

Letters to the Editor

The Editor does not hold himself responsible for opinions expressed by his correspondents. He cannot undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.

NOTES ON POINTS IN SOME OF THIS WEEK'S LETTERS APPEAR ON P. 969.

CORRESPONDENTS ARE INVITED TO ATTACH SIMILAR SUMMARIES TO THEIR COMMUNICATIONS.

Dry Crossings of the Nile

ATTENTION has been directed on page 351 of *NATURE* of February 27, 1937, to a natural bridge "so strong that it bears the elephant from one bank to another", near Nimule, which is situated at the point where the Albert Nile, as it is commonly called to-day, becomes the Bahr el Jebel. It is clear that Dr. Hurst finds difficulty in believing in any such phenomenon, for in his review of May H. Lindsay's translation, the "Life Story of a River", from Emil Ludwig's work, he says: "Nobody else has ever reported this bridge." This is not so.

So far as I can discover, I was the first European to see and describe a natural bridge, or dry crossing, near this point, or to know of its existence; and it seems clear that Emil Ludwig obtained his information from a short illustrated account that I wrote of it. I first saw this dry crossing from the air in 1930 when I supposed it to be a temporary blockage by sudd which had been burnt; and three years later I crossed it on foot. It is or was situated, for I hear that it is slowly breaking up, at a point about seven miles below the Folar rapids.

The following is taken from the account above referred to¹ :—

"The dry crossing is a blockage some 1,200 feet in length and about 370 feet across and occupies the entire width of the Nile at that place. Its surface consists of soft soil with a very high percentage of vegetable matter, supporting an herbaceous land flora, but no papyrus. It is edged on its upstream side with a broken line of tree trunks (for the most part boles of palms) leaning steeply upstream and thus recalling a raked stockade. Apart from being soft and powdery the ground is unyielding, except near the right bank where it responds to the foot as a mattress does on a spring bed; but there is so little danger of going through into the water below that elephants cross over the surface, as some fresh spoor clearly indicated".

"About 570 feet upstream of the usual path over the crossing extending for a length of seventy-five feet an oily-looking pool breaks the dry surface, and from time to time ugly swirls appear upon it, and immediately downstream of the path is a much smaller pool of a similar kind, while in line with this at the downstream end of the blockage there is an exposed channel along which water can be seen swiftly flowing. It would appear that the main course of the Nile under the blockage is by the right bank." The flow of the Nile in this part of its course is powerful.

A similar dry crossing has been described by Sir Samuel Baker who, on page 455 of his "Albert Nyanza Basin of the Nile," 1892, says: ". . . we arrived at the junction of the Bahr el Gazal, and turning sharp to the east, we looked forward to

arriving at the extraordinary obstruction that since our passage in 1863 had dammed the White Nile."

"There was considerable danger in the descent of the river upon nearing this peculiar dam, as the stream plunged below it by a subterranean channel with a rush like a cataract. A large diabiah laden with ivory had been carried beneath the dam on her descent from Gondokoro in the previous year, and had never been seen afterwards."

E. J. WAYLAND.

Geological Survey,
Entebbe, Uganda.
April 7.

¹ Wayland, E. J., "A Dry Crossing of the Nile", *Uganda Journal*, 1, No. 1, 68-69 (1934). Another note of interest in the present connexion is the following: Pitman, C. R. S., "A Dry Crossing of the Nile and its possible Influence on the Distribution of Mammalian Species", *Uganda Journal*, 2, No. 1, 86-89.

I HAVE read with interest Dr. Wayland's letter on the subject of a natural bridge over the Nile some eleven miles below Nimule. Unfortunately, I had not seen his note in the *Uganda Journal* when I wrote my review of Dr. Ludwig's book or I should have realized that "A natural bridge has grown at Nimule, such as hardly another river on earth possesses in this form, consisting of rank water plants, so strong that it bears the elephant from one bank to the other, and so powerfully rooted that when floods have destroyed it, it closes up again of itself" was merely an inaccurate way of describing a sudd block, and did not relate to some entirely new phenomenon of vegetative growth.

So far as I know, "sudds" (the word "sudd" is Arabic for a blockage) have not previously been reported on the stretch of river between Nimule and Rejaf, where the rapid stream is unfavourable to their formation, but farther north in the area known as the Sudd Region, where the Bahr el Jebel flows through swamp, they were of common occurrence in the last century. One of the first pieces of work undertaken on the Nile after the reoccupation of the Sudan was the removal of these blocks, and this was successfully accomplished in the early years of the present century. Since then, owing to the regular navigation of the Bahr el Jebel by steamers, blocks have rarely occurred, as it has been possible to remove obstructions before they became consolidated.

A full account of the formation and history of these sudds on the lower Bahr el Jebel was given by Sir Henry Lyons¹ and a shorter account by Phillips and myself².

Similar blocks have occurred on the Victoria Nile at its exit from Lake Kioga, on the Pibor, and on the Bahr el Ghazal where in 1880 the steamer of Gessi, one of Gordon's officers, was completely shut in for some weeks, and many of his company died.