CONTENTS

PRELIMINARY.

ON THE MEASUREMENT OF QUANTITIES.

PART I.

ELECTROSTATICS.

CHAPTER I.

DESCRIPTION OF PHENOMENA.

CHAPTER II.

ELEMENTARY MATHEMATICAL THEORY OF ELECTRICITY.

CHAPTER III.

ON ELECTRICAL WORK AND ENERGY IN A SYSTEM OF CONDUCTORS.

CHAPTER IV.

GENERAL THEOREMS.

CHAPTER V.

MECHANICAL ACTION BETWEEN TWO ELECTRICAL SYSTEMS.

CHAPTER VI.

POINTS AND LINES OF EQUILIBRIUM.

CHAPTER VII.

FORMS OF EQUIPOTENTIAL SURFACES AND LINES OF FLOW.

CHAPTER VIII.

SIMPLE CASES OF ELECTRIFICATION.

CHAPTER IX.

SPHERICAL HARMONICS.

CHAPTER X.

CONFOCAL SURFACES OF THE SECOND DEGREE.

CHAPTER XI.

THEORY OF ELECTRIC IMAGES.

CHAPTER XII.

CONJUGATE FUNCTIONS IN TWO DIMENSIONS.

CHAPTER XIII.

ELECTROSTATIC INSTRUMENTS.

PART II.

ELECTROKINEMATICS.

CHAPTER I.

THE ELECTRIC CURRENT.

CHAPTER II.

CONDUCTION AND RESISTANCE.

CHAPTER III.

ELECTROMOTIVE FORCE BETWEEN BODIES IN CONTACT.

CHAPTER IV.

ELECTROLYSIS.

CHAPTER V.

ELECTROLYTIC POLARIZATION.

CHAPTER VI.

MATHEMATICAL THEORY OF THE DISTRIBUTION OF ELECTRIC CURRENTS.

CHAPTER VII.

CONDUCTION IN THREE DIMENSIONS.

CHAPTER VIII.

RESISTANCE AND CONDUCTIVITY IN THREE DIMENSIONS.

CHAPTER IX.

CONDUCTION THROUGH HETEROGENEOUS MEDIA.

CHAPTER X.

CONDUCTION IN DIELECTRICS.

CHAPTER XI.

MEASUREMENT OF THE ELECTRIC RESISTANCE OF CONDUCTORS.

CHAPTER XII.

ELECTRIC RESISTANCE OF SUBSTANCES

[A comprehensive Index, covering both volumes of the work, begins on page 495 of Volume Two.]