

John Rennie's Scottish Projects.
 His early work included: mills and millwork (green)
 canals, harbours water supply (blue)
 roads, bridges, railway (red)

to Rochdale - I am now on my way to Inverary
to survey [redacted] - Loch Crinan to Loch Gilp two
arms of the sea - for the benefit of the Burghs - I shall
be at Inverary for a fortnight to come. Where any
letter addressed to the Post Office will find me -
from Inverary I go by the Ports of Tobermory in
the Isle of Mull to Ullapool & then to Wick in
Caithness to survey the different Harbours at that
place & about the beginning of August next

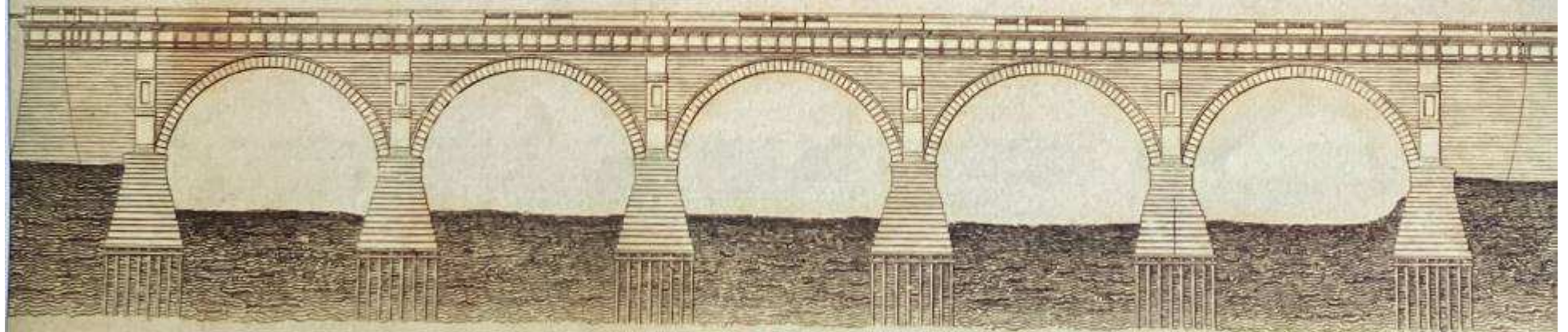
Rennie letter re. Rochdale Canal in July 1792. Busy life - Crinan Canal
survey - Inveraray, Tobermory, Ullapool, Wick, & Inverness Harbours



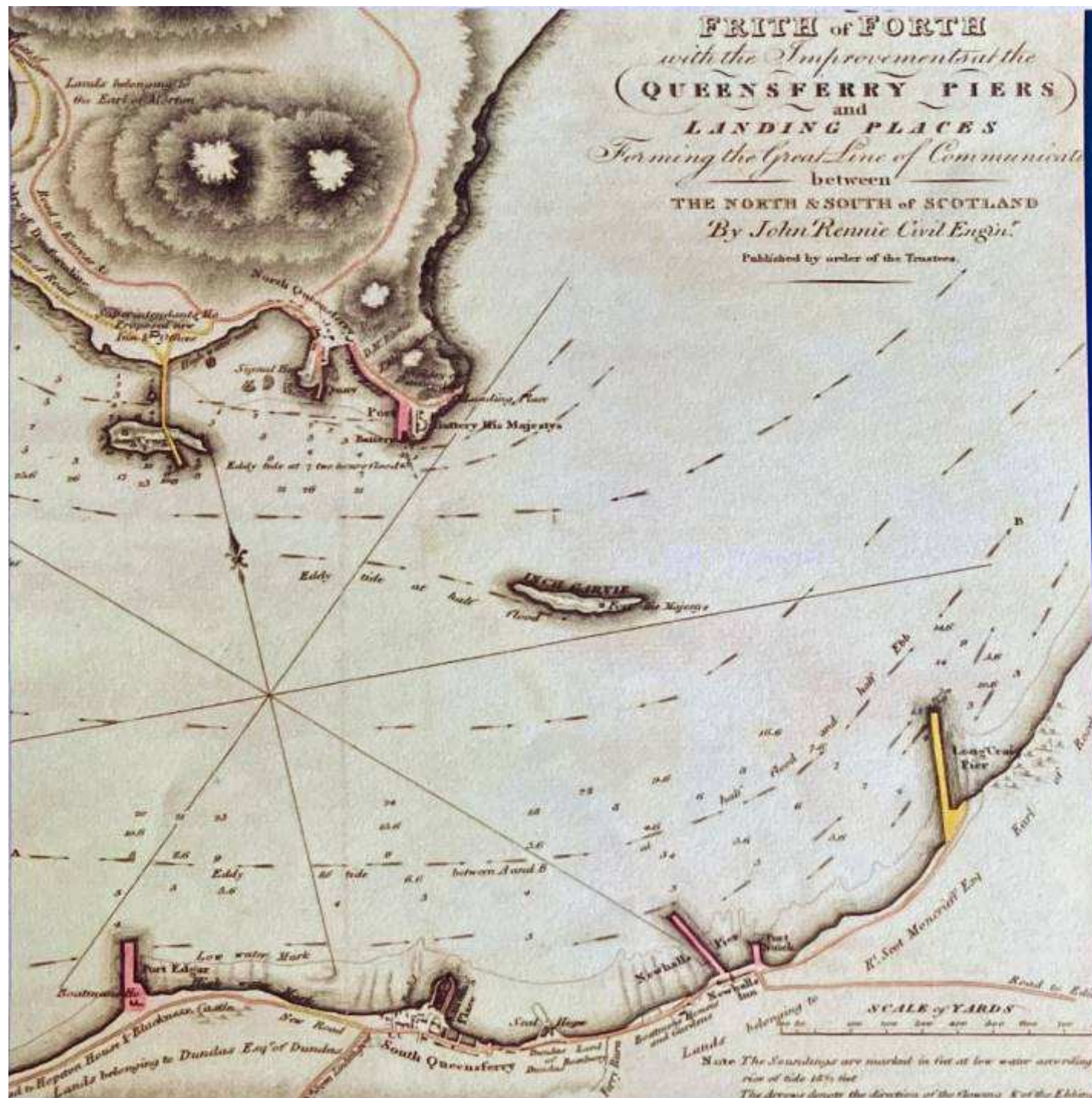
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9-mile
Crinan Ship
Canal, Crinan
1794-1809
& Lune
Aqueduct
on 76-mile
Lancaster
Canal
(nr. Wigan-
Kendal)
1793-98

Fig. 5. LUNE AQUEDUCT LANCASTER CANAL.



Scale to the plans & Sections.



Rennie's
 Queensferry
 ramped pier
 improvements
 1808-17.

Note Hawes
 (Newhalls) and
 Longcraig piers

tertained of it have fallen very short of the reality. It appears from an account kept by the super-
 intendant, that during the year ending 15th May 1811 there crossed at the Queen's-ferry TWO
 HUNDRED AND TWENTY-EIGHT persons every day throughout the year. And on some days so many
 as FOUR HUNDRED AND FORTY-SEVEN were ferried over. There passed during the same year

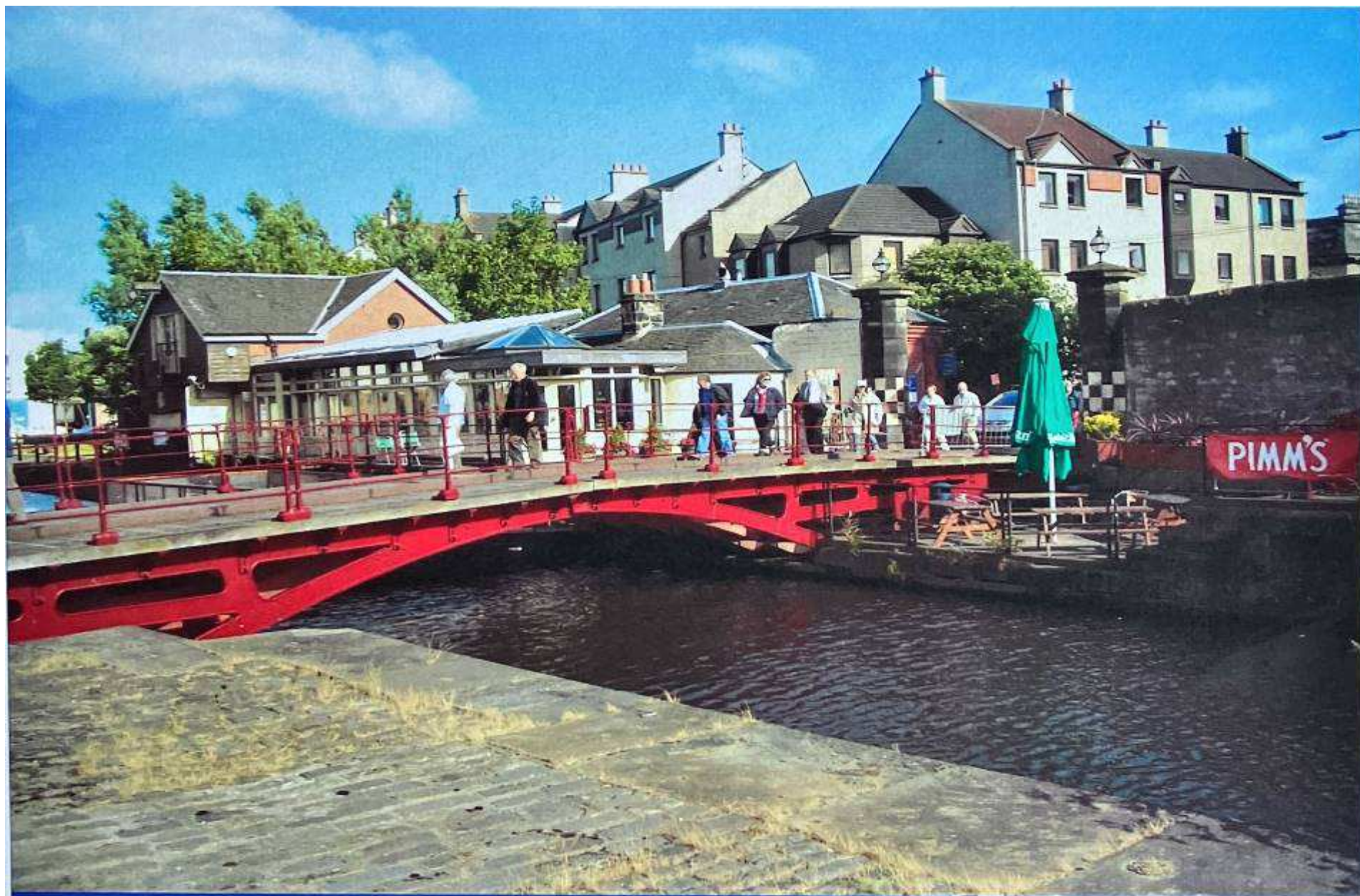
Carriages	-	-	-	-	1515
Carts	-	-	-	-	4254
Horses	-	-	-	-	13,154
Cattle	-	-	-	-	18,057
Sheep	-	-	-	-	25,151
Barrell Bulk	-	-	-	-	5,520
Dogs	-	-	-	-	2,615

by far the greater part of which travelled along the Great North Road. The value of the goods
 intended for sale amounting to near 400,000l., making a total of infurable property conveyed by this
 communication of about 900,000l.

