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Astronomy

From ancient times, humans have tried to understand the workings of the world around them. The roots of modern physical science go back to the very earliest mechanical devices such as levers and rollers, the mixing of paints and dyes, and the importance of the heavenly bodies in early religious observance and navigation. The physical sciences as we know them today began to emerge as independent academic subjects during the early modern period, in the work of Newton and other 'natural philosophers', and numerous sub-disciplines developed during the centuries that followed. This part of the Cambridge Library Collection is devoted to landmark publications in this area which will be of interest to historians of science concerned with individual scientists, particular discoveries, and advances in scientific method, or with the establishment and development of scientific institutions around the world.

An Introduction to Practical Astronomy

Although astronomical guides were available in the early nineteenth century, they tended to come from continental presses and were rarely in English. This two-volume work by the clergyman and astronomer William Pearson (1767–1847) aimed, with brilliant success, to compile data from extant sources into one of the first English practical guides to astronomy. Most of the tables were updated and improved versions, and some were wholly reconstructed to streamline the calculation processes. Sir John Herschel dubbed it 'one of the most important and extensive works on that subject which has ever issued from the press', and for his efforts Pearson was awarded the gold medal of the Astronomical Society. First published in 1829, Volume 2 provides full descriptions of a range of astronomical instruments, alongside instructions for their use and some pertinent equations and tables. In the history of science, Pearson's work reflects the contemporary challenges of celestial study.

An Introduction to Practical Astronomy

Containing Descriptions of the Various Instruments That Have Been Usefully Employed in Determining the Places of the Heavenly Bodies

VOLUME 2

WILLIAM PEARSON

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AN

INTRODUCTION

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THE VARIOUS INSTRUMENTS,

THAT HAVE BEEN USEFULLY EMPLOYED IN DETERMINING THE PLACES OF THE HEAVENLY BODIES,

WITH AN

ACCOUNT OF THE METHODS OF ADJUSTING AND USING THEM.

BY THE REV. W. PEARSON, LL.D. F.R.S. ETC.

RECTOR OF SOUTH KILWORTH IN LEICESTERSHIRE, AND TREASURER TO THE ASTRONOMICAL SOCIETY OF LONDON.

"The present state of Astronomy requires the utmost perfection in the Instruments."

THE BISHOP OF CLOYNE. [ELEMENTS OF ASTRONOMY, P. 148.]

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1829.

TO

EDWARD TROUGHTON, F.R.S., L. AND E., ETC.

MY DEAR SIR,

When I imposed upon myself the task of describing such instruments, as have successively promoted the interests of Astronomy, I reckoned upon the continuance of those instructive communications, with which you had occasionally favoured me, during a friendly intercourse of almost thirty years; nor have my expectations been disappointed. The valuable assistance which you have cheerfully afforded me in dispelling my doubts, and in surmounting my difficulties in several instances, demands my most grateful acknowledgment; which I cannot better express, than by inscribing to You the present Volume, as a testimony of my great esteem for your extraordinary talents, in common with that of all those practical Astronomers, who have had the benefit of using your Instruments.

Believe me,

MY DEAR SIR,

Your obliged and very grateful friend,

THE AUTHOR.

CONTENTS OF THE SECOND VOLUME

OF

PRACTICAL ASTRONOMY

CONTENTS OF THE SECOND VOLUME.

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DOUBLE IMAGE MICROMETERS.

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In the following List the × in the fourth column implies that the letter or expression in column three must be obliterated.

Page.	Line from Top.	Instead of	Insert
17	21 and 23	Boscovick	Boscovich
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48	16	Micrometer	Dynameter
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93	42	The Note ∗	×
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178	11	Problem	Formula
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342	9	$= t + e + e'$ &c.	$= t + (t - \text{Æ}) + e'$ &c.
342	9	or $\text{Æ} = t + \varepsilon$	or $\text{Æ} = t + e$
345	21	$t - \text{Æ} = e$	$(t - \text{Æ})$
345	23	$\varepsilon = e + e'$	$e = (t - \text{Æ}) + e'$
345	24	ε	e
345	30	cosec L	sec L
345	30	0.1061	0.2063
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345	32	0.6755	0.6762
345	35	0.3388	0.3395
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366	21	seem	seems
377	30	need	needs
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