

Part I.]

[FEBRUARY 1882.

69.

LAND AND FRESHWATER MOLLUSCA

OF

INDIA,

INCLUDING

SOUTH ARABIA, BALUCHISTAN, AFGHANISTAN,  
KASHMIR, NEPAL, BURMAH, PEGU, TENASSERIM,  
MALAY PENINSULA, CEYLON, AND OTHER  
ISLANDS OF THE INDIAN OCEAN.

SUPPLEMENTARY TO MESSRS. THEOBALD AND HANLEY'S

CONCHOLOGIA INDICA.

EDITED BY

LIEUT.-COLONEL H. H. GODWIN-AUSTEN, F.R.S., F.G.S., F.Z.S., &c.

LATE DEPUTY SUPERINTENDENT TOPOGRAPHICAL SURVEY OF INDIA, IN CHARGE  
OF THE KHASI, GARO, AND NAGA-HILLS SURVEY PARTY.



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PLATES.

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LONDON:

TAYLOR AND FRANCIS, RED LION COURT, FLEET STREET.

1882.

1841.5 d 4.



PLATE I.

[Part I.—*February* 1882.]

- Fig. 1. **KALIELLA BARRAKPORENSIS**, Pfr., typical. Locality ?
2. — —. Near Barisal, Lower Bengal.
  - 3, 3 a. — —, = **SIVALENSIS**, Hutton. Mussoorie, N.W. Himalaya.
  - 3 b. — —: sculpture on base,  $\times 50$ . 4 to 5 lines = 0.005 inch\*.
  4. — —, close to **BARRAKPORENSIS**; copy of figure in J. A. S. B. Salem, Madras.
  5. — — **CHERRAENSIS**, G.-A. Cherra Poongee, Khasi Hills.
  - 5 a. — —: sculpture on base,  $\times 50$ . 12 lines = 0.005 inch.
  6. — —, var. Near Barisal, Lower Bengal.
  7. — —. Fine specimen, Teria Ghat, Khasi Hills.
  8. — — **KHASIACA**, G.-A. Khasi Hills, northern slopes.
  9. — — **MUNIPURENSIS**, G.-A. Manipur Hills.
  - 9 a. — —: sculpture,  $\times 50$ .
  10. — —, var. Phúnggam, Lahúpa Naga Hills.
  11. — — **SIGURENSIS**, G.-A. Seegoor Ghat and Neddiwuttom Passes, Nilgherri Hills.
  12. — — **ASPIRANS**, W. T. & H. F. Blf. Nilgherri Hills.
  13. — — **VULCANI**, G.-A. Puppá-doung Hill, Burmah.

\* This is always taken from a part of the upper surface of the last whorl just behind the aperture, except when otherwise stated.

PLATE I.

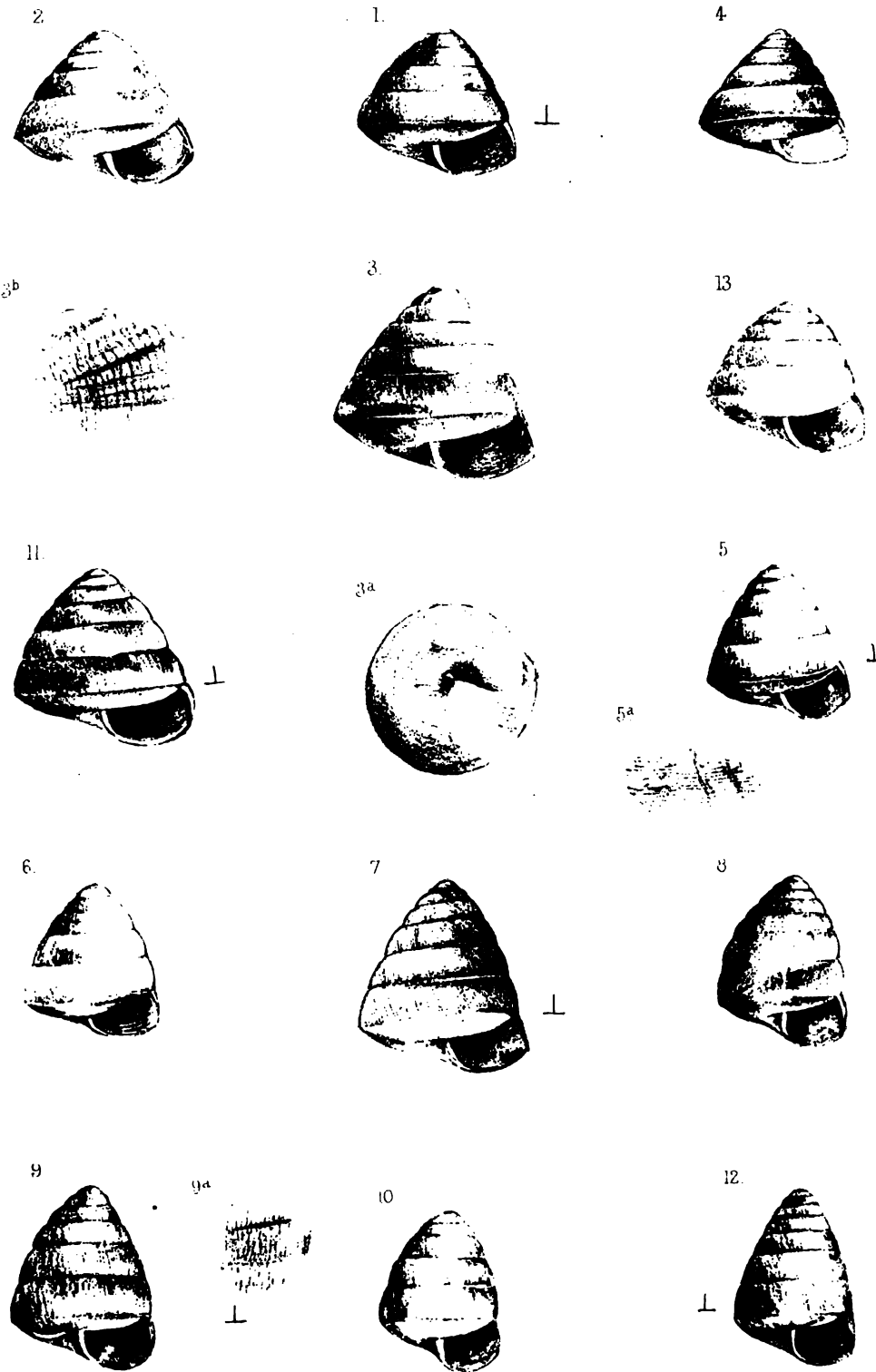


PLATE II.

[Part I.—*February* 1882.]

Fig. 1. *KALIELLA BARRAKPORENSIS*, Pfr., = *SIVALENSIS*, Hutton, var. Mussoorie, N.W.  
Himalaya.

2. — *CHERRAENSIS*, G.-A. Teria Ghat, Khasi Hills.
3. — *MUNIPURENSIS*, G.-A. Manipur.
4. — *JAINTIACA*, G.-A. Marangsip Peak, Jaintia Hills.
5. — *COSTULATA*, G.-A. Tanir Ridge, Dafia Hills, north of Assam valley.
6. — *SUBCOSTULATA*, G.-A. North Khasi Hills.
7. — *PERAKENSIS*, G.-A. Perak, Malay Peninsula.
8. — *PASTIGIATA*, Hutton. Mussoorie, N.W. Himalaya.
9. — *ELONGATA*, G.-A. Raliang, N. Jaintia Hills.
10. — *GRATIOSA*, G.-A. Kopamedza Peak, Anghami Naga Hills.
11. — *NAGAENSIS*, G.-A. Kopamedza Peak, Anghami Naga Hills.
12. — *TERIAENSIS*, G.-A. Teria Ghat, base of Khasi Hills.

PLATE II

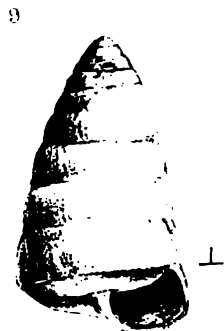
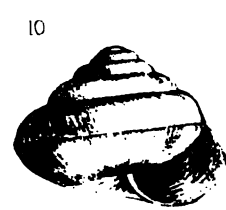
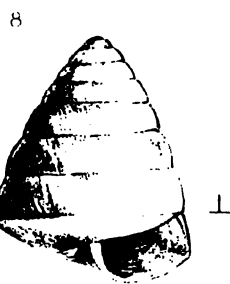
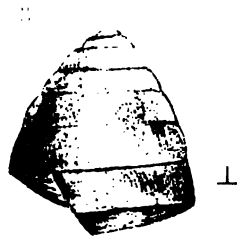


PLATE III.

[Part I.—February 1882.]

Fig. 1. MICROCYSTINA RINKII, Mörch, × 8.

- 1 a. — — : sculpture, × 50.
2. — — : columellar margin, × 20.
3. — — : part of mantle, × 8. *r.d.l.*, right dorsal lobe; *l.d.l.*, left dorsal lobe.
4. — — : extremity of foot, × 8. From spirit-specimen.
5. — — : generative organs. *P.*, male organ; *Sp.*, spermatheca; *vd.*, vas deferens; *D.*, dart-sac.
6. — — : jaw, × 50.
7. — — : teeth of the radula, central, median, and lateral, × 1210.
- 7 a. — — : ditto, ditto, × 360.
8. — — *WARNEFORDI*, n. sp., × 7.
- 8 a. — — : sculpture, × 50.
9. — — *MOERCHIANA*, n. sp., × 4.
- 9 a. — — : sculpture, × 50.
10. — — *CRYPTOMPHALUS*, n. sp., × 7.
- 10 a. — — : sculpture, × 50.
- 10 b. — — : columellar margin, × 20.
11. — — *HARRIETENSIS*, n. sp., × 8.
- 11 a. — — : sculpture, × 50.

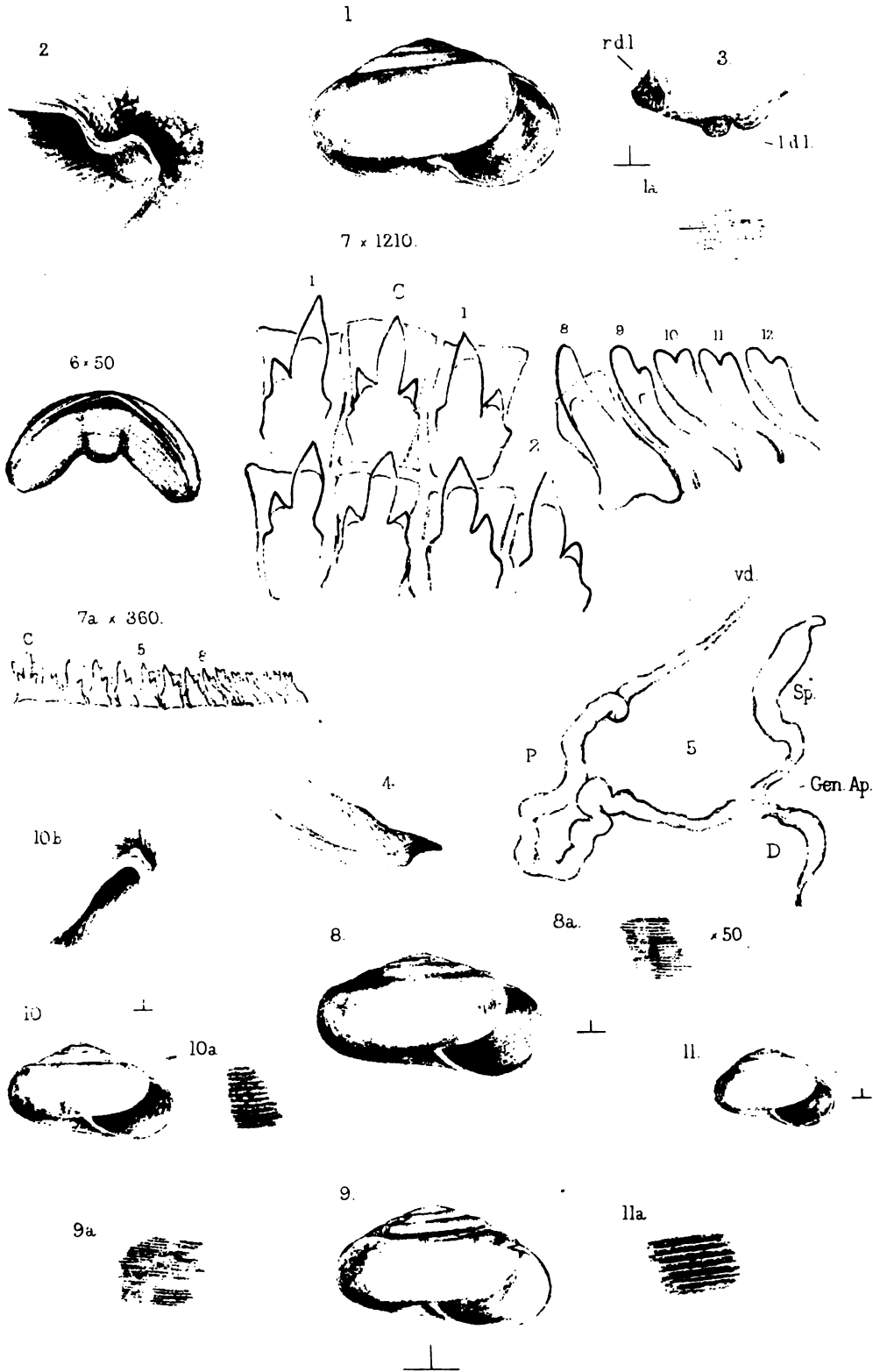




PLATE IV.

[Part I.—*February* 1882.]

- Fig. 1. Animal of *Cryptosoma præstans*, Gould, from nature, nat. size. Copied from an original drawing made by native artist, under the superintendence of the late Dr. F. Stoliczka.
2. Animal (enlarged), from spirit-specimen, viewed from right side. Shell removed, showing the mantle and its lobes.
  3. Ditto, left side.
  4. Ditto, posterior side, viewed from above, showing the junction of the shell-lobes.
  5. Ditto, side view.
  6. Anterior portion, underside of foot, showing the segmented pallial margin.
  7. Side view of extremity of foot.
  8. Generative organs.
  9. Ditto, second specimen.
  10. Male organ, showing the cæcum or kalk-sac.
  11. Jaw,  $\times 20$ .
  12. Teeth of lingual ribbon,  $\times 360$ .
  - 12 *a*. Laterals, about the 100th from the central tooth.
  - 12 *b*. Outermost laterals.

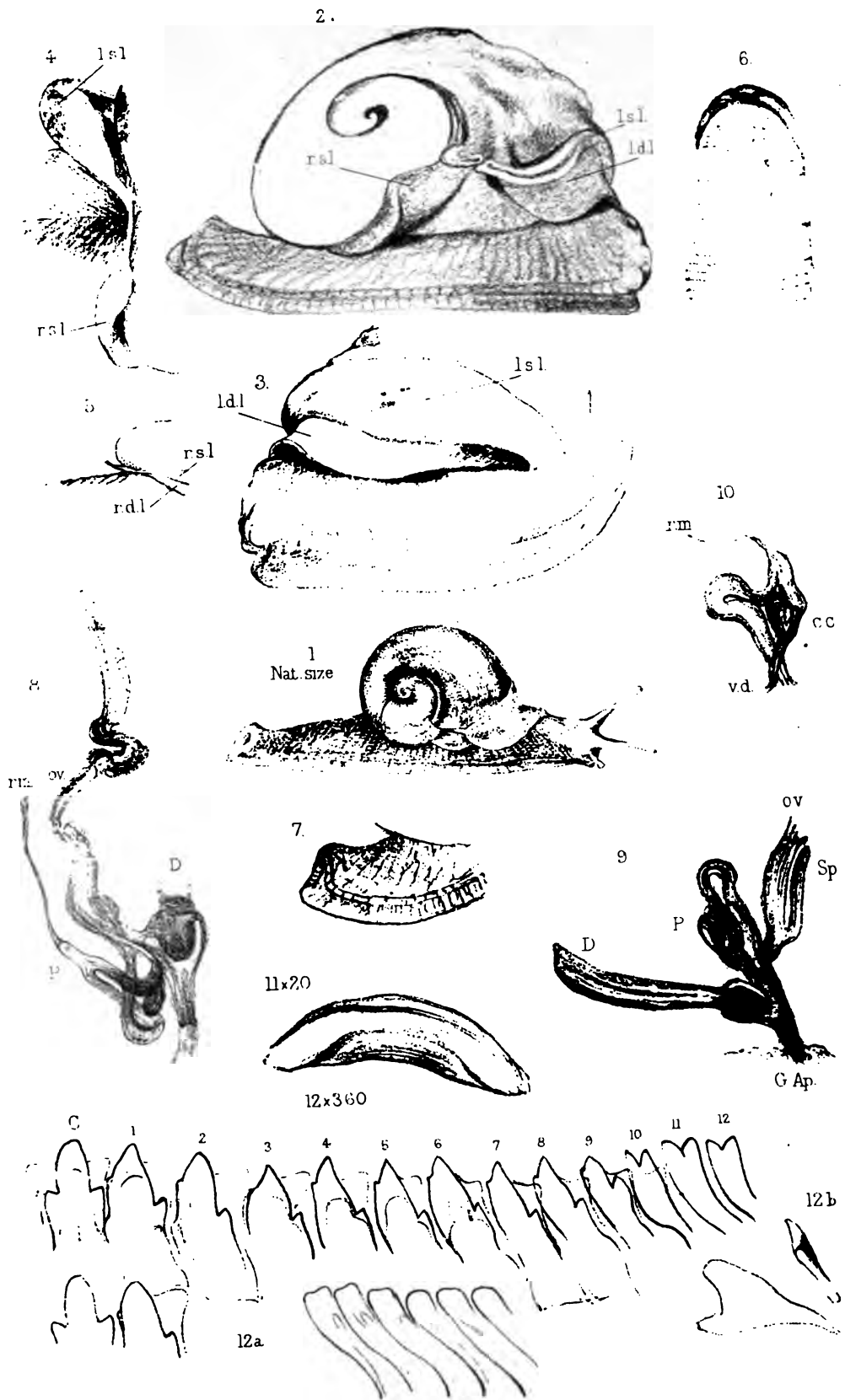
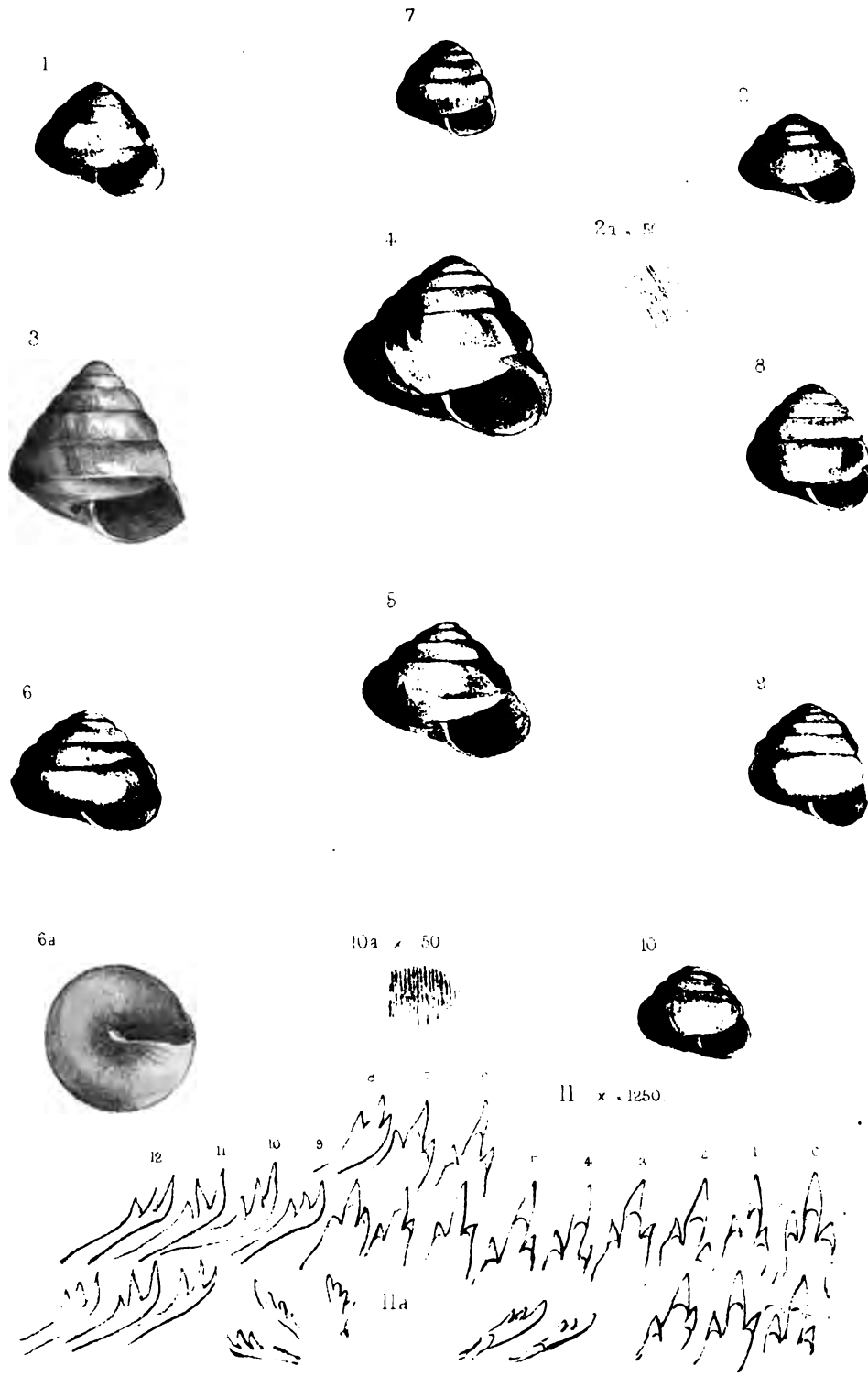


PLATE V.

[Part II.—*July* 1882.]

- Fig. 1. *KALIELLA ANIMULA*, n. sp., × 7. Khasi Hills.  
2. — *LHOTAENSIS*, n. sp., × 7. Lhota-Naga Hills.  
2*a*. — — : sculpture, × 50.  
3. — *BARRAKPORENSIS*, Pfr., × 7. Madagascar.  
4. — *BULLULA*, Hutton, × 7. North side Nag-Tiba range.  
5. — —, × 7, small var. Kumaon, N.W. Himalaya.  
6, 6*a*. — *NANA*, Hutton, × 7. Mussoorie, N.W. Himalaya.  
7. *KALIELLA RESINULA*, juv., n. sp., × 7. Teria Ghat, Khasi Hills.  
8. — *RESINULA*, n. sp., × 7. Khasi Hills.  
9. — *SIKKIMENSIS*, Nev. MS., × 7. Sikkim.  
10, 10*a*. — *FLATURA*, n. sp., × 7. Manipur.  
11. Teeth of the radula of *KALIELLA BARRAKPORENSIS*, Pfr., from a specimen from Barisal, Lower Bengal: central and twelve laterals. 11*a*. Outermost laterals, × 1250.

PLATE V.



H H Godwin-Austen, del et lith

KALIELLA.

MacIure & Macdonald imp.

PLATE VI.

[Part II.—*July* 1882.]

- Fig. 1. *ANADENUS ALTIVAGUS*, Theob.: animal, side view, nat. size. Spirit-specimen. Simla.
2. Ditto: respiratory orifice,  $\times 4$ .
  3. Ditto: ditto, with the anal aperture (*An.Ap.*) adjacent,  $\times 4$ .
  4. Ditto: the generative aperture,  $\times 4$ . Portion protruding showing the spines (*vide* Plate VII.).
  5. Ditto: the jaw,  $\times 7$ .
  6. Ditto: teeth of radula,  $\times 360$ . 6 *a*, 6 *b*. The outermost laterals.
  7. Ditto: the generative organs,  $\times 1\frac{1}{2}$ . *o.t.*, ovotestis; *h.d.*, hermaphrodite duct; *Al.Gld.*, albumen-gland; *ov.*, oviduct; *v.d.*, vas deferens; *P.*, male organ, with (*r.m.*) retractor muscle; *Sp.*, spermatheca.

1 nat size



5 x 7



2 x 4



4 x 4

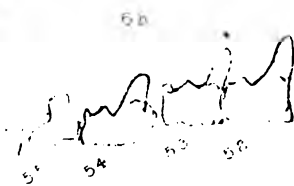
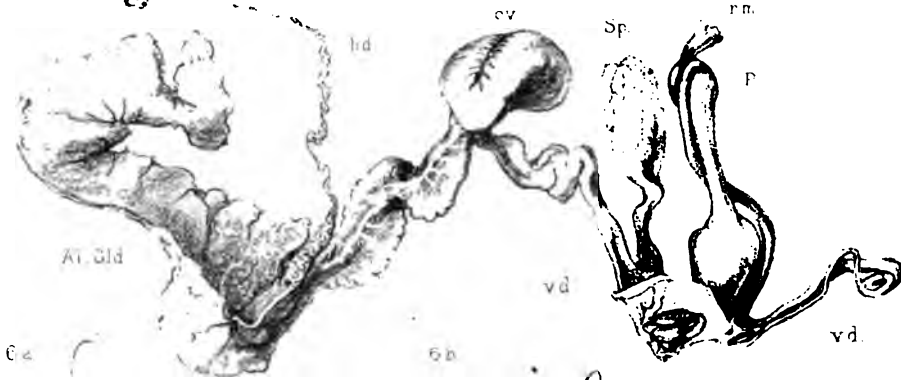


3 x 4



ot.

7 x 11



6 x 360

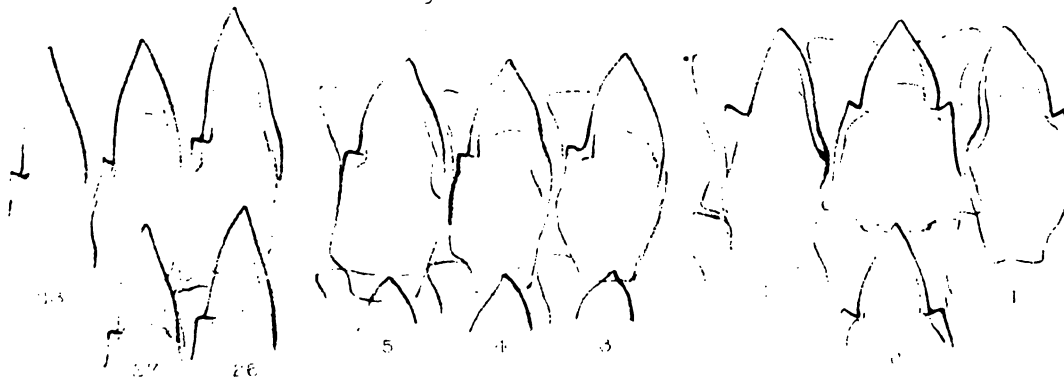


PLATE VII.

[Part II.—July 1882.]