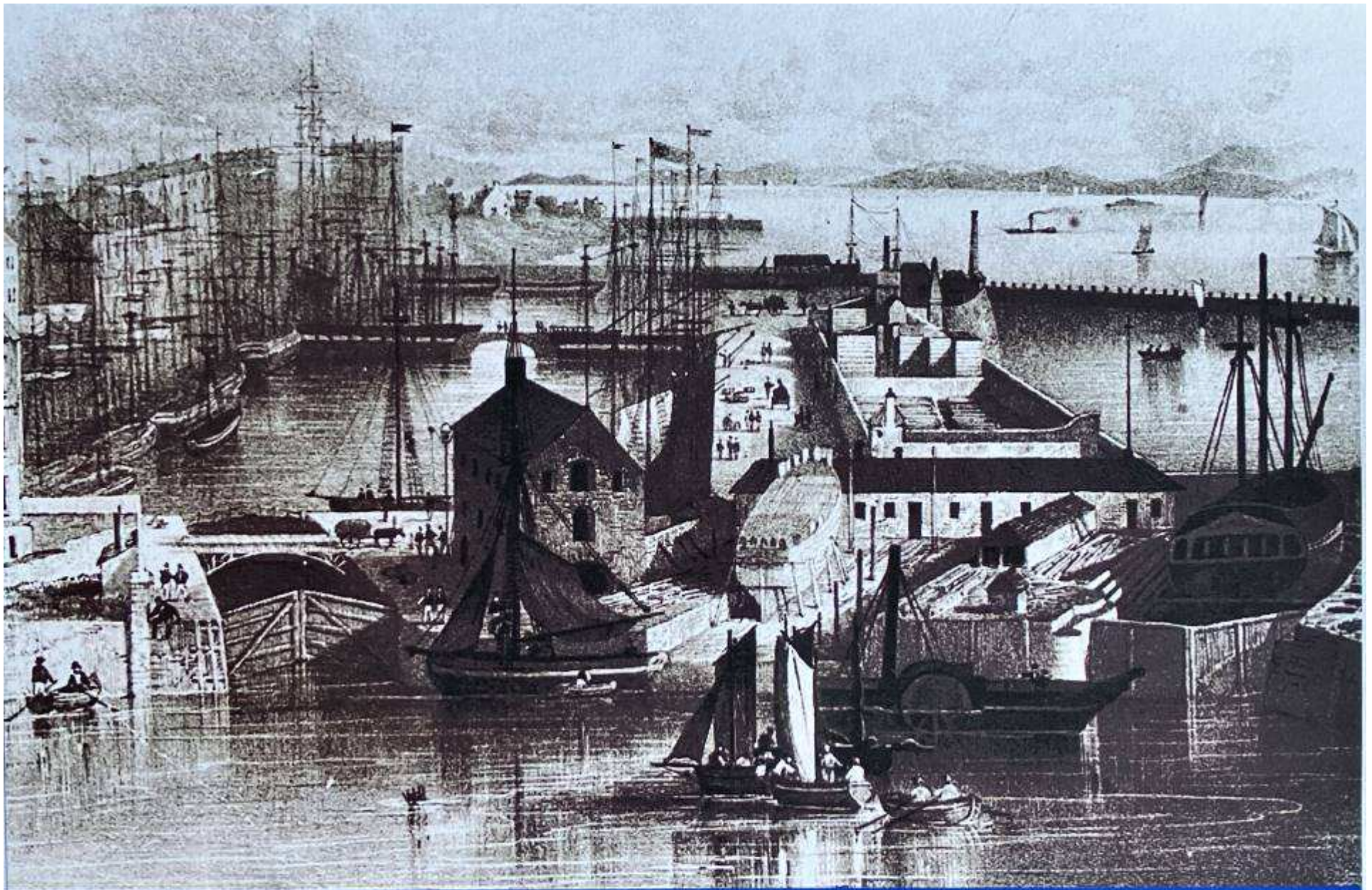
Queensferry patronage in 1811 from Rennie's report



Hawes Pier, Queensferry in 2008

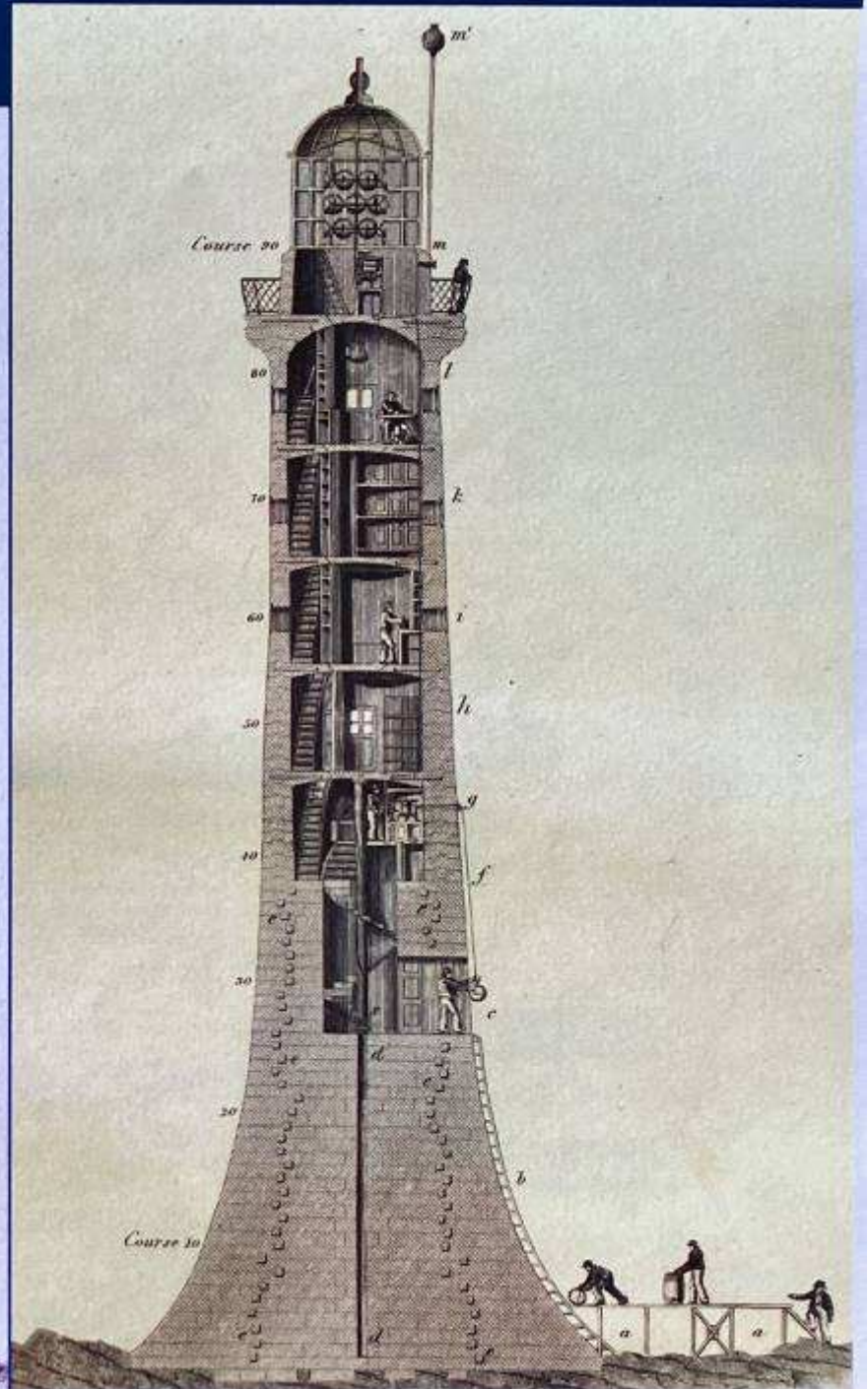
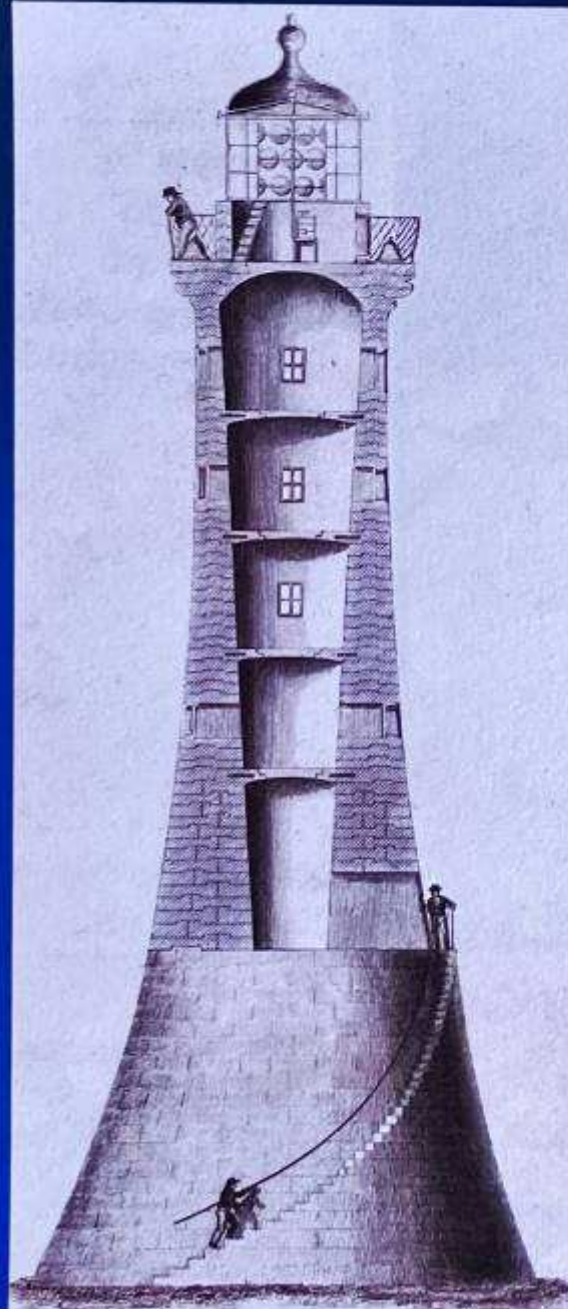


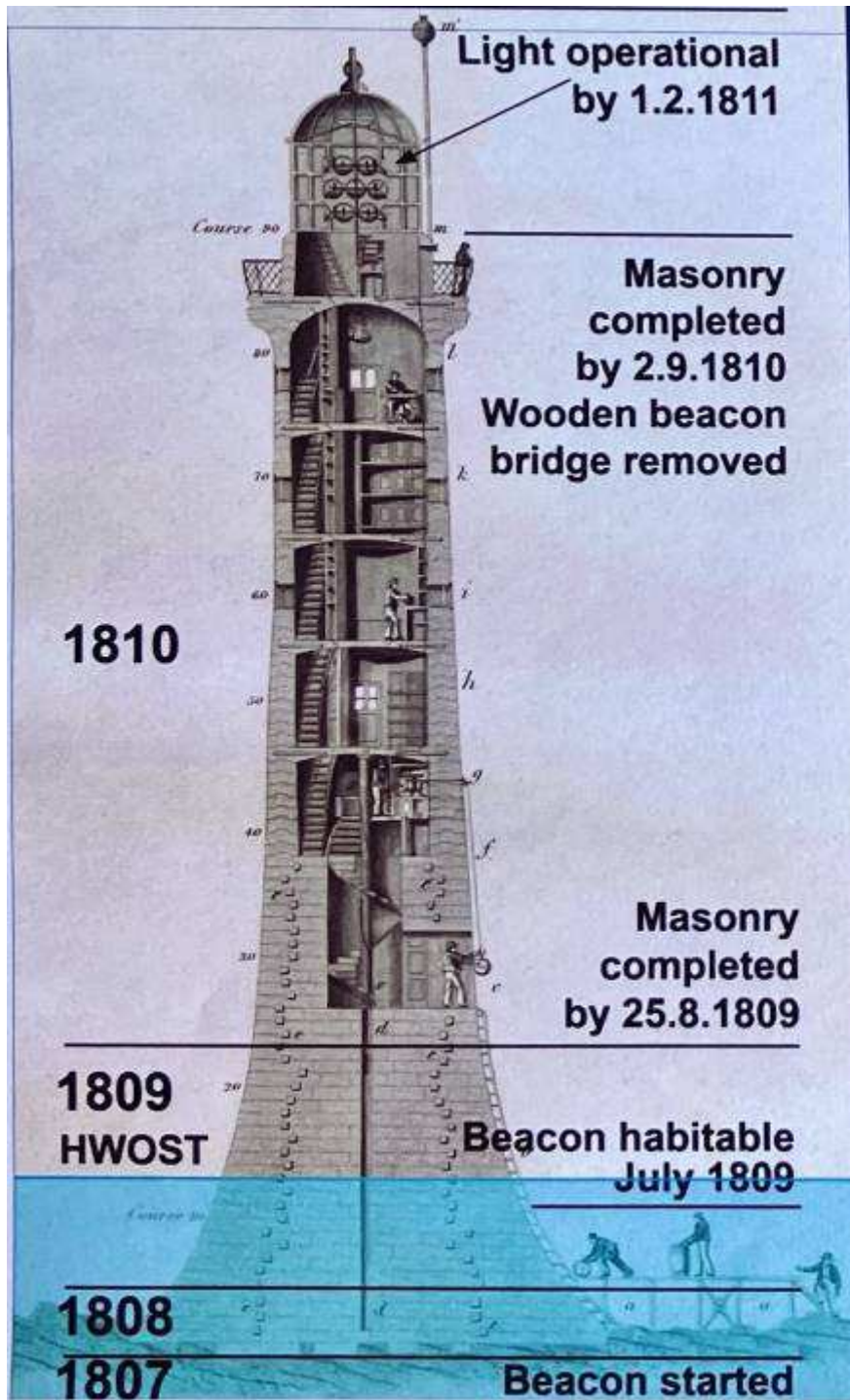
Leith docks entrance lock as preserved in 2010



