CAMBRIDGE LIBRARY COLLECTION

Books of enduring scholarly value

Technology

The focus of this series is engineering, broadly construed. It covers technological innovation from a range of periods and cultures, but centres on the technological achievements of the industrial era in the West, particularly in the nineteenth century, as understood by their contemporaries. Infrastructure is one major focus, covering the building of railways and canals, bridges and tunnels, land drainage, the laying of submarine cables, and the construction of docks and lighthouses. Other key topics include developments in industrial and manufacturing fields such as mining technology, the production of iron and steel, the use of steam power, and chemical processes such as photography and textile dyes.

Life of Robert Stevenson

Published in 1878, this biography of the civil engineer Robert Stevenson (1772–1850) was written by his second-youngest son David (1815–86), also a civil engineer and uncle to the author Robert Louis Stevenson. Having already published *The Principles and Practice of Canal and River Engineering* in 1872 (also reissued in this series), he set about writing this survey of his father's life and works, based on extracts from Robert's professional reports, notes from his diary, and communications to scientific journals and societies between 1798 and 1843. Perhaps most widely known for his practical and persuasive leadership in building many lighthouses for the Northern Lighthouse Board – including that on the notorious Bell Rock, over which he came into conflict with engineer John Rennie regarding the design – Stevenson ensured that the Scottish coastline became a much safer place for shipping for decades to come.

Cambridge University Press has long been a pioneer in the reissuing of out-of-print titles from its own backlist, producing digital reprints of books that are still sought after by scholars and students but could not be reprinted economically using traditional technology. The Cambridge Library Collection extends this activity to a wider range of books which are still of importance to researchers and professionals, either for the source material they contain, or as landmarks in the history of their academic discipline.

Drawing from the world-renowned collections in the Cambridge University Library and other partner libraries, and guided by the advice of experts in each subject area, Cambridge University Press is using state-of-the-art scanning machines in its own Printing House to capture the content of each book selected for inclusion. The files are processed to give a consistently clear, crisp image, and the books finished to the high quality standard for which the Press is recognised around the world. The latest print-on-demand technology ensures that the books will remain available indefinitely, and that orders for single or multiple copies can quickly be supplied.

The Cambridge Library Collection brings back to life books of enduring scholarly value (including out-of-copyright works originally issued by other publishers) across a wide range of disciplines in the humanities and social sciences and in science and technology.

Life of Robert Stevenson

Civil Engineer

DAVID STEVENSON

CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE
UNIVERSITY PRESS

University Printing House, Cambridge, CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.
It furthers the University's mission by disseminating knowledge in the pursuit of
education, learning and research at the highest international levels of excellence.

www.cambridge.org
Information on this title: www.cambridge.org/9781108070584

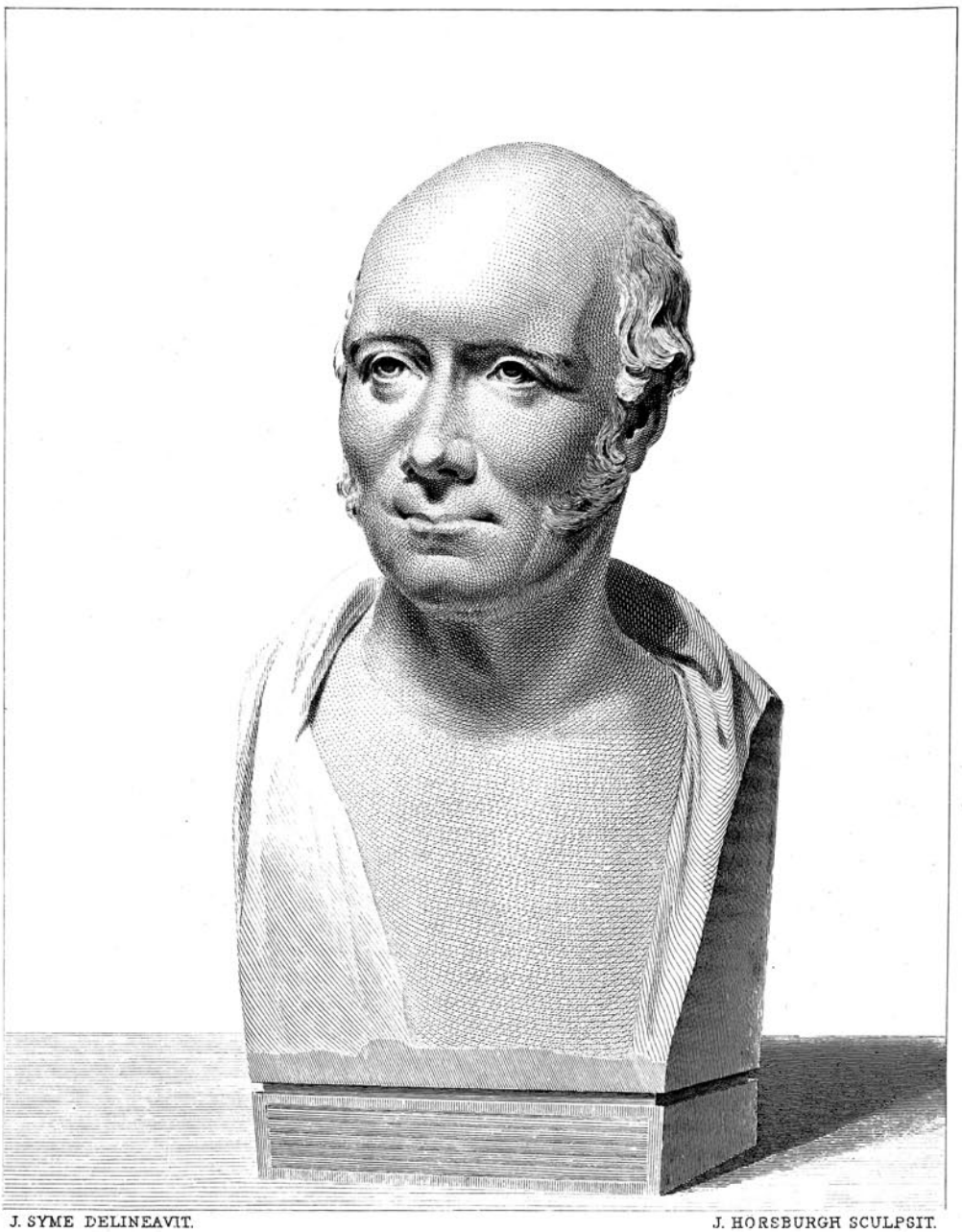
This edition first published 1878
This digitally printed version 2014

