

JONATHAN TAFT

Dentistry's Great Forgotten Hero

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ABSTRACT

One of the greatest figures in the development of the dental profession to the high status it enjoys today is all but forgotten. Jonathan Taft was dean of the second dental school in the world and wrote the most important clinical textbook of his time, one that was reprinted in many editions over a quarter of a century. Later appointed dean of the new University of Michigan Dental School, he instituted innovations in admission requirements and course of study that were copied by all subsequent schools and are the standards adhered to today. The editor of one of the most important dental journals for 44 years, a record unmatched to this day, he set the standards for modern dental periodical literature that have done so much to elevate dentistry that today it stands on a par with medicine as a truly science-based profession. He served dentistry in many capacities: president of the American Dental Association, founder of the National Association of Dental Faculties, and founder of the National Association of Dental Examiners. Over his lifetime, he published almost 200 professional papers and probably attended and lectured at more dental meetings than anyone of his day and since. His memory should be resurrected, and the profession must be made aware of the great debt it owes to this intrepid fighter for a better dental profession.



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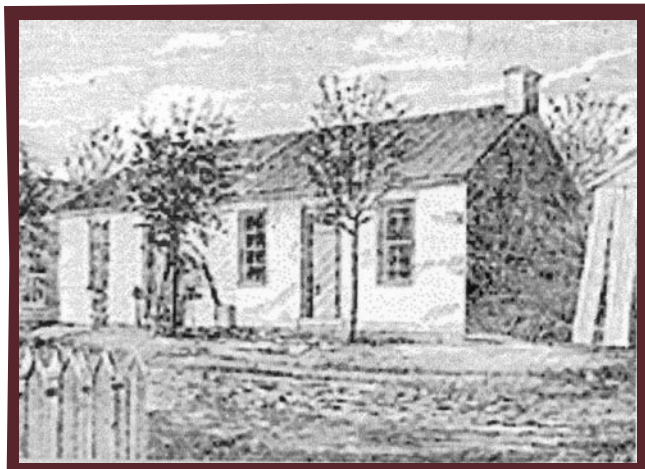


Figure 1. The little schoolhouse in the village of Georgetown, Ohio, where Jonathan Taft received his education. Future President Ulysses S. Grant was his classmate.



Figure 2. Taft at about the time he became dean of the University of Michigan Dental School.

Jonathan Taft, a major figure in the development of dental education, dental literature, clinical innovation, and organized dentistry, was born Sept. 17, 1820, in the tiny hamlet of Russellville, located in the southwestern corner of Ohio, about 50 miles east of Cincinnati. His father, Lyman Taft, was a farmer and a native of Massachusetts who moved to Ohio two years before Jonathan was born.

Jonathan's early education at first was in the common school of the community, but he transferred to a tiny private school in the village of Georgetown, about 10 miles from his home (Figure 1). He was a classmate of a general and future president, Ulysses S. Grant, whose father was a tanner in Georgetown. When he finished school at 17, young Jonathan tried his hand at teaching. But in 1841, he decided to study dentistry.

Taft's Dental Education

In accord with the established custom of his day, he became a preceptorial student and studied dentistry with Dr. George D. Tetor in the village of Ripley, about eight miles south of his home, on the Ohio-Kentucky border. After two

years, he left Dr. Tetor to set up his own office in that village, but soon relocated in 1844 to the larger town of Xenia, not far from the city of Dayton.

In 1845, a group of Ohio dentists, led by Dr. James Taylor, (a close friend of Chapin Harris who was one of the founders of the first dental school in the world, the Baltimore College of Dental Surgery), organized the second dental school, the Ohio College of Dental Surgery, in Cincinnati. Taft, feeling the need for more formal training in dentistry, enrolled in this new dental school sometime around 1848-1849, and was graduated from the Ohio College in 1850. He had apparently maintained his practice in Xenia during his time at the college, most likely on a part-time basis, and he remained in practice in Xenia until 1855.

His alma mater, the Ohio College of Dental Surgery, in 1854, offered him the position of professor of dental surgery, which he accepted, and in 1855, moved his private practice to Cincinnati (Figure 2).