Leith docks in 1838 – note Rennie's entrance lock and docks (left) and dry dock (right)

Bell Rock
Lighthouse -
Stevenson's
design (left)
1800-06
and
as-built
under
Rennie
as Chief
Engineer
1807-10
(right)





Bell Rock Lighthouse as erected 1807-11. Slow progress until beacon built alongside, then completion of masonry in 13 months

Map labels and stone sources:

- granite** (near Aberdeen)
- Arbroath workyard** (near Arbroath)
- Mylnefield - freestone** (near Mylnefield)
- Craigeith - freestone** (near Craigeith)

Other map labels include: Inverness, Elgin, Banff, Buchanness, Kinnaird head, Aberdeen, Stonehaven, Fortfar, Bell Rock Signal Tower, Perth Lights, Cupar, Kinross, Island of May, Perth, Keith, and EDINB.

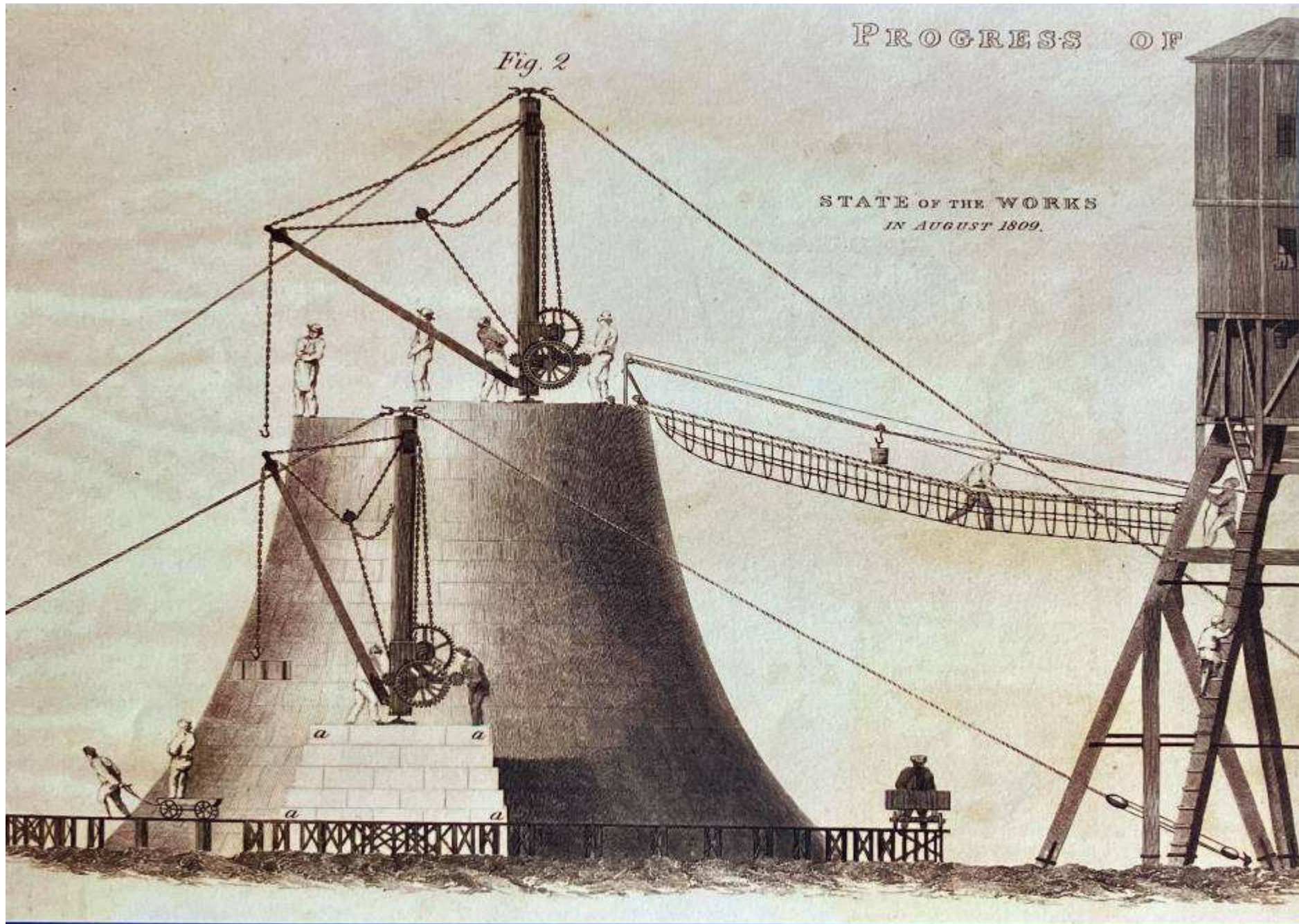
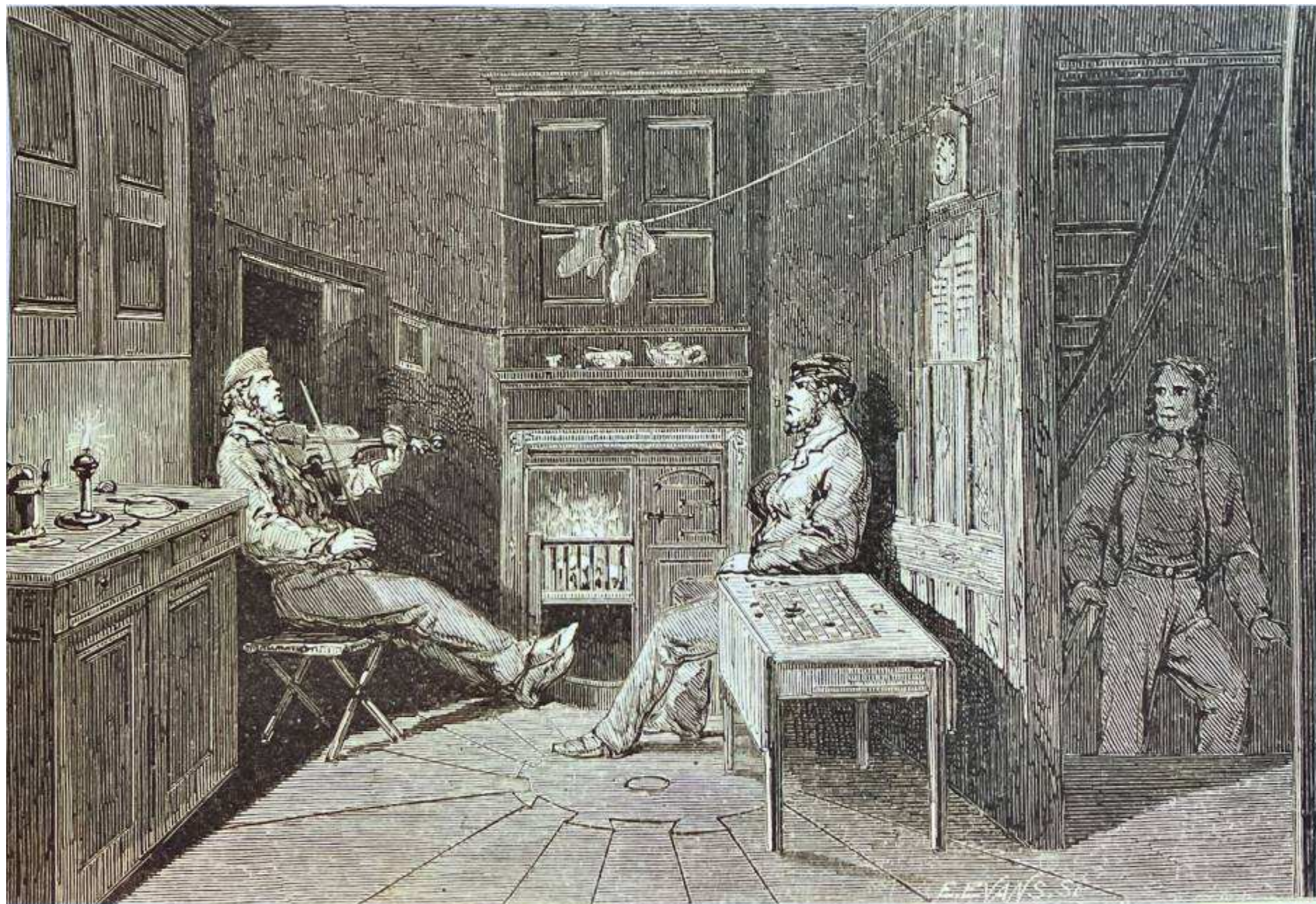


Fig. 2

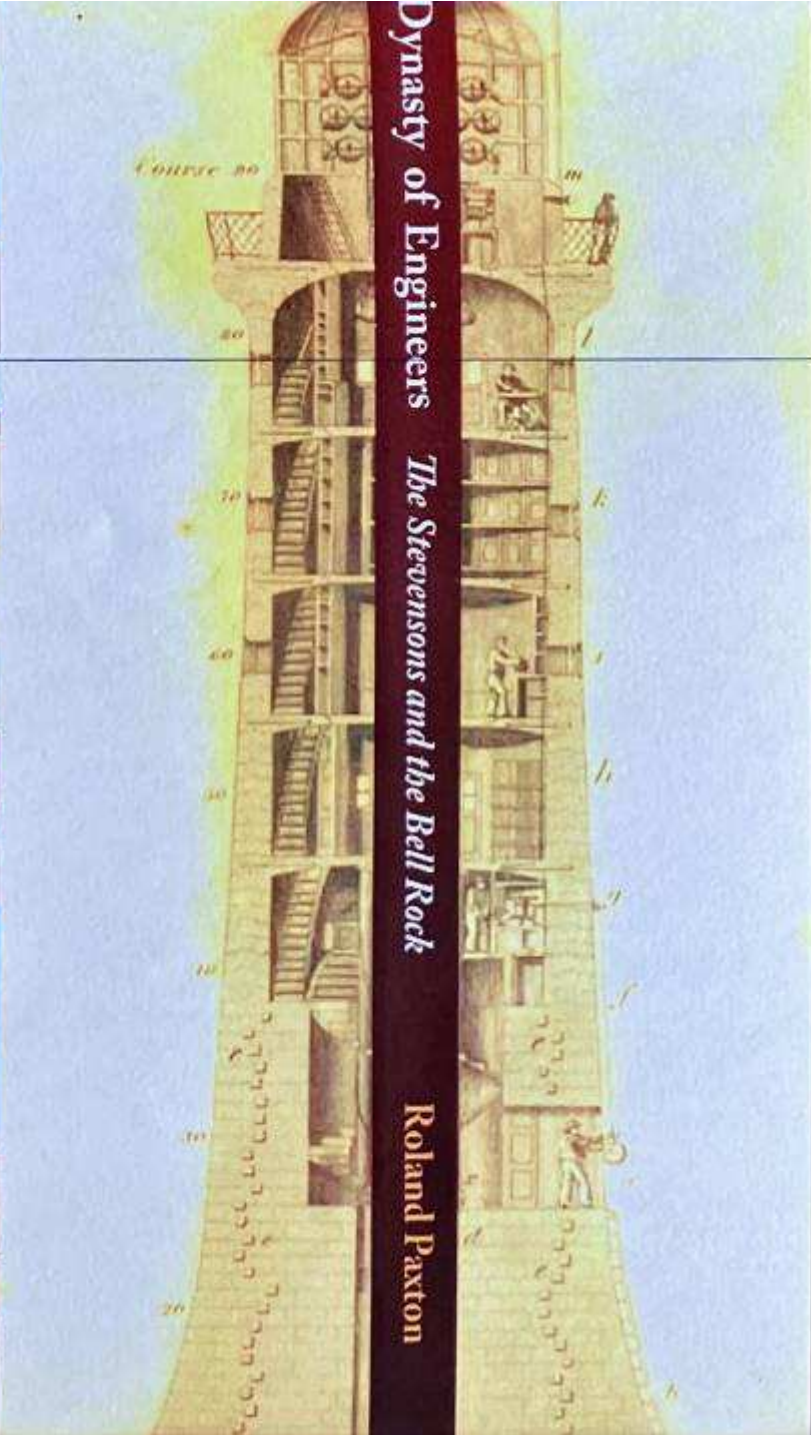
PROGRESS OF

STATE OF THE WORKS
IN AUGUST 1809.

