

he is described as mild and gentle when unprovoked, and always with tears in his eyes (*i.e.*, rain), but when resisted he bursts into uncontrollable fury, uprooting trees and devastating the world. Frightened with his violence, his sister, the Sun-goddess, retires into a cave in the sky, closing the entrance with a rock, and leaving the world in darkness. By the advice of the god of Thought, a fire is kindled and dances performed outside, and the sacred mirrors and pieces of cut paper (*go-hei*) which still form the furniture of a *Sin-to* temple, are displayed. The Sun peeps forth, and is then pulled out altogether, and the cave closed. The whole episode is evidently a mythic picture of the Sun hidden in tempest in the clouds as in a cavern, till she comes forth again to enlighten the world.—A paper on the term "Religion" was read by Mr. Distant. He said that the possession or non-possession of religion, and the nature of the religion possessed were usually made by our leading anthropologists tests of development in civilisation and culture. But accounts are often untrustworthy, and depend upon the bias of the inquirer. Also, "Religion" is an undefined term; scarcely two writers on culture agreeing on the subject. Indeed, some of the religious ideas of savages are found to be held by eminent men. A term required to be used, that was alike capable of being conceived and incapable of being misunderstood.—In the discussions Mr. Tatui Babo, Mr. Conway, Mr. Moggridge, Mr. Bouverie Pusey, Mr. Jeremiah, and others, took part.

Institution of Civil Engineers, March 28.—Mr. Geo. Rob. Stephenson, president, in the chair.—The first paper read was on sewage interception systems, or dry-sewage processes, by Mr. Gilbert R. Redgrave.—The second paper read was on the treatment of sewage by precipitation, by Mr. W. Shelford.

PARIS

Academy of Sciences, April 10.—Vice-Admiral Paris in the chair.—The following papers were read:—Experimental critique on the formation of sugar in the blood, or the function of physiological glycaemia, by M. Cl. Bernard.—Analytical solution of the problem of distribution in a magnet, by M. Jamin.—Vegetation of maize commenced in an atmosphere without carbonic acid, by M. Boussingault. The grain, germinating, produces a fertile atmosphere (*i.e.*, one containing carbon), in which, with aid of light, the leaves organise chlorophyll, and then amylaceous and saccharine matters.—Verbal observations on the same subject, by M. Pasteur.—Seventeenth note on the electric conductivity of substances that are mediocre conductors, by M. Du Moncel. The substances here studied are the stems of certain shrubs, and the human body. The conductivity of the former varies with the mode of application of the electrodes, the nature and thickness of the bark, and the season. The resistance of the human body between the wrists is estimated at 350 to 220 kilometres. But when the skin is dry, and at the commencement of an experiment, it may exceed 2,000 kilometres.—Experiments on the schistosity of rocks; geological consequences that may be deduced, by M. Daubrée. The geometrical arrangement of the leaves of crystalline masses and Jurassic layers above them in various central formations of the Alps (Mont Blanc), are explained, through experiment, as the effect of flow of a mass which was not completely solid.—Discussion of barometric curves continued from March 7 to 14, 1876; best process for comparing the course of the temperature and the pressure, by M. Sainte-Claire-Deville.—On the *trombe* of Heiltz-le-Maurupt (Marne), Feb. 20, 1876. Two persons witness that the *trombe* descended; the windows of the town-hall were broken inwards, which is against the suction-hypothesis, as is also the fact that the circle of mechanical action was very distinctly circumscribed.—On the displacement of lines in the spectra of stars, produced by their movement in space (continued), by P. Secchi.—M. Borchardt was elected correspondent of the Academy in the section of geometry, in place of M. le Besgue.—Velocity of thermal flow in a bar of iron (second part), by M. Decharme.—On the solar spots and the physical constitution of the sun, by M. Planté. A horizontal sheet of filter paper, moistened with salt water, is connected above with the negative pole of the secondary battery; on bringing up towards it from below the positive electrode, a crater-like cavity is formed with torn edges projecting towards the + electrode (light and vapour also being emitted); and the aspect is very much that of sun-spots. M. Planté also studied the incandescent globules obtained in fusing thick metallic wires with a strong electric current of quantity, and draws a parallel between their structure and that of the sun.—Influence of the asparagine contained in saccharine juices (of beet and cane) on the saccharimetric test;

