



MAP OF THE TOHOPEKCALIGA SUMMIT LEVEL.

to the solution of the problem of drainage. The engineer is not left to the alternative of reducing the volume spread over twenty thousand nine hundred square miles at once. He can proceed from terrace to terrace, reclaiming the higher ones by successive descent, step by step, while the drainage of the central basin proceeds as an independent

swamp and marsh to Little Tohopekcaliga, a fall of twenty-nine feet in less than ten miles. These various examples of river marsh or upland lake indicate that the terrace form of the topography of South and East Florida is not a local incident, but a general characteristic. Of this simple explanation of that accumulation of superficial water the engineer avails himself in order to drain these terraces successively. Otherwise, if the flooding of the prairies was caused by the overflow of a single grand reservoir of the valley at Okeechobee, the drainage would be accomplished by enlarging its outlets. Over these the long rain cloud from May to September unburdens its fruitful showers, filling and overflowing terrace over terrace, from each of which the freshet falls, not into the single channel of one mighty river, but down broad, shallow valleys, overspreading the wild pastures that fringe the central basin; and, combining with its gathered volume of increase, stays the slow drainage and evaporation mayhap from season to season. When this occurs, and the redoubled freshets of each successive terrace unite with the combined volume of the Kissimmee River in Lake Okeechobee, the overburdened banks give way to the impetuous floods, which in 1841, '48, '55, '62, '69-'70, and '74 drowned the palm groves of the Caloosahatchee.

But when the dynamics of this system of terraces is understood, it becomes a key

operation. This can be best illustrated by the maps. The one above includes the region west from Lake Winder, on the St. John's, Township 26, Range xxxv., and extends westward six townships. The general elevation of this table above the sea at Charlotte Harbor is 66.82 feet. The highest basin is the small lake in Township 26, Range xxxii. The summit ridge is in Range xxxiii. The general contour of the terrace is represented by the topographical chart below, reduced from the surveys of Assistant-Engineer W. G. Williamson, of the United States Topographical Corps. It does not represent an airline, but the depression of lake surfaces, after crossing the divide between the valley of the St. John's and the summit level. The distances from Lake Winder and the elevations above the sea at Charlotte Harbor are given in the following table.

	Distance from Lake Winder in Miles.	Elevation above the Sea at Charlotte Harbor in Feet.
Lake Winder	00.0	18.787
Head of Wolf Creek	10.11	61.989
Alligator Lake	28.40	71.484
Isabel Lake	31.41	71.804
Little Tohopekcaliga	37.32	70.812
Tohopekcaliga	52.98	64.593
Cypress Lake	58.81	64.593
Hatchenaha	66.81	60.235

Neither of these represents the topography in its general character, until we understand that, as the Tohopekcaliga sum-



SECTION OF TOHOPEKCALIGA SUMMIT LEVEL.