

the means of destroying the contagious miasmata of hospitals, upon which MM. Dumas and Bouillaud made some remarks.—M. Wurtz presented a note by M. Verneuil on the cure of trumatic tetanus by chloral.—Several other communications were made of which the titles only are given.

## BERLIN

**German Chemical Society, March 14.**—M. Schultz-Sellak has obtained a liquid modification of sulphuric anhydride, which, under ordinary circumstances, speedily passes into the solid form.—M. Tiemann has converted trinitrotoluol into toluenyldiamide. The same, conjointly with Mr. Judson, has studied several isomeric dinitrobenzoic acids.—Mr. Genz reported on some derivatives of xylidine.—Dr. Rüdorff showed large crystals of carbonate of ammonium deposited from coal gas.—M. Bornemann exhibited glass tubes which had for some months been exposed to the action of steam under a pressure of eleven atmospheres. The glass showed deep notches and furrows where acted upon by the steam, but was not attacked in those parts which had remained immersed in the water of the boiler.—A curious transformation of forged iron into large crystals has been observed by M. Egelts. A cylinder used in a cotton-mill proved to consist of crystals apparently affecting the form of pentagonal dodecahedra of two or three millimetres in diameter.—Prof. Hoppe Seyler reported on the colouring matter of blood. He has found that hæmato-globulin does not pass directly into hæmatine, as has been supposed until now, but that the latter product derives by oxidation from hæmatochromogen discovered by the author.—Prof. Kekulé and Hildeck have converted diazamidobenzol into azobenzol.—Dr. Köhler attacked the views lately published by Wanklyn, on the atomicity of sodium.—Dr. Schaer reported on the presence of ozone in the fluor spar of Wölberndorf, Saxony.

## PHILADELPHIA

**Academy Natural Sciences, January 11.**—Professor O. C. Marsh, of Yale College, exhibited a series of specimens of the remains of birds from the Cretaceous and Tertiary of the United States, which showed that this class was well represented during these periods, although no species have yet been described from these formations in this country, and none indeed from older rocks, since it now appears to be well established that the bird-like footprints in the Connecticut Valley were made by Dinosaurian reptiles. Among the specimens shown were the remains of at least five species of Cretaceous birds, although but one or two species have hitherto been described from strata of this age in Europe. The present Cretaceous specimens were all found in the greensand of New Jersey, and with one exception in the middle marl-bed. They are all mineralised, and in the same state of preservation as the bones of extinct reptiles found with them in these deposits, and hence are readily distinguished from the remains of recent birds which have occasionally been found near the surface in the marl excavations of New Jersey. The most interesting of the specimens exhibited was the distal portion of a large and robust tibia, apparently of a swimming bird, about the size of a goose. It was found in the greensand at Birmingham, New Jersey, in the pits of the Pemberton Marl Company. For this new genus and species Professor Marsh proposed the name *Laornis Edwardsianus*. Two species of small wading birds, which appear to have been allied to the Curlews, were also represented each by the distal end of a tibia, and probably by some other less characteristic portions. The larger of these species, which was found in the greensand of the middle marl-bed at Hornerstown, New Jersey, was named *Palastringa littoralis*. The smaller species, which was called *Palastringa vetus*, was founded on the specimen mentioned by Dr. Morton in his "Synopsis of Cretaceous Fossils," p. 32, which has since, however, been generally regarded as a recent species. The specimen was found in the lowest marl-bed at Arneytown, New Jersey, and is now in the collection of the Academy. Portions of the humeri of two small and closely-related species, apparently of the Heron family, were part of the series shown. They were found deep in the greensand of the middle marl-bed near Hornerstown, New Jersey, in the pits of the Cream Ridge Marl Company. For the species thus represented the names *Vetardea elegans* and *Vetardea affinis* were proposed. The remains of several species of Tertiary birds were also exhibited by Professor Marsh. Among these was the lower extremity of tibia, closely resembling that of some of the Cranes. It was found in the Miocene of the Niobrara River, by Dr. F. V.

Hayden, and is interesting as the only representative of a fossil bird yet detected in the Tertiary deposits west of the Mississippi. This specimen, which belongs to the Academy, indicated a new species, which was named *Grus Haydeni*. Another species of extinct birds was represented by portions of a humerus and radius, also in the collection of the Academy; they were found many years since in the Miocene of Maryland by Mr. T. A. Conrad. This species, which appears to be closely related to the Gulls, was named *Larus Conradii*. Several other interesting specimens of bird remains were shown, but most of them were not sufficiently characteristic to admit of determination. With the exceptions already mentioned, the fossils exhibited belonged to the museum of Yale College.

