

# Bethanga Bridge

## The Bridge that Spans Two States



The border follows the south bank of the Murray River and so half of the Bethanga bridge is in each state. All other bridges along the Murray are on the New South Wales side.

### Planning the Bridge

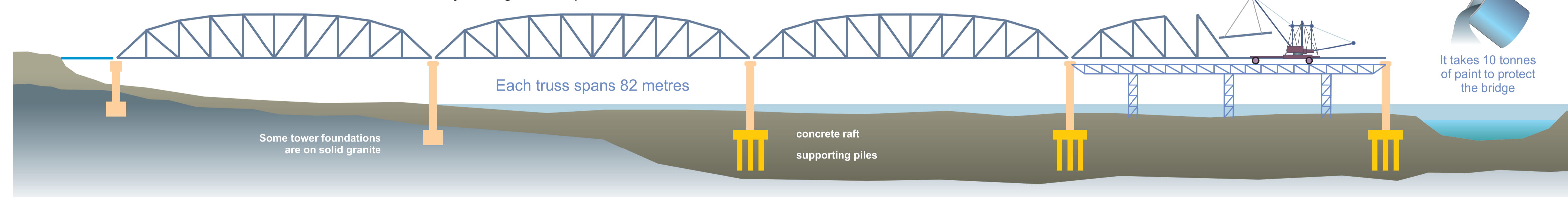
The Bethanga Bridge is one of the longest in Australia and provides a vital river crossing for the Upper Murray district. It replaces the Hawksview Bridge which was covered by the waters of the Hume reservoir. It was designed by the Public Works Department of NSW and constructed by the State Rivers and Water Supply Commission of Victoria and private contractors. Work started on site in 1927 and the bridge was completed by the end of 1930. When the reservoir started to fill, a punt provided a temporary crossing.

### Building the Bridge

In 1963 a small girder span was added on the NSW side

This type of truss was designed in America by Thomas and Caleb Pratt – they were granted a patent in 1844

Because of its shape, it is sometimes called a "camel-back" truss



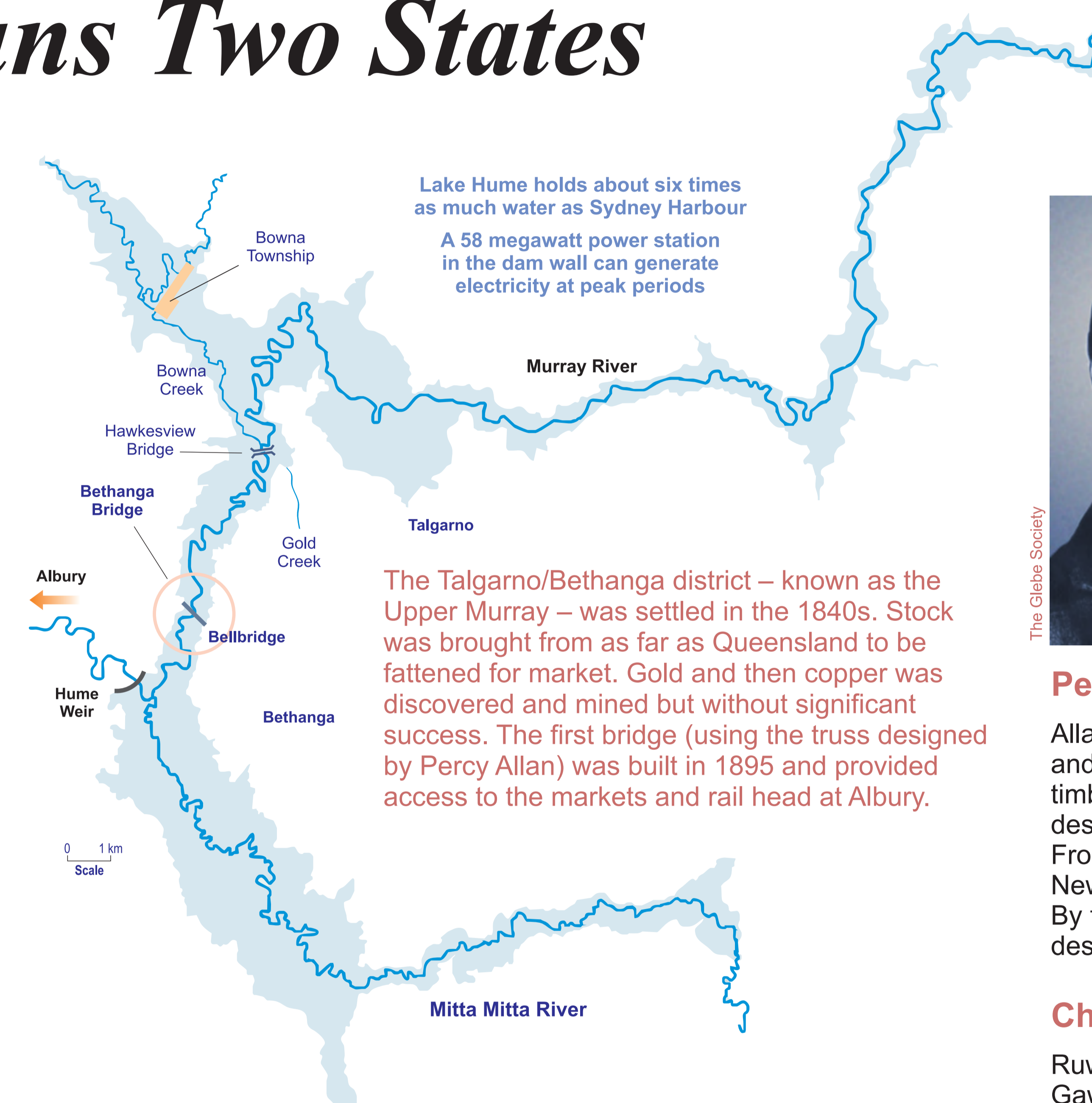
The trusses were made by Charles Ruwolt Pty Ltd in their Melbourne factory using steel made in Australia by the Broken Hill Pty Ltd. The parts were sent by rail to the Hume Dam site, then hauled by horses to the bridge work site in New South Wales.

