

times, if there is no improvement, I then use nitric acid; there is no danger in applying this powerful caustic to the uterine mucous membrane; at any rate, I have often applied fuming nitric acid without the slightest bad effect, and its remedial power in these cases is remarkable. In using the nitric acid, care should always be taken to protect the cervical canal; this may be done by passing the probe, with the wisp of cotton saturated with the acid, through a glass tube, a piece of a large sized gum catheter, or through the ordinary uterine speculum. The nitric acid should be applied at longer intervals, and the patient must remain at rest in the horizontal position till all fear of inflammatory action has passed. It may appear singular to you that an inflammation of a mucous membrane alone should remain for so long a time and cause so much discomfort, and also that the parenchyma is not involved; but if you will recall your anatomy for a moment you will remember that the lining membrane of the uterine cavity is totally unlike the mucous membrane that is found in other parts; so thick is it that it makes up nearly one-fourth of the uterine wall, and when once it becomes the seat of chronic inflammation, there is little or no hope that it will subside spontaneously.—*Philadelphia Medical Times*.

PATHOLOGICAL DENTITION.

BY JAMES W. WHITE, M.D.

Dentition, though a physiological process, is nevertheless recognized as a frequent cause of constitutional disturbance. Doubtless there are extremists who overestimate the average influence of this process as a disturbing element, as there are those who underrate the difficulties which may attend it. Pathological dentition is by many considered a secondary affection,—a single link in a chain of deranged actions,—and, even when a little patient indicates unmistakably the local irritation, relief is sought by general medication,—relaxants, derivatives, calmatives, febrifuges, etc.; then by local emollients, fomentations, and anodynes; and lastly, if at all, by lancing the gums, when redness, tumefaction, induration or the whiteness of the coming tooth seems to demand it. These signs are indeed assumed to be the only possible justification of the operation. If the gums are tumid, tense, and shining, swollen up into a kind of little tumor over a particular tooth; if an unhealthy ulceration with a sloughy appearance forms upon the summit of the gum; then, say our textbooks and writers upon the diseases of infancy,—then we may sometimes resort to incision of the gum.

"In forming a diagnosis," says one of the highest authorities, "whether a disease present during the time of teething is consequent upon some derangement of this process, or upon an abnormal condition of some other organ or organs of which the dental difficulty is but itself a symptom, the state of the jaws must be the principal guide. If, in the presence of symptoms which might arise from teething, we find that the teeth are not pressing forward towards the surface of the gums, and that the latter maintain their normal appearance, it will be useless to have

recourse to the gum lancet." Young practitioners are cautioned, by a recent writer, not to display their ignorance by the use of the lancet, except the local indications imperatively demand it. The local signs, it is to be inferred, are tumefaction, redness, induration, ulceration, and the whiteness of the presenting tooth. The direct pressure upon the fibrous tissue is thus assumed to be the cause of the various and serious complications which are too frequently associated with the period of the primary dentition. It is doubtless true that a hyperæmic condition of the gums may be caused by the growth or eruption of the teeth proceeding more rapidly than does the absorption of their integumental covering, and that the undue pressure thus caused may occasion trouble, by the irritation of the nerves of the gum-tissues,—manifested locally by tumefaction, soreness, redness, or ulceration; systematically, by fever, irritability, sleeplessness, etc. It is also admitted that judicious treatment of pathological dentition should in all cases include hygienic care, and that constitutional medical, as well as local surgical, interference is generally demanded. Nor is it claimed that in the perversion of this physiological process is to be found an explanation of all the ills to which human infancy is heir; but we assume that pain so intense and unrelenting as to destroy the appetite for food, to cause wakefulness, irritability, thirst, fever, diarrhoea or constipation, congestion, convulsions, and death, may be due to the irritation of dentition *without the existence of a single local indication*. In other words, that the most serious complications of dentition are not caused by the pressure of the advancing tooth upon the gums, but by the backward pressure of the resisting gums upon the developing and sensitive *pulp*, giving rise to a true toothache, comparable only to that exquisite torture which is experienced in after-life from an exposed and irritated pulp.

If such a condition of things is possible, it will readily be seen that there can be no question as to the extent of the mischief which may result. The association of the fifth pair of nerves, which supplies the dental filaments, with the great sympathetic, so connects the teeth with the entire economy that the pathological bearings of such deranged action may not be limited. That such a condition may exist will be readily understood, if it is remembered that at the period of eruption the roots of the teeth are as yet incomplete; that instead of the conical termination and minute foramen which characterize perfected teeth, the aperture is quite large, and its edges thin and sharp. In estimating, therefore, the amount of constitutional disturbance which may result because of a want of accordance between the eruption of a tooth and the absorption of the superimposed tissues which impede it, we may imagine the sensitive pulp, made up of arteries, veins and nerves, in a condition of irritation from augmented vascular and nervous action,—a morbid activity of the process of dentition—followed by determination, stasis, and congestion, producing a hyperæmia sufficient to cause the protrusion of the mass from the incomplete aperture of the root; which, being pressed upon by its thin, sharp edges, is sufficient cause for any amount of consti-