- Fig. 1. *ANADENUS ALTIVAGUS*, Theob. : shell,  $\times 2$ . Simla.
2. Ditto, nat. size. = *giganteus*, Heynemann ; from his drawing, Taf. i. fig. 1 *g*.
3. *ANADENUS SCHLAGINTWEITI*, Heynemann, nat. size ; from his drawing, Taf. i. fig. 2 *e*.
4. Portion of back of *A. giganteus*, Heynemann ; from his drawing, Taf. i. fig. 1 *h*, &c.
5. *ANADENUS ALTIVAGUS*, Theob. Simla. View of heart and renal organ, seen from below, showing position of the different muscle-attachments. *M.f.*, Mantle, frontal edge ; *M.l.*, mantle, left side ; *R.*, renal organ surrounding the ventricle ; *i.*, intestine ; *r.m. T., P., & O.*, retractor muscle of eye-tentacles, penis, and odontophore respectively ; *Res.Or.*, position of respiratory orifice.
6. The generative aperture cut open on the frontal side to expose the dart-sac, with its numerous spines and (*a*) the perforated shield ; *b*, spines attached to the shield at its upper margin ; *c*, larger and stronger spines attached to the posterior upper part of the sac ; *d*, row of short spines extending to the generative aperture ; *e*, outer integument of the animal ; *e'*, muscular sac ; *f*, the aperture into the vagina and spermatheca below this and inclining upwards to the left (*vide* fig. 7, Plate VI.) ; *v.d.*, portion of vas deferens.
- 6 *a*. Upper portion of male organ (*P*), showing the termination of the vas deferens within the swollen portion where the retractor muscle is given off.
- 6 *b*. Diagrammatic vertical section of fig. 6, viewed from the side.
- 6 *c*. Horizontal section of same.
7. *ANADENUS JERDONI*, n. sp., nat. size : spirit-specimen. Kashmir.

1 x 2



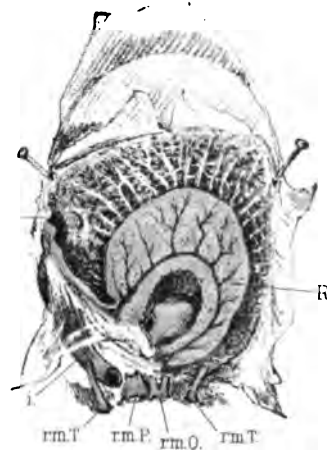
2. nat. size.



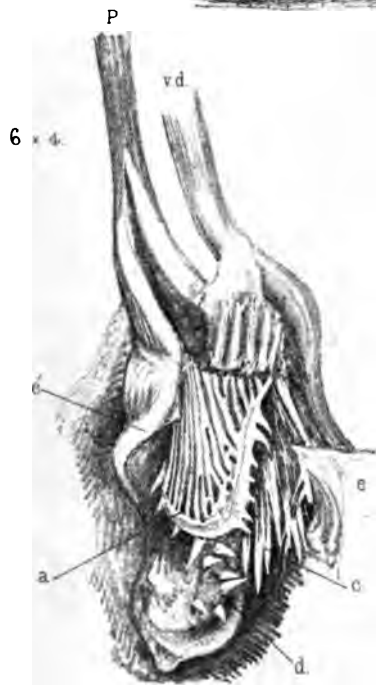
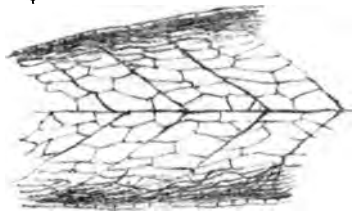
3 nat. size.



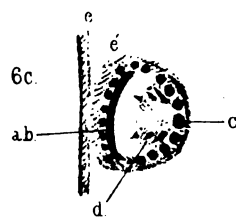
5. nat. size



4.



6 x 4.



6c.

ab

e

e

d

c

d

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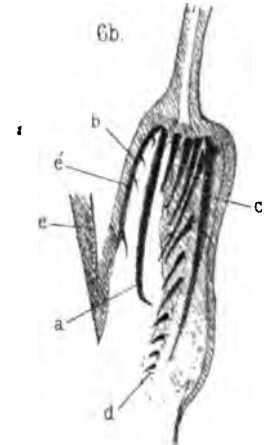
d

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6b.

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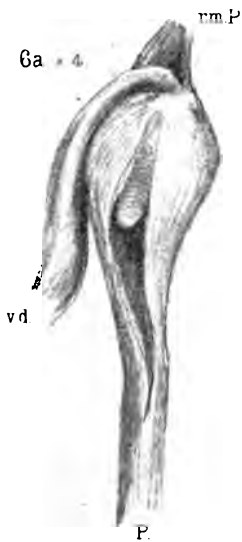
e

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6a x 4.

7. nat. size.





PLATE VIII.

[Part II.—*July* 1882.]

Fig. 1. *SITALA INFULA*, Benson, × 4. Calcutta.

1*a*. Ditto : sculpture of last whorl, × 180. 1*b*. Sculpture of the apical whorls, × 180.

1*c*. Ditto : animal, × 2. From drawing by F. Stoliczka.

1*d*. Ditto : jaw, enlarged. From drawing by F. Stoliczka.

1*e*. Ditto : teeth of radula. From drawing by F. Stoliczka.

1*f*. Ditto : generative organs, much magnified. 1*g*. Showing enlargement of oviduct (*a*). From drawing by F. Stoliczka.

2. *SITALA ATTEGIA*, Bs., × 4. From Moulmain, Tenasserim.

2*a*. Ditto : sculpture of apical whorls, × 180. 2*b*. Sculpture of the last whorl, × 180.

2*c*. Ditto : right and left shell and dorsal lobes of the mantle, enlarged. From drawing by F. Stoliczka.

2*d*. Ditto : jaw. From drawing by F. Stoliczka.

2*e*. Ditto : teeth of radula.

2*f*. Ditto : generative organs, much enlarged.

3. *SITALA ATTEGIA*, Bs., × 4. Prome, Pegu.

4. — *CULMEN*, W. Blf., × 4. Pegu.

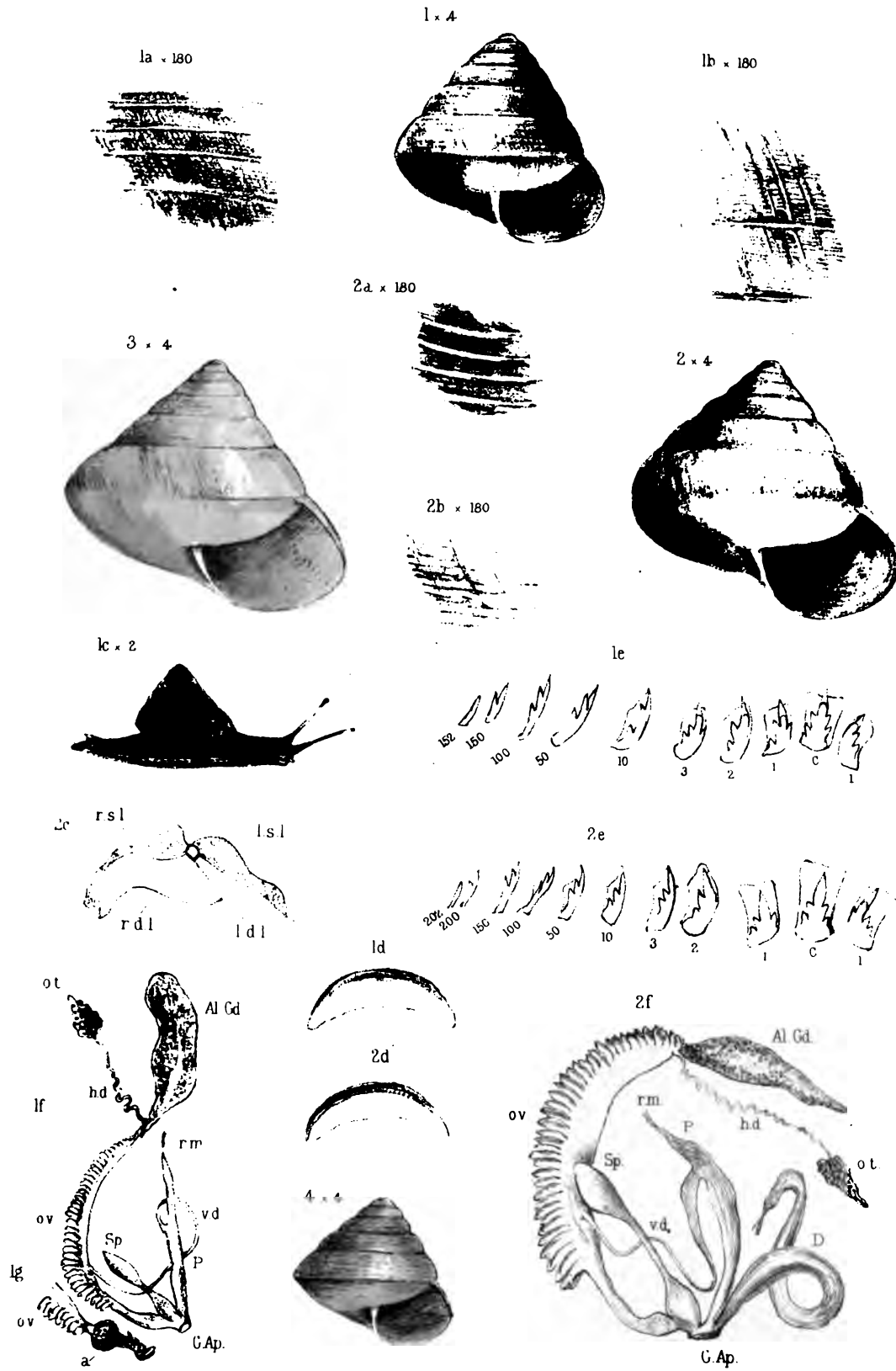


PLATE IX.

[Part II.—*July* 1882.]

- Fig. 1, 1 *a*. SAGDINELLA DIDRICHSENII, Mörch, × 7. Nicobar.  
2. SITALA RIMICOLA, Bs., × 7. Mussoorie, N.W. Himalaya.  
2 *a*. Ditto : sculpture of last whorl, × 50.  
3. SITALA RIMICOLA, var., Bs., × 7. Darjiling, E. Himalaya.  
3 *a*. Ditto : sculpture, × 50.  
4, 4 *a*. SITALA RIMICOLA, var., × 7. Khasi Hills.  
4 *b*. Ditto, × 4, viewed from below. 4 *c*. Ditto, nat. size.  
5, 5 *a*. SITALA INJUSSA, W. & H. Blf., × 7. Nilghiri Hills.  
5 *b*. Ditto : sculpture, × 50.  
6. SITALA MONONEMA, Bs., × 4. Ceylon.  
7. — SRIMANI, G.-A., × 7. Manipur.  
8. — ARX, Bs., × 4. Tenasserim.  
9, 9 *a*. — ? TERTIANA, W. & H. Blf., × 12. Nilghiri Hills.

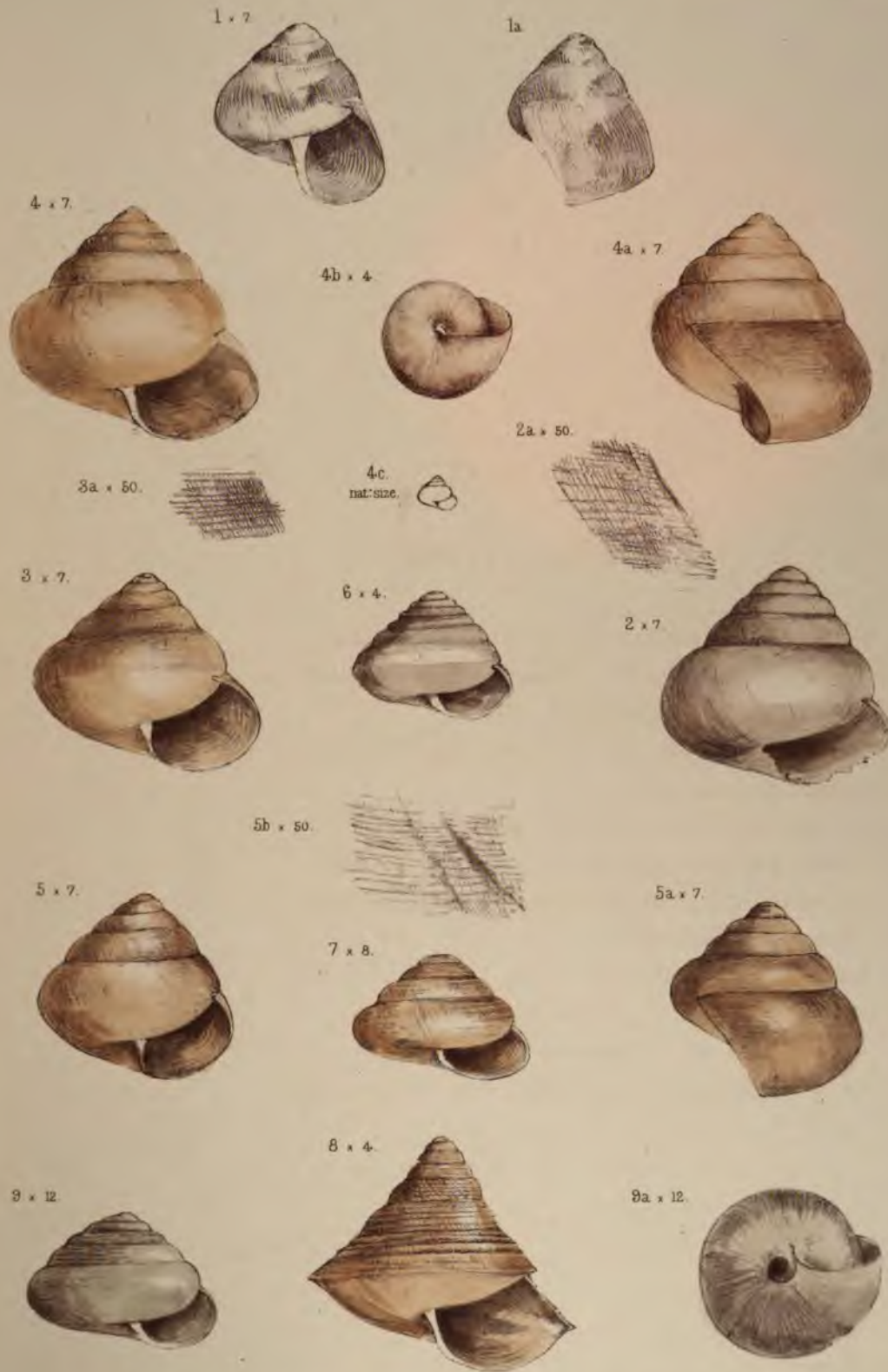


PLATE X.

[Part II.—*July* 1882.]

- Fig. 1. *SITALA GRATULATOR*, W. Blf., × 4. Thayetmyo, Pegu.  
1 *a*, 1 *b*. Ditto, showing form of the columellar margin, × 7.  
2. *SITALA CONFINIS*, W. Blf., × 4. Thayetmyo, Pegu.  
3. — *PALMARIA*, Bs., × 4. Mysore.  
4. — *PHULONGENSIS*, G.-A., × 7. N. Cachar.  
5. — *GROMATICA*, G.-A., × 7. Manipur.  
5 *a*. Ditto: sculpture, × 50.  
6. *SITALA GROMATICA*, var., × 7. 6 *a*. Sculpture. Khasi.  
7. — *HAROLDI*, G.-A., × 7. 7 *a*. Sculpture, × 50. Andamans.  
8. — *GROMATICA*, juv., × 7. North Cachar Hills.  
9. — *LIMATA*, × 12. 9 *a*, × 8. Pegu.  
10. — *TRICARINATA*, W. & H. Blf., × 20. Nilghiri Hills.  
11, 11 *a*. — *SUBBILIRATA*, G.-A., Nev. MS., × 12. Little Brother Andaman.  
12. Ditto, var., × 12. Batte Malve Island, Nicobars.

PLATE X

1<sup>a</sup> × 7.



1 × 4.



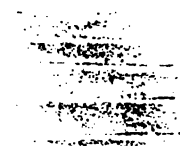
1<sup>b</sup> × 7



2 × 4.



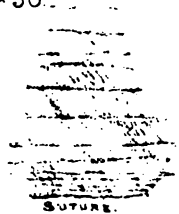
4<sup>a</sup> × 50.



3 ×



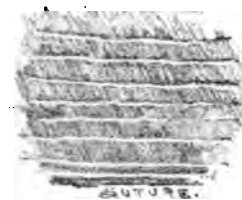
5<sup>a</sup> × 50.



4 × 7.



7<sup>a</sup> × 50.



5 × 7



6 × 7.



7 × 7



9 × 12



9<sup>a</sup> × 8.



10 × 20.



8 ×



11 × 12.



11<sup>a</sup> × 12.



12 × 12



PLATE XI.

[Part II.—*July* 1882.]

- Fig. 1. Animal of *HYALIMAX (JARAVA) ANDAMANICA*, from spirit-specimen, right side, × 4.
2. Ditto, viewed from the left side.
3. Ditto, right side, showing the position of the respiratory and anal orifices.
- 4, 4 a. Ditto : shell, × 8 and natural size.
5. Ditto : view from below, × 4. *A*, anal aperture ; *V*, heart ; *Res.or.*, respiratory aperture ; *r.m.T.*, retractor-muscle tentacles ; *r.m.B.*, ditto, buccal mass.
6. Ditto : much enlarged view of the buccal mass, showing the form of its posterior end. *s*, salivary-gland duct.
7. Ditto : jaw, × 20.
8. Ditto : central teeth of the radula, × 1250.
9. Ditto : generative organs, × 8.
10. Shell of *HYALIMAX PERLUCIDUS*, Quoy and Gaimard, from Mauritius.

1 x 4



4 x 8



4a

Nat Size

10



2 x 4



3 x 4

A

Res or



6

largely magnified



5 x 4

A

Res or

r.m.E.

r.m.R.

r.m.E.

Au.

V

8 x 1250

C

7 x 20

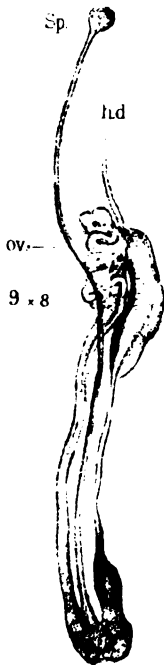




PLATE XII.

[Part II.—*July* 1882.]

- Fig. 1. *GEOMALACUS MACULOSUS*, Allman: side view of extremity of foot, with mucous gland, from spirit-specimen. *a*, view from behind, ditto.
2. Ditto: shell, × 7.
  3. Ditto: jaw, × 20.
  4. Ditto: teeth of radula, × 360. *4 a.* 12th to 18th; *4 b.* Outermost laterals.
  5. Ditto: generative organs, × 2.
  6. Ditto: ditto, portion of, from second specimen. Male organ.
  7. Ditto: the basal portion of male organ, laid open. *Gen. Ap.*, position of generative aperture; the external opening is on the other side.
  8. Ditto: position of renal organ, heart, and the retractor muscles, viewed from below, × 3.
  9. *ARION ATER*. Reigate. Position of above organs, similar view, × 2.
  10. *LIMAX AGRESTIS*, Müller: ditto, ditto, × 3. *Mf.*, mantle, frontal edge; *M.l.*, mantle, left margin; *r.m.O.*, *T.*, *P.*, retractor-muscle attachments of odontophore, eye-tentacle, and penis; *s*, position of apex of shell.

PLATE XII.

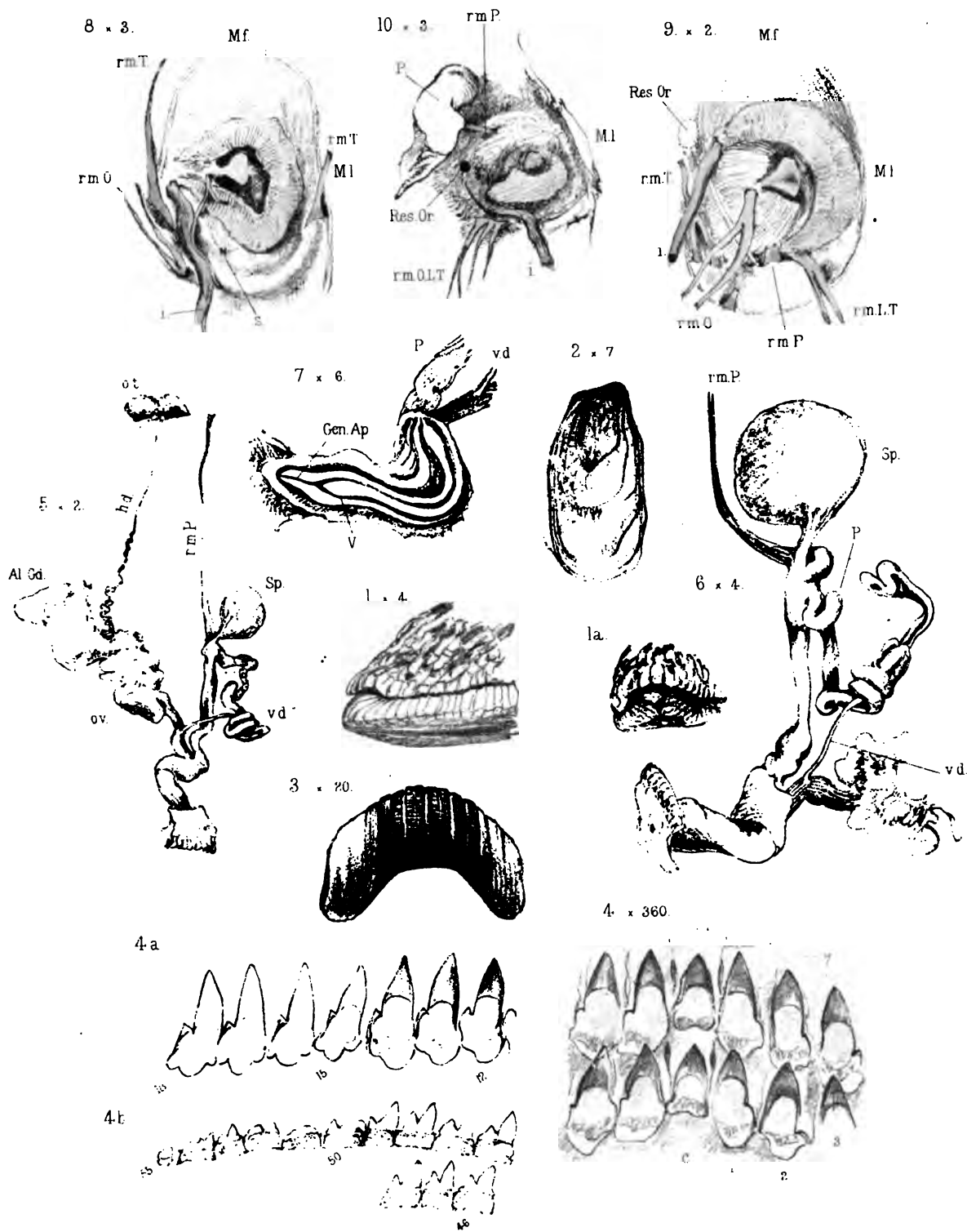


PLATE XIII.

[Part III.—*January* 1883.]

- Fig. 1, 1 *a*. *SITALA INTONSA*, G.-A., × 7. Khasi Hills.  
1 *b*. Ditto: sculpture, × 50.  
2. *SITALA CRENICINCTA*, G.-A., × 12. Khasi Hills.  
3. Ditto, × 7.  
4, 4 *a*, 4 *b*. *SITALA RECONDITA*, G.-A., × 7. Raliang, Jaintia Hills.  
4 *c*. Ditto: sculpture, much enlarged.  
5. *SITALA UVIDA*, G.-A., × 7. Teria Ghat, Khasi Hills.  
6. — ? *NEVILLI*, G.-A., × 4. Darjiling.

1. x 7



3 x 7



2. x 12



1b x 50



1a x 7



4a x 7



4 x 7



6 x 4



4b x 12



5 x 7



4c.



5a x 50



PLATE XIV.

[Part III.—*January* 1883.]

- Fig. 1. *MACROCHLAMYS POONGEE*, Theobald, × 4. Moulmain, Tenasserim.  
2. —? *KANDIENSIS*, Nevill, MS., × 7. Kandy, Ceylon.  
3. *SITALA PLACITA*, G.-A., × 12. Khasi and Manipur.  
4. *MACROCHLAMYS UMBRATICOLA*, G.-A., × 7. North Cachar Hills.  
4 *a.* Ditto : sculpture, × 50.  
5. *MACROCHLAMYS PERPAULA*, Benson, × 7. Moulmain, Tenasserim.  
6. *SITALA SUBNANA*, Nevill, MS., × 8. Jessore.  
7. *MACROCHLAMYS FACETA*, G.-A., × 12. Daffa Hills.  
8. —? *ANONÆ*, G.-A., × 12. Calcutta.  
9. *HELIX*? (—?) *GLOMEROSA*, G.-A., × 20. Daffa Hills.  
10. *MACROCHLAMYS PACATA*, G.-A., × 8. Lhota Naga Hills.  
11. — *ENATA*, G.-A., × 8. Lhota Naga Hills.  
12. — *ORIGINARIA*, G.-A., × 8. Manipur.  
13. — *SATA*, G.-A., × 8. Daffa Hills.

1. x 4



2. x 7



3. x 12



4. x 7



5. x 7



4a. x 50



6. x 8



8. x 20



7. x 12



9. x 20



11. x 8



10. x 8



12. x 8



13. x 8



PLATE XV.

[Part III.—*January* 1883.]

- Fig. 1. KALIELLA LAILANGKOTENSIS, G.-A., × 7. Khasi Hills.  
1 *a.* Ditto: sculpture, × 50.  
2. SITALA BALLIANA, Nev. MS., × 7. Ganjam.  
3, 3 *a.* KALIELLA KEZAMAHENSIS, G.-A., × 8. Naga Hills.  
4, 4 *a.* — RUGA, G.-A., × 8. Naga Hills.  
5, 5 *a.* — BURRAILENSIS, G.-A., × 7. Naga Hills.  
5 *b.* Ditto: sculpture, × 50.  
6, 6 *a.* KALIELLA CONULUS, W. T. Blf., × 12 and 8. North Cachar.





PLATE XVI.

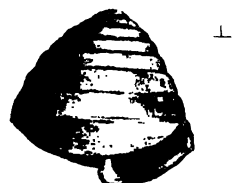
[Part III.—*January* 1883.]

- Fig. 1. *KALIELLA*? *CHENNELLI*, G.-A., × 7. Lhota Naga Hills.  
1 *a*. Ditto, suture between first and second whorls.  
2. *KALIELLA NONGSTEINENSIS*, G.-A., × 12. North Khasi Hills.  
3. — *DIKRANGENSIS*, G.-A., × 20. Dafia Hills.  
4. — *TIRUTANA*, G.-A., × 24. North Khasi.  
5. Ditto, juv., × 24. North Khasi.  
6. *KALIELLA LEITHIANA*, G.-A., × 7. Ceylon.  
6 *a*. Ditto: umbilical region, × 12.  
6 *b*. Ditto: the keel of the last whorl, much enlarged.  
7, 7 *a*. *MACROCHLAMYS*? *PLANIUSCULA*, Hutt., × 9. N.W. Himalaya.  
8. — ? *MOLECULA*, Bs., × 7. Rangoon, Pegu.

1 x 7



2 x 12



1a x 50



5 x 24



6 x 7



3 x 20



4 x 24



6b x 20



6 a.