The bridge is supported by concrete towers more than 30 metres tall. Concrete was poured continuously by moving the formwork up 300 millimetres at a time and using hot water in the mix so it cured quickly.

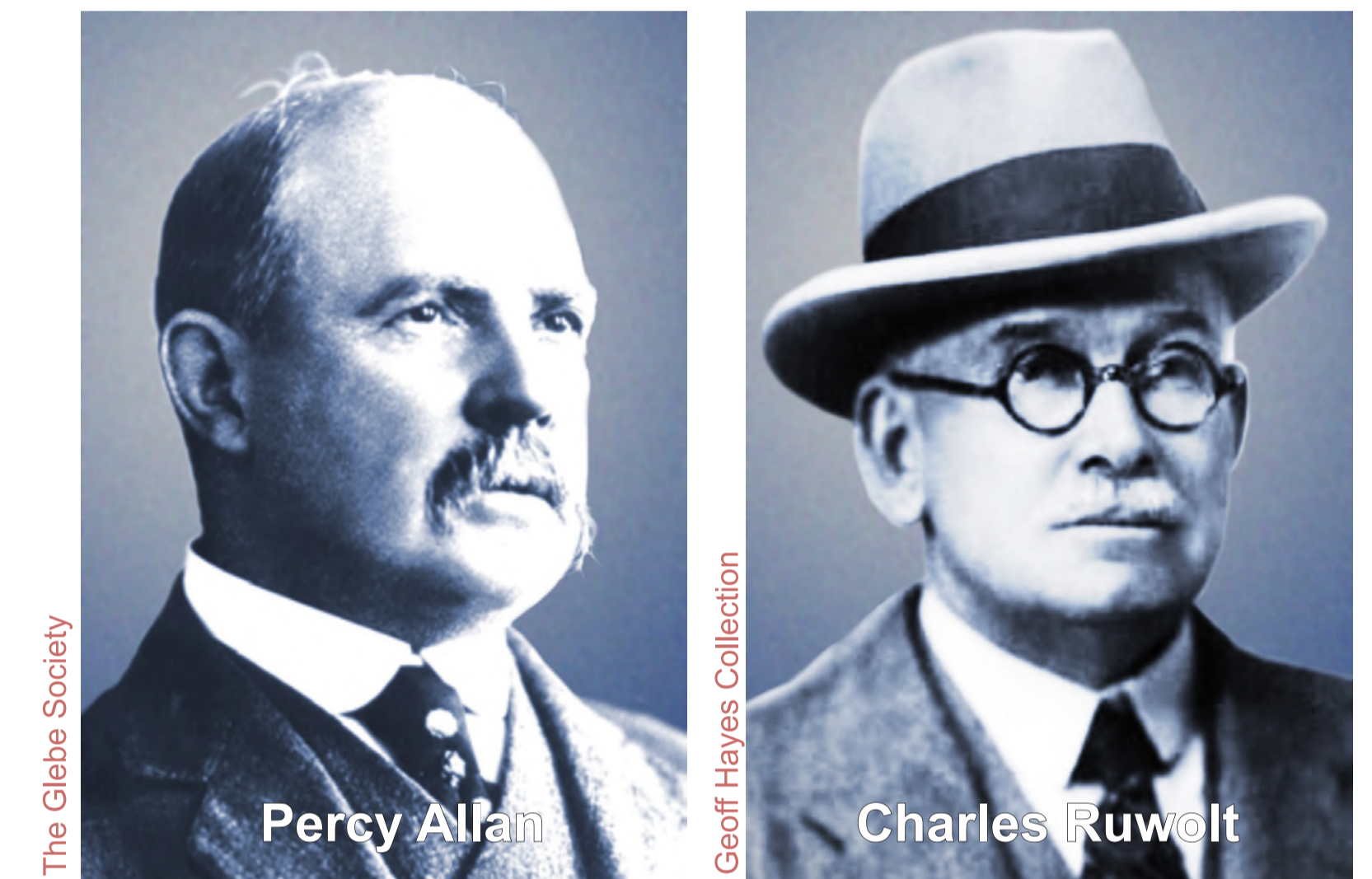
The bridge was assembled by another Victoria firm, W H Thompson of Kew, working from a temporary platform erected between the towers. In 1961, the original timber deck was replaced with concrete.



