SCIENCE

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CONTENTS

MSS. intended for publication and books, etc., intended for review should be sent to Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.

THE EVOLUTION OF HERBS

THE most ancient system of botanical classification which we know, first proposed by Aristotle and Theophrastus and even continued after the dawn of modern botany with the herbalists of the sixteenth century, divided all plants into three great and easily distinguishable groups, the trees, the shrubs and the herbs. As time went on, however, and as botanical knowledge grew more and more thorough, it became evident that any system of this sort, based simply on the habit of growth, not alone brought together many plants unrelated in almost every respect but separated others which clearly resembled one another in most of their characters. The old classification was therefore gradually abandoned and in its place grew up various systems in which an attempt was made to gather plants into more natural groups. Finally the theory of evolution, with its emphasis on actual genetic relationship as the basis of all sound classification, gave a great incentive to the building of hypothetical family trees and lines of descent in the vegetable kingdom. Almost all of these have been founded mainly on a comparative study of the various floral parts; and it is therefore with such structures that modern students of the morphology and taxonomy of plants have for the most part concerned themselves. The various types of growth habit, those most evident and striking of plant characters, so much emphasized by the earlier botanists, have consequently been largely neglected as being too variable and too dependant on a changing environment to be of much use in determining actual relationships.