Taft's Awareness of Dentistry's Need to Elevate Itself

In an address before the Mississippi Valley Association of Dental Surgeons

on Feb. 17, 1853, and before his joining the Ohio College's faculty, Taft clearly delineated his feelings concerning uplifting the dental profession. Moreover, he was well aware of the need to educate the public to the scientific nature of modern dentistry. He lauded the establishment of formal dental education and organized dentistry. But most important, he felt, was a formal dental literature, necessary for continued learning by the dentist, but also for the edification of the public. "The public are anxious to gain information," he said, "prompted occasionally by vain curiosity, doubtless, but by far the greater part, by pure motives. The professional man, who desires the elevation of his profession and the welfare of his patients, will not fail upon all proper occasions, to give information in regard to his profession."¹ With confidence he assured his audience that when the public is properly informed it will demand perfect, instead of cheap, operations. Of vital importance, he stressed, was the need for new professional journals, so that all dentists could be kept abreast of scientific advances which would set them apart from the purely "mechani-

cal” dentists. He ended his lecture with a ringing declaration of the future he foresaw, where “new associations will be raised up. New schools opened, and periodicals multiplied. When all these agencies and others that will arise, shall have been brought, in their appropriate and extended influence to operate, then we may anticipate a progress and rapidity of development unparalleled in the annals of science.”² His prescience was remarkable, for we see today not only the high esteem in which dentistry is held, but the tremendous advances that have put this profession on a par with medicine.

The Growth of Dental Literature

Keenly aware of the need for proper dental journalism, and while still a student, Taft published his first clinical article, “Abrasion of the Teeth,” in the *New York Dental Recorder* in 1848. He followed that in the journal’s next issue with an article, “Irregularity of the Teeth,” which served as the basis of a paper he presented before the local dental society.

One of the earliest dental journals, *The Dental Register of the West* but commonly referred to merely as the *Dental Register*, was launched in Cincinnati in 1847 under the aegis of one of the earliest active dental societies, The Mississippi Valley Association of Dental Surgeons. James Taylor, MD, DDS, then-dean of the new Ohio College of Dental Surgery, assumed the post as editor, with B.B. Brown, MD, as associate editor (Figure 3).

Cincinnati was a good choice for a new dental school and a new dental journal, situated as it was athwart the

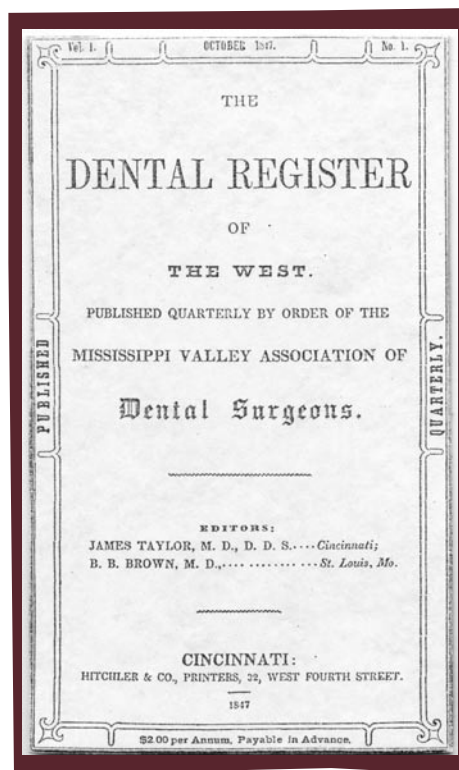


Figure 3. The front cover of Vol. I, No. 1 of *The Dental Register of the West*, October 1847. This publication was issued for 76 years, and Taft was editor from 1856 to 1900.

gateway to the western lands. During the first 40 years after its founding, Cincinnati experienced spectacular growth. By 1820, its citizens, extremely proud of their city, were referring to it as “The Queen City” or “the Queen of the West.” A local newspaper boasted “The city is, indeed, justly styled the fair Queen of the West. Distinguished for order, enterprise, public spirit, and liberality, she stands the wonder of an admiring world.”³ It was a vibrant manufacturing city, continually attracting new residents. In fact, between 1850 and 1900, Cincinnati was the machine tool capital of the world.

The Growth and Influence of the Dental Register of the West

The *Register’s* first issue had 48 pages and the subscription price was \$2 a year. Unfortunately, of its 80 subscribers, only 70 paid, and at the end of its first year, it was in the red for \$150. Fortunately, the association made good

the deficit. The second volume did hardly better financially. Beginning with the third volume in 1851, the ownership of the journal passed to Dr. James Taylor and continued until the end of the ninth volume in 1857, when he sold it to Taft and Dr. George Watt, who became joint editors of the publication. By this time, under their guidance, it had become a much larger and influential publication, with the ninth volume containing 448 pages. In the interim, the *Register* had again been sold to John Toland, an enterprising owner of a dental supply house in the city. Still plagued by delinquent subscribers, Taft, as editor, instituted what he called his no pay, no journal policy, and insisted on payment in full in advance. This brought the magazine back to full solvency, which it remained until its demise.

