magnetised toroid is adopted, and then the following statement is made. "Then in accordance with § 99 there will be $4\pi I$ lines of force passing across each square centimetre of the gap, and these continue their course to the same number through the substance of the toroid." The latter part of this statement is wrong if we allow that the force at every point of the field can be calculated from the law of inverse square, for the surface distribution of magnetism on the opposite faces of the gap is + and − I; so that if the gap is narrow the force in the gap is $4\pi I$, but is zero at every other part of the field, including the substance of the toroid itself. Apart from this, the book itself contains a statement which directly contradicts the idea of there being any force inside a uniformly magnetised toroid, for on page 120 the following sentence occurs. "Since such a toroid neither emits nor absorbs lines of force, it is without magnetic influence. In its interior also it may be shown that its magnetic force vanishes."

The second section contains a full account of the elementary properties of the electro-magnetic field of force. The diagrams showing the directions of the lines of force in the various cases are especially instructive, and are arranged in a manner that would assist the student to form a mental picture of the position of the lines of force for simple conductors.

Questions involving mathematics are avoided throughout the whole book, so that it would be ill-suited for a student who could arrive at all the results by the application of simple mathematics. There is, unfortunately, a large number of students who learn physics without having a mathematical training, and they will no doubt find in Part i. much useful information, and experimental proofs of the various properties of magnetic forces due to magnets or electric currents.

A list of errata would have been useful, as there are a few misprints, as on pages 81 and 86, in the dimensions of the units.

Part i. only contains the elementary theories; but in Part ii. the author intends to treat of the more advanced branches of the subject which come under the head of induction and electrical oscillations. J. S. T.

A Study of the Sky. By Herbert A. Howe. Pp. xii + 335. (London: Macmillan and Co., Ltd., 1897.)

IN these pages the author presents his readers with a popular and general account of the more prominent features of the heavens, and describes how astronomers have been able to gather such information. After a short historical sketch of the founders of astronomy up to the end of the eighteenth century, a series of chapters is devoted to the various constellations, showing how each particular one may be recognised, and at what time of year it is best visible: the diagrams accompanying these will be found very distinct, and undoubtedly useful. The author then devotes a chapter to the character of the astronomer, acting on the idea that the personality of the observer is a powerful factor in his scientific utterances. The illustrations accompanying this chapter are restricted to American astronomers, and will be of special interest to those who know the works, but have not made the acquaintance, of celestial investigators, across the Atlantic. Reference is next made to the astronomer's implements and observatories: in this the great refractors of America, and a description of the preparation of the lenses, are dealt with, followed by a very sparse account of spectrum analysis. A few pages are devoted to the measurement of time, and the general features of the solar surface are next generally described. Some excellent lunar reproductions are inserted in the text relating to the moon and eclipses, and the planets come in for a good share of description, reference being made to most of the recent work done in this branch of observational astronomy. The progress made in celestial photography is well illustrated in those sections dealing with comets, nebulæ and stars; but the information is at times somewhat scanty—as, for instance, the dismissal of stellar spectra in about one hundred lines. As a whole, the book is well worth perusal, and its value is considerably enhanced by the wealth of excellent illustrations throughout. The general reader, as well as the student, will find in it much that is interesting.

The Clue to the Ages. Part I. *Creation by Principle.* By Ernest Judson Page. Pp. xii + 282. (London: Baptist Tract and Book Society.)

THERE are species, varieties, and sub-varieties of human societies and human character, just as there are of structural organisms. Says the author: "The recorded histories of the centuries are as geological strata in which are imbedded the records of the origin of species of character, by which to test, and, if necessary, correct Darwin's theory. Regarding differing ecclesiastical and national types as true species and varieties of character, the question arises—Does the Evolutionary Hypothesis sufficiently account for the Origin of Species? My answer is most emphatically that species of human character have not arisen, and do not arise, according to Darwin's theory." Having proved to his satisfaction that evolution is insufficient to explain social development, the author propounds an alternative theory which he submits to the kind consideration of an indulgent public.

Who's Who, 1897. Edited by Mr. Douglas Sladen. Pp. viii + 823. (London: Black, 1897.)

THIS is certainly a most useful book to have on a library table; for it is a hand-book of not only those who inherit distinction, but also of those who are officially prominent, and others whose ability has brought them before the public. Information may also be obtained regarding the Royal Family, Army, Navy, the Government, Universities, Church, &c.—in fact, all societies and institutions with which we are brought into daily contact. There is also a complete list of the Fellows of the Royal Society, and a useful table of pseudonyms. We notice that the short biographies, which form the greater part of the book, include a large number of scientific men. The book is very neatly got up, is bound in a good flexible cover, and is excellently printed.

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.*]

The Caucasus.

I AM very reluctant again to trespass on your columns, but "J. W. G.'s" note, in NATURE of April 8, leaves me no alternative. It contains, at least, one assertion which ought not to pass uncorrected in any scientific journal. I refer to the following sentence:—

"The fact that the Caucasian place-names are derived from different languages had not been overlooked; but the rules laid down by the R.G.S. Committee, to which Mr. Freshfield refers, admit the principle in such cases of accepting the spelling of a standard national gazetteer or of official survey maps."

In reply to this statement, I have to point out that the rules adopted and promulgated by the Royal Geographical Society in 1891, and confirmed in 1894, say exactly the contrary. I quote the two rules applicable in the case of the Caucasus, which are those on which I have endeavoured to act.

"The true sound of the word, as locally pronounced, will be taken as the basis of the spelling."

"In the case of native names in countries under the dominion of other European Powers in whose maps, charts, &c., the spelling is given according to the system adopted by that Power, such orthography should, as a rule, be disregarded, and the names spelt according to the British system, in order that the