THE EARLY DAYS
OF THE
POWER STATION INDUSTRY

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by

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PREFACE

THE supply of electricity as a Public Service is a comparatively new industry, as it has only been in existence for less than sixty years, yet so rapid has been its growth and so profound the changes it has undergone in that time, that hardly any of its original features are now recognizable. It therefore seemed worth while, as a matter of historical interest, to give some account of electricity supply as it was in the days when every enterprise was largely of a pioneering nature, and the future of the industry was still unpredictable. This period may be said to have closed at the end of the last century, for by that time the lines along which progress would take place were becoming evident. The steam turbine had already foreshadowed the doom of reciprocating machinery in Power Stations, and the three-phase turbo-alternator producing high-voltage current for conversion or transformation in substations was clearly indicated as the generating unit on which Central Station practice would be based.

Developments subsequent to this period, although of the highest technical interest and importance, fall outside the scope of the present book. The aim of the author has been to show how the industry originated, to describe various systems of generation and distribution adopted by particular undertakings, and to give some idea of the kind of machinery with which the early Power Stations were equipped. Accuracy in detail has been ensured as far as possible by systematic reference to contemporary records, and in this connection the information gathered from the old volumes of the *Electrical Review*, *Electrician*, *Engineer*, *Garcke's Manual of Electrical Undertakings* and other publications has been made the fullest use of. Acknowledgment must also be made to a series of interesting articles on the early history of certain London undertakings by Mr C. Kibblewhite which appeared last year in *Contact*, the staff journal of Central London Electricity, Ltd.

The author desires to express his particular thanks for assistance and information so readily given by Mr J. G. Freeman, late

Chief Engineer of the London Electric Supply Corporation, who could verify from personal knowledge the facts concerning the history of the famous Grosvenor Gallery and Deptford Stations; by Mr H. P. Gaze, Chief Generating Engineer of the London Power Company, whose experience dates from the Mason's Yard Station of the St James' and Pall Mall Electric Lighting Company; by Mr E. Harlow, the Chief Engineer of the City of London Electric Lighting Company, who permitted access to records going back to the earliest days of the Company; by Mr C. A. Holbrow of Messrs C. A. Parsons and Co., Ltd., who was one of the erectors and subsequently one of the engineers of the Gordon Station at Paddington in 1886; by Mr F. D. Napier of Messrs Babcock and Wilcox, whose Central Station experience covers the operation of the Whitehall Court and Amberley Road Stations; by Mr Roger Smith, of Messrs Highfield and Roger Smith, who was formerly Chief Electrical Engineer to the Great Western Railway Company; and by Mr Percy Still, the Chief Engineer of the Chelsea Electricity Supply Company from 1892 until his retirement in 1937. Thanks are also due to Messrs Pritchett and Gold and E.P.S. Company, Ltd., who, as the successors of the Electrical Power Storage Company, Ltd., were most helpful in respect of the work carried out by the latter Company for the Chelsea and other undertakings about fifty years ago.

"And here will I make an end.
If I have done well, and as is fitting the story, it is that which I desired: but if slenderly and meanly, it is that which I could attain unto."

R. H. P.

1939