7a x 9



7 x 9



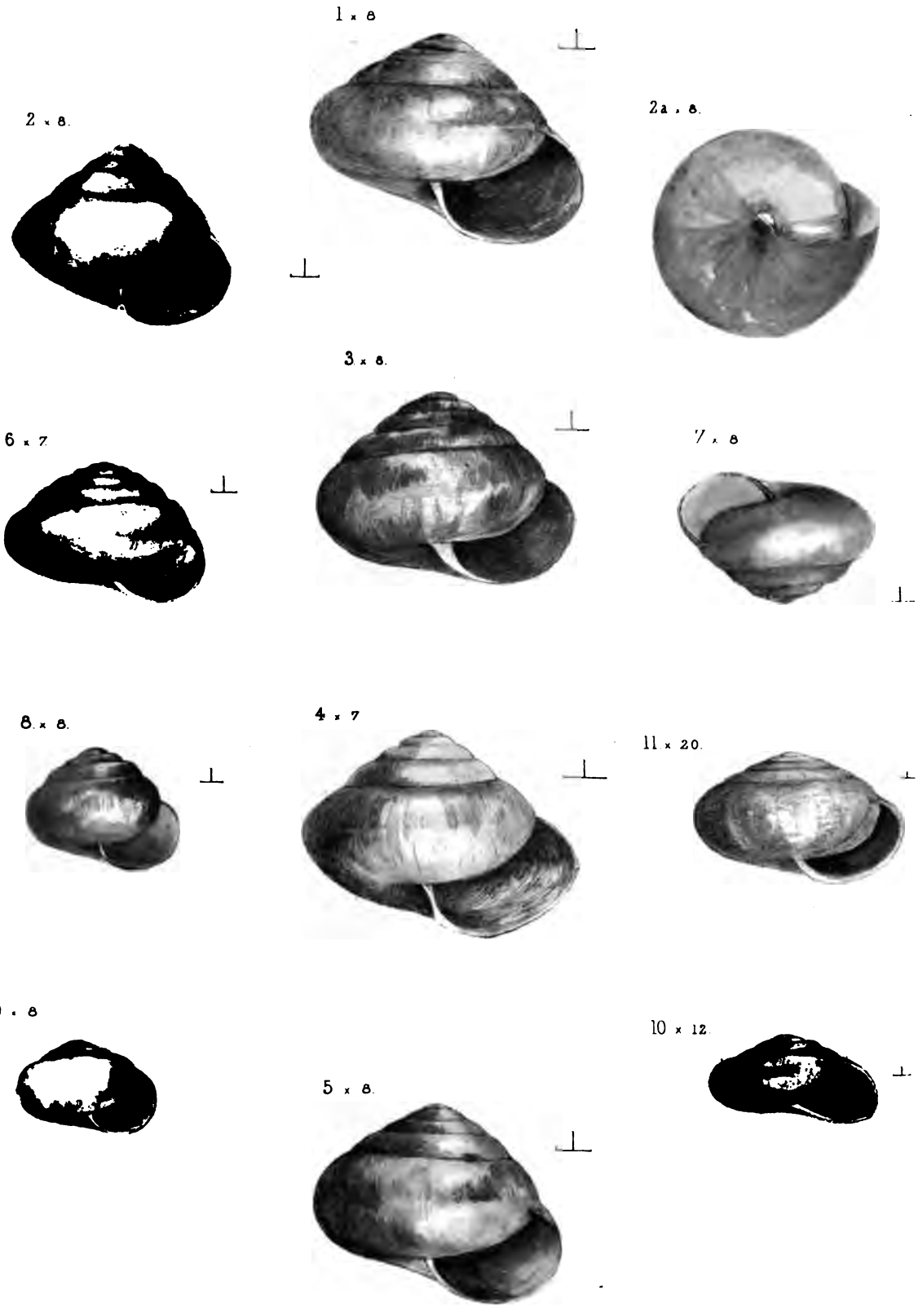
8 x 7



PLATE XVII.

[Part III.—*January* 1883.]

- Fig. 1. *MACROCHLAMYS LONGICAUDA*, G.-A., × 8. Khasi Hills.  
2, 2 *a*. Ditto, var., × 8. Khasi Hills.  
3. *MACROCHLAMYS NENGLOENSIS*, G.-A., × 8. Naga Hills.  
4. — *LONGICAUDA*, var., × 7. S. Jaintia Hills.  
5. — *NENGLOENSIS*, var., × 8. Manipur.  
6. — *KOLIAENSIS*, G.-A., × 7. Assam.  
7. — *ROBERTI*, G.-A., × 8. Burreil range.  
8. — *DORANI*, G.-A., × 8. Khasi Hills.  
9. — *TANIRENSIS*, G.-A., × 8. Daffa Hills.  
10. — *RUSTICULA*, G.-A., × 12. North Khasi Hills.  
11. — (?) *DARJILINGENSIS*, Nevill, MS., × 20. Darjiling.



Edwin Austin, del et lith.

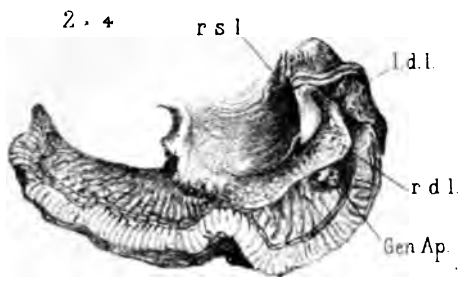
ZONITIDÆ.

Maclure & Macdonald, sculp.

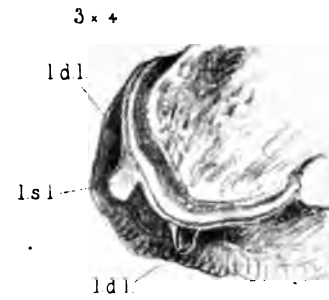
PLATE XVIII.

[Part III.—*January 1888.*]

- Fig. 1. *MACROCHLAMYS INDICA*, Bs., nat. size. Calcutta. Showing position of the right shell-lobe in life, somewhat contracted.
2. Ditto, spirit-specimen : view of right side,  $\times 4$ , showing :—*r.s.l.*, right shell-lobe ; *r.d.l.*, *l.d.l.*, right dorsal lobe and left dorsal lobe.
3. Ditto, ditto : left side, with left shell-lobe (*l.s.l.*) and posterior termination of the left dorsal lobe (*l.d.l.*).
4. Ditto : sketch of end of the foot, from life, somewhat enlarged.
- 5, 5 *a.* Ditto, shell of,  $\times 2\cdot4$ .
6. Ditto : generative organs,  $\times 4$  : *h.d.*, hermaph. duct ; *Al.Gd.*, albumen-gland ; *o.v.*, oviduct ; *P.*, penis ; *c.r.P.*, cæcum of retractor muscle of the penis ; *c.d.*, cæcum calciferum, or kalk-sac ; *D*, the amatorial organ.
7. Ditto : jaw,  $\times 20$ .
- 8, 8 *a.*, 8 *b.* Portion of the radula,  $\times 360$  ; central, median, and lateral teeth.



4 enlarged.



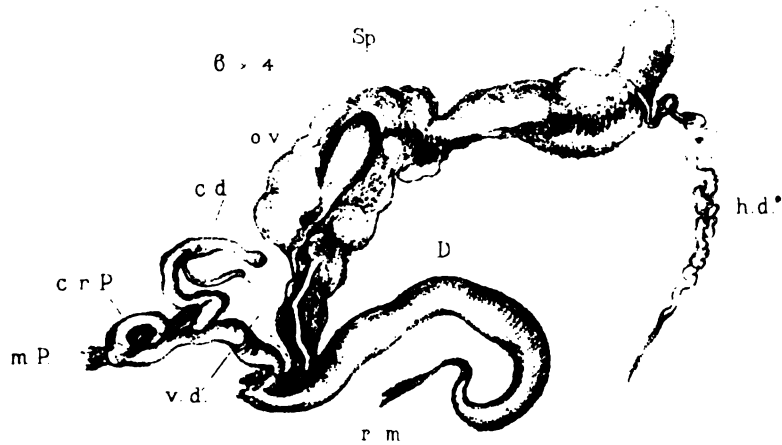
5 x 24



5a x 24



Al Gld



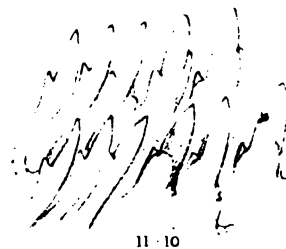
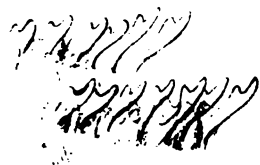
7 x 20



8a

8 x 360

8b



11 · 10



PLATE XIX.

[Part III.—*January* 1883.]

- Fig. 1, 1 *a*. **MACROCHLAMYS PETROSA**, Hutton. Bhangulpur.  
2. — **TUGURIUM**, Bs. Darjiling.  
3, 3 *a*. — **SIKRIGULLIENSIS?**, Nevill. Calcutta.  
4. — **PERPLANA**, Nevill. Parisnath.  
5. — **LECYTHIS**, Bs. ? Parisnath.  
6, 6 *a*. — **DECUSSATA**, Bs., *in coitu*, and to show the shell-lobes. Cherra Poonjee.  
7. — **HONESTA**, Gould: *r.s.l.*, *l.s.l.*, right and left shell-lobes; *r.d.l.*, *l.d.l.*,  
right and left dorsal lobes. Mulé-it range, Tenasserim.  
7 *a*. Ditto: extremity of foot, from spirit-specimen.  
7 *b*. Ditto: jaw, ditto.

These species will be described in detail in Part IV. Figures 1-5 are from drawings by a native artist, executed under the superintendence of Ferd. Stoliczka, and preserved in the Indian Museum Library, Calcutta.

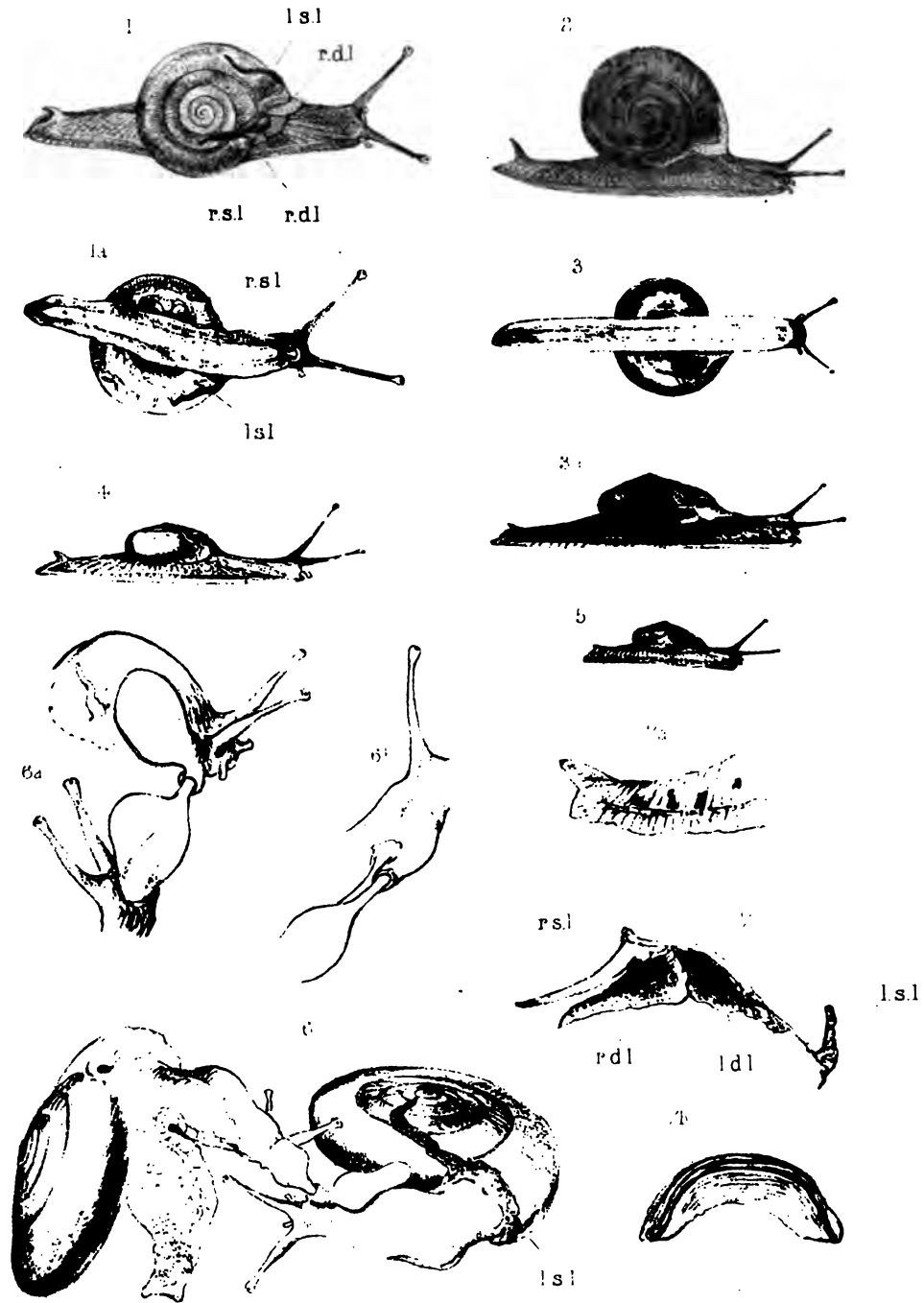




PLATE XX.

[Part III.—*January* 1883.]

- Fig. 1. *MACROCHLAMYS LONGICAUDA*, G.-A.: the extremity of foot, from spirit-specimen, × 12.
- 1 *a*. Ditto: the extremity of foot, showing the long lobe over the mucous gland.  
Drawn from life.
- 1 *b*. Ditto: the mantle, from spirit-specimen, × 12.
- 1 *c*. Ditto: jaw, × 20.
- 1 *d*. The odontophore, central and median teeth, × 720.
- 1 *e*. Outermost laterals, × 720.
2. *MACROCHLAMYS LAILANGKOTENSIS*, G.-A., jaw of, × 50.
- 2 *a*. Ditto: central and median teeth up to the 7th, and 8th, 9th, and 10th laterals;  
2 *b*, 11th, 12th, and 13th laterals; 2 *c*, the outermost laterals, × 720.
3. *MACROCHLAMYS TUGURIUM*, Benson, showing the shell- and mantle-lobes: lettering  
as above. *Res.or.*, respiratory orifice. In 3, 3 *a*, the *l.s.l.* would turn backwards  
over the edge of the shell.

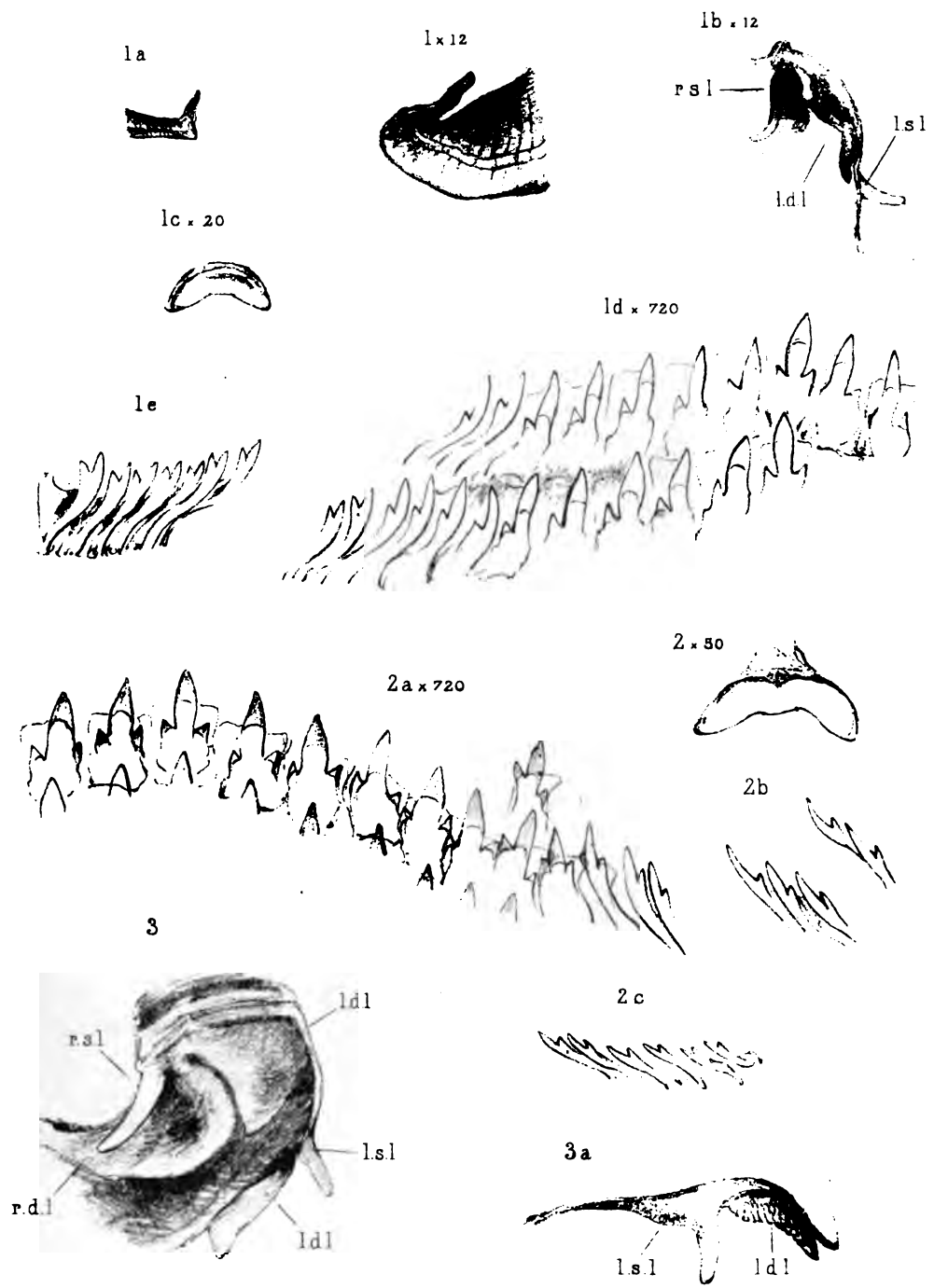


PLATE XXI.

[Part III.—*January* 1883.]

Sculpture of portion of last whorl near aperture,  $\times 50$ ; viewed from above, the aperture directed towards the bottom of the diagram.

- Fig. 1. *MACROCHLAMYS INDICA*, Bs. Calcutta.
2. — *PETROSA*, Hutton. Rajmahal.
  3. — *SPLENDENS*, Hutton. Mussoorie.
  4. —, near *LUBRICA*, Bs. Dafia Hills.
  5. —, species undetermined. Lhota Naga.
  6. — *DAFLAENSIS*, G.-A. Dafia Hills, Assam.
  7. — *CASTANEO-LABIATA*, G.-A. Naga Hills.
  8. — *MASURIENSIS*, G.-A. N.W. Himalaya.
  9. — *SYLHETENSIS*, G.-A. Chatak.
  10. — *HARDWICKII*, G.-A. Calcutta.
  11. *BENSONIA MONTICOLA*, Hutton, juv. Mussoorie.
  12. — ditto, = *LABIATA*, Pfr. Mussoorie.
  - 13, 13 a. *MACROCHLAMYS?* *PEDINA*, Benson: first and second whorls. Bombay.
  14. — *STAFFORDI*, G.-A.: ditto. Dafia Hills.
  15. — *DECUSSATA*, Bs. Khasi Hills.
  16. — *LONGICAUDA*, G.-A. Khasi Hills.
  17. — ? *TEXTRINA*, Bs. Pegu.

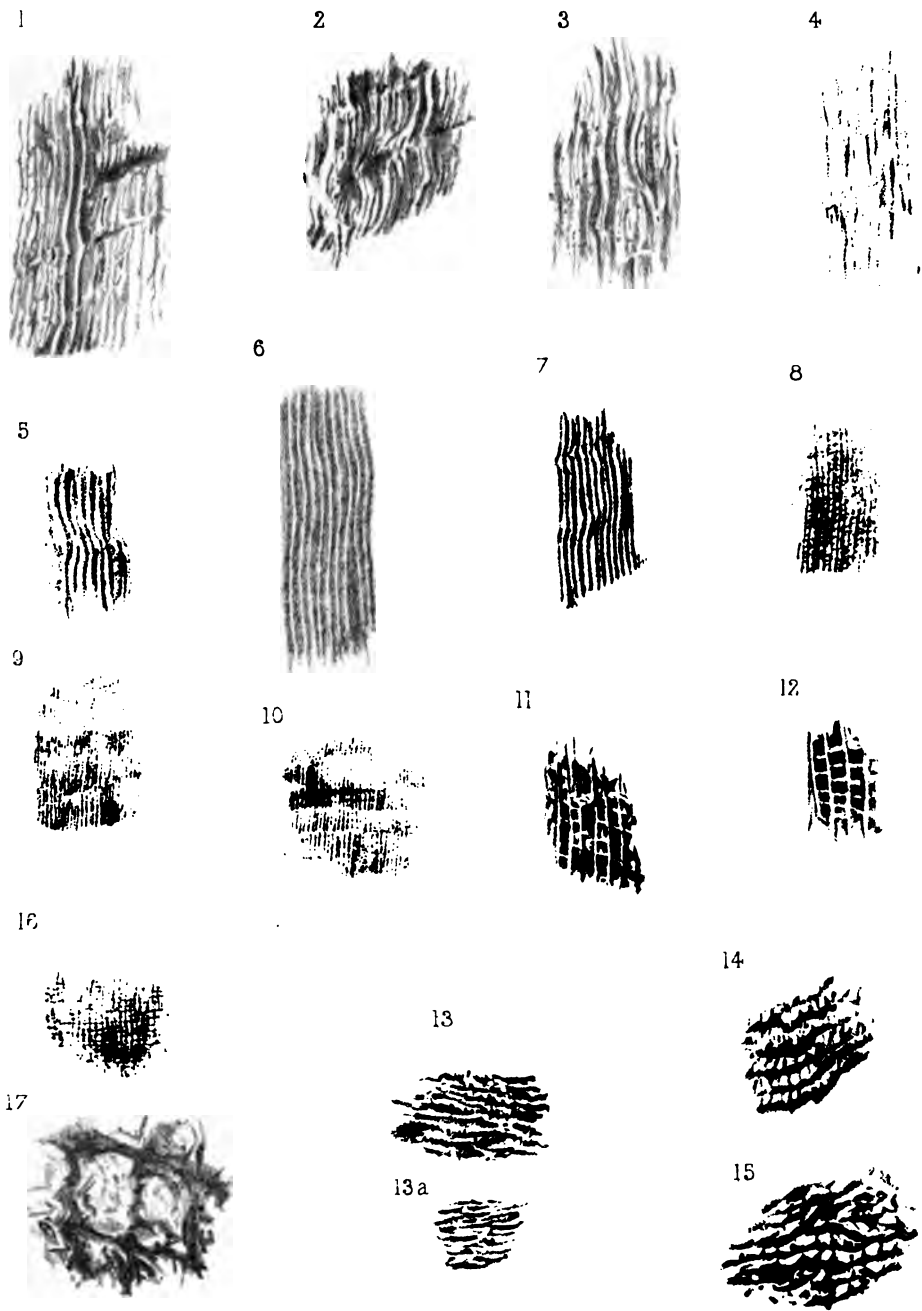
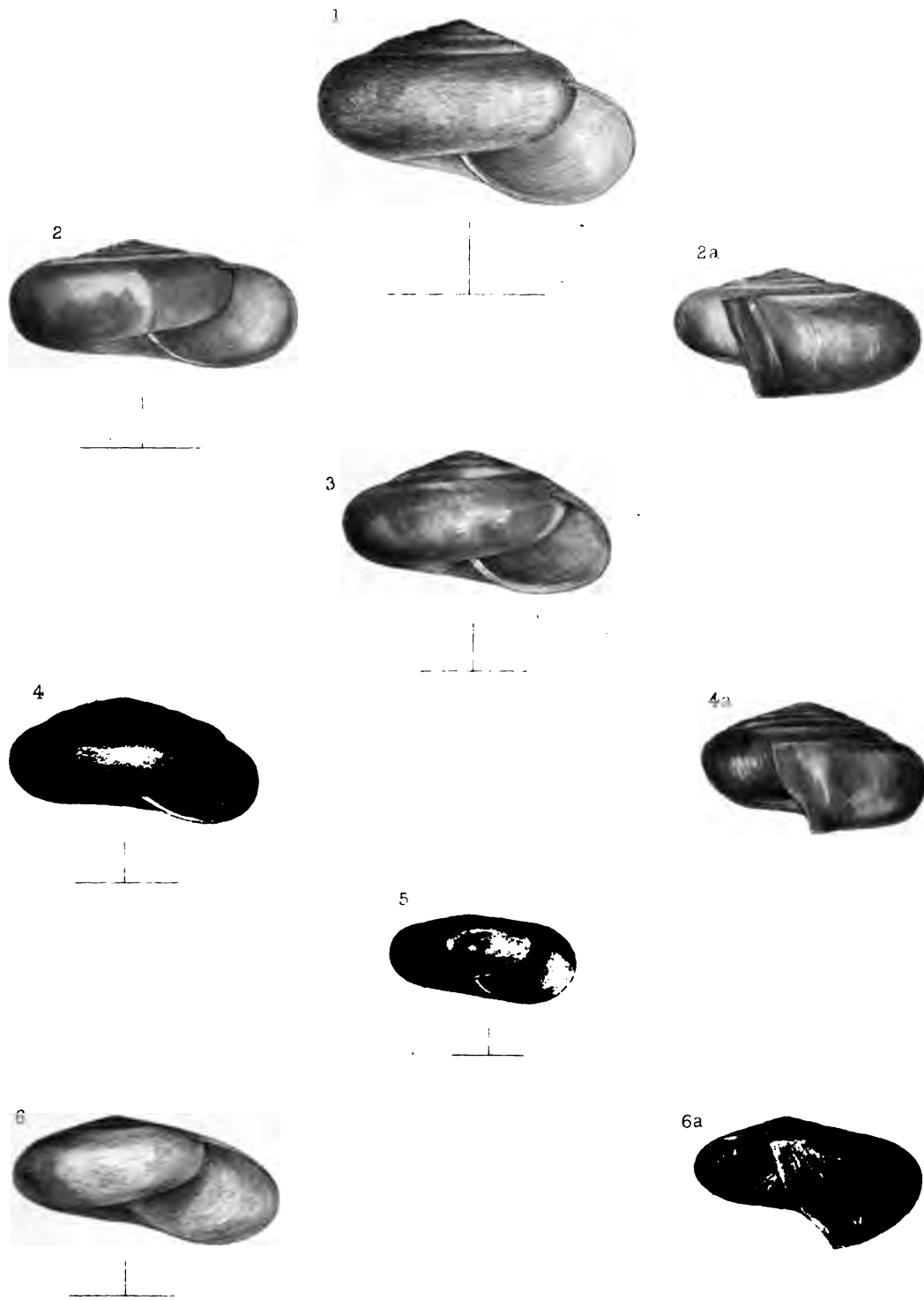


PLATE XXII.

[Part IV.—*September* 1883.]

- |                                              |                           |
|----------------------------------------------|---------------------------|
| Fig. 1. MACROCHLAMYS PETROSA, Hutton, × 2·4. | Rajmahal.                 |
| 2, 2 a. — PRONA, Nevill, × 2·4.              | Mussoorie, N.W. Himalaya. |
| 3. — EXUL, Theobald, × 2·4.                  | Andaman Islands.          |
| 4, 4 a. — SPLENDENS, Hutton, × 2·4.          | Mussoorie.                |
| 5. — SHENGOBENSIS, n. sp., × 2·4.            | Dafia Hills.              |
| 6, 6 a. — CHOINIX, Benson, × 2·4.            | Andamans.                 |



H H Godwin-Austen, del et lith

ZONITIDÆ

Macnure & Macdonald imp.

PLATE XXIII.

[Part IV.—*September* 1883.]

All enlarged 2·4.

- |                                                 |                   |
|-------------------------------------------------|-------------------|
| Fig. 1. <b>MACROCHLAMYS HARDWICKEI</b> , n. sp. | Calcutta.         |
| 2. Ditto.                                       | Sylhet.           |
| 3. Ditto, var. <b>POLITULUS</b> .               | Eastern Assam.    |
| 4. Ditto, var.                                  | Darrang.          |
| 5. <b>MACROCHLAMYS LHOTAENSIS</b> , n. sp.      | Lhota-Naga Hills. |
| 6, 6 a. — <b>OFIPARUS</b> , n. sp.              | Darjiling.        |

1, 2, 4



3



4



5



6



6a



2





PLATE XXIV.

