

## EXPLANATION OF PLATE I.

- Fig. 1. *Cyrtophium calamicola*, n. sp., drawn to scale,  $\times 44$ .
2. The same in its tube, in the act of swimming,  $\times 18$ .
3. Portion of an unfinished tube showing a vegetable membrane lined at one end with opaque silk-like fibres,  $\times 200$  (about).
4. Small portion of a transverse section of a tube,  $\times 200$  (about).
5. A mandible,  $\times 340$ .
6. 1st and 2nd maxillæ,  $\times 170$ .
7. Maxillipedes,  $\times 170$ .
8. Subchela of third thoracic appendages, showing the peculiar teeth of the dactylopodite and the glandular body in the propodite,  $\times 300$  (about).
9. One of the anterior abdominal appendages,  $\times 64$ .
10. The three terminal abdominal appendages, with telson, from above,  $\times 142$ .



VI.—*Notes on Japanese Land and Freshwater Molluscs.*—By O. F. VON MÖLLENDORFF, PH. D. Communicated by the NATURAL HISTORY SECRETARY.

[Received April 3rd;—Read May 6th, 1885.]

The following notes are based chiefly on a collection made by Dr. John Anderson during the year 1884 and sent by him to Deputy Surgeon General Hungerford and myself for classification. I take this opportunity to publish some new species formerly discovered by Messrs. Hungerford and Eastlake, and to give some corrections to my former paper on Japanese *Clausilia* published in this Journal (Vol. LI, Pt. II, 1882).

1. *NANINA JAPONICA*, n. sp.

*Testa depresso-globosa, semiobtecte perforata, acute carinata, superne striis curvatis transversis costuliformibus distantibus sculpta, subtus laevigata, nitida, tenuis, subpellucida, flavescens; anfr. 6 fere plani, ultimus non descendens, basi inflatus, apertura obliqua, lunaris, peristoma rectum, acutum, margine columellari ad perforationem reflexo.*

*Diam.*  $11\frac{1}{2}$ , *alt.*  $6\frac{1}{2}$  mill.

*HAB.* Specimen unicum ad Sengoku legit cl. Dr. Anderson.

The first *Nanina* known from Japan; I am not sure about its subgenus, which can hardly be ascertained without examining the animal. The nearest relation is apparently my *N. eastlakeana* from Fuchow in China (Jahrb. d. Mal. Ges. 1882, 371), which is somewhat larger and flatter. I think both species should be classed with *N. indica*, Pfr., which G. Nevill (Handl. Moll. Ind. Mus, 1878, 27) has under "subgenus doubtful," whilst Pfeiffer considers it to be a carinate *Macrochlamys*.

Another *Nanina* (*Macrochlamys*?, *Hemiplecta*?) at least 24 mill.

in diameter, I received from Mr. F. W. Eastlake, who obtained it in Nippon; it is, however, in too bad condition to be described.

2. *HYALINIA (CONULUS) TENERA*, A. Adams. One specimen from Chitose, Yeso.

3. *HYALINIA (EUHYALINA) YESSOENSIS*, Reinh., Sitz. Ber. Ges. Nat. Fr. Berlin, 17th April 1877, p. 91. Jahrb. d. Mal. Ges. IV, 1877, p. 314, t. IX, f. 6.—Kobelt, Faun. Jap. p. 8, t. I. f. 2.

Hakodadi (*A. Adams, Hilgendorf*). Onuma, Poronai, Chitose, Eastern Yeso (*Anderson*).

4. *PATULA PAUPER*, Gould. From various localities in Yeso, where it had already been collected. Known besides from Kamchatka, the Amoor, and North China.

5. *HELIX SIMILARIS*, Fér. Specimens from Yeso (Poronai) quite agree with the Chinese forms of this cosmopolitan snail. This is, so far as I know, the most northerly habitat of the species.

6. *HELIX PECULIARIS*, A. Adams. Hills of Hakoni, where Mr. Eastlake likewise collected this rare species.

