

**THE PRINCIPLES OF  
SCIENCE: A COLLEGE  
TEXT-BOOK**

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The principles of science: a college text-book by William Forbes Cooley

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**WILLIAM FORBES COOLEY**

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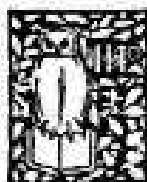


THE  
PRINCIPLES OF SCIENCE

A COLLEGE TEXT-BOOK

BY

WILLIAM FORBES COOLEY, B. D., PH. D.,  
INSTRUCTOR IN PHILOSOPHY IN COLUMBIA UNIVERSITY  
AUTHOR OF "THE INDIVIDUAL," ETC.



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## PREFACE

This little book is an attempt to bridge the chasm, which—at least for undergraduates—too often lies between scientific and philosophical studies. Its aim is to show how the inquiries of physical science lead inevitably to questions and problems which transcend the field of present-day science, that is, to questions of philosophy. Beginning as it does with a critical study of the fundamental intellectual methods of science, it may on the one side be regarded as a continuation of the student's study of logic; while, as the metaphysical questions become more numerous and prominent, it may on the other be considered an introduction to philosophy. The effort has been to start with what the undergraduate may properly be expected to be familiar with, and to carry the inquiry forward along the line of the natural development of the subject-matter—the principles of science—to those fundamental problems of metaphysics and epistemology which are either the complement or the foundation of all scientific knowledge. It is not maintained that this approach to philosophy is the best for all classes of readers; but the author believes it to be the one most natural and most useful for the average college student.

My indebtedness to Jevons' large and admirable work on this subject will be evident from the text and footnotes. I have also received valuable suggestions from my colleagues in Columbia University, Professors Dewey, Woodbridge, and Jones, and Mr. H. G. Hartmann.



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PART I  
METHODS