

DESCRIPTIONS OF PLANTS, MOSTLY NEW, FROM MEXICO AND THE UNITED STATES.

By J. N. ROSE.

The descriptions here brought together have been drawn up from time to time in connection with miscellaneous determinations. The types of all my new species are deposited in the United States National Herbarium. The paper also includes descriptions of new species of Malvaceæ by Mr. E. G. Baker of the British Museum, and of Cucurbitaceæ by Prof. A. Cogniaux of Verviers, Belgium.

NEW SPECIES FROM MEXICO.

Sida cinerea Baker fil., sp. nov.

Tota cinerea, caule vel ramo ligneo virgato tereto erecto, foliis cordato-ovatis acuminatis serratis petiolatis utrinque tenuiter stellato-pubescentibus, floribus axillaribus et ad apicem aggregatis pedunculis foliis brevioribus, calyce tubo tereto vel subtereto laciniis ovatis acuminatis, petalis obovatis (in sicco aureis) calyce parce longioribus, carpellis 7 dorso rotundatis vel parce applanatis brevissime bicuspidatis.

Habitat, Mexico. Tepic. Dr. E. Palmer. No. 1835. Gathered between January 5 and February 6, 1892.

Stem or branches virgate, cinereous, terete, woody; leaves membranous, cordate, ovate, acuminate, serrate, 1 to 2 inches long, $\frac{3}{4}$ to $1\frac{1}{2}$ inches broad, petioles $\frac{1}{2}$ to $1\frac{1}{4}$ inches long; stipules linear lanceolate, rather more than $\frac{1}{2}$ inch long; flowers axillary and terminal, generally aggregated, rarely solitary or subsolitary, peduncles shorter than the leaves; calyx $\frac{1}{2}$ inch long, tube terete or subterete, cinereous and covered with pilose hairs, sepals ovate, acuminate; petals obovate, slightly longer than the calyx; carpels 7, very shortly beaked, rounded or slightly flattened at the back, sparsely pubescent, about 1 line long.

This plant is allied to *Sida dumosa* Sw.

Sida lodigensis Baker fil., sp. nov.

Caule erecto ramoso tereto perenne minute stellato-pubescente, foliis lanceolatis vel lineari-lanceolatis basi cuneatis serratis viridis superne glabris vel glabrinseulis subtus minute stellato-pubescentibus breviter petiolatis, stipulis linearibus floribus axillaribus solitariis interdum fere racemosis, calyce externe stellato-pubescente tubo tereto laciniis ovatis acutis, petalis obovatis calyce longioribus (in sicco roseis) columna staminea glabra, carpellis 5.

Habitat, Mexico. Lodiago. Dr. E. Palmer. No. 1577. Collected between October 9 and 15, 1891.

Stem $1\frac{1}{2}$ feet high, possibly more, perennial, terete, copiously branched, covered with fine stellate pubescence; leaves 1 to $2\frac{1}{2}$ inches long, $\frac{1}{2}$ to $\frac{3}{4}$ inch broad, lanceolate or linear-lanceolate, green, membranous or submembranous, 3-nerved at the

base, middle vein penninerved, petiole about 2 lines long, apex of leaf acute or subacuminate, serrate, stipules linear, $\frac{1}{4}$ to $\frac{1}{2}$ inch long; flowers axillary, solitary or subsolitary; peduncles slender, about $\frac{1}{4}$ inch long or at the apex of the branches the flowers are sessile or sessile—on some of the lateral branches the inflorescence is almost racemose; calyx tube terete, sepals ovate, acute or subacuminate, externally finely, minutely stellate; petals obovate (when dried rose-colored), not quite 2 lines long; staminal column glabrous; styles capitately stigmatose; carpels 5, only seen when quite young, then hairy and not aristate.

Allied to *Sida paniculata* L.

Wissadula pringlei Rose, sp. nov.

Branches, petioles, pedicels, and calyx pilose, the hairs intermixed with a short, close, and somewhat glandular pubescence; leaves cordate, acuminate with a deep narrow, sometimes closed sinus, crenate, long, loosely stellate or pilose above, densely stellate beneath; petiole 3.5 to 5 cm. long; stipules filiform, caducous; flowers axillary or in somewhat leafy panicles; peduncles 2 to 4 cm. long, jointed a few millimeters below the flower; calyx about 8 mm. long, somewhat enlarged in fruit and as long as the carpels, cleft to the middle, the lobes ovate, acute; petals light-yellow, longer than the sepals; carpels 5, 8 mm. long, including the aristate tip, 2-celled; lower cells narrower, of different texture from the upper, 1-seeded; upper cells inflated, 2-seeded.

Collected by Mr. C. G. Pringle in the State of Oaxaca in 1894 (No. 4872).

Very much resembling *Bastardia berlandieri* in habit and foliage, but very different in fruit.

Abutilon membranaceum Baker fil., sp. nov.

Radice simplice fibroso, caule erecto tereto ligneo, foliis cordato-ovatis acuminatis membranaceis viridibus grosse serratis interdum biserratis utrinque sparse stellato-pubescentibus petiolatis, petiolis laminis brevioribus vel subaequilongis versus apicem petiolis laminis multo brevioribus, floribus axillaribus solitariis vel versus apicem parce aggregatis, pedunculis gracilibus juxta florem articulatis, sepalis ovatis acuminatis carpellis multo brevioribus, petalis (in sicco flavidis) calyce duplo longioribus, carpellis 5 apiculatis externe stellato-scabridis 3-spermis.

Habitat, Mexico. Tepic. Dr. E. Palmer. No. 1959. Collected between January 5 and February 6, 1892.

Root simple, fibrous; stem erect, 1 to 1½ feet high, possibly higher, woody, rather slender, terete, slightly pubescent; leaves cordate, ovate, acuminate, membranous, 2 to 3½ inches long, 1½ to 2¾ inches broad, serrate, sometimes biserrate, petioles generally shorter than the lamina, above much shorter than the lamina, terete, finely stellately scabrid, lamina palmately 5-nerved, finely stellately pubescent on both surfaces; flowers axillary, solitary or toward the apex somewhat aggregated; peduncles slender, terete, articulated near the flower, above the articulation rather more pubescent than below, often bent at the articulation; calyx pubescent externally; sepals ovate, acuminate, about as long as the tube, much shorter than the fully ripe carpels; petals obovate above $\frac{2}{3}$ inch long, staminal column $\frac{1}{4}$ inch long, hairy below; carpels 5, apiculate, externally stellately scabrid, nearly $\frac{1}{2}$ inch long, 3-seeded; seeds black, smooth.

This plant is very nearly identical with *Sida dumosa* Seeman non Swartz, collected by Seeman in Panama (No. 2146).

Abutilon wissaduloides Baker fil., sp. nov.

Caule vel ramo ligneo tereto foliis cordato-ovatis acuminatis serratis vel crenato-serratis 7-9-palmatinervatis membranaceis viridibus utrinque tenuiter pubescentibus subtus paullo pallidioribus infra petiolis laminis longioribus vel subaequilongis, floribus paniculatis paniculis foliosis laxis, pedunculis gracilibus teretibus plus minusve glanduloso-pilosis, calycibus externe glanduloso-pilosis, sepalis triangularibus acutis in medianam carinatis, petalis obovatis (in sicco violaceis), columna staminea

brevisima carpellis in capsulam loculicidem connatis triovulatis apice muticis versus basin paullo constrictis.

Habitat, Mexico. Ymala. Dr. E. Palmer. No. 1720. Sept. 25 to Oct. 8, 1891.

Stem or branches woody, terete or subterete, glaucous, green, pubescent; leaves cordate, ovate, acuminate, about 3 inches long by 2½ inches broad, crenately serrated, petioles longer than the lamina; panicle lax, leafy; peduncles and calyx externally pilose and somewhat glandular; sepals triangular, acute, with a medial ridge; petals obovate, about ½ inch long; staminal column very short; carpels 3, united so as to form a loculicidally dehiscing capsule, which is muticous and slightly constricted near the base.

