

Clifton Bridge and I.K. Brunel



Ir. Chin Mee Poon | www.facebook.com/chinmeepoon

Ir. Chin Mee Poon is a retired civil engineer who derives a great deal of joy and satisfaction from travelling to different parts of the globe, capturing fascinating insights of the places and people he encounters and sharing his experiences with others through his photographs and writing.

The Clifton Suspension Bridge, spanning the Avon Gorge and linking Clifton in Bristol to Leigh Woods in North Somerset, England, was completed in 1864. It is still serving its purpose well after more than 150 years.

With a central span of 214.05m and an overall length of 412m, the bridge is justifiably famous for its setting as much as for its pioneer status as one of the earliest and finest precursors of modern suspension bridges.

The principal load-bearing members of the bridge are 3 wrought-iron chains at each edge of the carriageway suspended from the pylons.

When my wife and I were backpacking in England and Wales in March 2017, we made a day trip to Bristol from Bath. The first spot we visited in Bristol was Clifton Bridge, just 5 minutes' walk from the bus stop in Clifton Village. A visitors' centre was added in 2015 near the bridge abutment on Leigh Woods side. We spent two hours at the bridge and in the visitors' centre.

The idea of a bridge over the chasm at this spot was mooted way back in mid-1700s, but nothing was done until 1829 when a competition was held for the design of a suspension bridge for the site. Twenty-two entries were received, including 4 from the great engineer Isambard Kingdom Brunel, but the judge, Thomas Telford, another great engineer of the 19th century, rejected them all as being impractical. Telford's own design, submitted subsequently, was also rejected by the committee.

A second competition was held the following year and Isambard Kingdom



Brunel's design was chosen as the winner. Construction work started in June 1831 but soon stopped due to severe riots in Bristol. Work resumed in 1836 but was woefully slow due to a shortage of funds.

The two pylons were finally completed in 1843 but no further work was done on the bridge until 1862. By then Brunel had passed away on 15 September, 1859, at the age of 53 and his colleagues in the Institution of Civil Engineers, William Henry Barlow and Sir John Hawkshaw in particular, amended his design in some significant ways, including raising the bridge deck, making it sturdier and increasing the number of chains from two to three. They also managed to raise enough money to complete the bridge as a tribute to Brunel.

The bridge was finally completed in 1864 and officially opened to traffic on 8 December. Since then the bridge has witnessed the first modern bungee jump from its deck on 1 April, 1979. It

has also become somewhat notorious as a suicide bridge as many people have jumped over its edge to their death.

I.K. Brunel was undisputedly one of the greatest engineers of the 19th century. He was an ingenious and prolific engineer, who built dockyards, steamships, the Great Western Railway and many important bridges and tunnels in his short but illustrious life. Among his most outstanding achievements were the first tunnel under a navigable river and development of SS Great Britain, the first propeller-driven ocean-going iron ship which was also the largest ever of its time when completed in 1843.

His name itself is considered a novelty of sorts. Isambard Kingdom Brunel sounds somewhat like "Islamabad, Kingdom of Brunei", doesn't it? His first given name actually came from his father, Marc Isambard Brunel, and his middle name was his mother's surname. ■