

had to be rejected. The location adopted is a few hundred yards above the public steamboat landing, and crosses the river at a point where the channel, after sweeping round the long curve above the town, is still close to the Kansas City shore. The southern bank is here a rocky bluff, and rock was found in the channel near this bank only a few feet below the low-water level, with a local dip towards the north of about 1 in 20. The northern shore is the customary low Missouri bottom land, below the extreme high-water mark, though rarely overflowed. The width of the river, measured from the wooded shore on the north to the rocky bluff on the south, is almost exactly a quarter of a mile, thus making the crossing a conveniently short one ; at low-water the water way contracts to about 750 feet, leaving from 500 to 600 feet of sand bar between the water and the northern bank. When the location was made, the surface of this sand bar was at an elevation of 104 ; but it has been raised by the deposits of the three succeeding seasons, and is now 111. The southern portion of this bar, lying nearest the channel, is very variable, being liable to be washed out and replaced several times in a year ; but the northern portion, about 400 feet in width, seems to have become permanent, and unless disturbed by an extraordinary flood within a few years, it will become a part of the wooded shore. The channel lying along the south bank was regulated by the long curve in the river above, and would be rendered permanent by protecting the west or outside shore around this bend. This protection was demanded, not only by the bridge, but by the general interests of the city, the value of the bottom land being too great to allow it to be carelessly washed away ; while the lower part of the town, including the steamboat landing, was liable to be shut off from the river if the channel shifted any farther to the north.

These merits of location may be briefly enumerated as follows :

*First.*—Proximity to business and the city.

*Second.*—Shortness of the bridge line.

*Third.*—Small depth to rock on south side.

*Fourth.*—Permanency of the channel, this being easily secured by protections demanded by other interests than those of the bridge.