Bellrock Lighthouse progress 1809 – note innovation



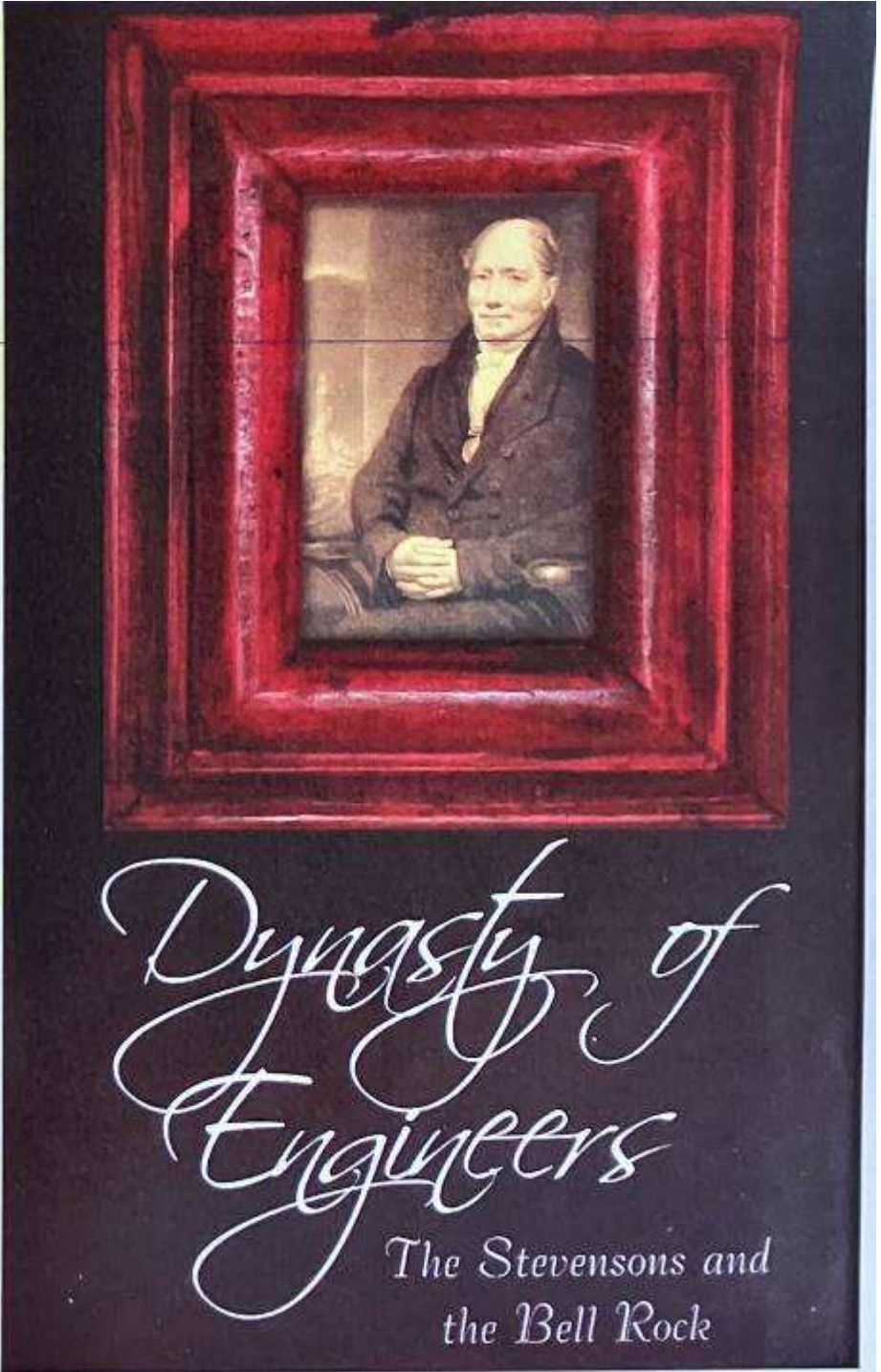
Bellrock Lighthouse kitchen – note floor dovetailing

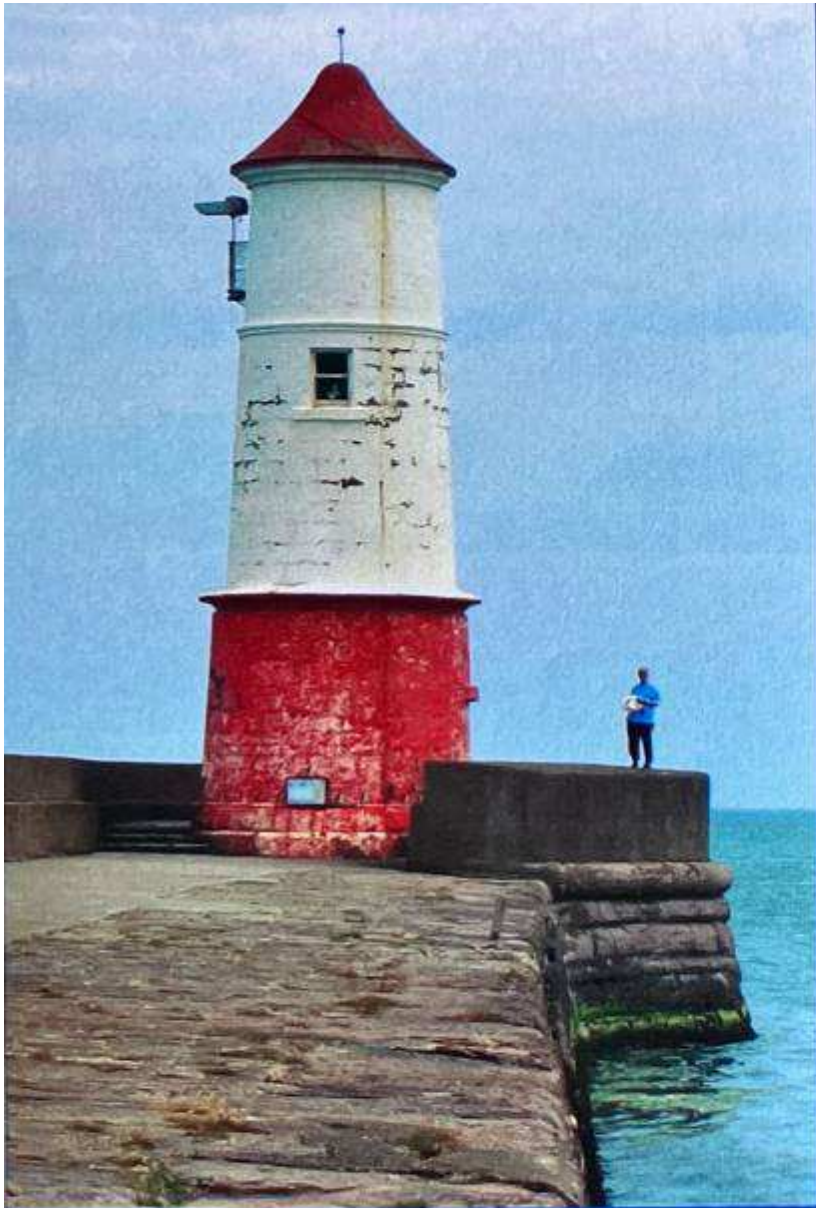


Dynasty of Engineers

The Stevensons and the Bell Rock

Roland Paxton





Rennie's Berwick Pier and lighthouse 1808-24. About 30 ft
Wide and 2000 ft long cost £63,000 – still in service

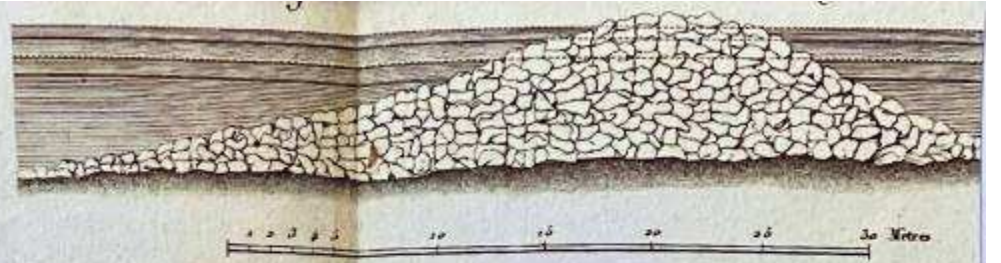
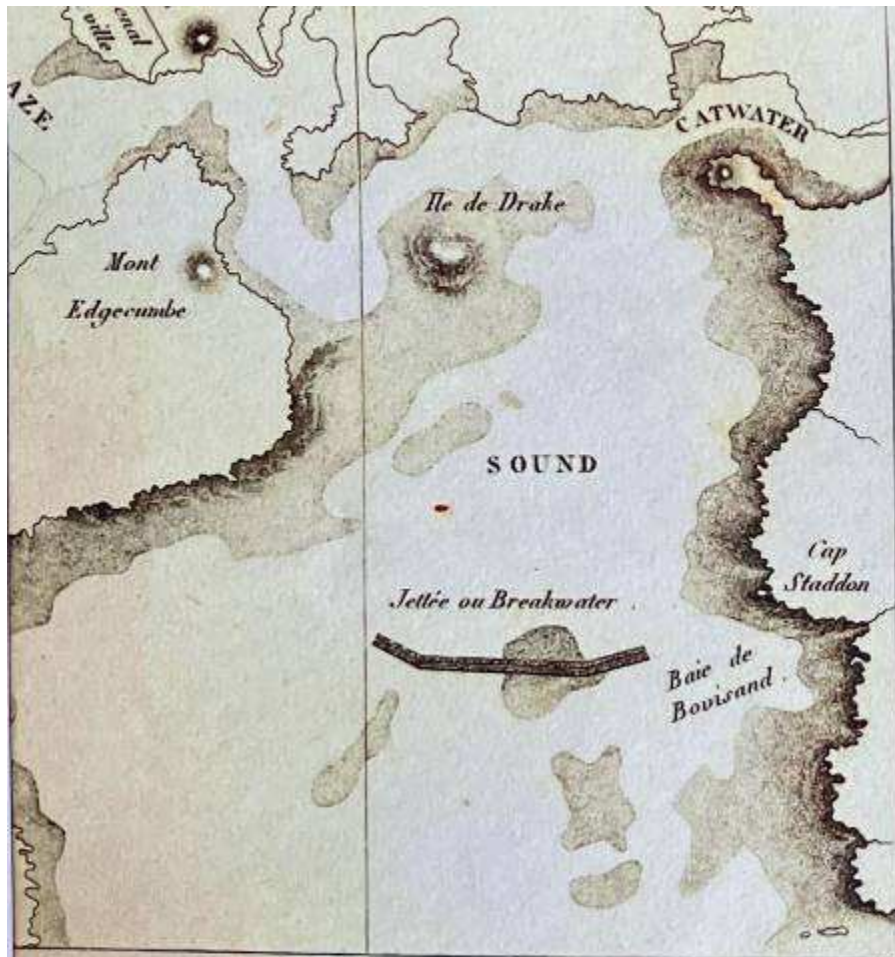
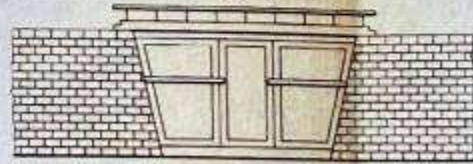
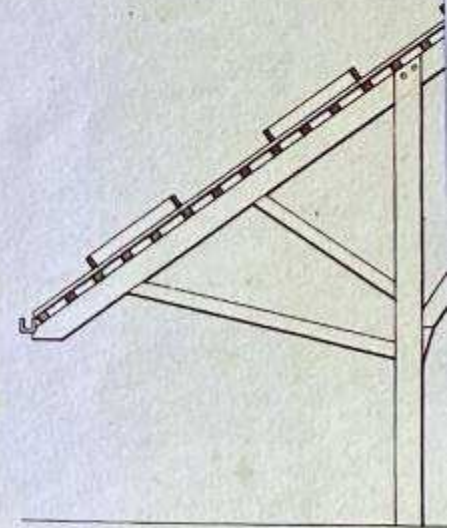
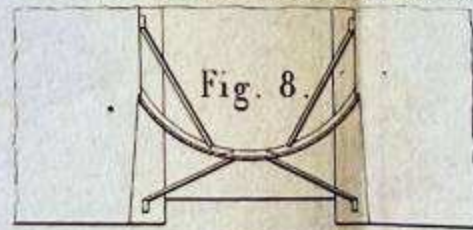


Fig. 7.

