

Bridges of Metropolitan Cleveland

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p. 74

A little concrete bridge for pedestrians was designed in 1906 for Brookside Park spanning Big Creek. This was the first three-hinged concrete arch built in America. It was the design of A.W. Zesiger, Assistant Park Engineer. This bridge was removed when a culvert enclosed the creek bed to increase the usable park area. However, another structure, patterned after the old arch, was erected nearby, in 1910. This bridge is at the entrance to the Bear Dens. It is a flat, semi-elliptical arch, with a span length of 82 feet between abutments. Like its predecessor, the concrete arch is reinforced. Overall length of the bridge is 108 feet, 6 inches. The roadway width is 266 feet, plus two 6-foot sidewalks. The bridge was built into the creek bed and rests upon solid shale. The hinges are built up of plates, angles, steel shafting, and cast-iron bearing plates, and are completely embedded in concrete. The railing is of concrete, faced with rubble stone, with the semicircular openings filled with wrought-iron grill work. The bridge is now used primarily by pedestrians. Plans of the bridge were signed by William A. Stinchcomb, Chief Engineer of the Park Commission.

p.76

The Brooklyn-Brighton Bridge (also known as the Pearl Road-West 25th Street Bridge) is the third bridge at this site. The original bridge, built in 1865, is a stone-masonry arch at the lower level on the old road. It is still in use, was part of the Medina-Wooster Pike, and has the distinction of being the oldest County bridge in the city. In 1894 the County erected a steel viaduct, which was quite remarkable in its day. It was composed of trestle spans of 28 and 56 feet alternately. But the central arch-span was its magnificent feature: a parabola in outline and an open-web, three-hinged arch of 168-foot span. Trusses were 26 feet apart on centers. The center line of the lower chord was a parabola, but the upper panel points were in three straight lines. The viaduct was 1,540 feet long, 31 feet wide, and 73 feet above water. Though not so large, it resembled Eiffel's Famous Garabit Viaduct. Engineers were the Osborn Engineering Company. This bridge was torn down in 1916.

It was replaced by the present multiple-span, reinforced-concrete bridge of four lanes, including streetcar tracks. It is composed of eighteen arches, the longest of which is 139 feet. Total length is 2,365 feet, the dis-

Page 77

tance between end-abutments being 1,726 feet. The bridge is 76 feet wide, and at its lowest point the height above the roadway is 98 feet. The bridge was the work of the County Engineer's office, with the Osborn Engineering Company acting as consultants. The median still carries the street lighting, a residual from the streetcar days when the trolley wires were cantilevered from the light poles. Recently the bridge has been extensively remodeled.