

“Historic Civil Engineering in the U.K.: EWRI Friends Visit London, York, Edinburgh, Arbroath, and Glasgow”

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**WORLD ENVIRONMENTAL & WATER RESOURCES
CONGRESS**

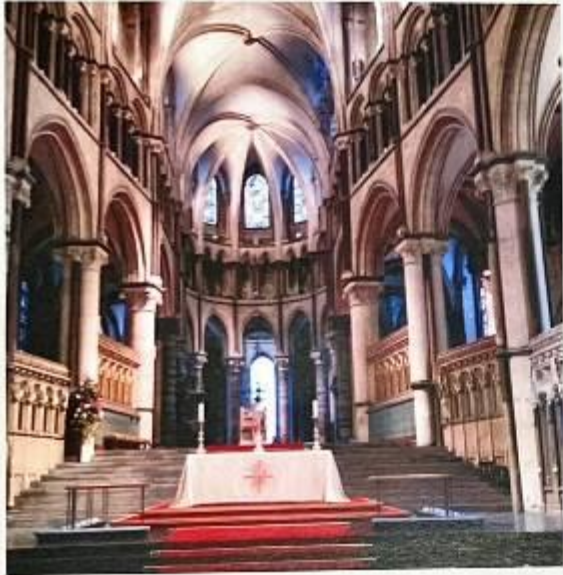
AUSTIN, TEXAS | MAY 17-21, 2015

August 2013 Tour of Historic London and Region

**Canterbury Cathedral
Greenwich Observatory
Tower Bridge**

**Thames River Tunnel and Brunel Museum
Institution of Civil Engineers Building**

11th Century Canterbury Cathedral A UNESCO World Heritage Site



Greenwich

Home of the Royal Observatory and the Prime Meridian



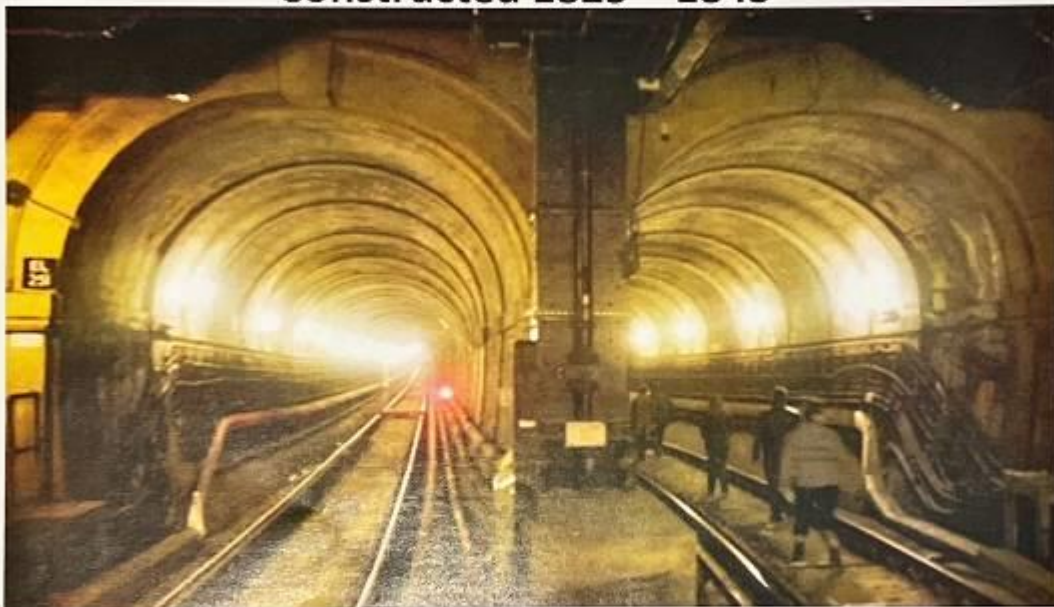
Tower Bridge (built 1886–1894)