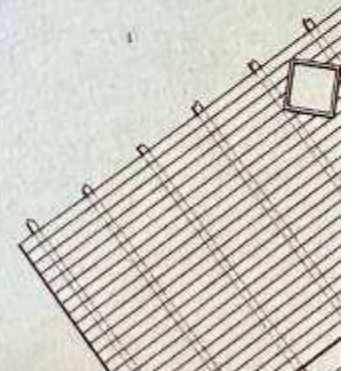
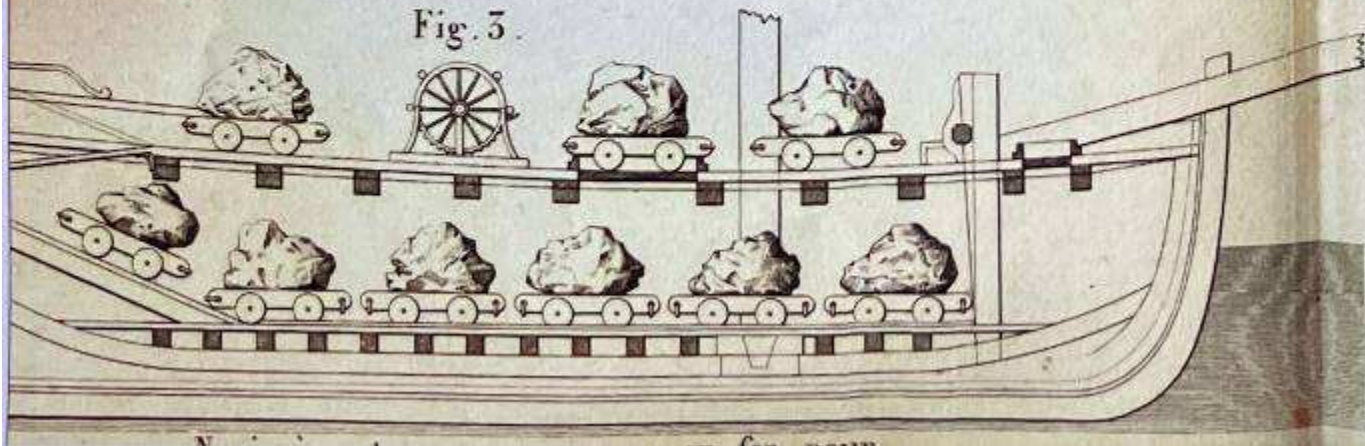


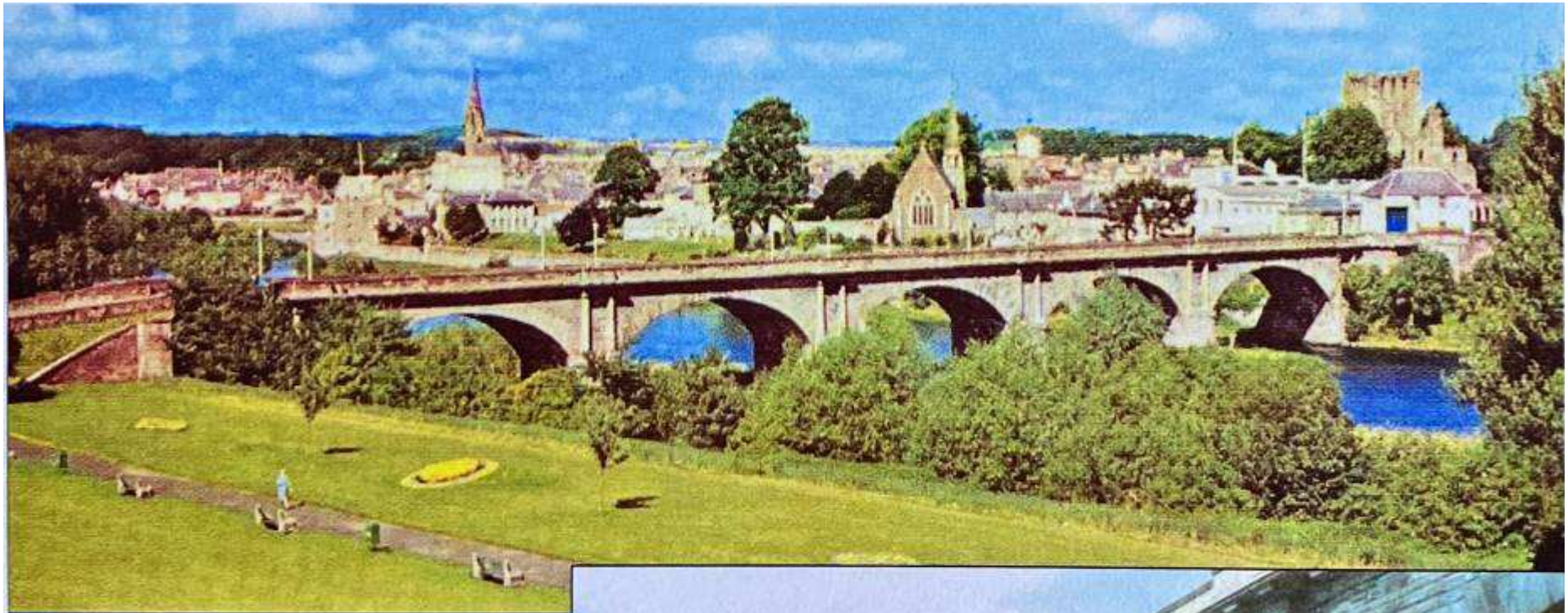
Fermetures à panneaux des formes de construc^{tion}



