regard to the arrangements for the Austrian Expedition to the Congo; a sketch of the results of Danish explorations in Greenland by A. Rink; the conclusion of Dr. Breitenstein's paper on Borneo, and the recent letters of Colonel Prjevalsky. Dr. Breitenstein's account of Borneo is of great interest. He points out that in this great island may be studied in succession almost every stage of human development from the lowest to the highest. It is not sixty miles, for example, from Pengaron, where European machinery is employed in the coal mines, to Punun or Olo Ott, where the people are almost quite naked, and where their only protection from the weather is a grass hut here and there. It is hardly a hundred miles between Banjermassin, where European war-vessels and Krupp guns keep the Dyaks in check, and the kampong of the Prince of Murong which is protected by a thin palisade, from the top of which the heads of those captured in raids look down on the traveller. In this narrow district we have a kaleidoscopic picture of all the steps of human civilization.

AT the last meeting of the Geographical Society of Paris, M. du Caillaud read a note on the fortress of Camlo in Annam, to which the attack on the French at Hué has just given some importance; M. de Lesseps referred to soundings recently made at Gabes with a view to establishing a fort there; M. Rouire, who has recently returned from a scientific mission to Tunis, recounted his explorations in the regions between Kairwan, Susa, Hammanet, and Lake Felbiah. M. Delaplanche also read an account of a journey which he made through the centre of Persia, from Resch on the Caspian to Teheran.

DR. P. L. SCLATER suggests "Torresia" as an appropriate name for British New Guinea.

IN the *Bollettino* of the Italian Geographical Society for July, Sig. Buonfanti publishes a reply to the doubts of Herr G. A. Krause on his journey from Tripoli across the Sahara and Western Sudan to the coast of Guinea. The writer, whose letter is dated May 6, on board the *Corisco* at Banana, states that documentary proofs of the trip cannot be given till his arrival in Brussels, where the papers lie under lock and key in charge of Prof. du Fief. They include, he says, correspondence already forwarded to two American journals from Tripoli, Murzuk, &c., besides translations of safe-conducts and firmans received from the Sultans of Bornu and Socoto, and of a letter from the Sheikh [*sic*] of Timbuktu, the originals of which will be forthcoming. There are also accounts, invoices, &c., of Maltese dealers, certificates of sea-captains, certificates of missionaries, and so forth. He explains that Herr Krause heard nothing of his movements at Lagos, because he reached the coast not at that place, but at Portonovo, some 45 miles further west. For the same reason nothing was known of him in the Yoruba country, which lies 200 miles to the east of Dagomba, Bagouza, Dahomeh, and the other districts through which he travelled.

THE Vienna Geographical Society has received good news of Dr. Oscar Lenz's African exploring expedition, which, on July 17, had reached Monrovia, the capital of Liberia. The next news will be from the Cameroons.

THE death is announced from Sydney of Thomas Boyd, the first white man to cross the Murray river, and the last surviving member of Hume and Hovell's exploring party. He was eighty-eight years of age, and had lived in great poverty for some years prior to his death.

MEASUREMENT OF EVAPORATION

I SEND a brief sketch of an instrument which I have just made for the measuring of evaporation from a water surface. The figures and letters refer to the accompanying drawings:—

Fig. 1, A.—Tank-mine, 20 in. $\times$ 10 in., standing in a large tank 60 in. $\times$ 40 in. The sides are double, a space one-tenth of an inch being between the walls and opening all around inner wall (a) with an outflow-pipe (Figs. 3, 4, G) let into bottom. Tank filled as Fig. 4, and refilled every three or four hours, the amount poured in being carefully measured.

Fig. 1, A, B, C.—Complete instrument. A, evaporating-tank; B, reservoir filled with water to (n); (h) a graduated glass coil, by which water pouring out through tap (l) is registered. Pressure upon tap regulated by (i) a tube and funnel buoyed up by (k). Water flows from B to A through a perforated, semi-circular chamber (e), which makes water spread over the entire

surface of tank. Overplus flows over at (f) down (c, d') into reservoir c, similar to B in fittings. Then loss from B—gain in c = the evaporation from A. This arrangement intended chiefly for experimentation upon running water, removes the necessity for refilling the tank, although good results can be attained even then.

Fig. 2.—Tank from above. (a) space between walls; (b)

inflow-pipe from B; (e) perforated chamber or rose; (d') outflow-pipe.

Fig. 3.—End of tank; letters as before. The outer wall in part cut away to show chamber (a) with emptying-pipe (g).

Fig. 4.—Transverse section: (o o), walls; (a), space; g, pipe; p, strengtheners. Height of water also represented.

The following points are worthy of notice:—

(1) The level of the water can be kept constant by regulating the flow from the tap l (Fig. 1, B).

(2) Error arising from splashing out of water, when heavy wind blowing, removed, the displaced water flows down (as Fig. 2), and through pipe g (Fig. 3), and is collected in a small measured vessel.

(3) Error arising from rainfall similarly corrected; rain falling

into tank A, for greater part flows off at f, and is collected in c; when very heavy, flows also into a, and is collected as mentioned above. Then, the amount of rainfall being known from the rain-gauge, the following simple process gives the evaporation:— x = rainfall in cubic cents.; y = water in reservoirs; $x - y$ = evaporation in cubic cents.

GEORGE HASLAM

Trinity College, Toronto

UNIVERSITY AND EDUCATIONAL INTELLIGENCE

THE following candidates have been successful in the competition for the Whitworth Scholarships, 1885, in the Science and Art Department, South Kensington:—Thomas Clarkson, age 20, engineer, Manchester, 200l.; Hugh O. Bennie, 20, engineer, Glasgow, 150l.; Robert H. Unsworth, 20, engineer, Pendleton, near Manchester, 150l.; Harold M. Martin, 21, engineer,