

cial erosion by the waves and no visible accumulation of detritus, are to be found among the land-locked fjords or inlets of the west coast of Scotland. In these sheltered recesses the smoothed striated rocks of the Ice Age slip under the sea, with their characteristic glaciated surfaces still so fresh that it is hard to believe that a long lapse of ages has passed away since the glaciers left them.

The remarkable contrast between the scenery of the eastern and western coast-line of the British Islands arises partly from the preponderance of harder rocks on the west than on the east side, but probably in large measure upon the greater extent of the submergence of the western sea-board, whereby the sea has been allowed to penetrate far inland by fjords which were formerly glens and open valleys. The details of coast-scenery vary with the rock in which they are developed. Nowhere can the effects of each leading type of rock upon landscape be more instructively studied than along the sea-margin. As distinct types of coast-scenery, reference may be made to sea-cliffs and rocky shores of granite, gneiss, basalt, massive sandstone and flagstone, limestone, alternations of sandstone shale or other strata, and boulder-clay, and to the forms assumed by detrital accumulations such as sand-dunes, shingle-banks, and flats of sand or mud.

The concluding portion of the lecture was devoted to an indication of the connection between the scenery of a country and the history and temperament of the people. This subject was considered from four points of view, the influence of landscape and geological structure being traced in the distribution of races, in national history, in industrial and commercial progress, and in national temperament and literature.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE

OXFORD.—The proposal to allow women to enter for the same honour examinations as men met with less opposition in Congregation than was generally anticipated. By 100 votes to 46 the statute was passed by Congregation permitting women to enter for both Classical and Mathematical Moderations, and for the final Schools of History, Mathematics, and Natural Science. On March 11 the statute will come before Convocation, and will in all probability be passed.

In a Convocation held on March 4 a decree was passed authorising the Professors of Anatomy and Physiology to engage a table for the use of students of the University at the Zoological Station at Villefranche. The anti-vivisectionists were demonstrative, but did not divide the House.

The Professor of Medicine gives notice that the Testamurs for Chemistry and Physics in the Preliminary Honour Examination excuse candidates from the Chemistry and Physics Examination in the First M.B., but that the Testamurs for Chemistry and Physics in the Pass School are not recognised. Candidates may take up Chemistry and Physics separately from Anatomy and Physiology.

An examination will be held at Keble College on March 18 to elect a Scholar in Natural Science. Candidates may offer Chemistry and Biology.

CAMBRIDGE.—Plans have been obtained for the building of a new foundry and a temporary lecture-room and museum for the Department of Mechanism, suitable eventually for additional workshops. The cost is to be 450/. The number of pupils in this department has now increased to fifty-seven.

Plans have also been prepared for the new botanical classrooms for microscopic work, the estimated cost being 1065/.

Messrs. E. C. Ames, B.A., B. H. Bent, and J. H. Nicholl, B.A., have been appointed Demonstrators of Mechanism and Applied Mechanics.

The following Colleges hold Examinations for Open Scholarships in Natural Sciences on the respective dates mentioned:—Clare, March 18; Jesus, March 13; Downing, June 10; Cavendish, August 6. For particulars, application should be made to the tutors of the Colleges. A Clothworkers' Exhibition in Physical Science, tenable either at Oxford or at Cambridge, will be awarded in July. Information may be obtained from the Censor of Non-Collegiate Students, Cambridge.

SCIENTIFIC SERIALS

Journal of Botany.—The number for February commences with the first part of an important paper by Mr. Thomas Hick on protoplasmic continuity in the Florideæ. The connection of

protoplasm from cell to cell has now been established in a number of instances in the vegetable kingdom. It may be seen with very great ease, as described and drawn by Mr. Hick, in the frond of some of the red seaweeds, as *Polysiphonia* and *Callithamnion*, without any chemical reagent, except one that causes a slight contraction.—Mr. Carruthers contributes a useful paper on the mode of distinguishing the seed of the sweet vernal grass, *Anthoxanthum odoratum*, from that of *A. Puellii*, an annual species with which it is often adulterated by seed-growers.

