

by that of an opposite nature, tends to the production of crevices in the enamel, the change of temperature being so sudden. In the correction of irregularities of the dental arch ligatures are frequently used, they absorb and retain within their fibres, acids and other deleterious agents, which by their immediate contact produce evil results, for that reason the ligatures should be changed often.

Tobacco acts upon the system as a nervous sedative. Its alkaline principle, which is nicotine, acts in the same manner upon the dental fibrillæ on their exposure, (*i. e.*, when the dentine has been deprived of its protection, (the enamel) from disease) and by its continual action impairing their vitality, involving the loss of the recuperative power of the *germinal matters* of the cells, which is thereby metamorphosed into *formed material*, the latter fusing together is hardened by the disposition of calcareous salts, being the last stage of calcification or the formation of *esteeo-dentine*. The same thing occurs in cases of exposure of the pulp, especially one case on record, to which I refer the readers of this article, which I believe is to be found in the last February number of the *Dental Cosmos*. We must, therefore, infer that the smoking or chewing of tobacco in excess, acts as a nervous sedative on the system, and consequently proves ultimately injurious to weak constitutions; that its action upon the nervous element of the teeth does not altogether destroy the life of the organ, although a portion of its vital principle is sacrificed.

There are many diseases, general and local, which influence a chemical change of the saliva, and others preventing the secretion of some of the salivary fluids, in the former instance the saliva becoming acid. There are also certain physiological phenomena which act in the same manner. Dyspepsia and all disorders of the mucous membrane of the alimentary canal, fevers of all kinds, mercurial ptyalism, phthisis pulmonalis, syphilis, amenorrhœa, and pregnancy, act indirectly upon the teeth.

In dyspepsia, and in all gastric affections, the saliva is acid, its condition being regulated by, and dependent upon the state of the digestive apparatus; in the former disorder the acid eructations from the stomach in connection with the acidity of the saliva, exert a most pernicious effect upon the teeth. For that reason it is almost impossible to save the teeth of persons suffering from chronic dyspepsia. Vomiting acts in the same manner, both producing that disagreeable sensation called *cataplexis* (toothedge).