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Edited by James F. Palmer  
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### The Works of John Hunter, F.R.S.

The surgeon and anatomist John Hunter (1728–93) left a famous legacy in the Hunterian Museum of medical specimens now in the Royal College of Surgeons, and in this collection of his writings, edited by James Palmer, with a biography by Drewry Ottley, published between 1835 and 1837. The first four volumes are of text, and the larger Volume 5 contains plates. Hunter had begun his career as a demonstrator in the anatomy classes of his brother William, before qualifying as a surgeon. He regarded surgery as evidence of failure – the mutilation of a patient who could not be cured by other means – and his studies of anatomy and natural history were driven by his belief that it was necessary to understand the normal physiological processes before attempting to cure the abnormal ones. Volume 2 discusses diseases of jaws, teeth and gums, at a time when dental surgery was rudimentary.

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VOLUME 2

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THE  
WORKS  
OF  
JOHN HUNTER, F.R.S.  
WITH  
NOTES.

EDITED BY  
JAMES F. PALMER,  
SENIOR SURGEON TO THE ST. GEORGE'S AND ST. JAMES'S DISPENSARY; FELLOW  
OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON, ETC.

IN FOUR VOLUMES.  
ILLUSTRATED BY A VOLUME OF PLATES, IN QUARTO.

VOL. II.

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1. **Treatise on the Natural History and Diseases of the Human Teeth. With Notes by Thomas Bell.**
2. **Treatise on the Venereal Disease. With Notes by George G. Babington.**

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**T R E A T I S E**  
ON THE  
**N A T U R A L H I S T O R Y A N D D I S E A S E S**  
OF THE  
**H U M A N T E E T H,**  
EXPLAINING THEIR STRUCTURE, USE, FORMATION, GROWTH,  
AND DISEASES.

IN TWO PARTS.

BY  
**JOHN HUNTER, F.R.S.**

WITH NOTES

BY  
**THOMAS BELL, F.R.S.,**

FELLOW OF THE LINNEAN SOCIETY; FELLOW OF THE GEOLOGICAL SOCIETY; FELLOW OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON; CORRESPONDING MEMBER OF THE SOCIETY OF NATURAL HISTORY OF PARIS; LECTURER ON COMPARATIVE ANATOMY AT GUY'S HOSPITAL, &c.

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**T**HE state of Dental Surgery at the period when Hunter wrote the following work was perhaps lower than that of any department of professional science or practice. The treatment of the teeth was still consigned to the hands of the ignorant mechanic, whose knowledge was limited to the forcible extraction of aching teeth, the manufacture of substitutes for those which were lost, and some rude methods of filling the cavities produced by decay. That this state of a branch of practice, as susceptible of a connexion with physiological and pathological science, and as improveable by such a connexion as any other, should have early attracted the attention of a man preeminently qualified for detecting and supplying such deficiencies, and whose labours, unparalleled as they are for their scientific importance, are not less valuable from the immense influence they have since exerted upon the practice both of medicine and surgery, might have been anticipated, from the peculiar character of his mind, which was too truly great to think any subject unworthy of his anxious attention which involved the improvement of the

art of healing, or the extension of our knowledge of Nature's operations. If it may be stated that the work in question is perhaps the least felicitous effort of this extraordinary genius, and that of which the errors are the most obvious and striking, some apology may be found even for these, in the confined nature of the subject, and especially in the obscure and anomalous structure of the organs of which it treats; whilst the basis which his experiments and observations have laid for subsequent improvements in our knowledge, both of the physiology and pathology of the teeth as well as in the treatment of their diseases, constitutes a never-ceasing claim to the gratitude and admiration of every scientific practitioner of dental surgery. If, therefore, it may with truth be said that he was the father of scientific surgery; if he may claim the high distinction of having placed the practice of surgery upon the only solid foundation, that of physiological science, it is no less true of this humble department than of those more important branches of the art, in which are involved the knowledge and treatment of diseases which stand in immediate connexion with vital organs and functions.