At the beginning of the Civil War, Toland enlisted in the Union army and unfortunately was killed in 1863. At that point, Taft and Watt took over ownership. In 1873, Taft became the sole owner and editor. *The Dental Register* had become one of the longest-running publications in the history of American dental literature, published for 67 years, from 1847 to 1923. It was under Taft’s direction that it became one of the most esteemed.⁴ His importance to the advancement of dentistry was recognized by Dr. L. Pierce Anthony, an eminent leader of the profession, who wrote of Taft, “He was the type of man most fitted to continue the journalistic labors of Taylor, and through his editorial connection he wielded a marked influence for good in developing dentistry throughout the

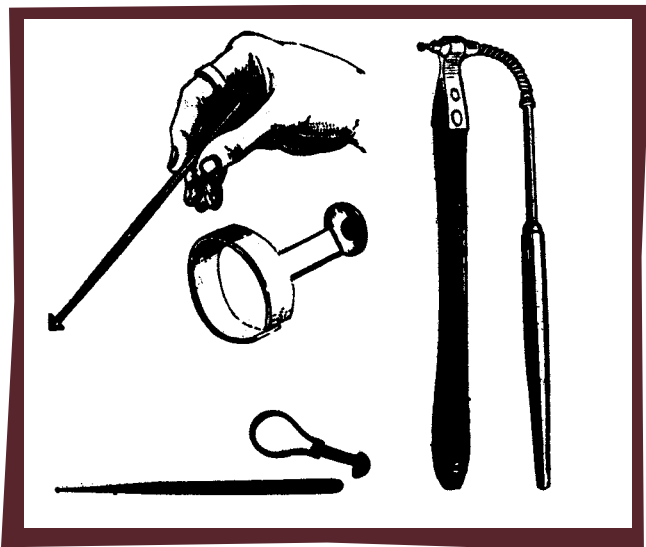


Figure 4. These pictures of the ring drill, left, invented by Amos Westcott in the early 1850s, and the drill invented by Charles Merry a few years later were both shown in Taft's *Operative Dentistry*.

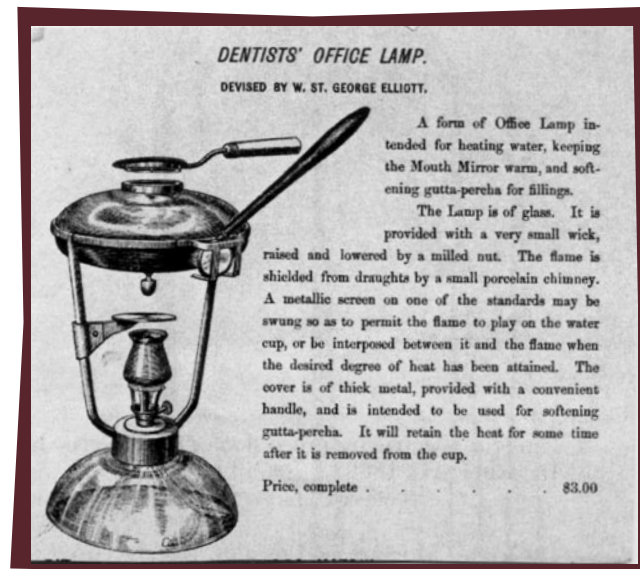


Figure 5. This illustration from an S.S.White catalog of 1876 shows a heat lamp intended for heating water, keeping the mouth mirror warm, and softening gutta-percha for fillings. The gutta-percha would be placed in the recessed cover on the top, which has a handle.

West and South.”⁵ In 1900, Taft retired from the editorship of the *Register* after 44 years of continuous association with that journal, a record unmatched in dental journalism.