7. *HELIX JAPONICA*, Pfr. Yeso.

8. *HELIX BLAKEI*, Neroc, Proc. Acad. Calif. III, 1861, p. 160, *vide* E. von Martens, Sitz. Ber. Nat. Fr. Berlin, 17th April 1877, p. 105. Kobelt, Faun. Jap. p. 23, t. VII, f. 10, 11.

A snail which Dr. Anderson obtained at Chitose, Yeso, agrees perfectly with Kobelt's description and figure of *Helix blakei*, Neroc, the original description of which I am unable to compare. Dr. Hilgendorf collected the same species near Hakodadi. I do not think the shell can be classed in the subgenus *Aegista*, as Kobelt has it, but would place it in *Camena*.

9. *HELIX PELIOMPHALA*, Pfr. Typical forms from Kamahura, Ishiyama in Central Japan; a small rather high variety from several places in Yeso.

10. *HELIX AMALIE*, Kobelt. Quite corresponding to the author's figure, from Kiga.

11. *HELIX LUHUANA*, Sow. Kiga.

12. *HELIX QUÆSITA*, Fér. A curious small form, light brown without a band, but otherwise typical, from Ogenohama, Yeso.

13. *HELIX LÆTA*, Gould. Onuma, Chitose, Ogenohama (Yeso). Originally described from Hakodadi. The specimens for the greater part (like most of the snails collected) not full grown, are partly without hands.

14. *BULIMINUS ANDERSONIANUS*, n. sp.

*Testa profunde rimata, turrito-conica, tenuis, striis transversalibus et lineis spiralibus rugulosis quasi granulata, corneofusca; anfr. 7½—8*

*convexusculi, sutura impressa discreti, ultimus magnus antice paululum ascendens. Apertura parum obliqua, truncato-elliptica, peristoma expansum, reflexiusculum, marginibus callo tenui junctis, externo arcuato, columella subplicata.*

Long.  $21\frac{1}{2}$ , lat. 8, apert. alt.  $7\frac{1}{2}$ , lat.  $5\frac{1}{2}$  mill.

HAB. Ad Onuma, Poronai insulæ Yeso leg. cl. Dr. Anderson.

This fine *Buliminus* differs from the only species known from Japan, *B. reinianus*, Kob., in its smaller size, much more conical spire, broader base, deeper umbilical slit, but principally by its very distinct sculpture consisting of transverse striation and rather irregular spiral lines which together produce a granulose aspect of the cuticle.

15. BULIMINUS JAPONICUS, n. sp.

*Testa rimata, ovato-turrita, solidula, oblique striatula (albida?, cornea?); anfr.  $7\frac{1}{2}$  vix convexi, sutura impressa discreti, ultimus basi rotundatus  $\frac{1}{2}$  totius altitudinis adaequans; apertura parum obliqua, truncato-elliptica, peristoma expansum, reflexiusculum, marginibus callo sat valido junctis, columella haud angulata nec plicata.*

Long. 28, lat. 11, apert. long. 11, lat. 8 mill.

HAB. Prope urbem Osaka, comm. cl. F. W. Eastlake.

The unique specimen of a *Buliminus* which Mr. F. W. Eastlake has sent me for description appears to differ specifically from *B. reinianus* in its much more ventricose almost ovate shape and its greater solidity, in having  $\frac{1}{2}$  a whorl less, the last whorl higher, the lip of the peristome broader, the parietal callus thicker, and the columella not plicate. The specimen being dead and faded, I cannot describe the colour, which is most likely brownish.

16. STENOGYRA (OPEAS) PYRGULA, A. Adams.

A single specimen from Onuma, Yeso. I have received the same species from the Nikko mountains, where it was collected by Mr. F. W. Eastlake.

Genus CLAUSILIA, Drap.

Group *Euphaedusa*, Böttg.