This plant is closely related to *Abutilon bastardioides*. The calyx is smaller and not nearly so much covered with brown pubescence. The staminal column is very much shorter and the carpels are fewer in number and constricted near the base.

Malvaviscus palmeri Baker fil., sp. nov.

Ramis ligneis, foliis cinereis vel cinereo-viridibus cordatis 3-5-palmatilobatis, lobo medio majore serratis petiolatis, floribus racemosis versus apicem congestis sessilibus vel subsessilibus racemis axillaribus et terminalibus, bracteolis linearibus calyce longioribus, sepalis triangularibus acutis vel acuminatis in medio carinatis petalis obovatis externe pubescentibus columna staminea exserta carpellis 5 dorso carinatis 1-spermis.

Habitat, Mexico. Tepic. Dr. E. Palmer. No. 1990. Jan. 5 to Feb. 6, 1892.

Branches woody; leaves cordate, palmately 3- to 5-lobed, lobes acute, larger leaves on specimen 5 inches long by about the same broad, cinereous, rather lighter-colored below, finely stellately pubescent, the same below with the addition of stellate, stiff 4-radiate hairs, petioles ½ inch long, possibly more; flowers racemose, racemes axillary and terminal, many-flowered, flowers closely aggregated and sessile or subsessile near the top, lower down longer peduncled and more laxly aggregated; bracts 9 to 10, linear, slightly longer than the calyx; calyx triangular, acute or acuminate; petals not unguiculate, ½ inch long; staminal column exserted, ¼ to ½ inch long; carpels 5, ridged on the back and pubescent, nearly 4 lines long, edges acute.

I thought at first this might be *M. flavidus* of De Candolle's Prodrômus, but it differs from this species completely in its inflorescence, that is, if I have rightly interpreted this latter species. In the Mocino and Sessé drawings there is no figure of *M. flavidus*, but there is one of *Hibiscus flavidus*, which name, however, does not appear in the Prodrômus. The description in the Prodrômus of *M. flavidus* agrees with the figure of *H. flavidus*. Mons. Casimir de Candolle and Mons. Buser, to whom I am indebted for a tracing of the plant, suggest that they must be the same plant, with which suggestion I fully agree.

Galphimia sessilifolia Rose, sp. nov.

Low shrub, 3 to 9 dm. high, usually with stunted branches and internodes shorter than the leaves, in vigorous shoots the internodes twice as long as the leaves, glabrous throughout except the inflorescence; leaves sessile, glabrous and glaucous on both sides, ovate, 1.6 to 3.6 cm. long, acute; racemes either terminal or lateral, 5 to 12.5 cm. long; pedicels often slender, 6 to 20 mm. long; bracts 1, small, setaceous; bractlets 2, borne on the pedicels, alternate, minute; buds reddish; sepals glabrous or nearly so, oblong, obtuse, 3 mm. long, much shorter than the claw of the petals; petals yellow, tinged with red, 8 to 10 mm. long, including the slender claw.

Collected by Mr. C. G. Pringle in the State of Oaxaca in 1894 (No. 4901).

Bursera glabrescens (Watson) Rose; *B. palmeri glabrescens* Watson, Proc. Amer. Acad. xxv, 145 (1890).

Shrub or small tree, 3.6 to 7.5 meters high, with dark-brown or blackish bark; leaflets 5 to 10 pairs, small, 4 cm. or less long, rarely 12 mm. wide, oblong, very rugose and becoming nearly glabrous above, strongly reticulated and pubescent beneath; rachis with narrow wings; inflorescence very much contracted, but racemes

(including peduncle) often 25 to 38 mm. long; fruit 6 mm. in diameter; nutlet orange, spherical.

This species seems to be clearly distinct from *B. palmeri*. The latter species has recently been collected near Manzanillo and in Guatemala. These specimens, although from widely separated regions, do not show much variation from the type. Mr. Nelson's specimens vary little from Dr. Watson's variety *glabrescens*, and we feel justified in separating it specifically from *B. palmeri*. It differs especially from the latter in its darker bark, in the shape, size, number, pubescence, and texture of the leaflets, and apparently in having smaller fruit.

The type is deposited in Gray herbarium, duplicate type in National Herbarium.

It was collected by Mr. C. G. Pringle on the rocky bluffs of the Rio Grande de Santiago, near Guadalajara, in October, 1889 (No. 2336). Mr. Nelson's plant (No. 2031) was collected along roadside between Sochi and Tlalquesala, State of Guerrero, altitude 3,600 to 4,800 feet, November 29, 1894.

***Bursera jonesii* Rose, sp. nov.**

Small shrub with slender, grayish branches; leaves simple, oval to obovate, rounded or slightly indented at apex, broadly cuneate at base, entire, 3 cm. or less long; flowers solitary on short, reflexed pedicels; fruit oval, 5 mm. in diameter.

Collected by Mr. Marcus E. Jones, near the city of Colima, July 2, 1892 (No. 73).

Mr. Jones says that the plant resembles *Rhamnus crocea*.

***Bursera nelsoni* Rose, sp. nov.**

Leaves imparipinnate; leaflets 5 to 9, oblong to ovate, 8 to 16 mm. long, obtuse, rounded at base (the terminal one cuneate at base), crenately toothed above the middle, glabrous and shining above, strongly reticulated and nearly glabrous beneath; rachis 3.6 to 5 cm. long, silky-pubescent especially below, narrowly winged between the leaflets; fruit solitary on long slender peduncles 16 mm. long, obovate, obtuse, 8 mm. long.

Atlixco, Puebla, Mexico. Collected by Mr. E. W. Nelson, July 25 to August 1, 1893. Apparently nearest *B. penicillata*, but differing in its narrowly winged rachis, inflorescence, etc.

B. fagaroides resembles this somewhat, but has very congested inflorescence, and dull, glabrous leaves.

***Bursera tenuifolia* Rose, sp. nov.**

Small tree, 7.5 meters high, 2.5 to 3 cm. in diameter, glabrous throughout; leaves often clustered at the ends of short, stunted branches; leaflets 7 to 15, narrowly lanceolate, acute, cuneate at base, 1.2 to 3.6 mm. long, entire or slightly crenate; rachis 12 to 50 mm. long, slightly winged; flower clusters 1- to 3-flowered, several in the axil of the leaves, peduncle and pedicels very short; fruit 6 mm. long, 3-valved.

Common on stony mountains. Collected by Dr. Edward Palmer, Lodiago, October 9 to 15, 1891 (No. 1581).

The tree has considerable top. When cut it exudes a gum-like substance with the odor of varnish.

This species seems nearest *B. fragilis* and *B. pringlei*.

Mr. C. G. Pringle's No. 4372, distributed as *B. lancifolia* Engler, appears to belong here. It seems to differ from that species in its slightly winged rachis, and fewer and narrower leaflets.

***Gouania mexicana* Rose, sp. nov.**

A climbing shrub; branches, leaves, calyx and fruit softly tomentose; leaves oblong to ovate, acute, glandular crenate, short-petioled; racemes elongated; flowers with short pedicels or sessile; disk glabrous; fruit 4 mm. high, 6 mm. broad; wings very narrow.

Seemingly a common species from Culiacan to Alamos in river bottoms, arroyos, and mountain passes. Collected by Dr. Edward Palmer, Culiacan, August 27 to September 25, 1891 (No. 1491); Ymala, September 25 to October 8, 1891 (No. 1694).

I would also refer here Palmer's Nos. 323, 675, and 676 from Alamos, distributed as *G. domingensis*. This species resembles *G. tomentosa*, but has very different fruit and leaves.

Colubrina mexicana Rose, sp. nov.

A small upright shrub, 1.2 to 2.4 meters high; young branches as well as petioles, under surface of leaves, pedicels, and calyx pubescent; leaves ovate, long-acuminate, rounded at base, 3-nerved, entire or with few teeth, 2.5 to 7.5 cm. long, including the short petioles (4 to 8 mm. long); flowers 4 to 10 on very short peduncles in the axils of the leaves, greenish-white, 4 mm. broad; petals and stamens glabrous; fruiting pedicels 6 to 12 mm. long; fruit dry, oval, 4 mm. in diameter; seeds flattened, 4 mm. long.

