

to value, some new departures are certainly of more value than others, but the value is relative, not absolute; it is in relation to the particular exigencies of the species. We agree with the author that a variation may be established, though it is not of individual value; thus, as Darwin clearly stated, a variation in the direction of greater parental care may become a race-saving specific character, but its value is always in relation to particular conditions of life, *i.e.* in relation to the selection that goes on. To say that Natural Selection is thus controlled is arguing in a circle.

Dr. Mottram has an excellent chapter on the values of conspicuousness, whether of movement, form, sound, scent or colour; and he has the courage to uphold the thesis—the converse of Wallace's—that “the male becomes brilliant in colour in order that he may be more likely to be destroyed: and thus the dull-coloured female gain protection”! This would naturally lead to the elimination of the more brilliant males, but fortunately they mate before they are killed, so that their brilliant qualities are handed on! It would be equally easy to suggest that the character which is established is not merely conspicuousness, but conspicuousness plus such agility that the gay fellows are never caught. We think that the author should re-consider his theory. As a lover of birds, by the way, he should not have passed such a large number of disfiguring misprints in their proper names—we counted ten without looking for them.

OUR BOOKSHELF.

Clean Water and How to Get It. By Allen Hazen. Second edition, revised and enlarged. Pp. xii + 196 + plates. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1914.) Price 6s. 6d. net.

WE are glad to see a second edition of Mr. Allen Hazen's useful little book on water purification. There are still the interesting chapters describing the various sources of supply and methods of purification, and considerable space is devoted to the problems arising from the tastes and odours developing in water through stagnation and the growth of organisms. Other chapters relate to statistics of supply in different cities, and suggestions are made as to the relative sizes of the several parts of a water works which would be useful in designing a new supply.

New chapters have been added dealing with the “red water” problem, and with the disinfection of water supplies, and it is unfortunate that, with regard to the latter question the author has not gone into the subject more fully, as it is a question which has recently received a great deal

of study, both in this country and more particularly in the United States.

Two omissions immediately occur to the English reader, the first being that the author fails to recognise the pioneer work done in this country by Dr. Houston and others on the use of hypochlorites as sterilising agents, and does not mention at all that the first time these substances were used on any considerable scale was at Lincoln in 1905, when in consequence of a serious epidemic of typhoid fever the whole of the water supply was continuously sterilised with sodium hypochlorite by Dr. Houston for more than a year with remarkable success.

The other point is that no mention whatever is made of the now well-known “excess lime” method of sterilisation of Dr. Houston, which was first described by him in 1912 in his reports to the Metropolitan Water Board, and has since been successfully applied to several water supplies both in this country and in the United States.

The book is well illustrated with photographs, and is worth a place on the bookshelf of everyone engaged in the scientific study of water supply. D. B. B.

The Vaccination Question in the Light of Modern Experience: An Appeal for Reconsideration. By Dr. C. K. Millard. Pp. xviii + 243. (London: H. K. Lewis, 1914.) Price 6s. net.

DR. MILLARD'S book is carefully and well written, and with authority; and the general plan of it is very good. He believes, absolutely and profoundly, in the power of vaccination to safeguard each of us against smallpox; and he is outspoken, as he ought to be, over the folly of all who deny this fact. But he feels, very strongly, that the “Leicester experiment”—the rigorous constant notification, isolation, surveillance of contacts, sanitation, emergency vaccination, and so forth—has been a success, not a failure. He points out, very truly, that the danger is less from severe cases than from slight, “masked,” unrecognised cases; and these cases often occur in persons lightly and inadequately vaccinated to satisfy the law. He tells the dreadful story of Dewsbury and of Gloucester, where the people had Leicester's anti-vaccination spirit without Leicester's sanitation. The main purpose of his book is to underline the difference between vaccination as a personal safeguard and vaccination as a civic safeguard.

The whole book is of singular interest. It is open to criticism here and there. The author does not lay enough stress on the fact that evil or fatal effects from non-aseptic vaccination belong, nearly all of them, to a time which is happily over and done with. He does not sufficiently reckon with the chance of contact cases escaping from surveillance and flitting outside the cordon. It may be, also, that he ought to make more allowance for the possible surprise of the disease flaring up with unexpected virulence of type: we must be very careful how we talk of a disease “dying