## DIARY

## THURSDAY, MARCH 24.

ROYAL SOCIETY, at 8.30.—On the Madrepora dredged up by the expedition in H.M.S. *Porcupine*: Prof. Duncan.  
ROYAL INSTITUTION, at 3.—Chemistry of Vegetable Products: Prof. Odling.  
ZOOLOGICAL SOCIETY, at 8.30.—On the Birds of Veragua: Osbert Salvin.  
—Exhibition of a metamorphosed Axolotl: W. B. Tegetmeier.—On two rare species of Pheasants recently added to the Society's Collection: Mr. Sclater.  
LONDON INSTITUTION, at 7.30.—Geology: Dr. Cobbold.  
SOCIETY OF ANTIQUARIES, at 8.30.—On the Greek Inscriptions found at Autun: Rev. W. B. Mariott.

## FRIDAY, MARCH 25.

ROYAL INSTITUTION, at 8.—Anglo-Saxon Conquest: Prof. Rolleston.  
QUEKETT MICROSCOPICAL SOCIETY, at 8.30.

## SATURDAY, MARCH 26.

ROYAL INSTITUTION, at 3.—The Sun: J. Norman Lockyer, F.R.S.

## MONDAY, MARCH 28.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.  
ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 8.  
INSTITUTE OF ACTUARIES, at 7.  
LONDON INSTITUTION, at 4.—Chemistry: Prof. Bloxam.

## TUESDAY, MARCH 29.

ROYAL INSTITUTION, at 3.—Nervous System: Prof. Rolleston, M.D., F.R.S.  
INSTITUTE OF CIVIL ENGINEERS, at 8.—Description of the St. Pancras Station, Midland Railway: W. H. Barlow, M.I.C.E., F.R.S.

## WEDNESDAY, MARCH 30.

SOCIETY OF ARTS, at 8.  
CHEMICAL SOCIETY, at 8.—Anniversary Meeting.

## THURSDAY, MARCH 31.

ROYAL SOCIETY, at 8.30.  
SOCIETY OF ANTIQUARIES, at 8.30.

## BOOKS RECEIVED

ENGLISH.—The State, the Poor, and the Country: R. H. Patterson (Blackwood and Sons).—Quarterly Journal of the Geological Society (Longmans).—Photographic Art Journal, No. 1: illustrated (S. Low, Son, and Marston).—Choice and Chance: Rev. W. A. Whitworth (Bell and Daldy).—The Arts in the Middle Ages; illustrated: Paul Lacroix (Chapman and Hall).—United States Geological Survey of Colorado and New Mexico: F. D. Hayden (Washington).—Introductory Text-book to Physical Geography: D. Page (Blackwood and Sons).—Mrs. Loudon's First-book of Botany. Edited by D. Woosten (Bell and Daldy).—Principles of the Science of Colour: W. Benson (Chapman and Hall).  
FOREIGN.—Handbuch der Lehre von den Geweben: S. Stricker.—Für Baum und Wald: M. F. Schleider.—Die Eiszeit der Erde: A. Braun.

## CONTENTS

	PAGE
THE TRANSITS OF VENUS IN 1874 AND 1882	527
PHILOLOGY AND DARWINISM. By Rev. F. W. FARRAR, F.R.S., Honorary Chaplain to the Queen	527
THE PRIVATE LIFE OF GALILEO. By G. FARRER RODWELL, F.C.S. (With Illustrations).	529
OUR BOOK SHELF	531
LETTERS TO THE EDITOR:—	
Rotation of a Rigid Body.—Prof. J. J. SYLVESTER, F.R.S.	532
"Dutch," or "Deutsch."—EDWARD A. FREEMAN	532
The American Eclipse.—Prof. C. A. YOUNG	532
Prof. Huxley's Address.—SEARLES V. WOOD, Jun.	533
Transactions of the Royal Society of Edinburgh.—Dr. BALFOUR, F.R.S., Sec. R. S. Edin.	534
Euclid as a Text Book.—R. TUCKER	534
MECHANICAL PROPERTIES OF ICE, AND THEIR RELATION TO GLACIER MOTION. By WILLIAM MATHEWS, Jun., President of the Alpine Club	534
THE INDIAN TOTAL ECLIPSE. (With Illustrations.)	536
FALL OF A METEORITE	536
NOTES	536
ON THE TEMPERATURE AND ANIMAL LIFE OF THE DEEP SEA. II. By Dr. W. B. CARPENTER, F.R.S.	540
SCIENTIFIC SERIALS	542
SOCIETIES AND ACADEMIES	543
DIARY	546