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BOTANY.—*A remarkable new Eysenhardtia from the west coast of Mexico.*¹ WILLIAM E. SAFFORD, Bureau of Plant Industry.

In a recent paper on *Eysenhardtia polystachya*² the author called attention to the variability of that species and to the consequent difficulty in delimiting the species included in the group to which it belongs. Of those already described *Eysenhardtia orthocarpa* S. Wats. and *E. adenostylis* Baill. are held by some authorities to be specifically identical with *E. polystachya* (Orteg.) Sarg., and *E. amorphoides* H.B.K. is undoubtedly a synonym of it. So distinct from this group and from *Eysenhardtia spinosa* Engelm. and its allies is the plant I am about to describe, that it ought to be placed in a section apart from them. Its ten stamens are monadelphous instead of diadelphous, the style is not geniculate or hooked, the calyx is deeply instead of shallowly and broadly lobed, and it differs conspicuously from hitherto described species of *Eysenhardtia* in its spreading, compound, paniculate inflorescence and its very large retuse leaflets.

A critical study of the entire genus is greatly to be desired.

***Eysenhardtia Olivana* Safford, sp. nov.**

A tree, 8 to 10 meters high, glandular-punctate throughout; heart-wood dense and blackish; branches slender and spreading. Leaves alternate, usually odd-pinnate (only those of flowering branches observed); rachis 10 to 11 cm. long, grooved above; leaflets 7 or 8 pairs,

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² *Eysenhardtia polystachya*, the source of the true lignum nephriticum mexicanum. Journ. Wash. Acad. Sci. 5: 503-517. 1915.

subopposite, stalked, oval or oblong-elliptical, finely granular-dotted, retuse at apex, rounded at base, the largest (near the middle of the rachis) 4 cm. long, 1.6 cm. broad, glabrous above, sparsely puberulent beneath (as seen under the lens); petiolules about 4 mm. long, densely glandular-tuberculate (in type specimen without stipels). Flowers small (about 8 mm. long), white, turning yellow in drying, crowded in spicate racemes, these forming the ultimate divisions of a spreading terminal compound panicle; branches of inflorescence finely cinereous-tomentose and glandular-punctate; pedicels very short and slender (1 mm. long), subtended by a minute acute sessile lanceolate deciduous bracteole. Calyx funnel-shaped, deeply divided into 5 nearly equal linear-oblong lobes (rounded at the tips), clothed on the outside with minute cinereous hairs and irregularly dotted with resinous globules. Corolla subpapilionaceous, composed of 5 distinct unguiculate petals, the standard (vexillum) twice as broad as the wings and keel petals, emarginate or retuse at the apex, carinate; wings and keel petals nearly similar, equalling the standard in length. Stamens 10, graduated in length, united into a cleft tube, the upper (vexillar) the shortest, the lower slightly exceeding the style; anthers similar, the pollen cells united by a relatively broad connective. Ovary nearly sessile, 1-ovuled, clothed with minute hairs; style terete, slender, not hooked at the tip, but with a slightly broader terminal stigma. Legume not observed.

Type in the United States National Herbarium, No. 385587, collected at La Correa, State of Guerrero, Mexico, at an altitude of 150 meters, October 1, 1898, by E. Langlassé (No. 395). "Arbre 8-10 m., bois précieux noirâtre; fleurs blanches. Nom indigène, *Palo de arco* [bowwood]."

This species is named in honor of the late Dr. Leonardo Oliva, Professor of Pharmacology in the University of Guadalajara, who first indicated the true botanical classification of the Mexican lignum nephriticum and identified *Eysenhardtia amorphoides* H.B.K. with *Viborquia polystachya* Ortega.

The accompanying figure is from a drawing of the type by Mrs. R. E. Gamble.

EXPLANATION OF FIG. 1.

Type specimen of *Eysenhardtia Olivana* Safford, showing the branching inflorescence, leaves, a flower, and the essential parts: *a*, flower with one petal removed, to show the stamens and pistil; *b*, resinous globule, detached from the calyx; *c*, cleft staminal tube with stamens, some of them deprived of their anthers; *d*, carpel, showing pilose ovary and style with terminal stigma; *e*, vertical section of ovary, showing solitary ovule; *f*, vexillar petal (standard); *g*, a wing petal; *h*, one of the keel petals. Leaves and inflorescence natural size; *a*, *c*, *d*, *f*, *g*, *h*, scale 5; *b*, *e*, scale 6.