Rich bottom lands; not common. Collected by Dr. Edward Palmer, Culiacan, August 27 to September 15, 1891 (No. 1526).

To this species I would refer also Palmer's No. 112 (1885) from southwestern Chihuahua referred as "*C. glomerata* Hems.?" by Watson.¹

This species is clearly distinct from *C. arborea* in its smaller, more acuminate, and more delicately veined leaves and smaller fruit, as well as in the size and habit of the plant.

Cormonema mexicana Rose, sp. nov.

A small tree, 3.6 meters high, 1.25 dm. in diameter, with stiff branches and axillary spines; leaves alternate, oblong to oblanceolate, 7.5 to 15 cm. long, including the petiole 10 to 14 mm. long, 36 to 65 mm. broad, slender acuminate, narrowly cuneate, biglandular at base, entire, glabrous at least in age, pinnately veined; flowers unknown; drupes large, mostly 2 in the axils of the leaves on pedicels about 12 mm. long.

Only two trees seen near the mouth of a canyon. Collected by Dr. Edward Palmer, Tepic, January to February 6, 1892 (No. 1977).

It differs from *Colubrina arborea*, for which it was mistaken at first in the field, by having erect branches, pinnately veined leaves, larger fruit, etc.

Cormonema has heretofore been restricted to a single Brazilian species, *C. spinosa*. The genus is near *Colubrina*, but differs from it in having spines and in the blade of the leaf being biglandular at base.

The genus is new to the National Herbarium.

Cormonema nelsoni Rose, sp. nov.

A tree, 4.5 to 6 meters high; older branches with large spines, younger branches clothed with brown hairs; leaves alternate, oval to shortly oblong, 5 to 7.5 cm. long including the petiole (6 to 12 mm. long), 25 to 35 mm. broad, retuse, the midrib slightly prolonged, rounded or broadly cuneate at base; the blade biglandular on the margin, slightly hairy on veins beneath, entire, pinnately veined; flowers numerous in the axils of the leaves, greenish-yellow; petals 5; ovary glabrous, 3-lobed, 3-celled; cells 1-ovuled; drupes smaller than the last.

Collected by Mr. E. W. Nelson near San Marcos, State of Guerrero, altitude 500 feet, February 7, 1895 (No. 2284); also by Dr. Edward Palmer near Lodiago, State of Sinaloa, October 9 to 15, 1891 (No. 1625).

This species differs from *C. mexicana* in having its branches almost at right angles to the stem, the leaves smaller, of different shape, and the glands on the blade remote from the petiole.

Cologania hirta (Mart. & Gal.) Rose; *Galactia hirta* Mart. & Gal. Bull. Acad. Brux. x, pt. 2, 190 (1843).

Stems twining to 12 dm. high, slender, retrorsely hirsute; leaflets oval or ovate, obtuse, yellowish, hirsute beneath, appressed-pubescent above; flowers clustered near the ends of elongated peduncles; bracts and bractlets lanceolate, rather conspicuous; calyx cylindrical, 5 lines long, slightly 2-lipped; the 2 upper teeth united; corolla crimson; banner 3 cm. long, tapering at base; keel much shorter, obtuse; fruit unknown.

¹ Proc. Amer. Acad. xxv, 422.

Collected by Mr. C. G. Pringle under oak trees in the Sierra de San Felipe, State of Oaxaca, altitude 8,000 feet, August 13, 1894 (No. 4793).

I have not seen specimens of *Galactia hirta*, but Mr. Pringle's specimens answer the description so well that I feel no hesitancy in identifying them with that plant. The species, however, clearly belongs to *Cologania*. The type, which was collected by Galeotti, was obtained from this same mountain in similar habitat, and at almost the same altitude (7,500 feet).

***Rhynchosia pringlei* Rose, sp. nov.**

Stem 6 to 15 dm. high, erect, velvety-tomentose; leaflets 3, nearly orbicular, obtuse, rounded or slightly cordate at base, 2.5 to 6 cm. broad, strongly reticulated beneath, thickish, 3-nerved at base, softly pubescent; terminal leaflet distant; petiole short, 2.5 to 5 cm. long; stipules not seen; stipels minute; racemes axillary and short (3 to 7 cm. long) or terminal and paniculate, 25 cm. long; bracts large, ovate, acute, 8 mm. long, caducous; flowers large for the genus; calyx 12 mm. long, 5-toothed; the 2 upper teeth somewhat united, the 3 lower with acuminate tips, the middle one much longer; corolla normal, yellow or somewhat purplish, pod 2-valved, hirsute, falcate, 30 mm. long, 2- or 3-seeded; seeds flattened, blackish, attached at the middle.

Collected by Rev. Lucius C. Smith in the mountains of San Juan del Estado, State of Oaxaca, altitude 7,000 feet, November 4, 1894 (No. 265); by Mr. E. W. Nelson at the north end of the Valley of Oaxaca, October 13, 1894 (No. 1552); also by Mr. C. G. Pringle on dry limestone hills, Las Sedas, altitude 6,000 feet, September 15, 1894 (No. 4900).

Resembling *Eriosema* in flowers and habit, but with very different seeds. It is referred to *Rhynchosia* with some doubt. The leaves are unlike any species of this genus with which I am acquainted.

***Mimosa spirocarpa* Rose, sp. nov.**

PLATE XI.

Large shrub, 3 to 6 meters high, with velvety pubescence throughout and with small scattered prickles; leaves twice pinnate; pinnae 4 to 5 pairs; leaflets 1 (below) to 3 pairs, oblique-oval, 16 to 30 mm. long, obtuse; spikes 7.5 to 12.5 cm. long, 2 to 4 in the axils of the leaves; petals valvate, connate below; stamens 10; pod closely spiraled, separating into several indehiscent joints.

Collected by Dr. Edward Palmer, Culiacan, August 27 to September 15, 1891, in flower (No. 1476); October 25 to November 18, 1891, in fruit (Letter II).

A very peculiar *Mimosa* and very unlike anything I have ever seen; but the technical characters at least are of this genus. Not only are the leaves peculiar, but also the pods. In the latter, however, the broad valves separate from the replum as in that genus. The ovary, which at first is nearly straight, as it ripens becomes curved and when mature forms a close coil. The pods readily separate into 5 to 7 segments; each segment contains one small black seed. I am not able to place it near any of the described species of *Mimosa*. The 10 stamens and cylindrical spikes locate it in Bentham's section, *Leptostachya*. The stems are 2 to 3 inches in diameter. Dr. Palmer writes that the plant is very showy; the long spikes, which are at first purplish, become white and are very abundant.

EXPLANATION OF PLATE.—Fig. a, flower; b, the same spread out showing pistil and position and number of stamens; c, legume, not quite mature; d, the same, mature and separating into sections; e, section of the same showing the inner side. Figs. a and b are enlarged 8 diameters; c, d, and e, 2 diameters.

***Acacia pringlei* Rose, sp. nov.**

An upright tree, 6 to 9 meters high; branches with grayish bark covered with numerous small lenticels; leaves with a single pair of pinnae; leaflets in 2 pairs, large, 25 to 40 mm. long, nearly orbicular, somewhat oblique at base, rounded at tip, veins conspicuous, nearly glabrous in age, apparently more or less pubescent when young; common petiole short, 12 mm. long or less, bearing a cup-shaped gland near the middle; stipules of short, straight spines; flowers in long, slender spikes,



MIMOSA SPIROCARPA Rose.

7.5 to 10 cm. long; spikes 5 or 6 in the axils of the leaves; involucre at the base of the peduncle, 4-lobed and striate; flowers numerous; stamens yellow, indefinite, distinct or slightly cohering at base; pod not seen.

