

**PAINLESS TOOTH-EXTRACTION
WITHOUT CHLOROFORM: WITH
OBSERVATIONS ON LOCAL
ANAESTHESIA BY CONGELATION
IN GENERAL SURGERY**

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Painless tooth-extraction without chloroform: with observations on local anaesthesia by
congelation in general surgery by Walter Blundell

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WALTER BLUNDELL

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WITH

OBSERVATIONS

OF

LOCAL ANÆSTHESIA BY CONGELATION

IN

GENERAL SURGERY.

BY

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Second Edition.

L O N D O N :

JOHN CHURCHILL, NEW BURLINGTON STREET.

MDCCCLVI.

160. a. 25

P R E F A C E.

THE very encouraging sale of the first edition of this pamphlet has induced me, in the present instance, to spare no expense to render a second issue still more worthy of professional and public notice. To effect this, the subject-matter has been in many parts rewritten, as well as arranged in separate chapters, in order to facilitate reference to the chief points of argument in favour of the *benumbing process*, and as superseding the future employment of *chloroform* in dental operations.

The following pages are in advocacy of an agent which may faithfully and effectually serve mankind as a rational anæsthetic. It is one, moreover, which, to render the body insensible to pain, does not require (as all others hitherto have done) *the surrender of consciousness*. Thus it will appear that, though chloroform has failed in one great essential point—*safety*, the hopes of the human race are

not thereby annihilated ; and that for the prevention of pain other effective means are open to us all. Etherization, to annul the pain of surgical operations, is an agent which for some time bade fair to realize the dreams and hopes of the afflicted ; but of late it has too plainly manifested an inglorious subserviency to a power whose resistless hand no surgeon's art can stay. This feature of its character is rapidly developing itself in the form of *frequent fatal accidents*. Such misfortunes are, we find, publicly chronicled, to the dismay of its staunchest advocates ; and, as an inevitable consequence, the former unalloyed delight of the public mind is giving place to increasing anxiety and fear. It will therefore appear that I have not appealed against the use of chloroform in surgery *beyond* the wide circle of *minor* operations ; nor have I exaggerated its dangers.

It is now nearly five years since I commenced a series of experiments to overcome the obvious disadvantages attending the direct application of *cold* to such sensitive parts as the mouth and teeth, and have at length succeeded beyond my most sanguine expectations. I early found that the means used by my predecessors in the cause of local anæsthetics, as elsewhere described, served only to maintain those disadvantages, and that some method should be found to produce insensibility or numbness in the part without "shock" or inconvenience

of any kind. This was the object steadily pursued—
and this I have attained.

I have much pleasure in acknowledging the assistance
of Mr. Bagg,—whose talent and truthfulness as an illus-
trator are too well known to require further notice.

WALTER BLUNDELL.

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LONDON: *January 1st*, 1856.

EXPLANATION OF THE COLOURED PLATE.

FIG. 1. A section of the right side of a lower jaw, dividing the second molar tooth.

FIG. 2 presents the same part as in fig. 1, with the addition of the terminal portion of the apparatus which comes in contact with the tooth and jaw. The gum and dental periosteum are shown in their frozen or bloodless state.

FIG. 3 presents the side view of a lower jaw in its natural condition.

FIG. 4. The same as fig. 3, but showing the blanched appearance of the gum when under the influence of the numbing process.

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