

the sea, the shores are deeply indented with innumerable fjords and little inlets, above which the rocks rise in long lines of terraced cliff. Along the southern coast, the margin of the land consists for the most part of low flats and bars of fine sand and mud, brought down by the many rivers and streamlets that escape from the edges of the great glaciers and snow-fields. A contest is constantly waged between the Atlantic breakers, on the one hand, and the sediment-bearing inland waters, on the other. Bars and spits are thus thrown up, behind which stretch long narrow lagoons. For a distance of some 250 English miles such is the general character of the coast-line. In spite of the fury of the Atlantic storms and the occasional breaking down of the detrital barriers opposed to them, the sea has been losing ground. Since the Ice Age so much sand and silt have been carried down that a wide stretch of lowland has been gained, and the sea has become so shallow that for long distances no ship of any size can approach the coast. Yet such is the unfortunate physical geography of Iceland that, at least in the meantime, this accession of land brings but little advantage to the inhabitants. The territory is so liable to rapid inundation, and to be swept over by sudden floods, that it is too dangerous to be reclaimed, and often cannot even be crossed without serious risk. In that portion of it which lies nearest to the Myrdal glaciers, an additional source of peril is furnished by the eruptions of Katla, which, buried under the snow-fields, from time to time finds a vent, disrupts and melts the ice, and sends it in huge masses down the floods that sweep over the plain and carry their freight of ice even out to sea. Dr. Thoroddsen has given in his various publications graphic though only too brief accounts of these operations, and his new map enables us to follow their scope with greater clearness.

Now that the great labour of preparing this map has been successfully accomplished, every geologist and every visitor to Iceland will hope that Dr. Thoroddsen may be able to devote himself to the preparation of a full description of his native country. He has accumulated a large amount of material, only a small part of which has been published, and this merely in brief outline. He has, doubtless, many parts of the island to revisit and many difficult questions to elucidate before such a volume or series of volumes can be written. We can only wish him continued health and strength for his important task. It is surely not too much to hope that work of so national a character and of so much general scientific interest will meet with such hearty support and aid in Denmark that it may be vigorously prosecuted to an early and successful conclusion.

ARCH. GEIKIE.

NATURE STUDY IN SCHOOLS.¹

WE have received the first part of the *Nature-Study Journal*, published by the South-Eastern Agricultural College, Wye, Kent, with a preface by Sir William Hart-Dyke and an introduction by the editor, Mr. A. D. Hall, principal of the College. This new publication is the outcome of a discussion held at the College during a summer course for teachers in 1901, and the thirty-one teachers, mostly from schools in Kent and Surrey, whose names are appended to the part received constitute the first members of a Nature-Study Society by which this journal will be maintained. The object of the journal, as set forth in the preface and introduction, is mainly to facilitate the teaching of "nature-knowledge" in rural schools, by enabling the teachers to interchange ideas and schemes of instruction and to be in communication with the Wye College as a central organisation. The whole subject of nature-teaching in rural schools has

been brought into prominence of late years, and there has been a distinct revival in this branch of education to which we have, from time to time, called attention in these columns. The initiatory work of the Countess of Warwick in emphasising by practical example the necessity for the establishment of schools of science in rural districts (see article by Lady Warwick and Prof. Meldola, *NATURE*, vol. lix. p. 7), followed by the work of the Agricultural Education Committee inspired by Sir William Hart-Dyke and Mr. Henry Hobhouse, has been largely instrumental in bringing about this much-needed reform, and the demand for sound instruction in this kind of science has naturally been on the increase since the issue of the "Specimen Courses of Object Lessons, &c." by the Board of Education (*NATURE*, vol. lxiii. p. 603). It is to be hoped and expected that this demand will go on increasing, and the establishment of the present journal is therefore opportune. The great danger to education in this country is complete apathy and neglect in the first place, and then reckless precipitation and unorganised excess in order to try to recover lost ground. Rural education is bound to go through the usual phases, and we may already begin to ask ourselves whether there is anything to be gained by the multiplication of organisations, conferences and congresses, all carrying on much the same work and frequently overlapping in functions.

The Nature-Study Society has, however, in favour of its creation the circumstance that it is composed of teachers who are engaged in giving actual instruction in this subject in schools, and the journal is to be largely devoted to the publication of specimen lessons. Two such lessons are in the part before us, one on "Leaves and their Veining" by Mr. H. Brooker, of the Ewhurst National School, and the other by Mr. A. E. Chandler, of Puttenham, on "Dodges of Nature." The first point that cannot fail to strike the reader of these two lessons is their extraordinary divergence in standard. The collecting and classification of leaves according to their veining is a lesson in pure observation. The "dodges" referred to in Mr. Chandler's lesson are the contrivances for cross-fertilisation in long and short-styled primroses and in *Salvia*, and the pupil is afterwards told to collect some flowers of *Arum*, to study the inflorescence, and then to work out for himself the mechanism of fertilisation by the aid of hints given in the following form:—"What can be the work of the little hairs that nearly close the opening of some of the hoods? Do you notice any insects? Did you ever think out the design of an eel-trap or a lobster-pot?" It is obvious that these two lessons must appeal to pupils of different ages and acquirements. The new Society and its journal should have a useful career if only by enabling teachers to compare schemes, as in the two lessons noticed. Such specimens bring out very clearly the necessity for graded and connected series of lessons leading from simple observation and description up to observation combined with inductive reasoning. The introduction of nature study into rural schools cannot but be productive of good, and although, as the editor points out, it is not primarily directed to keeping children on the land, it may have this effect indirectly by leading children "to see that a country life has its own interests and is not merely stupid routine; particularly we want the children who do stay in the country to have laid a foundation of thinking about rural pursuits which can be built upon later." The Society will welcome as new members all teachers who are conducting nature-study classes, the only obligation being that the member shall be expected to send a specimen lesson for publication. The Society is worthy of support, and we commend it to the notice of teachers who are already holding, or who desire to conduct, classes in this subject, which is one that by proper handling can be made really fascinating to children of every degree of intelligence.

¹ *The Nature-Study Journal*. Published by the South-Eastern Agricultural College, Wye. No. 1. Pp. 12. (Kentish Express Office, Ashford, Kent.) Price 3d.