Taft's Textbook on Operative Dentistry

A good indication of the growing importance of the dental profession was the appearance of dental literature in America, which began in 1801. The first book was a short pamphlet for patient education, written by R.C. Skinner. Between the years 1800 and 1840, 44 dental books were published. The most important were Samuel Sheldon Fitch's *A System of Dental Surgery* (1828), Shearjashub Spooner's *Guide to Sound Teeth* (1836), and Chapin Harris' *The Dental Art, A Practical Treatise on Dental Surgery*. This latter book was the most popular and most widely distributed. And although Harris' text has been regarded by some historians as not equal to Fitch's and Spooner's, its practical value was superior to both.⁶ Harris wrote in the preface to his book that his readers would see “the evidence of

a progress in dentistry, most cheering to all who desire to see this branch of surgery rescued from the domain of ignorant empiricism” and that he expected that dentistry would soon receive the public and professional consideration it deserves.⁷

No other major text appeared in this country until 1859, when Taft published *A Practical Treatise on Operative Dentistry*. One of the earliest comprehensive texts, it was used by dental students and dentists alike, and was reissued in a number of editions, the last being in 1883. Taft was innovative in both his thinking and his writing, suggesting techniques new for the time and stressing thorough examination, and the taking of a complete history.

Taft also took a strong stand against the use of silver amalgam as a filling material. This material had been introduced into America by two brothers whose quack-like methods enraged the ethical practitioners. Organized dentistry, which at that time represented only a tiny percent of practicing dentists, began a campaign against the use of amalgam, a drive which soon assumed the tone of a religious cru-

sade. Proponents of the use of amalgam were to be rooted out, and to this end, every member of the newly formed American Society of Dental Surgeons was to sign a pledge renouncing its use. But many of the members refused to sign such a pledge, feeling that the material served a useful purpose where gold could not be used, and because it was possible for poor patients, who could not afford gold fillings, to have teeth treated. These refusals ultimately resulted in the demise of the first national organization of dentists in 1856.⁸ Nevertheless, Taft, in his book, said that amalgam should not be regarded as a durable material. He supported gold fillings with fanaticism and endorsed banning from dental societies those dentists who used amalgam.⁹

Drilling cavities in teeth was a severe problem, and new drills were being invented to replace the long steel bur which was held in the fingers and twirled (Figure 4). Taft was excited about the new instruments which worked like a jeweler's drill but unfortunately had to be held with two hands. His book had pictures of the

new Merry drill as well as Chevalier's drill, which eased the work of breaking through the enamel somewhat.

Of great import was his method for treating exposed pulps. The usual practice was to cover the exposure with a cap of gold. But Taft improved the technique by first covering the defect with collodion or gutta-percha dissolved in chloroform, and then covering it with a small piece of swaged gold.¹⁰ It also was Taft who first suggested that root canals be sealed with gutta percha, a novel idea at a time when canals were incompletely sealed with gold foil (Figure 5).

The Case of Lucy Hobbs

Lucy Hobbs was born in 1833 in the tiny village of Ellenburg, in northern New York, not far from the Canadian border. Orphaned at 12, she nevertheless managed to get a high school education by supporting herself as a seamstress and became a teacher. However, she wanted to be a dentist and in March 1861, applied for admission to the Ohio College of Dental Surgery. Such boldness in a woman shocked the professors of so respectable an institution and, as a body, objected to her being admitted. Taft, as dean of the school, was sympathetic and kind to her, yet at the same time he advised her that it was not a fit occupation for a woman and told her to find a practicing dentist with whom to study. Sympathizing with her desperate plight, he agreed to let her spend three months in his office while she continued to search for a preceptor. Every dentist she approached turned her down, until after a diligent search she finally found a young dentist, Dr. Samuel Wardle, who agreed to train her in his office.

The negative attitude toward women becoming dentists was typical of the times, and persisted until late in the century. Norman Kingsley, the foremost oral surgeon and prosthodontist in the United States, as late as 1883, came out against women being admitted to dental schools, claiming that women were not inventive and lacked "mathematical precision." He claimed that dental "operations require an excessive mental and physical strain, to which a woman is not physiologically equal."¹¹ He suggested instead, that women be used as receptionists because of their gentleness and good taste, and as bookkeepers, because of their skill at organizing housework (Figure 6).

After two years of study with Dr. Wardle, Hobbs opened an office in Cincinnati, but soon moved to northern Iowa and set up practice, earning the respect of her male colleagues. The president of the state dental society invited her to attend the annual meeting and she made such a favorable impression that the society amended its bylaws so that a woman could be admitted to full membership. As soon as she became a member, she was elected a delegate to the American Dental Convention which was being held that year in Chicago. Upon her return to Iowa, she read a paper before her state society, becoming the first woman in the world to present a scientific paper to a dental society.

