 3, lat. 1, mil. Blackman's Bay, W. Legrand, and W. F. Petterd.

Shell turbinate, rather solid, translucent, shining, irregularly clouded yellow and brown; apex turbinate, smooth, whorls 6, nucleus included, conspicuously four keeled; keels valid, raised, narrow, smooth, shining; interstices very finely striate lengthways, aperture entire, ovate, outer lip produced, inner lip inconspicuous. Obs. Distinguished by its four keels.

No. 60. *RISSOA CYCLOSTOMA*. n.s. *R.t. cylindraceo-elongata, pupaeforme, subturrita, medio tumida, laevi, opaca, olivacea*; apice obtuso, livido; anfr. 6, *convexis, longitud. tenuiter striatis, ultim. anfr. producto*; sutura linea alba marginata; apertura alba, integra, producta, eversa; labio reflexo, adherente, basi convexa. Long. 4, lat. 1½ mil.

VAR ROSEA. *R.c. ut supra sed rosea tincta*.

Shell cylindrically elongate, pupaeform, sub-turretted, tumid in the middle, smooth, opaque, olive, apex obtuse, livid; whorls 6, convex, finely striate lengthwise, last whorl produced; suture margined with a white line, aperture white, entire, produced, everted; lip reflected and adhering, base convex. Long Bay, Rev. H. D. Atkinson; Blackman's Bay, W. F. Petterd.

There is a rose coloured variety of this shell.

No. 61. *RISSOA (SETIA) SIENNÆ*. n.s. *R.t. turbinato-conica, subumbilicata, opaca, sordida, corrosa, vel epidermide induta, fumoso cornea*; anfr. 5, *convexis, striatis (?) apertura integra, semilunari, labra acuto, labio reflexo*. Long. 4, lat. 3.

Shell turbinate, conical, subumbilicate, opaque, sordid, corroded or clothed with an epidermis, smoky horn color; whorls 5, convex, striate (?), aperture entire, semilunar, outer lip acute, inner lip reflected. North Coast, W. F. Petterd.

No. 62. *RISSOA MELANURA*. n.s. *R.t. turbinata, conoidea, solida, atra sed translucente vel cetate intus alba, laevi, nitente*; anfr. 5, *vix convexis, sutura impressa*; apertura antice producta, rotundata, simplici, basi convexa, obtuse angulata. Long. 2, lat. 1 mil.

Shell turbinate, conoid, solid, blackish but translucent, or white within when old, smooth, shining; whorls 5, scarcely convex, suture impressed, aperture anteriorly produced, rounded, simple, base convex, obtusely angulate. Blackman's Bay, W. F. Petterd.

No. 63. *RISSOA (CINGULA) ATKINSONI*. n.s. *R.t. minuta, turbinato-conoidea, polita, translucida, pallide cornea, obscure fusco bifasciata, columella nigra, apice minutissima, turbinata, subverticaliter sito, (saepius decollato)*; anfr. 5, (apice excluso) *rotundatis*; sutura sat impressa; apertura quam spira brevior, ovata, antice producta; labro tenui, acuto; labio reflexo, umbilico simulante. Long. vix. 1, lat. ½?

Shell minute, turbinate, conical, polished, translucent, paler horn color, obscurely bifascate with dusky brown, and with a black columella, apex most minute, turbinate and subvertical (more often decollate), whorls 5, exclusive of the apex, rounded; suture well impressed, aperture shorter than the spire, ovate, produced anteriorly, outer lip thin, acute, inner lip reflected into a false umbilicus. Long Bay, Rev. H. D. Atkinson.

No. 64. *RISSOA ANGELI*. n.s. *R.t. minuta, umbilicata, turbinato-conoidea, tenui, lutea, pellucida, undique spiraliter tenuiter et regulariter lirata, et obsolete regulariter oblique distante costata*; costis angustis, ad peripheriam ult. anfr. desinentibus; *liris supra costas transeuntibus*; anfr. 5, *convexis, superne coronatis*; sutura sat impressa; apertura rotundata, labro crassiusculo; labio erecto, antice incrassato, retro ad umbilic. canaliculato. Long. 1½, lat. ¾ mil.

