XVIII. *On the Doryanthes, a new Genus of Plants from New Holland,
next akin to the Agave.*

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AMONGST the various new and interesting plants with which New Holland has of late enriched Botany, none perhaps has an equal claim to public notice with the plant which forms the subject of the present paper. Its beauty, its shape and elegance, and the tenacity of its vital powers, entitle it to particular attention both from the cultivator and the naturalist.

It was found in the mountainous part of the colony of New South Wales, by Mr. George Bais, A.L.S. who brought the first specimens of it last year to Europe, in the ship *Perseverance*. Other specimens, in a high state of preservation, have since been brought in spirits by Governor Hunter. From both these sources, and a single flower which came to perfection at Kew, from a portion of stem without roots, which had been cut many months before, in New Holland, the following description of the genus has been made, and the character established:

DORYANTHES*

FLOS.

Calyx nullus, nisi spathæ partiales.

* From the Greek *Δορυ*, *hastæ*; *Δορυανθης*, *Hastæ florida*.

Corolla monopetala, infundibuliformis, sexpartita; lacinix sex, oblongo-lanceolatae, concavae, dorso carinatae, tres interiores basi latiores.

Stamina. Filamenta sex, longitudine fere petalorum, subulata, antherarum bases profunde penetrantia; antherae erectae, subcylindricae, biloculares, post fecundationem extensoriiformes.

Pistillum. Stylus unicus (ex tribus connatis), trifurcatus, longitudine staminum; stigma trilobum.

FRUCTUS.

Induviae nullae.

Pericarpium. Capsula turbinato-ovata, subtrigona, trifurcata, vestigiis petalorum stylique coronata, trilocularis, trivalvis; substantia duplex: interior lignosa, exterior corticosa, striata, fibrosa.

Placentatio. Chordulae pistillares sex, per paria dispositae, axi dissepimentorum affixae. Semina chordulis pistillaribus alternatim affixa, ut singula tantum series in unoquoque loculo appareat.

Dehiscentia duplex: per axim dissepimentorum, et per valvarum futuras.

SEMEN LIBERUM.

Forma. Semen planum, reniforme, rugosum. Nucleus lateralis, subtriqueter, dimidiam hujus partem obtinet.

Integumentum. Duplex; exterius spongiosum; nuclei cartilagineum.

Perispermum. Amygdalinum, nucleo conforme.

Embryo monocotyledoneus, minutus. Cotyledon foliaceo-compressa, plana, cuneiformis.

Observation 1. The *Agave*, *Fourcraea*, and *Doryanthes*, have a very strict affinity. The antherae, filaments, and the disposition of seeds offer the greatest differences. The antherae in the *Agave* are *incumbentes*, in the *Fourcraea* the filaments are alated; the corolla *hexapetala*.

Doryanthes excelsa?

G. Queiroz Sculp.

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hexapetala. The seeds in the *Agave* are ranged in two series; in the *Doryanthes* they are disposed as above, and the antheræ as described.

Observ. 2. The vestiges of the corolla in the fruit persuade me that the corolla is to be considered as *supera*, but the *traces* of the divisions of petals, which may be remarked in the flower as far as the pedunculus, might perhaps induce a suspicion that the fruit makes one body with the inferior part of the corolla, which by that means *in fructum abit*.

The loftiness of the stem of the only species hitherto known of this genus, which arises to the height of above 20 feet, may warrant the trivial name of *Doryanthes excelsa*.

REFERENCES TO THE PLATES.

TAB. XXIII.

Fig. 1. The whole flower.

2. Lacinia of the corolla with a filament.

3. Anthera extensoriiformis, as it appears after the fecundation.

TAB. XXIV.

Fig. A. Germen and pistillum.

B. Horizontal section of the germen.

1. Capsula.

2. Horizontal section of the same.

3. Seed.

4. Section of the same.

5. Nucleus.

6. Naked seed.

7. Section of the same to show the perispermum and embryo.