

machine are then passed across the intervening air, when it is found that the level rises at the negative and falls at the positive pole. There is, therefore, apparently an actual transport in the direction conventionally agreed upon as the direction of the current. M. Gernez is inclined to attribute this phenomenon to an electrical transport of the liquids along the moistened surfaces of the tubes. Pure alcohol distils over thus at a rate three times as great as that of water, but a mixture of alcohol and water in equal parts at a less rate than pure water. The rapidity of the distillation is increased by the addition of any soluble salt or of a few drops of sulphuric acid or of ammonia solution. No appreciable amount of distillation takes place with bisulphide of carbon, tetrachloride of carbon, or with turpentine. M. Gernez, however, does not think that there is any assignable relation between the conductivity of a liquid and its rate of electro-convective evaporation; nor does he think that there is any necessary connection between this phenomenon and that discovered by Porret of the electric endosmose of liquids across diaphragms of various kinds.

### GEOGRAPHICAL NOTES

AT the last meeting of the Russian Geographical Society, in the section of Physical Geography, M. Rylcke communicated the results of his precise measurements on the levels of the Baltic and of the Black Sea. These measurements were begun in 1877, by order of the General Staff, according to the resolutions of the Brussels Congress. Accurate measurements in the ports of the Baltic have proved undoubtedly that the level of the sea at Cronstadt is, by nearly two feet, higher than at Reval, and that its height decreases regularly from north to south, this conclusion being fully supported by Prussian measurements at Memel and at Kiel. For a comparison of the level of the Baltic with that of the Black Sea the necessary computations are not yet advanced enough to yield trustworthy results.

IN his last paper on the Agomes Islands (*Ivestia*, 1879, p. 37) M. Michucho-Maclay says that here he happened to determine the dimensions of the heads only of fourteen men, and that the so-called "index of the breadth" varied from 69.6 to 81.3; it was thus nearly the same as on the Taui Islands (70.5 to 84.5), where the traveller has done no less than 119 measurements, and does not much differ from what was seen of the Papuans of New Guinea, whose "index" varies from 62.0 to 86.4. According to this wide variation of the "indexes," M. Maclay affirms that we have no right to describe the heads of Melanesians as well as those of the Papuans as dolichocephalic, but rather as mezocephalic; and that the form of the head must not be considered as a proof of a race-distinction between Negritoes and Papuans, as both Melanesians and Papuans display an obvious tendency to brachycephalism, whilst this last was formerly considered as a distinctive feature of the Papuans from the natives of the Philippine Islands. He considers also that within the same races we shall always find both forms of heads, and that a true classification of human races cannot be established on this sole feature; it must be based on a thorough study of the whole of the comparative anatomy. A few measurements on living subjects, however accurate, cannot give the necessary solid bases for a scientific classification.

ACCORDING to a telegram received in Paris from Sierra Leone, two Frenchmen, MM. Zweifel and Moustier, have at length discovered the sources of the River Niger, a feat which has hitherto baffled all explorers. The party appear to have been recently instructed by their employer, M. Verminck, of Marseilles, to explore the Niger for both scientific and commercial purposes; and accordingly, starting from Sierra Leone and following the course of the Rohelle, they reached the foot of the Kong Mountains. By adroit treatment of the hostile tribes at this point, where foreigners had always been refused passage, they were allowed to pass the mountains and explore the three streams which, uniting after a short distance, form the River Niger.

BEFORE concluding his recent explorations in South America, Dr. Crevaux made two attempts to ascend the Ica or Putumayo tributary of the Amazon. Having failed the first time, he ascended the main stream to Tabatinga, on the frontier of Peru and Brazil, and then returned to Para. He there obtained means to enable him to carry out his original intention, and at the second attempt succeeded in ascending the Ica to Cnemebe, to the north of Cotopaxi, on the frontier of Bolivia and Ecuador. Starting from this place on May 16, Dr. Crevaux reached the

foot of the Andes in eight days. Thence continuing his route towards the north, he arrived at the sources of the Japura after sixteen hours' march. After experiencing great hardships, and hostility on the part of the natives, he reached the Amazon again on July 9, arriving at Para on July 24. He has brought back with him much information interesting alike from a geographical and ethnographical point of view, as well as a collection of plants, which are expected to prove useful as medicines.

