



Historic Bridge Foundation Facebook Archives

Did You Know... David B. Steinman was a famous suspension bridge engineer? While many bridge enthusiasts might be familiar with David Steinman and his most famous bridge, the Mackinac Bridge in Michigan, there are some lesser known bridges and facts linked to David Steinman and his firm Robinson and Steinman.

The Grand Mere Bridge in Quebec, with its single 934-foot suspended span, is one of the smallest known surviving bridges designed by David Steinman. It was built in 1929 and was the first North American suspension bridge to use prestressed twisted wire rope-strand cables. Philip Louis Pratley was also a consulting engineer on this project, which is of interest because his firm Monsarrat and Pratley designed other large suspension bridges in Canada such as the Lion Gate Bridge in British Columbia.

William G. Grove worked as a chief engineer for Robinson and Steinman on the Mt. Hope Bridge in Rhode Island, completed 1929. For this bridge, the supplier of wire for the bridge talked Steinman into using a new and supposedly stronger type of heat-treated wire rather than traditional cold-drawn wire. Steinman was suspicious of this new wire and did not reduce the amount of wire used despite it being supposedly stronger. He also had the wire company sign a guarantee that the new wire was safe, which ended up being a smart move on Steinman's part. It was William Grove who had to call Steinman and report numerous breaks in the wire cable, a clear indication that heat-treated wire was a faulty product. Steinman ordered the wire company to pay to replace all cable with traditional cold-drawn wire.

The Arrigoni Bridge built 1936 between Middletown and Portland, Connecticut, is not immediately identifiable as having been a product of Robinson and Steinman, although a number of sources online reference the company. The bridge plaque lists William G. Grove as the designing engineer for the bridge. Apparently, Grove still worked for Robinson and Steinman at this time, although by 1940 he would be working as associate highway engineer for the Connecticut State Highway Department. Assuming Grove did in fact still work for Robinson and Steinman when this bridge was built, it is unusual that the name of the design firm would not be included and that only Grove's name is mentioned. Merritt-Chapman & Scott was the substructure contractor for this bridge, of note because a large number of bridges associated with Steinman had substructures built by Merritt-Chapman & Scott.

As famous as David Steinman is among bridge engineers, a complete list of bridges he designed is not readily available. Many sources claim that he designed bridges around the world, but bridges he designed beyond North America have not been identified. Steinman was involved with the famous Ponte Hercílio Luz in Florianópolis, Brazil. The Ponte Hercílio Luz was built in 1926 and was very similar

to the ill-fated Silver Bridge that collapsed in West Virginia. If you know of other bridges designed by Steinman outside of North America, feel free to post a comment.

A lesser known fact about Steinman is that he liked to write poems. While not the first engineer to do so (Joseph Strauss had a collection of traditional poetry he had written) Steinman's poems stand out as unique because they use engineering words that most poets would not use. A good example is his poem "Blueprint," which appears to be a poem about the construction of the Brooklyn Bridge and Washington Augustus Roebling. The poem is as follows:

Blueprint

He saw it clearly and clairvoyant bright:

Twin granite pylons of majestic rise,

Founded on rock beneath the water swirl;

The lofty cables, spun of cold-drawn steel,

Cutting the sky in parabolic arcs-

A lyric pattern etched against the blue.

The spell of Euclid sang in his design:

The wizardry of radiating stays,

A geometric web to hold the stars;

The titan uplift of the singing strands;

High Gothic portals framed in stone-all these

He traced in blueprint, accurate as truth.

This magic he had made, though in the end

He did not live to see the caissons down.

The shadow of a fear that builders know

Was myth made real: 'A bridge demands a life.'

He paid the toll, the world his legatee:

His work, his dream. bridging the span of death.

H. D. ROBINSON

D. B. STEINMAN

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Design, Construction, Strengthening, Investigations
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A 1938 advertisement for Robinson and Steinman.



Left: David Steinman with his wife in 1916. Right: David Steinman with his children in 1921.



David Steinman on the Mackinac Bridge during its construction.



David Steinman posing at his desk.