Shell minute, umbilicate, turbinate, conical, thin, yellow, pellucid, regularly spirally lirated all over, and obsoletely,

regularly, obliquely, and distantly ribbed; ribs narrow, ceasing at the periphery of the last whorl; liræ passing over the ribs; whorls 5, convex, coronate above, suture well impressed, aperture rounded, outer lip thickened, inner lip erect, anteriorly thickened, canaliculate behind to the umbilicus. Long Bay, Rev. H. D. Atkinson; Blackman's Bay, W. Petterd. Obs. The peculiar pointed, narrow, rounded, ribs, are, as it were, hidden under the liræ. The generic position of the shell appears to me very doubtful. Dredged at 10 fathoms sand.

No. 65. *RISSOA (CERATIA) MACCOYI*. n.s. *R.t. minuta, elongata, turrita, alba, subpellucida, undique tenuiter spiraliter lirata et obsolete longitud. striata; sutura constricta; anfr. 6, declivis, superne subcanaliculatis, convexis; apice ? (decoll.) apertura integra, 1/2 long. spira, ovata, tenui, acuta, antice eversa; labio sub-reflexo, umbilico simulante*. Long. 3, lat. 1 1/2 mil.

Shell minute, elongate, turreted, white sub-pellucid, slenderly, spirally lirate and obsoletely striate, lengthwise all over the surface; suture constricted; whorls 6; sloping, subcanaliculate above, convex; apex ? (decollate), aperture entire, 1/2 length of spire, ovate, thin, acute, anteriorly everted; lip subreflected into a false umbilicus. Long Bay, Rev. H. D. Atkinson; Blackman's Bay, W. F. Petterd.

No. 66. *RISSOA FLINDERSII*. n.s. *R.t. fusiforme-turrita, minuta, solida, pallidissime carnea vel alba, apice pallidior, laevi et 1 1/2 anfr. rotundato; anfr. 7, convexis, in medio tuberculato-costatis costis 8-12, et superne costulis 26-28 coronatis; apertura integra, rotundata; labro antice producto; labio conspicue quasi umbilicato reflexo, basi convexa, long. striata*. Long. 3, lat. 1 1/2 mil.

A small fusiformly turreted species, mainly distinguished by the margin of small ribs which crown the whorls. Sometimes a prolongation of the larger almost tuberculous ribs enters into the series of the smaller ones, but on many specimens they are entirely distinct. North West Coast, W. F. Petterd. Not very common.

No. 67. *RISSOA ST. CLARE*. *R.t. pyramidate turrita, latiuscula, nitente, tenui, pallide carnea, lineis tenuibus, et maculis rufis zonata; anfr. 11, 2 ult. laevibus, convexis, reliquis, medio angulatis et convexis, tuberculato costatis; costis 9-10, nitentibus, basim versus prominentioribus, sutura bene impressa; apice 3/4 anfr. spiraliter striato; apertura integra, elongato-ovata; basi declivo-convexa, labro acuto, producto; labio inconspicuo, reflexo*. Long. 9, lat. 3 1/2 mil.

Shell pyramidal, turreted, rather broad, shining, thin, pale flesh color, zoned with slender lines, and red spots, whorls 11, 2 last smooth and convex, the rest angular in the middle and tuberculately ribbed, ribs 9-10, shining, rather more prominent towards the base of the whorls, suture well impressed, apex of 3-4 whorls spirally striate, aperture entire, elongately ovate, base sloping and convex, outer lip acute, produced, inner lip inconspicuous, reflexed. North West Coast, W. F. Petterd.

No. 68. *RISSOA CONCATENATA*. n.s. *R.t. minuta, elongata, turrita, opaca, alba, quasi erosa; anfr. 9, convexis, declivis, undique irregular, concatenatis quasi variolatis; apice nucleoso, laevi, nitente (2 anfr.); apertura ovata, labro tenui, labio reflexo, subdisjuncto*. Long. 2 1/2, lat. 3/4 mil.

Peculiarly pitted on the surface like the top of a thimble, which gives the shell a roughened worn appearance. North West Coast, W. F. Petterd. I think also that it occurs as a fossil at Table Cape.

No. 69. *DIALA TESSELLATA*. *Nobis*. See *Proc. Roy. Soc. Tas.*, 1875. Among the species dredged by the Rev. H. D. Atkinson there occur some shells resembling the above species, except that they are covered with a dark horny epidermis, and the inner lip not reflected, or, at least, scarcely perceptibly so. All my typical specimens were old and somewhat worn. It is a question with me whether all ought not to be referred to Angas' *Alaba* (?) *phasianella*.

