

- Robinia pseudo acacia*. Purgatory creek, near the Raton pass.
Baptisia leucantha. As far as Pawnee fork.
Cassia chamaecrista. First seen July 3, thence to the Arkansas crossing.
Petalostemum candidum. High prairies, as far as Bent's Fort.
violaceum. With the preceding.
Psoralea floribunda. Pawnee fork.
Dalea laxifolia. With the preceding.
Lathyrus linearis. August 9.
Amorpha canescens. Fort Leavenworth to Pawnee fork.
Schrankia uncinata. Stranger creek to Arkansas crossing.
Darlingtonia brachy-loba. Pawnee fork and 110 Mile creek.
Glycyrrhiza lepidota. August 13.
Cereis Canads. Kansas river.

ROSACEÆ.

- Cerasus Virginiana*. Kansas river, Arkansas river, and Purgatory creek.
Fragaria Virginiana. Kaw river.
Rubus occidentalis. Missouri river and Kaw river.
villosus. With the preceding.
Prunus Amer. Pawnee fork, Arkansas river, and Canadian river.
Crægeus coccineus. Stranger creek.
Rosa lucida. Kaw river.

ONAGRACEÆ.

- Oenothera*. Several species occur from Kaw river to Bent's Fort.
Gaura coccinea. August 13.

LOASEÆ.

- Mentzelia nuda*. Bent's Fort and valley of the Timpas.

GROSSULARIACEÆ.

- Ribes accreum*. Purgatory creek and Timpas, near its head.
triflorum. Diamond spring.

CACTACEÆ.

- Opuntia Missouriiana*. Pawnee fork, Purgatory creek, and Canadian river.
Mammillaria sulcata. Near Pawnee fork.

CORNACEÆ.

- Cornus paniculata*. Big John spring.
stolonifera. Stranger creek.
Florida. Kaw river.

CAPRIFOLIÆ.

- Symphoncarpus glomeratis*. Purgatory creek.
occidentalis. With the preceding.
Symphora racemosa. Big John spring.

UMBELLIFERÆ.

- Sium latifolium*. Diamond spring.
Angelica. Head water, Purgatory creek.
Eryngium aquaticum. Near Wakaroose creek.

RUBIACEÆ.

- Galium tinctorum*. Ponds near Lost spring.
Cephalanthus occidentalis. Stranger creek.

COMPOSITÆ.

- Senecio* (near) *palustris*. Raton.
filifolius. Bent's fort to Santa Fé.
Rudbeckia. Fort Leavenworth to Arkansas crossing.
hirta. Lost spring to Jackson's grove.
Erigeron strigonium. Pawnee fork.
Eupatorium purpureum. Turkey creek, Arkansas crossing, and Bent's fort.
Eurotia lanata. Rio Canadian to Santa Fé and south.
Frémontia vermicul. Valley of the Timpas.
Grindelia squarrosa. Arkansas river, near the crossing.
Solidago altissima. Bent's fort.
Solidago. Cotton-wood fork.
Liatris spicata. Crossing of the Arkansas river.
squarrosa. Plum buttes.
Silphium lacenatum. From Fort Leavenworth to Cottonwood.
Coreopsis tinctoria. Turkey creek to Bent's fort.
Asters. With the preceding.
Gaillardia amblyodon. Plum buttes, and on the Moro.
 With the preceding. (Leaves lanceolate.)
piumatifida.
Helianthus. Abundant from Coro creek to Santa Fé.
dentatus. At San Miguel.

ERICACEÆ.

- Arctostaphylos uranasi*. Council grove.

LOBELIACEÆ.

- Lobelia leptostacliza*. Cottonwood fork.
cardinalis. Bent's fort.

CAMPANULACEÆ.

Campanula rotundifolia. Raton pass.

OLEACEÆ.

Fraxinus Americanus. Ash creek.

APOCYNACEÆ.

Apocinum androsacmifolium. Lost spring.

ASCLEPIADACEÆ.

Asclepias verticillata. Stranger creek and Pawnee fork.
tuberosa. Fort Leavenworth to Cottonwood fork.

CONVOLVULACEÆ.

Ipomea leptophylla. Walnut creek to the Canadian river.
Cuscuta Americana. In the bottoms near the "caches."
Convolvulus. (Near sepium.) August 14.
Euploca convolvulaceæ. Raton pass.

BORAGINACEÆ.

Myosotis glomerata. Arkansas river, near caches.

POLEMONIACEÆ.

Gilia (cautua) longiflora. Raton pass.

LABIATÆ.

Hedeoma leptophylla. Near crossing of Arkansas
Monarda fistulosa. Near caches.
allophylla. 110 creek; Cottonwood fork.
Mentha peperita. Bent's fort.
Salvia azurea. Arkansas bottoms and New Mexico.
Teucrium Virginicum. Pawnee fork.

SOLANACEÆ.

Solanum nigrum. Bent's fort.
triflorum. Arkansas river, near crossing.
Nycteron lobatum. From the caches to Bent's fort.
Physalis. August 4.
lobatum. Near Bent's fort.

SCROPHULARIACEÆ.

Pedicularis canad. Near Pawnee fork.

CHENOPODIACEÆ.

Chenopodium album. From Fort Leavenworth to crossing.
Frémontia vermicularis. Purgatory creek and Timpas.
Artemisia. Purgatory creek.
Obione canescens. Valley of the Timpas.
Salicornia herbacea. Arkansas river crossing.

VERBENACEÆ.

Verbena pinnatifida. Rio Canadian and Rio Rayado.
angustifolia. Little Arkansas river.
Lippia cuneifolia. From Pawnee fork to Santa Fé.

