tendency as the above-mentioned, on the freezing of the different parts of the egg by ether and a freezing mixture in a thin glass tube. He considers that the tardiness with which, at a low temperature, the egg becomes frozen, is not only in part due, as Mr. Paget thinks, to the viscosity of the albumen resulting from the enveloping filamentous tissue, but is also owing to the saline character of its several parts. Dr. Davy appears somewhat doubtful whether the resistance of the egg to freezing pertains to that of the common fowl to such a degree as Mr. Paget supposes; and again, whether the freezing of the egg is compatible with any after-development. He leaves unanswered the question, whether the germ can exist, retaining life, without vital action of any kind, even at a temperature below the freezing point?

Our market-wives will, no doubt, thank the author for a practical and valuable hint; for he found that in comparing the condition of the newly-laid egg with that of the egg which had been a year in limewater, the latter was found to contain a quantity of air (which proved not to be carbonic acid or nitrogen, but common atmospheric air). It is owing to this circumstance that lime-eggs, when boiled, will often crack, frequently with explosion, when placed in boiling water.

In the paper communicated to the Newcastle meeting, alluded to at the head of this notice, Dr. Davy, among other interesting facts, shows that the thickness of the shells of birds' eggs is very various, and that it appears to bear some relation to the weight of the incubating bird, and to the time of incubation and hatching. Generally, the smaller the bird, and the shorter the period of foetal development, the thinner is the incrustation (the shell), the elasticity of the shell increasing with its diminution of size. Dr. Davy describes an air-cell as existing in the egg of all birds, formed by the separation of the two layers of their internal lining membrane (at the end of the egg which is generally the largest and first presented in the act of being laid). This air is, no doubt, for the aeration of the embryo and fetus, and differs but little from atmospheric air. As respects the various colours of the shells of eggs, Dr. Davy is led to attribute them not to the presence of mineral matter, but to that of organic or animal colouring matter, "and that, in part at least, connected with molecular arrangement analogous to what is witnessed in flowers." The author details experiments upon the proportional weight of the albumen and yolk, the density of the two, and the effects of heat, and its degree in producing the coagulation of the albumen in the eggs of various birds.

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**Art. XXVI.**—*On the Anomalies of Accommodation and Refraction of the Eye, with a preliminary Essay on Physiological Dioptrics.* By F. C. Donders. Translated from the Author's Manuscript by W. D. Moore.—*London, The New Sydenham Society, 1864.* pp. xviii. and 635.

Professor Donders has long been known as an able physiologist and
ophthalmologist; his repute in the latter respect has been principally acquired by a series of papers of physiological and pathological interest on the accommodation and refraction of the eye. In these he turned to practical purpose some important data which had been already determined by Young and others, and gave the results of his own reflection and experience derived from an immense number of cases which he had carefully observed and analysed. We have already given an account of some of these researches in a critical review on the optical relations of the eye. The present work is not, however, a mere translation of these papers; in every part they have received numerous amendments and additions, so that they really represent a second edition, brought down to the present day. The medical man may refer to this work with confidence, for he will here find all that is known of the origin, symptoms, course, and treatment of each special affection, explained in the clearest and most satisfactory manner.

Of all the ills that human flesh is heir to, none are more frequent than those to which these pages are devoted: often commencing in childhood, a constant source of trouble and anxiety during adult life, and the inevitable lot of old age, they deserve for this reason alone more attention than they have generally received. If we remember, besides, that patients so afflicted have hitherto been almost entirely neglected by the medical man, and that thus they have been able to avail themselves of only the dubious aid of the mechanical optician; that by efficient treatment the progress of some of these affections can be arrested, and that the evil consequences which occasionally ensue, such as squint and asthenopia, can be prevented in others, it cannot be denied that the ophthalmic surgeon should be fully, and the general practitioner to some extent, acquainted with their characteristic symptoms, so that they may be early recognised, and appropriate means employed. It must be admitted, even with regard to spectacles, that it is only the medical man, fully conversant with the methods of estimating the refractive condition, the muscular power, the acuteness of vision, and the ophthalmoscopic phenomena, that can rationally advise the glasses best adapted for use.

The importance of this work would justify us in devoting considerable space to it; we prefer, however, recommending the reader to study it for himself, for assuredly he will be well repaid, and we imagine that any attempt at analysis is unnecessary, owing to the wide diffusion and the easy terms on which the volume is obtainable. We shall, therefore, only remark that Professor Donders, by the employment of every means of accurate investigation, by exact definitions, by clinical experience, and by the comparison of his own researches with those of other physicians, has succeeded in almost completely clearing up a class of diseases previously in extreme confusion. Were we to attempt to characterise the present treatise in a few words, we should say that it well deserves the epithet “exhaustive;” it is equally scientific and practical—full, yet not diffuse, clearly and pleasingly written, and

1 British and Foreign Medico-Chirurgical Review, January, 1862.
freely illustrated by cases and woodcuts. This is undeniably one of the most able and valuable works published for many years. We must not neglect to add that the translator appears to have most ably and satisfactorily performed his very tedious and difficult task.

Most heartily do we thank the author for the great benefit he has bestowed on the medical profession, and the New Sydenham Society for the impulse it has given by this important publication to British ophthalmology.

ART. XXVII. — 1. The Races of the Old World: a Manual of Ethnology. By CHARLES L. BRACE, Author of 'Home Life in Germany,' 'Norse Folk,' &c.—London, 1863.

2. Introduction to Anthropology. By Dr. THEODOR WAITZ, Professor of Philosophy in the University of Marburg, Honorary Fellow of the Anthropological and Ethnological Societies of London. Edited, with numerous additions by the Author, from the first volume of 'Anthropologie des Naturvölker.' By FREDERICK COLLINGWOOD, F.R.S., F.G.S., F.A.S.L., Honorary Secretary of the Anthropological Society of London.—London, 1863. pp. 404.

3. Five Years' Residence in the West Indies. By CHARLES WILLIAM DAY, Esq., Author of 'Hints on Etiquette.' In two volumes.—London, 1852.

Mr. Brace's 'Manual of Ethnology' and Dr. Waitz's 'Introduction to Anthropology,' claim a notice from us on purely scientific grounds. It is not for reasons of quite the same kind that we propose herewith to draw the attention of our readers to Mr. Day's 'West Indies.' The author of 'Hints on Etiquette' would decline to be classed with men of science as indignantly as Horace Walpole protested against being mistaken for D'Alembert. Still, if we may judge from what we hear and see all around us, his work contains just the sort of Ethnology or Anthropology — call it which you will — which is likely to be acceptable just now in a country where the principles of Wilberforce, Buxton, and Brougham have less weight than they formerly had. We will begin with the two works placed first at the head of this article; and in our short notice of them we will not attempt to define exactly the limits of the provinces which usage has, or rather has not, assigned to the Ethnologist, Ethnographer, and Anthropologist respectively, but we will state briefly what are the great questions treated of in books bearing those titles, and what the lines of evidence which must be followed in investigating them; and finally, in what fashion each of the two works under review performs the task it undertakes.

It is agreed upon all hands that there are differences between one race and another of mankind; that the black man differs from the white, and both again from the red man. Further than this, it is not denied that within each of these great divisions there are smaller sub-