

at low water, which is about 21 ft. at mean high tide. It has been proposed to make and maintain a channel of the following dimensions: From the mouth of the two rivers, at the Island of Martin Garcia, at the head of the La Plata estuary, to Rosario, a depth of 21 ft. and a width of 328 ft. Rosario to Santa Fé, 292 miles above Martin Garcia, 19 ft. deep and 328 ft. wide; Santa Fé to Corrientes, 10 ft. deep, and the same depth to Asunción. Santa Fé, or its seaport Colastiné, is the head of ocean navigation; above that point it is river navigation by steamboats.

“On the Uruguay River it is proposed to make a channel 19 ft. deep and 328 ft. wide from Martin Garcia to Concepcion del Uruguay, 137 miles above Martin Garcia, and thence 15 ft. deep to Colon, and 9 ft. deep and 8 ft. over the rock to Concordia, which is 230 miles above Martin Garcia.

“The low-water plane, or zero, in both rivers is that of extraordinary low water, so that, generally, the low water does not reach this plane within about half a metre to a metre. Consequently, there can generally be depended upon from 2 ft. to 3 ft. more water than I have stated. Between Rosario and Buenos Aires there are now no bars over which there is not 21 ft. of water at zero, although two of them need to be dredged and buoyed in order to make a straighter channel. This the Government is prepared to do.

“As to the Port of Rosario: a contract has recently been made, under the law of Congress, to make a modern seaport at this point, with all the latest and best facilities for handling cargo. The commerce of Rosario is at present 1,500,000 tons per annum. It is a very important exporting-point for cereals, and when the port is completed according to the plans adopted, it is expected to be an important importing-port as well. There are ports below Rosario, such as Villa Constitución, San Nicholas, and San Pedro, and above Rosario, Diamante, Santa Fé, Colastiné, and Paraná. On the Uruguay River, Concordia, at the head of steamboat navigation, is an important importing and exporting port for that section of the country. Its registered tonnage is about half a million tons, and the actual-weight tonnage about 100,000.

“The country between the Paraná and Uruguay Rivers is practically isolated from the rest of the country, and its situation is very similar to that of the country lying between the Euphrates and Tigris; for that reason it has been called the ‘Mesopotamia Argentina.’

“There are at present in this area three railroad systems—the Argentine North-eastern, which runs from Corrientes, on the Paraná to Monte Caseros, on the Uruguay, and from there to Santo Tomé, on the same river; the Argentine Eastern from Monte Caseros to Concordia; and the Entre Rios Railroads, the main line of which connects Paraná and Concepcion del Uruguay, with branches to Victoria, Gualeguay, Gualeguaychú, and Villaguay. Within a few months a connecting-line will be completed to Concordia, forming a link between the Argentine Eastern and the Entre Rios systems. It has been proposed to unite these three systems and to extend the Argentine North-eastern from Santo Tomé to Posadas on the Alto Paraná, passing through the colonies which the Government is establishing in that territory. Posadas is its capital. The Central Paraguay Railroad, which runs in a south-easterly direction from Asunción, it is proposed to extend to Villa Encarnación, a small town on the opposite side of the river from Posadas; to change the gauge, which is 5½ ft., to the normal gauge of the other three railroads, which is 4 ft. 8½ in.; make a transfer by car-float at Posadas; extend the Entre Rios railroads to a port of deep water, either on the Paraná or Uruguay, and do a ‘thorough’ business between Asunción and this new seaport, which will be only a few hours distant from Buenos Aires.

“With the Paraná River improved to Asunción and the Uruguay improved to Concordia, with the railway systems united and extended to a good seaport, this great interior district of the country will have an ideal system of transportation, and the shipper may take his choice to ship by rail or by water, thus establishing a very useful and reasonable competition between water and railway, to the great advantage of the people.

“In reference to the Rio de la Plata itself, it is an immense shoal estuary. It is the depositing-ground of the great Paraná River. This estuary, in a not very remote period, extended above Santa Fé; this is shown by the comparison of old maps, of which ninety-two have been collected and copied and placed in the Library of the Ministry of Public Works. These maps date from the year 1529 to 1885. Even in this comparatively short period, remarkable changes are shown in the delta of the Paraná, which is now a true delta, almost exactly in the form of the Greek letter Δ. It is forty miles across its face; it slowly extends itself in the head of the estuary, and through the delta nearly a dozen outlets of the Paraná River find their way. It is very much like the deltas of the Danube, Ganges, and Mississippi.

“The superficial extension of the Rio de la Plata exceeds 18,000 square miles; it is about 186 miles long and varies in width from 186 miles at the ocean, between Capes San Antonio and Santa Maria, to 1.12 miles at the extreme point of the head of the estuary, at Punta Gorda.

“To understand the physical conditions of the estuary, it is necessary to divide the Rio de la Plata into superior and inferior, or upper and lower. The Rio de la Plata Superior lies above a line extending between La Plata and Colonia, the Inferior below that line to the sea. Over a distance of about twenty-five to thirty miles between Martin Garcia and the anchorage of Buenos Aires there is a normal depth through the best channels of from 16 ft. to 20 ft. at low water.

“The National Government has recently completed the dredging over the San Pedro bar lying in this region, increasing the depth of 18½ ft. to 21 ft. where there was formerly only 15 ft. In the Canal de las Limetas or Nuevo Canal, by natural forces and by the constant movement of steamers there has been obtained a depth of about 19½ ft. or 21½ ft. at mean high tide. Opposite Farallon, a rocky point on the Uruguay shore and opposite Buenos Aires, there is along the course of navigation about 19½ ft. at low water. The Government has buoyed with luminous buoys the entire route from Buenos Aires to the mouths of the Paraná River, the Bravo, and the Guazú, and has placed a floating semaphore below Martin Garcia for the benefit of navigation, recording constantly by signals by day and by night the depth of water in the channel. It is now proposing to