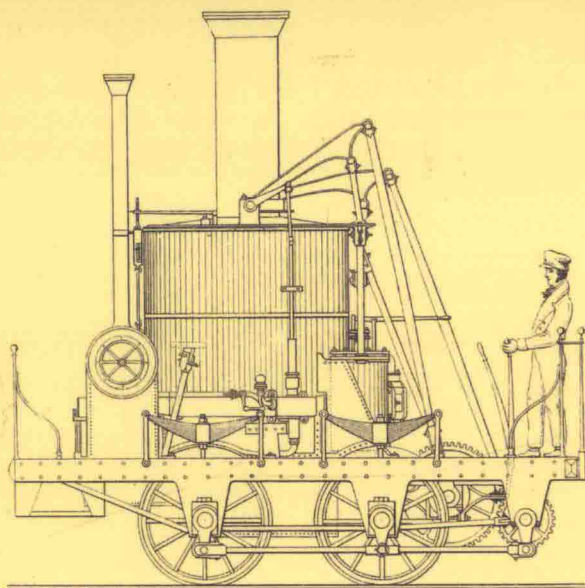


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SKETCH OF THE CIVIL ENGINEERING OF NORTH AMERICA

COMPRISING REMARKS ON THE HARBOURS,
RIVER AND LAKE NAVIGATION,
LIGHTHOUSES, STEAM-NAVIGATION,
WATER-WORKS, CANALS,
ROADS, RAILWAYS, BRIDGES,
AND OTHER WORKS IN THAT COUNTRY

DAVID STEVENSON



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Sketch of the Civil Engineering of North America

A distinguished civil engineer, David Stevenson (1815–86) continued his father's work of designing and building lighthouses around the coast of his native Scotland. His three-month tour of the United States and Canada in 1837 resulted in this highly detailed and unprecedented survey, first published in 1838. Stevenson covers a large number of engineering works, ranging from lighthouses and canals through to roads, bridges and railways. Notably, Stevenson's praise for North America's faster and sleeker steam vessels led British shipbuilders to emulate the models he describes and illustrates in this text. The work remains a historically valuable assessment of the continent's infrastructure at a time of great industrial expansion. Stevenson's *The Principles and Practice of Canal and River Engineering* (2nd edition, 1872) and his *Life of Robert Stevenson* (1878), a biography of his father, are also reissued in this series.

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THAT COUNTRY.

BY
DAVID STEVENSON,
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PREFACE

HAVING at various times heard much to interest and surprise me respecting the engineering works of America, and having been unable to meet with any publication containing satisfactory information regarding them, I resolved to take advantage of a short interval of professional leisure, to examine the subject for myself.

In a tour of about three months I visited Upper and Lower Canada, and the most interesting parts of the United States of America, and endeavoured, throughout, to direct my attention to those objects which are of greatest importance to a Civil-Engineer. My observation embraced many of the principal Sea-ports. and navigable Rivers,

two of the Great Lakes, the principal Canals, Railroads, Bridges, and other means of communication, and the most remarkable of the works for supplying the cities with water. The Steam-navigation of those countries, and the system of Lighthouses established along their coasts, also came incidentally under my notice, as well as some other points of more or less interest and importance.

I was well aware, before leaving this country, that a field so extensive and varied could not be fully examined in so limited a period ; but this rapid tour, though it has not afforded that full measure of information upon many points of inquiry, which, had my time permitted, it would have been my endeavour to procure, has fully answered my purpose, by giving me a general view of the state of Civil-Engineering in America.

Having in the course of this journey seen a good deal that was entirely new to me, I have been induced to lay before my professional brethren the information thus obtained. It is true that Civil-Engineering, as practised in America, is not always applicable to the circumstances of Europe ; but still the modifications to which it is subject in a new country may prove useful, by suggesting va-

rious methods of working, adapted to local circumstances or limited funds.

The object, however, of this brief sketch is not to satisfy the curiosity of Engineers in England; but rather to stimulate others, who may have it in their power, not only to examine more thoroughly the ground here gone over, but to extend their researches to other parts of the country, which my limited time did not permit me to visit. Judging from the attentions shewn me by all classes of persons in America, and their readiness to communicate freely every kind of information, I feel certain that any such extended engineering tour would be attended with no less pleasure than interest.

It is impossible to acknowledge in suitable terms the kindness experienced by me while in America. I had the honour of seeing the Earl of Gosford at Quebec, and received from his Lordship repeated offices of kindness during my stay in Canada. At Washington I had the honour of being presented to Mr Van Buren, the President of the United States, who afforded me every facility in prosecuting the object of my journey. To Mr Poinsett,

the Secretary at War, and Mr Pleasonton, one of the Auditors of the Treasury, I am much indebted for attentions received from them in their official capacities. At Pittsburg, much kindness was shewn me by Judge Baldwin ; and, in the course of my journey, I profited on many occasions by the good offices of Professor Hare, Professor Bache, Mr Strickland, Mr Walter, and Mr Keating, at Philadelphia ; Professor Webster at Boston ; Professor Silliman at Newhaven ; Dr Francis, Dr Wilks, Mr Pitcairn, and Mr Redfield, at New York ; and General Van Rensselaer, the Patroon, at Albany.

It is unnecessary here to mention the names of the Civil-Engineers to whom I was introduced in America, as occasions will occur in the following pages, to acknowledge the pleasure derived from their acquaintance, and their liberality in affording me information regarding the works under their care.

DAVID STEVENSON

EDINBURGH, *July* 1838.

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