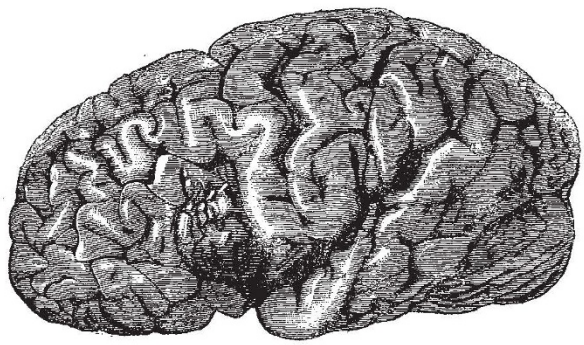
GENEVA

Physical and Natural History Society, Jan. 20.—Dr. Prevost, Head Physician to the Geneva Cantonal Hospital, presented a photograph of the brain of a person who had been affected with aphasia. The lesion, which consists in a slightly yellowish softening somewhat like cicatrisation, occupies a space of about two centimètres on the posterior part of the third left frontal convolution. The meninges are adherent on a level with the diseased point. The "island" of Reil is healthy except at a point which touches the affected convolution. The interval separating two convolutions of the "island" presents a yellowish coloration, and contains granulous bodies. The convolutions themselves of the "island" are, on the other hand, sound. This brain belonged to a woman aged seventy-five years, affected for about a month with right hemiplegia without contractions and without loss of sensibility, and who presented an almost



complete aphasia. Incapable of speaking, she pronounced only isolated syllables without any meaning, as *Eh, eh :* Ah, oi ; - - - eh, *baba* - ah ! *ba, ba, za-za-ya.* One day she said *maman ;* this was the only comprehensible word she uttered. She succumbed twelve days after entry, to bronchitis, for which she came to the hospital. The lesion observed in this case is that which M. Broca regards as constant in cases of aphasia. It is known that M. Meynert and others, on the contrary, localise the faculty of speech in the lobule of the insula, which in the above case was scarcely touched. Dr. Prevost observed at the Cantonal Hospital another case of aphasia, in which the lobule of the insula was the seat of the lesion, while the third left frontal convolution was intact, and thinks we cannot localise exactly the faculty of language exclusively in either of the seats in question.

PARIS

Academy of Sciences, March 6.—Vice-Admiral Paris in the chair. The following papers were read :—Note on geodesic operations undertaken in Brazil, by General Morin. A Commission is to determine the position of a series of stations from Rio de Janeiro to the town of San Juan de Rio Claro, and the mouth of the Tiele in the Parana. There will be measured an arc of parallel of about 23° S. lat. and 9° to 10° in longitude ; and an arc of meridian from about 2° N. lat. to about 33½° S. lat. or more than 35½°.—Transformation of nautical astronomy through the progress of chronometry, by M. Yvon Villarceau.—Note on the steam jacketing of engine-cylinders, by M. Resal.—On the periodical variations or inequalities of temperature, by M. Sainte Claire-Deville. From further data he is able to show that the oscillation of the half of Nov. 1873 was perceptible over Europe, Asia, and America and the northern part of Africa ; that is, over nearly the whole northern hemisphere. A similar oscillation in November, 1874, seems to be established.—On a new simplification of the fundamental law of electrodynamics, by M. Clausius.—The Academy nominated candidates for the vacant chairs of zoology and mineralogy ; MM. Alph. Milne-Edwards and Oustalet, for the former, MM. Descloizeaux and Janettaz for the latter.—On the absorption of bicarbonates by plants in natural waters, by M. Barthélémy. *Inter alia,* these bicarbonates do not serve the respiratory action, for the quantity absorbed is not in proportion to the rapidity of vegetation. During night, and in water equally saturated, the plants seem to excrete a part of the bicarbonates absorbed by day.—M. Dupuy de Lôme presented a memoir, by M. Bertin, on the rolling of ships.—M. Andrade described a new governor for steam-engines.—M. de Rostaing spoke of the antiseptic properties of the root of madder. A piece of meat had been kept from July, 1875, to February 1876, in a pot containing the root in powder form, and which had frequently been opened. The weight was reduced from 119 to 25 grammes. There was no odour nor development of live organisms.—Methods of transformation based on conservation of an invariable relation between derivatives of the same order, by M. Haton de la Goupillière.—Geometrical demonstration of a relation due to M. Laguerre, by M. Mannheim.—On the photometry of stars, and the transparence of the air, by M. Trepied. The author tabulates the intensities calculated for various stars.—Analysis of the white smoke of a blast furnace in the neighbourhood of Longwy, by M. Gruner.—Action of electrolytic oxygen on glycerine, by M. Renard. The glycerine diluted with two-thirds of its volume of acidulated water, is submitted to the electrodes from six Bunsen elements ; after forty-eight hours the liquor is saturated with carbonate of lime, filtered, and distilled, giving a dilute solution of glyceric aldehyde. The white residue, after evaporation, has for formula $C_3H_6O_3$; M. Renard describes its properties.—Note on the calorific action of certain regions of the brain (vaso-motor apparatuses situated on the hemispheric surface), by MM. Eulenberg and Lander. These experiments were on young dogs, which were submitted to chloroform and curare, and the brain-surface burnt with hot copper wire and stimulated with induction currents. As thermo-electric elements, Dutrochet needles were inserted under the skin of the paws, and were connected with a very delicate galvanometer. The authors define the efficacious calorific region, and the relation of its parts, and they explain the results by vaso-motor apparatuses there which are probably connected with vaso-motor fibres in the peduncle of the brain.—On the action of biliary salts on the pulse, the tension, the respiration, and the temperature, by MM. Feltz and Ritter. It is shown that by injections of natural bile into the blood, in proportions that are not toxical, the pulse is diminished in frequency, the respiration is retarded, and the temperature and arterial tension are lowered.—Some remarks on MM. Feltz and Ritter's note, by M. Bouillaud.—On the *rôle* of the arterial bulb in fishes, by M. Carlet. *En resumé* (1) the bulb preserves the branchial arterioles from the shocks communicated by the heart ; (2) it facilitates the action of the heart ; (3) if its action be prevented, there immediately follows a considerable disorder of the hæmatosis.—Note on inverted sugar, by M. Maumené.

BOOKS RECEIVED

BRITISH.—Evolution of the Human Race from Apes : T. W. Jones, F.R.S. (Smith, Elder and Co.)—Scientific Culture : Josiah P. Cooke, jun. (H. S. King and Co.)—Memoirs of Caroline Herschel : Mrs. John Herschel (John Murray).—The Geological Record for 1874 : William Whitaker, F.G.S. (Taylor and Francis).—Medicinal Plants. Part V. : Bentley and Trimen (Churchill).—Australian Heroes : Charles H. Eden (S.P.C.K.)

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