Collected by Mr. C. G. Pringle in the Tomillin Canyon, altitude 3,000 feet (No. 6113). I am also inclined to refer here Mr. Nelson's No. 2056, although the specimens are so young it is difficult to be certain. Mr. Nelson's plant was collected along the road between Tlaliscatilla, Guerrero, and Tlapancingo, Oaxaca, December 6, 1894.

This species, which is well marked by its large leaflets and long flowering spikes, appears to belong to Bentham's series Gummiferae, subseries Basibracteatae, and near the species *spadicigera* and *amentacea*. It differs from both of these very greatly in its foliage. Its leaflets are much like those of *A. reniformis*, but the stipules are very different and the spikes longer.

Eucnida grandiflora (Groenland) Rose; *Microsperma grandiflora* Groenland, Rev. Hort. 1861, 349, t. 84 (1861).

Herb, 6 to 12 dm. high, pubescent with barbed hairs; leaves alternate, orbicular, cordate at base, obtuse, 3- to 5-nerved, with rounded obtuse lobes, crenate, pubescent on both sides, 6 to 15 cm. in diameter; petioles about the length of the diameter of blade; flowers solitary, 5 to 10 cm. long; calyx cup-shaped, 18 mm. high, clothed with echinate hairs; lobes long (4 cm.), tapering from the base to an acute tip, simply pilose; petals white, oblong, 6 cm. long, acute and villose without; stamens very numerous, much longer than the petals, 10 cm. long; filaments marked with a spiral thread; styles 13 cm. long.

This is a very distinct species and by far the largest-flowered one of the genus. Nearest *E. bartonioides*, but with flowers twice as large, different pubescence and different toothings of the leaves.

Collected by Mr. E. W. Nelson 6 miles above Dominguilla, State of Oaxaca, altitude 5,000 to 6,000 feet, October 3, 1894 (No. 1589); also by Mr. C. G. Pringle (No. 4645).

We have not seen specimens of *Microsperma grandiflora*, but from the description and figure there seems to be no doubt of our reference.

The species was originally collected by a Mexican traveler, Mr. Roezl, from whom it was received about 1860 by Vilmorin, Andrieux & Co., who introduced it into Europe. It was described and figured in the Revue Horticole by Groenland and spoken of from the florist's point of view in the most glowing terms. The following is a translation in part of his remarks:

"Aside from the remarkable beauty of this new species, we have full assurance that from the close of the month of May up to the present time it has been constantly in flower; even at this moment (beginning of September) it still bears flower buds in as large numbers as in the month of June, so that presumably it does not rest before winter. Ought not this quality alone to recommend it warmly to the attention of our readers?"

"A glance at figure 84, which represents *Microsperma grandiflora* at one-fourth its natural size, suffices moreover to show that it is of a quite uncommon beauty. The numerous stamens which are consolidated at the base, and which far exceed the ample corolla, are of a perfect elegance; the color of the petals is not yellow, as in the species hitherto known, but pure white with a light-greenish tint on the outer face; the flowers, which during blossoming are erect, afterwards turn in such a way that the fruits are pendent; the alternate, long-petioled leaves, which in their form much resemble those of *Microsperma bartonioides*, are, however, more indented and more undulate on the margin; they are, like the stem, covered with a thick down of short hair."

Apodanthera roseana Cogn. (sect. *Cucurbitopsis*); foliis satis parvis, longiuscule petiolatis, leviter vel usque ad medium trilobatis, latioribus quam longis, utrinque brevissime et densiuscule calloso-asperis praecipue subtus; petiolo gracili, brevissime subparseque hirtello; cirrhis geminatis, simplicibus vel bifidis; pedunculo communi masculo bifloro vel interdum unifloro; calyce brevissime subparseque hirtello,

tubo subcylindrico, inferne breviuscule attenuato, dentibus subulatis, tubo paulo brevioribus.

Rami graciles, sulcati, brevissime sparseque hirtelli interdum subglabri. Petiolus striatus, 2-4 cm. longus. Folia rigidiuscula, supra late viridia, subtus paulo pallidiora, plana vel subplana, margine minute remoteque denticulata, 2-5 cm. longa, 3-6 cm. lata; nervi graciles, subtus leviter prominentes, duo laterales inferne in unum sinum marginantes; sinus basilaris subrectangularis $\frac{1}{2}$ -1 $\frac{1}{2}$ cm. latus et profundus. Cirrhi subfiliformes, brevissimi, sulcati, vix hirtelli. Pedunculus communis masculus gracilis, striatus, sparse hirtellus vel glabratus, 4-8 cm. longus; pedicelli erecti, brevissime subsparseque hirtelli, 1-2 cm. longi; bracteolae subulatae, erectae, leviter hirtellae, 3-6 mm. longae. Calyx cinereofuscus; tubus ad apicem leviter dilatatus, 8-9 mm. longus, ad medium 2 $\frac{1}{2}$ mm. et ad apicem 4 mm. latus; dentes erecto-patuli, leviter flexuosi, 7-8 mm. longi, basi $\frac{1}{2}$ mm. lati. Petala late oblonga, acuta vel breviter acuminata, 5-nervia, vix puberula praecipue ad nervos, 20-22 mm. longa, 6-10 mm. lata. Antherae biloculares oblongo-rectangulares, 4 mm. longae, 1 mm. latae, loculis rectis apice leviter incurvis, connectivo non producto. Flores feminei ignoti. Pedunculus fructiferus subglaber, sulcatus, 4-5 cm. longus. Fructus late ovoidens, ut videtur ruber, lineis atro-fuscis numerosis longitudinaliter vittatus, 4 cm. longus, 3-3 $\frac{1}{2}$ cm. crassus. Semina fusca, obovata, laevia, obscure marginata, 6 mm. longa, 4 mm. lata, 1 $\frac{1}{2}$ mm. crassa.

Species *A. aspera* Cogn. proxima. Dr. E. Palmer. No. 1444. Ymala, August, 1891.

Cyclanthera micrantha Cogn. (sect. *Eucyclanthera*); caule glaberrimo vel ad nodos vix pilosulo; petiolo apice tripetiolutato; foliis trifoliolatis; foliolis basi longe attenuato-petiolutatis, lobatis, obtusis et breviter mucronatis, mediano anguste ovato vel obovato, lateralibus profunde vel saepius usque ad basim bifidis; cirrhis plerumque inaequaliter bifidis; floribus masculis minutissimis, in racemos simplices apice subumbellatim 7-10-floros foliis saepius breviores digestis; floribus femineis brevissime pedicellatis; fructu longissime subsparseque echinato, apice in rostrum acutum brevem producto.

Caulis subfiliformis, ut videtur 3-4 dm. altus, paulo ramosus, angulato-sulcatus. Petiolus filiformis, striatus, glaber, 1-2 $\frac{1}{2}$ cm. longus; petioluli vix puberuli, patuli, terminalis 6-10 mm. longus, laterales satis breviores. Foliola tenuiter membranacea, supra late viridia et tenuissime punctato-scabra, subtus paulo pallidiora et sublaevia, terminale 2-3 cm. longum et 10-18 mm. latum, lateralia paulo breviora. Cirrhi capillares, elongati, sulcati, glabri. Pedunculus communis masculus capillaris, sulcatus, glaber, 1 $\frac{1}{2}$ -3 cm. longus, pedicelli 1-3 mm. longi. Calyx rotatus, glaber, tubo vix 1 mm. lato, dentibus subulatis, brevissimis. Corolla albescens, segmentis ovatis, acutis, uninerviis, $\frac{3}{8}$ mm. longis. Anthera $\frac{3}{8}$ mm. lata. Pedunculus fructiferus gracilis, glaber, teres, 3-5 mm. longus. Fructus anguste ovoidens, basi oblique satis gibbosus, 17-18 mm. longus, 8-10 mm. crassus; aculei setiformes, paulo compressi, 6-11 mm. longi. Semina cinereo-fusca, subquadrata, basi longiuscule obtuseque appendiculata, apice leviter trilobata, margine truncata, utrinque verruculosa, 6 mm. longa, 3-4 mm. lata, 1 mm. crassa.