[Part IV.—*September* 1883.]

All enlarged 2·4.

- |                                                                        |                                  |
|------------------------------------------------------------------------|----------------------------------|
| Fig. 1. <i>MACROCHLAMYS</i> <i>ATRICOLOR</i> , Godwin-Austen.          | North Cachar Hills.              |
| 2. Ditto, large var.                                                   | Munipur Hills.                   |
| 3. Ditto, small var.                                                   | Munipur Hills and Burreil range. |
| 4. Ditto, var.                                                         | Dafra Hills.                     |
| 5. Ditto, var.                                                         | Khakyen Hills, Upper Burmah.     |
| 6. <i>MACROCHLAMYS</i> <i>CACHARICA</i> , n. sp., var. <i>GLAUCA</i> . | Dafra Hills.                     |
| 7. — <i>LUBRICA</i> , Bs.                                              | Darjiling.                       |



H. G. Owen, A. Smith, del et lith.

ZONITIDÆ

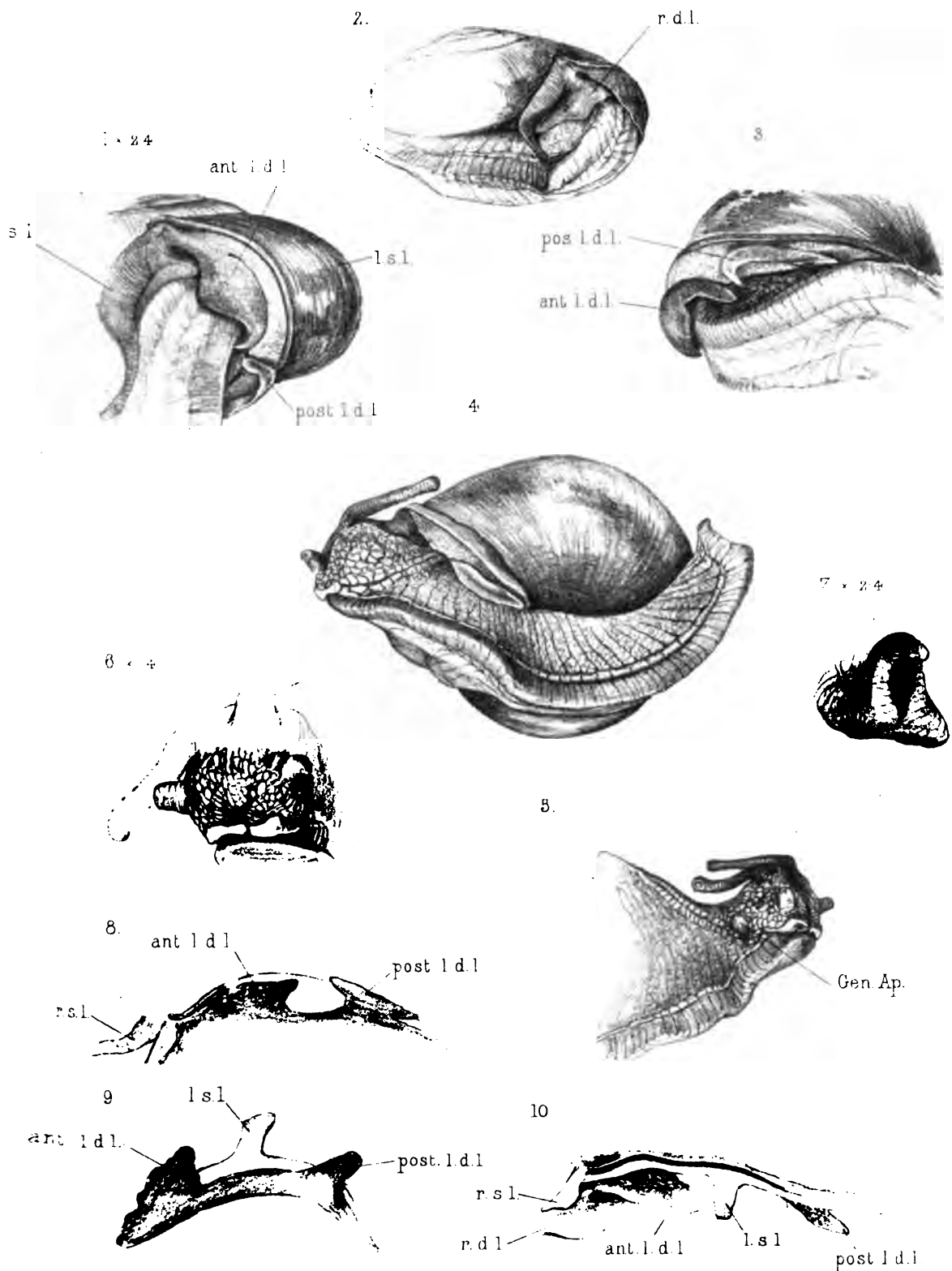
Maciure & Macdonald, imp

PLATE XXV.

[Part IV.—*September* 1883.]

MACROCHLAMYS ATRICOLOR, G.-A. Manipur Hills.

- Fig. 1. Animal, spirit-specimen, showing mantle and shell-lobes,  $\times 2.4$ .
2. Ditto, viewed from right side, showing position as regards the shell,  $\times 1.5$ .
  3. Ditto, mantle, viewed from left side,  $\times 2.4$ .
  4. Entire animal, left side,  $\times 2.4$ .
  5. Head, viewed from right side, showing position of generative aperture,  $\times 2.4$ .
  6. Head, front view, showing form of mouth,  $\times 4$ .
  7. Extremity of foot, viewed from behind,  $\times 7$ .
  8. Mantle, viewed from below or inside, showing the division into two lobes.
  9. Same view of mantle in *M. INDICA*, Bs. Calcutta.
  10. Mantle of *M. INDICA*, viewed from the outside, showing the additional shell-lobe.



W. A. P. Austen, del et lith

MACROCHLAMYS

MacLure & MacLure del.

PLATE XXVI.

[Part IV.—*September* 1883.]

All enlarged 2·4.

- |                                                          |             |
|----------------------------------------------------------|-------------|
| Fig. 1. MACROCHLAMYS? RESPLENDENS, Phil.                 | Tenasserim. |
| 2. Ditto.                                                | Cambodia.   |
| 3. Ditto.                                                | Siam.       |
| 4. MACROCHLAMYS? CONSEPTA, small var.                    | Tenasserim. |
| 5, 5 a. — KOLIAENSIS.                                    | Assam.      |
| 6. — POLITISSIMA, Pfr.                                   | Ceylon.     |
| 7. — JAINIANA, n. sp., G.-A.                             | Parisnath.  |
| 8. — JAINIANA, n. sp., = <i>stricklandi</i> , MS., G.-A. | Jeypur.     |

1224



H. H. Godwin-Austen, del et lith

ZONITIDÆ

Maclure & Macdonald, imp

PLATE XXVII.

[Part IV.—*September* 1883.]

(*Vide* shell of Plate XXIV. fig. 2.)

- Fig. 1 *a.* *MACROCHLAMYS ATRICOLOR*, G.-A., jaw, × 12. Manipur Hills.  
1 *b.* Ditto : teeth of radula, × 360.  
1 *c.* Ditto : salivary gland : *a*, intestine ; *c*, duct of gland.  
1 *d.* Ditto : generative organs, × 2·4.  
2. *MACROCHLAMYS CACHARICA*, n. sp., × 2·4. Manipur Hills.  
2 *a.* Ditto : jaw, × 12.  
2 *b.* Ditto : radula, × 360.  
2 *c.* Ditto : generative organs, × 4.  
3. *MACROCHLAMYS ATRICOLOR*, small var. Kopamedza Peak, Naga Hills.

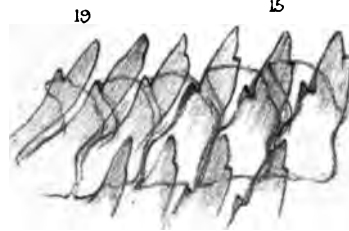
2 x 24



3 x 24



1 b x 360



1 b x 360



1 a x 12

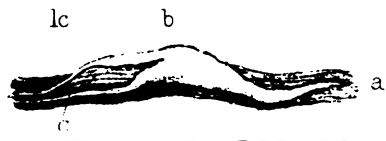
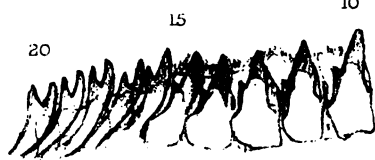


2 a x 12

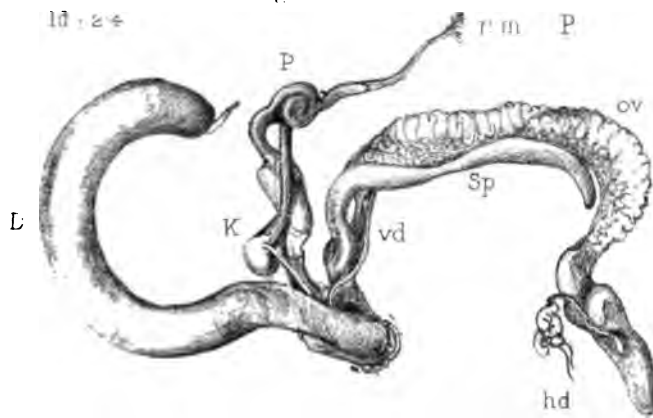


2 b x 360

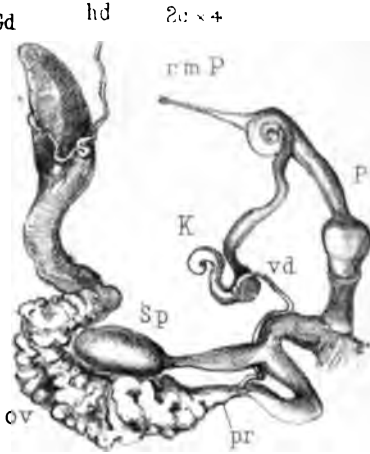
2 b x 360



1 d x 24



Ai Gd



Al Gd.

Godwin-Austen del et lith

MACROCHLAMYS

- 1 atricolor
- 2 cacharica

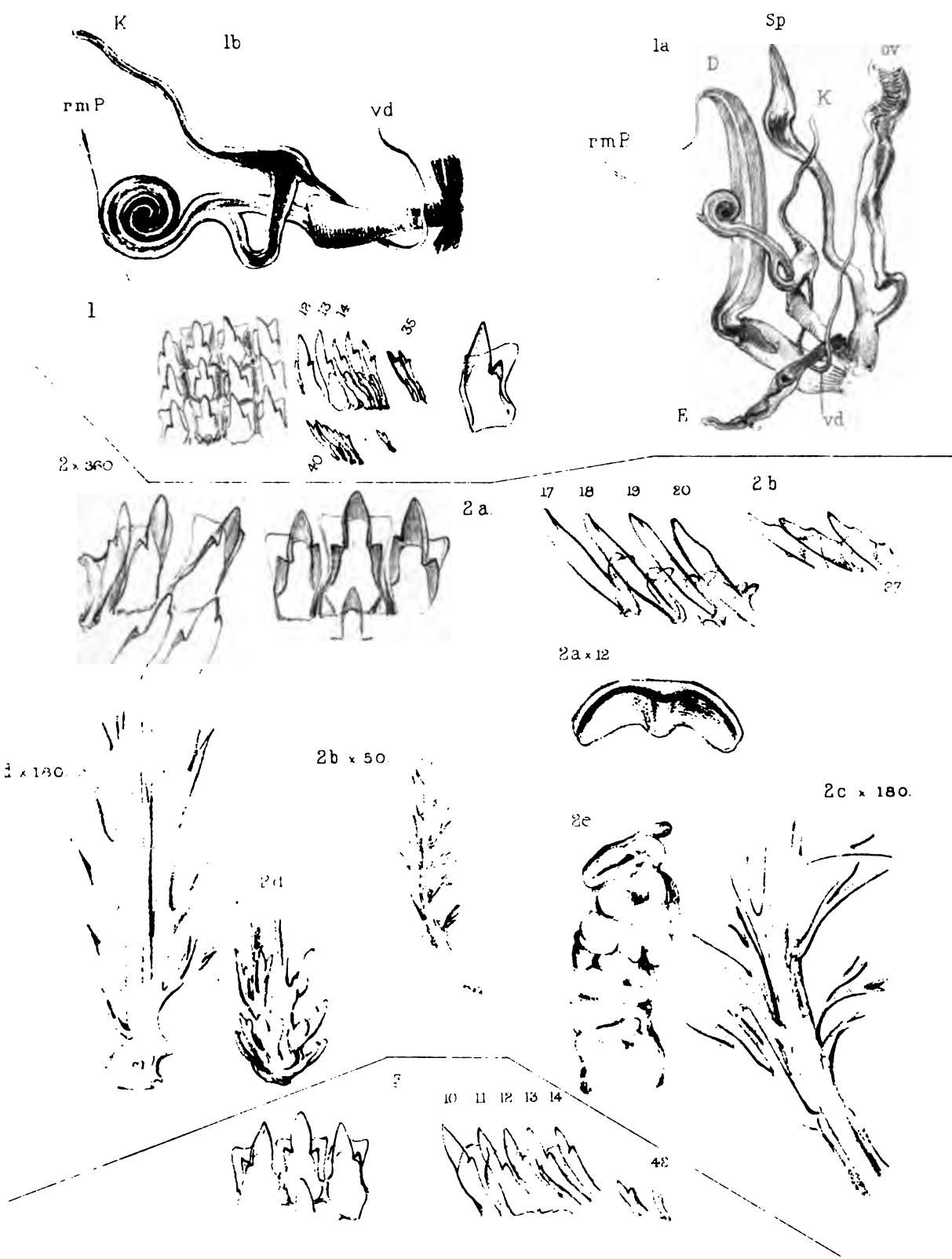
Machure & Macdonald imp



PLATE XXVIII.

[Part IV.—*September* 1883.]

- Fig. 1. *MACROCHLAMYS HARDWICKEI*, n. sp., portion of radula. Calcutta.
- 1 *a.* Ditto: generative organs, enlarged.
  - 1 *b.* Ditto: male organs, much enlarged.
  - 2. *MACROCHLAMYS JAINIANA*, n. sp. Parisnath. Portion of radula, median and lateral teeth,  $\times 360$ .
  - 2 *a.* Ditto: jaw,  $\times 12$ .
  - 2 *b.* Ditto: portions of spermatophore,  $\times 50$ .
  - 2 *c.* Ditto: ditto,  $\times 180$ .
  - 2 *d.* Ditto: ditto,  $\times 180$ .
  - 2 *e.* Ditto: spermatophore, posterior end of,  $\times 180$ .
  - 3. *MACROCHLAMYS KOLIAENSIS* (*vide* Plate XXVI. figs. 5, 5 *a*): portion of radula,  $\times 360$ .



1. *hardwicki* Austen del et lith

MACROCHLAMYS

- 1. *hardwicki*
- 2. *jainiana*

Maclure & Macdonald imp

PLATE XXIX.

[Part IV.—*September* 1883.]

Fig. 1, 1 *a*. *MACROCHLAMYS CASTANEO-LABIATA*, G.-A., × 2·4. Manipur Hills.

2. Ditto, × 2·4. Asalu.
3. Ditto, × 2·4. Rezameh, Naga Hills.
4. Ditto: mantle and lobes of No. 1, × 4.
5. Ditto: jaw, × 12.
6. Ditto: central portion of radula, × 180.
- 6 *a*. Ditto: an Asalu sp., × 340.
- 6 *b*. Ditto: median teeth 6 to 10, × 340.
- 6 *c*. Ditto: outermost laterals, × 340.
7. Ditto: generative organs of No. 1, × 4.

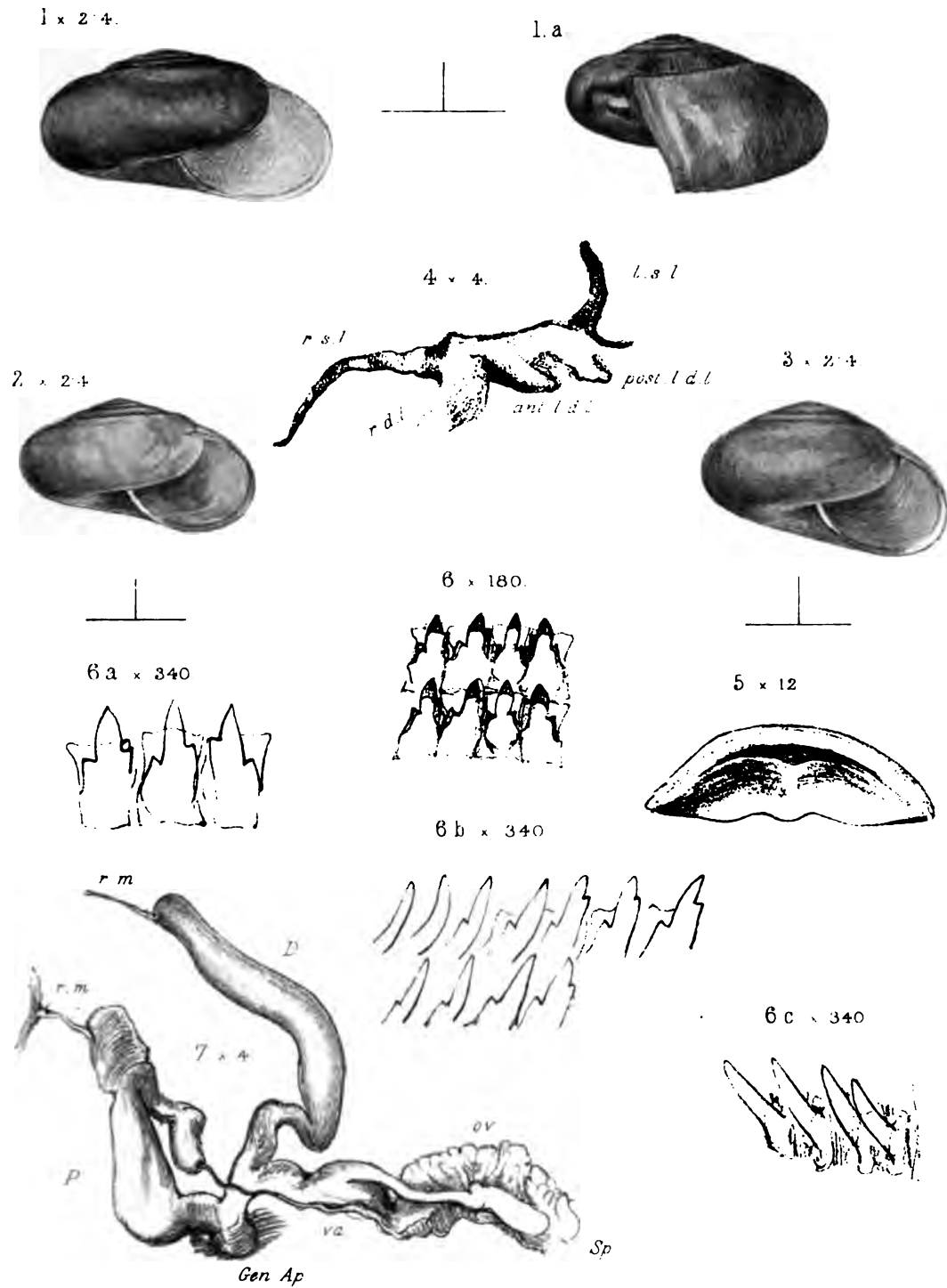


PLATE XXX.

[Part IV.—*September* 1883.]

- Fig. 1, 1 *a*. *OXYTES OXYTES*, Bs. Shell, natural size ; largest specimen from S.W. Khasi Hills.
- 2, 2 *a*. Ditto : usual size. Same locality.
3. Ditto : animal. Cachar. From original drawing (No. 36) by native artist in Library, Indian Museum, Calcutta.
- 3 *a*. Ditto : the mucous gland, viewed from above.
- 3 *b*. Ditto : tentacles.
4. *OXYTES OROBIA*, Bs., from Stoliczka's original drawing (No. 45) made by a native artist.

1 and 2 eye



3 a



3



4 a



4



3



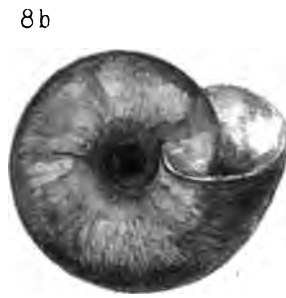
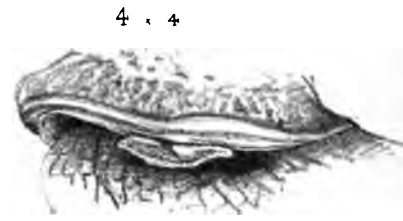
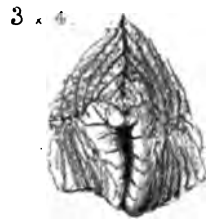
1 a



PLATE XXXI.

[Part IV.—*September* 1883.]

- Fig. 1. OXYTES CYCLOPLAX, Bs., nat. size, juv. W. Bhutan Hills.
2. Ditto : animal, shell removed, viewed from right side,  $\times 4$ .
  3. Ditto : extremity of foot, viewed from behind,  $\times 4$ .
  4. Ditto : mantle-edge, as seen from left side,  $\times 4$ .
  5. Ditto : jaw,  $\times 12$ .
  6. Ditto : radula, centre teeth of,  $\times 180$ .
  - 6 *a*. Ditto : last median and first lateral teeth,  $\times 180$ .
  - 6 *b*. Ditto : outermost laterals,  $\times 180$ .
  - 7 Ditto : generative organs,  $\times 4$ .
  - 8 8 *a*. 8 *b*. OXYTES CYCLOPLAX, Bs., adult shell, nat. size. Darjiling.



6a x 180.



6 x 180



5 x 12



6b x 180

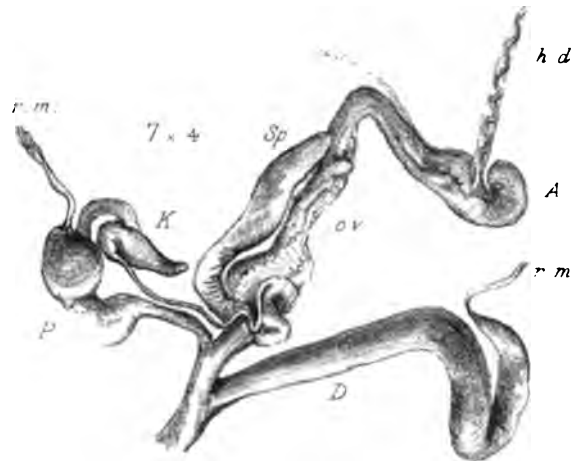
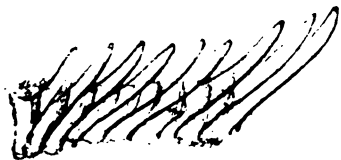




PLATE XXXII

[Part IV.—*September* 1883.]

Fig. 1. *Oxytes orobia*, Bs. Darjiling. Animal, from spirit-specimen, left side, with shell nearly all removed.

1 *a*. Ditto : right side and sole of foot.

1 *b*. Ditto : the left postdorsal lobe, enlarged.

2. Ditto : jaw.

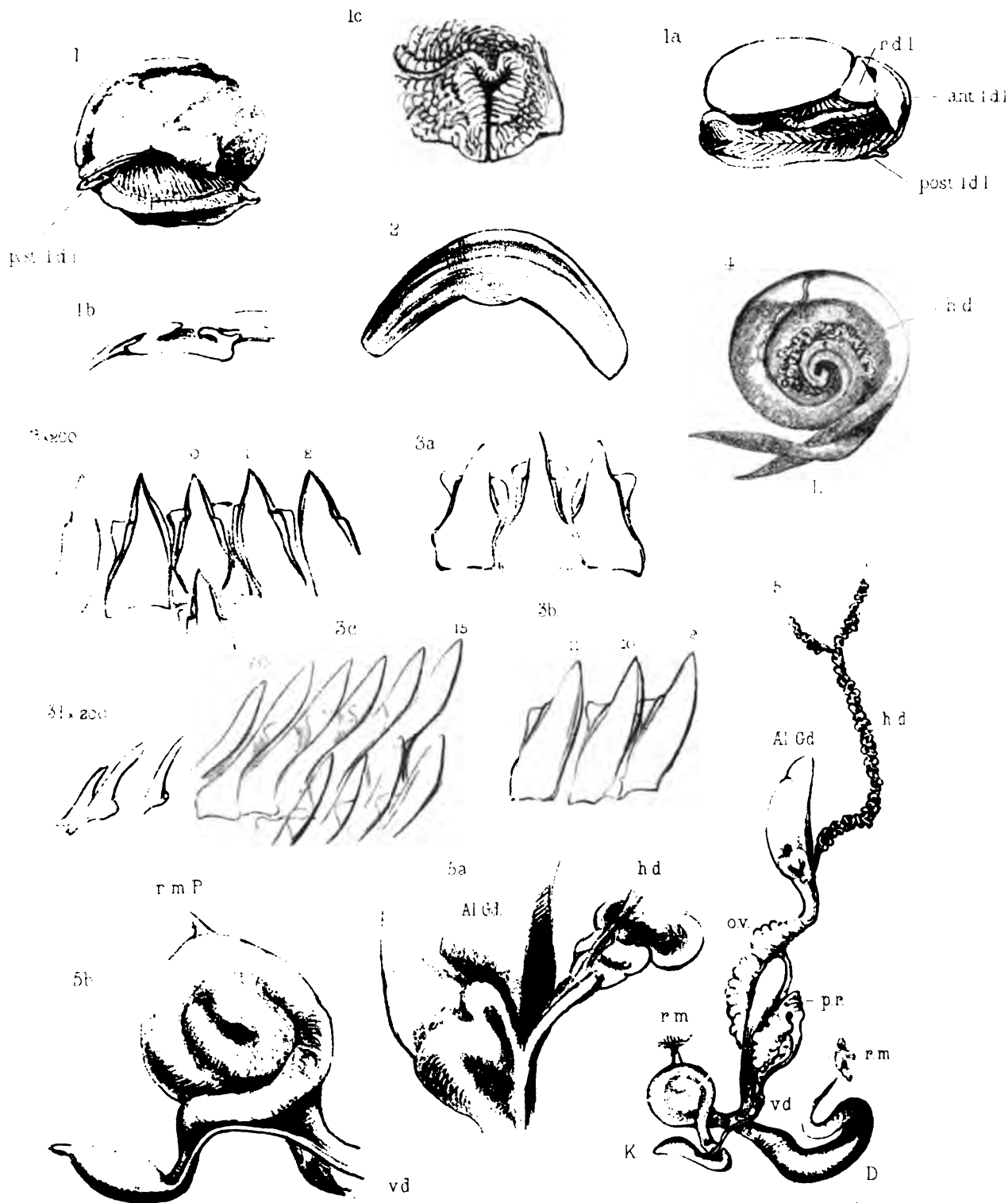
3. Radula, central portion,  $\times 200$  ; 3 *a*. Ditto, newer teeth ; 3 *b*. 9th, 10th, and 11th median ; 3 *c*. 15th to 20th lateral teeth ; 3 *d*. The outermost laterals.

4. Portion of animal in apex of shell, showing position of the hermaphrodite duct and liver-lobes.

5. Generative organs.

5 *a*. Junction of hermaphrodite duct with the albumen-gland, very much enlarged.

5 *b*. Portion of male organ, showing the calc-sac and coiled cæcum of the retractor muscle.



