## **BRIDGES OF BRITON**

London Bridge. London Museum Model as it appeared in the early seventeenth century.

Goes back in time using timber, built in the late Roman and early medieval timbers,

The original timber bridge was built in 1176 the stone arched London Bridge was completed in 1209, in early times its roadway was an important crossing, albeit a tunnel like passage through a jumble of houses and shops, 138 premises were recorded in 1358, many projecting out over the river. In the 1580s, water mills were installed this added to the uproar. In the 1820s it was demolished and replaced by the New London Bridge. In 1968 the dismantling begun and it was taken across the Atlantic to Arizona U.S.A.

Over time the bridge became the site of calamities. Three vears after its completion a huge fire destroyed all the buildings and killed as many 3,000 people. But the house (a source of income for the bridge) were quickly rebuilt. In 1282 five arches collapsed under the pressure of winter ice. These, too, were rebuilt, and the bridge, though often in a state of disrepair, survived as London's sole crossing the Thames until 1750.



# King John's Bridge Tewkesbury.

The rivers, among which Tewkesbury lies, were a considerable obstacle to land communication. To some extent the town's situation near places where it was possible to cross the rivers, especially the Avon, was responsible for its growth.

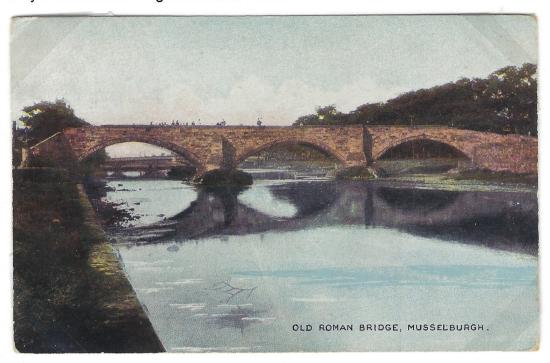
The bridge, the largest river crossing on the Ancient route is said to have been commissioned by King John in 1198. In 1205 the Bailiff of Tewkesbury was said to have acquired two oaks for making a bridge. Originally with stone spans across two Avon branches and wooden pier – like structures from there to the hill.



The name King Johns Bridge did not become Current until the 19- Century. Prior to this it was called Long Bridge and in 1321 The Wide Bridge after an inhabitant of the town. Once the Avon Mill was established it became two bridges and the roadway between and beyond the two was carried on a land bridge instead of a solid causeway.

# Old Roman Bridge Musselburgh.

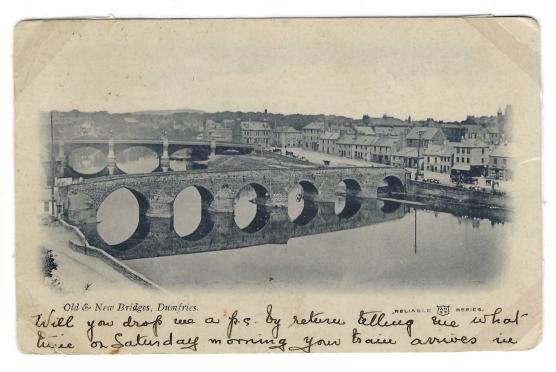
During the Roman Invasion in 80AD a fort was built here and the original Roman bridge foundations were built over the river Esk with a two arch structure. In 1296 the Old Bridge carried the Scottish army marching to the Battle of Dunbar. In 1314, the English army crossed it following its defeat at Bannockburn.



## **Dumfries Bridge**

A bridge - probably wooden - is said to have been built across the Nith at Dumfries by Devorgilla Balliol in the 1260's. This structure was swept away by a flood in 1621. The rebuilt 17th century bridge originally had nine arches, but on the reclamation of the eastern bank of river early in the 19th century the three eastern arches were removed, leaving the remaining six arches spanning a width of 163 ft. A corbel on the N side of the east most arches is dated 1610, but this stone was taken from a house being reconstructed late in the 19th century and inserted in the bridge. The bridge is in good repair, and in use for pedestrian traffic.

The New Bridge can be seen in the back- ground showing pillars.



