## LONGMANS' TECHNICAL HANDICRAFT SERIES. INCANDESCENT ELECTRIC LAMPS AND THEIR APPLICATION

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Longmans' Technical Handicraft Series. Incandescent Electric Lamps and Their Application by Daniel H. Ogley

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# DANIEL H. OGLEY

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# INCANDESCENT ELECTRIC LAMPS

### AND THEIR APPLICATION

BY DANIEL H. OGLEY B. ENG. (1ST HONS.) LIVERPOOL

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### PREFACE

SINCE the advent of the carbon filament incandescent lamp so many wonderful discoveries have been made that the adoption of the electric glow lamp as an illuminant is now almost universal.

A little thought will establish the fact, however, that the improvements made have been chiefly in the lamp itself, the introduction of the metal filament being responsible for the increased efficiency that has placed electric lighting practically within reach of all.

In comparison with the advances made in filament construction those made in the direction of scientific artificial lighting have been small.

The formation of the Illuminating Engineering Society has done much to create an interest in this important subject, while further, the work of Government Commissions and the publication of their reports on school, factory and library lighting has served still more to impress people with the importance of adequate illumination.

If good lighting is important in public institutions it is equally if not more important in the home, and the approved methods of disposing of the light units so as to avoid unnecessary glare and produce an adequate illumination, as well as the judicious selection of wall and ceiling coverings, should be fully understood by all users and installers of electric light.

The existing literature on the subject is of too scientific and technical a character for other than scientists, and in presenting this treatise the author hopes that the obvious gap may be filled and that the general reader may be assisted in deciding upon the most suitable candle-power and distribution in his own particular case.

The author has to thank Messrs. Siemens Bros. for information concerning tantalum and permission to reproduce one of their diagrams; Messrs. The General Electric Co. for information concerning the drawing down of tungsten filaments; Messrs. The Institution of Electrical Engineers for use of blocks illustrating standard lamps; the American Illuminating Engineering Society

#### Preface

for permission to use blocks appearing in their Primer; the editors of the *Electrical Review* and Messrs. The British Thomson-Houston Co.

To the latter company and to their lighting expert, Mr. R. Eastman, his special thanks are due, for without their very generous assistance in the matter of blocks and photographs the publication of this work would have been almost impossible.

The author is indebted to Dr. Rhodes for proof reading and valuable advice, to Mr. W. Hill for assistance with the sketches, and to the publishers for the kind way in which they have assisted in the production of this work.

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#### ROVAL TECHNICAL INSTITUTE, SALFORD.

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