

central nerve are scarcely visible under the microscope, we are obliged to feel after their more minute fibrils.

That the entire surface of denuded dentine is covered with the most delicate and sensitive nerves is but too palpable to the dental operator and his patient ; no part of such surface can be touched with the sharpest point without finding evidence of the presence of a living, active nerve, capable of communicating with the brain with electric speed ; and, no doubt, the interruption is attested by a whole company of those dental guards, ever ready to raise the war-cry against violence from acids or instruments.

That the dentine itself is not alike sensitive at every point is equally assured by the testimony of the senses. When by any means the enamel is abraded, the denuded membrane will be sensitive at *every point* ; but we have only to circumcise or cauterize the denuded spot, and the dentine may be touched or excavated without pain. Here, then, we have demonstration that the lateral nerves, passing from the main central nerve, are few and far between, compared with the multitude of fibres that enter and compose the membrane.

But still another evidence : in case of decomposition of dentine, or incipient or deep and extensive decay, it will be found that, unless the pulp is exposed, the walls of the cavity may be explored and thoroughly excavated with little or no pain, except as the instrument comes in contact with the membrane and under surface of the enamel ; or, as is often the case, there will be one or more points in the cavity less decayed than the surrounding parts. These are always the most vital points—vitality resists chemical action and decomposition of dentine. These sensitive spots, then, are made up, to a greater extent than the surrounding substance, of dentinal fibre, or it is at these points that the main branch nerve enters. These spots need only to be incised near the enamel to destroy sensation.

In support of the theory that the central nerve throws off branches laterally terminating with innumerable fibrils in the membrane, I mention one other fact which seems conclusive : cut off the longitudinal nerve, and all below is insensible. Cut or fracture this at the point of the root, and the whole tooth is insensible ; divide or cut it off at the neck of the root, and every nerve fibril in the crown is paralyzed ; perforate the centre of an incisor tooth, and just so far as the drill is carried is the dentine rendered insensible. Ordinarily, an incisor tooth, in a person of