

## INTRODUCTORY.

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A STUDY of the advances which have of recent years taken place in the field of Operative Dentistry will reveal, beside the important additions to our knowledge in the shape of novel methods and improved technique, a vastly more important advance manifested in a better and more general understanding of scientific principles, and the application of dental science to dental art, resulting in a more rational practice. Especially is this true in regard to the etiology of dental and oral pathological conditions, and the *rationale* of the modes of treatment indicated for the morbid states constantly confronting the dental practitioner.

The modifications in surgical methods and the greatly improved results which are the outgrowth of modern scientific studies in bacterial pathology, while they have made a considerable impress upon dental operative methods, have not, however, received that universal practical acceptance among dental operators which their immense importance demands. There is no field of special surgery in which the importance of exact knowledge with respect to aseptic and antiseptic treatment is more marked than in the practice of dentistry. The dental operator is continually confronted with septic conditions, so that precise knowledge of their origin, causes, phenomena, and treatment are essentials to the legitimate practice of the profession.

The performance of any operation, and especially those which are classified as capital, with unclean hands or infected instruments would in the present stage of surgical art be regarded as criminal malpractice. It should be so considered in dentistry. The loss of a patient's life as the result of surgical septic infection is no longer permissible. Lack of antiseptic precautions in certain dental operations may directly lead to and as a matter of fact has been the cause of fatal results. It has been shown conclusively<sup>1</sup> that a large variety of pathogenic micro-organisms are almost constant inhabitants of the oral cavity. In addition to the numerous forms which bring about an acid reaction, there are many specified organisms which produce in inoculated animals pyemia and septicemia in their several clinical classes. But while the dental practitioner is not often called upon to face the issues of life

<sup>1</sup> W. D. Miller, *Dental Cosmos*, November, 1891.

and death in the course of his work, his responsibilities as related to the issues with which he does deal demand of him the same care and thoroughness in order to attain the character of result which the possibilities of modern dentistry require of him. In the following pages the importance of asepsis and antiseptis in dental operations is constantly impressed upon the mind of the student.

By the term *asepsis* is specifically meant the condition under which are excluded those influences or causes which induce infection by pathogenic micro-organisms; when a tissue or surface has been rendered germ-free it is said to be in an *aseptic* condition. By *antiseptis* is meant the means by which the septic state is combated or the aseptic state is attained.

Under the aseptic condition repair of tissues takes place normally without interference, wounds and injuries heal with a minimum of disturbance, and the inflammatory concomitant is of the simple traumatic type, without suppuration or tendency to diffusion.

The aseptic state, in many operations in the mouth, is not readily attainable and cannot be maintained for any length of time; but in all operations which involve the pulp and pulp chamber, as well as the periapical region through the pulp canals of teeth, strict aseptic conditions, as regards external infection, are perfectly attainable through exclusion of the oral secretions by means of rubber dam, the use of suitable disinfectants, and sterilized instruments. It is the class of operations here alluded to which are most prolific of disturbance from infective inflammations caused by ignorant or careless manipulation.

The time is at hand, if indeed it has not already arrived, when purulent inflammations following dental treatment will be regarded with the same condemnation of the dentist as of the general surgeon. The operative section of this work is written in full recognition of the principles here indicated.