

where something like four hundred acres of land, partly in Minnesota and partly in Wisconsin, have been acquired as a public reservation. The Falls proper are not high, but the Dalles, with their lofty and precipitous rocks on either side, stained with brilliant colors from oxides of copper, or painted with Lichens and Moss, make a most interesting passage of natural scenery.

CHRISTOPHE NEGRI, the Italian economist and geographer, died in Florence on February 18, aged 86 years.

DR. ZELLE, of Brandenburg, has exhibited before the Emperor of Germany specimens of his work in photographing in colors.

THE House Committee on Military Affairs has heard arguments in support of the bill of Mr. Fairchild, of New York, appropriating \$500,000 for the establishment of a national military and naval park embracing the Palisades on the Hudson River.

GINN & Co. will publish at once, in their 'Classics for Children' series, *White's Natural History of Selborne*, edited, with an introduction and notes, by Prof. Edward S. Morse.

THE New Jersey Library Association met at Newark, January 30th. The main topic was the relation of the State to libraries, with a view to establishing a New Jersey Library Commission. The two plans chiefly discussed were those of Massachusetts and of New York with its system of traveling libraries. The Massachusetts plan was presented by S. S. Green, of the State Commission, and that of New York by W. R. Eastman, Library Inspector.

ACCORDING to the *British Medical Journal* the Orphanage School of St. Margaret's, in the town of East Grinstead, has been recently visited by diphtheria; two of eleven cases proved fatal. Every method was adopted for ascertaining the predisposing cause of the outbreak, but with no success so far as the buildings were concerned. But at length the health officer had the drains outside the institution exposed, when he found that the house drain in its length of communication with the sewer crossed the playground; this length was in a most deplorable state. The communication pipe was only a few inches below the surface, was an old

land drain, uncemented at the joints, and these gaping an inch or two; the surrounding soil, whereon the children played, was saturated with sewage. The matter was, of course, put right, but only after human life had been sacrificed, and many children had been sufferers. Moreover, the school inmates had for some time prior to the outbreak been noticed as looking pale and ill, the result, no doubt, of constantly playing in so unhealthy a situation.

IN notes presented before the Paris Academy of Sciences, on January 27th and February 3d, M. Gustave Le Bon claimed that he had demonstrated by photographic effects that ordinary sunlight and lamplight are transmitted through opaque bodies, and states that the body might be a sheet of copper 0.8 mm. in thickness. His experiments have however been questioned by M. Niewenglowski, who states that he has obtained the same effect in complete darkness, and attributes them to luminous energy stored up in the plates.

The Physical Review for March-April will have among the principal articles ones on the Viscosity of Salt Solutions by B. E. Moore; on the Theory of Oscillating Currents by Steinmetz; on Induction Phenomena in Alternating Currents Circuits by F. E. Millis; on the Magnetic Properties of Cylindrical Rods by C. R. Mann, and a Photographic Study of Arc Spectra by Caroline W. Baldwin. There are several interesting Minor Contributions and a number of Book Notices.

UNIVERSITY AND EDUCATIONAL NEWS.

PRESIDENT JOHN M. COULTER has resigned the presidency of Lake Forest University to become head professor of botany in the University of Chicago. It is understood that part of the money recently given to the University by Miss Culver has been used to endow this chair.

PRESIDENT ELIOT has for some time advocated the reduction of the collegiate course of Harvard University from four to three years. The *Boston Transcript* states that at a recent meeting of the Harvard faculty an informal vote on the proposition showed fifty in favor of the plan and thirty-five against it. Several years ago the faculty formally approved the

plan of reducing the number of courses necessary to a degree from eighteen to sixteen, but it was rejected by the overseers.

CONVERSE COLLEGE established about five years ago at Spartanburg, S. C., has received a gift of \$70,000 from Mr. D. E. Converse, together with \$30,000 given by the citizens of Spartanburg, S. C.

At a meeting of the Council of the University of the City of New York, the University medical faculty reported in favor of extending the course for degrees of doctor from three to four years. The Council approved a plan for a College Close which includes an inner court measuring about 250 feet in width by 300 feet in length. Fronting upon this, five residence halls and a dining hall will be built.

DISCUSSION AND CORRESPONDENCE.

KEW'S DISPERSAL OF SHELLS.

EDITOR OF SCIENCE: In the review of Kew's *Dispersal of Shells* by Dr. Packard, the reviewer points out certain omissions which could not have been overlooked by Mr. Kew if he had taken the trouble of consulting either Gould or Binney in the original. For a volume of the International Series the book is amazingly provincial. I do not wish by this expression to gainsay its value; it is an exceedingly valuable collection of notes, memoranda and isolated items referring more particularly to the dispersal of shells in England. Dr. Packard has inadvertently overlooked a very important omission in there being no reference to the dispersal of *Litorina litorea* from its centre at Halifax, Nova Scotia (where it was first introduced from the other side of the Atlantic) along the shores of the Bay of Chaleur, and southward to New York and beyond. In *Science News* for 1879 Mr. Arthur F. Gray called attention to the successive occurrence of this species as it spread southward along the coast. Professor Verrill in the *American Journal of Science*, for Sept., 1880, records his observations regarding the dispersion of this species. In the *Essex Institute Bulletin* for 1880, in a paper on the Gradual Dispersion of Certain Mollusks in New England, I presented a map of the New England coast and upon this was marked chronologically the dates

of the appearance of this large and conspicuous mollusk as it found its way south. In this paper I showed what a barrier Cape Cod offered for some years. My last find was at Glen Cove, Long Island. In the same paper I called attention to the dispersion of *Pupa muscorum* (badia, of Adams) from its first place of observation in Vermont, into various parts of New England. I think Binney was wrong in believing that *Helix hortensis* was introduced into New England since the advent of the European. I have discovered *Helix hortensis* on islands in Casco Bay, buried in the lowest deposits of shell heaps containing bones of the Great Auk. The occurrence of this species in such positions could not be accounted for by supposing that the creature had burrowed down to the lowest level of the deposits, for the mass was too compact to admit of this explanation. I have found them under stones resting on the primitive surface of the ground associated with other species found only in hard wood growths, and now coniferous trees only abound in these places. It is certainly extraordinary that this species is only found living on the outer islands of New England—its habits being entirely different in this respect from its English relative.

EDWARD S. MORSE.

SALEM, February 18, 1896.

'SCIENTIFIC MATERIALISM.'

EDITOR OF SCIENCE: A few remarks on the article 'Scientific Materialism' in *SCIENCE*, February 14th, may not be out of place.

It seems a case of 'reversion' to speak of 'energy' as something distinct from force, or rather from definite forces. Energy apart from force is inconceivable. To quote Lewis' example, we might as well speak of 'cellarity,' as something apart from cellars!

The definite forces with which science deals are, as every one knows, simply modes of motion. Hence Helmholtz, Tait, Romanes and most modern students have regarded matter, atoms, molecules, all as but expressions of motion, and to be analyzed by the three primary laws of motion and the theorems derived from them. Of course this leads inevitably to a strictly mechanical conception of phenomenal existence.