OF ARTS AND SCIENCES.

Dehiscence of the capsule. The genus should probably be upheld, but the distinctions between it and *Philadelphus* are rather slight. Two of them are now brought out, namely, the imbricate activation of the corolla (but this sometimes occurs in *Philadelphus*), and the structure of the stigma, which so far as I know is not imitated in *Philadelphus*. The more superior gynoecium is striking, at least in fruit; but that is a matter of degree. The habit and foliage in this plant and in *Philadelphus serpyllifolius* are not unlike. Occasionally the petals and some of the filaments persist until the fruit is grown.

**HOWELLIA, Nov. Gen. Lobeliacearum.**


**HOWELLIA AQUATILIS.** — In stagnant water, on Sauvies Island in Willamette Slough, Oregon; discovered by Thomas T. and Joseph Howell, who collected in May, 1879, the submersed form, abundantly flowering and fruiting, but the inconspicuous corolla hardly expanding; and in August, at another station, specimens with emersed tips to the stems, bearing flowers with well-developed corolla, but much shorter calyx-lobes. This corolla is a line and a half or two lines in length, the limb that of a *Lobelia*, but with the tube very short and the slit between the two (seemingly) upper petals extending to the base, yet apparently not quite separating them. At the other margin these two petals are manifestly connate with the adjacent ones of the
three-cleft spreading lip. The only mature capsule seen belonging to an emersed flower is hardly over three lines long and clavate-oblung. Immature submersed capsules are of double this length and fusiform, their setaceous calyx-lobes commonly three lines long. The ovary is strictly one-celled from the first. The submersed plant has somewhat the aspect of *Najas flexilis* or a narrow-leaved *Anacharis*; the stems a foot long; the leaves an inch or two long, and a third or a fourth of a line wide. These are alternate, tending occasionally to opposite and verticillate, generally quite entire, but sometimes with one or two lateral teeth. The emerged leaves seen are only two lines long, and are not unlike those of *Downingia pulchella*. Possibly this new plant might be brought under that genus, but not with propriety. Besides the sessile long-linear ovary, the unisetose anthers, and the great inequality of the two lips of the corolla, the tube in that genus is more deeply cleft laterally than between the two small petals. Our plant must accordingly be received as a new generic type, allied to *Lysipomia*, HBK. (*Lysipoma*, A.D.C.), *Downingia*, and somewhat to *Laurentia*, but not referable to any of them. It is dedicated to the discoverers, who are assiduous collectors and acute observers, and who have already much increased our knowledge of the botany of Oregon.

**NEWBERRYA**, Torr., char. auct.

Sepala bracteoliformia 2 vel 4, linearia. Corolla tubo intus cum filamentis stylosque viloso. Discus hypogynus e dentibus deflexis inter stamina 8–10. Cat. in char. spec.

**NEWBERRYA CONGESTA**, Torr. Floribus crebre cymoso- (corymbiformi-) congestis; corolla lobis ovatis tubo cylindraceo subureolato triplo brevioribus; filamentis stylo gracili æquilongis; antheris angusto-oblongis, loculis rima connectivo proxima dehiscentibus; squamis caulinis ovatis obtusis parum erosis. — Known from Dr. Newberry's advanced and imperfect specimens from Des Chutes valley in the Cascade Mountains, S. Oregon, and now (1878) collected by V. Rattan, in Fir (Douglas Spruce) forests, on the north fork of Mad River, in Humboldt Co., California, in fine flowering state, with corymbiform-glochinate inflorescence on a very short stem, of only an inch or two in height. The lower scales are apparently rather broader than in Newberry's plant. The specimen collected by the late George Gibbs apparently belongs to the following species.

**NEWBERRYA SPICATA.** Floribus spicato-congestis; corolla magis campanulata, lobis oblongis tubo dimidio brevioribus; filamento stylum ovario vix longiore hauæ aquantibus; antheris brevi-oblongis, loculis
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BOTANICAL CONTRIBUTIONS.

BY ASA GRAY.

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Stevia stenophylla. Fruticos, humilis, glabra, glutinosa; foliis omnibus oppositis angustissime linearibus (poll. 2–3 longis lineam latis) integerrimis evenis, costa haua prominula; ramis floridis gracilimis; capitulis subsessilibus fasciculatis corymbiformi-cymosis; corolla alba; acheneis inter costas scabro-hirtellis; pappi paleis coroniformi-subconcretis muticis vel in pleris 2–3-aristatis. — Rocky hills near San Luis Potosi, blossoming through the year. No. 319. A very distinct species, allied to the narrow-leaved form (S. angustifolia, HBK.) of S. salicifolia, Cav. Foliage of purplish-green hue, very glutinous. Among the forms of S. salicifolia collected was a very dwarf one (no. 326), var. nana. The appended note relates to an Ageratoid genus, which is not in Palmer and Parry's collection.*

* Oxylolus, Moçino. Phania § Oxylobus, DC. Prodr. v. 114. Distinguishing this from true Phania, Bentham and Hooker append P. arbutifolia, DC., to Ageratum, following Kunth, and leave the P. trinervia, DC., uncertain. I propose to