## Wadebridge

Ponswad Cornwall, England,

The town straddles the River Camel upstream from Padstow. It was a dangerous fording point across the river until a bridge was built here in the 15th century. The bridge was strategically important during the English Civil War, and Oliver Cromwell went there to take it. Since then, it has been widened twice and refurbished in 1991



## Aberdeen bridge.

Although, from the 1400s there had been many complaints regarding the ferryboat crossing no building was started until 16- century. After several false starts it was completed in 1530 by Thomas Franche a Master Mason There were seven fifty foot span arches, each with five ribs. It was a little over 14 ft. wide. The bridge was useful during the Bubonic Plague when guards were posted to apply quarantine and it had seen many battles but by 1719 was decaying. In 1840 it was extensively repaired and widened to 26 feet So much effort and ingenuity have been directed to preservation of style that it has to be viewed as an early 16th-century structure, the whole of the west face was carefully dismantled and re-erected; this included turrets, abutments, piers, parapets, spandrels and arch-stones. This project was a model for bridge widening and an account was published in 1842.



Old and new Carr Bridges and Carr Hotel, Aviemore, Scotland.

The old bridge was built in 1717 at the behest of Brigadier-General Sir Alexander Grant, to allow people and animals passage across the River Dulnain. The bridge also ensured that funerals taking place in Duthil Churchyard were not delayed because the river was in spate (overflowing), and for this reason it is still known locally as the 'coffin bridge'. The bridge was built by stonemason John Niccelsone at a cost of £100.

The 'new bridge' behind was built in 1791, and in 1803 an inn was built beside the bridge, which later became the Carrbridge Hotel. This bridge has since been replaced by a more modern structure.



# Leaderfoot Bridge

A Roman bridge once crossed the Tweed at Leaderfoot, conveying Dere Street north from the nearby fort of Trimontium. Today, three bridges cross the river at this location – the Leaderfoot Railway Viaduct (1863), the former Drygrange Road Bridge (1780) a 3 arched stone bridge and a modern road bridge carrying the A68 (1973). This spot, where the River Leader joins the River Tweed, has been a crossing point since the earliest times. The Romans built a bridge here to carry Dere Street from the nearby fort of Trimontium on its route to the north. The river was crossed again in 1780 when this beautiful bridge was built. Leaderfoot is the location where the Leader Water joins the River Tweed the River Tweed runs for nearly 100 miles through the heart of the Borders. The bridge was closed to traffic in 1974 but remains open for

cyclists and walkers



# Knaresbro' 1851 Railway Bridge,

Knaresborough Viaduct carries the Harrogate line over the River Nidd in the town. The viaduct was supposed to have opened in 1848, but the first construction collapsed into the river very near to completion, which necessitated a new viaduct and delayed the opening of the line through Knaresborough by three years.

The viaduct can be seen striking across the Nidd Gorge from the ruins of Knaresborough Castle and is a well-known viewpoint in the town. One writer has stated that it is one of the region's better known landmarks.



# Aber Bargoed 1858 Railway bridge

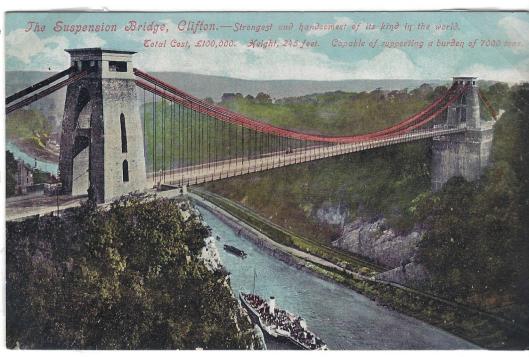
The viaduct at Aber Bargoed was Grade II listed in 2002 as a visually imposing and fine example of 19th century civil engineering. It is an integral component of the original Rhymney Railway which was begun in 1854 and opened in 1858 from Rhymney, via Walnut Tree Junction, to Cardiff. The viaduct is a curved 7-bay viaduct of snacked rock-faced stone, the deck is laid with a double track.



### Clifton Suspension Bridge, 1864.

The Victorian engineer Isambard Kingdom Brunel called the Clifton Suspension Bridge his "first love". The bridge links Clifton in Bristol to Leigh Woods in North Somerset and it is approximately 1,352 feet long and the bridge is 240 feet above the River Avon, offering awe inspiring views. The original plan for a bridge in 1793,

by William Bridges, was for one that included factories from the base all the way to the top in order to generate income for the maintenance of the bridge. Unfortunately, the French Revolution was ongoing at the time resulting in serious damage to European economies. New factories were not profitable and the plan ended up being shelved. In modern times, since 1979, Bungee Jumping is a commercial use for the bridge.