17. CLAUSILIA PRABA, A. Ad. The localities Utsonoma and Mamada (Nippon) given in my former paper (J. A. S. B. LI, Pt. II, 1882) were inserted by mistake, the species collected there being *Cl. tau*, Böttg. *Cl. proba* has only been found on the island of Kiushiu and in the Korean Archipelago.

Group *Stereophaedusa*, Böttg.

18. CLAUSILIA TETRPTYX, v. Mölldff., l. c. p. 7, t. I, f. 7.

I find that this form does not belong to the group of *Cl. validiuscula*, v. Mart, as formerly stated, but to that of *Cl. brevior*, v. Mart. I could



not break up a specimen at the time, and by looking into the shell I must have got an entirely erroneous view of the clausilium, which is essential for determining the subsection. Furthermore, I had only an imperfect knowledge of *Cl. brevior*, which is not very well represented by the figure in Kobelt's *Fauna Japonica*, but of which I have since received authentic specimens. *Cl. tetraptyx* is a little larger (but this does not matter much, as *Cl. brevior* is rather variable in size), the colour is brown with a reddish tint, whilst *Cl. brevior* is pale horn-coloured, the peristome is broader, slightly lipped and liver-coloured, its upper sinuation somewhat deeper. The palatal plaits are somewhat longer and farther up in the interior of the shell. Altogether I think *Cl. tetraptyx* is hardly more than a variety of *Cl. brevior*.

I subjoin the description of a new form of this interesting little group which Mr. F. W. Eastlake has discovered near Nikko.

19. CLAUSILIA NIKKOENSIS, n. sp.

*Testa elongato-fusiformis, pallide cornea, subtiliter sed distincte striata; anfr. 10½—11 convexiusculi; apertura ovalis, parum obliqua, peristoma continuum, superne solutum paulum sinuatum, expansiusculum. Lamella supera sat valida, marginalis, cum spirali continua, infera valida, valde torta, intus subfurcata, usque ad marginem producta, subcolumellaris emersa, plica principalis elongata, palatales 5 breves, superior et infima paulo longiores. Clausilium latum, subtus rotundatum.*

*Long. 18, diam. 3½ mill.*

This species is distinguished from *Cl. brevior* by the longer and much slenderer shell, the more elongate aperture with higher "sinulus", the lower parietal lamella reaching the margin of the peristome, the upper lamella being less high.

Group *Megalophaedusa*, Böttg.

20. CLAUSILIA MARTENSI, Herklots, MS.—E. v. Martens, *Mal. Bl.* VII, 1860, p. 40; Albers-Mart., *Hel.* 1860, p. 275; Ostas. *Landschn.* 1867, p. 32. Pfeiffer, *Mon. Hel.* VI, 1868, p. 494, VIII, 1877, p. 519. A. Adams, A. & M. N. H. 4th ser. I, p. 469. Kobelt, *Faun. Jap.* p. 79, t. VIII, f. 1—4. *Cl. reiniana*, Kobelt (olim) *J. d. Mal. Ges.* II, 1875, p. 330, t. XII, f. 7-9, *ibid.*, III, 1876, p. 154, t. V, f. 8. Pfeiffer, *Mon. Hel.* VIII, 1877, p. 471. *Cl. yocohamensis*, Crosse, *J. de Conch.* XXI, 1873, p. 68, t. V, fig. 3, 3a. Pfeiffer, *Mon. Hel.* VIII, p. 481. Böttger, *Claus. Stud.* 1876, p. 62. Kobelt, *Faun. Japon.* p. 81, t. VIII, f. 5—9. *Cl. yocohamensis*, var. *reiniana*, Böttger, *Claus. Stud.* 1876, p. 62. Pfeiffer-Clessin, *Nomencl. Hel.* p. 392.