IN publishing an interesting letter from its special correspondent with the Russian expedition against the Tekke Turkomans, the *Daily News* states that the "nature of the ground along the course of the Attek from the Caspian Sea has never been accurately described from personal observation." Without wishing to undervalue this and other letters from the same source, we may be permitted to point out that the ground had been previously examined by a party under General Llomakin, and that Sir Henry Rawlinson, in his paper on the "Road to Merv," read before the Geographical Society on January 27, quoted at length from Russian newspapers a description of this very route by a member of the expedition. A summary of the letters, giving an account of this expedition, which had been addressed to the *Moscow Gazette*, also appeared in NATURE, vol. xix. p. 271.

A LETTER from Herr Hildebrandt, dated Nossibé (Madagascar), states that he has visited Beravi, where the unfortunate traveller, Dr. Chr. Rutenburg, was murdered some time ago. Hildebrandt erected a stone monument on the spot; the body, however, could not be found, in spite of the most assiduous inquiries, the murderers having thrown it into a mountain torrent. Hildebrandt has photographed the spot, and sends a copy to Bremen, accompanied by the last diary and stenographical notes of Rutenburg.

THE Geographical Society of Algiers has nominated for its president M. MacCarthy, an explorer of the Algerian Sahara, who is settled in Algiers, and has been appointed librarian of the National Library of Algiers. This Society has been divided into three sections: Political Geography, Economical Geography, and Physical Geography.

THE Belgian African Society has received letters from Zanzibar, according to which MM. Popelin and Van der Heuvel had arrived at Mpwapwa on August 15 and at Chunya on September 2. They were to leave the latter place on September 3, and to penetrate into the Ugogo district. At Mpwapwa they met the elephant caravan led by Carter. Each elephant carried about 10 cwt. The march was performed most satisfactorily. In the districts where the tsetse flies abound, the animals were often covered by them without feeling any the worse for it. Only one elephant died through change of nourishment, the whole caravan being fed with what the country offered. M. Dutalis, who suffered from a severe attack of fever, has returned to Europe.

THE Geographical Society of Munich has conferred the title of Honorary Members upon Prof. Nordenskjöld, Dr. Joseph Chavanne (Vienna), and Dr. Emil Holub (Prague). The reception of the latter upon his return to Prague was most enthusiastic. He had been absent for over seven years. The Vienna Geographical Society has elected the following gentlemen as Honorary Members:—Prof. Ujfalvy (Paris), General Kauffmann (Tashkend), Dr. E. Holub (Prague), and Prof. Arendts (Munich). The last-named gentleman has also been nominated Corresponding Member of the Paris Society for commercial geography.

A GENERAL "Geographentag" will be called at Berlin during the summer of 1880. Its special object will be the consideration of plans for the formation of a great German "Gesellschaft für Erdkunde." The idea is not a new one, but projects for the new General Society have already been mooted upon several occasions. At the recent Karl Ritter celebration at Berlin, a "commission" was appointed and charged with the working out of certain preliminaries referring to the subject. The commission is formed of Dr. Nachtigal (Berlin), Prof. Neumayer (Hamburg), Prof. Bruhns (Leipzig), Prof. Rein (Munich), and Dr. Roth (Dresden).

### UNIVERSITY AND EDUCATIONAL INTELLIGENCE

OXFORD.—In a congregation held on Tuesday, November 18, the amendments to the proposed statute to confer degrees in natural science were taken into consideration. The proposed statute made Greek an optional subject in the natural science