

I am yet but on the threshold of a vast subject, with what relates to pure hybridisation—*i. e.*, the crossing of one species with another distinct species of the same genus—and the crossing of varieties scarcely touched upon. With some of my experiments in these still ample fields, I may tax your patience in some other paper at a future time.

II. *Notes on some of the Compositæ of the Andes, and more particularly on Chuquiraga insignis.* By Professor JAMESON, of Quito. Communicated by ISAAC ANDERSON-HENRY, Esq.

Compositæ are found in all parts of the world, from the northern polar regions to the sultry plains of the tropics. In Northern Europe and Asia, on the Alps and Pyrenees, they are herbaceous. Throughout the whole range of the Andes many are shrubby and arborescent. The latter occur more generally between the limits of 8000 and 12,000 feet above the sea-level. Near the snow line (15,000 feet) we meet with a vegetation of shrubs composed of *Chuquiraga*, *Loricaria*, and *Diplostephium*, associated with the woolly plants, called *Frailejon* (*Culcitium nivale* and *rufescens*),

have this morning read another account of its origin in *The Farmer* of yesterday, where, reporting the proceedings of the last meeting of the Royal Horticultural Society, it is stated, "Mr Lee, Cliveden, Bristol, sent most remarkably dissimilar examples of apples from the same branch of a tree of orange Pearmain, which was a fertile subject of comment at the meeting. The tree was the true variety, and the other samples were of a russetty cast, instead of the bright crimson colouring common to the original. Rev. Mr Berkeley instanced *Cytisus Adami* as a sport of a similar character, which is believed to have been produced by grafting *Cytisus purpureus* on the laburnum, and by some accident one cell of the stock and one of the graft having each become divided, and then united together, the result had been a plant partaking of the nature of both. Mr Berkeley suggested that it would be most interesting to know the stock upon which the orange Pearmain had been worked." Whatever be its origin, the facts I have stated, and which probably many of us have seen with our own eyes, of the same tree producing three kinds of flowers, and two, if not three, different kinds of leaves, there can be no doubt of these having resulted from the operation of grafting. The two kinds of fruit, too, of the Pearmain seem to have arisen from the same cause. And it would seem, also, that many of the sports we see and hear of in roses, in changing colour, and betaking themselves to a climbing habit, are due to the same cause.

which, with the *Wernerias*, advance to the limit of perpetual snow.

The first division, *Labiato-floræ*, established by Lessing in the year 1839, comprises a small number of beautiful plants, few of which are known to the horticulturist. The genus *Mutisia*, described and named by the younger Linnæus in honour of Dr Celestino Mutis, the distinguished New Granadian botanist, presents species which, for the size and colour of their flowers, call forth the wonder of the traveller. The *Mutisias* are generally furnished with tendrils, by means of which they cling to trees and shrubs, adorning the woods on the western flank of the volcano of Pichincha.

The species of *Onoseris* occur in greater variety at Alansi than anywhere else, and also possess considerable merit. *Onoseris hyssopifolia* adorns the sandy ravines of Pomasqui and San Antonio.

The genus *Perezia*, named *Clarionea* and *Homoianthus* by various authors, presents species that occur on the higher ridges of the Cordillera, between 13,000 and 14,000 feet above the sea-level. One of these, *Perezia multiflora*, here called *Escorzonera*, is considered a useful remedy in catarrh, acting as a sudorific.

The *Chuquiraga*, comprised in this division, is, in a medicinal point of view, the most important of the group. For the following remarks bearing on this subject I am indebted to Dr Rafael Barahona, Physician to the Military Hospital, and Professor of Physiology in the University of Quito:*

“ This plant, which grows plentifully on our mountains, claims much interest in a medicinal point of view, for which reason I feel desirous of communicating to you the result of a few observations derived from its employment as a remedial agent in the military hospital and in private practice.

