

this family, and this in so large a quantity as to allow of their being cultivated for the oil they yield, as the sun-flower; the *Rantilla oleifera*, in Bengal, and *Carthamus tinctorius* in every part of India; this last, however, is also cultivated on account of its flowers, which are well-known in commerce under the name of Bastard Saffron.

Specimens of most of the Plants of this family in the Author's Herbarium having been sent to Professor De Candolle, that celebrated Botanist had the kindness to name the greater portion, and favour the author with a letter referring by numbers to those which had been retained. The Plants referred to and figured in this work have been named in conformity to this list, with the exception of those to which the Professor's initials have not been attached. The generic and specific characters will be published in the 5th volume of his justly celebrated Prodrômus.

1. *Echinops nivea*. D.C. in lit. Wall. Cat. N. 2986.—Tab. 56. fig. 1.

Hab. Mussooree and Suen ranges. Sireenugur. Wall.

2. *Dolomiaea macrocephala*, D.C. in lit. and Archives de Botanique 2. p. 380. *Carduus macrocephalus*, Wallich, Cat. N. 2904. *Saussurea religiosa*, nob. p. 26.—Tab. 57. a. The united anthers rising from the corolla, of which the limb has been removed; b. a single anther, with each lobe terminating in an extended ciliate base; c. a floret; d. the same, with the corolla removed, and the quadrangular achenium separated.

Hab. This plant has been formed into a new genus by M. De Candolle, in consequence of differing from *Saussurea*, to which it is most nearly allied in its pappus. It is used by the inhabitants of the hills as a kind of incense in their religious ceremonies, and is by them called *googan*; hence *Saussurea* (*Googiana M.S.S.*) *religiosa* nob. It is found on Kedarkanta, Peerpunjal, and at Lipka in Kunawur. It was sent to Dr. Wallich from Gossainthan and Kémaon.

3. *Cyathidium taraxacifolium*, Lindley. *Aplotaxis taraxacifolia*, D.C. in lit. *Saussurea? taraxacifolia*, Wall. Cat. N. 2914.—Tab. 56. fig. 2. a. a floret with its cup-like, awned, external pappus; b. the pappus; and c. an anther, both highly magnified, the latter terminating in a long villous prolongation; d. part of a style with the stigmas.

Hab. This species has been separated from *Aplotaxis* by my friend Dr. Lindley on account of the cup-like outer pappus with its short bristles. It grows on Choor and Kedarkanta, and was sent to Dr. Wallich from Sirmore by Dr. Govan.

4. *Aplotaxis gnaphaloides*. D.C. in lit.—Tab. 59. fig. 1.

Hab. Soongnum in Kunawur.

5. *Chaptalia gossypina*, nob. p. 18. and 247.—Tab. 59. fig. 2. a. b. florets; c. anther; d. stigmas.

Hab. Owing to some mistake in the numbering I was unable to find this plant named in the letter with which I was favoured by Professor De Candolle. Mr. Don referred it to the genus *Chaptalia*, and it certainly bears great resemblance to *C. tomentosa*. It is, I believe, *Onoseris lanuginosa*. Wall. Cat. N. 2929. *Chaptalia maxima*, Don, has been referred to the same South American genus. It is found at Mussooree, &c. v. p. 247.

6. *Aster angustifolius*. Lindl. M.S.S.—Tab. 58. fig. 1.

Hab. Cashmere.

7. *Callimeris flexuosa*.—Tab. 58. fig. 2. a. achenium.

Hab. Suen, Mussooree, and Cashmere.

8. *Galatilla juncea*. Lindl. M.S.S.—Tab. 58. fig. 3.

Hab. Saharunpore Botanic Garden from Himalayan seed.

The three last plants have been examined and described with others of the section to which they belong by Dr. Lindley for Professor De Candolle.

9. *Corisartia indica*, D.C. in lit.—Tab. 60. fig. 1. a. quadrangular achenium; b. base of the corol, with the bulbous base of the style; c. anther.

Hab. Peerpunjal and Cashmere.

10. *Ligularia arnicoides*, D.C. in lit.—Tab. 60. fig. 2. a. achenium; b. stigmas.

Hab. Kedarkanta, Broang and Chandow Passes.

11. *Mulgedium macrorhizum*.—Tab. 61. fig. 1. a. b. achenium; c. stigmas.

Hab. Mussooree and Kedarkanta.

12. *Mulgedium sagittatum*.—Tab. 61. fig. 2. a. anther; b. stigmas; c. achenium.

Hab. Kedarkanta and banks of the Rawee and Buspa Rivers.

97. LOBELIACEÆ.

This order, allied to *Cichoracæ* by its irregular split corollas, cohering anthers, and milky juice, is only considered a tribe of *Campanulacæ* by Mr. Brown, but, unlike that order, delights more in southern than in northern latitudes, though the Indian species are chiefly found in mountainous situations. They are numerous in South America and the West Indies, as well as at the Cape of Good Hope, in New Holland, and in the Island of Java. A few species extend into China, Japan, Europe, and North America. In India we find them on the mountains of the Peninsula, as *L. excelsa*, attaining an elevation of ten and twelve feet on the Neelgherries. A species extends to the Western Ghauts explored by Col. Sykes; *L. zeylanica* is found in Silhet and on the mountains of the central range; *L. stipularis* is common to the Indian and Malayan Peninsulas, extending along the foot of the mountains to Nepal and Kemaon, and existing at Mussooree in a diminutive state; *L. rosea* and *begonifolia* are found in the former as well as on the mountains of Pundooa; and *L. pyramidalis*, which Dr. Wallich describes as being found in Silhet, as well as in both low and lofty situations in Nepal, extends north as far as Shalma.

The *Lobeliacæ* are remarkable for the acridity of their milky juice, on which account some are of a deleterious nature, as *L. Tupa* in Chili, and *L. longiflora* in the West Indies. Others are employed as medicinal agents, as *L. syphilitica* and *cardinalis*; and *L. inflata* in North America as an emetic and sudorific; *L. Caoutchouc* is so named by the inhabitants of Popayan from the tenacity of its juice. It would be desirable to ascertain if the Indian species are possessed of any useful properties. *L. pyramidalis*, *excelsa*, and others are highly ornamental, and well worthy of introduction into the gardens of England.

98. CAMPANULACEÆ.

M. Alphonse De Candolle, in his Monograph on the *Campanuleæ*, which, for comprehensiveness of views combined with minuteness of detail, is quite a model for such kinds of work, treats of this order as a tribe of a more general one, which embraces the foregoing and two following orders. *Campanulacæ* are well known from the different species of Bell-flower being so common in European fields and gardens. Indeed, they prevail chiefly in the temperate regions of both hemispheres, as in the Oriental and Mediterranean regions, the mountains of Europe, Caucasus, and the Altai, the frontiers of China and Siberia, N. America, the Cape of Good Hope, and New Holland; a few species in South America, St. Helena, and Senegambia, in the Burmese territories, and the islands of the Indian Archipelago. Of the three hundred and eleven species belonging to this order, only thirteen are found in intratropical countries, or as M. A. de Candolle expresses their distribution in a general way, one-half of the whole

are



1. *Malgedium Macrorhizum.*

M. sagittatum.

M. Gussone del.

Published by Parthey Sohn, & Co. Londonhall, 17