#### The Swing Bridge Newcastle upon Tyne, 1876.

On 17 July 1876, the world's largest swing bridge, a marvel of hydraulic engineering opened for the first time, allowing access to the upper reaches of the River Tyne. The hydraulic power still used to move the bridge is derived from electrically driven pumps, using the same machinery originally installed by Armstrong. It is estimated the bridge has operated 300,000 times for about half a million vessels. The fact that the bridge could 'swing' open (instead of lift open), meant that large ships could sail upriver for the very first time. The Swing Bridge is the fourth bridge to have been built on the same site over the Tyne at Newcastle. The first, constructed of wood and stone in c120 A.D. by the Emperor Hadrian, was known as Pons.

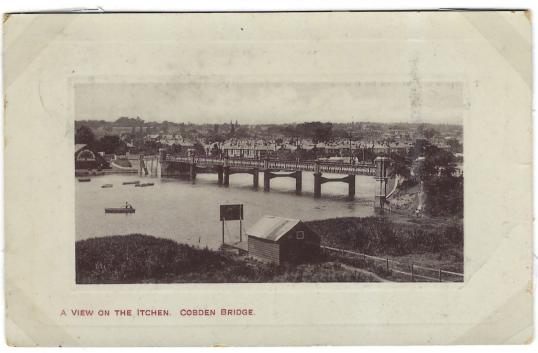
The bridge was renovated in 2018 at a cost of over £200,000. The restoration involved 25,000 hours of work and 10,000 screws were used in repairs; however Its reopening in August 2021 was marred by technical issues which saw the bridge unable to swing.



## Theltchen, Cobden Bridge 1883

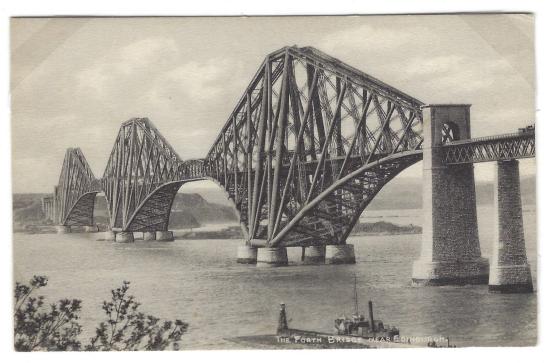
Cobden Bridge was originally built by the National Liberal Land Company and it was opened to the public in 1883. The company, who had just constructed the brand new Bitterne Park housing estate nearby, named the bridge after Richard Cobden, a liberal politician who had died in 1865. Connecting at St Denys, the bridge spanned the River Itchen and linked the new estate with Southampton.

In 1885, the same year Southampton Football Club was formed, Cobden Bridge and its environs became the scene of a riotous street battle.



# Forth Bridge, Railway 1890

The world's first major steel structure, the Forth Bridge, represents a key milestone in the history of modern railway civil engineering and still holds the record as the world's longest cantilever bridge. A full-scale restoration project to return the bridge to its original construction condition was completed in 2012. One of the most amazing Forth Bridge facts is that the entire structure weighs a total of 50,513 tonnes and the steel is held together by 6.5million rivets, 4,600 men worked on the project and a total of 73 men died during the 7 years that the bridge was being built.



### **Tower Bridge 1894**

Tower Bridge, one of the London's most famous landmarks, a suspension bridge built between 1886 and 1894 to cross the River Thames. The two sections in the central span are called bascules – and they raise up to an angle of 83 degree (Bascules – French for see-saw) When Tower Bridge first opened, it used to be powered by coal burning steam engines, but these were replaced by a combination of electricity and oil in the 1970s. It takes 5 minutes to raise the bridge. It has two towers, in Victorian Gothic style, at the base of each tower are machines that lift two parts of the bridge to allow the passing of river traffic beneath it. These are connected by two walkways that are constructed so they can resist

horizontal forces from suspended parts of the bridge, and allow visitors to experience stunning panoramic views through the glass floor. Tower Bridge is located close to the Tower of London from which it got its name. The bridge was intentionally built to look older in keeping with its neighbour. Ships have right of way if 24 hours' notice is given. Everyone then has to wait for the ship to pass.



# London Bridge 1831

London Bridge is a bridge in Lake Havasu City, Arizona. It was originally built in the 1830s and formerly spanned the River Thames in London, England. In 1968, the bridge was purchased from the City of London by Robert P. McCulloch. McCulloch had exterior granite blocks from the original bridge cut and transported to the United States for use in the construction of a new bridge in Lake Havasu City, a planned community he established in 1964 on the shore of Lake Havasu. The Arizona bridge is a reinforced concrete structure clad in the original masonry of the 1830s bridge.

The bridge was completed in 1971 (along with a canal), and links an island in the <u>Colorado River</u> with the main part of Lake Havasu City. The "rededication" of the London Bridge took place on October 10, 1971.

