

The Amazons enters the Atlantic by a mouth of about 150 miles in width. It is divided into two branches ; one of which joins the Parà, south of the island of Das Joanes or Marajo, the other enters the ocean to the north of it. Most of its tributaries, at their point of junction, have also deltoid branches.

The delta of the Mississippi, traversed by its multiple creeks or bayous, is 150 miles broad, and includes an area of 14,000 square miles, protected from the frequent inundations which take place by a gigantic system of *levees* or embankments. The descent of the deltoid plain is 320 feet, or eight inches per mile. At high water the river is higher than the plain. The great floods rise forty feet above low-water mark, at the head of the delta, and twenty feet at New Orleans. The gigantic river is then changed into a vast muddy sea, which yearly carries away thousands of acres of soil, with all their vigorous growth of timber.]

*Estuaries* may not inaptly be termed negative deltas. They are lakes of fresh and salt water which form the mouths of certain rivers, and suddenly expand before reaching the sea. The *Rio de la Plata*, in South America, is, in truth, a gulf, which below Buenos Ayres is never less than 170 miles broad, and receives the ample tribute of the Uruguay and the Parana. Nearer home we may refer to the noble estuary of the Thames, below Cliffe ; to that of the Forth, below Granton ; and of the Clyde below Greenock. We know also the estuaries of the Gironde, in France ; the Dneiper, in Russia ; the Obi and Yeneseï, in Asia ; the Columbia and St. Lawrence, in North America. They enable ships of the largest burthen to penetrate into the very heart of the continents. The Chinese poetically term these vast enlargements of the rivers, the "sons of ocean." The mouth of the river of the Amazons may perhaps be regarded as an estuary. In the rainy season, the river pours its waters into the South Atlantic with such impetuosity, that for a distance of 180 leagues, it is said,\* they refuse to mingle with the ocean waves.† We recognize them by their greenish tint and rapid current. A similar

\* Huot, "Manuel de Géographie Physique," p. 121.

† [The Amazons river, formerly called the *Orellana*, from the name of the Portuguese, Orellan, who first explored it, divides itself at its mouth into two branches : on the left, the Rio Maraño, or Amazons, properly so-called, about fifty miles wide ; on the right, the Rio Para, some twenty-five miles in breadth. These two channels are separated by the island of Marajo, which is nearly as large as Sicily.

It is said that when Pinzon, the lieutenant of Columbus, discovered this great river, in 1498, he cried, "*Mare an non ?*" ("Is it a sea or no?") Hence the Spanish and Portuguese names, *Maranon* and *Maranhao*.]