

coloured or brown spots began to appear on the face and hands, but *these remained limited to the portions of the surface exposed to light.*"

May it not therefore be claimed that there is much foundation for the suggestion that the black skin of the negro is but the smoked glass through which alone his widespread sentient nerve-endings could be enabled to regard the sun?

NATHANIEL ALCOCK,  
Surgeon-Major, Army Medical Department.

Since the foregoing was written there has appeared in the *British Medical Journal*, July 26, a most valuable paper by Dr. Gresswell on "Some Effects of Variations of Light," which sums up in these words, "We are tempted to conclude that light and heat impose each its own effects upon plants, as they do upon animals," and that "light is a stimulus direct as well as indirect."

### SCIENTIFIC SERIALS

*Atti della R. Accademia dei Lincei*, May 18.—On the molybdate of didymium, by Alfonso Cossa.—On the geological constitution of the Maritime Alps, by D. Zaccagna.—On some psychological difficulties that may be solved by means of the idea of the infinite, by Francesco Bonatelli.—Remarks on the Oriental manuscripts of the *Marsigli Collection* at Bologna, with a complete list of the Arabic manuscripts in the same collection, by Baron Victor Rosen.—The Ligurians associated with the barrows of the first Iron Age found in the district of Golasecca, Lombardy, by Luigi Pigorini.—Note on Bartolomeo da Parma, an astronomer of the thirteenth century, and on a treatise by him on the sphere preserved in the Victor Emmanuel Library, by Enrico Narducci.—Report on the antiquities discovered in various parts of Italy during the month of April, by S. Fiorelli.—Meteorological observations made at the Observatory of the Campidoglio during the month of April.

June 1.—Obituary notice of A. Wurtz, by S. Camizzaro.—On the expansion of sulphuric ether under various pressures, by G. Pietro Grimaldi.—On the physiology and pathology of the supra-renal capsules, by Guido Tizzoni.—Analysis of a silicated hydrate of baryta, by Alfonso Cossa and Giuseppe La Valle.—On the observations of atmospheric electricity made at the Central Meteorological Office, Rome, by Pietro Tacchini.—Meteorological observations made at the Observatory of the Campidoglio during the month of May.

June 15.—Description of a Buddhist Codex in the Pali language, forwarded to the Academy by L. Nocentini, Italian Vice-Consul at Shanghai.—Obituary notice of Hermann Ulrici, by S. Ferri.—Reports on the influence of heat and magnetism on the electric resistance of bismuth, by Prof. Augusto Righi; on the constants of refraction, by Dr. R. Nasini; on the capillary equivalents of simple bodies, by Prof. R. Schiff.—Note on a problem in electrostatics, by Vito Volterra.—A method of determining the ohm in absolute measure, by Guglielmo Mengarini.—Experimental researches on the variation in the density of water between 0° and 10°, by Filippo Bonetti.—On the spectrum of absorption of the vapour of iodine, by Arnolfo Morghen.—Remarks on Shelford Bidwell's new explanation of Hall's phenomenon, by Augusto Righi.—On the electric conductivity of the combinations of carbon, by Adolfo Bartoli.—On the penetrability of glass by gases under pressure, by Adolfo Bartoli.—On the coexistence of different empirical formulas, and especially on those containing the capillary constant of liquids or the cohesion of solids, by Adolfo Bartoli.—On the atmospheric waves produced by the Krakatoa eruption, and observed at Palermo, by Gaetano Cacciato.—Remarks on the dynamics of storms, by Ciro Ferrari.—On the intestinal canals and branchial tubes of the Salpidae, by Francesco Todaro.—Report on the antiquities found in various parts of Italy during the month of May, by S. Fiorelli.

*Revue d'Anthropologie*, tome viii., fasc. 3, Paris, 1884.—The contents are:—An unfinished paper of Paul Broca, on his mode of preparing the cerebral hemispheres, which, with another chapter on the best methods of casting the required moulds, was to have formed part of the treatise on the circonvolutions of the schematic brain, on which he was engaged at the time of his death. The present paper breaks off in the middle of his explanation of the process of mummifying the brain.—An essay on the ethnology of North Africa, by M. Camille Sabatier. This paper is entirely devoted to the consideration and recapitula-

tion of the geographical descriptions given by Herodotus, Salust, and other ancient writers of Lybia, under which designation most of the then known African continent was included. It also treats of the great invasions from Asia, and of the differences between the various African races. As distinct from the Lybians or mountaineers, and the Getulæ or pastoral occupants of the plains, the author believes we may recognise a separate branch, which bore the name of Escs or Osces, and which probably have given origin to the modern Basque Escualdunacs and other kindred western races.—A continuation of M. Deniker's observations on the Kalmuks. This paper is devoted specially to the sociology of the people, the condition of the women, and the practices observed at betrothals, marriages, &c., being fully treated of. The Lamas, who exercise a great influence on the people—intervening in all the great events of life from the cradle to the grave—are employed in several of the steppes by the Russian Government to keep the civil registers of the various hordes.

