

The Colour-Sense

WITH reference to Dr. Pole's valuable papers on Homer's colour-blindness, it may interest your readers to learn that I have now nearly completed a work on "The Origin and Development of the Colour-Sense," which will be shortly published by Messrs. Trübner and Co. In it I have endeavoured to show (*inter alia*) that the use of colour-terms in the Homeric poems is strictly analogous to that of other races, existing or extinct, at the corresponding stage of culture; and that both depend, not upon dichromic vision, but upon a defect of language closely connected with the small number of dyes or artificial pigments known to the various tribes. To establish this result I have sent a number of circular letters to missionaries, Government officials, and other persons having relations with native uncivilised races in all parts of the world; and their answers to my queries, framed so as to distinguish carefully between perception and language, in every case bear out the theory which I had formed. As my results will so soon be published elsewhere, I shall not burden your columns with them at present, but may add that my researches lead me to place the origin of the colour-sense far lower down in the animal scale, as evidenced both by the distinctive hues of flowers and fruits, and by the varied integuments of insects, birds, &c., so far as these are the result of sexual selection, or of mimicry and other protective devices.

GRANT ALLEN

Magnus's "Hydrostatics" and the "London Science Series"

I KNOW it is unusual for an author to offer any reply to the favourable or unfavourable criticism of his reviewer; but I shall be glad if, by way of exception to this wise rule, you will allow me to make a few remarks on the notice of my little book which appeared in NATURE, vol. xviii. p. 693, as they refer to a subject of wider interest than the contents of the work itself. It unfortunately often happens that an author is able to detect that the reviewer has taken no further trouble than to make a few quotations from the preface of the book under review. For my own part I have no complaint on this ground. On the contrary, if the reviewer had even glanced at the preface he would have seen that the book has not been written for the use of very young boys, but that it "is intended for the use of those pupils in the upper Forms of schools who have already acquired some elementary knowledge of the principles of mechanics"—for those, in fact, to whom, after some adverse criticism, he is good enough to say "the book will undoubtedly prove useful."

My object in writing, however, is less to disprove anything that may have been said with regard to my own book than to take away the point of the criticism which has been directed against other volumes of the "London Science Series." As one of the Editors of this Series, I am anxious to correct an erroneous but somewhat prevalent impression that these books are intended to be "science primers." Nothing could be farther from the intentions of the Editors of this Series than the attempt to rival the excellent and original science primers published by Messrs. Macmillan. Judged by such a standard they must necessarily appear difficult and elaborate. But the standard is incorrect. The books of the present series are, as they purpose to be, essentially class-books, and many of them have been expressly written to meet the wants of the pupils of the higher forms of schools.

Although my reviewer "cannot imagine" that I "can be acquainted with science teaching in schools or its requirements," I may lay claim to so much experience as a teacher and school-examiner as shows me that a class-book should be rather above than below the average attainments of the form, and should be so written as to encourage the more advanced pupils to pursue their studies to a higher point.

If Science is to take the place of Classics in any of our schools it should be so taught as to afford an equivalent amount of mental discipline. If this is not the case the modern school will always rank below the grammar school, and there will be some ground for the alleged inferiority of the modern, with respect to the classical side of a public school. To teach science properly several hours a week ought certainly to be given to it, and I should be disposed to criticise somewhat severely the timetable of any school in which the boys "probably have one hour, or at most two, to devote to the subject in a week." Indications of showy and superficial knowledge on the part of boys who take up Science instead of Classics are not wanting, and this

showiness may be partly due to the want of thoroughness of some of the text-books commonly in use. PHILIP MAGNUS

Savile Club, London, November 3

[We have sent Mr. Magnus' letter to our Reviewer, who replies as follows.—ED.]

MR. MAGNUS complains that if his reviewer "had even glanced at the preface he would have seen that the book has not been written for very young boys, but that it is intended for the use of those pupils in the upper Forms of schools who have already acquired some elementary knowledge of the principles of mechanics." To this I may reply, firstly, that I did much more than glance at the preface; secondly, that I nowhere assert that the book is intended for "very young boys;" and thirdly, that I assert my belief that "for advanced boys in Upper Fifth and Sixth Forms the book will undoubtedly prove useful." By "young boys" I meant boys in the Upper Fourths, Removes, and Lower Fifts, whose average ages range between fourteen and sixteen. It is in these Forms that the principal science teaching in a Public school takes place.

I nowhere have asserted that the book is intended to be a "science primer," and my remark that it is intended for "school purposes" is taken from the commencement of the Editor's preface.

I am the more constrained to repeat my belief that the author cannot "be acquainted with science teaching in schools or its requirements" when I read his remarks on the character of a school class-book, and when I notice that he speaks of "science taking the place of classics."

I believe I am right in stating that in no school in England does science take the place of classics. I should sincerely deplore such a result. Any attempt to enforce it could only result in utter failure from an educational point of view. Science can never "afford an equivalent amount of mental discipline" to classics. Mr. Magnus may not be aware of the fact that science is taking the place of Latin verses in our public schools, and that no proposition has ever, as far as I know, been made to the effect that classics should be abandoned.

Finally, Mr. Magnus tells us that he "should be disposed to criticise somewhat severely the time-table of any school in which the boys probably have one hour, or at most two, to devote to the subject in a week." Possibly he would; but the fact is no less true that in almost all our principal schools two hours a week is the maximum time which is given, in the ordinary course of school work, to any one subject of science, and class books must be framed in accordance with such usage.

THE REVIEWER

The Discovery of a Crannog in Ayrshire

IN his letter reporting this interesting discovery (NATURE, p. 695), Dr. Munro remarks that amongst the constituents of the crannog was "brushwood, amongst which beech, birch, and hazel were readily recognised."

Now as *beech* is certainly not at present a *native* of Scotland, and as, to the best of my knowledge, it never has been claimed as an indigenous tree at any period, the finding of beech branches in the Tarbolton crannog is not the least interesting part of the discovery, and I venture to hope that Dr. Munro will be able to give us proofs that the brushwood he mentions is, beyond any doubt, beech.

Of course the other trees—oak, birch, and hazel—are truly indigenous. The *absence* of Scots-fir is also not without interest.

F. BUCHANAN WHITE

The Power of Stupefying Spiders Possessed by Wasps

MR. CECIL's letters on "The Power of Stupefying Spiders possessed by Wasps" give details of a fact perfectly well known to entomologists, certainly to all those who have studied the Aculeata; but it is well known to the latter that no true wasp, according to the popular understanding of that name, ever supplies its larvæ with insects stupefied in the manner described. The insects alluded to in Mr. Cecil's letters probably belong to the section of aculeate insects usually known as sand-wasps by naturalists, a very misleading name, since a large number are wood-borers. It would render the subject of stupefying much more understandable to the general reader if this was more clearly elucidated; the general term wasp gives no clue in this instance to the insect observed. We have in this country fossil insects belonging to the genera *Pompilus*, *Prioncinemus*,