

and considerably changed in appearance by growing in such uncomfortably cramped quarters.

As none of these ferns, nor any others for that matter so far as I know, grow anywhere near the Prison grounds naturally, their presence in such an unnatural situation is not easily accounted for, but it is to be presumed that the spores were blown from a distance by high winds and lodged in the crevices where they subsequently found sufficient moisture and shelter to favor their germination.

The territory immediately surrounding this portion of the Prison wall at present (originally partly surrounded by water) is made of low filled land partially covered with coarse plants, which I had no time to examine, but conspicuous among which, and abundant, was *Senecio vulgaris*, and, judging from the number of burrs attached to my clothing when I came off the ground, *Lappa officinalis*.

The ground still retains much of its original dampness, and this, together with the condensation of escaping steam from the manufactory adjoining the wall within the Prison yard, assists the heavy granite wall in condensing and holding moisture enough to sustain quite a vegetable colony, other plants besides ferns being found there.

Some of the upper cracks had become sufficiently widened by the crumbling away of the mortar to effectually hide and protect the sparrows that flew in and out above my head, and this may have led one near by to suggest that the seeds of the ferns had probably been carried there by the birds!

The rootstocks of *A. Thelypteris* and *Dicksonia* had receded to quite a depth, while the crowns of the others were about even with the wall.

I brought away a few plants that I succeeded, with some difficulty, in getting out of the cracks, and also *Marchantia polymorpha* that was growing with them, and these I have set out in a moist ravine where I can watch their future development under more natural conditions.

Mr. Perkins, who has botanized quite extensively about waste grounds, and is familiar with all such places in this vicinity, writes me that he saw one season a large fern clump growing on one of the wharves in the Charlestown Navy Yard partly under the beams, and mentions some ice-houses with ferns growing from the cracks between the boards, but the latter are in close proximity to fronds whose ferns abound naturally.—GEO. E. DAVENPORT.

Some New Grasses.—*MELICA HALLII*, n. sp.,—Culms wiry, erect, $1\frac{1}{2}$ to 2 feet high. Leaves all involute, setaceous, scabrous; the radical numerous, 5 to 12 inches long, those of the culm (about two) 1 to $1\frac{1}{2}$ inches long, ligule obsolete. Panicle narrow, 2 to 3 inches long, the branches solitary or in pairs, the longest $1\frac{1}{2}$ to 2 inches, the 3 to 5 spikelets borne above the middle. Spikelets 3 to 4 lines long, two-flowered with a distinct rudiment of a third; outer or empty glumes membranaceous, equalling the flower, lanceolate, acute, the upper a little the longer, midvein prominent, the lateral nerves soon evanescent or wholly wanting; flowering glumes and palea chartaceous, finely scabrous, about equal, the flowering glume 3-5-

nerved, the midnerve terminating in a short, stiff mucro, the palet strongly 2-nerved and bifid or 2-cleft at the apex. Stipe of the second flower about half a line long.

This I have received from Mr. J. Macoun, collected three different seasons on the Great Plains of British America. It is also the No. 621 of Hall and Harbour's Colorado collection.

SPOROBOLUS JONESII, n. sp.,—Culms densely tufted, erect, 1 to 1½ ft. high, wiry; radical leaves numerous, short, rigid and involute, except the lowest; culm with 1 or 2 leaves below, the blade about 1 inch long, setaceous, sheath four times as long, scabrous. Panicle erect, thin, 1½ to 3 inches long, rays solitary, appressed, the lower 1 to 1½ inches long, subdivided from the lower third; spikelets mostly very short pedicelled, about 1½ lines long; glumes about ⅓ as long as the flower, broad, obtuse or truncate, and the apex erosely toothed, thin and purplish; flower with a distinct pedicel or callus, the flowering glume and palet much alike in texture, firmly membranaceous, 1 nerved, finely scabrous and slightly pubescent below, 1 to 1½ lines long, the palet narrower and but little shorter, after flowering becoming more elongated, cylindrical and pointed.

Collected by Prof. M. E. Jones at Soda Springs, Cal.