a combined bascule and suspension bridge

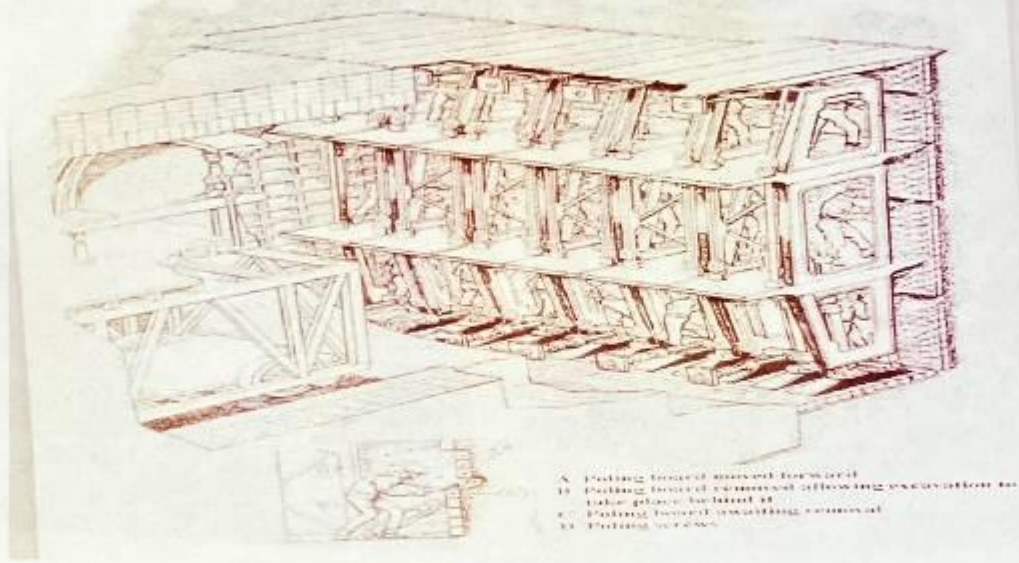
designed in 1884 by City Architect Sir Horace Jones with final design by Sir John Wolfe Barry and Henry Marc Brunel, son of I.K. Brunel



THAMES TUNNEL, Constructed 1825 – 1843

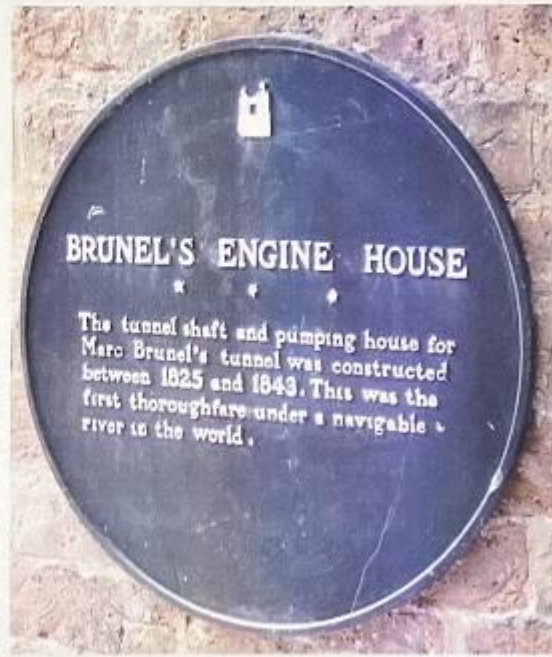


First Shield-Driven Subaqueous Tunnel, Sir Marc Isambard Brunel, Civil Engineer ASCE/ICE
1993 International Landmark: Rotherhite
Presented 25 September, 1993 by ICE and ASCE

