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John Cordy Jeaffreson

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VOLUME 1

JOHN CORDY JEAFFRESON



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ETC. ETC.

LATE PRESIDENT OF THE INSTITUTION OF CIVIL ENGINEERS.

BY

J. C. JEAFFRESON

BARRISTER-AT-LAW.

WITH DESCRIPTIVE CHAPTERS ON

SOME OF HIS MOST IMPORTANT PROFESSIONAL WORKS

BY

WILLIAM POLE, F.R.S.

MEMBER OF THE INSTITUTION OF CIVIL ENGINEERS.

IN TWO VOLUMES.

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## P R E F A C E.



**F**OUR YEARS have elapsed since with Professor Pole I undertook to write the Life of ROBERT STEPHENSON.

A careful examination of the many published works which, either specially or incidentally, treat of the labours of the two Stephensons, was amongst the first steps which I took towards the performance of my task. I read critically a large number of scientific volumes, biographies, lectures, and articles bearing upon the history of the locomotive, upon the art of building bridges, and upon the careers of the men who, during the last sixty years, have brought our railway system to its present state of efficiency. My surprise was great at finding that the statements of the various treatises were irreconcilable.

In the summer and autumn of 1860 I passed some time in Northumberland and Durham, collecting materials for this work from the oral communications of Robert Stephenson's numerous relations, from the reminiscences of men who had been the companions or the patrons of both the Stephensons, and from entries in

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parish registers, and the account-books of collieries and factories. I was fortunate in meeting with cordial response from all of the many persons whose assistance was solicited. The result of these enquiries was the discovery that many mistakes had been made in telling the story of the elder Stephenson's life, and that no life of the younger Stephenson would be complete that should neglect to give a correct account of the misapprehended passages in the life of the elder. The only course, therefore, open to me was to re-write the Life of George Stephenson, so far as it affected Robert Stephenson's career, and to tell the whole truth of the son's life to the best of my ability.

On my return from the North of England I gathered documentary materials from many different quarters, and ere long I was fortunate enough to bring together a mass of evidence which the representatives of Robert Stephenson did not know to be in existence. Besides letters submitted to my perusal by a great number of the engineer's friends, and besides papers sent to me by his executors, I obtained custody of several important collections of documents. Mr. Longridge put into my hands the Stephenson papers which his father preserved. Mr. Illingworth allowed me to peruse his South-American papers. Mr. Charles Empson, shortly before his death, contributed to my store of materials a most interesting collection of letters and documents; consisting of Robert Stephenson's early journals, and of nearly all the letters which he either received *from* or had written *to* friends

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or relations, between the termination of his life on Killingworth Moor and his return from South America. I have also to acknowledge the assistance of Mr. George Parker Bidder, late President of the Institution of Civil Engineers; Mr. Charles Manby, F.R.S.; and Mr. George Robert Stephenson, C.E.

In expressing my thanks to the gentlemen who have assisted me with information or papers, I render no mere formal act of courtesy. Gratitude is a solemn duty when acknowledgment has to be made of services conferred by those who no longer tarry in the ways of men. Of those to whom I am indebted for facts or counsel, many have passed to another world. Mr. Losh and Mr. Weallens of Newcastle, Mr. Kell of Gateshead, Mr. Charles Empson of Bath, Admiral Moorsom, and Mr. Charles Parker, are amongst those who will never see this page.

J. CORDY JEAFFRESON.

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THE TASK of describing some of the more important professional subjects which occupied the attention of Robert Stephenson has been confided to me. There was some difficulty in determining what subjects should be chosen, for many of his works were so mixed up with the current events of his life, that they could scarcely be separated from the narrative of his biography.

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I determined, finally, to select the Atmospheric system of Railway Propulsion, and the great Iron Railway Bridges erected by him.

The length at which I have treated the former of these subjects demands some explanation, inasmuch as Robert Stephenson, far from promoting the Atmospheric system, was always one of its strongest opponents. But judges on whom I can fully rely were of opinion that it deserved a prominent place in his life, as well from the great interest he took in it, as from the extent to which it must have affected the whole course of Railway engineering. The facts of its history, with the results and lessons to be drawn from it, seemed likely soon to be forgotten, and were considered worthy of being put fully on record.

The preliminary chapter on Iron Bridges has been written in order to bring out more clearly the peculiarities and merits of the magnificent structures of this kind, to which probably Robert Stephenson will eventually owe his widest fame.

I have to acknowledge information kindly supplied by many friends in the profession.

The chapters which I have contributed to the work are XIV. in Vol. I., and II., III., IV., VIII., in Vol. II.

WILLIAM POLE.

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