

KINGSLEY'S "AT LAST"

At Last: a Christmas in the West Indies. By Charles Kingsley. With Illustrations. In two volumes. (Macmillan and Co., 1871.)

A BOOK on the West Indies by an ordinary tourist would be hardly bearable. Mr. Trollope was amusingly brilliant as well as philosophical, and we read him with pleasure; but the author of "Westward Ho!" possesses a wealth of knowledge both in history and in natural science wherewith to illustrate his journey, which, even without his charming style and world-wide popularity, would render his book attractive to many a thoughtful reader. To him the air of the West Indies is "full of ghosts" of gallant soldiers and sailors, whose deeds of daring have made almost every bay and roadstead famous, and who, he thinks, might well ask us to render an account of our stewardship of those beautiful islands, which they won for us with precious blood, and which we, too ignorant and helpless to govern them properly, have misused and neglected. Passing by Dominica recalls one of those deeds, the record of which must thrill the heart of every Englishman: "here Rodney, on the glorious 12th of April broke Count de Grasse's line (teaching thereby Nelson to do the same in like case), took and destroyed seven French ships of the line, and scattered the rest, preventing the French fleet from joining the Spaniards at Hispaniola, thus saving Jamaica and the whole West Indies, and brought about by that single tremendous blow the honourable peace of 1783. On what a scene of crippled and sinking, shattered and triumphant ships, in what a sea, must the conquerors have looked round from the *Formidable's* poop; with De Grasse at luncheon with Rodney in the cabin below, and not, as he had boastfully promised, on board his own *Ville de Paris!*"

A little farther he comes in sight of "an isolated rock, of the shape, but double the size, of one of the great Pyramids, which was once the British sloop of war, *Diamond Rock*," and tells us the interesting tale, not of any magical transformation or nautical legend, but of one of those inspirations of genius which converted an almost inaccessible rock into a fortress, which was manned by 120 men and boys, and for a year and a half swept the seas, being "borne on the books of the Admiralty as Her Majesty's ship *Diamond Rock*."

More suited, however, to our present purpose is the reminiscence of the eruption of the volcano of St. Vincent in 1812, which lasted three days and nights, covering most of the island with ashes, and utterly ruining whole estates. In Barbadoes, eighty miles to windward, the dust fell so thick that total darkness continued till near midday, and strange to say, with the darkness was unusual silence, for the trade wind had fallen dead, and the everlasting roar of the surf was gone. As the dust-cloud drifted away and the sun again appeared, the trade wind blew suddenly once more out of the east, and the surf roared again along the shore. The authority for this fact Mr. Kingsley considers to be sufficient, but its explanation is by no means easy.

Arriving at Trinidad, our author fairly revels in the delights of tropical life, scenery, and vegetation. The flowers and forest trees, the creepers and climbers, and the noble palms, fill his soul with delight; and he is never

tired of painting the scenes around him in his own picturesque and glowing language. The force and vigour of vegetable growth, the hum and glitter of insects, the strange birds and the howling monkeys, all have the more charm for him that he already knows so much about them, and that they satisfy an intelligent and highly-cultivated curiosity. Here is a little bit out of his picture of the "High Woods," as the virgin forests are called in Trinidad:—

"In Europe a forest is usually made up of one dominant plant—of firs or of pines, of oaks or of beeches, of birch or of heather. Here no two plants seem alike. There are more species on an acre here than in all the New Forest, Savernake, or Sherwood. Stems rough, smooth, prickly, round, fluted, stilted, upright, sloping, branched, arched, jointed, opposite-leaved, alternate-leaved, leafless, or covered with leaves of every conceivable pattern, are jumbled together, till the eye and brain are tired of continually asking 'What next?' The stems are of every colour—copper, pink, grey, green, brown, black as if burnt, marbled with lichens, many of them silvery white, gleaming afar in the bush, furred with mosses and delicate creeping film-ferns, or laced with the air-roots of some parasite aloft. Up this stem scrambles a climbing *Seguine* (*Philodendron*) with entire leaves; up the next another quite different with deeply cut leaves; up the next the *Ceriman* (*Monstera pertusa*) spreads its huge leaves, latticed and forked again and again. So fast do they grow, that they have not time to fill up the spaces between their nerves, and are consequently full of oval holes; and so fast does its spadix of flowers expand, that an actual genial heat and fire of passion, which may be tested by the thermometer, or even by the hand, is given off during fructification. Look on at the next stem. Up it and down again a climbing fern, which is often seen in hothouses, has tangled its finely-cut fronds. Up the next a quite different fern is crawling, by pressing tightly to the rough bark its creeping root-stalks, furred like a hare's leg. Up the next the prim little griffe-chatte plant has walked by numberless clusters of small cat's-claws which lay hold of the bark. . . ."

