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28. Who invented the dental engine? (T.)

A Scotchman, Mr. Nasymith, of steam-hammer fame. It was, however, very much improved in the United States.

29. Are the dangers as great in connection with the use of the Roentgen rays in dental as in general surgical practice? (S.A.)

It is said by experts that they are not, on account of the fact that the exposure is not so prolonged. At a late meeting of the Irish Branch of the British Dental Association, Mr. T. Stack drew attention to this fact, and quoted instances where the use of the rays enabled the operators to diagnose cases in a way that was otherwise impossible. A ten minute's exposure is sufficient.

Obituary.

DR. SAMUEL J. HAYES.

Dr. Samuel J. Hayes died at his home in Pittsburg, Pa., June 10, 1897.

Dr. Hayes was born on a large farm near Johnstown, Pa., June 22, 1833. He entered college when about eighteen years of age, paying his way through a course of study principally by teaching. Subsequently he finished his training with a course of theology and served in the pastorate for several years, being considered successful both in the denomination of United Brethren and the Baptist. In consequence of a severe bronchial affection, he was compelled to turn from his chosen profession and took up the study of dentistry, which he followed during the remainder of his life, about thirty years. The defects of anæsthetic agents in general and the crude condition of the science itself early attracted his notice and he thereafter devoted himself to the development of this art. In his numerous writings and lectures before schools and associations, both medical and dental, he advocated and sought to establish the bedrock principles of the science, and is considered an eminent authority on the subject, his definitions for anæsthesia and asphyxia being so clear and forcible that they are accepted as standard. By his researches and his invention known as "The Hayes Process of Anæsthesia," a means has been given the professional world of producing a true anæsthesia free from peril to operator or patient.