

which a large proportion is not subject to inundation, but is susceptible of immediate cultivation, of the surplus water of the rainy season. This, from estimate of observations extended over eight years at Punta Rassa, near Charlotte Harbor, is annually an average of three feet eight and a half inches. In the interior the average is probably in excess of this. This quantity, distributed over a season from May to September, through sunny or windy forenoons and rainy evenings, is not abnormal. Any soil properly drained and aerated will rapidly absorb and utilize its daily proportion before the rainy afternoon follows. The cause of this superficial accumulation lies in the physics and topography of South Florida, and complicates the engineering problem, but without rendering it more difficult. Indeed, when it is understood, the practicability of drainage by parts becomes easy and simple in solution.

From an average elevation of two hundred feet above the sea, on the  $30^{\circ} 30'$  parallel of latitude, the peninsula slopes by a slow, easy descent to the keys. But this incline, fifty miles wide by three hundred long, is broken into longitudinal and transverse sections of terraces. The St. John's, gathering its waters into a chain of lakes about the twenty-eighth parallel, flows north along the eastern flanks of the interior table-land, from a maximum elevation of twenty feet above the sea, to the Atlantic, near Jacksonville. A depression of a maximum elevation of eighty-seven feet above the sea divides the long slope of the interior table, in the latitude of Lake George, extending up the irregular valley of the Ocklawaha and across to the Wicassisa, emptying into the Gulf. South of this the land rises again to an elevation of one hundred and forty-six feet above the sea on the sand-hills west of Orange. This ridge, holding Lake Apopka between its arms, latitude  $28^{\circ} 40'$ , extends south sixty miles, rising, above Lake Buffum, in Polk County, to an elevation of one hundred and sixty-three feet. From this ridge and the terraces of lakes about it the Ocklawaha and the Wekiva flow north and east;



the Withlacoochee north and west; the Charley Apopka and Peace Creek south and west; and the Kissimmee and Blue Jordan, a swamp river, south into Okechobee. The rivers east of the ridge discover the peculiar terrace form of the topography; that is, the water, seeping down, pools and fills a shallow trough at the foot of the ridge, from which it overflows into a lower terrace, pooling again, and thus successively develops the chain of linked lakes exhibited by the St. John's.

The western valley shore of this river below Lake Monroe, 10.976 feet above the sea, is less than three miles wide. Sanford is fourteen feet higher; and Belair Grove, three miles inland, forty feet higher. So, going west from Lake Winder, ninety miles up the St. John's, and 18.737 feet above the sea at Charlotte Harbor, the head of Wolf Creek, ten miles in the interior, is at an elevation of 61.989 feet; and Lake Conway, on the highest terrace of Orange County, one hundred feet above the sea, having no visible outlet, seeps through