

divide the length thus: anterior side 3 mil., post. $6\frac{1}{2}$ mil.) Depth 4 mil., thickness of both valves $1\frac{1}{2}$ mil. Teeth, post. 22, anterior 11.

This interesting shell is very distinct from any known species. It approaches the Patagonian *Leda* (*L. Patagonica* D'Orb.) in form, but it is much smaller and is sculptured differently.

Hab., off Three Hut Point, D'Entrecasteaux Channel, 10 fathoms.

I dedicate this species to His Excellency Lieut.-General Sir John Henry Lefroy, K.C.M.G., who has always taken an active interest in matters appertaining to natural history.

SUGGESTIONS FOR AN EXTENDED ELUCIDATION OF THE PLANTS OF TASMANIA.

BY BARON FERD. VON MUELLER, K.C.M.G., M.D., F.R.S.

[*Read 10th May, 1881.*]

The rich and beautiful vegetation of Tasmania has had bestowed on its special investigation the talent of a leading photographer of this age, Sir Joseph Hooker; and no other island of the same dimension can boast of the possession of two such superb volumes on its vegetation as the *Flora Tasmania*, issued at the expense of the Admiralty with some support of the Local Government. The di- and mono-cotyledonous plants became thus mainly, though not exhaustively enumerated; very many also of the Acotyledoneæ, by the aid of Messrs. W. Wilson, M. Mitten, M. J. Berkeley, W. H. Harvey, and C. Babington, became largely recorded, so much so that in 1860, when the second volume of the *Flora Tasmania* appeared, already over one thousand well-defined Cryptogams, exclusive of ferns, became recorded; thus, to Tasmania belongs the honour of having laid the foundation to the whole cryptogamic botany of Australia, a great majority of the Tasmanian species (as shown by subsequent and even previous researches) occurring in continental Australia also. Nevertheless our knowledge of the Acotyledoneæ of the Tasmanian colony must not by any means be regarded as complete; indeed, these lower vegetable organisms have there almost solely been collected by Messrs. Gunn and Archer, with a zeal beyond praise, through which their names will also in this department of science be for ever identified with the land of their adoption. Many regions within the Tasmanian dominion were not accessible to either of these investigators, and it is very likely that numerous species of Acotyledoneæ

of the mainland of Australia could yet be traced into areas of Tasmania; now nearly 3,000 species of Cryptogams being known from extra-tropical Australia, a large share of these from collections formed by myself and by contributing friends since 1847. While to the phanerogamic flora of Tasmania it is not likely any very large access will be gained, unless from King's and Flinders' Islands, and the smaller isles of Bass' Straits, it may be predicted with confidence that the number of mosses, lichens, and algæ of Tasmania will be still considerably augmented by assiduous and persevering searches, and the number of fungi hitherto on record (and to which absolutely nothing has been added since Gunn's and Archer's exertions) might yet be doubled, if not even tripled. It is then to the fungi particularly that I would draw the attention of Tasmanian collectors, inasmuch as unlike the phanerogamic flora, the mycologic treasures of any country remain almost inexhaustible, fungi of many kinds occurring only at long intervals, at particular seasons, for very short whiles, and under capricious circumstances, whereas also frequently additions to the fungus-flora will occur by reason of the subtlety of spores adherent to articles imported by trans-oceanic commerce. Thus, a fruitful field for research in this direction is still open also in Tasmania; and I would invoke the kind aid of any settlers who have taste for science, to gather, around their homes or in their travels, any kind of fungus which at any particular time may appear in any special locality. The process of drying fungi, even the brittle and succulent mushrooms of various kinds, is not difficult; such plants require merely to be placed near a fire, suspended in a little calico bag or net, after being sprinkled with kerosene to prevent the development of insects in the specimens. If some talented hand, especially that of ladies, will furnish coloured drawings along with the dried samples, the value of the collection would become greatly enhanced.

In these times of great efforts for general education each civilised country is striving to obtain a complete record of its natural productions; and the study of plants with all its utilitarian advantages, and all the intelligent pleasures which it affords, is cultivated now almost in all European schools from books gradually arisen through original field-researches. To keep pace with the progress of times in this respect on the other side of the globe, it is sought to complete the Universal Australian Floral Records, in which fungi must play an important rôle also, not to speak of mosses, lichens, and algæ, apt to be overlooked by amateur collectors, without whose aid no exhaustive searches can be made. If we turn even to the vegetation of trees, shrubs, herbs, grasses, sedges, etc., it may be assumed that about half a hundred could yet be added to

those known from the Tasmanian territory, especially if a collector purposely visited the isles north of the main island during the spring season. As this could be accomplished by a very small expenditure, I venture to express a hope that the enlightened legislature of Tasmania, which was never even called on to support the issue of the seven volumes of the *Flora Australiensis* by Mr. Bentham and myself, from 1862 till 1877, will think fit to identify itself with the progress of this extensive publication in its continuating and supplemental volumes now under elaboration.

NOTES ON A SPECIES OF *EUCALYPTUS* (*E.*
HÆMASTOMA) NOT HITHERTO RECORDED
IN TASMANIA.

BY T. STEPHENS, M.A., F.G.S.

[Read 10th May, 1881.]

Among the timber trees of this colony, a species of *Eucalyptus*, popularly known as the "gum-topped stringy bark," has long been familiar to saw mill proprietors and splitters; but through some strange oversight on the part of botanical collectors it has never hitherto been included in the *Flora of Tasmania*. Some two years ago, having been asked by a friend to ascertain its botanical name, I found that no tree answering its description had yet been scientifically recognised; and I at once sought the aid of friends in various parts of the island, requesting them to obtain specimens in flower for identification, but without success. In February last, I was fortunate enough to fall in with a well-grown tree in full blossom, specimens of which were forwarded to Baron Von Mueller with a result which will be best described by quoting from a letter which he has kindly forwarded me:—

"Your letter of 2nd April is before me concerning the Hemiphloious stringy bark tree, and after your lucid remark there can be no doubt that it is *Eucal. hæmastoma* of Sir James Smith, so that your circumspect exertions have been rewarded by the discovery of a species of *Eucalyptus* new to Tasmania. This species has latterly also been found in Gippsland, and I have been able to study more fully its characteristics. You could oblige me by noting the differences of the timber (as opportunity occurs), and also of the seedlings."

The chief peculiarity of this tree is that while the lower part of the butt is clothed with a thick fibrous bark closely resembling that of the common stringy bark (*E. obliqua*),