It is not uninteresting, even in this work, to trace the peculiarities of his genius, and to watch the workings of his mind in his search after truth, which he pursued with an ingenuousness and candour which have never been surpassed, and rarely, if ever, equalled. It is, indeed, amongst the remarkable characteristics of his reasonings and conclusions,—and this must be the case,

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too, with all who follow truth with equal zeal and singleness of purpose,—that even his errors arise from that inviolable love of truth, that single aim at establishing, not the dogmas of a favourite theory, but the simple laws of Nature herself, which constitutes one principal charm of his greatest and most important discoveries. This is shown in a very striking point of view by the error, and even inconsistency into which he falls when reasoning on the structure of the teeth. His observations and experiments had shown him that these organs differ in many important respects from the other bones; that the phenomena which these two organs present under comparative circumstances, whether of disease or of experiment, differ in many important respects; that the teeth are not susceptible of artificial injection; that they cannot restore lost parts; and many other peculiarities, which led him too hastily to infer that “they are to be considered as extraneous bodies with respect to a circulation through their substance,” though the same candour obliges him to confess, in the same sentence, that “they have most certainly a living principle, by means of which they make part of the body, and are capable of uniting with any part of a living body,” although the experiments on which he founds the latter proposition, if they prove anything, prove that this union with a living body is effected by means of a vascular continuity. Here, then, is an example of a love of truth for her own sake, so pure, so invulnerable, that not even to avoid the dilemma into which his imperfect reasoning upon these two incon-

sistent propositions must necessarily force him, will he sacrifice, or modify, or gloss over one tittle of the facts on which they are founded.

Whatever errors, however, may have crept into this work from the causes already alluded to, it forms the basis of all that has since been done to improve the knowledge of this branch of practice, and still more remarkably has it proved the foundation of all that is now known on the physiology of the teeth. It must, on the other hand, be conceded to his immediate follower Dr. Blake, that if he received from Hunter the hints from which his own discoveries were deduced, he has so clearly elucidated what in the former was obscure, so judiciously supplied what was deficient, and so satisfactorily harmonized what appeared to be incompatible or inconsistent, that he well deserves the praise of having contributed more to the right understanding of the subject than any other writer that has ever treated on it either before or since; and his inaugural dissertation (the work, it must be remembered, of a pupil,) contains opinions and statements on the structure, the formation, the growth, and the relations of these organs, which most subsequent writers have done well to copy, and all experimental physiologists have only been able to confirm.

The late Joseph Fox, with far less of original talent than his precursor, brought to the practice of his profession a mind well prepared for a diligent, correct, and rational discharge of its duties. If, therefore, his intellectual character were such as precluded him from



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distinguishing himself in the field of original investigation and discovery, the sober reflective habits of his mind, joined to a regular professional education, enabled him to obtain from an extensive practice such a knowledge of the diseases of these organs, and such well-grounded principles of their treatment, as to render his work a very valuable acquisition, not to the professed dentist only, but particularly to the general practitioner; a class of the profession to which his labours were especially devoted, as he lectured on this subject for many years in the theatre of Guy's Hospital.

It is, then, to the writers just mentioned that the profession is principally indebted for the knowledge it at present possesses of the anatomy, physiology, and diseases of the teeth. It would be useless here to notice the numerous books which have from time to time appeared, chiefly derived, as they are, from these sources, the merits of which may generally be stated to be in the inverse ratio of their originality. Equally unnecessary is it to enter into an elaborate consideration of the hypotheses which are entertained on the nature of these organs by some of the most distinguished French physiologists. The object of the author in the annotations affixed to the following Treatise has been rather to avail himself of such means as lay before him, to elucidate the text where it is obscure, to correct its errors where subsequent investigations have proved errors to exist, and to add such information on subjects imperfectly treated on as the observations and experience of others, or his own, have enabled him to obtain. He

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PREFACE.

has entered upon the task with a degree of diffidence commensurate with the respect which the name of Hunter commands, and with a sacred regard to the same object of general utility as formed the guiding star to the great Original whose work he thus humbly endeavours to illustrate.

T. BELL.

*New Broad Street,  
February 1835.*

N.B. The Editor's Notes are distinguished from the Author's by being placed below the line, within brackets. They are also further distinguished by initial letters instead of the usual marks of reference.