

reserving for a future meeting the second part relating to the geographical distribution of the order.

Chemical Society, February 1.—Dr. Frankland, F.R.S., president, in the chair.—When the ordinary business of the Society had been transacted, a note "On the crystalline principle of Barbadoes aloes" was read by the author, Dr. W. A. Tilden, in which he described anew derivative of aloin. This is chloraloin, which crystallises from boiling-water in yellow silky needles, bearing considerable resemblance to the corresponding bromine compound bromaloin.—Dr. C. R. A. Wright then read an elaborate paper "On the relations between the atomic hypothesis and the condensed symbolic expression of chemical facts and changes known as dissected (structural) formulae," in the first part of which he showed the possibility of expressing chemical facts without reference to the atomic theory; and in the second examined how far these facts could be accounted for by the atomic hypothesis. A long and very interesting discussion ensued, in which some of the speakers advocated the employment of the atomic theory to a greater or less extent, as promoting the progress of chemical science, whilst others desired its abolition.

PARIS

Academy of Sciences, January 29.—A note by M. J. Boussinesq on the integration of the equation with partial derivatives of the isostatic cylinders produced in a homogeneous and ductile solid, was presented by M. de Saint-Venant.—M. A. Ledieu read a note containing objections to the marine gyroscope proposed by M. E. Dubois at the meeting of January 22.—M. J. A. Serret presented a memoir on the pendulum of Léon Foucault.—M. Jamin presented a note by MM. A. Cornu and E. Mercadier on melodic musical intervals, confirmatory of their previous results.—A note by M. J. Violle on the induction currents produced in the polar masses of Foucault's apparatus was read.—M. Daubrée presented a note by M. Pesliu on the bands of the solar spectrum, in which the author indicates a very simple relation between the most important bands.—M. Delaunay communicated a note by M. Fron on the prevision of certain earthquakes.—A further note by Father Secchi, on the temperature of the sun, was read, in which the author still maintains his opinion as to the enormous temperature of that body.—A note by M. E. Liais on absolute meridian observations in the low latitudes of the southern hemisphere was read, with especial reference to the observatory of Rio de Janeiro. Upon this paper MM. Le Verrier and Laugier made some remarks.—M. S. Meunier communicated a paper on the methods which concur in demonstrating the stratigraphy of Meteorites.—M. Delaunay made some remarks upon the note presented to the last meeting of the Academy by M. Renou with regard to the Meteorological Manual of the Paris Observatory for 1872, and presented to the Academy the first number of a monthly Meteorological Bulletin published by the Observatory.—M. P. Thenard presented some observations upon the preservation of wines by heating, in connection with a recent note by M. Balard. He claimed the discovery of the action of heat upon wines for MM. Appert and de Verguette.—M. Chevreul read a note upon the investigations upon dyeing carried out by M. Paul Havrez; MM. Montefiore-Levi and Kunzel presented a reply to a claim of priority made by MM. de Ruolz and Fontenay with respect to the discovery of phosphorus bronze and its employment in the manufacture of ordnance; M. Wurtz presented a note by M. L. C. Coppet on the supersaturation of the solution of chloride of sodium; and M. C. Bernard communicated a note on the analysis of the gases of the blood by MM. A. Estor and C. Saint-Pierre.—The lively discussion commenced two or three meetings ago on fermentation and heterogeny was reopened by a long paper on fermentations by M. E. Fremy, and continued by MM. Balard and Wurtz.—M. C. Martins read an important paper on the normal position of the hand in man and in the vertebrate series.

BOOKS RECEIVED

ENGLISH.—The Highlands of Central India: Capt. J. Forsyth (Longmans).—Rude Stone Monuments in all Countries: J. Ferguson (J. Murray).—Hints and Facts on the Origin of Man: P. Melia (Longmans).—A Dictionary of Chemistry, Supplement: H. Watts (Longmans).—Gandeamus: Humorous Poems translated from the German by C. G. Leland (Trübner).—Geometrical Conic Sections: J. S. Jackson (Macmillans).—Arithmetic in Theory and Practice: J. Brook Smith (Macmillans).—Worms, a Series of Lectures on Practical Helminthology: Dr. T. S. Cobbold (Churchill).

FOREIGN.—Medizinische Jahrbücher, 1871; Heft 4: S. Stricker.—Mittheilungen der Naturforschenden Gesellschaft in Bern. 1870.—Nouveaux Mémoires de la Société Helvétique des Sciences Naturelles en Bern, Vol. xxiv.—Beiträge zur Kritik der Darwinsche Lehre: Dr. E. Askenasy.

DIARY

THURSDAY, FEBRUARY 8.

ROYAL SOCIETY, at 8.30.—Experiments concerning the Evolution of Life from Lifeless Matter: W. N. Hartley.—Experiments on the Directive Power of Large Steel Magnets, of Bars of Magnetised Soft Iron, and of Galvanic Coils, in their Action on External Small Magnets; with Appendix, containing an Investigation of the Attraction of a Galvanic Coil on a Small Magnetic Mass: James Stuart, M.A.

