

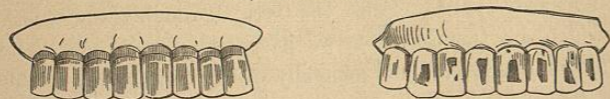
## CHAPTER XIX.

### DENUATION.

THIS affection, at once appreciated by referring to the drawings, is, without doubt, one of the most deforming conditions to which the dental organs are subject. It is sometimes seen attacking every individual tooth; at others, confining its ravages to a very few. A common seat of the disease is where the gum festoons. Here may be seen a sulcus, or groove, passing from tooth to tooth, involving all those situated in the anterior part of the arch. Another form of the condition involves the cutting edges alone; while in still other cases the depressions are situated promiscuously over every portion of the teeth.

The disease, commencing as a slight gutter, or break, in the enamel, progresses with a varying degree of rapidity, sometimes moving with such slow

FIGS. 102, 103.—DENUATION.



pace as scarcely to be observed from year to year; in other instances, and these, unfortunately, much the most frequent, making constant attention necessary to the preservation of the organs. Occasionally the process begins at a number of points, and these, enlarging, finally coalesce, to the destruction not infrequently of all the anterior enamel wall.

Concerning the cause or causes inducing this condition, much diversity of opinion exists. The present conviction of the author is that the true explanation is just now, for the first time, enunciated in the electro-chemical experiments made by Mr. Kencely Bridgman (see *Dental Caries*), and that in this direction will be found to lie not alone the cause, but the prophylaxis. As all that may be said on this subject is expressed in the experiments themselves, the careful attention of the reader is directed to them. True it would seem to be that back of the immediately-acting cause must lie a predisposition: here would seem to be the result of impressions made on the enamel at the period of its formation, and which deficiency the nutritive functions have failed to correct. It might, indeed, very well be that such enamel is entirely deficient in vital resistance, and thus subject to be acted on as any inorganic structure; being by electrolytic action simply dissolved. To

combat such a condition, electrolysis must be negated. If the assumptions from the experiments of Mr. Bridgman, here made, and which seem to the author so rational, be accepted, the treatment of denudation is the antagonism of electro-chemical action; this perhaps alone, as devitalized enamel might not be aided by vital defence.

Treatment of denudation has heretofore been confined exclusively to combating by operative means the ravages inflicted, such means consisting in reaming out and filling with metal the cavities, as one after another may threaten from its extent and depth.

### ABRASION OF CUTTING FACES.

Abrasion of the cutting face of the teeth from mechanical causes is a very common affection, and a very unfortunate one. The articulation of the two dentures has much to do with the production of such a condition; indeed, everything, if we except an abnormal softness of enamel as found in certain teeth. Teeth that articulate scissor-fashion, the one set over or in front of the other, seldom suffer from this trouble. It is most markedly an affliction of direct articulation.

Persons having jaws thus articulated find their teeth year by year wearing shorter; and were it not that, as this abrasion goes on, nature offsets the waste by internal repairs, throwing out layer after layer of secondary dentine, the dental pulps would be quickly enough exposed.

The character of food used, while perhaps it would never yield this condition, yet, the predisposition in the articulation existing, without doubt assists in the destruction. Thus, it is remarked that sailors, eating constantly of hard bread, and chewers of tobacco, are most subject to abrasion. This is strictly true, however, only as it applies to such as have the peculiarity of articulation, and with such the progress of abrasion is commonly very rapid.

A means of relief to this condition which, while fairly successful, is associated with more or less discomfort, consists in the adaptation to the posterior teeth of caps of metal. These caps take the strain of mastication, and thus protect the teeth. Another mode, but which is apt to excite inflammation, consists in cutting out cavities from the abrading faces of the teeth, and supplying the place of the removed dentine with plugs of gold. This latter plan has many advocates, and is highly commended by practitioners of experience and judgment.



CHAPTER XX.  
OPERATIVE DENTISTRY.

INSTRUMENTS USED IN PREPARATION OF CAVITIES.

WE are here introduced to a department of Oral Surgery familiar under the name of dental art, a department which considers the mechanical treatment of carious cavities and other physical defects found in relation with the teeth.

Fig. 104 is re-introduced as illustrative of a perfect denture; to find a set of teeth so complete in construction and relation is an experience of exceeding rarity. Teeth so arranged and free from irregularities seldom decay.

FIG. 104.—SUPERIOR DENTAL ARCH.

