INTRODUCTION

The needs of life are directly or indirectly supplied by either the plants of to-day or of the remote past. The interest of man in plants therefore is an abiding one. No wonder be soon realised the necessity of their cultivation and gradually the importance of their well-being and development.

Plants employ all sorts of material and under very varying conditions to elaborate their products and therefore the uniformity of their products is a factor mostly governed by their environments. At best any plant material is an aggregate of a basic structure where two or three very close structures to the original one are found very intimately mixed up with it. In the case of the products from the parts of the plant which are more exposed and therefore subject to extreme variations of environmental condition, the aggregate basic structure may even be profoundly altered. This may give rise to products (a) which may have not yet attained the final structure or (b) may have gone over it or (c) may have changed into altogether new structures at some stage of development.

This then is the position in the investigation of any plant material.
The practice of using plants and their products in dieto- and medico-therapy is a very old one. Some members of the family Umbelliferae such as Apium graveolens, Coriandrum sativum, Pimpinella anisum and Apium petroselinum have found extensive use for a long time in dieto- and medico-therapy and therefore their investigation appeared of considerable interest. A reference to the literature showed our very meagre knowledge about some of their constituents and especially the glycosides, the plant products generally of some physiological importance. The recorded work on parsley mentions the occurrence of apiin in it and another glycoside the nature and occurrence of which is a matter of controversy. Similarly all we know about celery (Indian Equivalent Karaffs) is a report that it carries apiin. The work on parsley glycosides is also interesting in account of the gelatinising nature of the plant extract.

The following pages give an account of the various types of the glycosides, their methods of extraction, isolation, purification and characterisation; as also a detailed account of the work on the glycosides of parsley and karaffs (Indian equivalent of English celery), their isolation, purification and characterisation.