destruction of the rotatory power of asparagine; method of determination, by MM. Champion and Pellet.—The elephants of Mount Dol; attempt at organogeny of the system of molar teeth of the mammoth (second communication), by M. Sirodot.—On the optical effects of lamellar snows floating horizontally, by M. De Fonvielle.—On the catastrophe of Grand Sable (district of Salazie) in the Isle of Reunion; second note by M. Vinson. He endeavours to show it was the work of subterranean fire, which prepared a normal eruption that followed.—Letter from M. Cassin on the same subject; he rejects the idea of volcanic action.—On the catastrophe of the Jabin pits (Feb. 4, 1876), by M. Riembault. Fine coal-powder, suspended in air, is explosive. In the Jabin pits a little fire-damp was probably first inflamed at a point, and this ignited the coal-powder, which, under high temperature, liberates its explosible gases. The galleries were found incrustated with coke, evidently the result of combustion of coal. The air of the miner's lungs, forming part of the explosive atmosphere, is inflamed with it.—On the hatching of the winter egg of Phylloxera; note by M. Balbiani. He succeeded in observing a young Phylloxera (April 9) immediately after hatching. He regards it as a fourth specific form of the animal.—On a compensating balance wheel for maffite and other watches, by M. Winnerl.—On the theory of the proof plane, by M. Bouty.—Note on the coloured rings produced by pressure in gypsum, and on their connections with the coefficients of elasticity, by M. Janetaz.—On the employment of Gramme's magneto-electric machines for lighting the large halls of railway stations, by M. Sartiaux.—Simple apparatus for the analysis of gaseous mixtures by means of absorbent liquids, by M. Raült.—On exchange of ammonia between natural waters and the atmosphere, by M. Schloesing.—On the products of reduction of anethol, and on the probable constitution of this substance, by M. Landolph.—On change of the volume of organs in its relations to circulation of the blood, by M. Franck.—Researches on the functions of the spleen, by MM. Malassez and Picard. Iron appears to be, in the spleen, purely and simply in the state of hæmoglobin the same as that of the blood.—The physiological relations between the acoustic nerve and the motor apparatus of the eye, by M. Cyon.—On the embryology of Nemertina, by M. Barrois.—Osteological characters; observations on the persistence of the intermaxillary in man, by M. Roujou.—Action of sulphide of carbon on an insect which attacks the plants of herbaria, by M. Schmetzler.

BOOKS RECEIVED

BRITISH.—Geological Sketches: L. Agassiz (Trübner and Co.)—The Secret of the Circle, its Area ascertained: Alick Carnock (Henry Sotheran and Co.)—The Intellectual Development of Europe: J. W. Draper. 2 vols. (George Bell and Sons).—Sport in Abyssinia: Earl of Mayo (John Murray).—The Year-Book of Facts, 1876: C. Vincent (Ward, Lock, and Tyler).—Animals and Plants under Domestication, 2nd edition: Charles Darwin. 2 vols. (John Murray).—Vital Motion as a Mode of Physical Motion: Dr. Radcliffe (Macmillan and Co.)—Philosophy without Assumptions: T. P. Kirkman, F.R.S. (Longmans)—Diseases of the Nose: Spencer Watson, F.R.C.S. (H. K. Lewis).—Discoveries in New Guinea: Capt. John Moresby (John Murray).—Problems and Examples in Physics, an Appendix to Ganot's Elementary Physics (Longmans).

CONTENTS

	PAGE
CAMPBELL'S "CIRCULAR NOTES." By J. W. J.	491
SCLATER'S "GEOGRAPHICAL ZOOLOGY"	492
OUR BOOK SHELF:—	
Works on Curve-tracing	483
Dammer's "Chemical Dictionary"	483
Baker's "Clouds in the East"	484
LETTERS TO THE EDITOR:—	
The Use of the Words "Weight" and "Mass."—J. J. WALKER	484
"The Recent Origin of Man"—JAMES C. SOUTHALL	484
"The Unseen Universe."—JOSIAH EMERY	485
Prof. Tait on the Earth's Age.—Prof. J. D. EVERETT	486
A Relapsed Donkey.—Dr. E. BONAVIA	486
OUR ASTRONOMICAL COLUMN:—	
Variable Stars	486
The Search for Comets	486
TO FIND EASTER	486
HUNTERIAN LECTURES ON THE RELATION OF EXTINCT TO EXISTING MAMMALIA, VII. By Prof. FLOWER, F.R.S.	487
UNIVERSITY COLLEGE, BRISTOL	487
THE USE OF YELLOW GLASS FOR ZOOLOGICAL COLLECTIONS	488
RADIOMETERS. By W. CROOKES, F.R.S.	489
COMPRESSED AIR LOCOMOTIVE USED IN THE ST. GOTHARD TUNNEL WORKS (<i>With Illustrations</i>)	489
PHYSICAL SCIENCE IN SCHOOLS. By Dr. WATTS; Rev. GEORGE HENSLow	491
NOTES	491
ABNORMAL MULTIPLICATION AND ABORTION OF PARTS IN MEDUSÆ. B. J. G. ROMANES	493
SCIENTIFIC SERIALS	496
SOCIETIES AND ACADEMIES	497
BOOKS RECEIVED	498
	500