ment of this interesting plant under cultivation, the results of which were published,[1] and are here repeated in a condensed form. Seeds were sent to the Göttingen Botanic Garden from the Argentine province of Entre Rios, and both kinds were equally fertile, though the young plants from the seeds of underground pods grew more vigorously from the first than the others did. Nevertheless, by the time the plants reached the flowering stage this difference had disappeared. The underground pods contain one,[2] or, at most, two relatively large seeds; while in the normal aërial pods, the seeds are numerous and small. Probably the greater vigour of the plants from the seeds ripened underground was due to the greater amount of nourishment they abstracted from the mother plant. Briefly, a plant of *Cardamine chenopodifolia* may be described as similar to a plant of the common *Cardamine pratensis*, but it has entire leaves; and from the axils of the rosette of leaves at the base of the stem spring the peduncles of the flowers which ripen their seeds underground. These bear each one terminal flower, produced at the same time as the ordinary erect inflorescence. Almost as soon as they are visible, they begin to curve downward, and before the flowering period they have thrust themselves into the ground to the average depth of four-fifths of an inch. The flowers are so small as to be almost imperceptible to the naked eye, for they only attain a length of a millimetre (about one twenty-fifth of an inch), with a diameter of a thirty-second part of an inch, looking more like the blunt end of a peduncle, especially as they remain closed. But the normal flowers are also very small, having petals only about one-sixth of an inch long. Whereas, however, these exhibit the ordinary Cruciferous structure, the underground ones consist of only four green sepals, with four stamens apparently opposite to them, and a pale pistil. The latter contains one pendulous anatropal ovule in each cell. Exceptionally a peduncle is unable to penetrate the ground, and then the pod lies flat on the ground, and is green instead of being blanched. The process of fertilisation of the underground flowers, which was investigated by Dr Drude, proved far more remarkable than the abnormal structure of the flowers. The accuracy of the observations Dr Grisebach was able to confirm by an examination of Dr Drude's microscopic preparations. It appears that each cell of the anther contains only about twelve pollen grains of globular shape, with tetrahedrously-arranged pores and a thin warty extine. The anther cells do not dehisce, but the pollen tubes grow out and pierce the wall, and at once enter the contiguous stigma. In the ovary, the pollen tubes could be traced into the micropyle of the ovule, which was already impregnated, though the pollen tubes remained visible. A comparison of the individual pollen grains of the underground flowers with pollen grains of the aërial flowers revealed

[1] Der Dimorphismus der Fortpflanzungsorgane von Cardamine chenopodifolia, Pers.—*Nachrichten von der Königlichen Gesellschaft der Wissenschaften und der G. A. Universität zu Göttingen*, Juni 1878, p. 332; reprinted in the *Botanische Zeitung*, 1878, pp. 723 and 794.

[2] The ovary of the flowers that bury themselves appears to be invariably two-celled, with one ovule in each cell; and Grisebach states that, contrary to St Hilaire's account, both ovules were fertilised in the cultivated plant, but in all the wild specimens we examined, except one, only one seed was developed.—W. B. H.