

**LESSONS IN ELECTRICITY:
AT THE ROYAL
INSTITUTION, 1875-6**

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Lessons in Electricity: At the Royal Institution, 1875-6 by John Tyndall

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JOHN TYNDALL

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ELECTRICITY



LESSONS
IN
ELECTRICITY

AT THE ROYAL INSTITUTION

• 1875-6

BY

JOHN TYNDALL, D.C.L., LL.D., F.R.S.

PROFESSOR OF NATURAL PHILOSOPHY
IN THE ROYAL INSTITUTION OF GREAT BRITAIN

NEW YORK:
D. APPLETON AND COMPANY,
349 AND 351 BROADWAY.
1877.

NOTE.—A Price-List of the Apparatus suitable for the experiments described in these *Leçons* will be found at the end of the volume. The teacher or learner may materially reduce the cost by becoming his own instrument-maker.

I wish to inscribe this book to Five Young Friends, whose names, in the approximate order of their ages, are here set down :—*

HUGH SPOTTISWOODE,

HENRY HUXLEY,

ROLFE LUBBOCK,

JOHN CLAUSIUS,

REGINALD HOOKER.

J. T.

* I write in Switzerland, and have to rely upon my memory, hence my uncertainty.

ms. 1. 1. 3. 4. - 38

PREFACE.

MORE than fifty years ago the Board of Managers of the Royal Institution resolved to extend its usefulness, as a centre of scientific instruction, by giving, during the Christmas and Easter holidays of each year, two courses of Lectures suited to the intelligence of boys and girls.

On December 12, 1825, a Committee appointed by the Managers reported 'that they had consulted Mr. Faraday on the subject of engaging him to take a part in the juvenile lectures proposed to be given during the Christmas and Easter recesses, and they found his occupations were such that it would be exceedingly inconvenient for him to engage in such lectures.'

Faraday's holding aloof was, however, but temporary, for at Christmas 1827 we find him giving a 'Course of Six Elementary Lectures on Chemistry, adapted to a Juvenile Auditory.'

The Easter lectures were soon abandoned, but from the date mentioned to the present time the Christmas

lectures have been a marked feature of the Royal Institution.¹

Last Christmas it fell to my lot to give one of these courses. I had heard doubts expressed as to the value of Science-teaching in schools, and I had heard objections urged on the score of the expensiveness of apparatus. Both doubts and objections would, I considered, be most practically met by showing what could be done, in the way of discipline and instruction, by experimental lessons involving the use of apparatus so simple and inexpensive as to be within everybody's reach.

With some amplification, the substance of our Christmas Lessons is given in the present little volume.

¹ These brief historic references have already appeared in the Preface to the 'Forms of Water.'

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