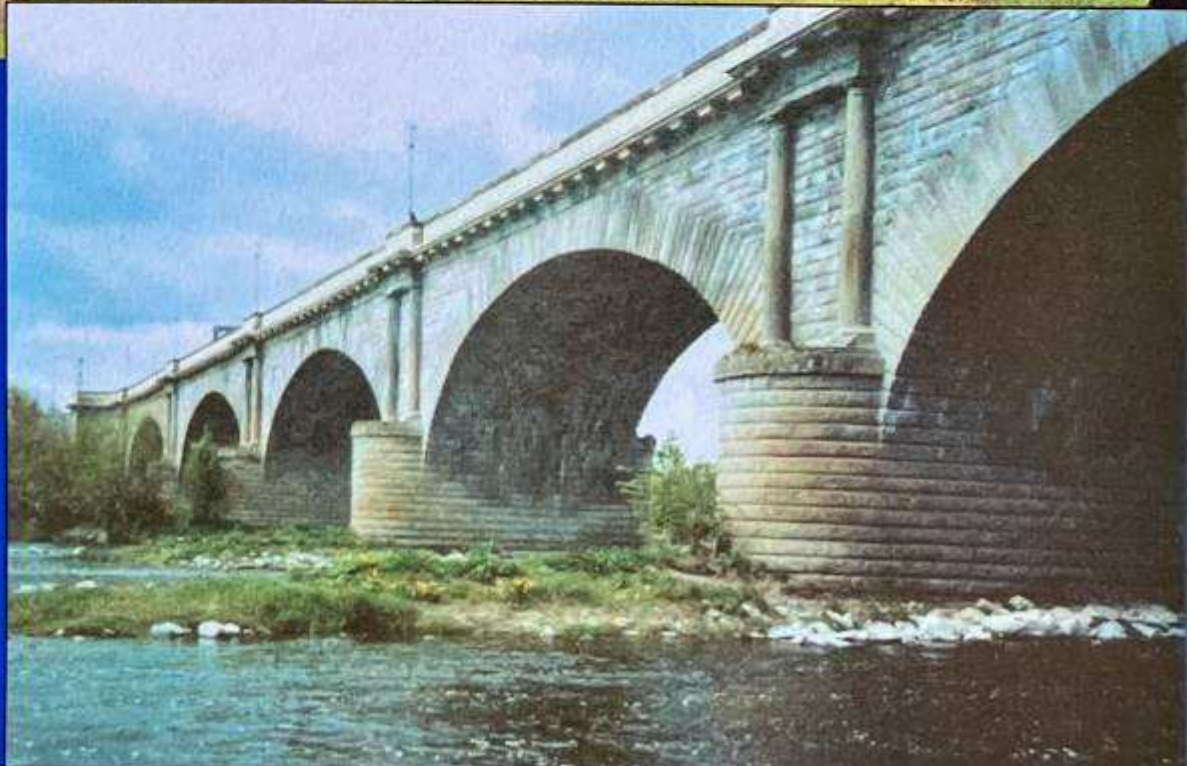
Plymouth Breakwater 1812-47

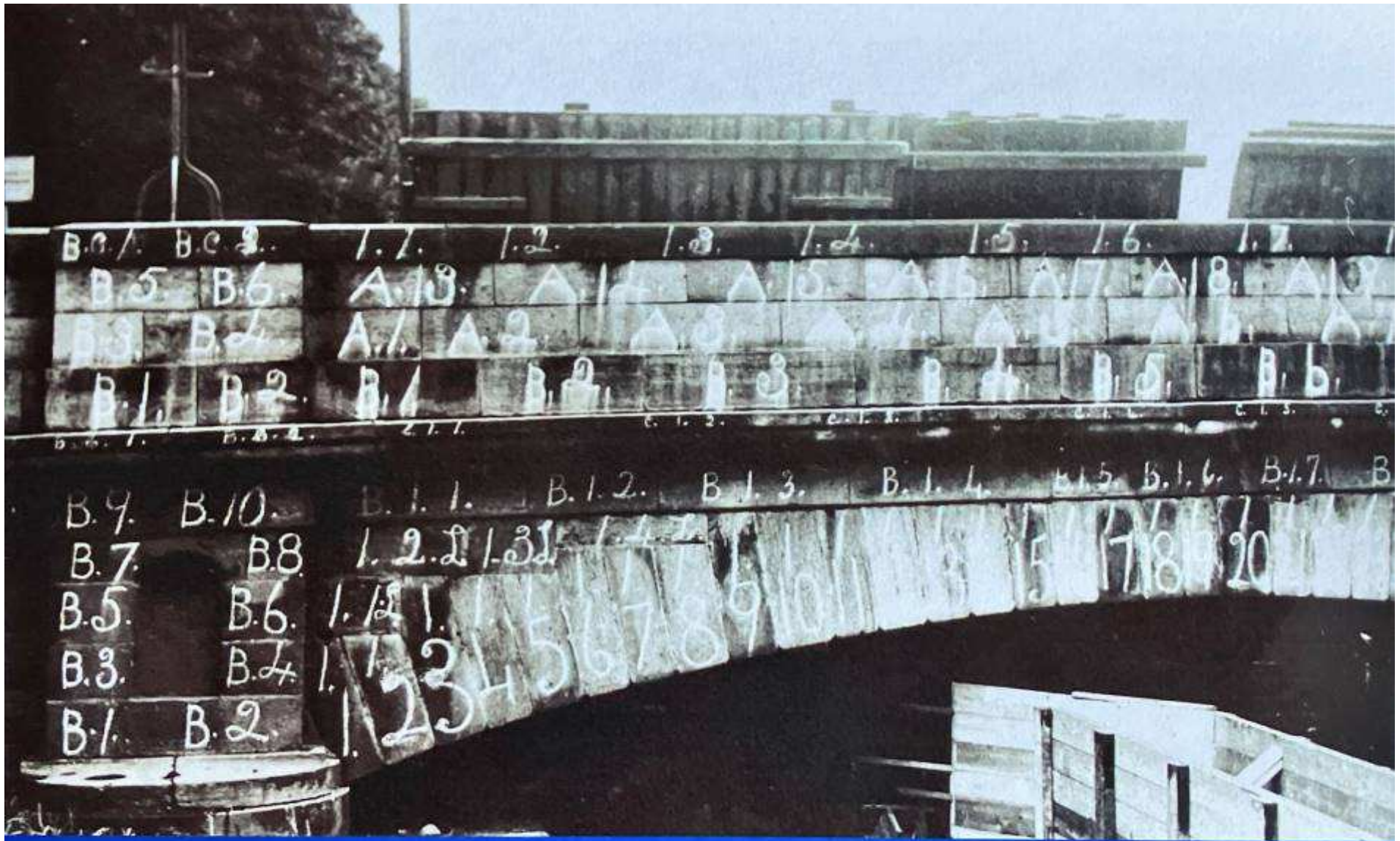
Fig. 5.



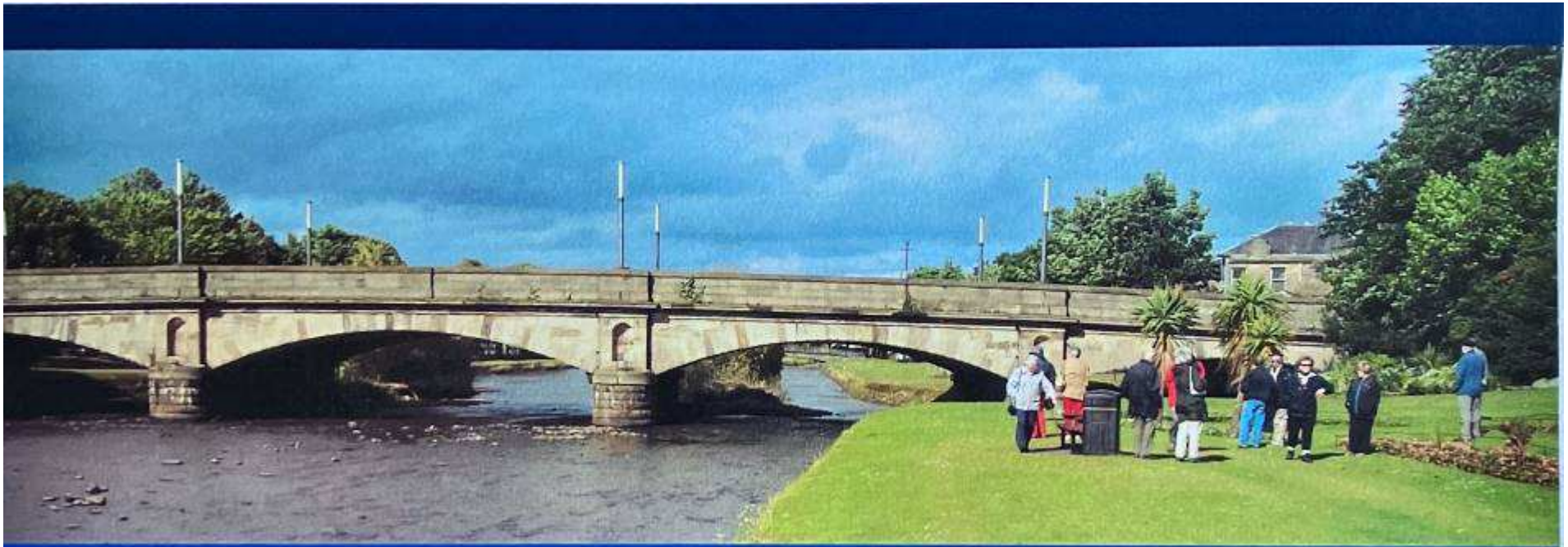


Kelso Bridge 1801-04
72 ft spans (elliptical)

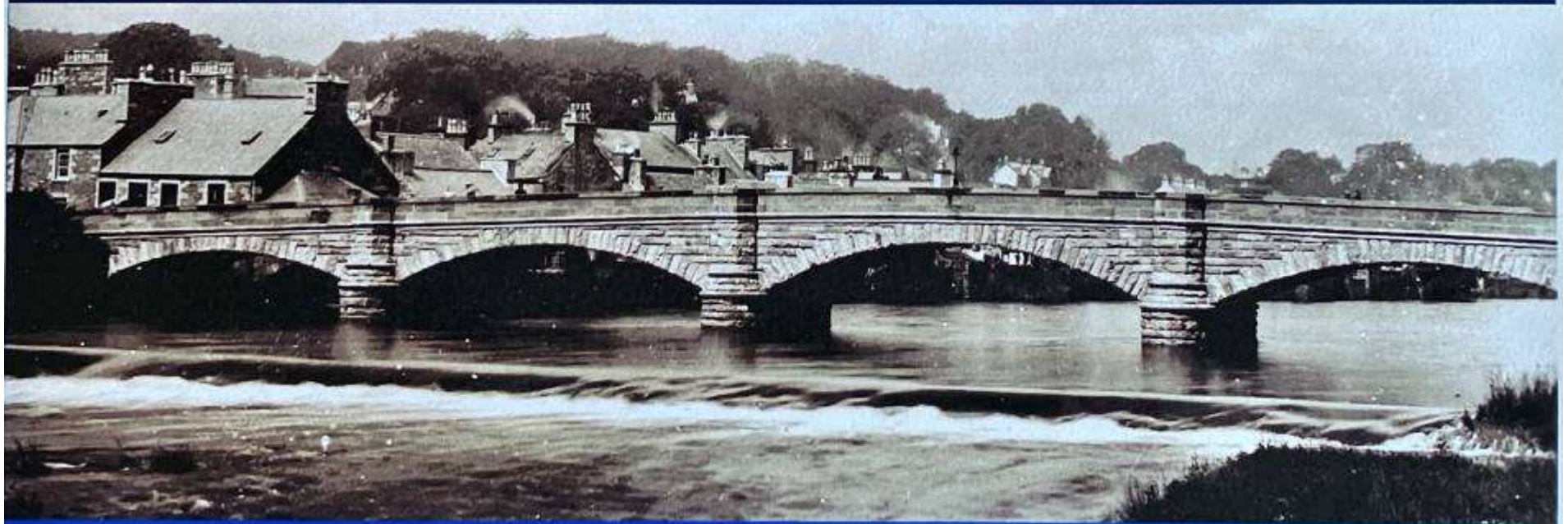




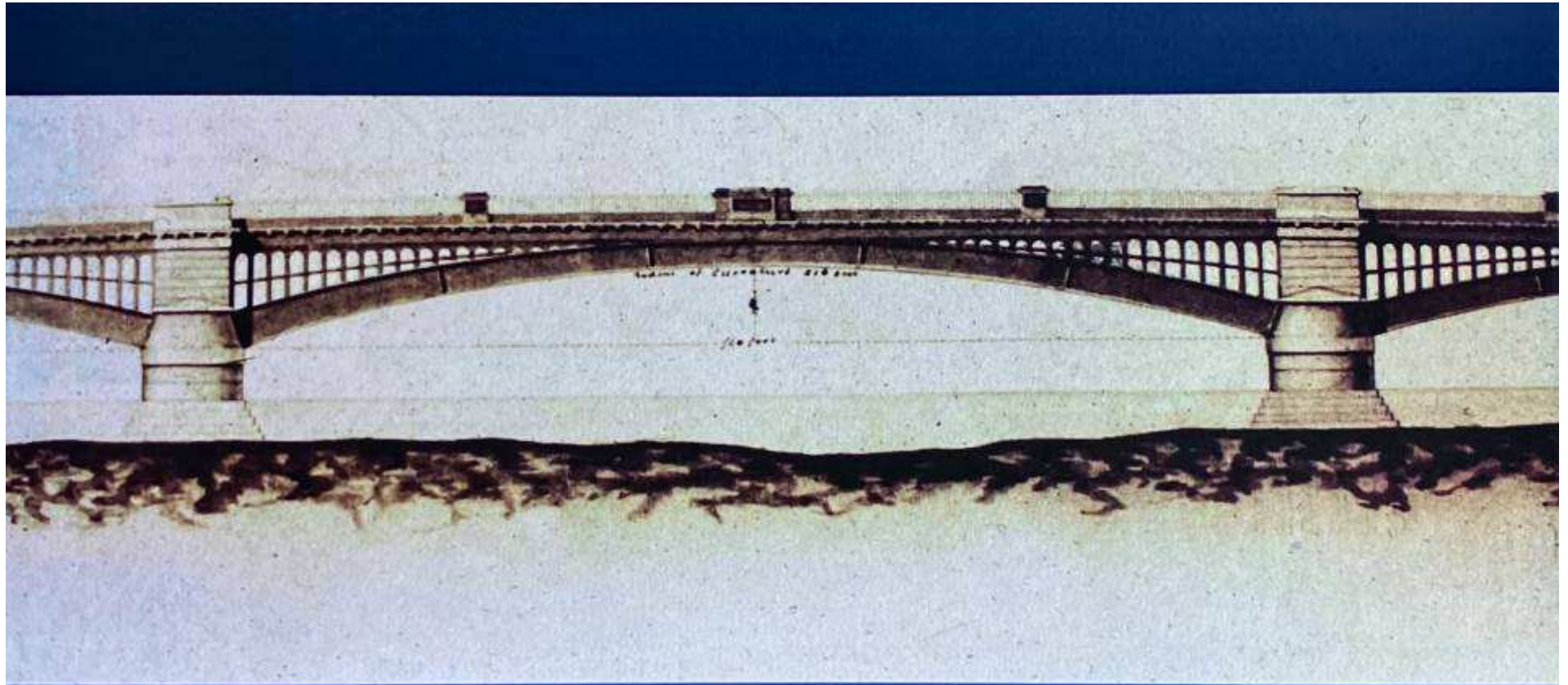
Musselburgh Bridge 1806-8 widened in 1925 on downstream side by Blyth & Blyth, Edinburgh



