

the French capital." As to the justice of this remark we need only appeal to the recent numbers of the "Annales des Sciences Naturelles" and the "Nouvelles Annales du Muséum," which are replete with zoological memoirs of the highest interest, and to the great work on fossil birds, by Alphonse Milne-Edwards, recently completed, which is alone sufficient to refute such a sweeping accusation. That the spirit of scientific enterprise is still alive in France is, moreover, sufficiently manifest by the grand researches of Père David in Chinese Tibet, and of Grandidier in Madagascar, while there is certainly no lack of scientific experts to bring their discoveries before the public. A more baseless and unjust attack was certainly never penned against the savants of a sister nation.

But when our English critic proceeds to suggest that either the general editor of the present work, Prof. Milne-Edwards, or the joint author of the part devoted to the Reptilia—the late Prof. Dumeril (for his remarks may be intended for either of these gentlemen)—has appropriated the funds devoted to its preparation and left the labour to be performed by some inferior subordinate, the matter becomes still more serious. It is, however, sufficient to reply that no sort of evidence is given to support these statements, and that the value of Dr. Gray's *ipse dixit* is not sufficiently appreciated among naturalists to induce them to accept such an impossible supposition.

OUR BOOK SHELF

Sahara and Lapland. Travels in the African Desert and the Polar World. By Count Goblet D'Alviella. Translated from the French by Mrs. Cashel Hoey. (London: Asher and Co., 1874.)

AT first sight it would seem that no two countries had less in common than the two about which this book is written; but Count D'Alviella ingeniously and correctly shows, in his thoughtful preface, that they, or rather the Lapps and Arabs, have many circumstances in common. These two peoples "lead the same vagabond existence; they live exclusively upon their herds, they carry with them all they have and that they possess, and they make analogous migrations at the changes of the seasons—the Lapps from the Swedish steppes to the Norwegian valleys, the Arabs from the plains of Sahara to the pastures of Tell. In this manner of life they have both acquired the same strength of constitution, or rather the same power of resisting such fatigue, privations, and weather as would kill the most robust European. . . . Both the Lapps and the Arabs—who are rather the slaves than the masters of Nature—owe their consciousness of isolation and powerlessness to the same superstitions, the same beliefs in spirits, to the 'evil eye,' in amulets, and in incantations. . . . Both races—restricted for centuries to a form of society unsuitable to any kind of progress—affect the same respect for the routine of their ancestors, and the same disdain for the arts of civilisation." The author concludes rightly, we think, that both peoples, incapable as they are of transformation or civilisation, are doomed to disappearance. Many attempts have been made by the Swedish and French Governments to get these nomads to settle down into civilised life, but invariably without success. The author, on the authority of M. Charles Martins, relates that the French Government gave to a number of the poorest Arabs of the Sahara some fertile fields with a ready-built village, and even a mosque in the middle of it. They reserved the houses for their flocks, and pitched their tents in the streets; until one day the nostalgia of the desert seized upon them, and they returned rejoicing to their wandering life.

Count D'Alviella tells the narrative of his travels in these two regions very pleasantly. He is a cheerful and observant and somewhat philosophic guide, and we can assure anyone who cares to buy this work, that he will get the value of his money in enjoyment and information. The narrative of the Lapland journey is especially interesting, and contains information about a people and a country that we believe many know but little about. Here will be found an account of the mode of life of a people that in many respects may be taken as the living type of the men who, ages ago, struggled for existence amid conditions very different from those which now obtain in Europe, and whose implements and remains come within the province, not of the historian, but of the geologist.

Mrs. Hoey deserves credit for her excellent translation. The volume contains a number of fairly executed illustrations.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. No notice is taken of anonymous communications.]

M. Barrande and Darwinism

IN the article in NATURE (vol. ix. p. 228) on M. Barrande's "Trilobites," published in 1871, several statements are made which require not only considerable modification as to the facts then known, but which are entirely misleading when made to appear to represent the state of our knowledge of these acts at the present time. M. Barrande is well known to be a determined opponent to the theory of evolution, and doubtless this strong bias has prevented him from seeing and accepting many facts which would otherwise, to so keen and careful an observer, have seemed inconsistent with such strong views. The list of fossils given by him from the Cambrian formation, and which is reproduced in NATURE, is most incomplete and inaccurate when made to refer to the Cambrian fauna of this country, as will be evident at once by referring to p. 249 of the same work, where a list of fossils discovered by me in the "Harlech or Superior Longmynd" group of Wales is given, and which includes several trilobites; and yet in the above-mentioned article it is stated "that no trace of a trilobite has been found in the Cambrian formation." Surely no English geologist will be bold enough to deny to the name Cambrian its right to these Harlech and Longmynd rocks, whatever else it may not be entitled to. Nor, indeed, did Sir R. Murchison and the Geological Survey ever attempt such a breach, and I cannot believe that M. Barrande has realised what such an assumption means, or what it would lead to; nor can I believe that it is possible for him to have followers in this country in such a "violation of historic truth," and, as observed by Prof. Sterry Hunt (in the *Canadian Naturalist*, vol. vi. p. 448), for no other reason than "that the primordial fauna has now been shown by Hicks to extend towards their base." Surely this country, which has not only given to scientific nomenclature the name Cambrian, but which has given to all other countries the groundwork upon which to build up theirs, should have a right to explain the succession in its own way, and especially when it is proved that its succession of these rocks is clearer and more natural than has been hitherto found to be the case in any other country. Indeed it is quite clear that M. Barrande has not yet succeeded, in Bohemia, in reaching this early fauna, and it is evident also that his first zone of life is only equal in order of appearance to the latter part of our second zone, and hence the mistake to attempt to correlate our fauna with his zone.

At St. David's in South Wales, the Cambrian of the Geological Survey, consisting of red, purple, and green rocks, attains a thickness of over five thousand feet of beds resting conformably, and of these beds over four thousand feet have yielded evidence, in the form of fossils, of life having existed in the seas in which they were deposited. The forms of life comprised annelids, brachiopods, pteropods, bivalve crustaceans, trilobites, and sponges, and I think it would be seen on examination that the picture offered by this early fauna is not one in discordance with Darwinism, as assumed in the article in question. But as M.