

Mint at New Orleans, estimates the height of some of these shell banks north of the lake, at twenty feet above its level; yet he thinks they may have been washed up by the waves during storms. I suspect, however, that some change in the relative level of land and sea has taken place since their accumulation. Dr. M'Cormac informed me that he had observed heaps of these same shells recently cast up along the margin of the bay called the Sabine Lake, where the waters of the delta are brackish.

Returning to the bayou, we passed a splendid grove of live oaks on the Metairie ridge, supposed by some to be an old bank of the Mississippi. These bayous, which traverse the delta and alluvial plain of the Mississippi in every direction, are some of them ancient arms of the great river, and others parts of its main channel which have been deserted. They are at a lower level than the present bed of the river, and convey the surface-waters to the sea from that part of the land which the Mississippi is incapable of draining. The bayous are sometimes stagnant, and sometimes they flow in one direction when they convey the surplus waters of the Mississippi to the swamps, and in an opposite direction at seasons when they drain the swamps.

When we reached the canal which connects Lake Pontchartrain with New Orleans, we found its surface enlivened with the sails of vessels laden with merchandize. On the stern of one of these I read, in large letters, a favorite name here—"The Democrat." Many features of the country reminded me of Holland. About a mile from the city we passed a building where there is steam machinery for pumping up water and draining the low lands.

It is not easy for a geologist who wishes to study the modern deposits in the delta, to find any natural sections. I was therefore glad to learn that, in digging the foundations of the gas-works, an excavation had been made more than fifteen feet deep, and therefore considerably below the level of the Gulf, for the land at New Orleans is elevated only nine feet above the sea. The contractors had first hired Irishmen, with spades, to dig this pit; but finding that they had to cut through buried timber, instead of soil, they were compelled to engage, instead, 150 well-prac-