From what I have seen of the big Japanese *Clausiliae* I do not believe that two species can be recognised. The characters by which

they are to be distinguished vary a good deal even at the same locality, especially the more or less visible subcolumellar lamella. If Kobelt's identification of his *Cl. reiniana* with *Cl. martense*, Herklots, is correct, as I think it is, then *Cl. yocohamensis*, Crosse, will have to follow suit. Perhaps varieties may be distinguished, but for this purpose the habitats of the different forms will have to be more exactly recorded than they have hitherto been.

Dr. Anderson obtained one dead specimen of a *Megalophaedusa* at Mianoshda; if the two species are to be separated, this would be *Cl. yocohamensis*, Crosse.

21. *CLAUSILIA DUCALIS*, Kobelt. A single specimen from Hakoni, where Mr. R. Hungerford collected the same species before.

Group *Cylindrophaedusa*, Böttg.

My friend Dr. Böttger does not quite agree with me in classing *Cl. gracilispira*, mihi (l. c. p. 5, t. I, f. 5), with the Himalayan *Cl. cylindrica*, Gray, and would rather propose to insert it in the group of *Cl. validiuscula*, Mart. (*Hemiphaedusa* subgroup I.). The species does not seem to agree perfectly with either of the two groups, but the shape of the shell and of the lower parietal lamella are certainly nearer those of *Cl. cylindrica*. Another question is, whether *Cylindrophaedusa* can be upheld as a separate subsection at all. The investigation of Western and Central China will probably enable us to decide these questions.

*Clausilia micropeas*, mihi, is certainly no *Cylindrophaedusa*, as I shall show further on.

Group *Hemiphaedusa*, Böttg.

(a) Subgroup of *Cl. validiuscula*, v. Mart.

As mentioned above *Cl. tetraptya*, mihi, is to be removed from this subgroup.

(β) Subgroup of *Cl. sublunellata*, Mölldff.

The following species form a subgroup of their own within the section *Hemiphaedusa*, to which they undoubtedly belong on account of their very receding, almost straight, lower parietal lamella and their narrow clausilium. The first subgroup, that of *Cl. validiuscula*, shows, instead of a lunella, a number of lateral palatal plait, whilst the following subgroups have a more or less straight lunella and no 'palatales' except the principal one.

The following species, however, have below the principal plait, first an upper palatal, after this a very short second one, and then a short straight lunella, which in some forms is somewhat obsolete, but always discernible. We have, therefore, in these forms, a remarkable transitional group between that of *Cl. validiuscula* and the other *Hemiphaedusae*.

22. *CLAUSILIA SUBLUNELLATA*, n. sp.

*Testa ventricosofusiformis, tenuissime striatula, solidula, corneofusca, anfr. 11 subplani, superiores quattuor spiram cylindricam obtusam efficientes, ceteri celeriter accrescentes, duo penultimi maximi, ultimus attenuatus basi rotundatus. Apertura elongata piriformis, sinulus rectus, peristoma fere solutum, valde incrassatum, reflexiusculum. Lamella supera valida, obliqua, marginalis, intus triangulariter elevata, cum spirali continua, infera recedens, stricta, intus valida, subcolumellaris immersa, oblique intuenti intus conspicua. Plica principalis modica (lineam lateralem superans), palatales duae, supera principali subparallela brevis, infera brevissima, lunella brevis, strictiuscula. Clausilium?*

*Long. 24, diam. 5, apert. long 6, lat. 4 mill.*

HAB. In montibus Nikko leg. cl. F. W. Eastlake.

23. *CLAUSILIA SERICINA*, v. Mölldff. (l. c. p. 6, t. I, f. 4), which Mr. Hungerford collected in the same region, and which I cannot compare at present, will probably prove to be a near relation to *Cl. sublunellata*, and undoubtedly belongs to the same subgroup.

24. *CLAUSILIA SUBULINA*, v. Mölldff, l. c. p. 13.