POA PURPURASCENS, n. sp.,—Culms erect, 1 to 1½ feet high, smooth; cauline leaves mostly 2, the lower ones 2 or 3 inches above the base, the upper with a long sheath running above the middle of the culm, blade flat, 2 to 3 inches long, thickish, pungently pointed, 1½ lines wide, ligule about 2 lines long, membranaceous, entire or incised, sheath and blade glabrous; panicle erect, oblong or pyramidal when expanded, 2 to 3 inches long, rays in twos or threes, single above, an inch long or less, mostly flowering above the middle, each with, usually, 2 or 3 spikelets. Rachis, rays and pedicels glabrous. Spikelets ovate, about 4 lines long, short pedicelled, 3 to 5 flowered; outer glumes broadly scarious margined, the lower about 2 lines long, ovate-lanceolate, acute, the upper a little longer and wider with the apex coarsely toothed, or entire and acute, 3 nerved at the base; flowering glumes 3 lines long, lanceolate, compressed, with a wide scarious and purplish margin and apex, sometimes lacerate toothed, mostly acute, the lower part green, minutely scabrous, and near the base pubescent or villous: palet a little shorter, narrow, 2 keeled, scarious and colored at the apex. Panicle and lower leaves and sheaths purplish.

Collected by Mr. Howell on Mt. Hood, where it was also collected by Mr. E. Hall, Oregon Coll. No. 633. It has also been collected in the Yellowstone region.

Mr. Howell's collection contains specimens of the grass which has been called *Poa*, and more recently *Atropis*, *Californica*. In the Botany of California the genus *Atropis* is made to include not only several species which have been classed in *Glyceria* and *Sclerochloa*, viz: *Glyceria distans*, *tenuiflora*, *convoluta*, *airoides*, *maritima* and *procumbens*, but also Mr. Nuttall's two species *Poa tenuiflora* and *P. Andina*, as well as two species described there for the first time. Any one acquainted with these grasses will perceive that in order

to bring them together considerable modification of the characters of the genus *Sclerochloa* of Beauv. and of *Atropis* as defined by Trinius must be effected. Indeed I do not think this can be accomplished with reference to Nuttall's *Poa Andina* without separating from *Poa* a species which as naturally belongs there as does *P. alpina*. With respect to the plant generally known as *Poa tenuifolia*, Nutt., especially if we include the larger California forms there is a wonderful variation in nearly all the characters usually defined in the limitation of a species, namely, in the height of culms, the length and rigidity of leaves, both radical and cauline, the size of ligule, the size and form of panicle, the length and spread of the rays, and to some extent in the size and form of the flowering parts. From a very careful study of hundreds of specimens I conclude that this species or group of species is essentially characterized by linear, linear-oblong or linear-lanceolate flowering glumes, of a hard or firm texture, minutely scabrous, convex or rounded on the back, and with the apex and more or less of the margins scarious and peculiarly tinged with a yellowish bronze color. The apex of the flowering glume may be acute or obtuse, entire or erose. In *Poa Andina*, Nutt., as I understand that species, the flowering glumes are broader, generally thinner in texture, less scabrous, smooth or softly and sparsely pubescent, keeled and generally much compressed, in some forms quite as much compressed as in *Poa alpina*.

Usually *Poa tenuifolia*, has long, narrow outer glumes, sometimes quite equalling the flowering ones in length; usually *Poa Andina* has shorter and broader outer glumes. In my consideration of *tenuifolia* I have included the large California forms, one of which I some years ago described as *Festuca Oregona*, (see BOT. GAZETTE for August 1877) and which I now return to *Atropis Californica* on the authority of Gen'l Munro, to whom I sent specimens which were returned to me with his name as above and with synonym *Sclerochloa Californica*, Munro in Pl. Hartw. I particularly state this because in the Botany of California, Gen'l Munro's name is applied to the *Poa Andina*, Nutt. It is not probable that Gen'l Munro has seen all the forms of the two plants, but in view of their variability he may have even confounded the two. In the species, or group of species, which I have taken for *Poa tenuifolia*, Nutt., or *Atropis Californica*, Munro, there is such a perplexing variety of forms that it may well be conjectured that Nature is now engaged in the work of differentiation, and that in process of time the lines will become more sharply defined and several new species established.

GEO. VASEY.

Systematic Botany Nevertheless.—

"The reason why I can not tell,
But this alone I know full well,
I do not like you, Dr. Fell."

And here the average amateur, interested in his local flora, and fond of dabbling a little in systematic botany, had better, perhaps, take his stand, when urged to study vegetable histology and physiology instead. And yet, when you find that a very large proportion of those who constitute the purchasers of botanical books (a very useful



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