

ined.

Not *J. Wallrothiana*! Either
a var. of *J. Divaricata* or a
closely related species. (A.)

caulem oblique insertis undulatis flexuoso-patulis late amplexicaulis (vix complicatis) late cuneato-quadratis integerrimis truncato bi—trilobis, margine obtuse 1—3 undulato-plicatis (basal media vix saccatis); fructu terminali (in auctumno matur.), perianthio valde elongato (circa 3 lin. longo) subcylindrico nudo apice subplicate ore minute ciliato; foliis involucralibus binis latissimis brevissimis valde cristato-undulatis obtusissime plurimum lobulatis. —Hep. Bor. Amer. Exsicc., No. 46.

In a peat bog near Closter, New Jersey; growing among *Sphagna*, and associated with *J. Taylori*, *J. inflata*, *J. connexa*, etc.

The sterile plant agrees perfectly with authentic European specimens. The fruit appears to have been collected now for the first time, and is extremely rare in our locality. The leaves on the horizontal and fertile stems are crisped and wavy, much as in most *Fossombronias*. The former often bear little balls of green gemmæ on the apices of their lobes, and are subhorizontal and frequently imbricated, while the latter, towards the perianth, are usually 1—3 lines apart, subopposite and erect. The leaves, particularly on the erect stems, are about as often two as three lobed, and can hardly be said to be complicate, or either saccate at the base. The stem is usually very conspicuous on account of its blackish color. The perianth is whitish or membranaceous above, and at first subtriquetrous.

JUNGERMANNIA WALLROTHIANA, Nees.

"Nigricans, minutissima. Caule repente, adscendente, subsimplici vel innovante ramoso, vix $\frac{1}{2}$ —1 linea longo, valde radiculoso; radicibus crassis papilliformibusque. Foliis diametro caulis latioribus, amplexantibus, firmis, ovato-quadratis, acute imbricatis, semiverticillibus, concavis, sursum conniventibus, emarginato-bidentatis; sinu vel obtuso in foliis inferioribus, vel acuto in foliis superioribus; dentibus obtusiusculis integerrimis; margine pellucidis; areolatione distincta, cellulis ovato-polygonis, olivaceis, sursum tantum pellucidis. Foliis involucralibus majoribus, erectis, tridentatis, undatoplicatis, basi connatis; dentibus acutis vel obtusis. Perianthio ovali-cylindrico, superne contracto, plicato; ore subdentato, pellucido, inferne rubello." (Lesqx. in Herb.)

On coarse sand, on the slopes of the White Mountains of New Hampshire, Oakes.

A very minute species, but more than twice the size of *J. Sullivantii*, from which it is also distinguished by its entire leaves, papilliform rootlets, and different perianth. Leaves round-ovate, thickish, $\frac{3}{4}$ -bifid, the lobes triangular-ovate, acute; cellules irregularly angled, subquadrate or oval, rather uniform, largish for the size of the leaf (about ten across its widest part), opaque, with broad hyaline spaces between. Apex of the lobes hyaline, often slightly eroded on the margin. Color dark or olive-brown. Perianth terminal, subpyramidal, cleft about one-third way into about six sublinear truncate lobes, the apex white and pellucid, the middle and base dark brownish-red; the mouth crenulate by the protrusion of the ends of the very large, oblong cells, of which the upper portion of the perianth is composed. Leaves of the involucre enlarged, entire on the margin.

JUNGERMANNIA SULLIVANTII, Aust.

J. amphigastriata, minutissima, olivaceo-vel saturate viridis; caule circa $\frac{1}{2}$ — $\frac{3}{4}$ lin. longo carnosio valde radiculoso, fructifero suberecto clavato, sterili repente subfiliformi vel subulaceo; foliis imbricatis caule sæpe angustioribus ovato-orbiculatis vel subquadratis erecto-subverticalibus plus minus denato-serratis bifidis, sinu acutiusculo, dentibus acutis; amphigastriis (solum versus apicem in caule sterili observatis) laxecoato-ovatis strictis integris (folii lobo fere similibus) suberectis; perianthio circa $\frac{1}{2}$ linea longo late ovali subobovato obtuse parceque angulato, apice paulum plicato truncato,