One specimen collected by Mr. F. W. Eastlake in the Nikko mountains agrees perfectly with my diagnosis of the above species, of which Mr. Hungerford possesses the only example found. It has the peculiar arrangement of the palatal plaits in common with *Cl. sublunellata*, viz., an upper palatal plait under the principalis, then a shorter one, and below this a short straight lunella, which is, however, not so distinct. *Cl. subulina* is the only species of the subgroup in which the subcolumellar lamella reaches the peristome.

25. *CLAUSILIA MICROPEAS*, v. Mölldff., l. c. p. 12.

The idea of classing this small form with *Cl. gracilispira*, mihi, in the sub-section *Cylindrophaedusa* has to be given up entirely; the lower parietal lamella requiring its being placed in *Hemiphaedusa*. I find, further, that there is an indication of a lunella below the second (generally punctiform) palatal plait. The species therefore fits very well into our present subgroup.

Mr. F. W. Eastlake collected a single specimen on his tour to Nikko without noting a special locality. Lake Chusinji, where Mr. Hungerford obtained the species, is not far from Nikko.

26. *CLAUSILIA OPEAS*, n. sp.

*Testa cylindraceofusiformis, subtiliter striatula, solidula, cornea, anfr. 10½ planulati, ultimus rugosostriatus, apertura elongato-rotundata, peristoma solutum, expansum, reflexiusculum, leviter incrassatum. Lamella supera marginalis, modica, infera remota vix conspicua, intus valida, subcolumellaris immersa oblique intuenti conspicua. Plica principalis*



*lineam lateralem via superans, palatalis supera brevis divergens, infera punctiformis, lunella brevis stricta. Clausilium?*

Long.  $17\frac{1}{2}$ , diam.  $3\frac{1}{2}$ , apert. long.  $3\frac{1}{2}$ , lat.  $2\frac{1}{2}$  mill.

HAB. In montibus Nikko leg. cl. F. W. Eastlake.

Another species of the same subgroup, at once distinguished by the cylindraceous slender shell.

(γ) Subgroup of *Cl. platydera*, v. Mart.

27. CLAUSILIA PLATYAUCHEN, v. Mart., Sitz. Ber. Ges. Naturf. Fr. Berlin, 17th April, 1877, p. 110. Böttger, Claus. Stud. p. 67. Kobelt, Faun. Jap. t. IX, f. 8. *Cl. fusanensis*, v. Mölldff, l. c. p. 8, t. I, f. 8.

My friend Dr. Böttger has pointed out to me that my species is the same as von Martens' previously published *Cl. platyauchen*, of which I had not seen a specimen, and which is not very accurately figured in Kobelt's Fauna of Japan. I have since convinced myself that Dr. Böttger is right.

Dr. Anderson collected a small variety of the same species at Chusinji which is only 23—25 mill. in length.

(δ) Subgroup of *Cl. strictaluna*, Böttg.

28. CLAUSILIA STRICTALUNA, Böttg., var. *nana*, n.

*Differt a typo testâ multo minore, ventricosiore, aperturâ magis rotundatâ, lamellâ subcolumellari immersâ.*

Long. 9—10, lat.  $2\frac{3}{4}$  mill.

Nagasaki (*Hungerford*). This dwarf form, although closely related to *Cl. strictaluna*, may ultimately be considered to be a separate species, if a greater number of examples of both can be examined.

29. CLAUSILIA AURANTIACA, Böttg., var. *ERBERI*, Böttg.

My var. *minor* (l. c. p. 9) is the same as Böttger's var. *erberi*, as the author has himself confirmed.

30. CLAUSILIA PLICILABRIS, A. Adams, A. & M. N. H. 4th ser. X, 1868, p. 469. Pfeiffer, Mon. Hel. VIII, 1877, p. 476.

This rare species has been found by Mr. F. W. Eastlake on his tour to Nikko, and by Mr. B. Schmacker in the Hakoni mountains.

(ε) Subgroup of *Cl. caryostoma*, v. Mölldff.

