

## BOOK REVIEWS

*THE PLANT ALKALOIDS*, by T. A. Henry. 4th edition, 1949, p.p. xxii + 783 and Index J. and A. Churchill, Ltd., London.

The international reputation of Henry's "Plant Alkaloids" is such that workers in many branches of science throughout the world will be grateful that Dr. Henry has been able to keep track of, digest, and present in his usual lucid and authoritative manner, the wealth of information that has been published on topics relating to the plant alkaloids and their analogues in the past decade since the third edition appeared. A large part of the volume has had to be rewritten and its bulk continues to increase. Not only have the years since 1939 brought to light a considerable volume of new knowledge of the occurrence and distribution of alkaloids in plants, of their biogenesis, isolation, purification and properties, chemical structure and pharmacological action, but they have also led to very extensive work on the preparation and study of synthetic analogues. Perusal of the edition under review has failed to reveal any important or less important publication having a bearing on plant alkaloids that has not received Dr. Henry's attention. As in the previous edition the material is classified primarily on the basis of nuclear structure although it is admitted that the basis adopted must necessarily be arbitrary in many cases where chemical complexity is such that the structures could have been accommodated under more than one nuclear heading. Two new groups have been required to accommodate new types encountered, namely the pyrrolizidine group comprising so far principally the necine derivatives found in *Senecio* species and the steroidal alkaloid group which includes the alkaloids of *Aconitum*, *Delphinium* and *Veratrum* species and the glucosidal alkaloids of *Solanum* species. The difficulty of keeping pace with additions to knowledge in this field is shown *inter alia* by the fact that while the text was going through the press evidence was published of the steroidal nature of the alkaloid conessine, derived from Kurchi bark which has recently attracted much attention from pharmacologists. A reference to the recent assignment of an *allopregnane* structure to conessine has been inserted in the introduction, though the *Holarrhena* alkaloids had necessarily to be dealt with in the body of the work under "Alkaloids of Undetermined Constitution." Alkaloids derived from an acridine nucleus have recently been isolated from certain members of the *Rutaceæ* in Australia and, as Dr. Henry points out, a new group will require to be added to his classification to accommodate these. The literature on synthetic analogues of alkaloids is duly referred to and the repercussions of the extensive war-time work on synthetic potential antimalarials on the correlation of structure with action are taken into account. Due attention is paid to the biogenesis of alkaloids, including Robinson's recent discussions on strychnine and emetine.

In addition to the physical, physicochemical and chemical properties of something like two thousand alkaloids and their derivatives, references are included to the newer techniques applied to alkaloidal analyses, including micro-methods of detection and estimation and the application of procedures involving chromatographic and polarographic methods. All who are concerned, however remotely, with the plant alkaloids and related chemistry will require to ensure that this new edition, which is as carefully written and produced as its predecessors, is among their available works of reference.

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