Species *C. gracillima* Cogn. proxima. Dr. E. Palmer. No. 1706. Ymala, 1891.

Elaterium longisepalum Cogn.; foliis supra sublente subtiliter sparseque asperis, subtus glaberrimis laevibusque, ambitu ovatis, 5-angulatis vel obscure trilobatis, apice obtusiusculis et brevissime mucronulatis, sinu basilari brevissime ciliato; cirrhis bifidis; floribus 5-meris, masculis in racemos subumbelliformes 3-6-floros brevissimos digestis; calycis tubo breviusculo, petalis paulo longiore, dentibus reflexis, longissimis, capillaribus.

Rami gracillimi, angulato-sulcati, glabri. Petioli filiformes, striati, glabrati, inferiores 3 cm. longi, superiores brevissimi. Folia tenuiter membranacea late viridia, margine leviter undulato-denticulata, 4-5 $\frac{1}{2}$ cm. longa et lata; nervi tenuissimi, subtus vix prominentes, duo laterales basilares bifurcati, in unum sinum non marginates; sinus basilaris angustissimus, obtusus, 1-1 $\frac{1}{2}$ cm. profundus. Cirrhi gracillimi, elon-

gati, sulcati, glabri. Pedunculus communis masculus (imperfecte evolutus) subnulus; pedicelli erecto-patuli, capillares, 2-3 mm. longi. Flores feminei brevissime pedunculati. Calycis tubus basi truncatus, apice paulo dilatatus, 8 mm. longus, 1-1½ mm. latus; dentes flexuosi, 3 mm. longi. Petala patula vel subreflexa, basi leviter dilatata, superne subulata, 6 mm. longa. Ovarium oblique ovoideo-oblongum, longissime denseque hirsutum, 3-4 mm. longum. Fructus maturus ignotus.

Dr. E. Palmer. No. 1600. Lodiago, October 9 to 15, 1891.

Sicyos echinocystoides Cogn. (sect. *Eusicyos*); foliis breviuscule petiolatis, ambitu late cordato-ovatis, obscure vel leviter 3-5-lobatis, utrinque scaberrimis, lobis triangularibus vel subrotundatis, nervis lateralibus inum sinum non marginantibus; cirrhis trifidis; racemis masculis simplicibus, 15-25-floris, folio satis longioribus; calycis dentibus brevissimis; pedunculis femineis apice 4-5-floris; fructibus valde inequalibus, plurisque parvis abortivis, saepius uno tantum bene evoluto, ovoideo, satis compresso, obtusiusculo, vix puberulo et setis elongatis persistentibus densiuscule vestito.

Rami gracillimi, sulcati, brevissime subsparseque glanduloso-puberuli. Petioli satis graciles, striati, brevissime denseque glanduloso-puberuli, inferiores 3-4 cm. superiores saepius vix ½ cm. longi. Folia tenuiter membranacea, late viridia demum pallidiora, margine minime remoteque denticulata, 8-12 cm. longa, 7-10 cm. lata, superiora multo minora; nervi subtus paulo prominentes; sinus basilaris angustus, 1-2½ cm. profundus. Cirrhi satis graciles, longiusculi, sulcati, brevissime sparseque glanduloso-puberuli. Pedunculus communis masculus gracilis, striatus, brevissime et densiuscule glanduloso-puberulus, circiter 1 dm. longus, usque ad medium flori-ferus; pedicelli filiformes, patuli, 5-8 mm. longi. Calycis tubus subrotatus, subglaber, 2½ mm. latus; dentes patuli, triangulari-subulati, vix 1 mm. longi. Corolla spurco-alba, vix puberula, segmentis patulis, triangularibus, acutis, 5-nerviis, 4 mm. longis, basi 2 mm. latis. Columna staminea capillaris, 2½ mm. longa; antherae conniventes, 1 mm. longae. Flores feminei quam masculi multo minores. Pedunculus fructiferus 1-1½ cm. longus. Fructus fuscescens, basi rotundatus, 10-11 mm. longus; setae 4-9 mm. longae, basi interdum tuberculatae.

Species *S. deppei* G. Don proxima. Dr. E. Palmer. No. 1894. Tepic, 1892.

Tridax tenuifolia Rose, sp. nov.

Annual, 6 to 9 dm. high, erect and somewhat simple, or spreading and much branched, slightly hispid throughout but not glandular; leaves opposite, thin, ovate-lanceolate, sharply and more or less strongly serrate, acute, cuneate at base, 10 cm. or more long including the slender petioles, rather variable in size, 8 to 12 mm. high; involucre double; outer bracts 5, green, oblong, acuminate, strongly striate; inner bracts scarious, equal to the outer; paleae of the receptacle shortly acuminate; rays white; bristles of the pappus white. Type specimens collected by Dr. Edward Palmer on mountain sides above Batopilas, State of Chihuahua, Mexico, August to November, 1885 (No. 130) and distributed as *T. bicolor*, Proc. Amer. Acad. xxi, 391 (in part), 433. Type specimen deposited in the National Herbarium.

This species is quite distinct from *T. bicolor*. It differs in the texture and shape of the leaves, in the involucre bracts, color of the rays, the acumination of the chaff, the color and length of the pappus, and the shape of the disk corollas.

Dr. Palmer has also collected near Lodiago (October 9 to 15, 1891, No. 1611) a very similar plant with smaller heads, slightly different disk corolla, which I here designate variety *microcephala*. Future study may show that the two are distinct.

THREE UMBELLIFERÆ OF THE WESTERN UNITED STATES.

One of the most puzzling of our American Umbelliferæ outside of some of the Rafinesquian species has been the *Angelica verticillata* of Sir William J. Hooker. He published this species in 1847 as a doubtful

Angelica, Geyer having previously sent it to him as a species of *Thaspium*. Walper¹ follows Hooker in retaining the species in *Angelica*. Mr. Watson² first calls attention to the improbability of its being an *Angelica*. No additional information could be obtained when Coulter and Rose's Revision of Umbelliferae was written, and so the species was again doubtfully referred to *Angelica*. Geyer collected his plant in the Nez Perces Indian Reservation in 1841 (?), and, since no botanical collector had visited this region later, it was impossible to associate the description with any known species. The habit of the plant suggested to me *Ligusticum*, but I repeatedly failed to convince myself that it belonged in that genus. In 1892 Messrs. Sandberg, MacDougal, and Heller spent some time on the Nez Perces Indian Reservation, and it was therefore with considerable interest that I looked over their collection of Umbelliferae. It was found to contain a plant which is undoubtedly the *Angelica verticillata* of Hooker and which must be a *Ligusticum*. We are accordingly warranted in adopting the following:

Ligusticum verticillatum Hook.) Coult. & Rose; *Angelica verticillata* Hook. Lond. Journ. Bot. vi, 233 (1847). PLATE XII.

Hooker's notes and description are as follows:

"Shady grassy borders of pine woods, on high plains of the Nez Perces Indians. June (n. 414). Of the genus of this I am exceedingly doubtful. The immature fruit and leaves are not unlike those of some *Angelica*; but there are no large sheathing bases to the petioles. My specimens are very imperfect. They consist of a fusiform root, clothed, especially above, with dense, coarse, long fibers, the remains of former petioles; there is only one root leaf, the main petiole of which is about a span high, semiterete, channeled, striated, glabrous, as is the whole plant. This divides into 3 at the top, and each of those again into 3, bearing generally 5 oblong-ovate, membranous leaflets, opposite and slightly petiolate; the extremity of a flowering branch has a whorl of about 4 pinnated and laciniated, sessile, small (2 to 3 inches long) leaves, within which is an umbel of 6 rays; the center ray is twice as long and 4 or 5 times as stout as the others, each bearing an umbel of many petiolated umbel- lules of fertile flowers, yellowish-white, the stylopodia very large, much broader than the ovary; the other 5 rays are sterile (having no trace of pistil), and are each terminated by a compound sterile umbel, the whole forming a whorl around the central ray, whence Mr. Geyer's specific name. There is besides a separate fertile umbel, with very immature, deeply sulcated, obovate fruit. The umbels and umbel- lules have no involueral scales."