31. CLAUSILIA CARYOSTOMA, v. Mölldff., l. c. p. 6, t. I, f. 5.

This interesting species is certainly a *Hemiphaedusa*. The "ventral" position of the palatal plaits bring it near to the subgroup of *Cl. strictaluna*, in which especially *Cl. aurantiaca* shows the same receding position of the closing apparatus. My former remark that a lunella is deficient has to be rectified, inasmuch as the punctiform plait between the two 'palatales' may very well be considered to be a short lunella.

(δ) Subgroup of *Cl. hyperolia*, v. Mart.

Of this subgroup, I described in my former paper two new species, *Cl. reotaluna* and *Cl. aptychia*, but having since received more material for study from Messrs. Eastlake, Schmacker, and Anderson I am now convinced that they have to be reduced to varieties, or, perhaps, even mere forms, of *Cl. hyperolia*. I was led into this error by the scanty supply of specimens; and this is a characteristic instance of the difficulty, if not impossibility, of getting a correct idea of a species of *Clausilia*, especially in the Asiatic groups, from single individuals. *Cl. hyperolia* seems to be very variable in size, shape, etc., but none of the distinguishing characters of the various local forms seems to be of specific value. I now propose to distinguish the following varieties.

32. CLAUSILIA HYPEROLIA, v. Mart., *type*, 17-20 mill. in length. Near Tokio (*Hilgendorf*, *Rein*, *Schmacker*), hills on the way to Nikko and Kawasaki (*Eastlake*).

Var. REOTALUNA, v. Mölldff., somewhat more slender, of pale horny colour, with a rudimentary principal plait; the other characters given (l. c. p. 9) are not constant, inasmuch as the spiral bands or lines are often deficient in the type itself, whilst the *lamella infera* often terminates in the same way as described in *Cl. reotaluna*.

Kamatokogiro (*Hungerford*).

Var. APTYCHIA, v. Mölldff., larger, up to 25 mill. long, upper parietal lamella somewhat smaller, lower lamella a little more visible in the aperture, the lunella sometimes, but not always, evanescent.

Dr. Anderson collected this form in some numbers at Hakoni and Chusinji, the former place being the original habitat. It is very variable in size and somewhat also in shape, form of the aperture, and thickness of the peristome.

Var. PLANULATA, v. Möll., *differt a typo testâ longiore, multo gracilliore, anfractibus planulatis, lamellâ superâ humili, inferâ magis recedente, antice inconspicuâ*.

Two specimens from Kobi (*Eastlake*). Of all the forms, this has perhaps the best claim to specific distinction, and, if the characters as given above prove constant in a greater number of examples, it had better be separated, especially as the locality is widely distant from those of the other varieties.

33. SUCCINEA LAUTA, Gould. Hakodadi, Oginohama, Poronai, Chitose, all on the island of Yeso, where the species had been previously found.

34. LIMNÆUS JAPONICUS, Jay. Lake Chusinji, Yeso.

35. LIMNÆUS PERVIUS, v. Mart. Central Japan.

36. ALYCÆUS NIPPONENSIS, Reinh. Yeddo (*Dönitz*, *Hilgendorf*), Nikko and Hakoni mountains (*Eastlake*), and Mianoshda (*Anderson*).



37. DIPLOMMATINA LABIOSA, v. Mart., Sitz. Ber. Ges. Nat. Fr. 17 April 1877, p. 98. Kobelt, Faun. Jap. p. 112, non *D. labiosa*, W. T. Blanford, J. A. S. B. XXXVII, Pt. 2, 1868.

This fine *Diplommatina*, which has, so far as I know, not yet been figured, requires renaming on account of *D. labiosa*, Blanf. As this has probably been already done, I mention the species under the old name in order to avoid a superfluous synonym.

It was discovered by Dr. Hilgendorf in the Hakoni mountains, where Messrs. Hungerford and Eastlake have since collected it. Hungerford also found it at Asinoin, and Anderson at Myiokishita.

