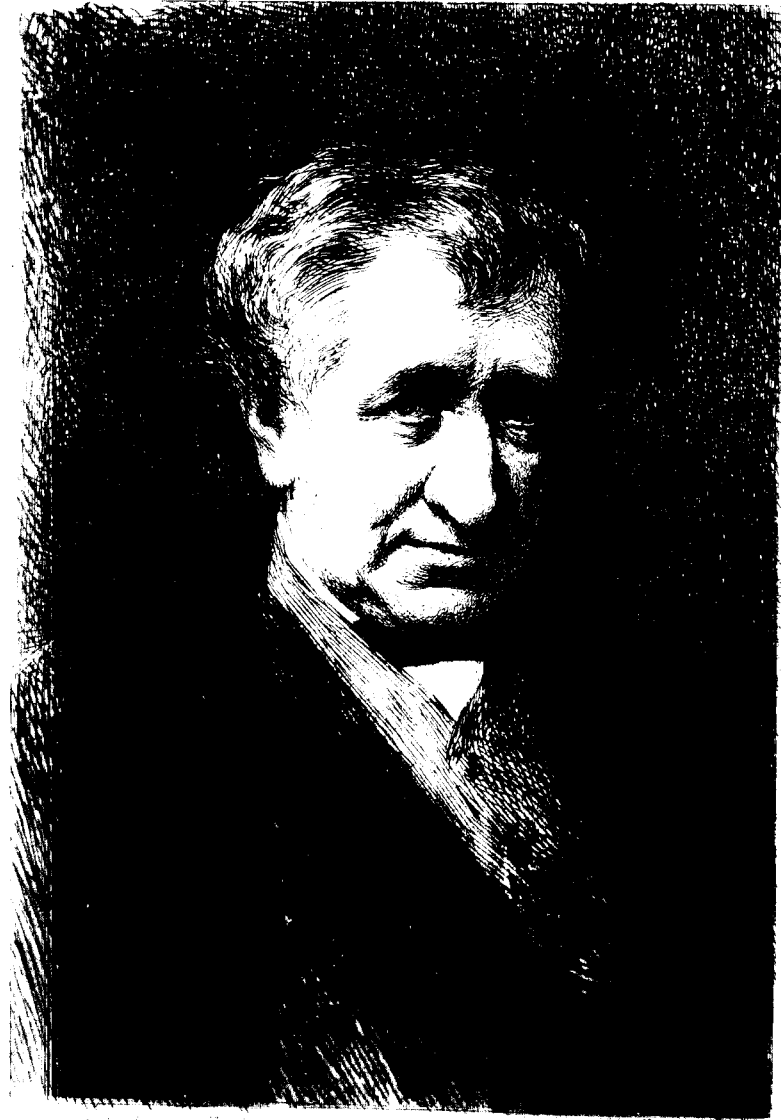




JAMES NASMYTH



1847

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JAMES NASMYTH

ENGINEER

AN AUTOBIOGRAPHY

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EDITED BY

SAMUEL SMILES, LL.D.

AUTHOR OF 'LIVES OF THE ENGINEERS'

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WITH A PORTRAIT BY GEORGE REID, R.S.A., ETCHED BY PAUL RAJON,  
AND NUMEROUS ILLUSTRATIONS

LONDON  
JOHN MURRAY, ALBEMARLE STREET

1883



## PREFACE.

I HAVE had much pleasure in editing the following Memoir of my friend Mr. Nasmyth. Some twenty years since (in April 1863), when I applied to him for information respecting his mechanical inventions, he replied : “ My life presents no striking or remarkable incidents, and would, I fear, prove but a tame narrative. The sphere to which my endeavours have been confined has been of a comparatively quiet order ; but, vanity apart, I hope I have been able to leave a few marks of my existence behind me in the shape of useful contrivances, which are in many ways helping on great works of industry.”

Mr. Nasmyth, nevertheless, kindly furnished me with information respecting himself, as well as his former master and instructor, Henry Maudsley of London, for the purpose of being inserted in *Industrial Biography, or Ironworkers and Toolmakers*, which was published at the end of 1863. He was of opinion that the outline of his life there presented was sufficiently descriptive of his career as a mechanic and inventor.

During the years that have elapsed since then, Mr. Nasmyth has been prevailed upon by some of his friends—more especially by Sir John Anderson, late of Woolwich

Arsenal—to note down the reminiscences of his life, with an account of his inventions, and to publish them for the benefit of others. He has accordingly spent some of his well-earned leisure during the last two years in writing out his numerous recollections. Having consulted me on the subject, I recommended that they should be published in the form of an Autobiography, and he has willingly given his consent.

Mr. Nasmyth has furnished me with abundant notes of his busy life, and he has requested me, in preparing them for publication, to “make use of the pruning-knife.” I hope, however, that in editing the book I have not omitted anything that is likely to be interesting or instructive. I must add that everything has been submitted to his correction and received his final approval.

The narrative abundantly illustrates Mr. Nasmyth’s own definition of Engineering; namely, *common sense applied to the use of materials*. In his case, common sense has been more especially applied to facilitating and perfecting work by means of Machine Tools. Civilisation began with tools; and every step in advance has been accomplished through their improvement. Handicraft labour, in bone, stone, or wood, was the first stage in the development of man’s power; and tools or machines, in iron or steel, are the last and most efficient method of economising it, and enabling him to intelligently direct the active and inert forces of nature.

It will be observed that Mr. Nasmyth, on his first start in life, owed much to the influence of his father, who was not only an admirable artist—“the founder,” as Sir David Wilkie termed him, “of the landscape painting school of Scotland”—but an excellent mechanic. His “bow-and-string” roofs and bridges show his original merits as a

designer; and are sufficient to establish his ability as a mechanical engineer. Indeed, one of Mr. Nasmyth’s principal objects, in preparing the notes of the following work, has been to introduce a Memorial to the memory of his father, to whom he owed so much, and to whom he was so greatly attached through life. Hence the numerous references to him, and the illustrations from his works of art, of architecture, as well as of mechanics, given in the early part of the book.

I might point out that Mr. Nasmyth’s narrative has a strong bearing upon popular education; not only as regards economical use of time, careful observation, close attention to details, but as respects the uses of Drawing. The observations which he makes as to the accurate knowledge of this art are very important. In this matter he concurs with Mr. Herbert Spencer in his work on *Education*. “It is very strange,” Mr. Nasmyth said some years ago, “that amidst all our vaunted improvements in education, the faculty of comparison by sight, or what may be commonly called *the correctness of eye*, has been so little attended to.” He accordingly urges the teaching of rudimentary drawing in all public schools. “Drawing is,” he says, “the Education of the Eye. It is more interesting than words. It is graphic language.”

The illustrations given in the course of the following book will serve to show his own mastery of drawing—whether as respects Mechanical details, the Moon’s surface, or the fairy-land of Landscape. It is perhaps not saying too much to aver that had he not devoted his business life to Mechanics, he would, like his father, his brother Patrick, and his sisters, have taken a high position as an artist. In the following Memoir we have only been able to introduce a