

*Thallus* lacero-laciniatus, supra densissimè purpureo-rugosus, subtus magis aut minus reticulato-lacunosus, glaber. *Apothecia* difformia, angulata, convexa, plicis ut plurimum circinatis notata. Præcedenti affinis et fortassè varietas scailis. (B.)

Expl. Iconis eadem ut in præcedenti.

553. *G. pensylvanica*: *Ach. Syn.* p. 67. *Muhl. Cat.* p. 105. Tab. 30. Fig. 2.

*Thallus* tenuis umbilicatus, irregulariter expansus flexuosus, passim erosus, in ambitu lacero-laciniatus, supra umbrino-brunneus, plerumque prope umbilicum materiâ quâdam crustaceâ canescens, papulis elevatis, oblongis vel conoideis, obtusis, sparsis, discretis, saccis pagine adversæ respondentibus munitus; subtus lacunosus, punctis crebris elevatis scaber; brunnescenti-niger ambitum versus pallidior; utrinque opacus. Madefactus aliquantulum pallet et supra olivaceus vel æneo-fuscus evadit.

*Apothecia* simplicia adpressa, orbiculata vel flexuosa angulataque, disco opaco, plano vel concaviusculo, æquabili interdum ostiolo centrali impresso et margine proprio elevato nitidiusculo cincto. *Apothecia* aliquando in discis suis alia minora ferunt vel cum aliis conflunt quibus modis formatur apothecium satis magnum disco planiusculo irregulariter plicato margine commun flexuoso, et angulato cincto. Sunt quoque in thallis quibusdam fortassin vetustioribus *apothecia* dissimilia parva, discreta, aut conferta, discis depressis et marginibus granulato-crenulatis, rugosis, inflexisque. *Apothecia* vetustiora utriusque generis in ambitu à thallo elevata sunt.

*Thallus* interdum locos humidos opacos habitans fl. rescenti-cinereus fit. (B.)

Expl. Icon. *a.* superficies thalli supina, *b.* superf. prona mag. nat. *c.* apothecium et portio thalli exsecti sub lente visi.

554. *G. Muhlenbergii*: *Ach. Syn.* p. 67. *Muhl. Cat.* p. 105.

*Thallus* hujus quam trium præcedentium paulo crassius, plerumque polyphyllus, hepatico-brunneus, extrorsum fere nigricans, oblique umbilicatus, flexuosus, prope umbilicum capillaceo-brunneus corrugato-plicatus, plerumque irregulariter expansus, margineque lacero, hic illic pertusus erosusque; supra glaber, nitidiusculus, foveolis ab apothecis impletis ambitum versus præcipue impressis; subtus sordidè flavescenti-brunneus, minute verrucosus, at fixuris cribriformibus nigrescentibus fere obtectus. *Apothecia* majuscula vix unquam orbiculata, fere semper angulata, et non raro pulchrè stellata, convexa, densissimè plicata non semper in sacculis immersa sed etiam in planâ superficie thalli sessilia. Dantur quoque in eodem thallo *apothecia* alia parva fere orbicularia, disco depresso et margine granulato rugosoque inflexo.

Expl. Icon. *a.* superficies thalli supina, *b.* superficies partis thalli prona mag. nat. *c.* pars thalli cum apothecio exsecta, et sub lente visa.

*Hab.* This and the three preceding species were found in greater or less abundance in all rocky places throughout our journey. We used them all four as articles of food, but not having the means of extracting the bitter principle from them, they proved noxious to several of the party producing severe bowel complaints. The Indians use the *G. Muhlenbergii*, rejecting the others, and when boiled along with fish-roe or other animal matter, it is agreeable and nutritious. On the Barren Grounds this lichen is scarce, and we were obliged to resort to the other three, which served the purpose of allaying the appetite, but were very inefficient in recruiting our strength.

555. *G. vellea*, *Ach. Syn.* p. 68. *Umbilicaria vellea*. *Mich. Fl. Am.* ii. p. 323.

*Thallus* crassiusculus, molliusculus, sæpe latitudine sesquipedalis, sordide flavescenti-griseus (sub lente verrucosus) pertusus erosusque, in ambitu sub rotundato-lobatus, lacerusque; subtus fibrillis densis brevibus, furcatis, nigris, hirsutus. *Apothecia* nunquam inveni.

*Hab.* on shady and moist rocks, most luxuriant in woods. This is more agreeable to eat than any of the preceding species, but we met with it very sparingly on the Barren Grounds.

556. *Opegrapha macularis*: *Ach. Syn.* p. 72. *Muhl. Cat.* p. 105. (W.)