“ The infusion of *Chuquiraga* taken by an individual in his usual state of health, operates as a mild tonic, increasing the appetite and promoting digestion. It appears to act as a stimulant on the circulating and organic nervous systems,

* Account of the medicinal properties of *Chuquiraga insignis*, by Dr Rafael Barahona, Physician to the Military Hospital, and Professor of Physiology in the University of Quito. In a letter addressed to and published by the author of the *Synopsis Plantarum Equatoriensium*, vol. ii. p. 160.

augmenting the force of the pulse, and giving more energy to the cerebral functions, diffusing a general and equable distribution of warmth over the body, with a tendency to perspiration.

“ Having noted the physiological effects of this plant, I naturally felt desirous of employing it as a remedial agent; and I now proceed briefly to state the class of diseases in which its administration has been found advantageous.

“ In consequence of its action on the organic nervous system, it possesses much efficacy in the cure of intermittent fever. In certain cases it seems preferable to the cinchona, particularly when the patient appears cachectic and bloodless—symptoms that usually occur when the malady has been of long duration, or when it has been treated by the injudicious administration of cinchona. In such cases I have found, by experience, that cinchona is not only inert, but positively hurtful. Dr Pereira, in his ‘*Materia Medica*,’ makes the following remark:—‘I have observed that it (the cinchona) proves less successful, and often quite fails, when the complexion is chlorotic or anæmic. In such cases chalybeates often succeeded when cinchona is useless and injurious.’

“ Another important circumstance is that the *Chuquiraga* can be safely administered, even when the stomach is deranged—an advantage not possessed by the cinchona, which must be prescribed when the functions of the stomach and bowels have been restored to their natural condition.

“ With regard to the influence of this medicine in the cure of fever, I may be allowed to state that in the warm country, where intermittent and remittent types are epidemic, the *Chuquiraga* appears to act with much energy. In Babahoyo I had occasion to attend upwards of fifty patients affected with fever, who, solely by the use of this medicine, were speedily restored to health and radically cured.

“ In the convalescence from continued fever, during which the countenance is pale and discoloured, together with a want of appetite and slow digestion—in short, where there is a general torpid condition of the animal functions—the moderate use of the *Chuquiraga* causes a progressive and favourable change.

“ In the remittent fever of children, cases of which fre-

quently occur in this country, followed by a lengthened convalescence and attended by indigestion, partial or general swellings, coldness of the extremities, and a pale countenance—symptoms which indicate a disordered condition of the organic nervous system—I am in the habit of prescribing the *Chuquiraga* with much benefit.

“As the *sequelæ* of measles and scarlet fever are of nearly a similar character to those of the maladies just mentioned, I have used the *Chuquiraga* in all such cases with beneficial results.

“Of the class of diseases strictly denominated *nervous*, I may mention hooping-cough, which almost every year occurs epidemically. In this disease I have also administered the *Chuquiraga* with benefit. The preparation I employ is a simple infusion, made by pouring a pint of boiling water on six or eight grammes of the plant, taking daily two or three tea-cupfuls; the quantity ordered to be given to young children being proportionally diminished. The extract may be employed, but I prefer the infusion.

“I cannot conclude this brief and imperfect sketch without suggesting to you, when time and circumstances allow, to analyse this important plant, inasmuch as the operation made by me is not altogether satisfactory, owing to the insuperable difficulties of obtaining, in this city, the requisite chemical preparations for the performance of an analysis. Notwithstanding, the following is the result of my observations:—1st, A bitter extractive matter; 2d, Chlorides of calcium and magnesium; 3d, A crystallised body, apparently oxalic acid; 4th, On adding lime water to the decoction, a copious precipitate, the composition of which requires further examination.”

III. *Obituary Notice of Professor John Goodsir.* By Professor BALFOUR.

I have this evening to record the death of one of our members, John Goodsir, the distinguished Professor of Anatomy in this University. The melancholy event took place on the 6th March, at South Cottage, Wardie. Professor Goodsir was born at Anstruther in 1814, where both