

crenate, scarcely or not at all lobed to strongly 3-lobed or somewhat 5-lobed; calyx 3 to 4 lines long, usually shorter than the fruit; bractlets filiform, hardly longer than calyx-tube; petals rose-red to brick-red, notched at apex, 5 to 10 lines long, the claws with a dense ciliate tuft of hairs on each side at base; anthers purple; stigmas black or purple; sides of carpels glabrous, smooth-chartaceous opposite the upper seed, reticulate-scarious opposite the lower seed, canescent on the back.—Desert slopes and desert ranges, 2000 to 6000 ft.: Cuyamaca, San Jacinto and San Bernardino mountains; Colorado and Mohave deserts; n. to Inyo Co.; e. to Ariz.

13. *S. pulchella* Jepson n. sp. Stems erect from a woody root-crown, making a bushy plant 2 to 3 ft. high, covered with a close white felt; leaves roundish-cordate in outline, dentate, not lobed or somewhat 3 or 5-lobed, stellate-canescens, soon green above, $\frac{1}{2}$ to 1 in. long, on petioles $\frac{1}{2}$ to $1\frac{1}{2}$ in. long; flowers in a loose narrow panicle; calyx rusty-puberulent, its tube $1\frac{3}{4}$ to 2 lines long (about as long as the carpels), the lobes ovate-lanceolate, 4 to 5 lines long; petals deep apricot-color, $\frac{3}{4}$ to 1 in. long; ovary covered with a dense white felt; carpels smooth on sides, densely woolly on back.—Panamint Range, Inyo Co. (Hanaupah Cañon, 4000 ft., Jepson 7064, type).

14. *S. purpurea* Parish. Similar to no. 11; stems clothed with a close, fine whitish felt.—Sw. Colorado Desert: Mountain Spr., San Diego Co.; Coyote Well. (S. violacea M. & J.)

15. *S. eremicola* Jepson n. sp. Stems slender, erect or ascending, several from the thick root-crown, 12 to 17 in. high, green and glabrous or nearly so; leaves roundish-cordate in outline, 4 to 11 lines long, 3 to 5-parted with the lobes again cleft and toothed, thinly stellate-puberulent, green; flowers few in a loose and narrow nearly naked panicle; calyx woolly, its tube $1\frac{1}{2}$ to 2 lines long, almost as long as the fruit, the lobes lanceolate, acuminate, 4 to 5 lines long; bractlets filiform, about as long as the tube; petals apricot-color, 7 to 8 lines long; ovules 2; sides of carpels smooth.—Panamint Mts. (Emigrant Cañon, 4200 ft., Jepson 7120, type).

16. *S. angustifolia* Don var. *cuspidata* Gray. Stems many from the base, 3 to 4 ft. high; herbage finely puberulent, the older stems and upper side of leaves glabrate; leaves oblong- to linear-lanceolate, sometimes with 1 more or less obscure lobe at the base angle on each side, minutely crenulate, $\frac{3}{4}$ to 3 in. long; flowers in few-flowered clusters in the axils of the upper leaves; calyx-lobes ovate, acuminate; corolla saffron-red, 4 to 6 lines long; carpels glabrous on the sides, the sides smooth above, reticulate below.—Colorado Desert, rare; e. to Ariz. and Col.

17. *S. fendleri* Gray var. *californica* Parish. Stems several from the base, woody below, forming an erect shrub 2 to 4 ft. high; herbage glabrate or minutely stellate-flocculent; leaves 1 to $3\frac{1}{2}$ in. long, 3-lobed, with sharply acute sinuses; the lateral lobes small, the central one ovate to oblong and 3 to 5 times as long as the lateral, the margin irregularly crenate; flowers in clusters in the axils of the reduced upper leaves, or the inflorescence becoming a somewhat spicate panicle; petals salmon-red, $3\frac{1}{2}$ to 5 lines long; carpels smooth on sides opposite upper seeds, finely reticulate opposite lower seed, finely puberulent or glabrate on back.—Mesas and washes, 25 to 1500 ft.: San Bernardino Valley; Conchilla Desert.

18. *S. acerifolia* Nutt. Stems erect, 2 to 3 ft. high; herbage green, finely puberulent; leaves maple-like, deeply 5-lobed (the lobes acute, irregularly serrate), truncate or subcordate at base, 2 to $6\frac{1}{2}$ in. long; petioles $\frac{1}{2}$ to $3\frac{1}{4}$ in. long; flower-clusters sessile or nearly so in the upper axils and thus interruptedly spicate at the summit of the branches; calyx-lobes ovate, acuminate, shorter than the mature carpels; petals rose-color, $\frac{3}{4}$ to 1 in. long; back of carpels densely puberulent and also conspicuously covered with long ascending bristles.—Cañons, n. Humboldt Co. (Bald Mt.; Three Creeks); n. to Wash.