EXPLANATION OF PLATE.—Fig. a, dorsal view of carpel, enlarged 5 diameters; b, cross section of carpel, enlarged 10 diameters.

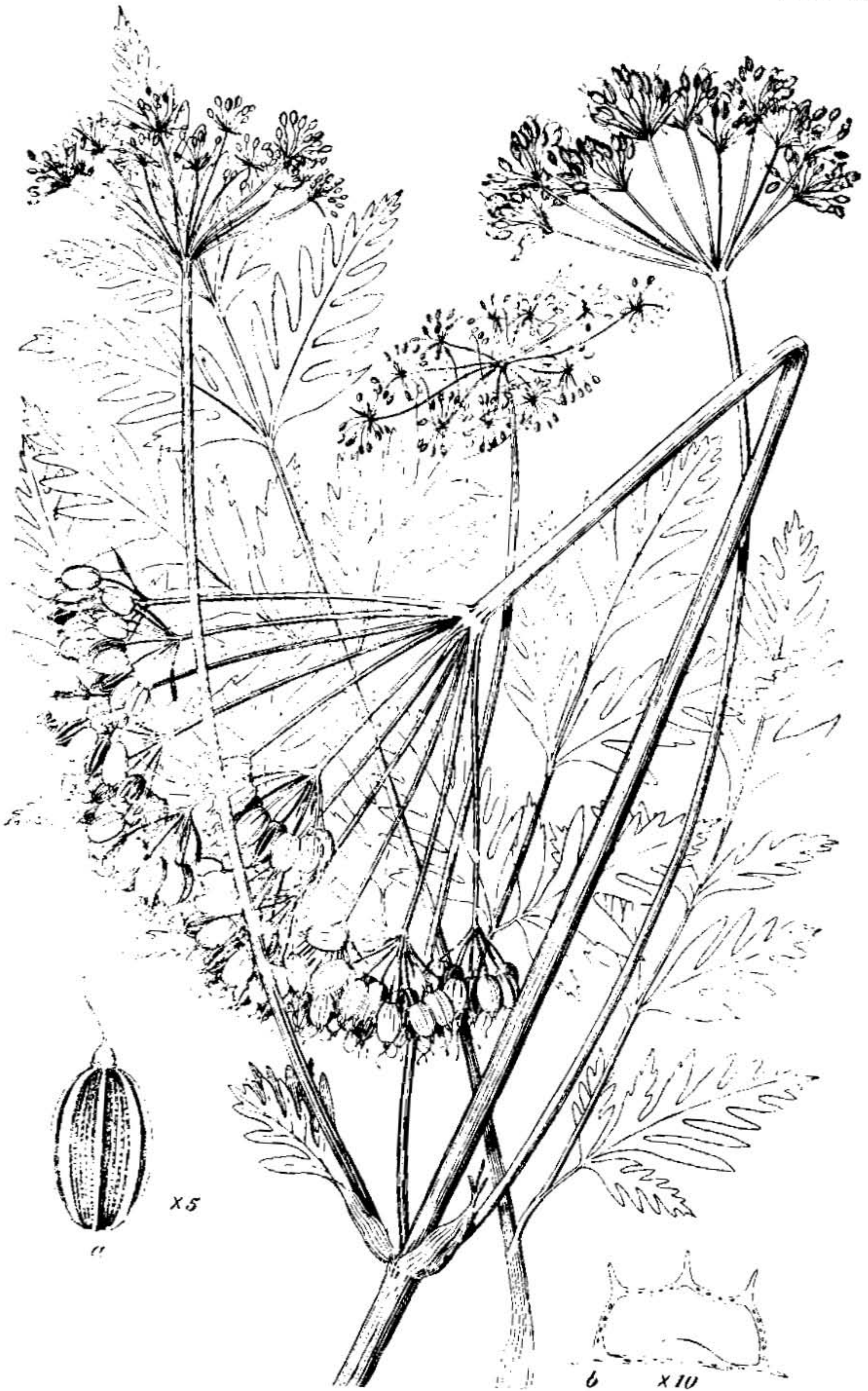
Ligusticum eastwoodæ Coult. & Rose, sp. nov.

PLATE XIII.

Low acaulescent plant from a short caudex; scape 10 to 30 cm. high, glabrous; leaves pinnate, 10 to 15 cm. long; pinnae 7 to 13, opposite, oval, 2- to 3-lobed and lobes 2- to 3-cleft into linear acute segments; inflorescence very much congested, almost head-like; involuere 1- to 2-leafed or none; bractlets of the involuere conspicuous, longer than the fruit, 2- to 5-toothed; rays few, 2 to 3 lines long; pedicels about 1 line long; fruit ovate, glabrous, flattened laterally, 3 mm. long; carpels flattened dorsally; ribs 5, small; oil-tubes 2 to 3 in the intervals; seed face with a broad, shallow concavity; calyx teeth prominent; stylopodium conical.

¹Annales, i, 350.

²Proc. Amer. Acad. xvii, 374.



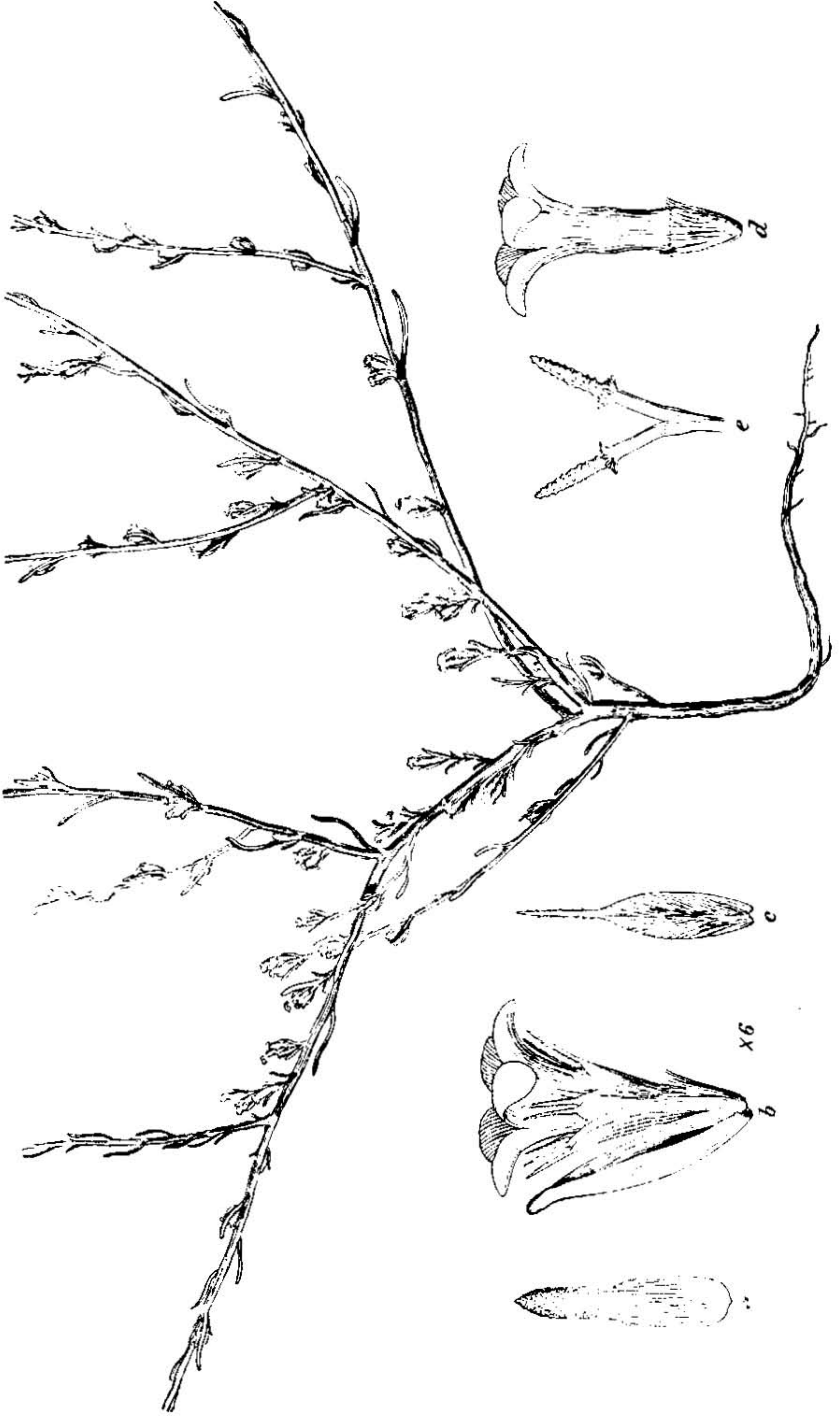
LIGUSTICUM VERTICILLATUM (Hook.) Coult. & Rose.



