

**WIRELESS TELEGRAPHY: A
HANDBOOK FOR THE USE
OF OPERATORS AND
STUDENTS**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649734573

Wireless Telegraphy: A Handbook for the Use of Operators and Students by W. H. Marchant

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

W. H. MARCHANT

**WIRELESS TELEGRAPHY: A
HANDBOOK FOR THE USE
OF OPERATORS AND
STUDENTS**

WHITTAKER'S PRACTICAL HANDBOOKS

- BARR, J. R.** . . . Direct Current Electrical Engineering. 10s. net.
- BARR & ARCHIBALD.** Design of Alternating-Current Machinery. 12s. 6d. net.
- GRAY, J.** . . . Electrical Influence Machines (Wimshurst Machines). 5s. net.
- HAWKINS & WALLIS.** The Dynamo: Its Theory, Design and Manufacture. Two Vols. Vol. I., 10s. 6d. net; Vol. II., 10s. 6d. net.
- HERBERT, T. E.** . Telegraphy. 7s. 6d. net.
- HIBBERT, W.** . . Magneto and Electric Ignition. 2s. net.
- HOBART, H. M.** . . Electric Motors — Continuous, Polyphase and Single-Phase Motors. 18s. net.
- MARCHANT, W. H.** Radio-Telegraphists' Guide and Log-Book. 4s. 6d. net.
- .. Wireless Telegraphy.
- MAYCOCK, W. P.** Electric Lighting and Power Distribution. Vol. I., 6s. net; Vol. II., 6s. 6d. net.
- .. Alternating-Current Circuit and Motor. 4s. 6d. net.
- .. Electric Wiring Tables. 3s. 6d. net.
- .. Electric Wiring, Fittings, Switches, and Lamps. 6s. net.
- .. Electric Wiring Diagrams. 2s. 6d. net.
- .. Electric Circuit Theory and Calculations. 3s. 6d. net.
- OULTON & WILSON.** Practical Testing of Electrical Machines. 4s. 6d. net.
- PENDRY, H. W.** . . Elementary Telegraphy. 2s. 6d. net.
- .. Baudôt Printing Telegraph System. 2s. 6d. net.
- POOLE, J.** . . . Practical Telephone Handbook. 6s. net.
- SALOMONS, Sir D.** Management of Accumulators. 6s. net.
- STILL, A.** . . . Polyphase Currents. 6s. net.
- WALKER, S. F.** . . Electricity in Homes and Workshops. 5s. net.
- .. Electric Lighting for Marine Engineers. 4s. 6d.
- WHITTAKER'S** Arithmetic of Electrical Engineering. 1s. net.
- .. Electrical Engineer's Pocket-Book. 5s. net.
- .. Mechanical Engineer's Pocket-Book. 3s. 6d. net.
- WHITE, W. J.** . . Wireless Telegraphy and Telephony. 2s. 6d. net.

WHITTAKER & CO.

2 White Hart Street, Paternoster Square, London, E.C.

WIRELESS TELEGRAPHY

A HANDBOOK FOR THE USE OF OPERATORS
AND STUDENTS

BY

W. H. MARCHANT

Author of "Radio-Telegraphist's Guide"

154 ILLUSTRATIONS

WHITTAKER & CO.

2 WHITE HART STREET, PATERNOSTER SQUARE, LONDON,
E.C. AND 64-66 FIFTH AVENUE, NEW YORK

1914

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial matters.

2. The second part outlines the various methods and tools used to collect and analyze data. This includes the use of surveys, interviews, and statistical software to ensure that the information gathered is reliable and valid.

3. The third part focuses on the ethical considerations surrounding data collection and analysis. It highlights the need to protect individual privacy and to use the data responsibly, only for the purposes intended.

4. The fourth part discusses the challenges of data interpretation and the importance of context. It notes that data should not be taken at face value but should be analyzed in light of the specific circumstances and objectives of the study.

5. The fifth part concludes by summarizing the key findings and recommendations. It stresses the value of a systematic and ethical approach to data collection and analysis in achieving meaningful results.

207981
JAN 11 1917
TQW
M33

6462734

PREFACE

THIS book is intended primarily for the use of those engaged in the practical operation of Radio-Telegraph installations and for students who already possess some knowledge of electrical science.

The first portion of the book (Chapters I.-V.) deals with the production and radiation of electric oscillations and waves, followed by a description of the various pieces of apparatus which go to make up a Radio-Telegraph installation and the principles which govern their construction and erection.

Following this will be found descriptions of the principal systems. Chapter VI. is devoted to the Marconi system, which is the principal system employing the spark method of generating electrical oscillations. In this chapter will be found a full description of the Marconi $1\frac{1}{2}$ kw. ship set. This type of installation is in such very general use that hardly any students sitting for the P.M.G.'s certificate pass their examination on any other apparatus. For this reason considerable space has been devoted to it and the various pieces of apparatus fully illustrated.

Chapter VII. deals with the Poulsen system, which is representative of the arc method of generating electrical oscillations. In it will be found a full description of Poulsen apparatus, both for hand and automatic work-

ing. The quenched-spark method of generating electrical oscillations is represented by a description of a Telefunken I.T.K. set and of the Lepel system.

Following this will be found a description of the Goldschmidt high-frequency alternator, a machine which in the future may play a leading part in long-distance wireless telegraphy. A special chapter is devoted to portable installations, and sets suitable for airships, military purposes, yachts and small craft generally are described therein.

In Chapter XII. the apparatus necessary and methods of carrying out all the more important measurements will be found described.

Following this is a short chapter on the interpretation of diagrams, which it is thought will prove useful to students approaching the subject for the first time. Such students are recommended to read through this chapter first and so become acquainted with the meaning of the symbols used to represent the various pieces of apparatus.

Chapters XIV. and XV. contain the principal regulations and instructions for Radio-Telegraph stations licensed by H.M. Postmaster-General and the various abbreviations, codes, etc., used in working.

In conclusion the author desires to tender his sincere thanks to the following gentlemen and companies for assistance rendered :—Sidney Brown, Esq., for information relating to his telephone relay ; Messrs the Marconi Press Agency Limited for illustrations of the Marconi system ; Messrs Siemens Bros. & Coy. for illustra-

PREFACE

vii

tions and information relating to the Telefunken system; the Topical Press Agency for illustrations of Poulsen and Marconi apparatus; Baron Egbert von Lepel, the Anglo-German wireless Syndicate, and Basil Binyon, Esq., for some of the illustrations used in description of the Lepel system; the Universal Radio Syndicate for illustrations of the Poulsen system; the Board of Editors *P.O. Electrical Engineers' Journal* for permission to reproduce description of Poulsen high-speed transmitter; Dr Goldschmidt, A. S. M. Sorenson, Esq., and B. Binyon, Esq., for information relating to the Goldschmidt alternator; Finlay M'Culloch, Esq., and N. G. Smith, Esq., for assistance in preparation of drawings; to the Editor of *The Indian Telegraphist* for information relating to Log Chart for calculation of wave-length and frequency of oscillating circuits; to Robert Humfrey, Esq., for assistance with photographs, and to N. B. Holmes, Esq., for checking chapter on Regulation Abbreviations, etc.

W. H. M.

WITHINGTON, 1914.