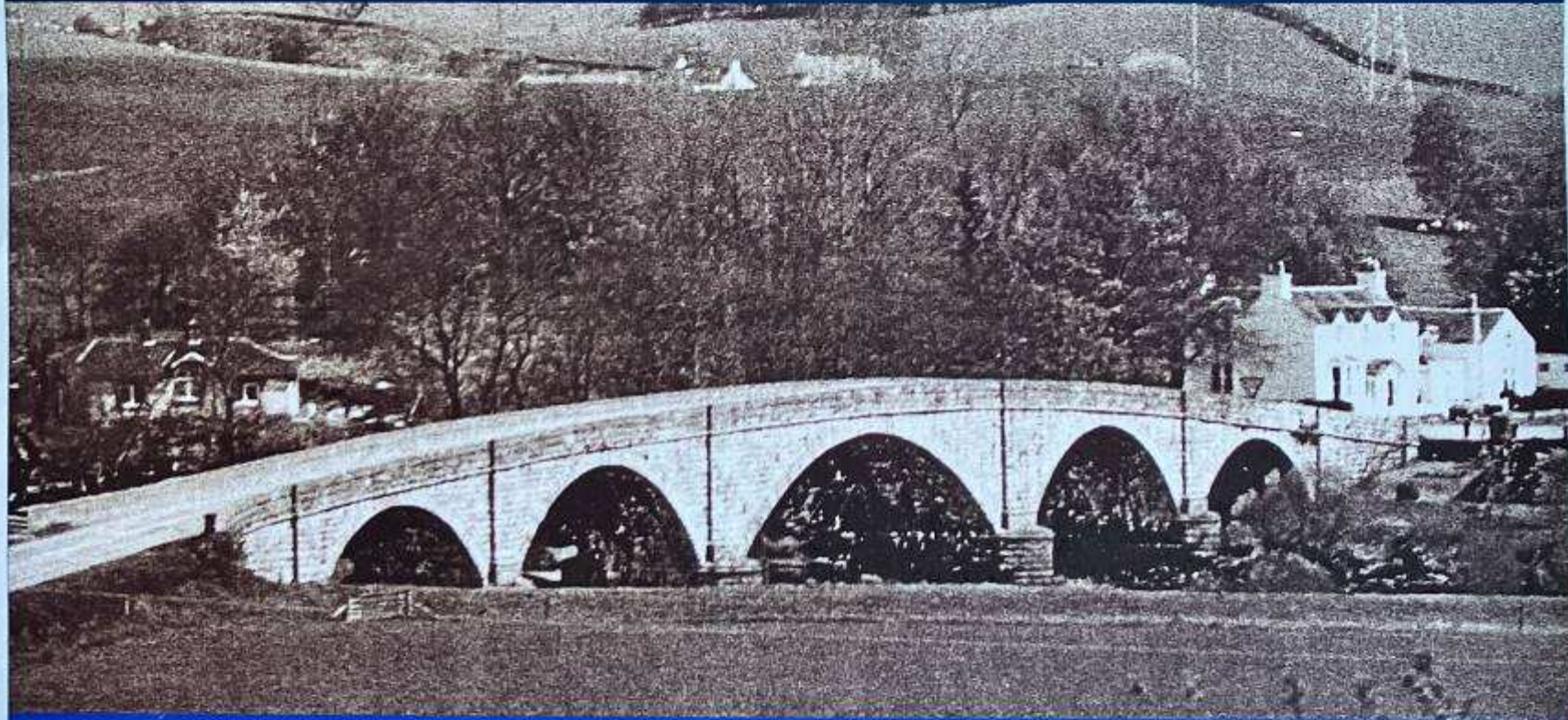
Musselburgh Bridge 1806-8 in 2010



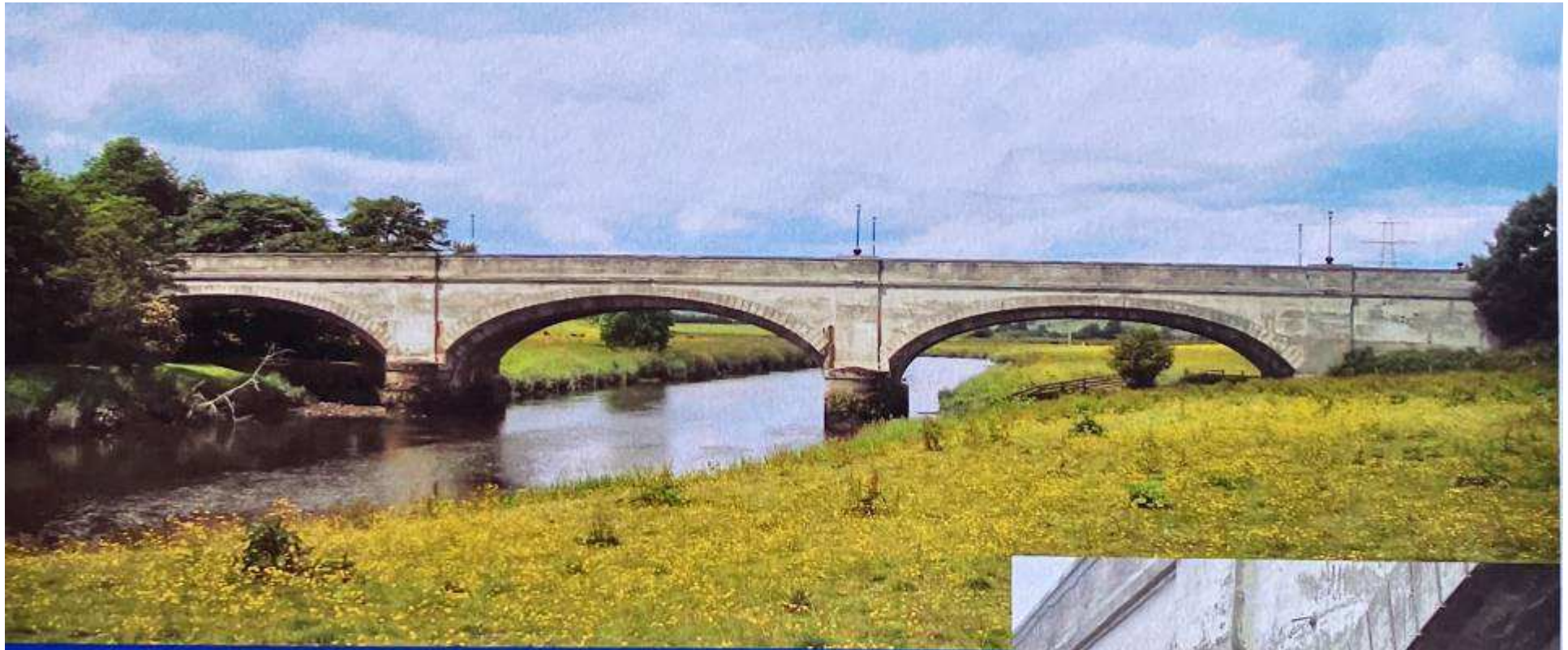
Cree Bridge, Newton Stewart 1812-14 – cost £8234



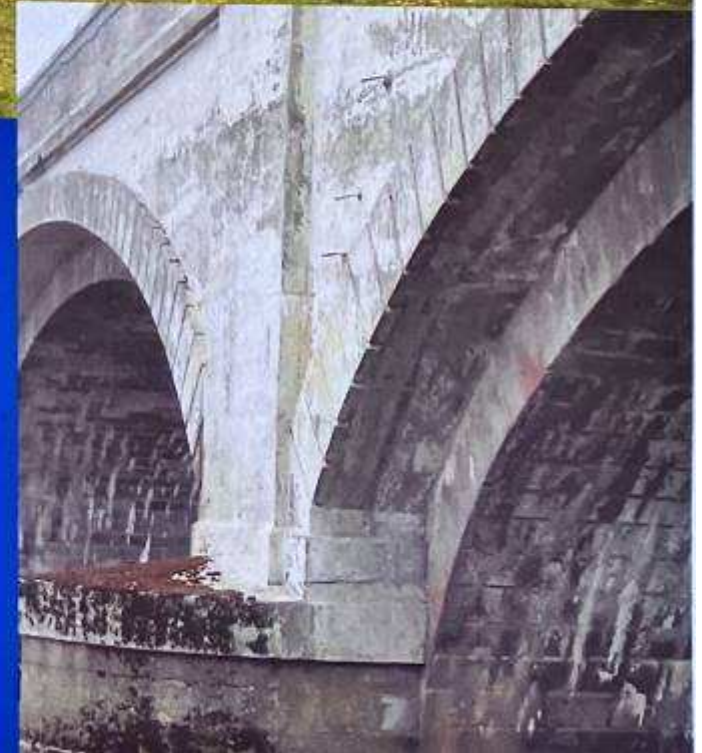
Glasgow, R. Clyde, Hutcheson Bridge Proposal 1815
(120 ft – 140 ft- 120 ft spans: ribs 48-66 ins deep)



Ken Bridge, New Galloway (90ft. max) 1820-24. Extensive water -
way as earlier bridges destroyed by floods in 1806 and 1815



Rennie's Bridge of Earn 1819
as widened with concrete in
1925 retaining the elliptical
shape of the original arches
visible under the bridge





Union Bridge, Paxton 1819-20. Rennie advised on the strengthening of the tower and abutment. Capt. Brown, Engineer
The world's oldest suspension bridge still carrying vehicles

Pont de Southwark à Londres.

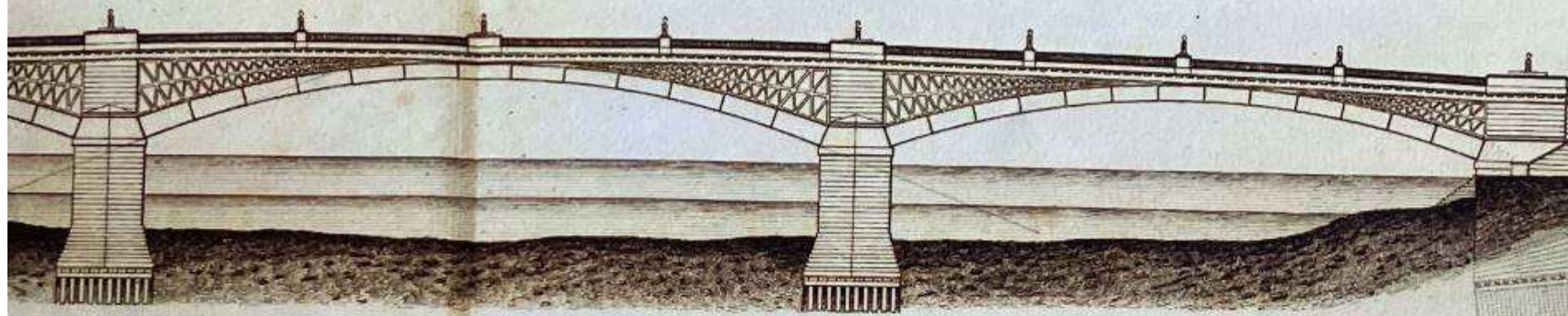


Fig. 2.

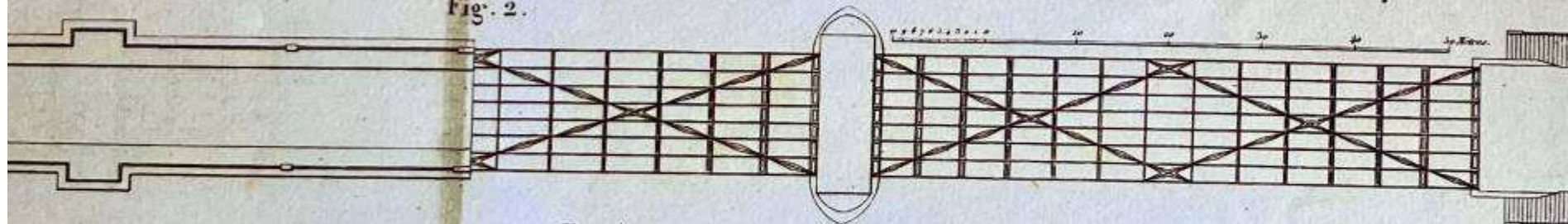


Fig. 4.

Fig. 5.

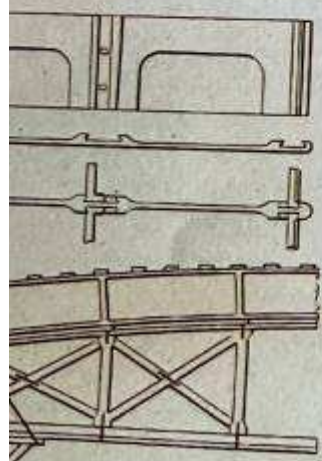
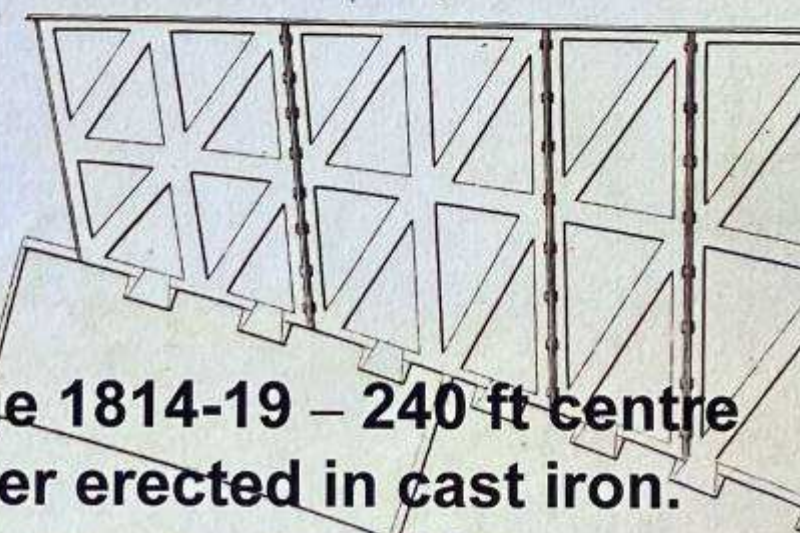


Fig. 4. bis.



