

"As bridges and the methods of constructing them are becoming objects of great importance throughout the United States and as there are at this time proposals for a bridge over the Delaware and also a bridge beginning to be erected over the Schuylkill at Philadelphia, I present the public with some accounts of the construction of iron bridges" Thus writes Thomas Paine in 1803

From the memoirs above mentioned we take the following extracts "As America abounds in rivers & I turned my attention after the revolutionary war was over, to find a method of constructing an arch that ^{without sending the height minimum or the weight difficult} might extend at once from shore to shore over rivers of three four or five hundred feet and probably more"

"The principle I took to begin with and work upon was that the small segments of a large circle was preferable to the great segments of a small circle. The architects I conversed with in England denied the principle; but it was generally supported by mathematicians, and experiment has now established the fact"

In 1786 I made three models partly at Philadelphia mostly at Bordentown in the state of New Jersey. One model was in wood, one in cast iron and one in wrought iron connected with blocks of wood representing cast iron blocks, but on the same principle as that of the small segments of a large circle.

I took the last mentioned one with me to France in 1787 and presented it to the Académie des Sciences in Paris for their opinion on it. The Académie appointed a committee