Austen del et lith

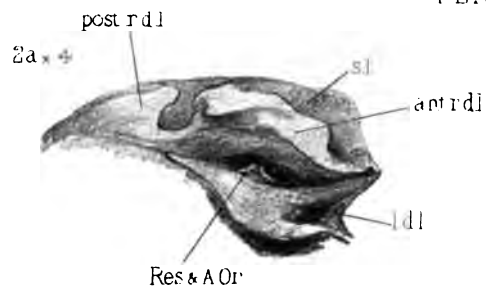
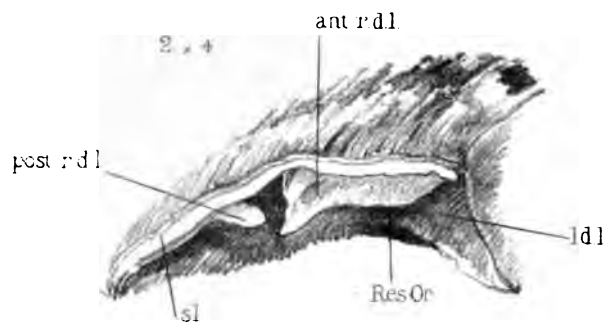
OXYTES. orobia.

MacIure & Macdonald imp

PLATE XXXIII.

[Part IV.—*September* 1883.]

- Fig. 1. *ARIOPHANTA IMMERITA*, W. Blf., nat. size. South India.
2. Ditto: mantle viewed from left side, shell removed,  $\times 4$ .
  - 2 *a*. Ditto: the same turned back.
  3. Ditto: side view of extremity of foot.
  - 3 *a*. Ditto: back view of same, showing mucous gland.
  4. Ditto: jaw,  $\times 7$ .
  5. Ditto: teeth of radula, central portion,  $\times 340$ .
  - 5 *a*. Ditto: 20th to 24th median, 25th and 26th intermediate.
  - 5 *b*. Ditto: outermost laterals.
  6. Ditto: generative organs,  $\times 2\cdot4$ .
  - 6 *a*. Ditto: male organ,  $\times 4$ .
  - 7, 7 *a*. *ARIOPHANTA LÆVIPES*, Müll., nat. size. Bombay.



1 nat size



7 nat size



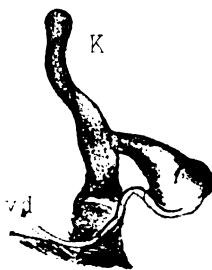
7a



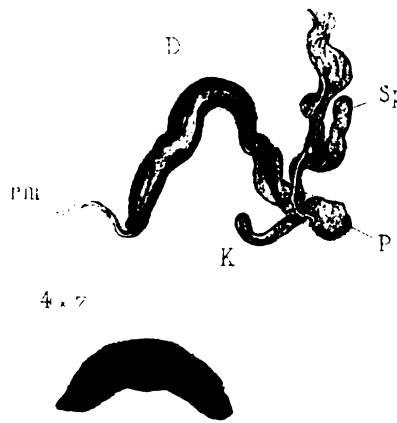
5 x 340



6a x 4



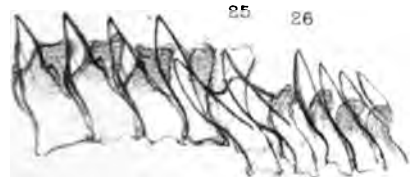
6



4 x 7



20



5b

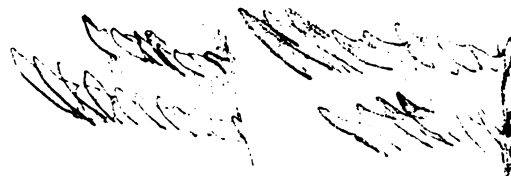


PLATE XXXIV.

[Part IV.—*September* 1883.]

Fig. 1. ARIOPHANTA LÆVIPES, Müller.

1 *a.* Ditto : extremity of foot, from above.

2, 2 *a.* ARIOPHANTA INTERRUPTA.

3. — LAIDLAYANA, Pfr.

The above are copied from drawings by a native artist.

4. ARIOPHANTA? RETRORSA, Gould, nat. size. Tenasserim.

5. Ditto : sculpture of last whorl, × 12.

6. ARIOPHANTA INTERRUPTA : sculpture of last whorl, × 12.

7. — RETRORSA : jaw.

8. Ditto : central and three median teeth of radula.

8 *a.* Ditto : 8th, 9th, and 10th median, 11th transition, and first laterals.



5 x 12



2 a



4 nat size



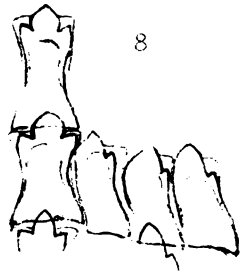
6 x 12



3



8



8 a



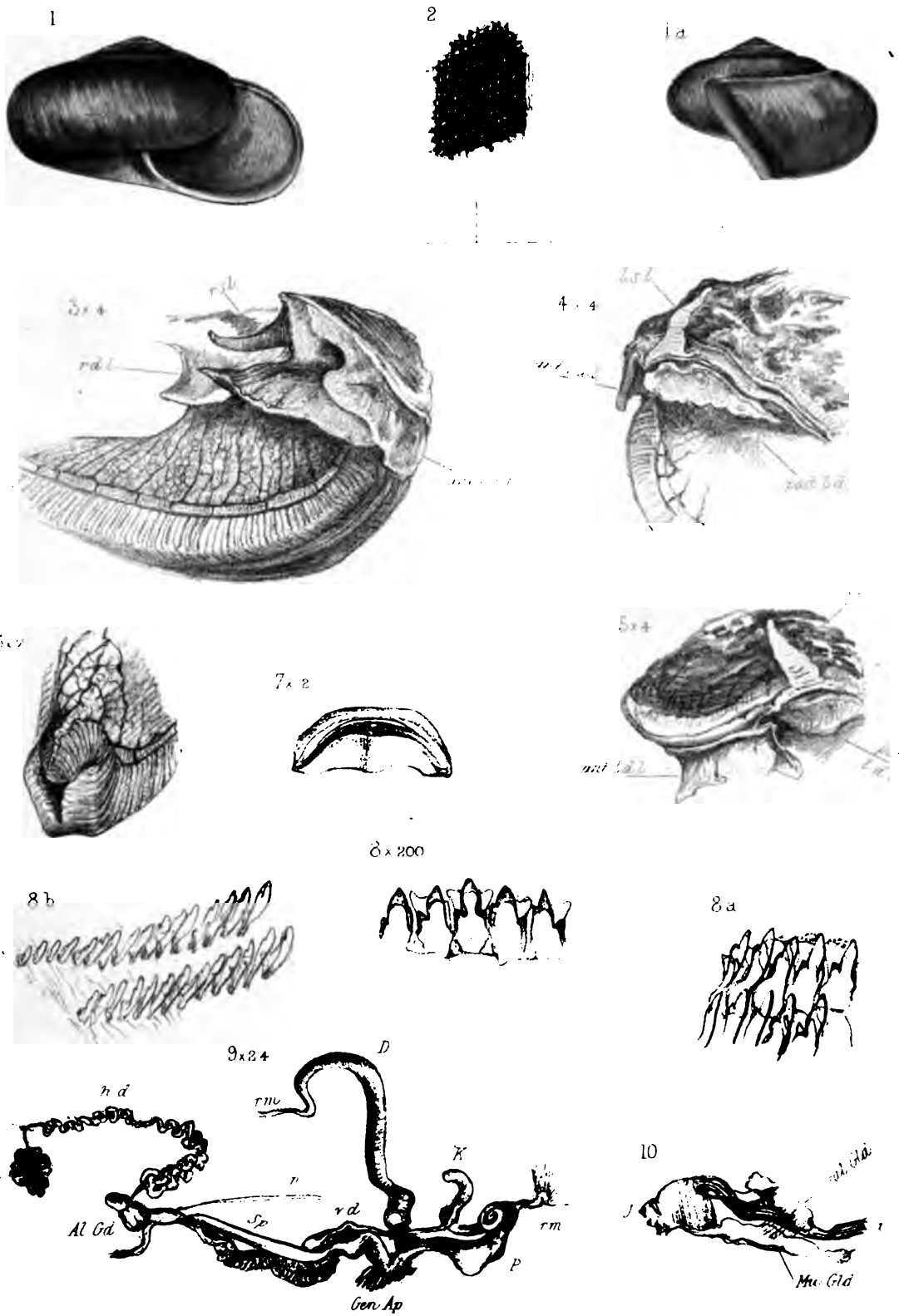
7



PLATE XXXV.

[Part IV.—*September* 1883.]

- Fig. 1, 1 *a*. *MACROCHLAMYS DALINGENSIS*, G.-A., × 2·4. W. Bhutan Hills.
2. Ditto: sculpture on last whorl, × 50.
  3. Ditto: animal, right side, showing mantle and shell-lobes, × 4.
  4. Ditto: ditto, left side, ditto, × 4.
  5. Ditto: ditto, front view, × 4.
  6. Ditto: extremity of foot, showing mucous gland, × 7.
  7. Ditto: jaw, × 12.
  8. Ditto: odontophore, central teeth, × 200.
  - 8 *a*. Ditto: ditto, × 200.
  - 8 *b*. Ditto: ditto, last laterals, × 200.
  9. Generative organs, × 2·4.
  10. Buccal mass, mucous and salivary glands, × 2·4.



H.H Godwin Austen, del et lith.

MACROCHLAMYS

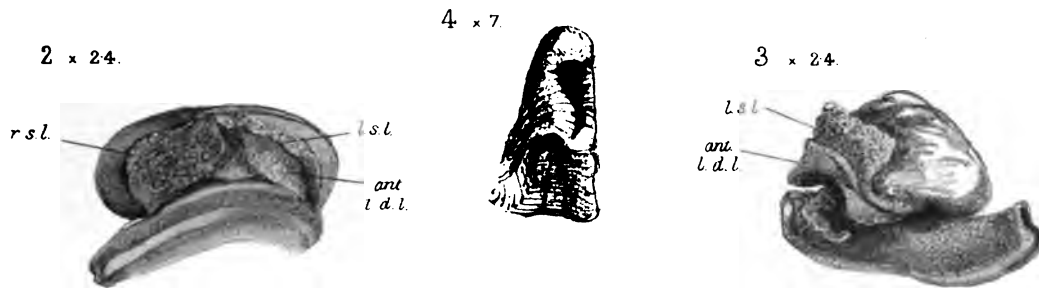
Maclure & Macdonald, imp.



PLATE XXXVI.

[Part IV.—*September* 1883.]

- Fig. 1. *AUSTENIA PLANOSPIRA*, Bs. Darjiling. From a drawing by a native artist.
2. Ditto: from a spirit-specimen, right side,  $\times 2\cdot4$ .
  3. Ditto: ditto, left side,  $\times 2\cdot4$ .
  4. Ditto: the mucous gland, viewed from behind,  $\times 7$ .
  5. Ditto: shell, nat. size.
  - 5 *a*, 5 *b*, 5 *c*, 5 *d*. Ditto: shell,  $\times 2\cdot4$ .
  6. *AUSTENIA BENSONI*, Pfr., nat. size. Calcutta. From a drawing by a native artist.
  - 7, 7 *a*, 7 *b*. Ditto: shell,  $\times 2\cdot4$ . Jessore District.



1. nat. size.



5 a. x 24.



5 d.



5. nat. size



5 b.



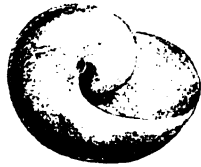
5 c.



7 x 24.



7 b.



7 a.



6. nat. size.



PLATE XXXVII.

[Part IV.—*September* 1883.]

- |                                                                |               |
|----------------------------------------------------------------|---------------|
| Fig. 1, 1 <i>a</i> , 1 <i>b</i> . AUSTENIA SALIUS, Bs., × 2·4. | Teria Ghat.   |
| 2, 2 <i>a</i> , 2 <i>b</i> . — SALIUS, Bs., var., × 2·4.       | Darjiling.    |
| 3, 3 <i>a</i> , 3 <i>b</i> . — PANCHETENSIS, × 2·4.            | Lower Bengal. |
| 4, 4 <i>a</i> , 4 <i>b</i> . — PAPILLASPIRA, G.-A., × 2·4.     | N.W. Khasi.   |
| 5, 5 <i>a</i> , 5 <i>b</i> . — GLOBOSA, × 2·4.                 | Dafia.        |

1 x 24.



1 a.



1 b.



2 x 24.



2 a.



2 b.



3 x 24.



3 a.



3 b.



4 x 24.



4 a.



4 b.



5 x 24.



5 a.



5 b.



PLATE XXXVIII.

[Part IV.—*September* 1883.]

AUSTENIA PLANOSPIRA, Benson. W. Bhutan Hills.

Fig. 1. Generative organs,  $\times 4$ .

1 *a*. Amatorial organ,  $\times 7$ .

1 *b*. Buccal mass and gland, salivary gland, &c.,  $\times 4$ .

AUSTENIA BENSONI, Pfr. Calcutta.

2. Radula, median and laterals,  $\times 340$ .

AUSTENIA BENSONI, var. SYLHETENSIS. Sylhet.

3. Shell,  $\times 2\cdot4$ .

3 *a*. Extremity of foot and mode of carrying it (enlarged).

3 *b*. Mantle-edge removed,  $\times 4$ .

3 *c*. Radula,  $\times 340$ .

4, 4 *a*. SITALA CRENICINCTA: radula,  $\times 1250$ .

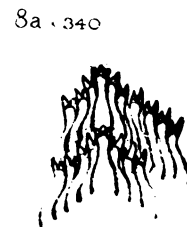
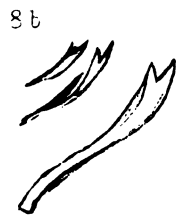
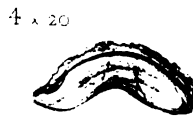
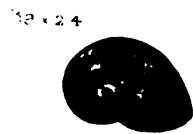
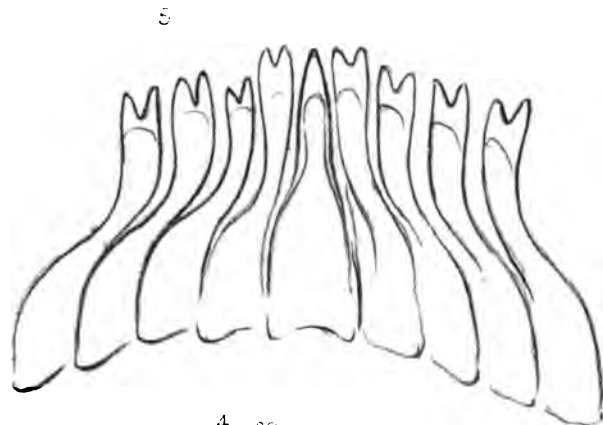
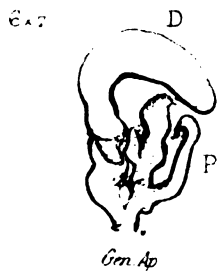
5. KALIELLA BARRAKPOBENSIS: generative organs,  $\times 12$ .

6. To illustrate the dimensions as given in this work.

PLATE XXXIX.

[Part IV.—*September* 1883.]

- Fig. 1. DURGELLA MINUTA, G.-A. : from life, nat. size. Dafa Hills.
2. Ditto : view of right side, showing the shell-lobes,  $\times 4$ .
  - 2 a. Ditto : left side, ditto,  $\times 4$ .
  3. Ditto : shell,  $\times 4$ .
  - 3 a. Ditto : ditto,  $\times 2\cdot4$ .
  4. Ditto : jaw,  $\times 20$ .
  5. Ditto : central tooth of radula and adjacent teeth,  $\times$  about 1250.
  - 5 a. Ditto : laterals near margin.
  6. Generative organs,  $\times 7$ .
  - 7, 7 a. DURGELLA KHASIANA, G.-A., from life, nat. size. West Khasi Hills.
  - 7 b. Ditto,  $\times 2\cdot4$ .
  8. Ditto : central teeth of radula, very much enlarged.
  - 8 a. Ditto : ditto, two rows,  $\times 340$ .
  - 8 b. Ditto : the outermost laterals, very much enlarged.



*Planorbis* *Planorbis* *Planorbis*

*Planorbis*

*Planorbis* *Planorbis* *Planorbis*

PLATE XL.

[Part IV.—*September* 1883.]

Fig. 1. *MACROCHLAMYS KALA*, G.-A.: shell, × 4. Western Bhutan Hills.

1 *a*. Ditto: ditto, × 2·4.

1 *b*. Ditto: ditto, nat. size.

2. Ditto: animal, viewed from right side, shell removed, showing shell and dorsal lobes, × 4.

3. Ditto: ditto, viewed from left side, × 4.

4. Ditto: shell and dorsal lobes removed, × 7.

5. Ditto: generative organs, × 4.

6. Ditto: male organ: *sp*, the spermatophore developing, × 7.

7. Ditto: spermatheca, × 12: *sp*, a spermatophore within it.

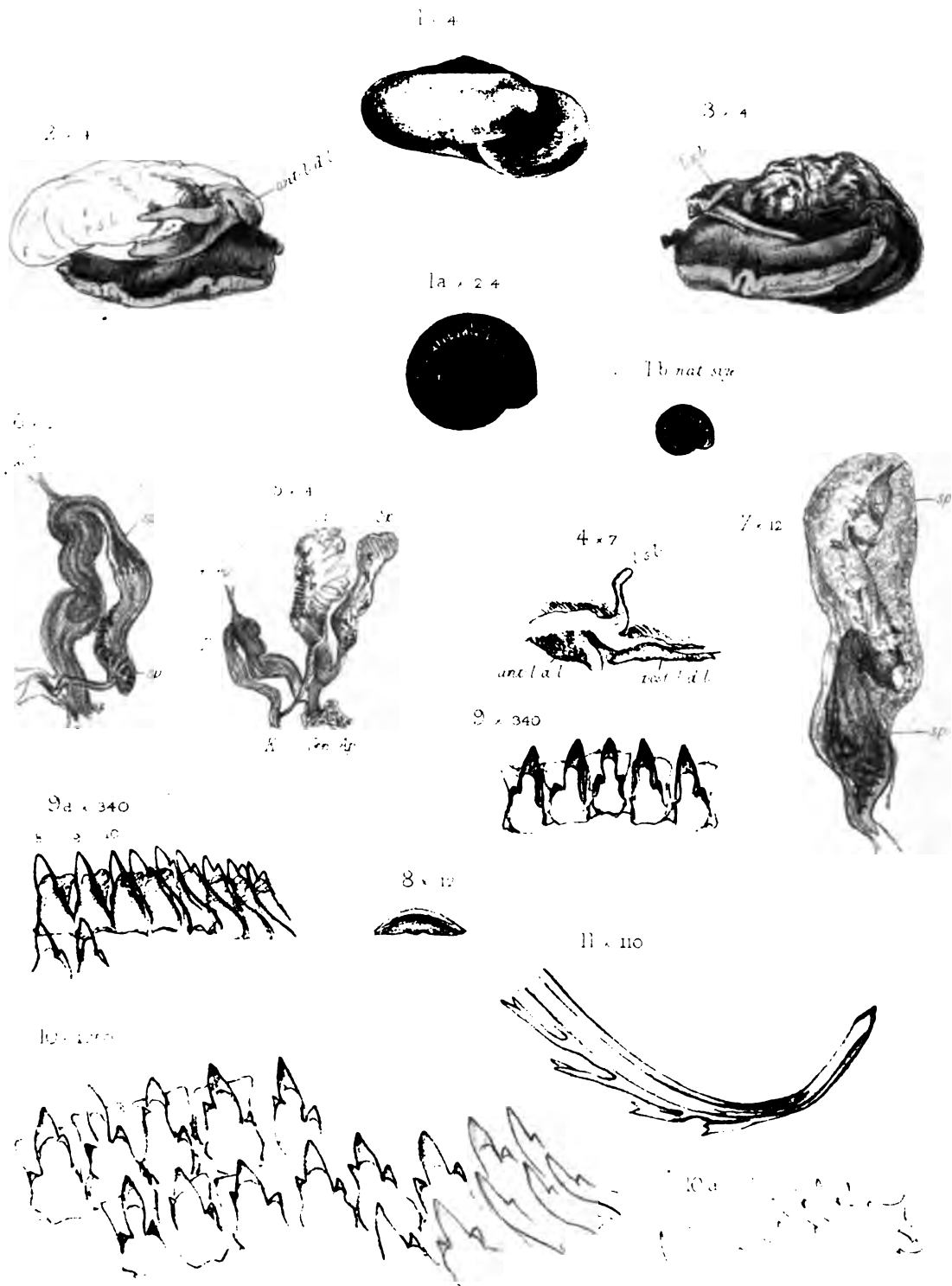
8. Ditto: jaw, × 12.

9, 9 *a*. Teeth of radula, × 340.

10, 10 *a*. *MACROCHLAMYS KAZAMAENSIS*, G.-A. (Plate XV. figs. 3, 3 *a*): portion of the radula, × 1250.

11. Ditto: a portion of spermatophore, × 110.





Forster-Auster. del et lith

MACROCHLAMYS

Maclure & Macdonald. imp.

PLATE XLI.

[Part IV.—*September* 1883.]

- Fig. 1, 1 *a*. *HELICARION HELENÆ*, n. sp. Sydney. From a drawing by Mrs. H. Forde.
2. View of right side of a spirit-specimen, shell removed, showing mantle and lobes,  
× 4.
  3. View of left side, ditto.
  4. View from behind.
  5. Shell, × 4.
  6. Jaw, × 12.
  - 7, 7 *a*, 7 *b*. Portions of a row of the radula, × 340.
  8. Generative organs, × 4.
  - 8 *a*. Male organ, × 12.
  9. *HELICARION CUVIERI*: generative organs, after Professor Semper.
  10. Ditto: teeth of radula, central, Nos. 1, 5, 14, 17, and 20, × 260.

PLATE XIII.

[Part IV.—*September* 1883.]

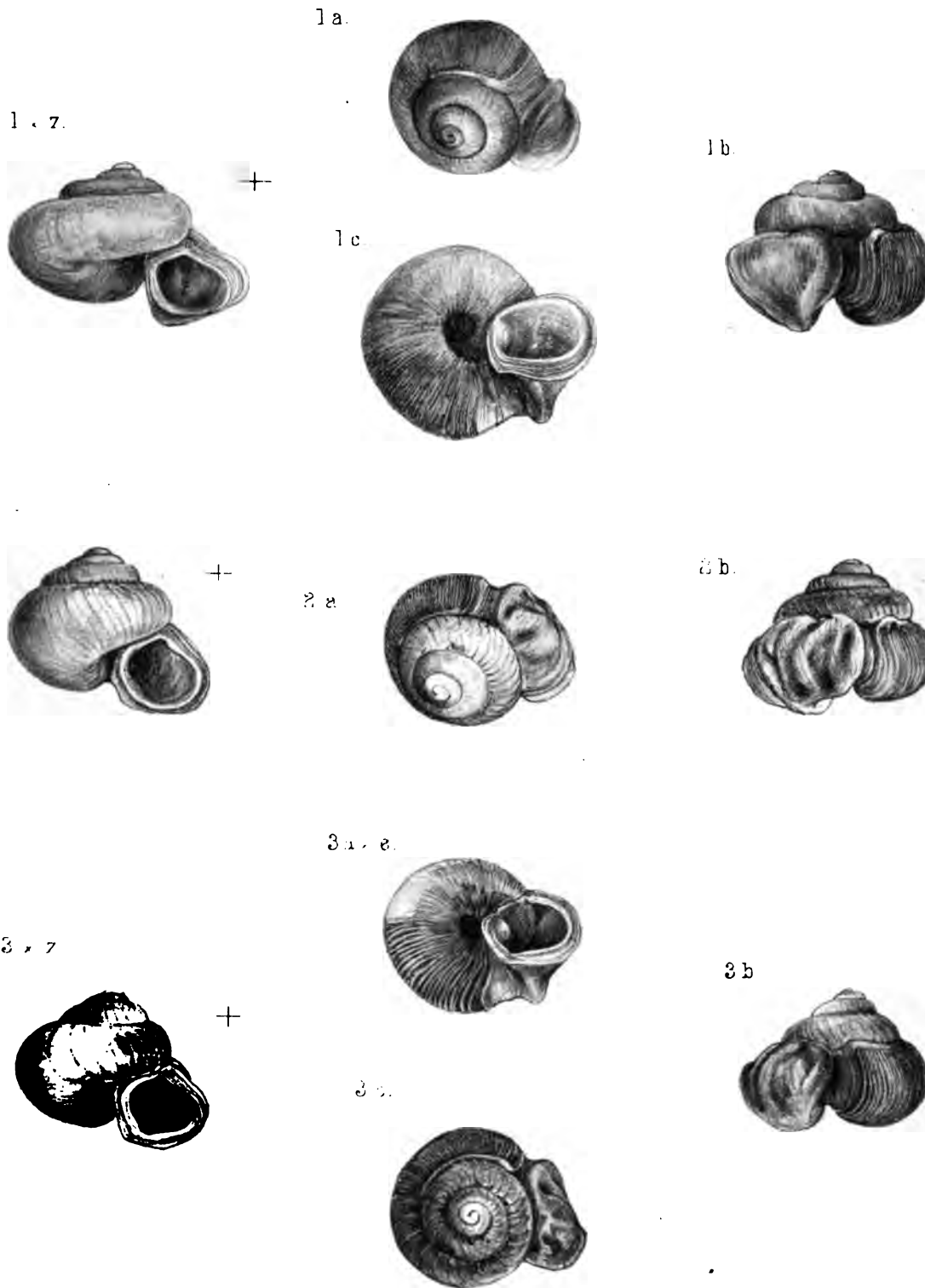
VITRINA RUPPELLIANA, Pfr. Abyssinia.

- Fig. 1. Animal: right side,  $\times 2\cdot4$ .  
2. Ditto: left side,  $\times 2\cdot4$ .  
3. Ditto: from behind,  $\times 2\cdot4$ .  
4. Generative organs,  $\times 4$ .  
5. Buccal mass, salivary gland, &c.,  $\times 4$ .  
6, 6 *a*, 6 *b*. Radula,  $\times 340$ .  
7. Jaw,  $\times 12$ .

PLATE XLIII.

[Part V.—*June* 1884.]

Fig. 1, 1 <i>a</i> , 1 <i>b</i> , 1 <i>c</i> .	ALYCÆUS HEBES, Benson, × 7.	Khasi Hills.
2, 2 <i>a</i> , 2 <i>b</i> .	— NOTATUS, G.-A., × 7.	Dafia Hills.
3, 3 <i>a</i> , 3 <i>b</i> , 3 <i>c</i> .	— DAMSANGENSIS, G.-A., × 7.	Western Bhutan Hills.



H. H. Godwin-Austen, del et lith.

ALYCÆUS.

Maclure & Macdonald imp.

PLATE XLIV.

[Part V.—*June* 1884.]

Fig. 1, 1 *a*, 1 *b*, 1 *c*. ALYCÆUS INGRAMI, W. T. Blf., × 2·4.

2, 2 *a*, 2 *b*, 2 *c*. — UMBONALIS, Bs., × 2·4.

3, 3 *a*, 3 *b*, 3 *c*. — NAGAENSIS, G.-A., × 2·4.

Tongoop, Arakan.

Kyouk-toung, Pegu.

Asalu, North Cachar Hills.

