

**THE TEACHER'S GUIDE TO  
ILLUSTRATION: A MANUAL TO  
ACCOMPANY HOLBROOK'S  
SCHOOL APPARATUS**

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The Teacher's Guide to Illustration: A Manual to Accompany Holbrook's School Apparatus by  
F. C. Brownell

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**F. C. BROWNELL**

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THE  
**TEACHER'S**  
GUIDE TO ILLUSTRATION:  
A MANUAL

TO ACCOMPANY

Holbrook's School Apparatus.



BY P. C. BROWNELL.

"Precepts and rules are repulsive to a child, but happy illustration winneth him."

"Things teach with double force; through the animal eye and through the mind  
And the eye catcheth in an instant what the ear shall not learn within an hour."

FOURTH EDITION.

HOLBROOK SCHOOL APPARATUS COMPANY,  
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## PREFACE.

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EXPERIENCE and observation afford abundant proof that ILLUSTRATION is the basis of successful teaching; and, in physical science, *visible* illustrations are the most convincing. On this point, those best acquainted with the laws of mental growth agree with those most skilled in the art of imparting instruction, and the higher institutions of learning universally recognize this principle by making ample provision for such illustrations.

Is similar provision made for the PUBLIC SCHOOLS of the several States? Are maps, globes, and other, even *simple*, instruments found in them? Is not the remark too frequently made that teachers do not know how to use such articles?

This work, prepared for teachers, explains various phenomena connected with studies usually pursued in the common school, and gives simple but satisfactory methods of illustrating them to pupils. Its design is not so much to instruct as to suggest; leaving it to the teacher to invent other modes, suited to the necessities of his pupils.

Though it is primarily designed as a manual,

to accompany Holbrook's School Apparatus, many of its illustrations are adapted to the simple globe, or can be given by apparatus which the ingenious teacher can make for himself. They are not the result of mere theory, but of the author's practical experience in the school-room.

Attention is invited to the sections on Map Drawing and Topical Geography. An Appendix to Part II. gives full directions for the use of globes. The copious Index will facilitate reference.

In preparing this Manual, the author has consulted various astronomical treatises, and has derived much assistance from the "Elements of Astronomy," by Prof. John Brocklesby. By the courtesy of the publishers of that work, he has been permitted to use several of their wood cuts, (all those having a black ground,) which have contributed materially to the distinctness of the explanations and illustrations. From these cuts, and the accompanying extracts, teachers will readily discover the superior merit of the "Elements of Astronomy" as a class-book. Most of the section upon Topical Geography was taken from a "Text-Book to accompany Holbrook's Scientific Apparatus," prepared by Alfred Holbrook, Esq. Part II. is also arranged on a similar plan with that work, and derives from it much of its interest and value.

*HARTFORD, August 30th, 1858.*



TEACHERS' GUIDE TO ILLUSTRATION.

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