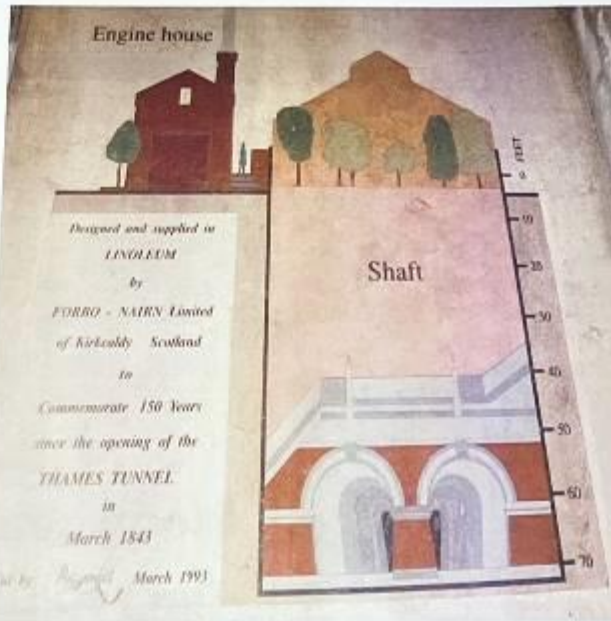


M. Brunel's Patented Tunneling Shield (for Excavating Thames Tunnel)

Brunel Museum



Revised Entrance for the Brunel Museum Director: Robert Hulse



The Institution of Civil Engineers One Great George St.



ICE Oil Paintings
Thomas Telford, with His Aqueduct



ICE Oil Paintings
**George and Robert Stephenson and their famous
locomotive: Rocket**



**Big Ben Clock Tower
Parliament
Westminster Abbey**



**Kings Cross Rail Station
constructed in 1852 and renovated 2005**



**August 2013 Tour of Historic U. K.
Regional Sites**

**The Bell Rock Lighthouse near
Arbroath**

**The Titan Crane and International
Landmark plaque ceremony in
Clydebank**

**The Glasgow Historic Engineering
Works Tour**

The Bell Rock Lighthouse

The world's oldest surviving sea-washed [lighthouse](#).



The Bell Rock Lighthouse
Designed by civil engineers John Rennie and Robert Stevenson



The Bell Rock Lighthouse
Built between 1807 and 1810



**1813 Lighthouse Signal Tower & Museum,
Arbroath Guide: David Taylor www.bellrock.org.uk/**



**The Titan Crane, overhead rotating cantilever crane, was designed by
Sir William Arrol and Co., CHIEF ENGINEER: ADAM HUNTER (1869-
1933), and erected at John Brown's shipyard in 1907.**

ADAM HUNTER (1869-1933)
'ENGINEER EXTRAORDINAIRE'

Admission Free

A public lecture at Clydebank Town Hall on
19 August 2013 at 7.30pm

by Professor ROLAND PAXTON MBE FICE FRSE
School of the Built Environment Heriot-Watt University
Vice-Chairman ICE Panel for Historical Engineering Works

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Heriot-Watt University

The Lighthouse is located on the Bell Rock, 11 miles (18 km) west of the Firth of Tay.



Bell Rock Lighthouse: Institution of Civil Engineers Plaque



Oblique aerial photograph, facing southwest: *Queen Mary* under construction (Titan Crane utilized). Other Clydebank cranes extensively involved in building many large ships over many years.



Presidents of IMechE, ASME, ASCE, and ICE stand in front of the Titan Crane and New Elevator to Viewing Platform.



ASCE Pres. 2012 A. Herrmann provides plaque remarks.



In addition to the Titan Crane, our group visited the fourteenth IHCEL (IHC&MEL), fifth in Scotland (2013) and the first IHC&MEL in the U.K. The ICE/IMechE/ASCE/ASME Group had two receptions in the Clydebank (West Dunbartonshire Council) City Hall

Photo of International Engineering Landmark Plaque, Titan Crane on 20 August 2013.



Glasgow: ICE Panel for Historical Engineering. Works Tour: Ballochmyle Viaduct: largest UK masonry railway arch (1846-48), a seven-arch engineering masterpiece. (The Viaduct is used by the Glasgow & South Western Railway (1850), Chief Engineer John Miller)



**The Dick Institute, Kilmarnock
ICE National HCE plaque presented to
Provost Jim Todd, East Ayrshire Council
[(Kilmarnock & Troon Railway (1812), Scotland's first public
railway, Chief Engineer: William Jessop)]**

