

whose auspices J. W. Bissell, Esq., made, in 1857, another plan for a bridge over the Mississippi river. This was for a suspension bridge, at the northern part of the city, of one span of some 1,500 feet. This structure, set away up in the air, above the reach of all the uses required of it, and it did not seem to carry with it a sense of its practicability to the minds of the people and the corporators; and consequently it met with the same fate as its predecessor. About the same time Mr. Roebling, the ingenious contriver of the Niagara bridge, proposed to erect a bridge of half a mile span across the river; and although he had achieved a great success under far different conditions at Niagara, still there were few who could be brought to believe that such a design could be successfully executed at St. Louis. A suspension bridge of several spans might be built that would answer most of the purposes of the common travel, but to make the spans wide enough, would render it unsuitable for the passage of railroad-trains, without combining with it mechanical complications that would also tend to render its stability questionable and its adaptability almost impossible. At Niagara, a wooden truss is made to act, in combination with the suspension wires, as a distributor of the load upon the bridge, and thus partially obviate the deflection which a heavy weight causes at all points wherever it may be placed on a suspension bridge. Even with this appliance only a low rate of speed is attainable, and with a bridge of the length required here, the large amount of traffic could not be accommodated without a double track. But the truss is not admissible of application to a suspension bridge at this place, for it could not be of wood, as it would then be liable to destruction by fire, and there is no possibility of making it answer for the passage of the railroad or common traffic, for if the truss were placed above or below the suspension bridge floor, one or the other would be too high for convenient access, and therefore a distinct bridge would be required for each of the kinds of traffic. A suspension bridge with iron trusses to stiffen it, would prove more costly than a better bridge, against which, the large cost is the only objection that can be urged. Suspension bridges are beautiful works of art; and from the manner in which they came into being, and found application, they have attracted the curious attention of the world, and have been objects for the orator and poet to gild with romance. Still they have never possessed the confidence and approval of a large majority of matter-