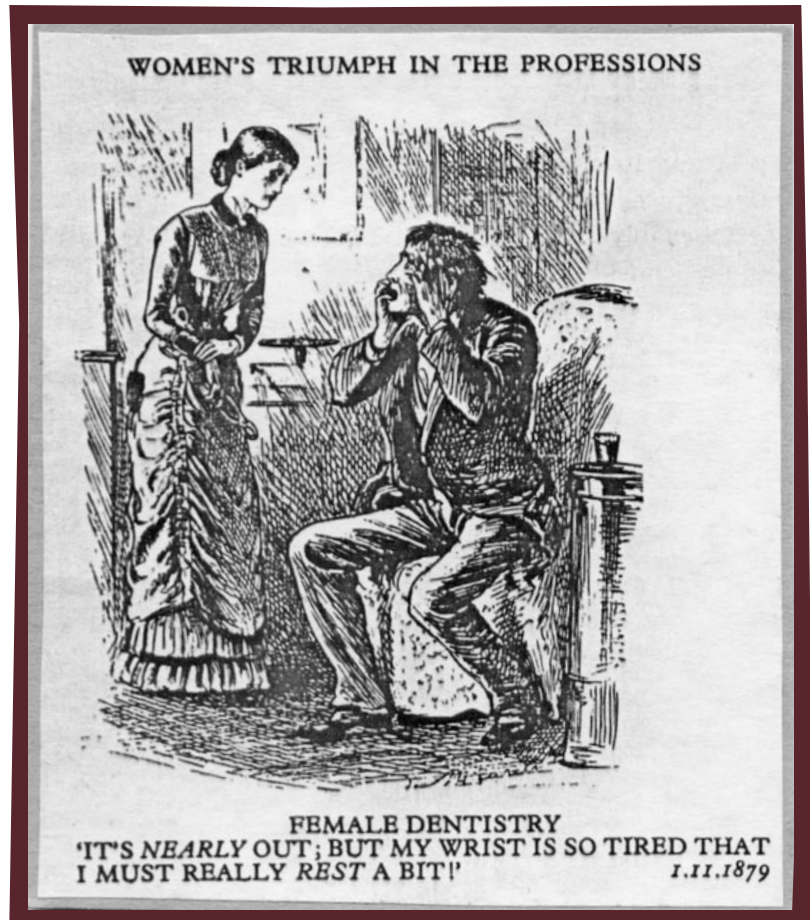


Figure 6. A cartoon deriding the idea of a woman as a dentist, from the British humor magazine *Punch*, January 1879.

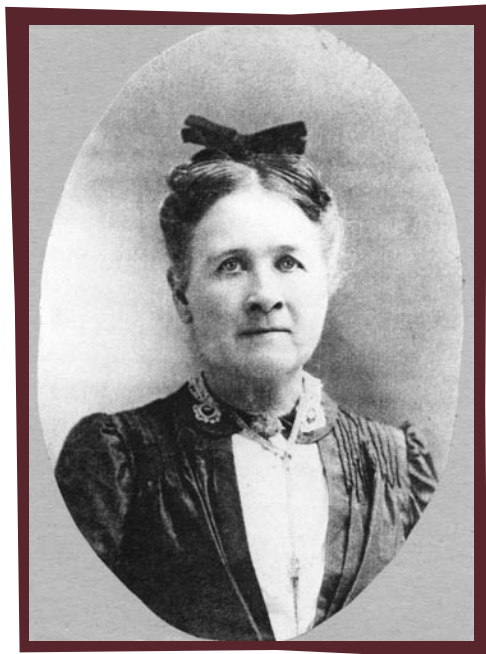


Figure 7. Lucy Beaman Hobbs Taylor at age 60 in 1893.

Her lack of a formal degree nevertheless still troubled her, and she reapplied for admission to the Ohio Dental College but was again rejected by Taft, who felt he could not ignore the demands of his faculty. At this time, however, she had unprecedented support from her male colleagues. The entire Iowa State Dental Society threatened to withdraw from the American Dental Association unless Lucy Hobbs was allowed to matriculate as a student. Taft capitulated to this show of support, and Miss Hobbs was admitted to the college from which she graduated on Feb. 21, 1866, with a DDS degree; the first woman in the world with such a degree. Taft's role in this struggle resulted in his name becoming widely known to the dental profession in this country and abroad (Figure 7).