THE last part (vol. iii, heft 3) of Cohn's *Beiträge zur Biologie der Pflanzen* contains two important cryptogamic papers: one by E. Eidam, on the development of the Ascomycetes, in which two new forms are described; the other, by M. Franke, describing an interesting new genus of parasitic algae, *Endoclonium*, dimorphic, and growing on decaying fronds of *Lemna gibba*.

Journal of the Russian Chemical and Physical Society, vol. xv, fasc. 9.—On the action of the hydrocarbons of the acetylene series upon oxide of mercury and its salts, by M. Kutscheroff.—Thermic data of pyrosulphuryl, by D. Kononoff. The heat of formation of a molecule of $S_2O_5Cl_2$ from its elements in a gaseous state is equal to 180.6 calories.—On a hydrate of silicium obtained from cast iron, by G. Zabudsky.—On the characters of the infra-molecular force, by M. Bardsky (second article).—On electrolytic light, by N. Sloughinoff, being an experimental and mathematical inquiry into the light disengaged during the electrolysis of liquids at one of the electrodes; historical sketch of the subject; instruments employed; the laws of the extra-currents of Edlund; light disengaged in a water solution of sulphuric acid, and dependence of it upon the number of elements in the battery; oscillations of the force of the current; experiments with a rotating glass; wearing of the electrodes; spectrum; light in the acid solutions of salts; on the resistance, the electro-spheroidal state, and the heat disengaged; the oscillating currents.—On the theory of the curved nets, by A. Sokoloff.

Atti della R. Accademia dei Lincei, Rome, October 18 and 19, 1883.—On the alterations undergone by the red globules of the blood in malarious infections, by Prof. Ettore Marchiafava.—Meteorological observations made at the Royal Observatory of the Campidoglio during the months of August, September, and October, 1883.

December 2.—Remarks on Dr. F. Mercanti's memoir on the ciliary muscle in reptiles, by Signor Moriggia.—On the alterations in the red globules of the blood in malarious infections, by S. Todaro.—Report on Prof. E. Millosevich's memoir on the diameter of Uranus, by S. Respighi.—On the molecular velocities of gaseous bodies, by A. Violi.—Note on fluorbenzine and fluorotoluene, by P. Emanuele and O. Vincenzo.—A new series of compounds of titanium, by A. Piccini.—On the transformation of the fluorbenzoic acids in the animal organism, by F. Coppola.—A study of the resins of *Thapsia garganica*, by Fr. Canzoneri.—On a new species of Salpa (*S. dolicosoma*), by Fr. Todaro.—Observations on the Pons-Brooks comet, by Pietro Tacchini.—On the unipolar induced electric current and nervous excitement, by G. Magini.—Archæological discoveries at Angera, Peschiera, Viterbo, Rome, Sulmona, and in other parts of Italy, from June to October, 1883.—S. Sella and S. Mamiani were elected president and vice-president for the ensuing four years, 1884-7.

Rivista Scientifico-Industriale, Florence, November 15-30, 1883.—Further applications of the nephoscope invented by Filippo Cecchi (four illustrations).—Description of a new electromagnet recently exhibited before the Society of Natural and Economical Sciences at Palermo, by Prof. A. Riccò.—An account of some of the important results already obtained in the Acclimatisation Garden established ten years ago by General Vincenzo Ricasoli at Portofino, by G. Arcangeli. Amongst the exotics here successfully reared are *Cocos flexuosa*, *Calceola borbonica*, *Phenix reclinata*, *Boldea fragrans*, *Citharexylon reticulatum*, *Casuarina quadrivalvis*, *Edwardsia grandiflora*, *Eugenia australis*, *Ficus elastica*, *Picconia fragrans*, besides numerous species of *Bignonia*, *Agave*, *Acacia*, and *Eucalyptus*, and other Australian plants.

Rendiconti del R. Istituto Lombardo, Milan, December 13, 1883.—On the distinctions observed in criminal law between the authors and accomplices in a felony, by Prof. A. Buccellati.—Inquiry into the nature of the underground disturbances that