

roof of the mouth, is not infrequently sufficient to cause congestion, inflammation, and sometimes suppuration.

The mucous membrane of the oral cavity was designed by nature to be exposed to the friction of the tongue and of food during mastication, and to be constantly bathed with saliva and mucous secretions. But by the substitution of a dental plate for the lost natural organs, these designs are wholly or in part destroyed, and it would seem that such interference with normal functions could not long be permitted without grave and serious consequences.

As commonly understood, saliva has to do only with mastication, deglutition and digestion, but as there is scarcely a moment under normal conditions when the mucous membrane of the mouth is not bathed with it, it is not unreasonable to suppose it has to do also with the health and vigor of that tissue.

In cases of mouth-breathing, we know how quickly the membrane becomes thickened, congested and oftentimes inflamed, conditions due, no doubt, in part to septic atmosphere passing over the surface, and in part to the mucous secretions being quickly evaporated and the glands paralyzed while the saliva ceases to flow altogether except under the stimulus of mastication, so that we are forced to believe, that to protect the membrane from the irritating influences of the atmosphere and to flush away the *excretus* of the mucous glands, is the office of the saliva in its relations to the tissues it constantly bathes.

Thus far we have been considering some of the less conspicuous influences in the production of pathological effects of dental substitutes—influences usually eluding observation and wholly, or in part, misunderstood by a large percentage of dental practitioners. But there remains yet to be considered one influence which is more fruitful in the production of pathological results than all others combined, namely, *mechanical irritation*, which may, and often does, cause organic changes, modifying the nutrition of the parts and giving rise to morbid alterations of structures. It is a well-known fact in pathology, that any long continued irritation may so alter the nutrition of normal structures and benign growths as to impart to them a semi-malignant or malignant type. The mucous membrane of the mouth is especially prone to organic changes under long-continued irritation. Simple hyperæmia, spasmodic stricture, labial epithelium *epuloids*, and tumors of various forms may and often do result from simple mechanical irritation. But undoubtedly most of the organic affections which primarily result from irritation, are the immediate results of inflammation, chronic or acute, which is itself the result of cell irritation. Tissues inflamed become morbidly sensitive, and mechanical and other irritants operating upon an exalted sensibility are productive of still more irritation in a pathological sense, for whether chemical or mechanical it does not cease when inflammation supervenes.