Taft's Role in Dental Education

Taft had been a professor at the Ohio College of Dental Surgery since 1854, and in 1858 was appointed dean of the school. It was during his tenure that he was elected president of

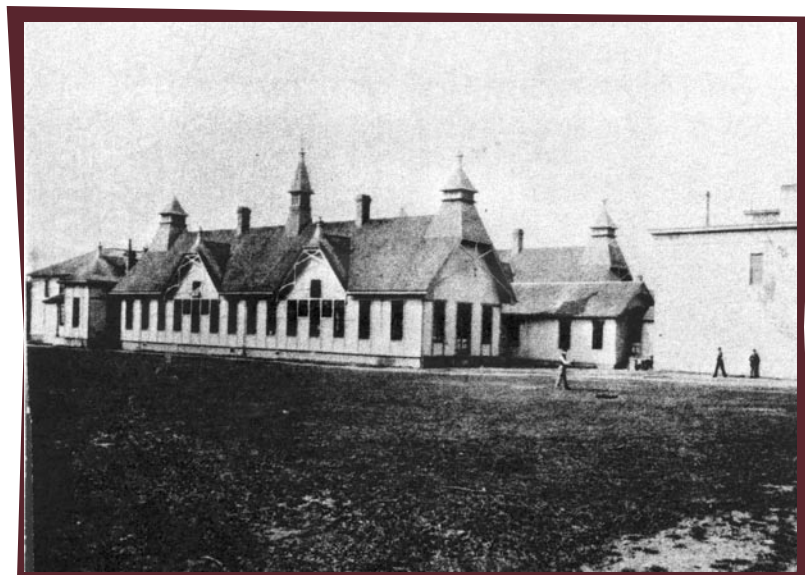


Figure 8. The first building housing the University of Michigan Dental School, Ann Arbor, Mich.

the American Dental Association for the term of 1868-1869. In 1872, the Michigan Dental Association proposed to the State Board of Regents that a dental school be established in conjunction with that state's university. Taft was asked to become dean of the new school and in 1875, left Ohio and took up his new post. Two years after his appointment, he was inducted as a member of the Michigan Dental Association (Figure 8).

Under Taft's guidance, the Michigan school became recognized the world over as one of the leading institutions of its kind. His school was the first one to extend the course of study from two years of six months sessions each, to one of four year's duration, each study year consisting of nine months. It also required a minimum of graduation from high school for admittance. For his exceptional leadership of the school, as well as his many accomplishments, the University of Michigan awarded him the honorary degree of doctor of medicine in 1881. After a quarter of a century of service, Taft retired from the dental

school in 1900. Taft was well aware of the need for a school to have the proper educational tools available. "No educational institutions," he wrote, "especially those of more than an elementary character, can assume to be well equipped for their work without a good library and museum. The library should contain, as fully as possible, the entire literature of all subjects and branches taught in a given institution. Dental colleges should by no means be an exception in this respect."¹²

Taft's Numerous Major Accomplishments

Taft's work was not confined to the school. In 1884 he was responsible for the founding of the National Association of Dental Faculties and served as its president from 1899 to 1900. This organization was later to become the American Association of Dental Schools, which continues to function to this day.¹³ In 1883, Taft founded the National Association of Dental Examiners and was named the first president; he was re-elected to this post for three more terms.

Dentistry was frequently treated as a subspecialty of medicine, and thus when the International Medical Congress was held in 1887, Taft was named chair of the Section of Dental and Oral Surgery. Three years later, in 1892, he became chairman of the Section of Oral and Dental Surgery of the American Medical Association. And when the World Columbian Dental Congress was held in Chicago in 1892, he was a member of the executive committee.

Over the course of his lifetime, Taft published almost 200 professional papers. He was a member of every important organization for the advancement of his chosen profession and he attended and lectured at more dental meetings and conferences than any other dentist of his time.

After a lifetime of service to dentistry, Taft died Oct. 16, 1903, at the age of 84, and was buried in the Spring Grove Cemetery in Cincinnati. Almost every dental journal in the country carried a lengthy obituary of this great figure in dentistry, and dental societies across the land lauded him. An excerpt of the eulogy by the faculty of the Michigan dental school stated:

"He was ever ready to make needed sacrifice of time and talent for his beloved profession, and especially for the school of dental education to which he gave so many years of valuable service. He labored to make this a leading school for training men to the highest ideals of professional culture, that through its alumni professional standards might be upheld and public service of the highest grade secured. His personal efforts have ceased forever, but his spirit remains to complete the work he designed."¹⁴

Although the influence of this great innovator and leader has had a profound effect upon the growth and maturation of the dental profession, he, himself, is hardly known today. When Taft died, a colleague made the cogent remark, "Several of his professional associates have suggested that the profession should erect over his grave a suitable monument which should help to perpetuate his name. This would be a very happy and fitting memorial; but whether it shall be done or not, his life has made an impression that will probably outlive any monument of stone."¹⁵

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