Again—"Look here at a fresh wonder. Away, in front of us, a smooth grey pillar glistens on high. You can see neither the top nor the bottom of it. But its colour and its perfectly cylindrical shape tell you what it is—a glorious palmiste, one of those queens of the forest which you saw standing in the fields, with its capital buried in the green cloud, and its base buried in that bank of green velvet plumes, which you must skirt carefully round, for they are a dwarf prickly palm, called here Black Roseau. Close to it rises another pillar, as straight and smooth, but one-fourth of the diameter, a giant's walking cane. Its head, too, is in the green cloud. But near are two or three younger ones, only forty or fifty feet high, and you see their delicate feather heads, and are told that they are Manacques (*Euterpe oleracea*), the slender nymphs which attend upon the forest queen, as beautiful, though not as grand, as she."

The wonderful flowers, the strange creepers and fantastic jungle ropes, the buttress trees, the orchids, and a hundred other characteristic tropical forms, are described in equally picturesque language. A giant Hura tree, forty-four feet in girth, and 192 feet high, is the occasion for some remarks on Darwinism. For this is a cuphorbiaceous tree, and allied, therefore, to our humble spurges, as well as to the manioc, the castor-oil plant, the crotons, the scarlet poinsettia, and many other distinct forms.

"But what if all these forms are the descendants of one original form? Would that be one whit more wonderful,

more inexplicable, than the theory that they were each and all, with their minute and often imaginary shades of difference, created separately and at once? But if it be—which I cannot allow—what can the theologian say save

that God's works are even more wonderful than we always believed them to be? As for the theory being impossible, who are we that we should limit the power of God? If it be said that natural selection is too simple a cause to pro-



CHINESE MAN AND WOMAN

duce such fantastic variety, we always knew that God works by very simple or seemingly simple means; that the universe, as far as we could discern it, was one organization of the most simple means."

must have made every traveller in the tropics think what scenes of surpassing beauty might be created by judicious clearing and planting, by helping Nature in a country and climate where, even unassisted, she can do so much, and where such a profusion of beautiful materials exists to

The beauty of many of the clearings in the forests



COOLIE AND NEGRO

work with. Mr. Kingsley remarks that "the plants most capable of beautifying any given spot do not always grow therein, simply because they have not yet arrived there, as may be seen by comparing any wood planted with rhododendrons and azaleas with the neighbouring wood in its native state. Thus may be obtained somewhat of that

variety and richness which is wanting everywhere, more or less, in the vegetation of our northern zone, only just recovering slowly from the destructive catastrophe of the glacial epoch, a richness which, small as it is, vanishes as we travel northward, till the drear landscape is sheeted more and more with monotonous multitudes of heather,

grass, fir, or other social plants. But even in the tropics the virgin forest, beautiful as it is, is without doubt much less beautiful, both in form and colour, than it might be made. Without doubt also, a mere clearing, after a few years, is a more beautiful place than the forest, because by its distance is given, and you are enabled to see the sky, and the forest itself beside; because new plants, and some of them very handsome ones, are introduced by cultivation, or spring up in the rastrago; and lastly, but not least, because the forest on the edge of the clearing is able to feather down to the ground, and change what is at first a bare tangle of stems and boughs into a softly rounded bank of verdure and flowers. When in some future civilisation, the art which has produced, not merely a Dropmore or a Chatsworth, but an average English shrubbery or park, is brought to bear on tropic vegetation, then Nature, always willing to obey when conquered by fair means, will produce such effects of form and colour around tropic estates and cities as we cannot fancy for ourselves."

Much information is given as to the races that now people the West Indies, Negroes, Coolies, and Chinese. The Coolies are very well spoken of, and the system of immigration is said to work well and to be beneficial to all concerned. The contrast between the different races in manners, character, and appearance appears to have struck our author very much, and many clever sketches illustrate his descriptions. In the cuts which we here reproduce, the three widely different races, Negroes, Coolies, and Chinese are very characteristically represented. There are also some excellent illustrations of tropical scenery and productions, that representing "A Tropic Beach" being one of the best, and the cut of the "Little Ant-eater" being also excellent.

