

**SCIENTIFIC DIALOGUES, INTENDED FOR
THE INSTRUCTION AND ENTERTAINMENT
OF YOUNG PEOPLE: IN WHICH THE
FIRST PRINCIPLES OF NATURAL AND
EXPERIMENTAL PHILOSOPHY ARE FULLY
EXPLAINED. VOL. II. OF ASTRONOMY**

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Scientific Dialogues, Intended for the Instruction and Entertainment of Young People: In Which the First Principles of Natural and Experimental Philosophy Are Fully Explained. Vol. II. Of Astronomy by J. Joyce

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J. JOYCE

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VOL. II. OF ASTRONOMY.

*" Conversation, with the habit of explaining the meaning of words,
and the structure of common domestic implements to children, is the
sure and effectual method of preparing the mind for the acquirement of
science."* EDGEWORTH'S PRACTICAL EDUCATION.

BY THE REV. J. JOYCE.

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CONTENTS

TO

VOL. II.

Conversation	Page
I. Of the Fixed Stars.....	1
II. Of the Fixed Stars.....	12
III. Of the Fixed Stars, and Ecliptic.....	21
IV. Of the Ephemeris.....	33
V. Of the Solar System.....	48
VI. Of the Figure of the Earth.....	59
VII. Of the Diurnal Motion of the Earth.....	70
VIII. Of Day and Night.....	83
IX. Of the Annual Motion of the Earth.....	93
X. Of the Seasons.....	100
XI. Of the Seasons.....	109
XII. Of the Equation of Time.....	124
XIII. Of Leap-Year.....	137
XIV. Of the Moon.....	144
XV. Of Eclipses.....	157
XVI. Of the Tides.....	163
XVII. Of the Harvest Moon.....	179

Conversation	Page
XVIII. Of Mercury.....	191
XIX. Of Venus.....	198
XX. Of Mars.....	207
XXI. Of Jupiter.....	214
XXII. Of Saturn.....	220
XXIII. Of the Herschel Planet.....	226
XXIV. Of Comets.....	230
XXV. Of the Sun.....	239
XXVI. Of the Fixed Stars.....	242

CONVERSATION I.

OF THE FIXED STARS.

TUTOR — CHARLES — JAMES,

CHARLES. The delay occasioned by our long walk, has afforded us one of the most brilliant views of the heavens that I ever saw.

James. It is uncommonly clear; and the longer I keep my eyes fixed upwards, the more stars seem to appear: how is it possible to number these stars? and yet I have heard

that they are numbered, and even arranged in catalogues according to their apparent magnitudes. Pray, Sir, explain to us how this business was performed.

Tutor. This I will do, with great pleasure, some time hence; but at present I must tell you, that, in viewing the heavens with the naked eye, we are very much deceived as to the supposed number of stars that are at any time visible. It is generally admitted, and on good authority too, that there are never more than one thousand stars visible to the sight, unassisted by glasses, at any one time, and in one place.

James. What! can I see no more than a thousand stars if I look all around the heavens? I should suppose there were millions.

Tutor. This number is certainly the limit of what you can at present behold; and that which leads you, and persons in general, to conjecture that the number is so much larger is owing to an optical deception.

James. Are we frequently liable to be deceived by our senses?

Tutor. We are, if we depend on them *singly*; but where we have an opportunity of calling in the assistance of one sense to the aid of another, we are seldom subject to this inconvenience.

Charles. Do you not know, that if you place a small marble in the palm of the left hand, and then cross the second finger of the right hand over the first, and in that position, with your eyes shut, move the marble with those parts of the