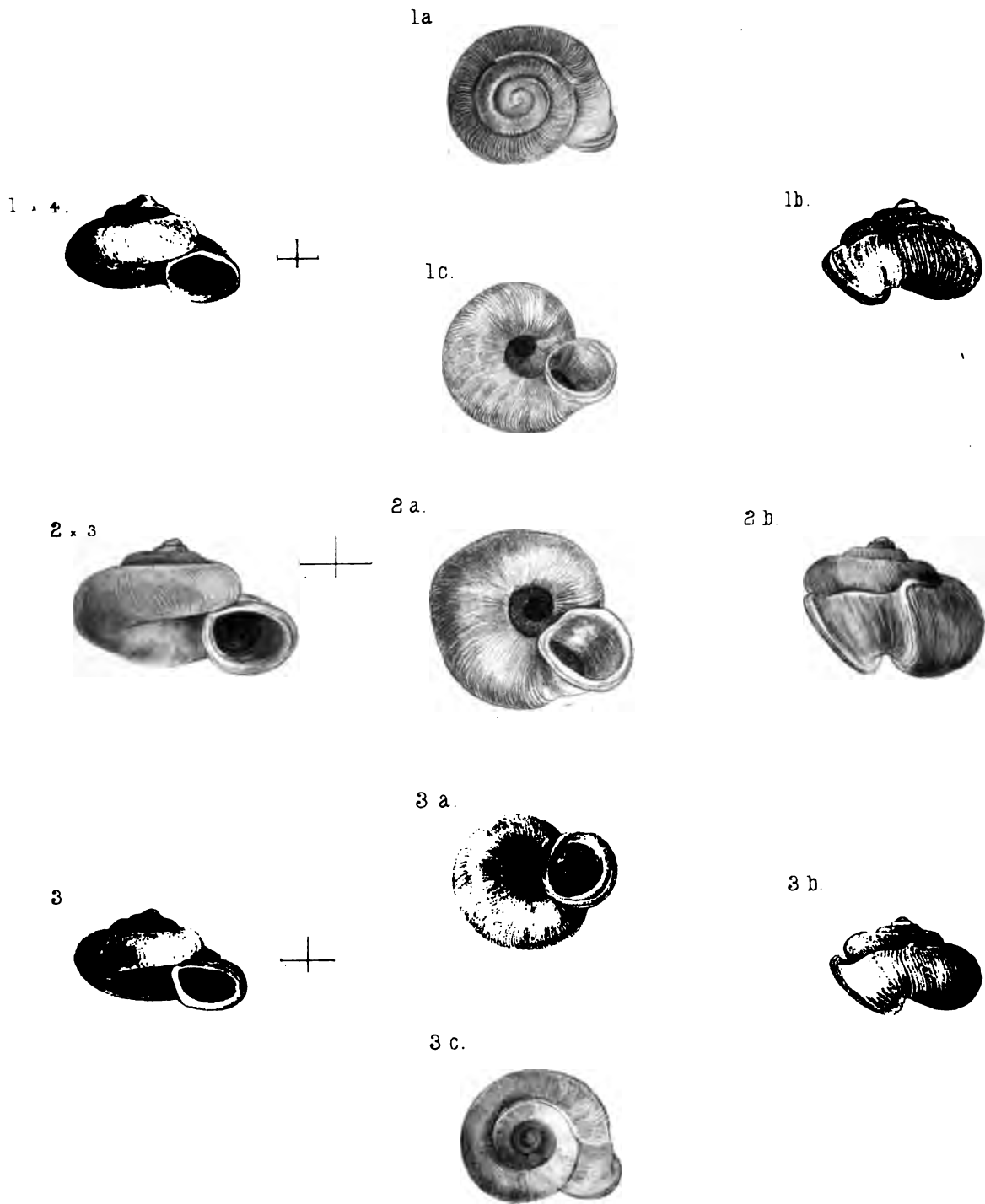


PLATE XLV.

[Part V.—*June* 1884.]

- |                      |                                         |                  |
|----------------------|-----------------------------------------|------------------|
| Fig. 1, 1 <i>a</i> . | DIPLOMMATINA POLYPLEURIS, Bs., × 12.    | Khasi Hills.     |
| 2, 2 <i>a</i> .      | — AUSTENI, W. Blf., × 12.               | N. Khasi Hills.  |
| 3, 3 <i>a</i> .      | — SILVICOLA, G.-A., × 12.               | N. Cachar Hills. |
| 4, 4 <i>a</i> .      | — DAFLAENSIS, G.-A., × 7.               | Daffa Hills.     |
| 5, 5 <i>a</i> .      | — SILVICOLA, small var., × 12.          | N. Cachar Hills. |
| 6, 6 <i>a</i> .      | — SALTUENSE, G.-A., × 12.               | N. Cachar Hills. |
| 7, 7 <i>a</i> .      | — HUTTONI, Bs., × 12.                   | N.W. Himalaya.   |
| 7 <i>b</i> .         | Apex of ditto, × 20.                    |                  |
| 8, 8 <i>a</i> .      | DIPLOMMATINA OCCIDENTALIS, G.-A., × 12. | Trinidad.        |
| 8 <i>b</i> .         | Apex of ditto, × 20.                    | West Indies.     |



1 x 12



1 a.



2 x 18



2 a.



3 x 18



3 a.



4 x 7.



4 a.



5 x 12.



5 a.



6 x 12.



6 a.



7 x 12



7 a.



8 b. x 20.



7 b. x 20.



8 x 12.



8 a.

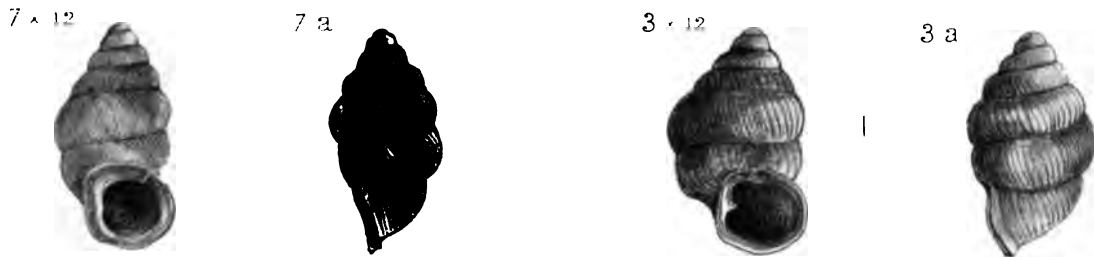
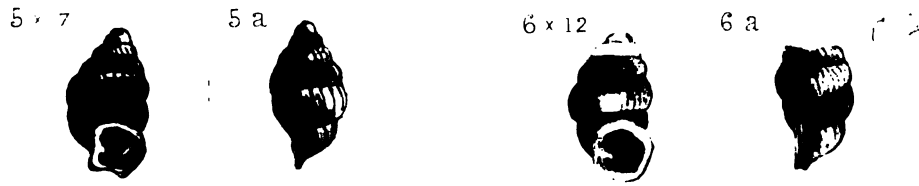
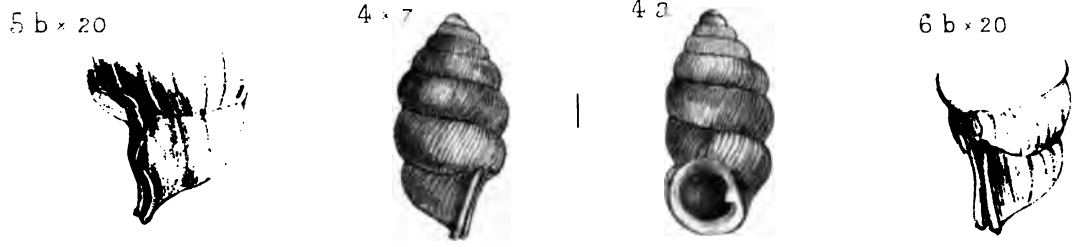
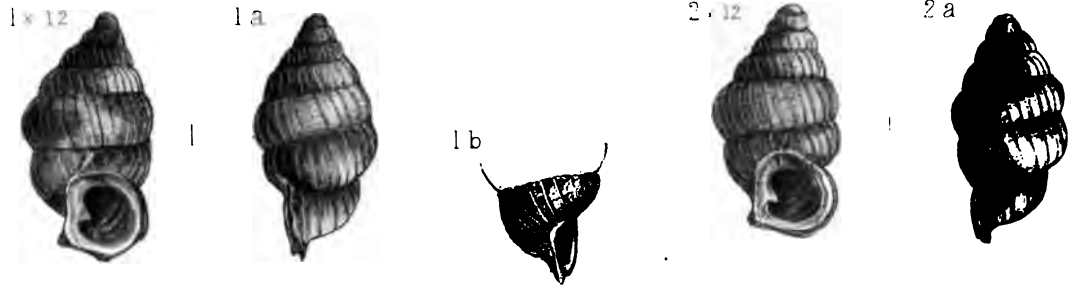


PLATE XLVI.

[Part V.—*June* 1884.]

Fig. 1, 1 <i>a</i> , 1 <i>b</i> .	DIPLOMMATINA GRACILIS, Bedd., × 12,	Vizagapatam, Madras.
2, 2 <i>a</i> .	— GRACILIS, var., × 12.	Vizagapatam, Madras.
3, 3 <i>a</i> .	— CANARICA, Bedd., × 12.	North Canara.
4, 4 <i>a</i> .	— PUPÆFORMIS, Theob., × 7.	Shan States, Burmah.
5, 5 <i>a</i> .	— SPERATA, W. T. Blf., × 7.	Arakan.
6, 6 <i>a</i> .	— HENZADAENSIS, G.-A., × 12.	Pegu.
7, 7 <i>a</i> .	— NICOBARICA, G.-A., × 12.	Nicobar Islands.

PLATE XLVI



Godwin-Austen del et lith

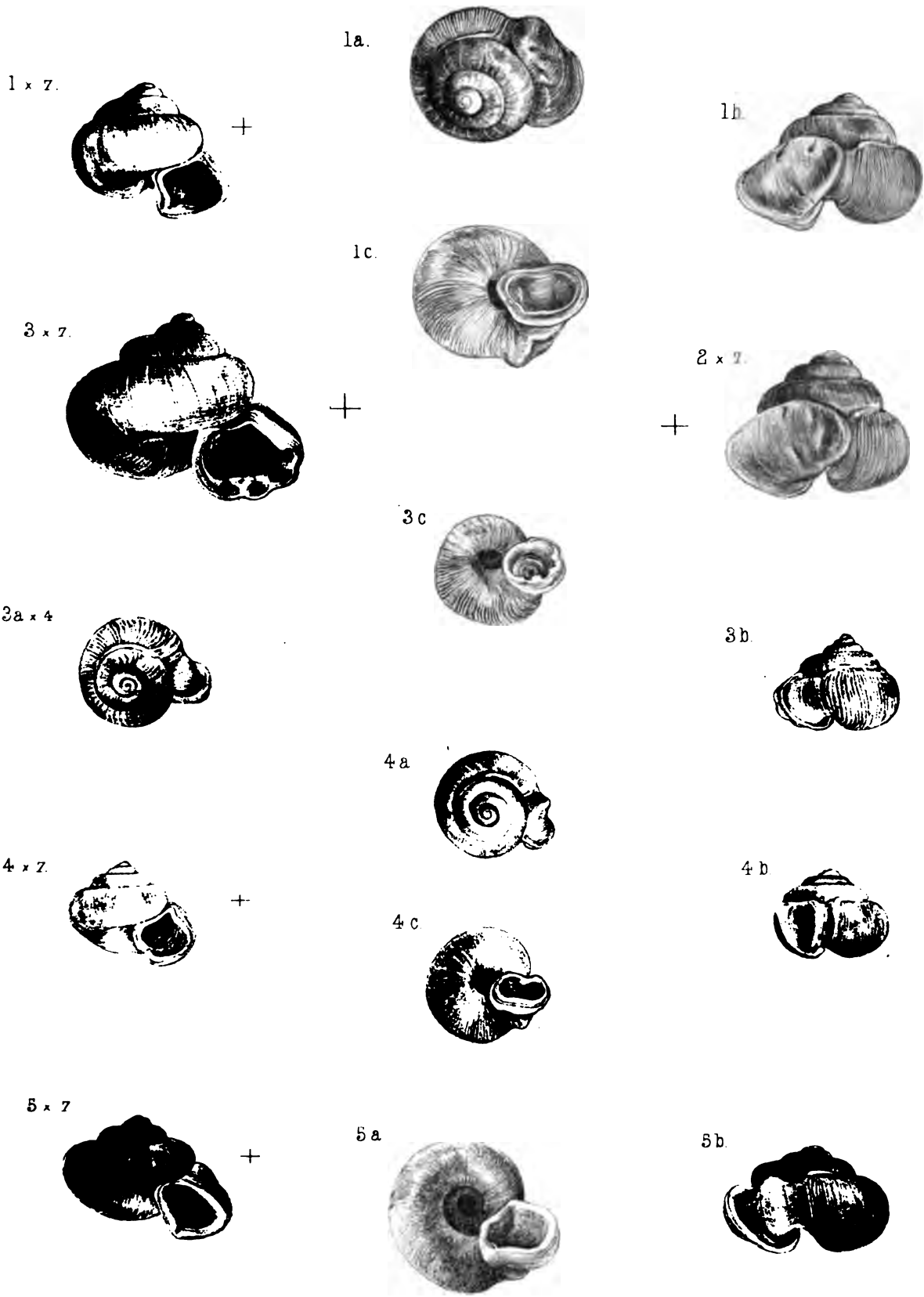
DIPLOMMATINA

Maclure & Macdonald imp

PLATE XLVIII.

[Part V.—*June* 1884.]

- |                                                |                                |                   |
|------------------------------------------------|--------------------------------|-------------------|
| Fig. 1, 1 <i>a</i> , 1 <i>b</i> , 1 <i>c</i> . | ALYCÆUS CHENNELLI, G.-A., × 7. | Naga Hills.       |
| 2.                                             | — CHENNELLI, var.              | Lhota-Naga Hills. |
| 3.                                             | — BRAHMA, G.-A., × 7.          | Brahmakund.       |
| 3 <i>a</i> , 3 <i>b</i> , 3 <i>c</i> .         | Ditto, × 4.                    |                   |
| 4, 4 <i>a</i> , 4 <i>b</i> , 4 <i>c</i> .      | ALYCÆUS GEMMULA, Benson, × 7.  | Darjiling.        |
| 5, 5 <i>a</i> , 5 <i>b</i> , 5 <i>c</i> .      | — PACHITAENSIS, G.-A., × 7.    | Dafla Hills.      |



H. Godwin-Austen, del et lith.

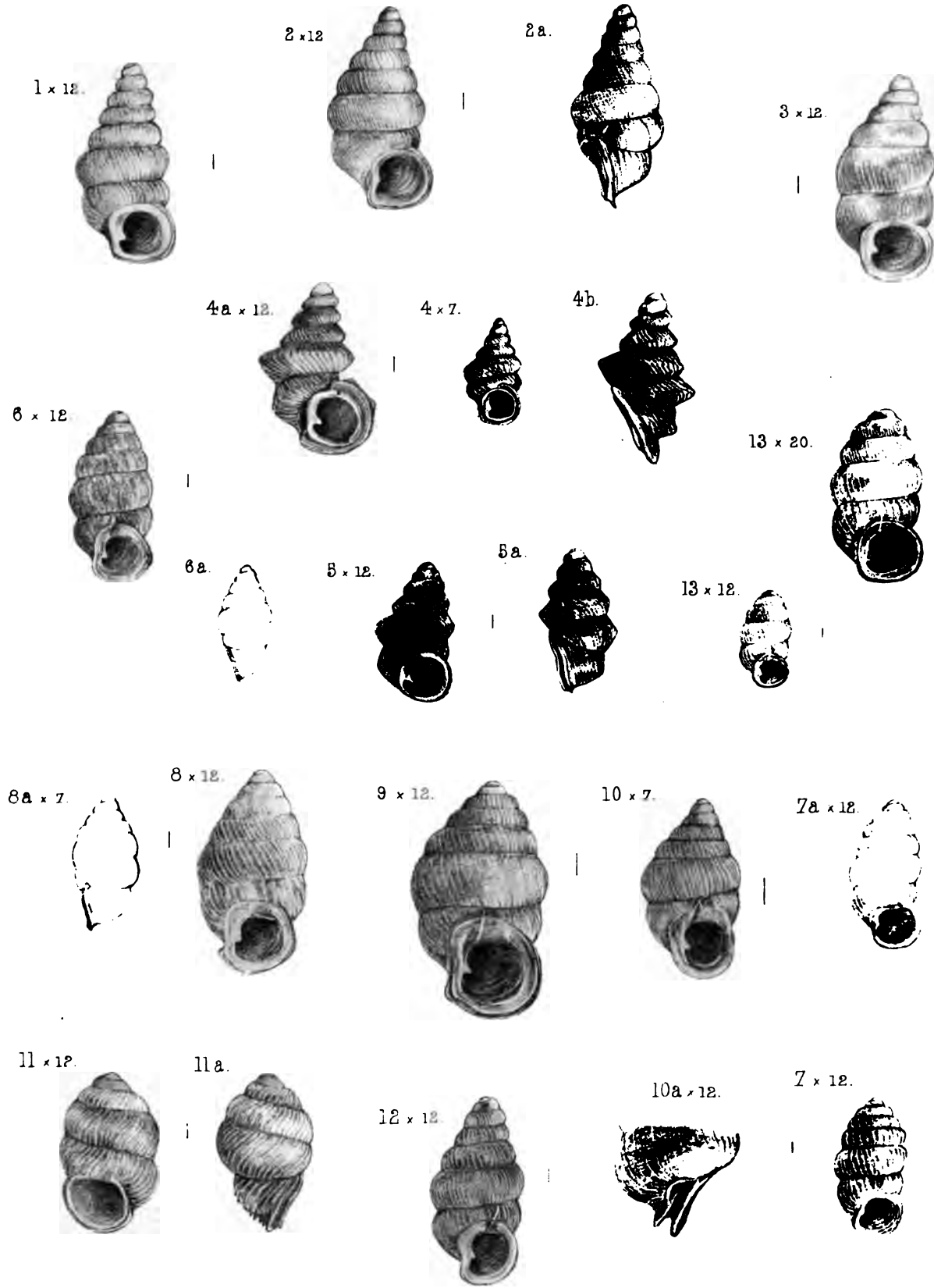
ALYCÆUS.

Maclure & Macdonald, imp.

PLATE XLIX.

[Part V.—*June* 1884.]

Fig. 1.	DIPLOMMATINA EXILIS, W. Blf., × 12.	Ava.
2, 2 a.	— EXERTA, Nev., × 12.	Moulmain.
3.	— AFFINIS, Theobald ?, × 12.	Upper Salwin valley.
4, 4 a, 4 b.	— CRISPATA, Stol., × 12.	Moulmain.
5, 5 a.	— ANGULATA, Theob. & Stol., × 12.	Moulmain.
6, 6 a.	— NANA, W. T. Blf., × 12 and 7.	Pegu.
7, 7 a.	— EDENTULA, G.-A., × 12.	Moulmain.
8, 8 a.	— CARNEOLA, Stol., × 12 and 7.	Moulmain.
9.	— PUPPENSIS, W. T. Blf., × 12.	Upper Burmah.
10, 10 a.	— BLANFORDIANA, Bs., × 7 and 12.	Darjiling Hills.
11, 11 a.	— THEORALDI, n. sp., G.-A., × 12.	Darjiling.
12.	— PULLULA, Bs., × 12.	Darjiling.
13, 13 a.	— MINIMA, Bedd., × 20 and 12.	South India.



[Godwin-Austen, del et lith.

DIPLOMMATINA.

Machure & Macdonald, imp.

PLATE L.

[Part V.—June 1884.]

- Fig. 1. *DIPLOMMATINA OLIGOPLEURIS*, W. T. Blf. Teria Ghat. Drawn from life, creeping and at rest. Enlarged.
2. *DIPLOMMATINA FOLLICULUS*, Pfr. Mussoorie. The shell held in the hand, showing manner of protrusion of the rostrum and the various forms the animal assumes. Enlarged.
3. *DIPLOMMATINA INSIGNIS*, G.-A., × 12. Spirit-specimen.
4. — *BLANFORDIANA*, Bs., × 12. Ditto. Western Bhutan. *f*, foot; *o*, operculum; *s.m*, shell-muscle; *b.c*, branchial sac.
5. *DIPLOMMATINA BLANFORDIANA*, Bs., × 20. Portion of the head under slight pressure, showing:—*r*, radula; *b.p*, buccal plate; *t*, tentacle; *e*, eye; *o*, otolith?; *m*, mantle.
- 5 *a*. Ditto: portion of buccal plate, × 360.
- 5 *b*. Ditto: otoliths?, × 360.
6. *DIPLOMMATINA INSIGNIS*, G.-A.: portion of radula, × 360.
- 6 *a*. Ditto: ditto.
- 6 *b*. Ditto: central and lateral teeth of radula in different positions. Very much enlarged.
7. *DIPLOMMATINA PACHYCHEILUS*. Khasi Hills. Portion of the shell enlarged, showing the position of the operculum (*o*) and constriction (*c*) in the penultimate whorl, the internal parietal rib or lamella (*r*), and the columellar twist or tooth (*t*).
- 7 *a*. Ditto: ditto, another view.
- 7 *b*. Ditto: vertical section anterior to the operculum.
- 7 *c*. Ditto: horizontal section at the operculum, when withdrawn into shell to the full extent: the arrow shows the anterior side of same and direction towards the aperture; *col*, columella; rest of lettering same as above.
8. *DIPLOMMATINA BLANFORDIANA*, Bs., × 12. Darjiling. Showing similar construction. Front view.
- 8 *a*. Ditto. Ditto. Viewed from side.
9. *DIPLOMMATINA INSIGNIS*, G.-A.: operculum, × 20.



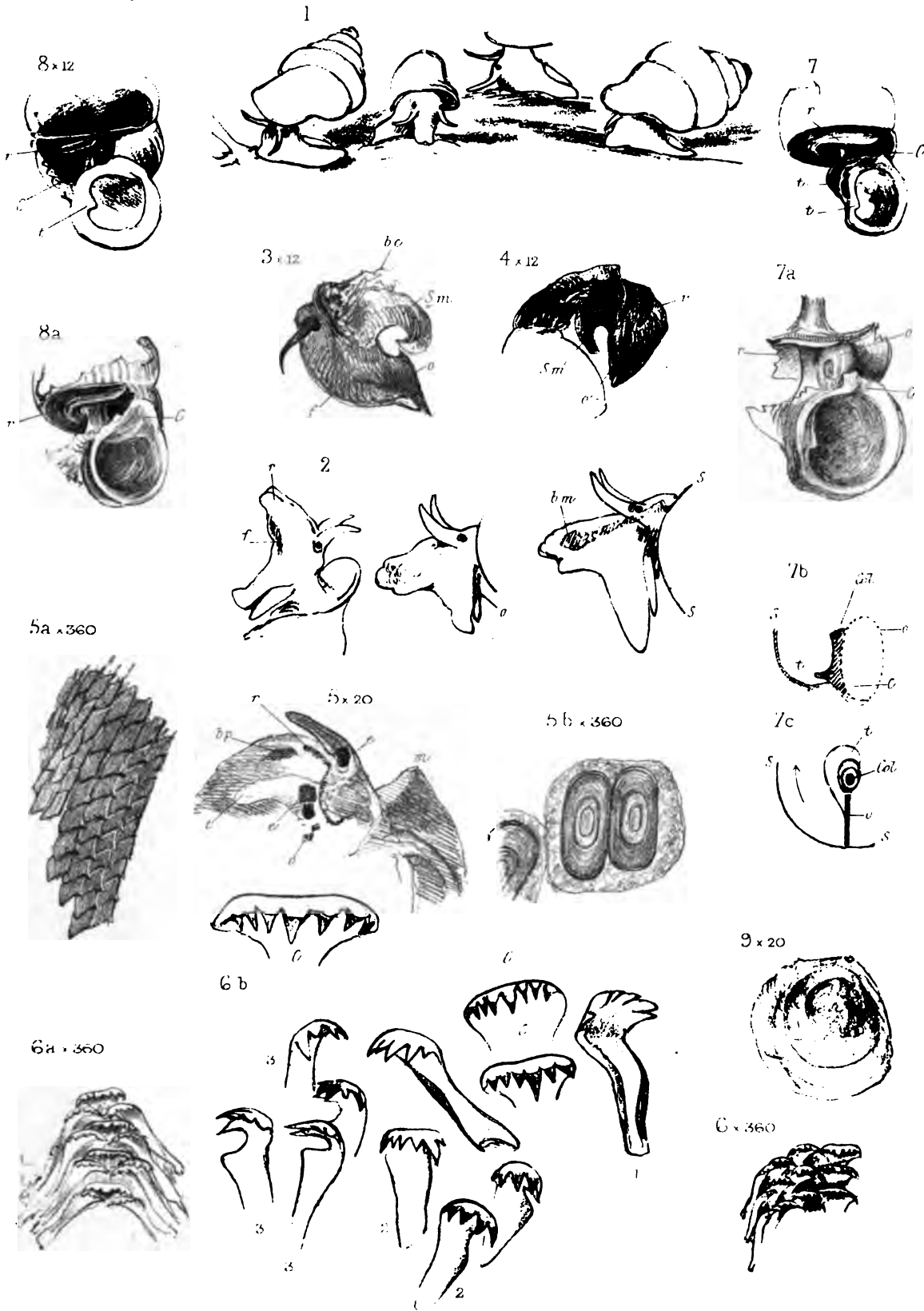


PLATE LI.

[Part V.—June 1884.]

- Fig. 1. *CYCLOPHORUS AURORA*, Bs., ♂, × 2.4. Animal from spirit-specimen. Damsang Peak, W. Bhutan Hills. *m*, the mantle drawn back, showing (*a.o*) the anal orifice and *p* the penis; *r*, the rostrum; *f*, sole of foot folded together; *s.m*, shell-muscle; *o*, operculum.
2. *CYCLOPHORUS AURORA*, Bs., ♀, × 2.4. Spirit-specimen. Animal withdrawn into the shell. Viewed from the outer side of the aperture. Greater portion of shell broken away, showing foot folded together. Same locality.
- 2 *a*. Ditto: ditto, × 2.4. Viewed from the right side.
- 2 *b*. Ditto: ditto, × 1.6. Viewed from the left side, showing form of the mantle and the branchial cavity (*b.c*).
- 2 *c*. Ditto: ditto, × 1.6. Viewed from the right side, to show the shell-muscle (*s.m*).
- 2 *d*. Ditto: ditto, × 1.6. The mantle cut and opened back to show the anal orifice and interior of the branchial cavity.
3. *ALYCÆUS NAGAENSIS*, G.-A., enlarged. Animal from spirit-specimen.
4. — *BICRENATUS*, G.-A. One row of the radula. Much enlarged.
5. — *BEMBEX*, Bs. Sutural tube (*t*) of the whorl of the shell broken away, to show the internal orifice of the same (*o.t*).
6. *ALYCÆUS NAGAENSIS*, G.-A., × 7. The outer right margin of the shell broken away, to show the sutural tube (*t*) in the internal orifice of the same (*o.t*).
- 6 *a*. Diagrammatic section of the frontal edge of the mantle (*m*) in *ALYCÆUS*, by which the sutural tube is formed.
7. *RAPHAULUS BLANFORDI*, Bs., enlarged. Animal removed from shell, showing the sutural or branchial tube (*t*).
8. Ditto, × 7. Shell with margin broken away, to show the internal orifice (*o.t*) of the sutural tube (*t*), extending forward to the peristome.
9. *RAPHAULUS BLANFORDI*, Bs., × 20. A portion of the shell near suture, to show the internal sutural tube (*t*) and the external sutural tube (*t'*), corresponding to that in fig. 7.
- 9 *a*. Diagrammatic section of the same across the front edge of the mantle (*m*), to illustrate the formation of the internal and external sutural tubes (*t*, *t'*).