On various skulls of Arizona and New Mexico, by M. Ten Kate. From a comparative study of these and other crania collected by the author in his extensive travels in the Far West and in the Mexican territories, he is inclined to regard the constructors of the *casas grandes* of Arizona and the "cliff-dwellers" as closely allied to the Indian tribes of the Pueblos, or so-called "towns" of New Mexico. He found the same brachycephalic characteristics and the same evidence of artificial deformity in skulls of the ancient Pueblos of Quarra as in the modern Mexican Indians.—On the circumference of the thorax, and its relation to the dimensions of the rest of the body, by M. Ed. Goldstein. This paper is based on the data supplied by Dr. Snigerev in his great work on the recruiting of the Russian army, more especially in the districts of the Vistula and the north-west of the empire. The great ethnological fact established by these determinations appears to be that, as compared with Poles, Germans, Lithuanians, Russians, and Samogitians, the Jews are distinguished by relative smallness of stature, and by the generally inferior dimensions of the chest, in both of which particulars they would appear to fall considerably below the mean of all the other races brought under the notice of the authorities at the head of the department for recruiting the Russian army.

*Rendiconti del Reale Istituto Lombardo*, July 17.—Note on the present conditions of the agricultural interests in Europe and America (continued), by Prof. Gaetano Cantoni.—Mémorial on cellulose and parasites in their pathological relations (concluded), by Prof. G. Sangalli.—Mental affection of Torquato Tasso; his detention in the Hospital of Sant' Anna, according to some recently-discovered documents, by Prof. A. Corradi.—On the equilibrium of elastic and rigid surfaces, by Dr. Gian Antonio Maggi.

### SOCIETIES AND ACADEMIES

#### EDINBURGH

**Royal Society**, July 21.—The Right Hon. Lord Moncreiff, President, in the chair.—Mr. John Murray communicated, with remarks, a paper by Dr. Guppy of H.M.S. *Lark*, on the coral reefs and calcareous formations of the Solomon Group-Islands. Dr. Guppy showed that the coral rocks were merely superficial, thus confirming Mr. Murray's theory that coral atolls and barrier reefs were formed without subsidence. A chalk, like the white chalk of England, had been discovered on one of the islands.—Prof. Tait gave an approximate empirical formula representing, for certain ranges, the compressibility of water in terms of the temperature and pressure.—Mr. J. T. Cunningham read a critical note on the latest theory in vertebrate morphology.—Mr. Milne Home submitted the tenth and final report of the Boulder Committee. At some period, geologically recent in the earth's history, an Arctic climate prevailed in the part of Northern Europe considered. As an effect, local glaciers occurred in Scotland, of some of which there were traces still visible. Subsequently Scotland was entirely submerged beneath the sea, and most of the valleys were filled with sand, gravel, and mud. A north-westerly oceanic current prevailed, carrying masses of floating ice with boulders, which were deposited on the hills.—Mr. H. R. Mill gave a paper on the periodic variation of temperature in tidal basins.—Mr. W. Peddie gave a communication on the isothermals and adiabatics of water near the maximum density point.—The meeting, which was the last for the session, was brought to a close by remarks from the Chairman on the work of the past session.

