

relation during its activity. It builds the dentine portion in co-operation with the enamel organ until the crown is finished and ready for eruption. When a tooth is fully erupted the enamel organ ceases its activity. The pulp, however, continues its internal work, which is to build up *into* the surface of the enamel shell with dentine, not *against* it, as would be the case were the enamel as dead internally as it is claimed to be externally. What is to be understood by building up with dentine is, that the dentine is not *normally* calcified in a recently erupted crown, unless the operation has been retarded. In addition, I believe that the life energy which is imparted to dentine from the pulp is shared with the enamel until pulp action becomes extinct.

The question of the vitality of enamel is about to be answered by science, which admits of facts obtained from observations of the laws which preside over organic bodies, the difference in conditions determining the effects between physical experiments and observations of vital energy upon teeth in the mouth. One cause of disagreement arises from not being able to weigh or measure *life*. Vital energy is left out of nearly all the experiments in physics that have been presented to sustain the micro-organism theory. It will soon be a surprise to know, what a large number of practical dentists to-day believe, that dentine is changed in its density and powers of resisting caries; that enamel contains life-changes in color, etc. Most observers have been consulted by younger patients to know why drawing in cold air or drinking cold water caused pain in the incisors. I have repeatedly, upon examination, found the patient either reduced from mental strain, generally from over work in school, or from a temporary use of acid fruit. The latter cause is indicated by the unusual white appearance of the enamel. The former may have suddenly come to notice from acids, but generally the sensitive enamel is nearer the neck of the tooth. Understand, these caries are in mouths with teeth perfectly enamelled and no sign of abrasion. A good test is to fill a syringe with ice water and apply the point to the surface of the enamel, only allowing a drop or more to be forced out. Still another is to take a piece of felt, sharpen like a pencil, and pass it over the enamel, and one can make up his mind that life is back of the pain produced. I prescribe milk of magnesia, also to avoid acids and give instructions in regard to over-nervous strain, asking for the opportunity of another examination in a week. If the privilege is granted, nature will stand ahead of the microscope in deciding the question of the vitality of enamel. Within a week past, a lady asked the question as above mentioned, and it required less time to diagnose the cause. She desired to