

Cambridge University Press

978-1-108-03833-1 - The Planet Neptune: An Exposition and History

John Pringle Nichol

Excerpt

[More information](#)

THE
PLANET NEPTUNE:
AN
EXPOSITION AND HISTORY.

BY
J. P. NICHOL, LL.D.,
PROFESSOR OF ASTRONOMY IN THE UNIVERSITY OF GLASGOW.
AUTHOR OF
"THE ARCHITECTURE OF THE HEAVENS," "CONTEMPLATIONS ON THE SOLAR SYSTEM,"
"THOUGHTS ON IMPORTANT POINTS RELATING TO THE SYSTEM OF THE WORLD,"
AND "THE STELLAR UNIVERSE," ETC. ETC.

JOHN JOHNSTONE,
15, PRINCES STREET, EDINBURGH; AND
26, PATERNOSTER ROW, LONDON.

MDCCCXLVIII.

Cambridge University Press

978-1-108-03833-1 - The Planet Neptune: An Exposition and History

John Pringle Nichol

Excerpt

[More information](#)

Printed by JOHN JONNSTONE, 104, High Street, Edinburgh.

Cambridge University Press

978-1-108-03833-1 - The Planet Neptune: An Exposition and History

John Pringle Nichol

Excerpt

[More information](#)

TO
THE DIRECTORS
OF
THE EDINBURGH PHILOSOPHICAL INSTITUTION.

GENTLEMEN,—

In inscribing to you the following treatise, I only perform a distinct duty; for it contains the substance of a Lecture delivered before the Members of your excellent Body, and is published at your request. I cannot, however, let slip the opportunity of expressing my deep interest in an Institution with which I can now reckon the connection of many years, and my anxious wishes for its prolonged success.

I have the honour to be,

Yours very faithfully,

J. P. NICHOL.

OBSERVATORY, GLASGOW,
Nov. 1, 1847.

Cambridge University Press

978-1-108-03833-1 - The Planet Neptune: An Exposition and History

John Pringle Nichol

Excerpt

[More information](#)

Cambridge University Press

978-1-108-03833-1 - The Planet Neptune: An Exposition and History

John Pringle Nichol

Excerpt

[More information](#)

P R E F A C E .

I MAY be permitted to say as a Preface to the following Essay, that I hope my scientific readers will recollect the nature of its aim. It is no very difficult matter to write popular treatises on science, on the principle which one sees too frequently adopted, and which is wholly inconsistent with any attempt at accuracy or philosophic truth; but it is not easy to give an exposition of a matter so recondite as that which has just engaged me, so that without the falsification and degradation of science, it may yet be generally appreciated. The most successful of such attempts in this country is undoubtedly that of Mr. AIRY, in his remarkable work entitled "GRAVITATION;" but even that singular clearness and firmness of apprehension which distinguish this eminent mathematician, have not always preserved him from something approaching to obscurity. There are portions of the present Essay—especially that important part immediately succeeding page 91—

Cambridge University Press

978-1-108-03833-1 - The Planet Neptune: An Exposition and History

John Pringle Nichol

Excerpt

[More information](#)

vi

PREFACE.

in which I scarcely expect that my effort will be found wholly satisfactory; and, indeed, there are difficulties still belonging to that portion of the subject, which will not be cleared up to our entire satisfaction previous to the full analytical discussion and accurate estimate of the actual relations between Neptune and Uranus.

The latter part of the Essay, having much to do with personal disputes, is one that may be supposed to have given the author of it pain. I confess, however, that I have experienced little hesitation or delicacy in treating those questions as I have done. The entire history is, on the whole, so creditable, and the occasions on which one would be inclined to find fault have reference to men in every way so able to bear a little criticism, that really there is no temptation to the individual who desires to narrate the plain unvarnished truth, at any time to colour or depart from it. I have had no object, either in the Exposition or the History, other than the wish to enable my countrymen, generally, to understand all the incidents connected with one of the most remarkable discoveries hitherto recorded in the Annals of Science.

J. P. N.

Cambridge University Press
978-1-108-03833-1 - The Planet Neptune: An Exposition and History
John Pringle Nichol
Excerpt
[More information](#)

CONTENTS.

	Page
INTRODUCTION,	9
PART I.—PICTURE OF THE SOLAR SYSTEM, .	12
PART II.—THE DISCOVERY OF NEPTUNE, .	48
PART III.—PERSONAL CLAIMS AND DISCOVERIES,	111

Cambridge University Press

978-1-108-03833-1 - The Planet Neptune: An Exposition and History

John Pringle Nichol

Excerpt

[More information](#)

LIST OF PLATES.

PLATE I	. . . . .	Frontispiece
PLATE II.—To face Page	. . . . .	24
PLATE III.—To face Page	. . . . .	58
PLATE IV.—To face Page	. . . . .	59
PLATE V.—To face Page	. . . . .	94
PLATE VI.—To face Page	. . . . .	97

Cambridge University Press

978-1-108-03833-1 - The Planet Neptune: An Exposition and History

John Pringle Nichol

Excerpt

[More information](#)

N E P T U N E .

I HAVE delayed complying with the request made to me during last winter by the Directors of the Philosophical Institution of Edinburgh, that I might have it in my power to lay before the public, not merely an account of the leading features of the history of the discovery of the new Planet, but something more approaching to a statement of the place which the relationships of that orb must fix for it, amid the complex mechanism of our System; and also of those subsidiary inquiries which owe to it their origin. It cannot indeed be alleged, even yet, that the positive theory of Neptune is much more than begun; but the sagacity of the great Men who, in their ever-memorable adventure into that region of pure thought,

A

Cambridge University Press

978-1-108-03833-1 - The Planet Neptune: An Exposition and History

John Pringle Nichol

Excerpt

[More information](#)

descried the necessity of the Planet as the complement of our System, and the industry of some excellent Observers, have already accomplished enough, to enable us to speak with no inconsiderable precision, alike of its individual and peculiar habits, and of the modifications which its existence imposes on our former ideas of the magnitudes and connections of its companion Globes.

I believe that, in respect of the larger proportion of those who will peruse this Essay, I might safely have assumed, the general disposition of the Solar System, as well as the grand Law of Gravitation, to be familiar and understood characteristics of Nature—an expression in a form and language no longer foreign to the intelligent classes of society, of the manner of that Order which pervades the mechanism of the starry Universe: but probably the employment of a few moments in recalling succinctly the character of that Law, especially in the two separate phases in which it appeared to its Immortal Discoverer, will not, at this very outset of our exposition, be altogether thrown away; inasmuch as the distinctest idea of it must be borne along with us, if we would tread with pleasure and understanding even through