

veyors, whose accounts, we are here told, although "the best and most important of all the stirring records of that remarkable country, have never yet seen the light"; whereas, as is well known, all those reports which were possessed of sufficient interest, including the best of them, namely, that by A-K, were published many years ago.

The geographical theme is frequently lost sight of altogether under the heaps of irrelevant topics that are dragged in. Indeed, fully one-fifth of the whole book is made up of generous extracts from the pages of Huc, the Lazarist missionary (not "Jesuit"), notwithstanding that our author admits "we do not gain much in the way of geographical information from it"! Relying on such antiquated sources of information, without being careful to check the stories by comparison with the more precise facts of later scientific research, Sir Thomas repeats many of the erroneous statements of the native surveyors as well as the mistaken notions of the older European writers. Thus, to take some instances at random, one would imagine that the author had never heard of the trustworthy work achieved by the British Survey officers of the Lhasa Mission, so generally is it neglected in preference to the less accurate data of the pioneer native surveyors. In this way we have here repeated the gross mistakes of U. G. and Sarat Das in respect to the route from Gyantse onwards to Lhasa. Amongst others, the Yamdok Lake is stated (p. 114) to be 13,900 feet above the sea-level, and at p. 252 to be 13,800 feet instead of the 14,350 feet as given by Major Ryder, while the adjoining Dumo Lake is made to be 500 feet higher than the Yamdok, whereas it is only some three feet higher. Even the elevation of Lhasa is given at 11,600 feet instead of 11,830 feet. So, too, with the map of Lhasa; we are told that A-K's old sketch-map is still "the best map we possess of it"—this is very hard on Major Ryder, who spent several days in the streets of Lhasa surveying and measuring, and plotting out the city in a large detailed map which was published more than two years ago.

The province of Nari, which stands in the extreme north-western corner of Tibet, is strangely enough stated to be in the "southern zone" of that country. Darchendo, the great mart for Chinese tea on the eastern border of Tibet, is, he says, "more correctly called 'Ta-chien-lu' in the newer" maps—the fact, however, is rather the other way, as the latter is merely a Chinese corruption of the former, which is the original and current Tibetan name of this important place. In alluding to the Chinese invasion of Nepal, our author goes beyond his authority when he credits Sir Clements Markham with the statement that the Chinese general "Sand Fo" (properly Sund Fô) sacked Kathmandu (which he spells Khatmandu); for Markham does not say that the victorious Chinese even entered the Nepalese capital, from which the battle was fought a day's march distant. So, too, we are informed that Moorcroft (who was really a veterinary surgeon temporarily employed by the East India Company on mule-breeding questions) was "a civilian of the Indian Civil Service."

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Elementary facts even as to the position of Lamaism have not been grasped. We read (p. 51) that "Lhasa is the holy of holies, the ark of the covenant to over one-third of the human race." This amusing statement perhaps Sir Thomas did not mean to be taken seriously. For, as pointed out years ago, the Lhasa hierarchy has never been acknowledged by Buddhists outside Tibet, beyond Mongolia and a few of the sparsely populated Himalayan districts. The Buddhists of China, Japan and Corea, Siam, Burma and Ceylon would be astonished were they told that Lhasa, of which few of them have ever heard, was their "holy of holies." That place is sacred only to some five or six million votaries, and not the "400 millions" as here asserted. There are no distinctive page headings, and misspelling is frequent.

It would be pleasant to be able to congratulate the author on the illustrations, but nearly all of these we have seen elsewhere before. They are not very closely connected with the letterpress, nor are the landscape very characteristic, whilst some of them are not what they profess to be; for out of the ten, at least two are from the Sikkim side of the Himalayas, and not in Tibet at all.

L. A. W.

OUR BOOK SHELF.

An Outline of the Natural History of our Shores. By J. Sinel. Pp. xvi+347; illustrated. (London: Swan Sonnenschein and Co., Ltd., 1906.) Price 7s. 6d.

THIS book has been written "to help to open some of the volumes of this part of Nature's library" by one who, having spent nearly forty years by the sea-shore, has had excellent opportunities of gaining the necessary knowledge at first hand.

Chapters i.-xiii. are devoted to descriptions, more or less short, of the animals which are to be found between tidemarks and in the maritime zone of Jersey, their habits and where to look for them; some account is also given of the chief characters of the various groups, together with descriptions of the anatomy of a few species, and something about the development of others. The author then deals with the various reasons for colour in marine animals, of which he gives instances, together with examples of "mimetic artifices" among the crabs (others are given in the chapter on Crustacea). In the following chapters we are given lists of apparatus, &c., necessary for shore collecting and tow-netting, with the method of use. A number of useful hints are also given on anæsthetising, preserving, and mounting specimens for the museum and other purposes, and also for imbedding, cutting, and staining sections for the microscope. In the last chapter, dealing with the marine aquarium, the beginner is initiated into the, to most inland people at least, difficult art of keeping and feeding the various marine animals which flourish in captivity, and also of hatching and rearing marine larvæ.

Although on the whole good, the book is marred by several inaccurate statements; among others we may mention the following:—Echinoderms have a heart; *Loligo media* is the young of *L. forbesii*; *Galeomma* is the only bivalve which crawls, whilst the author's explanation of the way in which starfish open oysters is certainly not the correct one. Moreover, we cannot agree that the author has followed the nomenclature most generally in use, especially in Pisces and Echinoderms.

In the outfit of the shore collector, the absence of a crowbar is rather surprising, especially on a rocky

coast; whilst half an hour for tow netting, in view of the fact that two or three collections are apparently put into the same bottle, is certainly too long.