No. 70. *TORNATINA MARIE*. n.s. *T.t. parva, ovata, tenui, alba, laevi polita, spira parum exserta; anfr. 5; nucleo verticaliter sito, sutura profunde canaliculata apertura angusta, medio vix coarctata; labro acuto; labio antice incrassato et contorto*. Long. 5, lat. 2. Spira vix 1 1/2 mil.

Shell small, ovate, thin, white, smooth polished spire, slightly exsert, whorls 5, nucleus placed vertically, suture deeply canaliculate, aperture narrow, scarcely constricted in the middle, labrum acute; lip thickened and twisted anteriorly. North West Coast, W. F. Petterd.

No. 71. *AMPULLARINA MINUTA*. n.s. *A.t. minuta, globosa, alba, solida, nitente, laevi; anfr. 4, rapide crescentibus, rotundatis et tenuissime striatis; spira parum exserta; sutura impressa; apertura integra, late ovata, intus aurantia, tenui, simplici, umbilico angusto*. Diam. 3.

A minute species of ampullarina, the generic position being however doubtful. It differs from the Tasmanian species (probably only one, though two are described) in its size, absence of color (except in the throat which is orange), smoothness, and the spire being less exsert, the shell more approaching *Natica* in form. Circular Head, W. F. Petterd.

No. 72. *ACMÆA PETTERDI*. n.s. *A.t. late ovata, tumida, depressa, apice acuto et submarginali; nitente, sordide albida, confertissime undulose concentric striata lineis incrementi, et irregulariter late sulcis rudis, fulvis, interruptis indistincte radiata; margine acuta, intus eleganter castanea et fulva fimbriata; pagina albida, pallide castanea nebulosa; spatula fulva, exacte definita*. Diam. maj. 22, min. 20, alt. 7.

This *Acmaea* somewhat resembles an old and enlarged *Acmaea septiformis*, but its size is larger than that species is ever known to attain. It is dull white and shining, with the lines of growth very distinctly marked. North West Coast, W. F. Petterd. Rare.

No. 73. *ACMÆA ALBA*. n.s. *A.t. late ovata, depressa, scabra, tenui, alba, subnitente; apice submediano, acuto; costis inaequalibus, acutis, parvis numerosis, imbricato-granosis, aliquando in fasciculis congregatis, radiata;*

interstitiis tenuiter, confertissime, undulose striatis; intus nitente albida scepe pallide fulvo nebulosa vel radiata; spatula nulla; margine acuta, leviter undulata, linea pallide fulva eleganter fimbriata. Diam. maj. 26, min. 22, alt. 7, mil.

A white silky species; porcelainous inside and delicately margined with light brown, not unlike the Chinese umbrella shell, but smaller. The fine scabrous ribs are gathered sometimes into a bundle, which thus forms a compound rib. It is very different from any other southern form, and rare. North Coast, W. F. Petterd.

No. 74. TUGALIA TASMANICA. n.s. *T.t. magna, crassa, ovata, postice attenuata, antice planato, alta, tumide rotundata, convexa, sordide alba, apice rotundato (eroso) submediano; radiatim eleganter crebre costata costis parvis numerosis, alternantibus et irregul. rugose crenulato clathrata, lineis incrementi concentricis; marginibus crassis, sinuato arcuatis, crebre tuberculis crenulatis; pagina interna alba, castanea, pallide nebulosa, polita; sinu lato, inconspicuo.* Long. 37, lat. 25, alt. 15.

A very thick large solid *Tugalia* with many alternating ribs, and rugose irregular sinuous lines of growth. The inside is white, polished and clouded with chestnut. Only one specimen collected. North West Coast, W. F. Petterd. There is a shell very like this in the Nat. Mus., Melbourne, and named *Tugalia elegans*, Gould. It is stated to come from Victoria. I have not been able to trace the reference.

MACROSCHISMA TASMANICA. *Mihi. Var. rosea radiata.* I have met with a variety of the above shell ornamented with numerous rose colored rays. Sowerby has described a shell under the name of *M. tasmanica*, which I believe to be no more than a variety. If, however, my name must give way I propose to change it to *M. weldii*. Circular Head, W. F. Petterd.

No. 75. NUCULA MINUTA. *N.t. minuta, ovata, postice attenuata, antice subtruncata, nitente, tenui, translucida, argentea, creberrime costulis minutissimis regularibus radiata et lineis incrementi sulcata; marginibus rotundatis subtilissime crenulatis; dentibus card. 12, natibus obliquis acutis.* Long. 1½, lat. 2, mil.

