

Dr. Taft remarked that in many cases in which arsenic is used for devitalization of the pulps of the teeth the periosteum becomes more or less affected. This may occur either from the direct influence of the agent upon the tissue, or in part by this, and in part by the congestion consequent upon the sudden stoppage of the blood in its natural course through the vessels of the pulp, and its diversion into other channels, or the difficulty may occur entirely from this latter condition. The blood usually, perhaps upon being turned back, finds its way into the veins by anastomosis, but it will sometimes fail in this and then it passes into the cellular tissue through the ruptured or enfeebled walls of the vessels, when irritation ensues.

SECOND DAY—EVENING SESSION.

(By special request the first hour of the session was occupied by Dr. Watt, in the delivery of a lecture upon nitrous oxide as an anæsthetic, a synopsis of which we endeavor to give in this connection.—REP.)

MR. PRESIDENT AND GENTLEMEN: As most of you are more or less familiar with my recent personal history, I make no apology for appearing before this, the oldest Dental Association in the world, without a written communication.

In compliance with request, I propose a converse, for a while, on the preparation and use of protoxyd of nitrogen, or nitrous oxyd, as an anæsthetic. This is a subject of great practical importance to the Dental profession, inasmuch as we are called upon to inflict pain more frequently than general surgeons, and our operations, though fearfully painful, are of such brief duration that it would be almost warrantable to conclude that this anæsthetic was designed for our special use.

Protoxyd of nitrogen, as its name imports, is composed of one equivalent of nitrogen, united with one of oxygen. The proportions, numerically, are about 14 of the former, and 16 of the latter. It will be noticed that these are the chief elements which constitute our atmosphere, the substance under consideration being about twice as rich in oxygen as atmospheric air; and here these elements are chemically combined, while in the atmosphere they are mechanically mixed.

Nitrous oxyd is a gas about fifty per cent heavier than atmospheric air, is colorless, and has a peculiar sweetish taste and odor. Its volume is the same as that of the nitrogen it contains; hence, by loss