CUCURBITACEÆ.

Cucumis perennis. From Walnut creek to Santa Fé.

NICTAGINEÆ.

Oxybaphus, (new to me.) Torr. Slender branching spears. "Rio los Animas."
nictaginea. Raton and "Rio Canadian."

POLYGONACEÆ.

Erigonum. Walnut creek.
tomentosum. Council grove.
Polygonum, (long lacerated sheath, no flowers.) Walnut creek
amphibium. Turkey creek.

LAURACEÆ.

Laurus benzoin. Kaw river and Council grove.

EUPHORBIACEÆ.

Euphorbia marginata. Pawnee fork to Bent's fort.
hypericifolia. Turkey creek.
? By the road side, near the "caches," and in the
buffalo wallows.
Croton capitatum. Crossing of the Arkansas river.

URTICACEÆ.

- Humulus lupulus*. Raton pass and Canadian river.
Morus rubra. Council grove and Kaw river.
Urtica canadensis. Kaw river and Stranger creek.

ULMACEÆ.

- Ulmus Americana*. Pawnee fork.
Celtis crassifolia. Woods at Council grove.

AMENTACEÆ.

- Salix longifolia*. Council grove, 110 Mile creek.
 (no flowers or fruit.) Arkansas river.
Populus monolifera. Timpas, at head of Purgatory creek.
canadensis. From Kaw river to Santa Fé.
 (new to me.) Torr. Rio Canadian.
Salix angustifolia. Arkansas river.

CONIFERÆ.

- Juniperus Virginica*. Timpas, and from Purgatory creek to Santa Fé.
 (different from *Virginica*.) Torr. Near Santa Fé.
Pinus monophyllus. Raton pass to Santa Fé.
rigida. As above.

POLYGONACEÆ.

LABRACEÆ.

EUPHORBIACEÆ.

MONOCOTYLEDONOUS OR ENDOGENOUS PLANTS

ALISMACEÆ.

- Sagittaria sagittifolia*. Head of Timpas.

MELANTHACEÆ.

- Melanthium Virginicum*. Stranger creek and Wakaroosa river.

LILACEÆ.

- Yucca angustifolia*. From Bent's fort to "Fra Cristobal."
Lilium tigrinum. Wakaroosa river.
Enstoma Ruseliana. Bottom of Arkansas and Cañadian.
Allium vianale? Raton pass.

JUNEACEÆ.

- Juncus tenuis*. Raton pass.

COMMELINACEÆ.

- Tradescantia Virginica*. Fort Leavenworth to "110 Mile creek
 rosea. With the preceding.
Commelina angustifolia. Pawnee rock and Raton pass.
 (long acuminate spatha.) Raton.

SMILACEÆ.

- Smilax rotundifolia*. Kaw river, Council grove, and 110 M
 creek.

CYPERACEÆ.

- Scirpus triquetus*. Low grounds near Arkansas crossing.
atrovirens. Pawnee fork.
Cyperus filiculmis. Little Arkansas.
Carex festuca. Wakaroosa river.

GRAMINEÆ.

- Arundo phragmites*. Arkansas, Timpas, and Cañadian rivers.
Sesleria dactyloides. Pawnee fort to Bent's fort.

Agropyrum. Stranger creek.
Atheropogon olygostachium. Canadian river.
Koeleria nitida. Pawnee fork.

EQUISETACEÆ.

Equisetum hyemale. Near crossing of the Arkansas.

APPENDIX No. 7.

WASHINGTON, December 6, 1847.

SIR: I have the honor, at your request, to address you a brief memoir on the subject of the district of country in Sonora, Mexico, which I passed over in November and December last, with a wagon train, when I deviated, in search of a practicable route, from the mule trail of Brigadier General S. W. Kearny, on his march from New Mexico to California.

When he turned off from the Rio Grande, opposite the copper mines and the heads of the Gila river, I kept the river for thirty miles to the south, and making a southern bend, turned again towards the north, and struck his route (as surveyed by Mr. Emory of your corps) just above the village of the Pimo and Maracopa Indians, an estimated distance of 444 miles.

Immediately below the point of deviation, on the Rio Grande, the country bordering the river became sensibly flatter and less broken. I left the river when in view of a point marked on the common maps as "San Diego," and the distant view towards "El Paso" proved the country to be unbroken and comparatively level.

From the high valley of the river I ascended to the table land of Mexico, by an almost insensible slope over smooth prairie. For 150 miles on this smooth level table land, which is studded with isolated hills or mountains, I journeyed without any difficulty, passing over but three hills, in two cases, I know, in the third, I believe, unnecessarily. I then, unexpectedly and suddenly, arrived at a great break off to a lower level of country, the descent to which was very broken and rough mountains for fifteen miles. I found, however, that I had at that moment fallen into an old wagon trail, which led, I was told, from Yanos. I was able to get my wagons through, following a stream all the way, and descending in the 15 miles possibly a thousand feet. This was the head of the Huaqui river, which empties into the California gulf. I was told that this was called the Pass of Guadalupe.

I then passed an unbroken country, about 80 miles, when I fell upon the José Pedro river, which empties into the Gila. I descended this without difficulty of ground about 80 miles. In turning off there is an ascent to nearly level country of, perhaps, above an hundred feet, but it could be made very gradual. It is then about 48 miles to Tueson, a town of about 500 inhabitants with a fort and garrison. This distance is over much smooth ground, maintaining the same general level. Tueson is in a rich and well cultivated valley, where there is also a dense forest of maguery. From Tueson it is some 75 miles to the Gila. It is a level plain, generally of clay, where my wagons and footmen (water being very scarce) passed at the rate of about 30 miles a day.