Shell minute, ovate, posteriorly attenuate, anteriorly subtruncate, shining, thin, translucent silvery, radiate closely with minute regular riblets and sulcate with the lines of growth, margins rounded, very finely crenulate, cardinal teeth 12, umbones oblique, acute. Blackman's Bay. Common. W. F. Petterd.

No. 76. LIMOPSIS CANCELLATA. n.s. *L.t. parva, orbiculari, vix obliqua, crassa, tumide convexa, radiatim costata; costis numerosis (36?) rotundatis subgranosis, parvioribus, interdum intercalantibus; tenuiter, regulariter, crebre concentricis lirata; natibus parvis, rotundatis, cancellatis; pagina interna nivea, polita; fossula ligam. trigona, minuta; dentibus 22-24, marginibus incrassatis, planatis, politis, interior, haud nitente, radiatim striata.* Long. 12½, lat. 13.

Shell small, orbicular, scarcely oblique, thick, tumidly, con-

vex, radiately ribbed with about 36 rounded subgranular ribs, with smaller ones sometimes between; finely, regularly, and closely concentrically lirate; umbones small, rounded, cancellate; inside snowy white and polished; ligamental fossa trigonal, minute; teeth 22-24; margins thickened, flattened, polished, within which the shell is not shining, but is radiately striate. North Coast, W. F. Petterd. There is much reason to doubt if this rare shell, of which few specimens are ever found out of very deep water, is not identical with the common fossil of Australian tertiaries *L. decussata*.

No. 77. MYTILUS LATUS LAM. nov. var? *M.t. late rotundata et postice obtuse angulata, valde compressa, tenui, polita, tenuiter regulariter sulcata, et irregulariter lineis incrementi, et tenuissime radiatim striata, epidermide intense olivacea, duobus lineis latis luteis ab umbonibus marginem versus ornata, ad ligamentum eleganter rufo-fulvo nebulosa, umbonibus parvis, acutis, incurvis, lavis, albis, marginibus acutissimis.*

There are many species of *Mytilus* recorded as Tasmanian, and this does not agree with the description of any of them. Its peculiar characters are its very compressed falcate habit, and its brilliantly shining olive epidermis, with the yellowish brown broad arched line proceeding from the umbones along the margins. In Dr. Cox's collection the shell marked *M. dunkeri* has an olive epidermis, but it is a tumid solid shell. Reeve's figures of *M. dunkeri* are evidently from worn specimens. *M. dunkeri* is an American shell wrongly called Australian by Reeve, *M. rostratus* is a different species. I do not regard it as more than a variety, nor are the variations between the species greater than those to which *M. edulis* of the European seas is subject, and which has received a dozen names. That shell has also an olive epidermis, but is a much more dull and tumid shell.

No. 78. MYTILUS CRASSUS. n.s. *M.t. nitente, subquadrata, medio angustata, subgibbosa, postice rotundata et subattenuata, valde tumida, et oblique conspicue unicastata, costis in umbonibus subspiraliter desinentibus; epidermide intense badia; paucis capillis longis, corneis, in discis albis, convexis, rotundatis, radicatis armata; lineis increment. irregularibus elevatis, conspicuis; marginibus epidermide fulva, nitente, indutis; umbonibus margaritaceis, glabratis; fossula producta, umbonibus parum excedenti; pagina interna carneo-alba, impressione pallii et musculari purpurascante, conspicua; ligamento longo conspicuo.* Long. 21, lat. 11, diam. 2 valvis conj. 13.

This dwarfed *Mytilus* is easily distinguished by its tumid subgibbose form, and the inordinate thickness of the shell when the valves are conjoined. It has a rugose, shining lacquer-like epidermis of intense brown color, on which are a few wart-like discs supporting long stout bristle-like hairs. It has also a conspicuous rounded ridge or rib on each valve, which curves almost to a spiral at the umbo.

Rare at Circular Head, and abundant at Adventure Bay, W. F. Petterd.

MODIOLA ALBICOSTATA. *Var. 1, polita. Var. 2, nebulosa.* Two varieties of this most variable shell have been forwarded to me, one from Diana Basin, near George's Bay (Aug. Simson), a small deep black or olive tumid shell, very highly polished and seldom divested of the epidermis. Hinge margin very acute, straight and angular. Long. 11, lat. 24, which size it preserves very constantly, and is found in great numbers. 2, *var. nebulosa.* A larger, more tumid, less polished shell, paler or clouded chestnut and deep brown, often distorted; hinge margin less acute and less angular, ventral margin sinuous. Long. 13, lat. 30. Isthmus Bay, Rev. H. D. Atkinson. Abundant at low water attached to weed.