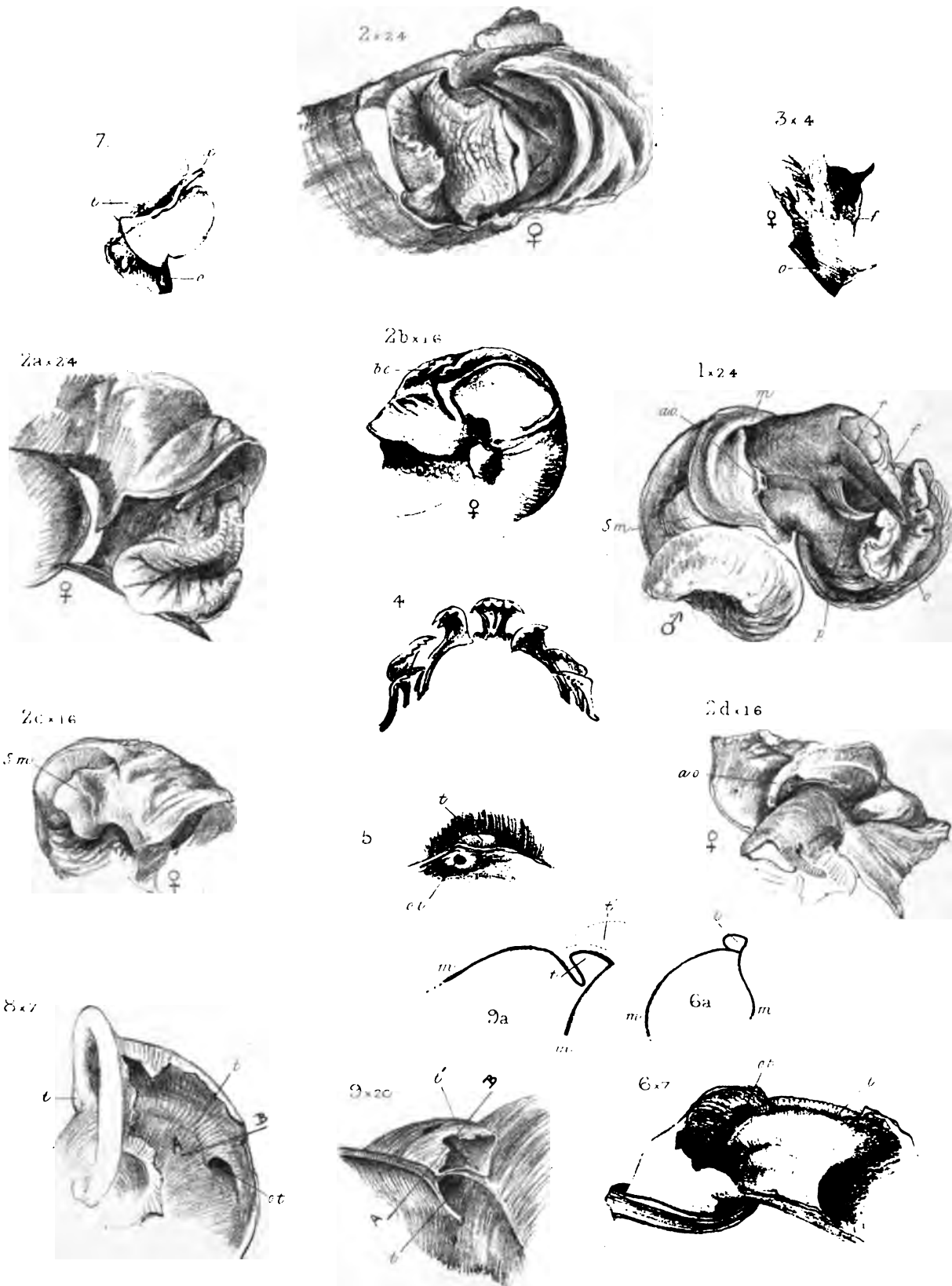


PLATE LII.

[Part VI.—September 1887.]

- Fig. 1, 1 *a*. *AUSTENIA SCUTELLA*, Bs., × 2·4. Murree, Punjab. Animal viewed from right and left sides.
- 1 *b*. Ditto : the extremity of foot viewed from behind, × 4.
- 1 *c*, 1 *d*. Ditto : shell, × 2·4. Chinab valley.
- 1 *e*. Ditto : shell, natural size. Chinab valley.
- 2, 2 *a*. *AUSTENIA* ? *MONTICOLA*, Bs., natural size. Mussoorie, N.W. Himalaya.
- 3, 3 *a*. — ? *STOLICZKANUS*, Nevill, × 1·6. Almorah, N.W. Himalaya.
- 3 *b*. — —, natural size.
- 4, 4 *a*. — ? *SERAHANENSIS*, G.-A., × 1·6. Sutlej Valley, N.W. Himalaya.
- 4 *b*. — —, natural size.
- 5, 5 *a*. — ? *THEOBALDI*, G.-A., × 1·6. Bichlari, Chinab Valley, N.W. Himalaya.
- 5 *b*. — —, natural size. Bichlari, Chinab Valley, N.W. Himalaya.

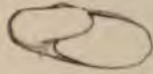
1 x 2 4



1c x 2 4



1e *nat size*



1d



1a



2 *nat size*



1b x 4



2a



3 x 1 6



3b *nat size*



3a



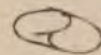
4 x 2 4



4a



4b *nat size*



5 x 1 8



5b *nat size*



5a

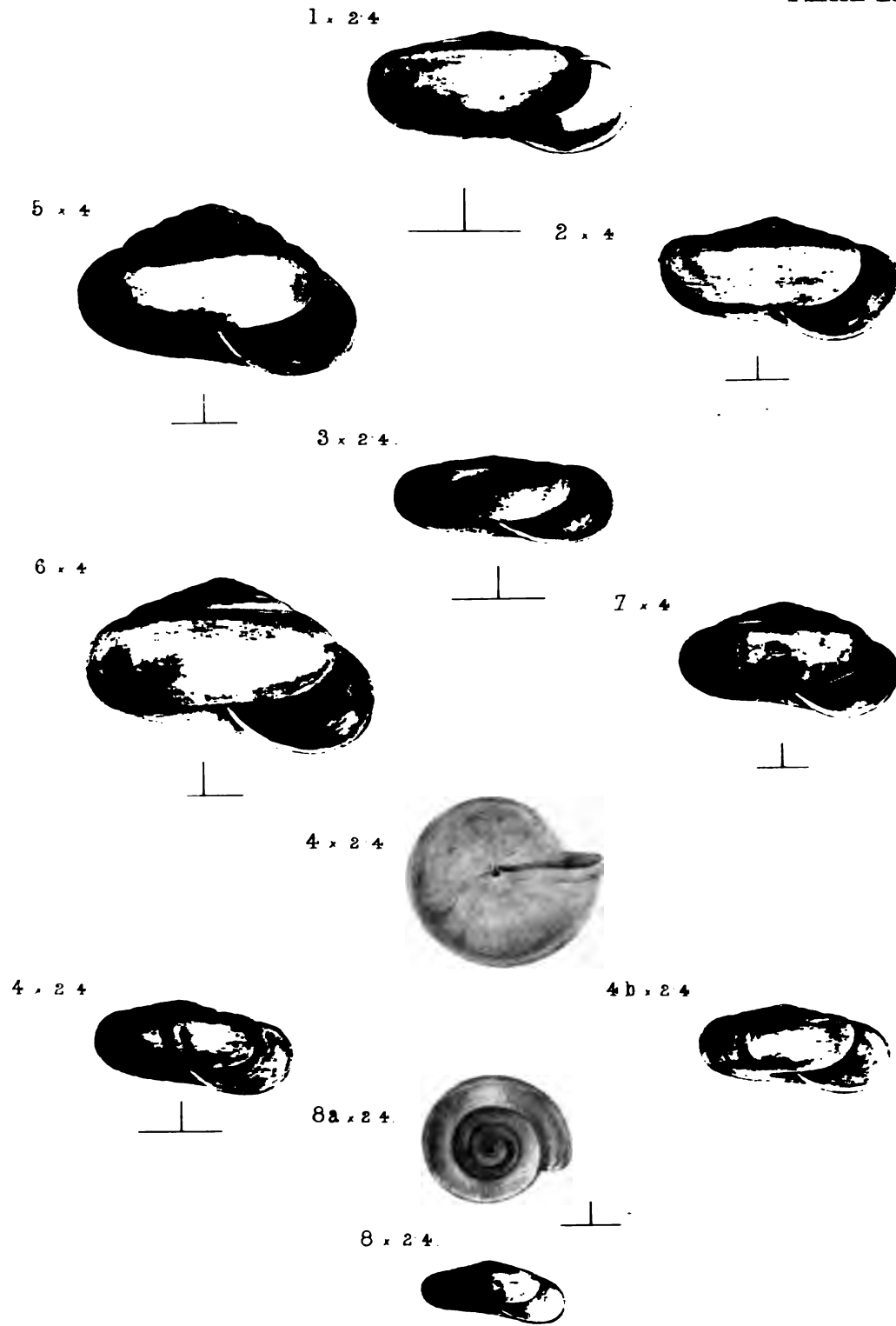


PLATE LIII.

[Part VI.—*September* 1887.]

- |                                                 |                                    |
|-------------------------------------------------|------------------------------------|
| Fig. 1. MACROCHLAMYS ? CONSEPTA, Benson, × 2·4. | Moulmain, Tenasserim.              |
| 2. — WOODMASONI, Nevill, MS., × 4.              | Little Coco Island, Bay of Bengal. |
| 3. — HEPATIZON, G.-A., × 2·4.                   | Habiang, S.W. Khasi.               |
| 4, 4 a, 4 b. — —, × 2·4.                        | Dafra Hills.                       |
| 5. — FATANE, × 4.                               | Darjiling.                         |
| 6. — PETASUS, Bs., × 4.                         | Phie Than, Tenasserim.             |
| 7. — SUBPETASUS, G.-A., × 4.                    | Arakan.                            |
| 8, 8 a. — LATUS, G.-A., × 2·4.                  | Teria Ghat, Khasi.                 |

PLATE LIII.



H. H. Godwin-Austen, del et lith.

ZONITIDÆ.

MacIure & Macdonald, imp





1 *nat size.*



1 a.



1 b x 4



1 d *nat size.*



1 e



1 c x 2.4



2 *nat size.*



2 a.



4 a x 2.4



3 *nat size.*



4 *nat size*



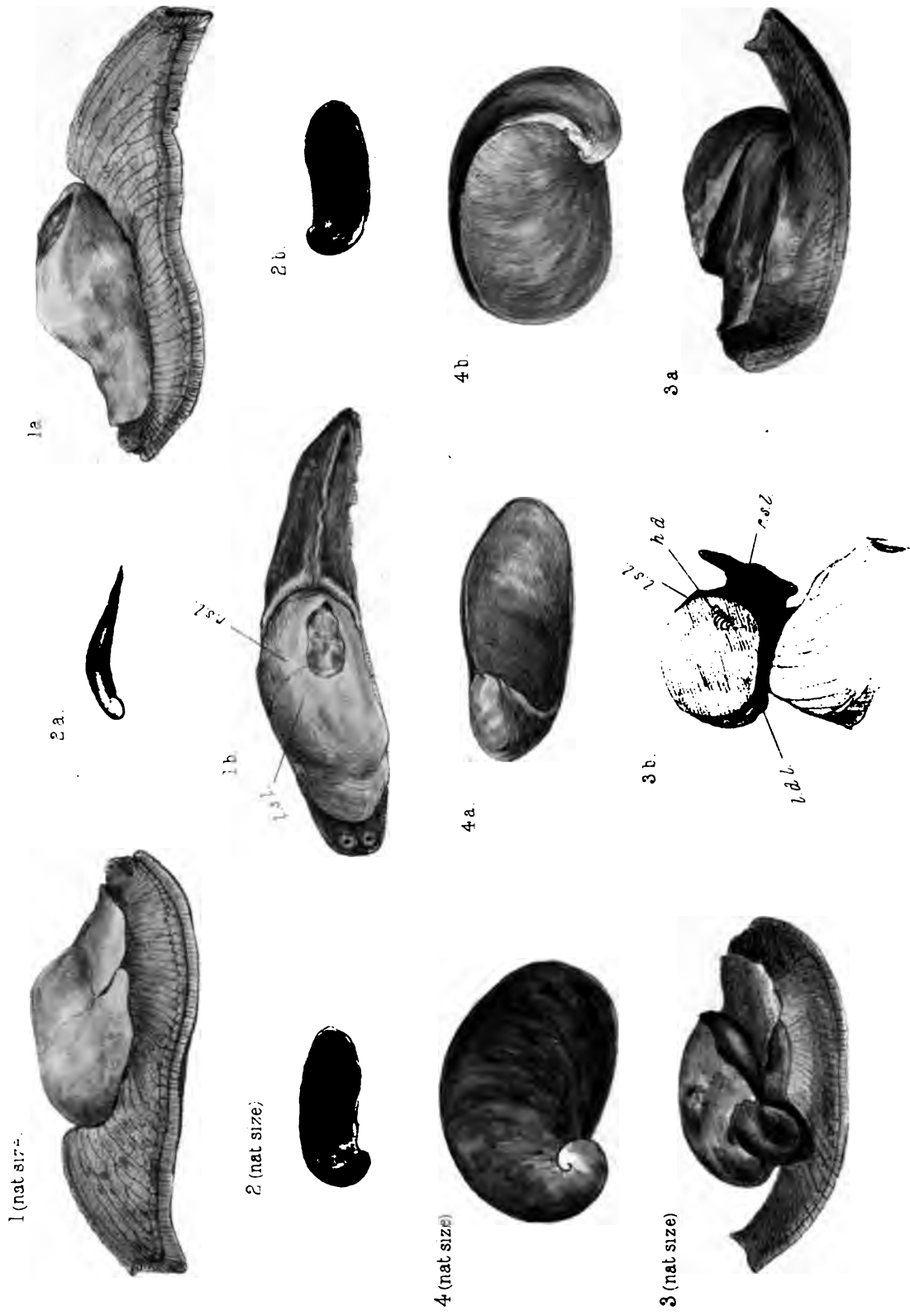
3 a.



4 b x 2.4







HH Godwin-Austen, del et lith

GIRASIA AND AUSTENIA.

Maclure & Macdonald imp.

PLATE LVI.

[Part VI.—*September* 1887.]

- Fig. 1.    *GIRASIA MAGNIFICA*, Nev. & G.-A., natural size. Momein, Yunnan. View of right side.
2.    Ditto : viewed from above, showing the cicatricial junction of the right and left shell-lobes (*c*).
3.    Ditto : view of left side.
4.    Ditto : viewed from behind.
- 5, 5 *a*. Shell, natural size. Copied from J. A. S. B. 1881, plate v. Drawn and lithographed by Jules Schaumburg, Calcutta.

2 (nat. size)



3



5 (nat. size)



5a.

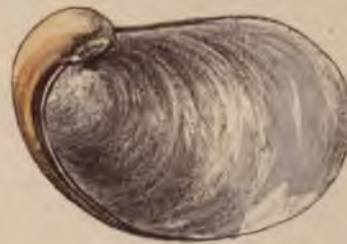


PLATE LVII.

[Part VI.—*September* 1887.]

- Fig. 1.     *AFRICARION ATER*, G.-A. Travancore and Tinevelley Hills, S. India. View of right side,  $\times 2\cdot4$ . Shell removed.
- 1 *a.*     Ditto: view of dorsal side,  $\times 2\cdot4$ .
- 1 *b.*     Ditto: view of left side, position internally of the muscle-attachment of the retractor penis (*m*),  $\times 2\cdot4$ .
- 1 *c.*     Ditto: portion of sole of foot,  $\times 2\cdot4$ .
- 2, 2 *a.*   Shell, from above and below,  $\times 2\cdot4$ .
- 2 *b.*     Ditto: natural size.
3.       *AFRICARION ATER*, var. *ATERRIMUS*, natural size.
- 3 *a.*     Ditto: viewed from behind,  $\times 2\cdot4$ .
- 3 *b.*     Ditto: sole of foot, anterior portion,  $\times 2\cdot4$ .
- 3 *c.*     Ditto: jaw,  $\times 12$ .
- 4, 4 *a.*   Ditto: shell,  $\times 4$ . Showing the membranaceous peristome (*p*).
5.       Ditto: generative organs of var. *ATERRIMA*,  $\times 2\cdot4$ .
- 5 *a.*     Ditto: male organ of *ATER*,  $\times 4$ . Showing the spermatophore in process of formation (*s*).
6.       *AFRICARION ATER*, var. *CINEREUS*, natural size.
7.       Shell of *AFRICARION AURIFORMIS*, Blf.,  $\times 2\cdot4$ . Sispara Ghat, Nilgiri Hills.
- 7 *a.*     Ditto: natural size.

PLATE LVIII.

[Part VI.—*September* 1887.]

- Fig. 1, 1 *a*, 1 *b*. GIRASIA (DEKHANIA) BEDDOMEI, G.-A., natural size. Travancore Hills.  
Viewed from above and on the right and left sides. From spirit-specimen.
- 2, 2 *a*, 2 *b*. Shell of ditto, × 2·4.
3. Ditto, young, × 2·4.
- 4, 4 *a*. GIRASIA BEDDOMEI, var. MACULOSA, natural size. Viewed from above and  
right side.
5. Ditto, var. NIGRA, natural size. View of right side.
- 6, 6 *a*, 6 *b*. Ditto, var., natural size. Viewed from above and on right and left sides.

1 (nat size)



1a.

1b



2. 24



2a



2b.



3. 24



4 (nat size)



4a.



5 (nat size)



6 (nat size)



6a



6b.





PLATE LIX.

[Part VI.—*September* 1887.]

- Fig. 1, 1 *a*, 1 *b*. GIRASIA PUNKABARIENSIS, G.-A. : animal, × 1·5. Viewed from right side, above, and left side respectively.
- 2, 2 *a*. — (IBYCUS) SIKIMENSIS, G.-A. : animal, × 2·4. Viewed from right side and above.
- 2 *b*. Shell of ditto, × 2·4.
- 3, 3 *a*, 3 *b*. GIRASIA (IBYCUS) SIKIMENSIS, var. MAINWABINGI, Nevill, MS. : animal, × 4.
4. — (—) CACHABICA, G.-A. : animal, × 2·4.
- 4 *a*, 4 *b*. Shell of ditto, × 2·4.
- 5, 5 *a*. AUSTENIA? VENUSTA, Theobald, × 2·4.
- 6, 6 *a*, 6 *b*. GIRASIA PEGUENSIS, Theobald : animal, natural size. Viewed from right side, above, and left side.
- 6 *c*. Shell of ditto, × 2·4.
- 6 *d*. Ditto, natural size.



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GIRASIA

Maclure & Macdonald, imp

PLATE LX.

[Part VI.—*September* 1887.]

- |                                          |                          |
|------------------------------------------|--------------------------|
| Fig. 1, 1 <i>a</i> . AUSTENIA GIGAS, Bs. | Teria Ghat, Khasi Hills. |
| 2. GIRASIA CROCEA, G.-A.                 | Teria Ghat, Khasi Hills. |
| 3. — HOOKERI, var. BRUNNEA.              | Shillong, Khasi Hills.   |
| 4. Ditto, ditto.                         | Shillong, Khasi Hills.   |
| 5. Ditto, ditto.                         | Shillong, Khasi Hills.   |
| 6, 6 <i>a</i> . GIRASIA RADHA, G.-A.     | Durrang District, Assam. |
| 7. — BUTLERI, G.-A.                      | Naga Hills.              |
| 8. — CINEREA, G.-A.                      | Dafra Hills.             |



H.H. Godwin Austen, del et lith.

GIRASIA AND AUSTENIA

Maclure & Macdonald, Imp.

PLATE LXI.

[Part VI.—September 1887.]

- Fig. 1. GIRASIA DALHOUSIÆ, G.-A. : view of right side,  $\times 1.5$ .
- 1 *a*. Ditto : viewed from above.
  2. GIRASIA BURTII, G.-A. : shell, natural size.
  3. — NAGAENSIS, G.-A. : view of right side of mantle.
  - 3 *a*. Ditto : view of mantle seen from above ; *p*, posterior end.
  - 3 *b*. Ditto : extremity of foot, showing mucous gland.
  - 3 *c*. Ditto : shell, natural size.
  4. GIRASIA RUBRUM, G.-A. : view of left side, from life.
  - 4 *a*. Ditto : the right side of mantle and head, from life.
  - 4 *b*. Ditto : mantle viewed from above ; *p*, posterior end.
  - 4 *c*. Ditto : extremity of foot, from life.
  - 4 *d*. Ditto : shell, enlarged and natural size.
  5. OXYTES (BENSONIA) LABIATA, Pfr. Generative organs,  $\times 2.4$  (lettering as in former Plates) : *sp*, the spermatheca is seen filled with a bundle of spermatophores.
  - 5 *a*. Ditto : central teeth of odontophore ; 5 *a'*, 19th to 23rd median teeth ; 5 *a''*, 36th to 40th lateral ; 5 *a'''*, the outermost laterals,  $\times 185$ .
  - 5 *e*. Ditto : portion of spermatophore,  $\times 4$  ; *b*, basal end.
  - 5 *f*. Ditto, ditto, anterior end,  $\times 12$ .
  - 5 *f'*. Ditto, ditto, middle portion.
  - 5 *f''*. Ditto, ditto, basal end,  $\times 12$ .
  - 5 *g*. Ditto, the anterior portion of capsular end.

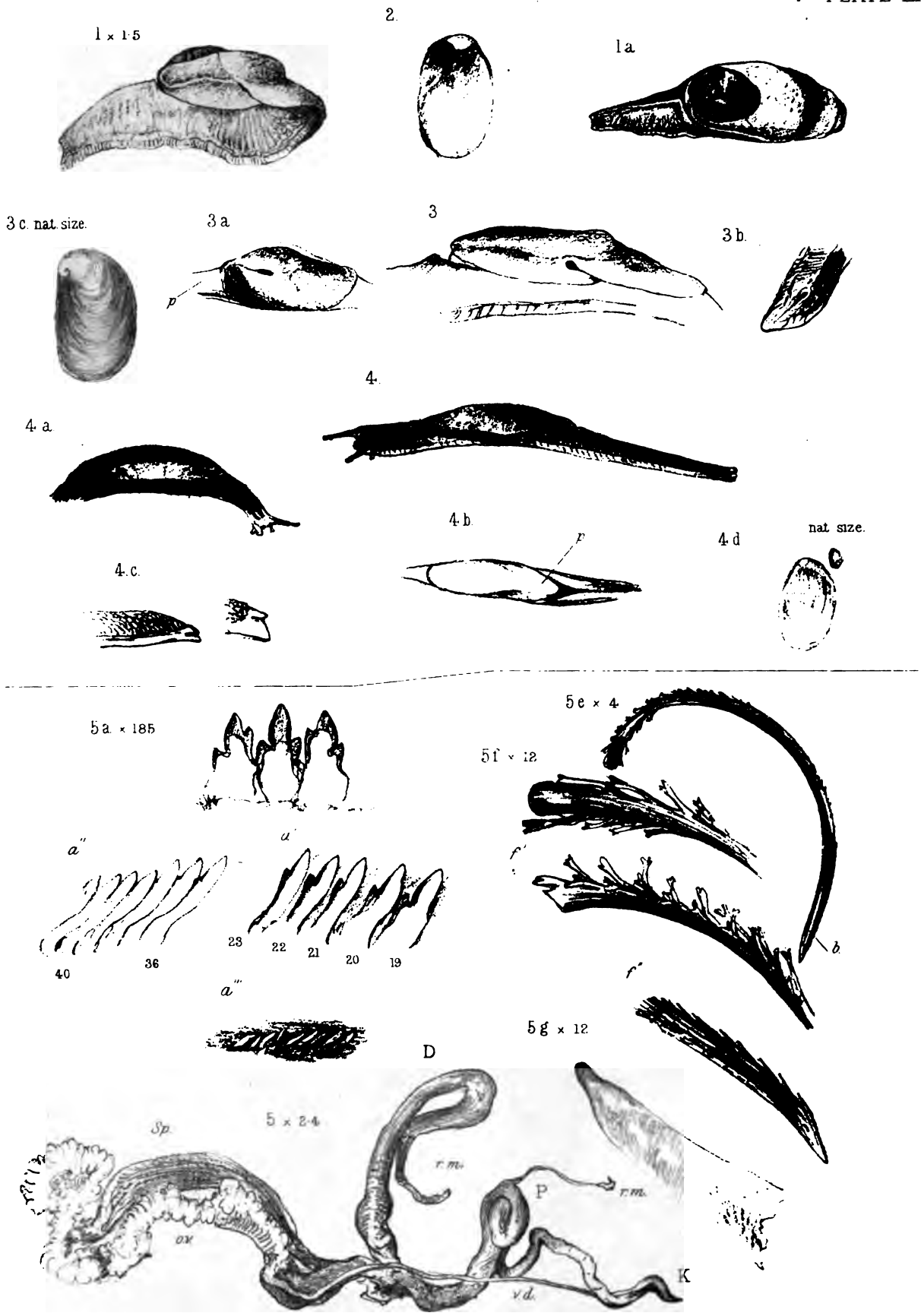
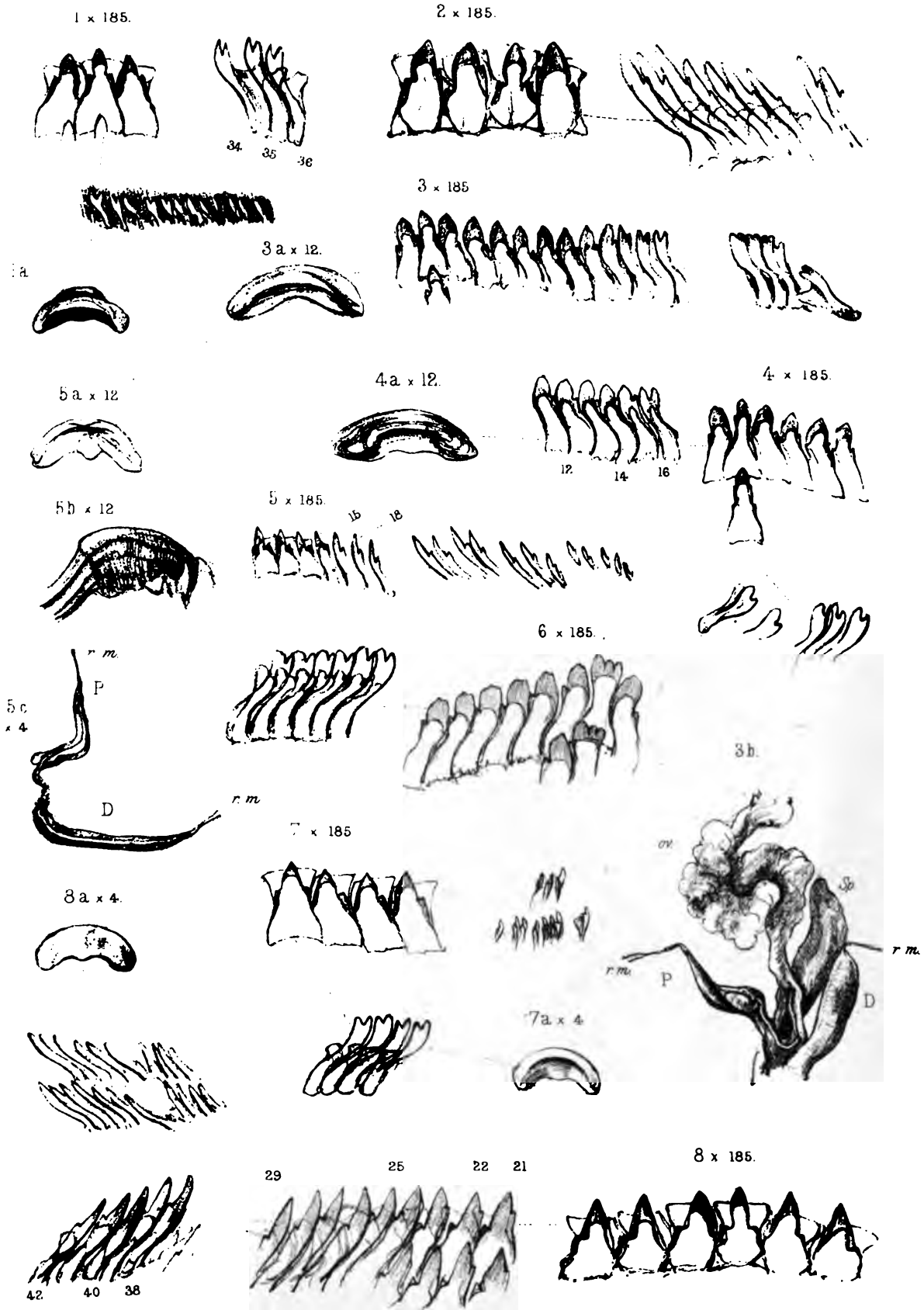


PLATE LXII.