The illustrations, 123 in number, are mainly derived from photographs, the majority of which show a considerable lack of skill on the part of the photographer. One or two appear to be out of focus, many are too much of the soot and sawdust type; while in others the background chosen is not calculated to show up the "sitter" to the best advantage. Typographical errors, of which there are a fair number, are almost invariably confined to scientific names, such as *Nephtys* for *Nephthys*, *Maidæ* for *Maiadæ*, *Spangus* for *Spatangus*.

In spite of the above faults, we can, however, recommend the book to all beginners in the fascinating art of shore collecting, although, of course, it does not obviate the necessity of access to monographs on the various groups. R. A. T.

Field Operations of the Bureau of Soils, 1904. (Sixth Report.) Pp. 1151 + a case of 53 maps. (Washington: United States Department of Agriculture, 1905.)

The United States Survey of Soils continues from year to year its enormous task, under the direction of its chief, Mr. Milton Whitney, and the present sixth report differs in no essential respect from its predecessors. The soil divisions are mapped upon a basis of physical texture, the same name being used right across the continent for soils which are judged to be of the same type, however different the origin or however remote the locality from that of the type originally credited with the name. It is just this classification which has been called in question by the critics of the survey in the United States, who discredit both the methods of identification and analysis which are adopted, and also the rapidity with which the work is pushed along. Certainly when the cost of the survey amounts to less than 10s. per square mile, as in the present case, the distribution of soils in the United States must be very different from what we are familiar with in the Old World, or else the maps can be little more than very sketchy first approximations. However, we are too far away to have any means of forming a judgment in this domestic discussion, but what the English reader will always find of value in this survey are the preliminary general accounts of the physiography and agricultural development of each area. There we get sketches of the style of farming and the local conditions which compare, though in a more scientific fashion, with the reports on the counties of England initiated by Arthur Young a little more than a hundred years ago. Doubtless in time these reports will have the same permanent value for America as a detailed picture of the state of the country and the position of its chief industry.

Hypnotism and Spiritism—A Critical and Medical Study. By Dr. Joseph Lapponi; translated by Mrs. Philip Moss. Pp. iv + 268. (London: Chapman and Hall, Ltd., 1906.) Price 5s. net.

The opening chapter deals with the historical data connected with hypnotism and spiritism, and the author points out how spiritism passed through the various stages of spirit rapping up to definite materialisation. Dr. Lapponi then describes what is understood by hypnosis, and it is clear that his views are not in accord with those held by most authorities at the present time. When the reader reaches the chapter on "Details about Spiritism," he will find a most vivid description of a *séance*, as given by "some of the best and most esteemed mediums." The author honestly states that he has not had personal experi-

ence of the "truth and reality of the marvellous phenomena" which he describes; nevertheless, he is evidently convinced of its actual existence. Dr. Lapponi gives some interesting accounts of the mystic performances of the Indian fakirs, and also records some instances of telepathy.

In discussing the relationship of hypnotism and spiritism, he endeavours to prove that there is little or no relationship between them, a fact which few would dispute; on the other hand, we do not think that the arguments which he adduces would go far towards convincing the sceptic. The author admits that "illusions and hallucinations explain some isolated cases of spiritism"; he also allows that mediums may have largely had recourse to frauds in order to enhance their reputations, and he is generous enough further to concede that "to the spiritistic frauds done voluntarily may be added others, not only involuntary but unconscious"; but even after allowing all these, he considers that there are phenomena which are well authenticated, and for which neither deception, art, nor science can render an account. This may be true, but because a matter is too subtle to unravel does not justify us in assuming that it is the result of spiritism. The author's attempt to account for the valuelessness of spirit revelation is very feeble, but it is left to the closing chapter to reveal the worthlessness of spiritism, for here we read that "spiritism is always dangerous, harmful, immoral, reprehensive, to be condemned and most severely prohibited without reserve, in all its grades, forms, and possible manifestations," except, maybe, in some rare exceptions. Surely, if there are spirits with whom we can confer, some of them should be able to raise us to higher planes of thought, for the spirit world should belong to a hierarchy which is nearer to the perfect.

LETTERS TO THE EDITOR.

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Festival of St. Alban.

WITH regard to what is said concerning the date of this festival in the review of the "Life of St. Patrick" in NATURE of July 25 (p. 296), it is to be noted that there is really only one date for the festival. In the time of Bede (H. E., i., 7), as in the pre-Reformation calendars of the English Church, as well as in the Latin Prayer Book of Queen Elizabeth, 1560, the date is June 22. But when the festival reappeared in the English Prayer Book of 1662 it was placed on June 17, an obvious error which is supposed to have arisen from wrongly writing xvii. for xxii. In the Roman calendar the date is, of course, June 22. C. S. TAYLOR.

Banwell Vicarage, July 26.

THE information supplied by the Rev. C. S. Taylor is most welcome. The evidence for regarding the 22nd as an arrested solstitial day, in connection with St. Alban, is now fairly conclusive.

(1) The 22nd was one of the three solstitial days about 303 A.D., the supposed date of Alban's martyrdom.

(2) If closely studied with that fact in view, the legend of his martyrdom, like those of the death of Patrick and Dewi, may reveal a clear midsummer festival setting. That much may be gathered from the statement that Alban was summoned to do sacrifice to the pagan gods. We know from other sources that people were penalised for non-attendance at the great pagan festivals.

(3) There is evidence that St. Alban's festival covered the three solstitial days.

(a) One old Welsh calendar fixes the festival on the 23rd.