

In the condensed edition the cartouches of Egyptian kings which stood at the head of the chapters in the second English edition have been placed at the beginning of the book, and Miss Brodrick has added five pages of matter on the Dér el-Bahari mummies.

We have long hoped that Dr. Brugsch would issue a new edition of his "Aegypten unter den Pharaonen," revising his facts in some places, and correcting his statements in others, and also adding the new facts relating to the periods between the VII.-XIth and XIII.-XVIIth Dynasties, which have recently come to light; failing this, which is much to be desired, we hoped that one of his pupils would do the work under his guidance. That, however, the English translation made by Seymour and Smith, mutilated and robbed of its notes, and of the additions of the author, should be issued as a popular text-book of Egyptian history under Brugsch's name is a fact which we deplore.

#### OUR BOOK SHELF.

*The Story of the Hills: a Popular Account of Mountains, and how they were made.* By the Rev. H. N. Hutchinson, B.A., F.G.S. (London: Seeley and Co., 1892.)

THIS is a pleasant, chatty book, all the more welcome because wholly unpretentious; not too deep for "human nature's daily food" when roaming among the hills of which it treats. It will be read with pleasure and profit by the tourist, who likes to know just enough about the sundry points of interest connected with the scene of his wanderings to make the enjoyment of his outing intelligent, but who is not haunted by a feverish anxiety to be for ever, in season and out of season, improving his mind. Many who would shrink from a formal scientific treatise with horror or disgust will find themselves able to enjoy this book, and through its channel scraps of useful knowledge may insinuate themselves into their minds which would never have found their way there by any other road.

Part I. is multifarious, and touches on a vast variety of matters more or less connected with mountains, and principally of human interest—mountain races, mountain legends, the uses of mountains to mankind, mountain storms, avalanches, and the plants and animals of mountains. Scientific explanations of facts and phenomena are interspersed: the severe critic may detect a little vagueness and looseness here and there in these, but no very serious lapse. Well-chosen quotations from Ruskin and other authors give brilliancy to the narrative. There are landscape views reproduced from photographs, which have all the excellences and the artistic failings of this class of illustration.

Part II. is mainly taken up with a geological history of mountains. Here all the main geological truths that bear on the subject are expounded clearly, and with great fullness of detail. In fact, an epitome is given of a large number of the leading doctrines of geology, which will suffice for the needs of many a general reader. A separate chapter is devoted to volcanic mountains and volcanic activity. We may note that the three stages in the life of a volcano mentioned on p. 266 are not such as are usually defined by geologists. A. H. G.

*The Optics of Photography and Photographic Lenses.* By J. Traill Taylor. (London: Whittaker and Co., 1892.)

ALTHOUGH photography is so widely practised at the present day, it is surprising how little is known by

amateurs about the principles that underlie the construction of photographic lenses.

The present work will serve as an excellent guide to those who wish to gain this information, and should be found to be of great practical use. The author has dealt with the subject in a very popular manner, and although the mathematics is reduced to a minimum, he has made his meaning very clear throughout.

In the first few chapters the nature and properties of light are discussed, together with explanations of photographic definition, single and achromatic lenses, cause of the inverted image, spherical aberration, nature and function of diaphragms, nature and cure of distortion, optical centres of single and combination lenses, &c. Chapters xi. to xv. treat solely of lenses, including accounts of the non-distorting, wide-angle, portrait, landscape, copying, and universal lenses. As there are thirty-nine chapters in all, we may mention that of those remaining there are many on subjects which may be of special interest to individual readers. Thus we have a chapter dealing with photo-telescopic lenses, a short one on the grinding of lenses, and another on enlarging and projecting in relation to lantern optics.

It will be seen that the author has dealt with a wide range of subjects in which the lens makes its appearance, and the reader will find that the explanations are lucid, while the illustrations bring out the points which they are intended to show with equal clearness.

W.

*The Evolution of Life; or, Causes of Change in Animal Forms.* A Study in Biology. By Hubbard Winslow Mitchell, M.D. (New York and London: G. P. Putnam's Sons, 1891.)

DR. MITCHELL says in the preface to this book that he has accomplished in it "all that can be reasonably expected from a medical man deeply immersed in the duties of his profession." What most people expect from medical men in this position is that they will not write books on vast and complicated subjects, for the proper treatment of which an author must have not only exceptional ability but ample opportunities for philosophic study. So far as we have examined the work, it has neither freshness of thought nor charm of style. Dr. Mitchell mentions that he has travelled in many different parts of the world. If he was determined to write a book, he would have been better employed in recording his reminiscences as a traveller than in tediously discussing questions which have occupied so many of the foremost intellects of the present age.

#### 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 intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

#### A Magnetic Disturbance.

OUR attention having been directed for some days past towards a spot of unusual size upon the sun's disk, we were not by any means surprised to observe, as doubtless many of your readers elsewhere also did, an aurora of great beauty on Saturday night last; nor was our anticipation of seeing a magnetic disturbance portrayed upon the magnetograph records disappointed in the morning, for when the sheets were changed and the photographs developed, we saw that perturbations more violent than any which had been recorded at Kew for the past ten years had been in progress since about 5.45 a.m. of February 13.

The magnets were very quiet on Friday, but early on Saturday morning they became disturbed. The easterly declination