We must point out one fault in the book, a fault which nature-loving travellers often fall into, too free use of the local names of natural objects, which, though made familiar to themselves by daily repetition, are a great annoyance to the reader, who cannot possibly learn their meaning during the perusal of the book. Towards the end of the second volume, for example, we find these lines:—"Below were Mamure, Roseau, Timit, Aroumas, and Talumas (*Canna*), mixed with Myrtles and Melastoms, then the copper Bois Mulatre among the Cocorite and Jagua palms." All these names, with a hundred others, have been carefully referred to their respective species in foot-notes in earlier portions of the volumes, but that does not help either the botanist or the general reader to remember such a string of new and uncouth words. Local names should, we think, be used only for a very few of the most abundant and characteristic species, whose mention will be so frequent as to impress them upon the reader's memory. For the others, English equivalents should be used where they exist; and for the majority, the family, generic, or specific names, which will convey some distinct impression to the naturalist, and will enable even the general reader to obtain information by consulting a dictionary of natural history or an encyclopædia.

To conclude, the book is beautifully got up; it conveys much information on the society, politics, and natural history of one of the most luxuriant and interesting of the West Indian Islands, and cannot fail to be read with both pleasure and profit by every lover of nature.

A. R. W.

OUR BOOK SHELF

Notes of a Course of Nine Lectures on Light. By John Tyndall, LL.D., F.R.S. (London: Longmans and Co., 1871.)

THE contents of this little volume fully justify the author in his prefatory remarks, and the intelligent student or teacher will find very great benefit by a perusal of these "Notes." Every statement is extremely clear, and the experiments hinted at are all extremely good. Such a publication is exceedingly well adapted to a certain class of minds, of which the latent powers are better brought out by hinting at solutions than by detailed explanations. The skeleton is brought before them, and they are called upon to clothe it for themselves. In fact, if physical science is to be used in order to educate and train as well as to inform the mind, we cannot dispense with a set of notes of this description. The author has dealt very fully with his subject, and he has not been deterred, when the occasion required, from stepping beyond the physical region into the physiological. Thus we have some very good remarks upon brightness, as well as upon the eye and its peculiarities with respect to light. On the other hand, he has not permitted himself to enter largely on the subject of dark rays, but has confined himself to those which affect the eye. A perusal of these Notes will benefit all who wish to become acquainted with the laws of light, and even if they sat down to such a task, having a previous acquaintance with every statement, they will rise with benefit; for a branch of knowledge, like a landscape, is never fully understood until it is regarded under different atmospheres and from different points of view.

B. S.

Transactions of the Newcastle-upon-Tyne Chemical Society.
Vol I. (1868-1871.)

THE Newcastle-upon-Tyne Chemical Society has been established for nearly three years; during this period the Society has been very prosperous, both as regards the number of its members and the importance of the papers read at its monthly meetings. The members were fortunate enough to secure the services of Mr. Lowthian Bell as their first president, and of several experienced gentlemen as members of the committee, a fact which must have contributed materially to their success. The papers which have been read before the Society since its commencement, relate, as might be expected, principally to technical chemistry and analysis. Amongst them we find Mond "On the Recovery of Sulphur from Alkali Waste," followed by an interesting discussion. Dr. Lunge has contributed several valuable papers to the volume; they are chiefly abstracts of the more important analytical methods published on the Continent. The papers on the analysis of technical products constitute the principal part of the book, the number of those on original subjects being very small. The inaugural address by Mr. Bell contains an interesting historical sketch of the various chemical manufactures on the banks of the Tyne, showing how rapidly they have grown, until they have now reached an enormous magnitude. There is also a paper by Mr. Clapham on the commencement of the manufacture of soda on the Tyne, which contains a sketch of the difficulties that had to be overcome by the founders of this industry. Among the other papers may be mentioned several by Dr. Wright, and one by Mr. Swan, describing an improved form of anemometer.

A. P.

Transactions of the Woolhope Naturalists' Club for 1870.
(Hereford, 1871.)

THIS volume is equal in interest and value to its predecessors, and still more varied in the nature of its contents. All branches of natural history are pursued with ardour by the Woolhope Naturalists, and good scientific work is done in the various sections. Zoology furnishes papers