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August 11, 1847

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MICHAEL FARADAY

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*Michael Faraday*

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# FARADAY

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A DISCOVERER

By JOHN TYNDALL

FIFTH EDITION

LONDON  
LONGMANS, GREEN & CO. LTD.

1904

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# F A R A D A Y

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A DISCOVERER

By JOHN TYNDALL

*FIFTH EDITION*

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1894

## PREFACE TO THE FIFTH EDITION.

DAILY and weekly, from all parts of the world, I receive publications bearing upon the practical applications of electricity. This great movement, the ultimate outcome of which is not to be foreseen, had its origin in the discoveries made by Michael Faraday, sixty-two years ago. From these discoveries have sprung applications of the telephone order, together with various forms of the electric telegraph. From them have sprung the extraordinary advances made in electrical illumination. Faraday could have had but an imperfect notion of the expansions of which his discoveries were capable. Still he had a vivid and strong imagination, and I do not doubt that he saw possibilities which did not disclose themselves to the general scientific mind. He knew that his discoveries had their practical side, but he steadfastly resisted the seductions of this side, applying himself to the development of principles; being well aware that the practical question would receive due development hereafter.

During my sojourn in Switzerland this year, I read through the proofs of this new edition, and by my reading was confirmed in the convic-

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tion that the book ought not to be suffered to go out of print. The memoir was written under great pressure, but I am not ashamed of it as it stands. Glimpses of Faraday's character and gleams of his discoveries are there to be found which will be of interest to humanity to the end of time.

JOHN TYNDALL.

HIND HEAD,  
December, 1893.

[*Note.*—It was, I believe, my husband's intention to substitute this Preface, written a few days before his death, for all former Prefaces. As, however, he had not the opportunity of revising the old prefatory pages himself, they have been allowed to remain just as they stood in the last edition.

LOUISA C. TYNDALL.]

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### PREFACE TO THE FOURTH EDITION.

WHEN CONSULTED a short time ago as to the republication of 'Faraday as a Discoverer,' it seemed to me that the labours, and points of character, of so great a worker and so good a man should not be allowed to vanish from the public eye. I therefore willingly fell in with the proposal of my Publishers to issue a new edition of the little book.

ROYAL INSTITUTION,  
February, 1884.

### PREFACE TO THE SECOND EDITION.

THE EXPERIMENTAL RESEARCHES of Faraday are so voluminous, their descriptions are so detailed, and their wealth of illustration is so great, as to render it a heavy labour to master them. The multiplication of proofs, necessary and interesting when the new truths had to be established, are however less needful now when these truths have become household words in science. I have therefore tried in the following pages to compress the body, without injury to the spirit, of these imperishable investigations, and to present them in a form which should be convenient and useful to the student of the present day.

While I write, the volumes of the Life of Faraday by Dr. Bence Jones have reached my