mechanical terms it is a bridge with spillways between the piers. The spillway portion is 4,278 feet long; the east abutment is 290 feet long, and the west abutment 81 feet long, the latter being integral with the substructure of the power house. The dam structure is 29 feet wide on top and 42 feet wide at the bottom, which is set several feet into the hard limestone bed of the river; the height of the structure is 53 feet and the spillways are 32 feet high.

Each spillway has a vertical up-stream face; the down-stream face of the spillways is an ogee curve. The steel gate on top of each spillway is 32 feet long, working in slots in the piers, and is 11 feet high, reaching to the springing line of the arch of the span. They are trusses faced with ⅜ inch steel plates and will be operated with a traveling crane running on the top of the dam. The down-stream bearing surface of each slot is faced with an iron plate. When the final installation is completed the surface of the pool will be a little below the tops of the 119 gates, and conditions of river stages and flow will govern the number of gates open at any one time.

In building the dam, a thorough examination was made of its foundation. The river bottom at the side is blue limestone of rather remarkable homogeneity considering the distance involved. The bottom was unwatered by a cofferdam