

## DESCRIPTION OF THE SPECIES.

*Whittleseya*, Newberry, 1853.

The genus *Whittleseya*, established by Newberry<sup>1</sup> in 1853, embraces a type of narrowly petiolate leaves, more or less flabelliform in plan, whose nervation is composed of broad and thick, closely or even densely arranged, fascicles or bands of nerves originating chiefly from a marginal strand on either side of the base and sometimes forking, not far above the point of origin, before passing upward, longitudinally parallel, to the generally truncate apex, where the nerves of each band or fascicle abruptly converge in a more or less distinct crenulation or tooth.

The leaves may be oblong, squarrose, triangular, cuneate or linear. They are always narrowed, sometimes so abruptly as to give an almost round-truncate profile, at the base. The petiole is usually long, and often filamentose. The lateral borders are in most instances nearly parallel, and the distal border is frequently acutely dentate. In the more cuneate forms the basal marginal nerves are less developed, the nerve fascicles radiating more directly from the summit of the petiole. In some species, and circumstantially in others, the vascular bands coalesce and are so densely arranged in the thick leaf substance as to be hardly separable. In most species the thickened central portions of the bands produce low costæ, though the bands are not wholly distinct from one another below the teeth; or, in many examples in which the teeth or corrugations are obscure, they may not be distinguished, unless topographically, for a portion of their length. The bands sometimes divide once near the base. Above the base they continue nearly parallel to the lateral margins of the leaves. Frequently the lateral margins are very slightly infolded near the apex.

The branchlets or possibly the stems of this type, as shown in specimens of *Whittleseya microphylla*, are slender, rarely dividing at a rather wide angle, apparently naked at some distance below the apices, and probably woody as indicated by the rather densely carbonaceous residue. The leaves, still attached to the

<sup>1</sup> Annals of Science, vol. 1, No. 10, Cleveland, 1852, p. 116.