LIGUSTICUM EASTWOODÆ Coult. & Rose



VELÆA GLAUCA Coult. & Rose.



THUROVIA TRIFLORA Rosc.

Cumberland Basin, La Plata Mountains, Colorado. In flower July 23, 1890 and 1891, and in fruit August, 1892.

Miss Eastwood sent this plant in for several years; the last time with good fruit, so that its position can be satisfactorily determined. It is with much pleasure that we can name a new species for this diligent collector. This species and *L. macounii* are very much alike in habit and quite different from all the other North American species.

EXPLANATION OF PLATE.—Fig. a, fruiting umbel, natural size; b, carpel, dorsal view, enlarged 5 diameters; c, cross section of the same, enlarged 11 diameters.

Velæa glauca Coult. & Rose, sp. nov.

PLATE XIV.

Shortly caulescent, slender, 4.5 dm. or less high, erect or somewhat spreading, glabrous and somewhat glaucous; radical leaves small, bi- or tri-ternate; stem leaves often simply ternate; leaflets small, 12 mm. or less long, mostly cordate or truncate at base, often 3-lobed or 3-parted, irregularly toothed; umbel 7- to 15-rayed, with no involucre and involucels of small linear bracts; rays 2.5 to 5 cm. long; pedicels 2 mm. or less long; fruit orbicular, 2 mm. in diameter; carpophore parted below the middle; flowers yellow.

Oregon, Canyonville (Thomas J. Howell, April, 1881), Glendale (Thomas J. Howell, April 30, 1887), Woodville (Joseph Howell, May, 1888, and April 1, 1889).

After a study of the so-called glabrous forms of *V. kelloggii* in the light of more material and the notes kindly furnished by Mr. Joseph Howell, we feel convinced that this requires separation as a distinct species.

V. glauca differs from *V. kelloggii*, especially in its habit, glabrous stems and leaflets, and smaller fruit.

EXPLANATION OF PLATE.—Fig. a, fruiting umbel; b, carpel, side view, enlarged 5 diameters.

THUROVIA, A NEW GENUS OF COMPOSITÆ.

Thurovia Rose, gen. nov.

Heads discoid, few-flowered, sessile in the axils of the leaves: flowers hermaphrodite, fertile. Involucre small, oblong to oval; bracts in two series; the outer bracts about 5, linear, with conspicuous green tips; the inner bracts 3, somewhat inclosing the akenes, larger, with small green tips. Corolla regular, 5-toothed with broad funnel-form throat, proper tube short. Stamens entire at base: style branches short, comose-bearded, and with long slender appendages. Akenes small, turbinate, silky-pubescent, not nerved. Pappus of about 10 lanceolate, acuminate paleæ.—A low, spreading, much-branched glabrous annual. Leaves small, linear, alternate; involucre sessile mostly solitary in the axils of the leaves. Flowers white.

The relationships of this genus are obscure. In habit it most resembles the *Asteroideæ*. Mr. Thurov writes me that he collected it for a small-flowered Aster. Its habit, however, is more that of *Gutierrezia* or *Greenella*, especially of the latter genus. I have submitted a specimen to the well-known authority on this family, Dr. O. Hoffmann, of Berlin, but he points out that it has not the form of the style of this type. It is true, however, that *Lessingia* has somewhat similar style branches with the same peculiar wreath of brush-like hairs. Dr. Hoffmann suggests that its relationships are with the *Helianthoideæ*. He would place it in the neighborhood of *Eriophyllum*, but as distinct from the related genera in its few-flowered heads and habit.

This genus has been named for Mr. F. W. Thurov, a local collector of Hockley, Texas, who has already discovered several new species in this region.

Thurovia triflora Rose, sp. nov.

PLATE XV.

Low, 20 to 45 cm. high, either bushy or straggling; leaves 6 to 18 mm. long; involucre 3 mm. long, 3-flowered; akenes 1 mm. long; paleæ 2 mm. long.

Common on the prairie northwest of Houston, Texas.

Collected October 25, 1892, by F. W. Thurov.

Mr. Thurow wrote me that he found the plant very common all along the country road from near Big Cypress Creek nearly to the city limits of Houston. Unfortunately only 4 specimens were obtained. Mr. Thurow, however, has promised to revisit the type locality and obtain a good supply of material so that our correspondents may be furnished with specimens of this peculiar genus.

EXPLANATION OF PLATE.—Fig. *a*, an outer involucre bract; *b*, flower with the subtending bract; *c*, paleæ of pappus; *d*, flower with pappus removed; *e*, style branches. Figs. *a*, *b*, *c*, and *d*, enlarged 6 diameters; *e*, much enlarged.

TRADESCANTIA BREVIFOLIA AND T. LEIANDRA.

Considerable confusion has existed with regard to *Tradescantia leiandra* and its varieties. In working over some of Mr. Heller's excellent specimens from Corpus Christi, Texas, with all the material of these forms from the Gray, Torrey, and National herbariums before me, I have been able to clear the subject up.

The species proper is very rare. It was collected by Bigelow on the first Mexican Boundary Survey, and is represented by a single sheet labeled in Dr. Torrey's handwriting, now deposited in the National Herbarium. The variety *brevifolia* was also collected on this survey, and was described by Dr. Torrey in his part of the report. The type specimen of this variety, also collected by Bigelow, is deposited in the Torrey herbarium at Columbia College, and there are no duplicates in the Gray or National herbariums.

The confusion has been caused partly by the wrong reference by Dr. Torrey of Wright's No. 700 (at least a part of it) to his *leiandra* rather than to the variety *brevifolia*. Wright's No. 700 is a medley composed of at least 3 species. One of these contained in the Gray herbarium and labeled *T. leiandra* is clearly Torrey's variety *brevifolia*, and is possibly the one referred to by Torrey. This form is not represented either in the Columbia College or National Herbarium. Then, too, it seems that none of the monographers of this genus have seen the true *leiandra*, owing to its rarity, and have confused the variety with it. The *brevifolia* is much the more common form, and extends from Corpus Christi to northern Mexico. I have not been able to find the species *leiandra* in either the Gray or Columbia College herbarium, and until recently it was only represented by the single specimen referred to above. I have found, however, in the herbarium of the National Museum in charge of Professor Ward, now a part of the National Herbarium, a single poor, but quite characteristic, specimen of this species. This was obtained by Dr. V. Havard, U. S. Army, at Copote Creek, Texas, in September, 1883 (No. 79).

Mr. C. B. Clark¹ first and very properly separated these two forms as distinct species, but unfortunately referred the *brevifolia* form to the genus *Zebrina* and as *Z. leiandra*. Dr. Sereno Watson² afterwards called attention to the fact that it is a good *Tradescantia*, but made the mistake of considering it the true *leiandra* and was followed by Mr. Hemsley.³

The variety clearly deserves specific rank, probably under *Tradescantia*, and should bear the name *T. (?) brevifolia*.

It differs from *T. leiandra* in its habit, in its broader and shorter leaves with the margin ciliate-scabrous and the sheath hairy instead of smooth, in its much larger and not acuminate floral leaves, and in its hairy filaments.

