

CONTENTS

	PAGE
INTRODUCTION : THE SPIRIT OF PROGRESS .	ix

PART I

Radio in General

CHAPTER		
I. ON BROADCASTING		3
2. EARLY PIONEERING WORK IN ETHER WAVES		12
3. THE DISCOVERY OF THE WAVES . . .		26
4. THE DEVELOPMENT OF RADIOTELEGRAPHY		36
5. WIRELESS ACHIEVEMENT AND ANTICIPATION		43
6. VAST RANGE OF ETHER VIBRATIONS . .		56
7. THE TRANSMISSION OF WIRELESS WAVES .		63
8. WAVE PECULIARITIES		73
9. ON THE GENERAL THEORY OF ETHER WAVES		83
10. EARTH TRANSMISSION		88
11. THE HEAVISIDE LAYER		98

PART II

Details that Make for Efficiency

12. SOME POINTS ABOUT CAPACITY AND INDUCTANCE	109
13. CONDITIONS FOR MAXIMUM INDUCTANCE . .	116
14. THE IMPORTANCE OF GOOD CONTACT . .	121
15. ADVANTAGE OF LOW RESISTANCE AND STRANDED WIRE	125

CHAPTER	PAGE
16. SOME DISADVANTAGES OF REACTION . . .	129
17. STRAY CAPACITIES AND COUPLINGS . . .	133
18. THE USE OF IRON IN TRANSFORMERS . . .	139
19. CONTRASTING METHODS OF AERIAL EXCITA- TION	146
20. PHASE DIFFERENCE IN DIFFERENT KINDS OF COUPLING	152
21. THE GRID AS TRAFFIC REGULATOR . . .	155

PART III

Calculations for Amateur Constructors

22. COMPARISON OF THE ABSOLUTE MAGNITUDES OF CAPACITY AND INDUCTANCE . . .	165
23. A PLEA FOR EASY SPECIFICATION . . .	172
24. ON SELF-INDUCTION AND ITS MAXIMUM VALUE	179
25. DESIDERATA FOR INDUCTANCE COIL OF RECEIVER	187
26. HOW TO CALCULATE THE INDUCTANCE OF COILS	194
27. ON THE USE OF A SIMPLE FORMULA FOR MAXIMUM INDUCTANCE	205
28. TO ESTIMATE THE CAPACITY OF AN AERIAL .	211
29. CALCULATION OF AERIAL CAPACITY . . .	216
30. ON THE DAMPING OF VIBRATIONS BY COILS OF WIRE	226
31. THE ROMANCE OF WIRELESS	236