SYDNEY

**Linnean Society of New South Wales, June 25.**—The vice-president, Dr. James C. Cox, F.L.S., &c., in the chair.—The following papers were read:—Occasional notes on plants indigenous in the immediate neighbourhood of Sydney, No. 7, by E. Haviland.—On the new Australian fishes in the Queensland Museum, Part II., by Charles W. De Vis, M.A.—Sixteen species are here described, viz.:—Seven of the family Squamipinnes, two of the Mullidæ, one of the Sparidæ, four of Scorpenidæ, and two of the Teuthididæ.—On a marine species of *Philongria*, by Charles Chilton, M.A. The Isopod described in this paper was obtained at Coogee Bay last December. The specific name "*marina*" is given to it, as it is the only marine species of the genus known to the author.—The Australian Hydromedusæ (continued), Part iv., by R. von Lendenfeld, Ph.D. In this paper the numerous Australian species of Graptolithes, described by Prof. McCoy, of Plumularidæ described by Allman, Bale, Kirchenpauer and Busk, and of the Dicoryuidæ, are sifted and catalogued with references, and a large number of new and interesting species, and one new genus discovered by the author are described and figured. The Australian Plumularidæ exceed in the number of species the Plumularidæ of all the rest of the world put together.—On the flesh spicules of certain sponges, by R. von Lendenfeld, Ph.D. In a former paper the author expressed his opinion that flesh-spicules in sponges do not, as it was hitherto supposed, only occur in such species as possess a fibrous siliceous skeleton, but that they may make their appearance in any species, so that their existence cannot be considered of sufficient import to allow of a separate family being formed, comprising such sponges only which possess flesh-spicules. The author had based this hypothesis partly on general conclusions and partly on the observation of a true horn-sponge, a *Hircinia*, with flesh-spicules. Now the author is enabled to prove his hypothesis by further discoveries, which he made during the investigation of the numerous and valuable sponges of Port Jackson. He found, namely, three species possessing flesh-spicules, which, according to the structure of their fibrous skeleton, should be placed in the families of the horn-sponges.—Note on the slimy coating of certain *Boltenias* in Port Jackson, by R. von Lendenfeld, Ph.D. Some solitary Ascidians, similar to the ordinary *Boltenia australis*, which grows close to low tide mark, but which are found in deep water exclusively, are covered with a very slippery slime, an occurrence without precedence in Ascidians. This slime was investigated by the author, and found to consist of a thick layer of ova in their follicula-capsules. The slime is supposed to be formed by the cylindrical cells of the Folliculæ.—Report on the Australian Echinodermata exhibited at the Fisheries Exhibition, London, by F. Jeffery Bell, M.A., &c. This paper was communicated and read by E. P. Ramsay, F.L.S., &c. It contains a list of all the named species in the collection sent to London, viz. 10 species of the class *Crinoidea*, 12 of the *Asteroidea*, 19 of the *Ophiuroidæ*, and 30 of the *Echinoidæ*, with critical notes, &c.—Mr. Macleay exhibited for Mr. Wilkinson a very peculiar conical stone implement, found by Mr. A. G. Brook of Gondoblu Station, embedded in the soil on the plains near the Queensland border, between the Narran and Barwon Rivers. The note accompanying the exhibit states that there are no rocks near that locality, and that the old aboriginals of the district know nothing about it. The stone is composed of a soft, fine, white sandstone, is of conical form, nineteen inches in length and four inches in diameter in the middle: the surface presents a smooth, worn appearance. Dr. Cox suggested that it had probably been used for grinding nardoo, and that view seemed to receive most favour, though a number of different opinions were expressed. Mr. Macleay also exhibited for Mr. Wilkinson a number of helix-like shells, wound spirally round the leaf-stalks of a species of *Eucalyptus*, at Brantxon on the Hunter. These shells, though calcareous, were pronounced not to be the production of any molluscos animal, and the general opinion was that they must be egg cases of some insect.—A large collection of shells and echinodermata from Cossack, Western Australia, sent by Mr. J. F. Bailey of Melbourne for exhibition, were on the table. Among the rarities *Conus trigonus* (Reeve), *Conus Victoria* (Reeve), *Ancillaria cingulata* (Sowb.), *Ancillaria elongata* (Gray), *Oliva Caldanica* (Duclos), *Spondylus Wrightianus* (Cross).

PARIS

**Academy of Sciences, August 11.**—M. Rolland, President, in the chair.—Note on the disposition of the foetal envelopes in

the aye-aye (*Chiromys madagascariensis*), by M. Alphonse Milne-Edwards. The author finds that there is nothing abnormal in the foetal membranes of the aye-aye, and that they correspond in every respect with those of the typical lemuriens, with which they must be definitely classified.—Observations in connection with a recent communication of General Menabrea on Charles Babbage's analytical calculating-machine, by M. Léon Lalanne. From an interview with Mr. Babbage at London in 1851 the author is led to believe that a document is still in existence either among the papers of M. Binet or among those of Mr. Babbage himself, in which he gives his final views on the subject of calculating-machines in general. M. Lalanne here publishes two original letters of Mr. Babbage referring to that document, and dated June 19, 1851.—Examination of two theorems connected with the rule of Newton; conclusions, by M. E. de Jonquières.—Remarks on the volcanic debris collected on the east coast of the island of Mayotte, at the north-west end of Madagascar, by M. E. de Jonquières. These debris, which were thrown up in considerable quantities on May 16, 1884, consisted of fine pumice, probably from Krakatoa. Amongst them was a large specimen already incrustated with shells. They appear to have traversed a distance of about 3840 nautical miles in 259 days at a mean velocity of 14.8 miles a day.—Note on the phenomenon of globular electric bolts, two illustrations, by M. Gaston Planté. The author produces artificially effects analogous to those of the fire-balls so often witnessed in the atmosphere.—Researches on some combinations formed by haloid salts with the oxygenated salts of the same metal, by M. II. de Chatelier.—Note on the influence of heat on the respiratory organs, by M. Ch. Richet.—Note on the influence of intellectual work on the elimination of phosphoric acid by the urine, by M. A. Mairct.—Anatomy of the maxillary apparatus in the locust, grasshopper, cricket, and other members of the family of grinding insects, by M. J. Chatin.—Contributions to the history of the Pliocene flora of Java, by M. L. Crié.—On some peculiar luminous phenomena observed about the sun at Morges, on the Lake of Geneva, by M. F. A. Forel.—Notes were received from M. Ch. W. Zenger on the possible existence of still undiscovered planetary bodies; from M. L. Jaubert on an aërolite seen on July 10; and from M. L. Favre on a classification of the sciences.

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