

the river is bank full and it was found necessary to adopt a movable type of dam which would take care of the comparative large freshet discharge and not cause floods.

The Dam consists of a sub-structure or permanent dam of concrete on which is operated a movable dam, suspended from a service bridge.

The Dam is 788 feet in length between abutments, consisting of six spans of 119 ft., 8 in., and five piers of 14 feet in width.

Altogether, some 25,000 cubic yards of concrete have been used in the construction of the Dam. The Dam was built in sections, a portion of the river bed being unwatered at a time, excavation being carried down into a solid stratum of rock. The closure in the Dam was effected by diverting the stream over two spans of the completed portion. It is interesting to note that the greater portion of this work was constructed during the last two winters under conditions of temperature that varied as low as 45 degrees Fahr. below zero (-42.8° Cent.). For this purpose, the work was housed in and heated, and at no time were temperatures observed, in the work, below freezing point.

The movable dam is the first of its type constructed in America, and has for its prototype the Caméré curtain dam at Poses, on the Seine, France.

The general principles and mode of operating this dam are as follows:—