

shaped nuclei of fibro-vascular and scalariform bundles. The bundles distinctly wedge-shaped, the root thus showing a stronger affinity in structure to the *Equisetaceæ* than to Ferns, and presenting an additional reason to the difference in *Sporangia*, why *Marattiaceæ* should be separated from Ferns.

Fig. 7.—Starch grains of *Marattia fraxinea*, Sm.

NOTE.—I am also of opinion, although requiring longer observation to prove satisfactorily, that the rhizomes of the New Zealand *Botrychium* and *Ophioglossum* are built up, or added to, by a similar method to that of *Marattia*.

ART. LXXV.—*Gnaphalium* (*Helicrhysum*) *fasciculatum*, sp. nov.

By JOHN BUCHANAN, F.L.S.

[Read before the Wellington Philosophical Society, 16th September, 1876.]

Plate XIX.

A DENSELY-tufted plant with wiry thread-like roots. Stems $1\frac{3}{10}$ inch high, branching. Leaves imbricating all round the branches, erect, $\frac{4}{10}$ inch long, narrow oblong, acuminate, obtuse, striate, upper half covered on both sides with closely appressed, silvery-white tomentum; lower half brown, glabrous in front, covered on back with soft silky white hairs. Heads, 1–4 flowered on each branch, forming a sessile closely compacted fascicle, involucrel scales in 2 or more series, narrow linear, spathulate, rounded or notched at top, and finely serrated, glabrous and shining, white on upper half, shining pale green or white on lower half, with a tuft of silky hairs near centre of upper surface; receptacle conical, rough or hispid; pappus hairs few, swollen, scabrid. Achene linear, silky, with a thickened areola at bottom.

Collected by H. H. Travers on the Tararua Mountain, where it was found growing on the ground in close patches.

This species is very similar to *Raoulia grandiflora*, Hook., fil., and might be taken for a many-flower-headed variety; it is larger in all its parts, and a more showy plant.

DESCRIPTION OF PLATE.

1. Plant, nat. size. 2. Floret of the disc. 3. Involucrel scale, back view. 4. Anther.
5. Pistil. 7. Leaf.

ART. LXXVI.—Revised descriptions of two species of New Zealand *Panax*.

By JOHN BUCHANAN, F.L.S.

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No. 1. *Panax crassifolium*, Dene. and Planch.

A small tree 20–25 feet high. Stem 8–12 inches diameter, irregularly