Southwark Bridge 1814-19 – 240 ft centre span - largest ever erected in cast iron.

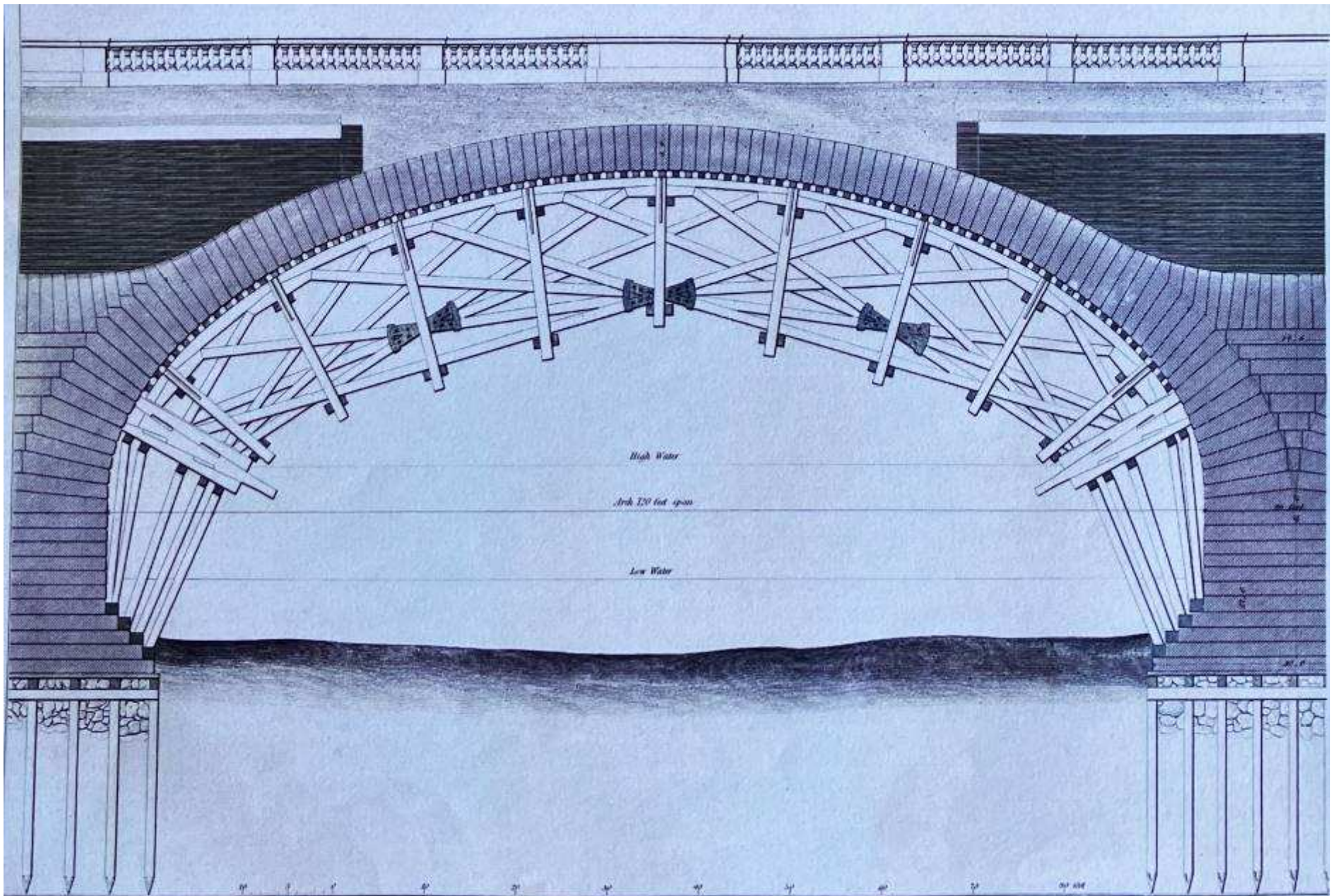
Weight c. 5400 tons - cost £0.66m

Fig. 7.

Fig. 7. bis.

Fig. 5. ter.

Fig. 5. bis.



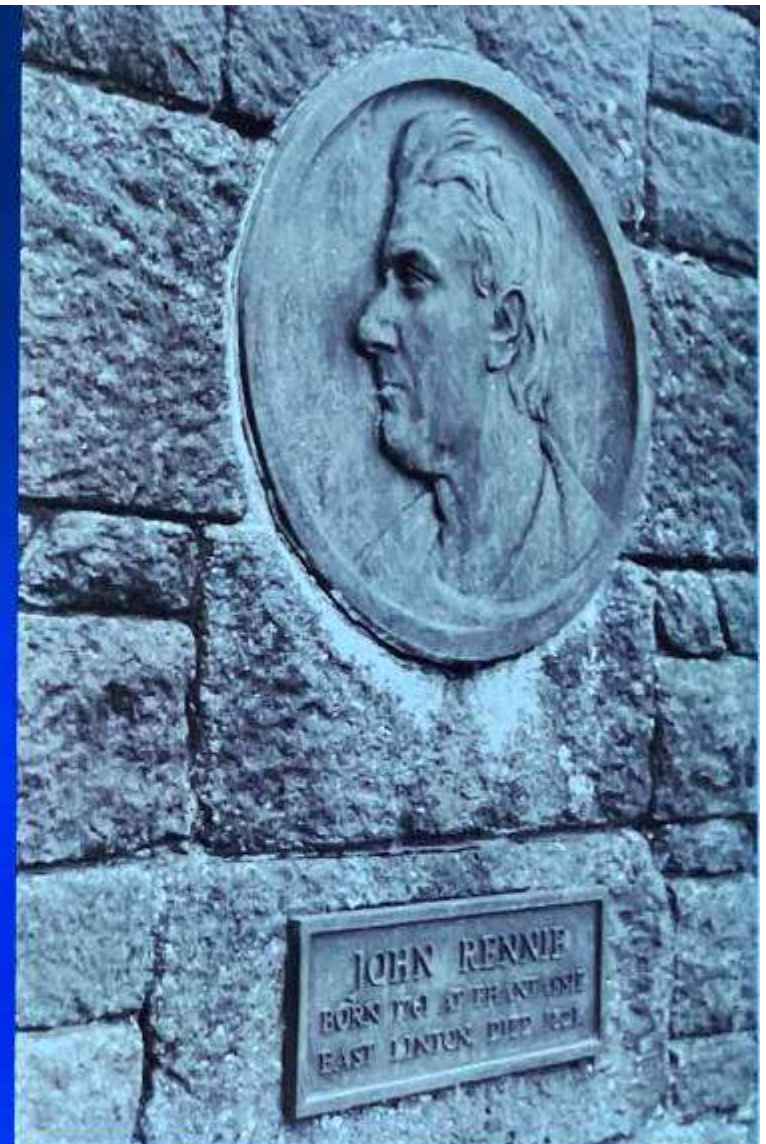
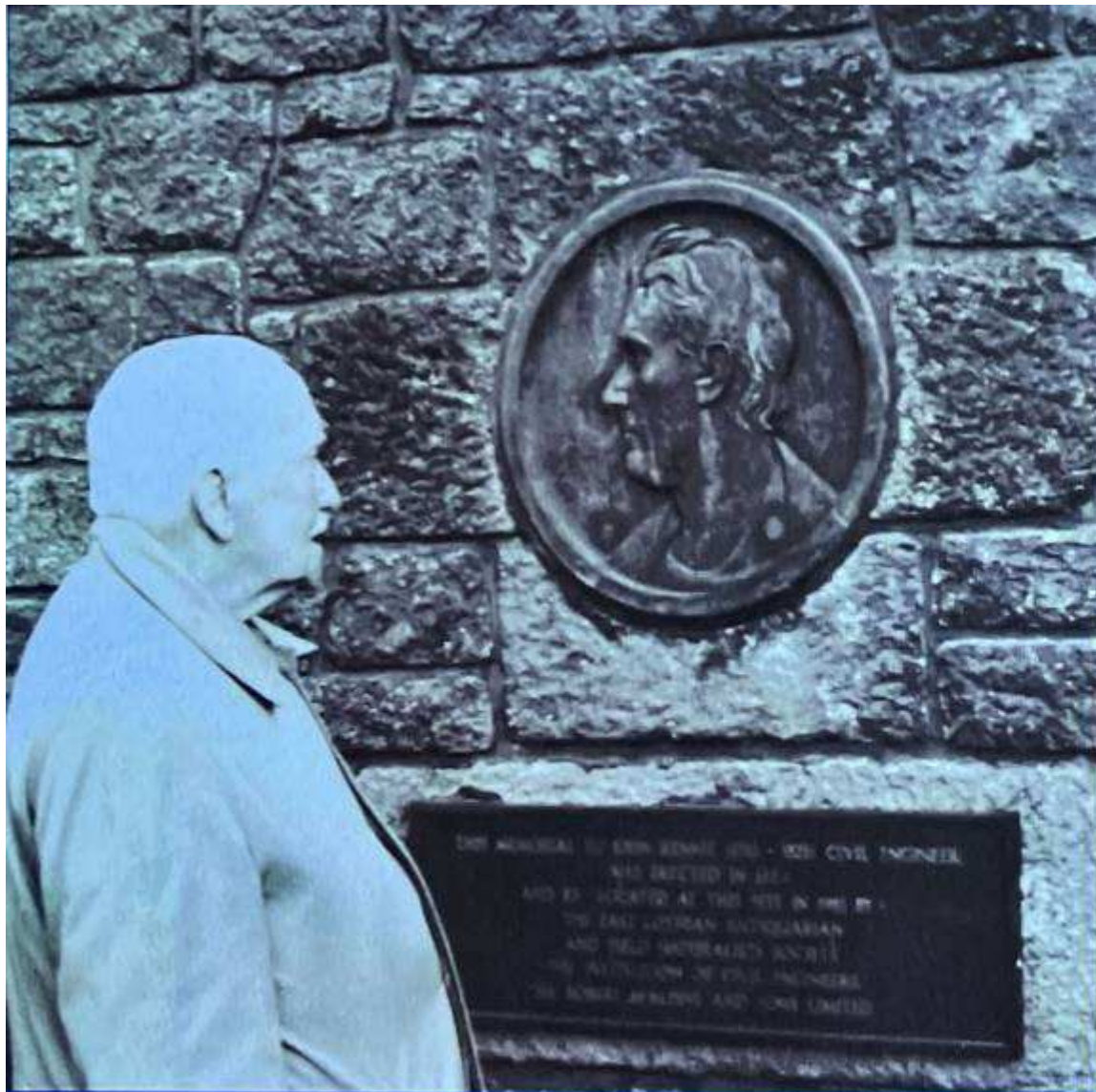
Rennie's Waterloo Bridge London - with its timber centering

Waterloo Bridge 1811-17 – then *the finest bridge in Europe*, cost £1M. Note balusters. Under demolition from 1934, note temporary spans. Rennie also designed new London Bridge in 1821- built after his death





London Bridge opened 1831 cost £2.5m. 150 ft span arches.
Sold in 1968 for \$2.5m now at Lake Havasu City in Arizona



Rennie Memorial, East Linton, including Waterloo Bridge baluster (not seen) and James Rennie, at its relocation at Phantassie in 1981 (left). 1936 memorial on bypass (right)