

Mississippi, the two arms next above that of La Fourche. One of those natural rafts of floating trees which occasionally bridge over the western rivers for many years in succession, becoming covered over with soil, shrubs, and trees, blocked up till lately the Bayou Plaquemine. The obstacle was at length removed at the expense of the state, and the rush of water through the newly cleared channel was so tremendous, that several engineers entertained apprehensions, lest the whole of the Mississippi should take its course by this channel to the sea, deserting New Orleans. Mr. Forshey assured me there was no real ground for such fears, because the Mississippi, as before hinted,* takes at present the shortest cut to that part of the Gulf where it can find a basin deep and capacious enough to receive it.

During the night we passed Baton Rouge, the first point above New Orleans where any land higher and older than the alluvial plain comes up to the bank to constitute what is termed a bluff. The cliff there is only a few feet high. The next bluff is at Port Hudson, 25 miles higher up the river, and 165 miles above New Orleans. I had been urged by Dr. Carpenter to examine the geology of this bluff, which I had also wished to do, because Bartram, in his travels, in 1777, discovered there the existence of a fossil forest at the base of the tall cliff, and had commented with his usual sagacity on the magnitude of the geographical changes implied by its structure. The following are his words, which deserve the more attention, because the particular portion of the cliff described by him, has long ago been undermined and swept away by the Mississippi. "Next morning," says Bartram, "we set off again on our return home, and called by the way at the cliffs, which is a perpendicular bank or bluff, rising up out of the river near one hundred feet above the present surface of the water, whose active current sweeps along by it. From eight or nine feet below the loamy vegetative mold at top, to within four or five feet of the water, these cliffs present to view strata of clay, marl, and chalk of all colors, as brown, red, yellow, white, blue, and purple; there are separate strata of these various colors, as well as mixed or parti-colored: the lowest stratum next the water

* Ante, p. 132.