38. DIPLOMMATINA NIPPONENSIS, n. sp.

*Testa dextrorsa, rimata, elongate ovato-conica, subtiliter sed distincte et regulariter striatula, rufescenticornea, anfr. 7 convexi, superiores spiram conicam acutiusculam efficientes, duo ultimi parvulum distorti, ultimus angustior, antice ascendens. Apertura fere verticalis, subcircularis, peristoma duplex, reflexiusculum, expansum, superne in anfractum penultimum productum. Lamella columellaris humilis spiraliter recedens, plica palatalis longiuscula, supra aperturam conspicua.*

*Long. 2½, diam. 1½ mill.*

HAB. Ad Asinoin leg. cl. R. Hungerford, in montibus Hakoni leg. cl. F. W. Eastlake.

So far as I know, only two species of *Diplommatina* have been described from Japan, the preceding and *D. pusilla*, v. Mart. From both of these our new form is widely different. The nearest are *D. pavillus*, Gredl., of Central China and *D. hungerfordiana*, Nev., of Formosa; which are both a little larger, and much more regular and rounder in shape, while *D. nipponensis* is at once distinguished by the regular pointed cone of the upper whorls and the distorted suddenly enlarged lower ones. The sculpture of our species is much more regular, the columellar margin of the peristome is rounded, hardly angulate at all, whilst *D. hungerfordiana* is slightly subangulate, and *D. pavillus* distinctly angulate at the base.

39. JAPONIA BARBATA, Gould. I am indebted to Mr. F. W. Eastlake for some specimens of this rare shell which were collected by him in the Hakoni mountains. They have enabled me to settle the vexed question of what *Japonia*, Gould, really is. Gould says nothing about its affinities, E. von Martens (Ostas. Landschn. 1867, 12, 127) supposed it to be related to *Cyclotus*, and Pfeiffer placed it at first near *Hydrocena*, later on considering it to be a section of *Realia*. The descriptions of the genus and its three species given by Gould are, it is true, so incomplete and vague that very little can be concluded from them. The examples collected by Mr. Eastlake agree very well with the description of *T. barbata*, Gould;

at the same time they show close relationship to the small species of sculptured *Cyclophori* described from China, viz., *C. trichophorus*, mihi, *sexifilaris*, Heude, etc. These do not, however, as I have lately found out and shall elsewhere prove, belong to *Cyclophorus*, but to *Lagochilus*; and, from the analogy of the shells, I do not doubt that the Japanese species will have to be placed in the same genus. In that case fanatic adherents of strict priority might contend that this genus should be named *Japonia* (published 1859) instead of *Lagochilus* (1864), but, as the few words by which *Japonia* was introduced cannot be called a scientific description, whereas *Lagochilus* was properly described and published by Blanford, I hope nobody will contest the validity of the latter name. Should it be found that the Chinese and Japanese species deserve to be separated from the Indian forms as a section of their own, *Japonia* should be retained as its name.

40. *HELICINA JAPONICA*, A. Adams. Sengoku (*Anderson*), Mianoshda Hills, Chusinji (*Hungerford*).

41. *MELANIA LIBERTINA*, Gould. In various forms from the Hakoni Lake, Kiga, Central Japan, and Yeso. I quite agree with E. von Martens and Kobelt, who combine *M. japonica*, Reeve, *M. tenuisulcata*, Dunker, *M. ambidextra*, v. Mart., and *M. reiniana*, Brot, all with *M. libertina*, Gould; as frequent transitions from one form to another are to be found.

42. *MELANIA NIPPONICA*, Edg. Smith. Lake Biwa.

43. *MELANIA BIWÆ*, Kobelt. Lake Biwa. Messrs. Hungerford, Schmacker, and Anderson have collected this fine species in some numbers, and I have seen no transitional forms which would necessitate its combination with the preceding species.

The *Paludinae* collected by Dr. Anderson are all young or imperfect specimens.

