

## PREFACE.

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THIS work attempts to hold a position between text-books and books of light reading. The formal text-book would not suit the class of readers addressed. The style of light reading would have been unworthy of the theme, and would not have supplied the substantial information here intended. The writer has often felt that graphic illustrations would have rendered portions of the text more intelligible, and therefore, more entertaining; but these would have enhanced the cost of the book beyond limits which for other reasons seemed desirable.

The method of treatment is simple. The reader begins with the familiar objects at his very door. His observations are extended to the field, the lake, the torrent, the valley, and the mountain. They widen over the continent until all the striking phenomena of the surface have been surveyed. Occasionally, trains of reasoning suggested by the facts are followed out until the outlines of geological theories emerge. The course of observation and reasoning then penetrates beneath the surface. The various formations and their most striking fossils are described, first in descending order, to the oldest. We find here indications of heat which stimulate speculation and bring out the grounds of a nebular theory of world-origin. From this starting point, the treatment now handles the subject in historical order, weaving into a