ISBN 978-1-108-07058-4 Paperback

LIFE OF ROBERT STEVENSON.

Edinburgh University Press:

THOMAS AND ARCHIBALD CONSTABLE, PRINTERS TO HER MAJESTY.



ROBERT STEVENSON F.R.S.E.

CIVIL ENGINEER.

From a bust by Joseph, placed in the Library of the Bell Rock Light house by the Commissioners of the Northern Light houses.

LIFE

OF

ROBERT STEVENSON

CIVIL ENGINEER

FELLOW OF THE ROYAL SOCIETY OF EDINBURGH ; FELLOW OF THE GEOLOGICAL SOCIETY OF LONDON ;
FELLOW OF THE ASTRONOMICAL SOCIETY OF LONDON ; MEMBER OF THE SOCIETY
OF SCOTTISH ANTIQUARIES, OF THE WERNERIAN NATURAL HISTORY
SOCIETY, AND OF THE INSTITUTION OF CIVIL ENGINEERS.

ENGINEER TO THE COMMISSIONERS OF NORTHERN LIGHTHOUSES AND TO
THE CONVENTION OF ROYAL BURGHS OF SCOTLAND, ETC.

BY

DAVID STEVENSON

CIVIL ENGINEER

VICE-PRESIDENT OF THE ROYAL SOCIETY OF EDINBURGH ;
MEMBER OF COUNCIL OF THE INSTITUTION OF CIVIL ENGINEERS, ETC.

ADAM AND CHARLES BLACK, EDINBURGH

E. AND F. N. SPON, LONDON AND NEW YORK

1878.

PREFACE.

THE addresses made to the Royal Society of Edinburgh, and the Institution of Civil Engineers, at the opening meetings of the session—1851, contained obituary notices of Robert Stevenson. The late Alan Stevenson, his eldest son, also wrote a short Memoir of his father, which was printed for private circulation.

But Robert Stevenson's long practice as a Civil Engineer—the important works he executed—and the valuable contributions he made to Engineering and Scientific literature, seem to me to require a fuller notice of his life than has hitherto been given.

This has been attempted in the following Memoir, which will be found to consist of extracts from Mr. Stevenson's Professional Reports—of notes from his Diary—and of communications to Scientific Journals and Societies, between the years 1798 and 1843, when he retired from active practice.

These papers embrace a wide field of Engineering, including Lighthouses, Harbours, Rivers, Roads, Railways, Ferries, Bridges, and other cognate subjects.

Some of them describe Engineering practice which is now obsolete, but not on that account, I think, uninteresting to such modern Engineers as have regard for the antiquities of their Profession.

Some of them, I am aware, can only be appreciated by those who are specially interested in the city of Edinburgh.

All of them will, I venture to think, be found worthy of preservation as interesting Engineering records of an era that has passed away. It formed no part of my duty to criticise them, in the light of modern Engineering, and, unaltered in form of expression or statement of opinion, they are now reproduced as they came from my father's pen.

I offer no apology for presenting these Extracts as the outlines of the life of one who occupied a prominent place among the Civil Engineers who practised during the beginning of the present, and end of the last century, shortly after British Engineering, with Smeaton as its founder, may be said to have had its origin.

D. S.

EDINBURGH, *July* 1878.

CONTENTS.

CHAPTER VIII.

CHAPTER IX.

CHAPTER X.

BRIDGES.

CHAPTER XI.

CHAPTER XII.

CHAPTER XIII.

CHAPTER XIV.

CHAPTER XV.

CONTENTS.

CHAPTER XVI.

CONTRIBUTIONS ON ENGINEERING AND SCIENTIFIC SUBJECTS.

CHAPTER XVII.

EXTRACTS FROM EARLY REPORTS.

CHAPTER XVIII.

LIST OF PLATES.