

der creeping stems, orbicular-peltate or reniform leaves and small white flowers in simple or proliferous umbels. Calyx teeth minute or obsolete. Fruit more or less orbicular. Carpels with 5 primary ribs, the dorsal marginal, broad or filiform; intermediate filiform, usually curved; laterals filiform or broad, distinct from those of the other carpel or confluent: a prominent oil-bearing layer beneath the epidermis occasionally containing small oil-tubes.

**H. ranunculoides** L. f. Suppl. 177. Stems rather slender 6-12 inches long: leaves thickish, round-reniform, 6-18 lines in diameter, 3-7-cleft, with crenate lobes: peduncles 1-3 inches long, reflexed in fruit: umbel capitate, 5-10-flowered: fruit with rather obscure ribs, strongly flattened laterally: stylopodium depressed. In ponds, Oregon to California and across the continent.

ORDER XLIV. ARALIACEÆ Vent. Tabl. iii, 2.

Shrubs, trees or perennial herbs with compound or simple leaves without stipules, the petioles thickened and dilated at base, and umbellate paniculate, or racemose inflorescence. Calyx adherent to the ovary, the limb usually very small, entire or toothed. Petals 5-10, valvate in the bud, very rarely none. Stamens as many as petals and alternate with them: filaments short: anthers introrse. Ovary crowned with an epigynous disk, 2-15-celled, with a solitary suspended ovule in each cell: styles erect and connivent or spreading: stigma simple. Fruit drupaceous or baccate, sometimes nearly dry, but the carpels not separating. Seed solitary in each cell, anatropous. Embryo short, at the base of copious fleshy albumen.

1. **Aralia**. Petals imbricate in the bud, drupes 5-celled: pedicels not jointed.
2. **Echinopanax**. Petals valvate in the bud, drupes 2-3-celled, pedicels not jointed.

1 ARALIA Vaillant.

Perennial herbs or shrubs with alternate digitate or compound leaves and small flowers in racemed umbels. Calyx 5-toothed or entire. Petals 5, ovate, slightly imbricate. Stamens 5. Disk depressed or rarely conical. Ovary 2-5-celled; styles few or connate at base, at length divaricate; stigmas terminal. Fruit laterally compressed, becoming 3-5-angled, fleshy externally, endocarp chartaceous.

**A. Californica** Watson. Herbaceous, unarmed and nearly glabrous, 8-10 feet high from a large thick root: leaves bipinnate, or the upper pinnate with 1 or 2 pairs of leaflets, which are cordate-ovate, 4-8 inches long or more, shortly acuminate, simply or doubly serrate with short acute teeth, uppermost leaves ovate-lanceolate: umbels in loose terminal and axillary compound or simple racemose panicles, which are a foot or two long and more or less glandular-tomentose; rays numerous, 4-6 lines long; involucre of several linear bractlets; flowers  $1\frac{1}{2}$ -2 lines long; disk and

stylopodium obsolete; styles united to the middle. Shaded mountain ravines California.

**Var. acuminata** Watson in Herb. Leaflets long acuminate, pedicels 10-14 lines long. Mountain streams Southern Oregon.

2 ECHINOPANAX Decaisne & Planch. in Rev. Hort. 1854, 105.

Densely prickly shrubs with large palmately lobed leaves and greenish-white flowers in dense paniculate umbels. Calyx-teeth obsolete. Petals 5, valvate in the bud. Stamens 5, alternate with the petals: filaments filiform; anthers ovate to oblong. Ovary 2-3-celled: styles 2, filiform: stigma terminal. Fruit laterally compressed, drupaceous; endocarp indurated.

**E. horridum** Decaisne & Planch. l. c. Very prickly throughout: stems erect from a decumbent base, 4-12 feet high, leafy at the top: leaves roundish-cordate, prickly both sides, palmately lobed, aculeate-dentate, more or less pubescent beneath, 6-24 inches long: inflorescence terminal, densely tomentose: rays subtended by a scarious laciniately cut bract: petals ovate, with a broad base: styles united to the middle. In mountain swamps, Oregon to the arctic regions.

ORDER XLV. CORNACEÆ Link. Handb. ii, 2.

Trees, shrubs or rarely herbs with opposite mostly entire pinnately veined leaves without stipules and cymose or capitate inflorescence, with or without an involucre. Calyx adherent to the ovary, the limb 4-5-toothed or lobed, valvate in the bud. Petals distinct, as many as the calyx-lobes and alternate with them, inserted on the margin of the epigynous disk, valvate in the bud: stamens 4-5, inserted with the petals and alternate with them: anthers introrse, mostly cordate. Ovary one-celled with a single pendulous ovule. Style single. Fruit drupelets covered with the remains of the calyx. Seed anatropous. Embryo nearly as long as the fleshy albumen.

1 CORNUS Tourn. (Dogwood)

Trees, shrubs or herbs with opposite entire leaves and small perfect flowers in dichotomous cymes or involucre heads. Limb of the calyx 4-toothed, minute. Petals oblong, spreading. Filaments filiform. Style subclavate; stigma obtuse or connate. Drupelets not connate.

\* Flowers greenish or purple, in a close head, surrounded by a conspicuous involucre of white petal-like bracts: fruit bright red.

+ Low and herbaceous, from slender, creeping root-stocks.

**C. Canadensis** L. Sp. i, 118. Stems simple, 4-8 inches high; leaves scarcely petioled, mostly in an apparent whorl of 4 or 6 near the summit, oval to obovate pointed at both ends, somewhat appressed-pubescent on both sides 2-3 inches long, near the middle of the stem; a pair of smaller leaves and scale-like bracts below; peduncles 1-3 inches long: involucre