1. Building the concrete towers with movable formwork  
2. One of the trusses assembled at the Ruwolt factory  
3. Working from the temporary platform



The Talgarno/Bethanga district – known as the Upper Murray – was settled in the 1840s. Stock was brought from as far as Queensland to be fattened for market. Gold and then copper was discovered and mined but without significant success. The first bridge (using the truss designed by Percy Allan) was built in 1895 and provided access to the markets and rail head at Albury.

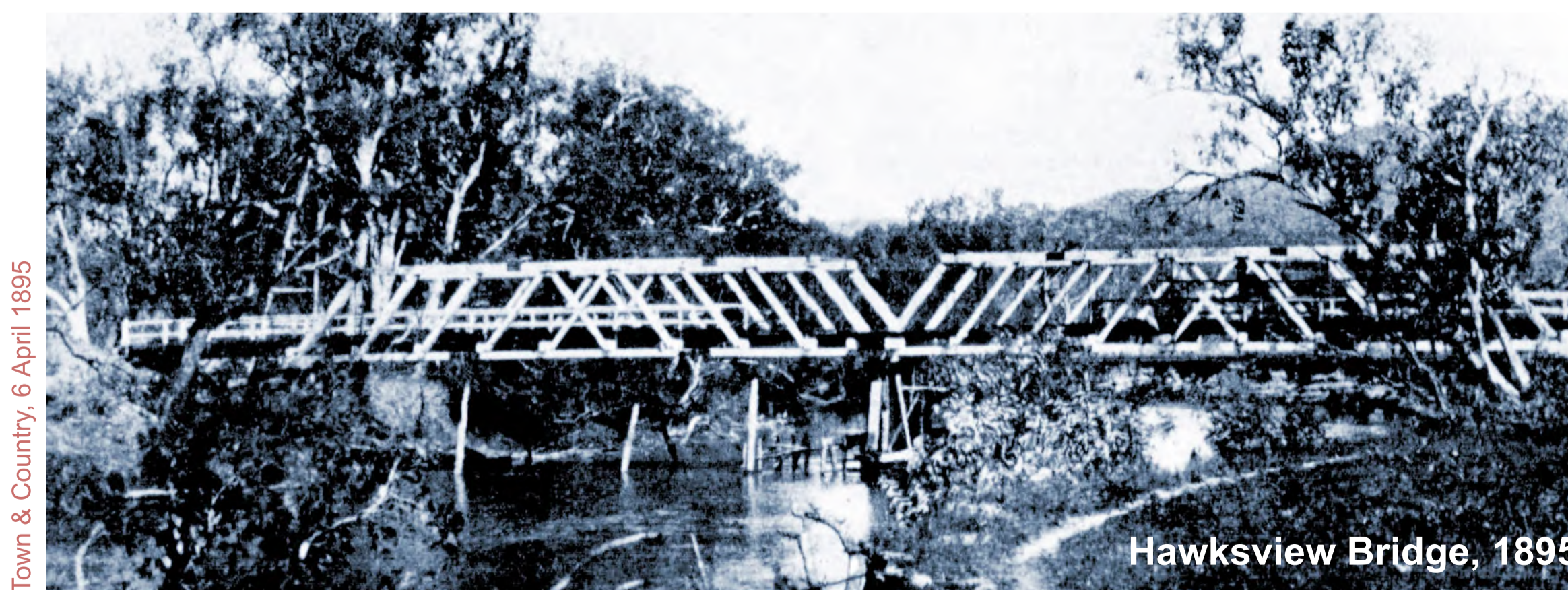


**Percy Allan MICE (1861 - 1930)**

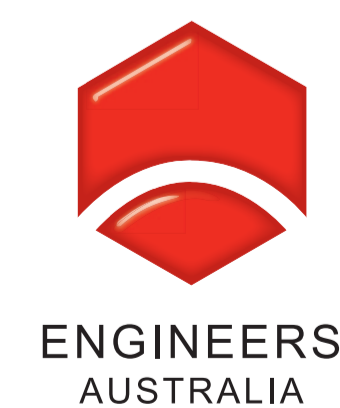
Allan joined the NSW Department of Works in 1878 and became chief draftsman in 1889. As well as the timber trusses which bear his name, Allan also designed the swing bridges at Pymont and Glebe. From 1908 to 1911 he was district engineer at Newcastle and later chief engineer for public works. By the time he retired in 1927, his department had designed 583 bridges.

**Charles Ruwolt (1873 - 1946)**

Ruwolt was apprenticed to James Martin & Co in Gawler (SA) and gained experience in many major engineering works in Victoria. In 1902 he established his own foundry at Wangaratta. He transferred to Richmond in 1914 and diversified into heavy industrial work. By 1938 the business was one of the largest engineering companies in Australia. In 1948, after Ruwolt's death, it was bought by Vickers Ltd (UK) and operated as Vickers Ruwolt.



Town & Country, 6 April 1895



Engineering Heritage National Marker placed on 10 October 2015  
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