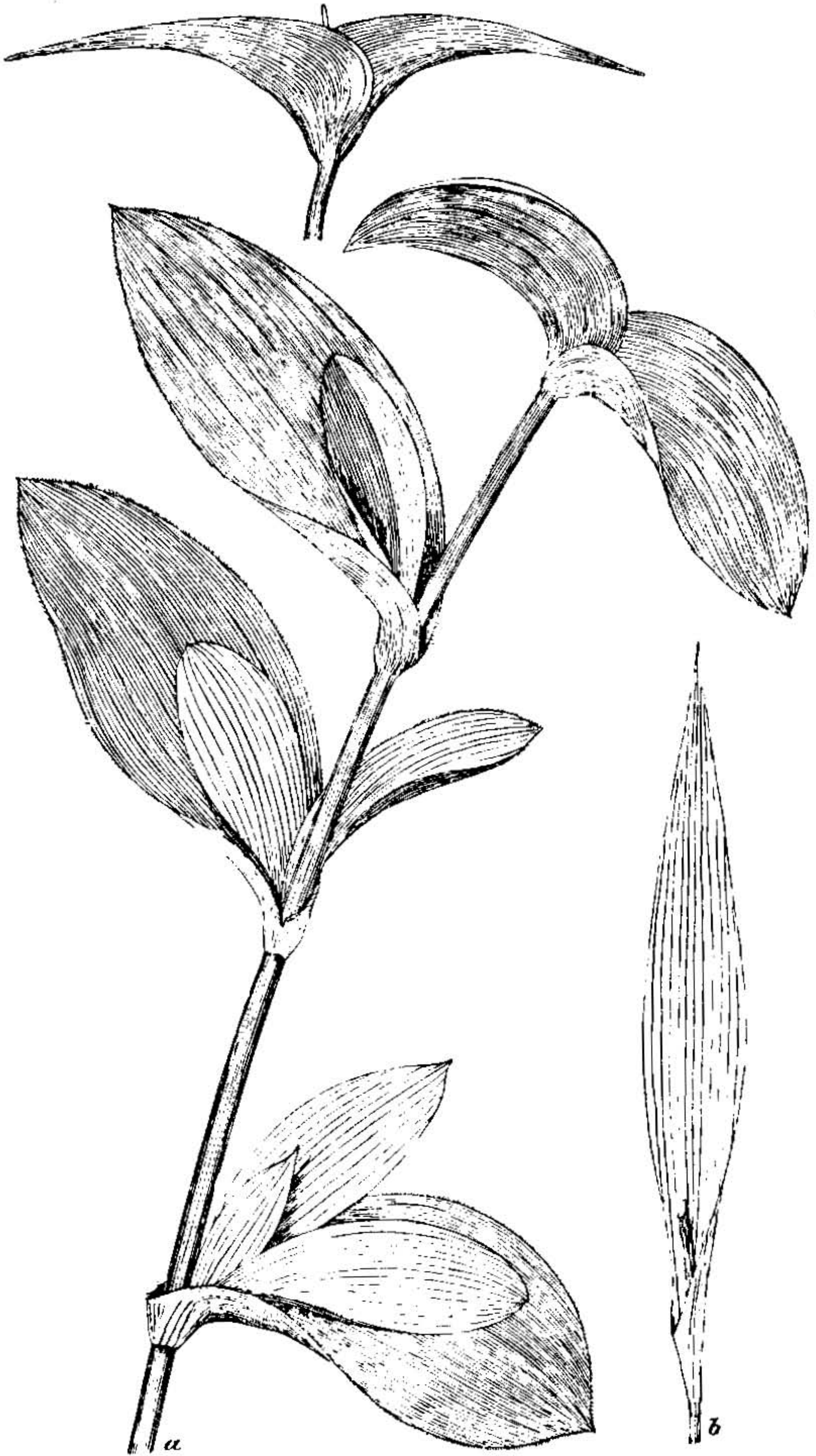
I have recently found that Buckley⁴ had actually described this species in Proceedings of the Philadelphia Academy, although I do not find his description referred to in Mr. Clark's exhaustive monograph or in any other work. His name *speciosa* has been used at least twice before and may very well be passed over.

¹ DC. Monogr. Phan. iii, 318.

² Proc. Amer. Acad. xviii, 167.

³ Biol. Centr.-Amer. iii, 393.

⁴ It is of interest to know that the type locality of Buckley's plant is Corpus Christi, Texas, where Mr. Heller obtained his material.



TRADESCANTIA BREVIFOLIA (Torr.) Rose.

Dr. Torrey, in his original description, states that the general appearance of the plant is certainly very unlike that of *T. leiandra*, but he hesitates to describe it as a distinct species.

T. leiandra variety *ovata* Coulter, described from insufficient material, belongs with the *brevifolia*.

T. brevifolia has been collected as follows: By Charles Wright, in western Texas in 1849 (No. 700), a part of the type of *T. leiandra*; by Dr. Havard, in the Chisos Mountains, western Texas, in 1883 (No. 78); by Dr. Palmer, at Soledad, Coahuila, Mexico, in 1880 (No. 2014); by G. C. Nealley, in the Chenata Mountains, Texas (Presidio County), in 1889 (No. 487), the type locality of variety *ovata*; by J. M. Bigelow, in mountains near the Pecos River, western Texas (No. 1500a), the type locality for this species; by A. A. Heller, near Corpus Christi,¹ Texas, in 1894 (No. 1427); also by Buckley, who distributed it as a new species and some of whose specimens are in the Durand herbarium, according to a note by Dr. Gray on one of his sheets.

The synonymy of this species is as follows:

Tradescantia leiandra brevifolia Torrey, Bot. Mex. Bound. Surv. 225 (1859); *T. speciosa* Buckley (not L. or H. B. K.), Proc. Acad. Phila. 1862, 9 (1863); *Zebrina* (?) *leiandra* Clark, in DC. Monogr. Phan. iii, 318 (1881); *T. leiandra*, Watson, Proc. Amer. Acad. xviii, 167 (1883); Hemsley, Biol. Centr.-Amer. iii, 393 (1885); *T. leiandra ovata* Coulter, Contr. Nat. Herb. i, 50 (1890); ii, 444 (1894).

***Tradescantia* (?) *brevifolia* (Torr.) Rose.**

PLATE XVI.

Stems at first erect, becoming prostrate, leafy to the top; leaves approximate, ovate, 1 to 3 inches long, 1 inch wide, thickish, glaucous and glabrous except the ciliate-scabrous margins, acute; margin of sheath ciliate; involucre leaves 2, like the lower leaves, but smaller; umbel sessile, many-flowered; corolla white; pedicels and calyx densely villose; filaments hairy, attached to the corolla; ovary hairy at top.

EXPLANATION OF PLATE.—Fig. a, branch of *T. brevifolia*; b, leaf, and c, involucre of *T. leiandra*. Figs. a, b, and c, natural size.

***Tradescantia leiandra* Torr. Bot. Mex. Bound. Surv. 224 (1859).**

Roots slender, fibrous-thickened; stems erect, somewhat branching, slender, glabrous, somewhat naked above; leaves distinct, narrowly lanceolate, 3 to 5 (perhaps more) inches long, 6 lines wide, sharply acute, with margins not scabrous; margin of sheath glabrous or nearly so; involucre leaves 2, ovate, acuminate, 1 to 1.5 inches long, very unlike the lower leaves; umbel sessile, many-flowered; pedicels and sepals densely villose; filament smooth; capsule oval, somewhat 3-lobed, stipitate; cells 3 2-seeded; seeds 0.5 line in diameter, slightly rugose.

Collected by Bigelow in mountains and moist rocky places at Puerto de Paysano, Texas, September 18, 1854 ? (No. 1500), and by V. Havard at Copote Creek, Texas, September, 1883 (No. 79).

¹Living specimens have recently been sent to me by Mr. G. C. Nealley, from this place, which I now have growing in one of the greenhouses of the Department of Agriculture.