[Part VI.—*September* 1887.]

- Fig. 1. GIBASIA HOOKERI, Gray: central, no. 34, 35, 36, and outermost lateral teeth of odontophore,  $\times 185$ ; 1 *a*, jaw, enlarged.
2. ——— MAGNIFICUS, Nevill: central and lateral teeth,  $\times 185$ .
3. ——— RADHA, G.-A.: central, median, and lateral teeth,  $\times 185$ ; 3 *a*, jaw,  $\times 12$ ; 3 *b*, generative organs, enlarged. Lettering as in former Plates.
4. ——— DALHOUSIÆ, G.-A.: central, nos. 12–16, and outer lateral teeth,  $\times 185$ ; 4 *a*, jaw,  $\times 12$ .
5. ——— (IBYCUS) CACHARICA, G.-A.: median teeth, 12–15, and the outermost laterals; 5 *a*, jaw,  $\times 12$ ; 5 *b*, the basal end of the amatorial organ,  $\times 12$ ; 5 *c*, part of the generative organs.
6. ——— CROCEA, G.-A.: central, median, and some of the lateral teeth,  $\times 185$ .
7. DEKHANIA BEDDOMEI, G.-A.: central, lateral, and outermost laterals,  $\times 185$ ; 7 *a*, jaw,  $\times 4$ .
8. AUSTENIA GIGAS, Benson: central, median, and lateral teeth,  $\times 185$ ; 8 *a*, jaw,  $\times 4$ .





# INDEX.

## A.

### AFRICARION, 154-158, 244-246.

- Africarion ater*, Figs. 1 & 2, Pl. LVII., Part VI., 244.  
— *ater*, var. *aterrimus*, Fig. 3, Pl. LVII., Part VI., 245; Fig. 5, Pl. LVII., Part VI., 245.  
— —, var. *castaneus*, Part VI., 245.  
— —, var. *cinereus*, Fig. 6, Pl. LVII., Part VI., 245.  
— *auriformis*, Fig. 7, Pl. LVII., Part VI., 245.  
— *pallens*?, Part IV., 154, 156.

### ALYCÆUS, 186-196.

- Alycæus bembex*, Fig. 5, Pl. LI., Part V., 188.  
— *bicrenatus*, Fig. 4, Pl. LI., Part V., 188.  
— *brahma*, Fig. 3, Pl. XLVIII., Part V., 195.  
— *chennelli*, Fig. 1, Pl. XLVIII., Part V., 192.  
— *damsaugensis*, Fig. 3, Pl. XLIII., Part V., 192.  
— *gemmula*, Fig. 4, Pl. XLVIII., Part V., 190.  
— *hebes*, Fig. 1, Pl. XLIII., Part V., 191.  
— *ingrami*, Fig. 1, Pl. XLIV., Part V., 193.  
— *nagaensis*, Fig. 3, Pl. XLIV., Part V., 195; Fig. 3, Pl. LI., Part V., 195.  
— *notatus*, Fig. 2, Pl. XLIII., Part V., 191.  
— *pachitaensis*, Fig. 5, Pl. XLVIII., Part V., 190.  
— *umbonalis*, Fig. 2, Pl. XLIV., Part V., 194.

### ANADENUS, 46-55.

- Anadenus altivagus*, Figs. 1-7, Pl. VI., Part II., 48; Fig. 1, Pl. VII., Part II., 49.  
— *jerdoni*, Fig. 7, Pl. VII., Part II., 52.  
— *schlagintweiti*, Fig. 3, Pl. VII., Part II., 51.

### ARION, 62.

- Arion ater*, Fig. 9, Pl. XII., Part II., 62.

### ARIOPHANTA, 132-142.

- Ariophanta immerita*, Fig. 1, Pl. XXXIII., Part IV., 135.  
— *interrupta*, Fig. 2, Pl. XXXIV., Part IV., 134.  
— *lavipes*, Fig. 7, Pl. XXXIII., Part IV., 133; Fig. 1, Pl. XXXIV., Part IV., 133.

*Ariophanta laidlayana*, Fig. 3, Pl. XXXIV., Part IV., 140.  
 — ? *retrorsa*, Fig. 4, Pl. XXXIV., Part IV., 137.

AUSTENIA, 148-154, 228-238.

*Austenia bensoni*, Fig. 2, Pl. XXXVIII., Part IV., 150; Fig. 6, Pl. XXXVI., Part IV., 150.  
 — —, var. *sylhetensis*, Fig. 3, Pl. XXXVIII., Part IV., 151.  
 — *gigas*, Fig. 3, Pl. LV., Part VI., 228; Fig. 1, Pl. LX., Part VI., 228; Fig. 8, Pl. LXII., Part VI., 228.  
 — *globosa*, Fig. 5, Pl. XXXVII., Part IV., 153.  
 — *monticola*, Fig. 2, Pl. LII., Part VI., 234.  
 — *panchetensis*, Fig. 3, Pl. XXXVII., Part IV., 153.  
 — *papillaspira*, Fig. 4, Pl. XXXVII., Part IV., 153.  
 — *planospira*, Fig. 1, Pl. XXXVIII., Part IV., 149.  
 — *salia*, Fig. 1, Pl. XXXVII., Part IV., 152.  
 — *scutella*, Fig. 1, Pl. LII., Part VI., 232.  
 — ? *serahanensis*, Fig. 4, Pl. LII., Part VI., 237.  
 — *stoliczkanus*, Fig. 3, Pl. LII., Part VI., 236.  
 — *theobaldi*, Fig. 5, Pl. LII., Part VI., 236.  
 — ? *venusta*, Fig. 5, Pl. LIX., Part VI., 237.

**B.**

BENSONIA, 247.

*Bensonia labiata*, Fig. 12, Pl. XXI., Part III., 247.  
 — *monticola*, Fig. 11, Pl. XXI., Part III., 248.

**C.**

CRYPTOSOMA, 14-17.

*Cryptosoma praestans*, Fig. 1, Pl. IV., Part I., 14.

CYCLOPHORUS, 165.

*Cyclophorus aurora*, Fig. 1, Pl. LI., Part V.

**D.**

DEKHANIA, 242.

*Dekhanian beddomei*, Figs. 1, 2, 3, Pl. LXII., Part VI., 243.  
 — —, var. *maculosa*, Figs. 4, 6, Pl. LVIII., Part VI., 243.  
 — —, var. *nigra*, Fig. 5, Pl. LVIII., Part VI., 243.

DIPLOMMATINA, 166-185.

*Diplommatina affinis*?, Fig. 3, Pl. XLIX., Part V., 181.  
 — *angulata*, Fig. 5, Pl. XLIX., Part V., 184.  
 — *austeni*, Fig. 2, Pl. XLV., Part V., 177.  
 — *blanfordiana*, Fig. 10, Pl. XLIX., Part V., 169; Fig. 4, Pl. L., Part V., 169.

- Diplommatina *canarica*, Fig. 3, Pl. XLVI., Part V., 175.  
 — *carneola*, Fig. 8, Pl. XLIX., Part V., 183.  
 — *crispata*, Fig. 4, Pl. XLIX., Part V., 183.  
 — *daflaensis*, Fig. 4, Pl. XLV., Part V., 174.  
 — *edentula*, Fig. 7, Pl. XLIX., Part V., 185.  
 — *exilis*, Fig. 1, Pl. XLIX., Part V., 180.  
 — *exserta*, Fig. 2, Pl. XLIX., Part V., p. 184.  
 — *folliculus*, Fig. 2, Pl. L., Part V., 167.  
 — *gracilis*, Fig. 1, Pl. XLVI., Part V., 175.  
 — *henzadaensis*, Fig. 6, Pl. XLVI., Part V., 179.  
 — *huttoni*, Fig. 7, Pl. XLV., Part V., 170.  
 — *insignis*, Fig. 3, Pl. L., Part V., 169.  
 — *minima*, Fig. 13, Pl. XLIX., Part V., 176.  
 — *nana*, Fig. 6, Pl. XLIX., Part V., 181.  
 — *nicobarica*, Fig. 7, Pl. XLVI., Part V., 185.  
 — *occidentalis*, Fig. 8, Pl. XLV., Part V., 173.  
 — *oligopleuris*, Fig. 1, Pl. L., Part V.  
 — *pachycheilus*, Fig. 7, Pl. L., Part V., 168.  
 — *polypleuris*, Fig. 1, Pl. XLV., Part V., 176.  
 — *pullula*, Fig. 12, Pl. XLIX., Part V., 170.  
 — *pupaformis*, Fig. 4, Pl. XLVI., Part V., 182.  
 — *puppensis*, Fig. 9, Pl. XLIX., Part V., 180.  
 — *saluense*, Fig. 6, Pl. XLV., Part V., 178.  
 — *silvicola*, Fig. 3, Pl. XLV., Part V., 178.  
 — *sperata*, Fig. 5, Pl. XLVI., Part V., 179.  
 — *theobaldi*, Fig. 11, Pl. XLIX., Part V.

## DURGELLA, 142-145.

- Durgella *khasiaca*, Fig. 7, Pl. XXXIX., Part IV., 145.  
 — *minuta*, Fig. 1, Pl. XXXIX., Part IV., 144.

## G.

## GEOMALACUS, 60-63.

- Geomalacus *maculosus*, Figs. 1-8, Pl. XII., Part II., 61.

## GIRASIA, 216-228.

- Girasia (Dekhanian) *beddomei*, Figs. 1, 2, 3, Pl. LVIII., Part VI., 243.  
 — —, var. *maculosa*, Figs. 4, 6, Pl. LVIII., Part VI., 243.  
 — —, var. *nigra*, Fig. 5, Pl. LVIII., Part VI., 243.  
 — *burtii*, Fig. 2, Pl. LXI., Part VI., 222.  
 — *butleri*, Fig. 7, Pl. LX., Part VI., 226.  
 — (Ibycus) *cacharica*, Fig. 5, Pl. LXII., Part VI., 240.  
 — (—) *cinerea*, Fig. 8, Pl. LX., Part VI., 241.  
 — *crocea*, Fig. 2, Pl. LX., Part VI., 223; Fig. 6, Pl. LXII., Part VI., 223.  
 — *dalhousiae*, Fig. 1, Pl. LXI., Part VI., 224; Fig. 4, Pl. LXII., Part VI., 224.

- Girasia hookeri*, Fig. 1, Pl. LV., Part VI., 219; Fig. 1, Pl. LXII., Part VI., 219.  
 — —, var., Fig. 5, Pl. LX., Part VI., 221.  
 — —, var. *brunnea*, Fig. 3, Pl. LX., Part VI., 220.  
 — *magnifica*, Fig. 1, Pl. LVI., Part VI., 225; Fig. 2, Pl. LXII., Part VI.  
 — *nagaensis*, Fig. 3, Pl. LXI., Part VI., 224.  
 — *peguensis*, Fig. 6, Pl. LIX., Part VI., 227.  
 — *pankabariensis*, Fig. 1, Pl. LIX., Part VI., 225.  
 — *radha*, Fig. 6, Pl. LX., Part VI., 222; Fig. 3, Pl. LXII., Part VI., 222.  
 — *rubra*, Fig. 4, Pl. LXI., Part VI., 228.  
 — (*Ibycus*) *sikkimensis*, Fig. 2, Pl. LIX., Part VI., 239.  
 — (—) —, var. *mainwaringi*, Fig. 3, Pl. LIX., Part VI., 240.  
 — (—?) *solida*, Part VI., 241.

**H.**

## HELICARION, 146, 147.

- Helicarion cuvieri*, Fig. 9, Pl. XLI., Part IV., 146.  
 — *helenæ*, Fig. 1, Pl. XLI., Part IV., 146.

## HELIX, 45, 73.

- Helix*? (—?) *glomerosa*, Fig. 9, Pl. XIV., Part III., 73.  
 — ? (*Sagdinella*) *didrichsenii*, Figs. 1, 1a, Pl. IX., Part II., 45, = young of  
*Pupina nicobarica*.

## HYALIMAX, 55-60.

- Hyalimax* (*Jarava*) *andamanica*, Figs. 1-9, Pl. XI., Part II., 57.  
 — (—) *reinhardi*, Part II., 59.  
 — (—) *viridis*, Part II., 60.  
 — *perlucidus*, Fig. 10, Pl. XI., Part II., 55.

**I.**

## IBYCUS, 238-241.

- Ibycus sikkimensis*, Fig. 2, Pl. LIX., Part VI., 239.  
 — —, var. *mainwaringi*, Fig. 3, Pl. LIX., Part VI., 240.  
 — *cacharica*, Fig. 4, Pl. LIX.; Fig. 5, Pl. LXII., Part VI., 240.  
 — ? *cinerea*, Fig. 8, Pl. LX., Part VI., 241.  
 — ? *solida*, Part VI., 241.

**K.**

## KALIELLA, 1-10, 19-24, 68-73, 146.

- Kaliella animula*, Fig. 1, Pl. V., Part II., 23.  
 — *aspirans*, Fig. 12, Pl. I., Part I., 6.  
 — *barrakporensis*, Fig. 1, Pl. I., Part I., 2; Fig. 1, Pl. II., Part I., 3; Fig. 3,  
 Pl. V., Part II., 19; Fig. 5, Pl. XXXVIII., Part IV., 146.  
 — *bullula*, Fig. 4, Pl. V., Part II., 23.

- Kaliella** ? *burraileensis*, Fig. 5, Pl. XV., Part III., 70.  
 — ? *chennelli*, Fig. 1, Pl. XVI., Part III., 73.  
 — *cherraensis*, Fig. 5, Pl. I., Part I., 4; Fig. 2, Pl. II., Part I., 4.  
 — ? *conulus*, Fig. 6, Pl. XV., Part III., 71.  
 — *costulata*, Fig. 5, Pl. II., Part I., 7.  
 — ? *dikrangensis*, Fig. 3, Pl. XVI., Part III., 72.  
 — *elongata*, Fig. 9, Pl. II., Part I., 9.  
 — *fastigiata*, Fig. 8, Pl. II., Part I., 8, 21.  
 — *flatura*, Fig. 10, Pl. V., Part II., 23.  
 — *gratiosa*, Fig. 10, Pl. II., Part I., 9.  
 — *jaintiaca*, Fig. 4, Pl. II., Part I., 7.  
 — *kezamaensis*, Fig. 3, Pl. XV., Part III., 69; Figs. 10 & 11, Pl. XL., Part IV., 146 (*Macrochlamys* is an error in description of Plate).  
 — *khasiaca*, Fig. 8, Pl. I., Part I., 5.  
 — *lailangkotensis*, Fig. 1, Pl. XV., Part III., 68; Fig. 2, Pl. XX., Part III., 69 (*Macrochlamys* is an error in description of Plate).  
 — ? *leithiana*, Fig. 6, Pl. XVI., Part III., 71.  
 — *lhothaensis*, Fig. 2, Pl. V., Part II., 22.  
 — *munipurensis*, Fig. 9, Pl. I., Part I., 5; Fig. 3, Pl. II., Part I., 5.  
 — *nagaensis*, Fig. 11, Pl. II., Part I., 9.  
 — *nana*, Fig. 6, Pl. V., Part II., 21.  
 — ? *nevilli*, Fig. 6, Pl. XIII., Part III., 70.  
 — ? *nongsteinensis*, Fig. 2, Pl. XVI., Part III., 72.  
 — *perakensis*, Fig. 7, Pl. II., Part I., 8.  
 — *resinula*, Fig. 7, Pl. V., Part II., 22.  
 — ? *ruqa*, Fig. 4, Pl. XV., Part III., 70.  
 — *sigurensis*, Fig. 11, Pl. I., Part I., 5.  
 — *sikkimensis*, Fig. 9, Pl. V., Part II., 22.  
 — *sivalensis*, Fig. 3, Pl. I., Part I., 3.  
 — *subcostulata*, Fig. 6, Pl. II., Part I., 8.  
 — *teriaensis*, Fig. 12, Pl. II., Part I., 10.  
 — ? *tirutana*, Fig. 4, Pl. XVI., Part III., 73.  
 — *vulcani*, Fig. 13, Pl. I., Part I., 6.

**L.**

## LIMAX, 62.

- Limax agrestis*, Fig. 10, Pl. XII., Part II., 62.

**M.**

## MACROCHLAMYS, 76, 97-122, 209-215.

- Macrochlamys altivagus*, Fig. 2, Pl. LIV., Part VI., 213.  
 — ? *anoxæ*, Fig. 8, Pl. XIV., Part III., 91.  
 — *atricolor*, Fig. 1, Pl. XXIV., Part IV., 113-117; Figs. 1-8, Pl. XXV., Part IV., 113-117; Fig. 1, Pl. XXVII., Part IV., 113-117.

- Macrochlamys austenianus*, Fig. 4, Pl. LIV., Part VI., 215.  
 — *cacharica*, Fig. 2, Pl. XXVII., Part IV., 117.  
 — —, var. *glauca*, Fig. 6, Pl. XXIV., Part IV., 118.  
 — *cassida*, Fig. 3, Pl. LIV., Part VI., 214.  
 — *castaneo-labiata*, Fig. 7, Pl. XXI., Part III., 119-121; Fig. 1, Pl. XXIX., Part IV., 119-121.  
 — *choinia*, Fig. 6, Pl. XXII., Part IV., 102.  
 — ? *consepia*, Fig. 4, Pl. XXVI., Part IV., 110; Fig. 1, Pl. LIII., Part VI., 209.  
 — *daflaensis*, Fig. 6, Pl. XXI., Part III.  
 — *dalingensis*, Figs. 1-10, Pl. XXXV., Part IV., 121.  
 — *darjilingensis*, Fig. 11, Pl. XVII., Part III., 88.  
 — *decussata*, Fig. 6, Pl. XIX., Part III.; Fig. 15, Pl. XXI., Part III.  
 — *dorani*, Fig. 8, Pl. XVII., Part III., 87.  
 — *enata*, Fig. 11, Pl. XIV., Part III., 91.  
 — *erul*, Fig. 3, Pl. XXII., Part IV., 103.  
 — *faceta*, Fig. 7, Pl. XIV., Part III., 90.  
 — *flemingi*, Fig. 1, Pl. LIV., Part VI., 212.  
 — *hardwickei*, Fig. 10, Pl. XXI., Part III.; Figs. 1 & 2, Pl. XXIII., Part IV., 105, 106.  
 — —, var. *politulus*, Fig. 3, Pl. XXIII., Part IV., 107.  
 — ? *hepatizon*, Fig. 3, Pl. LIII., Part VI., 209, 210.  
 — *honestia*, Fig. 7, Pl. XIX., Part III.  
 — *indica*, Fig. 1, Pl. XXI., Part III., 97; Figs. 1-8, Pl. XVIII., Part III., 97; Fig. 9, Pl. XXV., Part IV.  
 — *jainiana*, Fig. 7, Pl. XXVI., Part IV., 111, 112; Fig. 2, Pl. XXVIII., Part IV., 111, 112.  
 — *kala*, Figs. 1-9, Pl. XL., Part IV., 108.  
 — *kandiensis*, Fig. 2, Pl. XIV., Part III., 90.  
 — *koliaensis*, Fig. 6, Pl. XVII., Part III., 86; Fig. 5, Pl. XXVI., Part IV., 119; Fig. 3, Pl. XXVIII., Part IV., 119.  
 — ? *latus*, Fig. 7, Pl. LIII., Part VI., 209.  
 — *lecythis*, Fig. 5, Pl. XIX., Part III.  
 — *lhotiensis*, Fig. 5, Pl. XXIII., Part IV., 107.  
 — *longicauda*, Fig. 1, Pl. XVII., Part III., 84; Fig. 1, Pl. XX., Part III., 85; Fig. 16, Pl. XXI., Part III., 85.  
 — ? *lubrica*, Fig. 7, Pl. XXIV., Part IV., 118.  
 — ? (near) *lubrica*, Fig. 4, Pl. XXI., Part III.  
 — *masuriensis*, G.-A., MS., = *prona*, Fig. 8, Pl. XXI., Part III., 103.  
 — *molecula*, Fig. 8, Pl. XVI., Part III., 88.  
 — *nengloensis*, Fig. 3, Pl. XVII., Part III., 86.  
 — *opiparus*, Fig. 6, Pl. XXIII., Part IV., 108.  
 — *originaria*, Fig. 12, Pl. XIV., Part III., 91.  
 — *pacata*, Fig. 10, Pl. XIV., Part III., 90.

- Macrochlamys?** *patane*, Fig. 4, Pl. LIII., Part VI., 210.  
 — ? *pedina*, Fig. 13, Pl. XXI., Part III.  
 — *perpaula*, Fig. 5, Pl. XIV., Part III., 89.  
 — *perplana*, Fig. 4, Pl. XIX., Part III.  
 — ? *petasus*, Fig. 5, Pl. LIII., Part VI., 210.  
 — *petrosa*, Fig. 1, Pl. XIX., Part III., 99; Fig. 2, Pl. XXI., Part III., 99;  
 Fig. 1, Pl. XXII., Part IV.  
 — *planiuscula*, Fig. 7, Pl. XVI., Part III., 88.  
 — ? *politissima*, Fig. 6, Pl. XXVI., Part IV., 112.  
 — *poongee*, Fig. 1, Pl. XIV., Part III., 90.  
 — *prona*, Fig. 2, Pl. XXII., Part IV., 103.  
 — ? *resplendens*, Fig. 1, Pl. XXVI., Part IV., 109, 110.  
 — *roberti*, Fig. 7, Pl. XVII., Part III., 87.  
 — *rusticula*, Fig. 10, Pl. XVII., Part III., 87.  
 — *sata*, Fig. 13, Pl. XIV., Part III., 91.  
 — *shengorensis*, Fig. 5, Pl. XXII., Part IV., 102.  
 — *sikrigulliensis?*, Fig. 3, Pl. XIX., Part III.  
 — *splendens*, Fig. 3, Pl. XXI., Part III., 100; Fig. 4, Pl. XXII., Part IV.  
 — *staffordi*, Fig. 14, Pl. XXI., Part III.  
 — ? *subpetasus*, Fig. 6, Pl. LIII., Part VI.  
 — *sylhetensis*, Fig. 9, Pl. XXI., Part III.  
 — *tanirensis*, Fig. 9, Pl. XVII., Part III., 87.  
 — *textrina*, Fig. 17, Pl. XXI., Part III.  
 — *tugurium*, Fig. 2, Pl. XIX., Part III.; Fig. 3, Pl. XX., Part III.  
 — *umbraticola*, Fig. 4, Pl. XIV., Part III., 89.  
 — ? *woodmasoni*, Fig. 2, Pl. LIII., Part VI., 209.

## MICROCYSTINA, 11-14.

- Microcystina cryptomphalus*, Fig. 10, Pl. III., Part I., 13.  
 — *harrietensis*, Fig. 11, Pl. III., Part I., 13.  
 — *moerchiana*, Fig. 9, Pl. III., Part I., 13.  
 — *rinkii*, Fig. 1, Pl. III., Part I., 12.  
 — *warnefordi*, Fig. 8, Pl. III., Part I., 13.

## O.

## OXYTES, 123-131.

- Oxytes cycloplax*, Fig. 1, Pl. XXXI., Part IV., 125.  
 — (*Bensonia*) *labiata*, Fig. 5, Pl. LXI., Part VI., 247.  
 — *orobia*, Fig. 1, Pl. XXXII., Part IV., 129.  
 — *oxytes*, Fig. 1, Pl. XXX., Part IV., 124.

## R.

## RAPHAULUS, 196-202.

- Raphaulus assamica*, Fig. 2, Pl. XLVII., Part V., 201.  
 — *blanfordi*, Fig. 4, Pl. XLVII., Part V., 202; Fig. 7, Pl. LI., Part V.  
 — —, var. *intubus*, Fig. 5, Pl. XLVII., Part V., 202.

- Raphaulus blanfordi*, var. *tortuosus*, Fig. 7, Pl. XLVII., Part V., 202.  
 ———, var. *tubulus*, Fig. 6, Pl. XLVII., Part V., 202.  
 ——— *chrysalis*, Fig. 1, Pl. XLVII., Part V., 200.  
 ——— *pachysiphon*, Fig. 3, Pl. XLVII., Part V., 200.

**S.**

## SAGDINELLA, 44-46.

- Sagdina didrichsenii*, Fig. 1, Pl. IX., Part II., 45, = young of *Pupina nicobarica*.  
 ——— *microtrochus*, Part II., 46. [The genus will not stand.]

## SITALA, 26-42, 74-76, 145.

- Sitala arx*, Fig. 8, Pl. IX., Part II., 36.  
 ——— *atlegia*, Fig. 2, Pl. VIII., Part II., 29.  
 ——— ? *balliana*, Fig. 2, Pl. XV., Part III., 74.  
 ——— *confinis*, Fig. 2, Pl. X., Part II., 32.  
 ——— ? *crenicincta*, Fig. 2, Pl. XIII., Part III., 75.  
 ——— *culmen*, Fig. 4, Pl. VIII., Part II., 31.  
 ——— ? *gratulator*, Fig. 1, Pl. X., Part II., 42.  
 ——— *gromatica*, Fig. 6, Pl. X., Part II., 32.  
 ——— *haroldi*, Fig. 7, Pl. X., Part II., 33, = *stewartiana*, Nev. MS. in his corrected  
 Hand-list, No. 200, *Microcystis*, sp.  
 ——— *infula*, Fig. 1, Pl. VIII., Part II., 26.  
 ——— *injussa*, Fig. 5, Pl. IX., Part II., 38.  
 ——— ? *intonsa*, Fig. 1, Pl. XIII., Part III., 75.  
 ——— *limata*, Fig. 9, Pl. X., Part II., 34.  
 ——— *mononema*, Fig. 6, Pl. IX., Part II., 41.  
 ——— *nevilli*, Fig. 6, Pl. XIII., Part III., 70.  
 ——— *palmaria*, Fig. 3, Pl. X., Part II., 35.  
 ——— *phulongensis*, Fig. 4, Pl. X., Part II., 34.  
 ——— *placita*, Fig. 3, Pl. XIV., Part III., 74.  
 ——— ? *recondita*, Fig. 4, Pl. XIII., Part III., 75.  
 ——— *rimicola*, Fig. 2, Pl. IX., Part II., 36.  
 ——— *srimani*, Fig. 7, Pl. IX., Part II., 41.  
 ——— *subbilitata*, Fig. 11, Pl. X., Part II., 39.  
 ——— *subnana*, Fig. 6, Pl. XIV., Part III., 75.  
 ——— ? *tertiana*, Fig. 9, Pl. IX., Part II., 40.  
 ——— *tricarinata*, Fig. 10, Pl. X., Part II., 39.  
 ——— *uvida*, Fig. 5, Pl. XIII., Part III., 74.

**V.**

## VITRINA.

- Vitrina rüppelliana*, Fig. 1, Pl. XLII., Part IV., 154. See *AFRICARION*, p. 155.