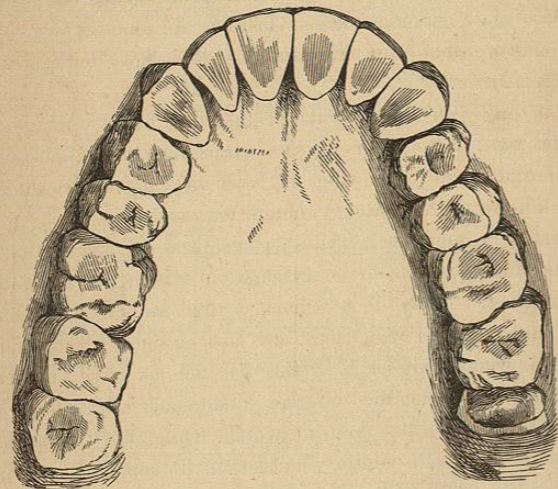
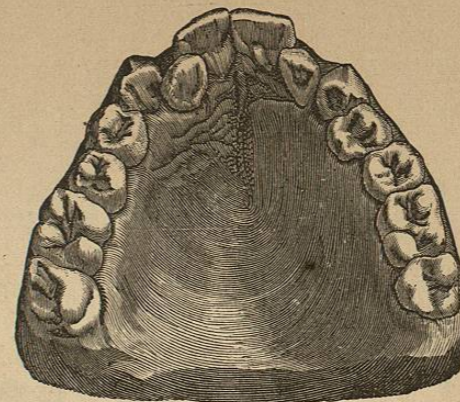


Fig. 105 represents the typical American mouth; the imperfection of face of the organs illustrated, combined with overcrowding of the arch and deficiency in the inorganic constituents of the dentine and enamel, render such teeth the easy prey to disease.

Cavities found in teeth are of every variety as regards size, shape, and location; dental art exposes, cleanses, and fills, with metal or other material, these cavities. Understanding of the instruments used, manner of preparing cavities, processes of making fillings, together with associative treatment required in the conduct of cases, implies comprehension of operative dentistry.

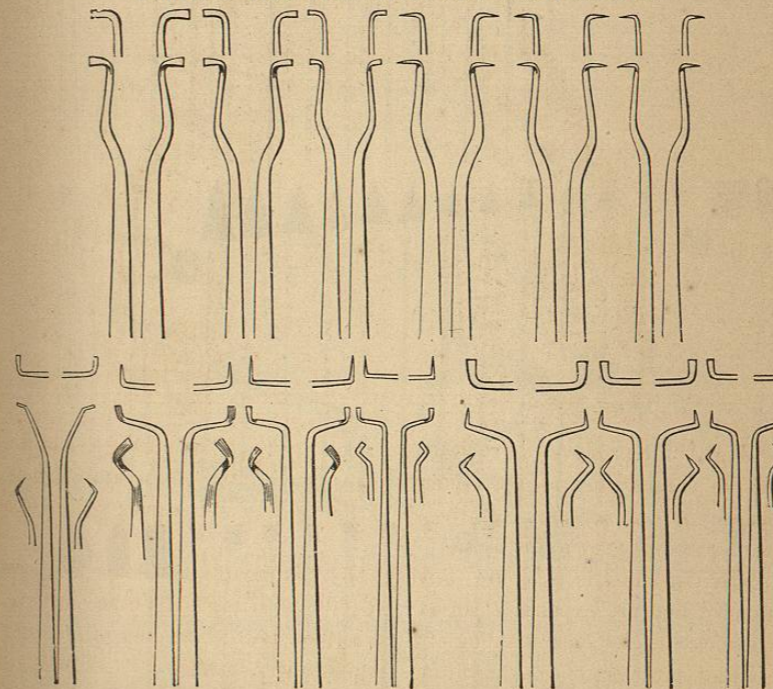
The subject opens with a view of means employed for the exposure and excavating of cavities; these means appropriate various instruments known as excavators, drills, the dental engine, chisels, files, saws, disks, chip-blower, and water-syringe.

FIG. 105.—SUPERIOR DENTAL ARCH.



**Excavators.**—An excavator is an instrument designed to excavate, or clean out, a cavity. Excavators, while variously modified, are founded on two

FIG. 106.—HOE EXCAVATORS AND MODIFICATIONS.



elementary styles: one, hoe-like in shape, cuts as it is drawn toward the operator, the other represented by the relation of the edge of the ordinary hatchet to its shaft or handle, cuts with lateral motion.

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