ELEMENTS OF INDUCTIVE LOGIC

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BY

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"ELEMENTS OF DEDUCTIVE LOGIC" ETC.

"Ότι *scientiæ fundamentum est, διότι fastigium*

NEW YORK
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PREFACE

In preparing the present treatise, I have kept in view the need of collegians and of graduate students in the universities, and endeavored to furnish them with a satisfactory hand-book on Induction. The few pages in popular treatises on Deductive Logic usually allotted to this co-ordinate branch being utterly inadequate and disproportionate, and thereby greatly underrating its extent and importance, should be replaced by a separate treatise comprehending at least the essential elements of Induction, and opening the way for its full investigation and application. In the hope of supplying this want, I offer to students well advanced in the schools the work in hand.

Special students engaged in the pursuit of physical science, who have not enjoyed a full course in Logic, need a compact hand-book on Induction, in order to gain a clearer insight into the principles of the methods they are employing, and thus to avoid a waste of energy, and the discouragement of blunders in the dark. To this class of students, also, and to the general reader who desires a clearer knowledge of his own mental processes and of those of the scientist skilled in the discovery of truth, my work is hopefully addressed.

With these ends in view, I have earnestly tried, first of all, to be true in matter, then clear and distinct in its treatment. Whoever is acquainted with the literature of the

subject will recognize my helps, and will, at the same time, accord to me some fair measure of independence. A profusion of illustration has been used, drawn largely from the humbler departments of knowledge, yet in many cases taken from the physical sciences, not for display, but for service, avoiding recondite examples, the purpose being to teach, not physics, but Logic.

The text in the larger type is for the tyro. The many marginal notes, which have been added with much pains, are for the scholarly reader who desires further information. The abundant references to authorities not only indicate my own sources, but will serve to direct those interested to wider fields. As some acquaintance with Deduction is prerequisite to the understanding of Induction, I have ventured to make references to my "Elements of Deductive Logic," the companion of the present work, also a few to "The Theory of Thought," and to my "Elements of Psychology." I ask indulgence for these references, trusting that the bad taste will be neutralized by their helpfulness to those who may have the books at hand.

To Professor Collins Denny, of Vanderbilt University, I am gratefully indebted for encouragement, and for very many valuable suggestions.

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CONTENTS

I.—DEFINITION

II.—PRINCIPLES

III.—PROCESS

IV.—OBSERVATION

V.—ENUMERATION

VI.—PROBABILITY

VII.—DIFFERENCE

VIII.—AGREEMENT

IX.—CONCOMITANCE

X.—DEDUCTION

XI.—HYPOTHESIS

XII.—NATURAL LAW