19. *S. bakeri* Jepson n. sp. Stems erect, several from the root-crown, 1 to $1\frac{1}{4}$ ft. high; herbage finely puberulent; leaves 3 to 12 lines long, the lower sub-orbicular, truncatish at base, crenately lobed and crenate, the upper

leaves often cuneate-obovate in outline, irregularly serrate on upper half or somewhat 3-lobed, $\frac{3}{4}$ to 1 in. long; flowers mostly solitary in the upper axils, on peduncles 2 to 7 lines long; calyx-lobes round-ovate, abruptly acute; petals rose-pink, $\frac{3}{4}$ in. long; carpels closely puberulent and also densely covered with long ascending dull-white bristles.—Lava beds on the boundary of Shasta and Modoc Cos. (Fall River Valley, M. S. Baker, type).

8. HORSFÓRDIA Gray

Woody plants, the herbage yellowish or greenish-yellow, covered with a dense felt. Leaves ovate-lanceolate, cordate at base, leathery, subentire or irregularly erosulate. Flowers 1 to 3 in the axils, peduncled. Bractlets none. Corolla salmon-color. Carpels 3-ovuled, 1 to 3-seeded, at maturity 2-valved above, the valves spreading, scarious and wing-like, 3 to 4 times as long as the lower seed-bearing portion which is firm and reticulate. (F. H. Horsford of Vermont, botanical collector.)

1. *H. newberryi* (Wats.) Gray. Stems erect, 5 to 8 ft. high, with lateral branches on upper $\frac{2}{3}$; stems and petioles yellow stellate-tomentose, the leaves with a somewhat paler or greenish-yellow but very dense and fine stellate-tomentum; leaves $1\frac{1}{4}$ to $2\frac{3}{4}$ in. long, on petioles $\frac{1}{4}$ to $1\frac{1}{4}$ in. long; petals orbicular, rotate, 3 lines long; stamen-tube with simple spreading non-glandular hairs; anthers yellow; stigmas yellow; fruit 4 lines long, the wings ovate.—Sw. Colorado Desert: Palm Cañon of San Isidro; Carrizo Mt.; Signal Mt.; e. to Ariz., s. to Mex.

STERCULIACEAE. STERCULIA FAMILY

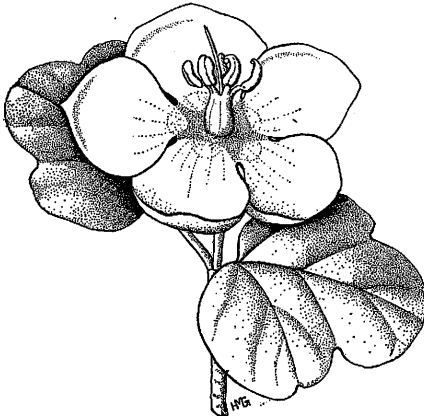
Shrubs or trees with alternate leaves and perfect regular or nearly regular 5-merous flowers. Stamens united below into a tube. Ovary superior, 5 (or 4)-celled. Style in ours one, stigmatic at apex. Fruit a capsule.

Flowers yellow, showy; petals none; calyx-lobes with a conspicuous gland at base; ovary not stiped.....1. FREMONTIA.
Flowers brownish, minute; petal claws filiform, ending in a hood; calyx glands none; ovary stipitate.....2. AYENIA.

1. FREMONTIA Torr.

Evergreen shrub with small often lobed leaves and stellate pubescence. Flowers showy, short-pedicelcd, solitary and axillary on the branchlets. Stipules caducous. Bractlets 3 to 5, small. Calyx yellow and corolla-like, deeply 5-cleft into round-ovate lobes or sepals; these imbricated in the bud, the 3 inner a little larger, all with a rounded and sharply defined glandular area at base. Corolla none. Stamens 5; filaments united to the middle.

Capsule 4 or 5-celled, loculicidally dehiscent. (General John C. Fremont, Pathfinder of the Rocky Mts. and Sierra Nevada, and first United States Senator from California, who discovered it.)



1. *F. californica* Torr. FLANNEL BUSH. Fig. 629. Loosely branching shrub 6 to 10 ft. high, sometimes a small tree up to 18 ft. high; branches tough and flexible, with many short leaf- and flower-bearing branchlets or spurs; leaves green above, covered beneath with a dense gray or whitish felt, $\frac{1}{4}$ to 1 in. long, or on sterile shoots somewhat larger; petioles short; calyx somewhat flannel-like, $1\frac{1}{2}$ to 2 in. broad, persistent, the lobes

629. *Fremontia californica* Torr.; fl. branchlet x 1.