No. 79. **DIPLODONTA TASMANICA.** *n.s. D.t. orbiculari, subglobosa, tenui, alba, subpellucida, epidermide fusca plus minusve induta; concentric striata, striis incrementi tantum sed 2-3 latioribus insignita, natibus laevibus, acutis, ligamento conspicuo, margine dorsali acuto.* Long. 17, lat. 18.

Shell orbicular, subglobose, thin, white subpellucid, more or less covered with a fuscous epidermis; concentrically striate with lines of growth only, but distinguished by 2-3 much broader lines; umbones smooth, acute; ligament conspicuous, dorsal margin acute. Storm Bay, and Blackman's Bay, not uncommon. W. F. Petterd, W. Legrand, Rev. H. D. Atkinson.

No. 80. **SEMELE WARBURTONI.** *n.s. S.t. orbiculari, sub-inflata, crassiuscula, radiatim tenuiter costata, costis numerosis, depressis, irregularibus, antice latioribus; concentric creberrime lamellata, lamellis minutis, regularibus, crassiusculis, retrorsim curvatis; lineis incrementi 3-4, conspicuis; natibus parum exsertis; alba, margine dorsale, eleganter rosea tincta; intus polita nivea.* Long. 30, lat. 34, alt. 12.

Shell orbicular, sub-inflated, rather thick, radiately finely ribbed, ribs numerous, depressed, irregular, broader anteriorly; concentrically thickly lamellated, lamellæ minute, regular, somewhat thick, curved backwards; lines of growth 3-4, conspicuous; umbones slightly exsert, shell white, dorsal margin elegantly rose tinted, polished and snowy white inside. West Coast. W. F. Petterd.

No. 81. **GOULDIA TASMANICA.** *n.s. G.t. parva, transversa, acute trigona, alba, compressa, concentric lirata, liris elevatis, rotundatis, aliquando in medio attenuatis et desinentibus; interstitiis tenuissime reticulatis, umbonibus acutis, marginibus rotundatis.* Long. 2½, lat. 3.

Shell very small, transverse, acutely trigonal, white, compressed, concentrically ridged, ridges raised, rounded, sometimes becoming attenuate and ceasing in the middle, interstices very finely reticulate; umbones acute, margins rounded. Long Bay, Rev. H. D. Atkinson.

No. 82. **KELLIA ATKINSONI.** *n.s. K.t. parva, long. oblonga, oblique trigona, tumida, nitente, translucida, pallide carnea, laevi, obsolete late sulcata; marginibus, rotundatis crenulatis.* Long. 3, lat. 2.

Shell very small, longitudinally oblong, obliquely trigonal,

tumid, shining, translucent, pale flesh-coloured, smooth, but obsoletely widely sulcate, margins rounded, crenulate. Long Bay, Rev. H. D. Atkinson. This shell is doubtfully referred to the genus *Kellia*.

CHIONE STUTCHBURYI. *Gray. Dieff. N.Z., p. 250.* A specimen of this shell (*Venus zeylandica*, Quoy Voy. Astrol. 3, p. 522) was given to me by Mr. Gunn as having been found by him in Bass' Straits. It is a native of Chatham Island, and previously unknown in Australia.

No. 83. **GASTEROCHENA TASMANICA.** *n.s. G.t. in cavitate corallium inventa (vagina?) elongata quasi lanceolata, tenui, fragili, inflata, alba, opaca, per totam longitudinem marginis hiantissima, antice brevior, margine fere recto; postice latiore, rotundato; concentric rugoso striata, striis distantibus, irregularibus; valvis quasi in medio oblique unicastis et sulcatis, costis latis et in umbonibus, desinentibus.* Long. 12, lat. 5, mil.

Shell found in the cavities of corals and the sheath unknown, elongate almost lanceolate, thin, fragile inflated white, opaque, gaping very widely for the whole length of the margin; shorter anteriorly, margin almost straight, wider and exactly rounded posteriorly; concentrically rugosely striate, striae distant and irregular; valves somewhat unicastate obliquely in the middle with a groove by the side, ridge wide and ceasing in the umbones, which are inconspicuous. South Coast. Rare. W. Legrand; W. F. Petterd. Long Bay Rev. H. D. Atkinson.