

"the descriptions are arranged on the branched or binary system, first established by the French naturalist Lamarck. Under this system, a series of salient characteristics is laid before the reader in pairs, the numbers of each pair being as nearly as possible opposed in their terms, and each giving rise to a new pair in like manner contradictory. The choice of these contradictions being left to the reader, he selects the number which applies most nearly to his specimen, and then passes on to the next pair. It is evident that, sooner or later, the several series of characters must be exhausted, and the name of the plant arrived at." The method of using this system is so fully explained further on, that, by following the author, no one can possibly fail to understand it and to be able to identify any plant by its aid. It is, in short, an exhaustive system by which the plant we may be examining is, so to speak, run into a corner and so fixed in its proper place. Thus we have a pocket flora of the colony in which not only the scientific, but, in most cases, also the common or colonial names are given. A short glossary of botanical terms, illustrated by figures, is placed at the beginning of the book, but this includes only such words as it was found absolutely necessary to use in the book. The aim of the author in assisting to popularise a knowledge of Tasmanian plants amongst the colonists will, no doubt, be furthered by the appearance of this little volume. A more careful revision of the proof-sheets, however, would have repaid for the extra time so spent. We think, also, that the adoption of some recognised system of spelling the natural orders would have had its advantages. Thus, we find Ranunculæ instead of Ranunculaceæ, Lobelex instead of Lobeliaceæ, while, on the other hand, Papaveraceæ, Scrophulariaceæ, Lauraceæ, and others, occur as we have written them.

The coloured frontispiece of the Waratah (*Telopea truncata*) is, to say the least, a poor attempt at plant-figuring, both the drawing and colouring being equally bad.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.]

The Natural History Collections

I SEE by *Galignani*, the only newspaper that reaches this high elevation, that a bill has just been introduced into Parliament by Mr. Walpole, and read a second time, to enable the Trustees of the British Museum to move the natural history collections into the new building at South Kensington. Not having before me a copy of the Bill, I cannot say whether it contains any clauses to alter the present mode of government of the natural history collections, but if such be not the case, and it is proposed to leave the new institution at South Kensington under the domination of the Trustees of the British Museum, I can assure Mr. Walpole and his friends that they will cause bitter disappointment to the naturalists of the country by such a course of action. We have always looked forward to the epoch of the removal of the national collections of natural history to the new site as the only opportunity ever likely to arise of making a reform in their government. That a Board of Trustees consisting of the principal Officers of State and great nobles of this country could be abolished was, of course, impossible, but it was hoped that the great men of Bloomsbury would not care to extend their authority to South Kensington. It will not be forgotten that the Royal Commissioners on Science, who went into this question in full detail, came exactly to this conclusion, and recommended that the new museum, when constituted, should be placed under a director immediately responsible to one of the ministers. And there can be no doubt that this should be done, and that the Act which authorises the removal of the collections should give

them their new constitution. Our two best scientific institutions in this country—Greenwich Observatory and Kew Gardens—are governed after this fashion, and could never have attained their present standard of excellence under the rule of fifty irresponsible trustees.

Let me briefly point out the evils of the present system of government of the British Museum as regards the natural history collections. The "principal librarian" is secretary to the trustees and sole executive officer.¹ His policy is, naturally enough, to get all he can for his books, and to keep the expenditure on the natural history branches as low as possible. One glance at the estimates annually proposed for the various departments in the British Museum will be sufficient to show how well this policy is carried out. It may be that the trustees will ask to appoint a new secretary and executive officer for the new building at South Kensington, and that the estimates for the two institutions will be kept separate. I trust that such may be the case, as it will partially mitigate the evils of which I complain. But I much fear that the principal librarian will resist giving up any part of his present authority, and that the tendency to starve the natural history and pamper the library will remain as heretofore. I earnestly hope, therefore, that Mr. Walpole's bill will not pass into law unless it contain clauses to ensure a cessation of the disadvantages of the present system of government. It would be better far that it should not pass at all (this session). Even the fabric of the new building will not be complete until next spring, and there is much to be done in the way of internal arrangements and fittings before the time comes to remove the collections. Why, therefore, should a bill of this importance be introduced and hurried through Parliament at the fag-end of the present session? It must be naturally supposed that the only object is to elude criticism and to keep the rights and privileges of the fifty trustees as far as possible inviolate. A NATURALIST

Hotel de la Furca, Canton Uri, Switzerland,
July 15

The Genesis of Cyclones

IT IS to be gathered from Mr. Barham's communication on cyclones and anti-cyclones in *NATURE*, vol. xviii. p. 249, that he is probably unacquainted with either Prof. Dove's partial explanation of the effect of the earth's rotation on the winds, published nearly fifty years ago, or Prof. Ferrel's more recent and comprehensive memoirs on the same subject; not to speak of Mohn and Guldberg's elaborate discussion of the mechanics of cyclonic and anticyclonic movements in their "Études sur les Mouvements de l'Atmosphère," published within the last two years.

It is not, however, to point out the fact that Mr. Barham's idea has been anticipated by these, and indeed many other writers, that I address you; but rather to show that the theory of parallel currents, which Mr. Meldrum, among others, has appealed to to account for the formation of cyclonic storms, is, taken by itself, inadequate; since any circular movements generated, in the manner supposed, by opposite currents, cannot receive from them a greater velocity than the mean velocity of the generating currents; and the theory leaves unexplained the spiral indraught of the air, which both Mr. Meldrum's charts of cyclones in the South Indian Ocean, and those which I myself, the late Mr. Willson, and Mr. Eliot, have prepared of storms in the Bay of Bengal, show to be an invariable as it is probably an essential feature of all such storms.¹

¹ Mr. Piddington is usually regarded as an upholder of the hypothesis of the truly circular or tangential movement of the winds in cyclones, and not without reason; since, although he admitted, as a possibility, an occasional spiral indraught, he regarded this as non-essential, and equally admitted that the winds may occasionally blow outwards from the tangential direction. In most of his charts he does not give all the observed wind directions, but in that accompanying his first memoir, on the storm of June 3-5, 1839, he has done so. If any one will refer to this chart, and, leaving out of consideration Mr. Piddington's hypothetical circles, will draw for himself the most probable course of the currents in accordance with the charted wind arrows, he will soon convince himself that this course is sharply spiral, and also that Mr. Piddington, probably influenced by the erroneous hypothesis of circular rotation, has misapprehended the several positions of the storm-centre, and has assigned to the storm a course quite at variance with its real course, and equally so with that of any storm since observed in the same sea. The case is an interesting one, because Prof. Dove, misled by Mr. Piddington's error, has made this storm the basis of an erroneous explanation of the origin of the storm in his well-known work on "The Law of Storms," which has been translated by Gen. Sabine. Of course, in pointing out an error, I would in no way seek to disparage the admirable and laborious work of Mr. Piddington, whose great merits I most willingly recognise.