SOCIETY OF ANTIQUARIES, 8.30.—On the Hunnebedden of Holland: A. W. Franks.—On an Inscribed Saxon Knife; J. Evans, F.R.S.—On a Sword Found in Spain: Col. Lane Fox.

MATHEMATICAL SOCIETY, at 8.—On the Factors of the Differences of Powers, with especial reference to a theorem of Fermat's: W. Barrett Davis.—On an Algebraical Form and the Geometry of its dual connection with a polygon, plane, or spherical: T. Cotterill.

FRIDAY, FEBRUARY 9.

ASTRONOMICAL SOCIETY, at 3.—Anniversary Meeting.

ROYAL INSTITUTION, at 3.—On Sleep: Prof. Humphry, F.R.S.

QUEKETT MICROSCOPICAL CLUB, at 8.

SATURDAY, FEBRUARY 10.

ROYAL INSTITUTION, at 3.—On the Theatre in Shakespeare's Time: Wm. B. Donne.

SUNDAY, FEBRUARY 11.

SUNDAY LECTURE SOCIETY, at 4.—On the Skeleton of the Higher Vertebrates: Dr. T. S. Cobbold, F.R.S.

MONDAY, FEBRUARY 12.

GEOGRAPHICAL SOCIETY, at 8.30.

LONDON INSTITUTION, at 4.—Elementary Chemistry: Prof. Odling, F.R.S.

TUESDAY, FEBRUARY 13.

ROYAL INSTITUTION, at 3.—On the Circulatory and Nervous Systems: Dr. W. Rutherford, F.R.S.E.

PHOTOGRAPHIC SOCIETY, at 8.—Anniversary Meeting.—On a Comparison of the Different Modes of Plate Cleaning: Dr. Anthony. The Niépce de St. Victor specimens will be shown.

WEDNESDAY, FEBRUARY 14.

SOCIETY OF ARTS, at 8.—On the Study of Economic Botany: J. Collins.

THURSDAY, FEBRUARY 15.

ROYAL INSTITUTION, at 3.—On the Chemistry of Alkalies and Alkali Manufacture; Prof. Odling, F.R.S.

ROYAL SOCIETY, at 8.30.

SOCIETY OF ANTIQUARIES, at 8.30.

LINNEAN SOCIETY, at 8.—On a Chinese Artichoke Gall: A. Müller, F.L.S.—On the Habits, Structure, &c., of the three-banded Armadillo: Dr. J. Murie, F.L.S.—Comparative Geographical Distribution of Butterflies and Birds: W. F. Kirby.

CHEMICAL SOCIETY, at 8.

CONTENTS

	PAGE
THE FOUNDATION OF ZOOLOGICAL STATIONS. By Dr. ANTON DOHRN	277
THE NATURAL HISTORY OF EGYPT AND MALTA. (With Illustration)	280
OUR BOOK SHELF	281
LETTERS TO THE EDITOR:—	
The Aurora Borealis of Feb. 4.—Prof. C. PIAZZI SYMTH, F.R.S.; G. M. SEABROKE; R. J. FRISWELL, F.C.S.; Capt. J. P. MACLEAR, R.N.; J. J. MURPHY, F.G.S.; J. JBREMIAN; REV. M. H. CLOSE; W. SYMONS, F.C.S.; T. R. CAPRON	282
The Floods.—Col. GEORGE GREENWOOD	285
Zodiacal Light.—REV. T. W. WEBB, F.R.A.S.	285
Magnetic Disturbance During Solar Eclipse.—G. MATHUS WHIPPLE, F.R.A.S.	285
Circumpolar Lands.—J. J. MURPHY, F.G.S.	285
THE HISTORY OF PHOTOGRAPHY. By H. BADEN PRITCHARD, F.C.S.	285
GANOT'S PHYSICS. By G. F. RODWELL, F.C.S. (With Illustrations).	285
THE SOLAR ATMOSPHERE. By Capt. J. ERICSSON. (With Illustration.)	287
THE RIGIDITY OF THE EARTH. By Prof. HENNESSY, F.R.S.	288
THE LANDSLIPS AT NORTHWICH. By THOS. WARD	289
NOTES	290
SCIENTIFIC INTELLIGENCE FROM AMERICA	293
ON THE CARPAL AND TARSAL BONES OF BIRDS. By Prof. E. S. MORSE	293
SCIENTIFIC SERIALS	293
SOCIETIES AND ACADEMIES	294
BOOKS RECEIVED	296
DIARY	296

NOTICE

We beg leave to state that we decline to return rejected communications, and to this rule we can make no exception. Communications respecting Subscriptions or Advertisements must be addressed to the Publishers, NOT to the Editor.