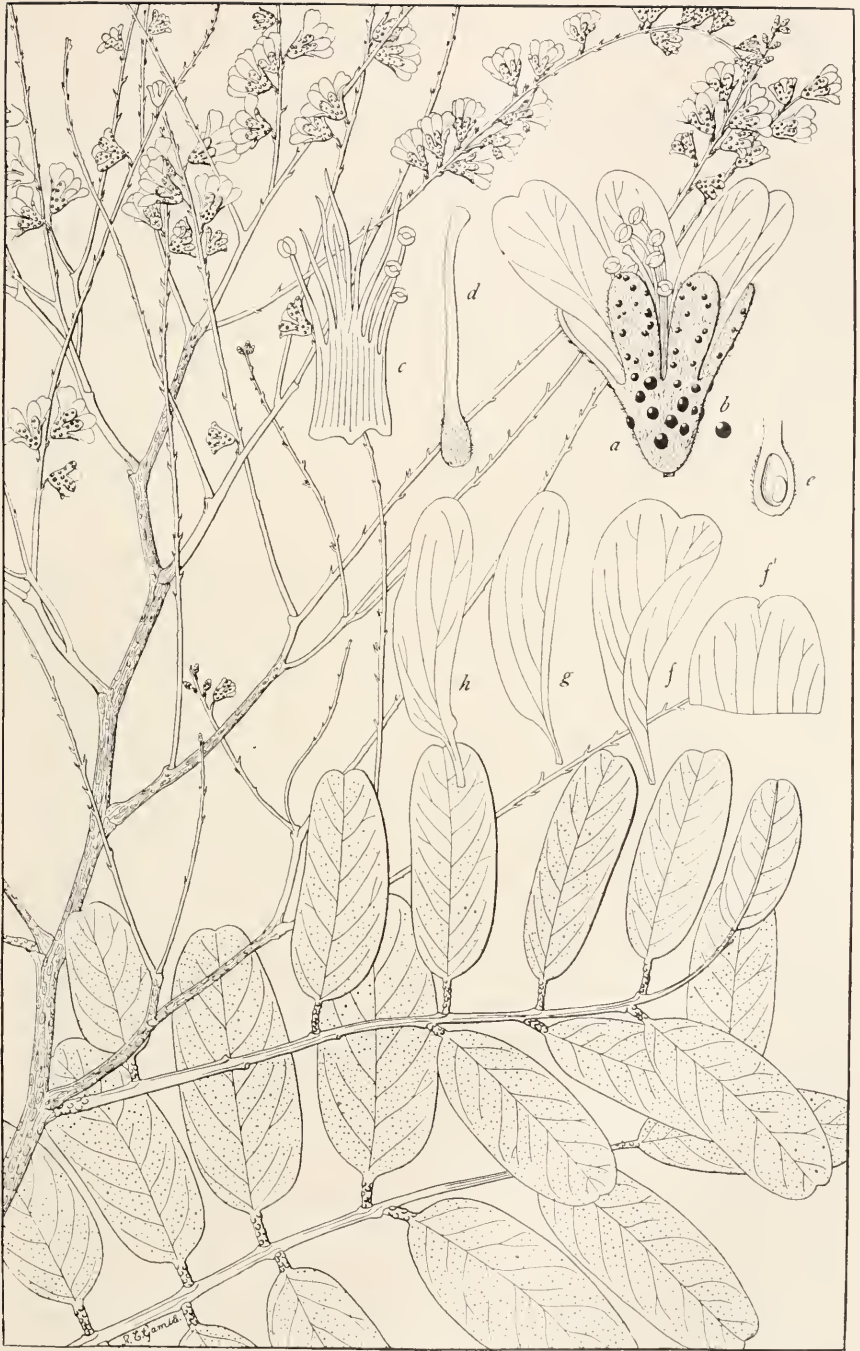


Fig. 1. Type specimen of *Eysenhardtia Olivana* Safford.