

Chapter V

DENTISTRY ANSWERS THE CALL: THE SPANISH-AMERICAN WAR, 1898

Introduction

The destruction of the *USS Maine* in the Havana harbor on February 15, 1898, followed by the US declaration of war with Spain on April 25, not only changed the global role of the United States, but also had a dramatic effect on the status of Army dentistry. For the first time, large contingents of US troops had to serve outside the continental limits of the United States without access to qualified civilian dentists. Official reports of the troops' dental discomfort in Cuba, Puerto Rico, and the Philippines during the Spanish-American War and the Philippine-American War (1899–1902) made the War Department and the public aware of the soldiers' need for dental surgeons. This inspired the dental profession to intensify efforts to establish a corps of dental surgeons.

"The Time for Action is Now": Dr John Chapple, January 1898

In January 1898, even before hostilities began, one of the editors of *American Dental Weekly*, Dr John Chapple of Atlanta, Georgia, urged immediate action to promote a dental surgeon measure in pending legislation. Rumors indicated that there were imminent changes in the size and personnel of the Army because of the "small war cloud" that "hung menacingly" over the country. In response to this prediction, Chapple told his readers "the time for action is *now*."¹

At the 29th annual meeting of the Southern Dental Association in February (its first annual session as a branch of the National Dental Association following its amalgamation with the American Dental Association in 1897) in Saint Augustine, Florida, Chapple offered the following preamble and resolution:

Whereas, The propriety and urgent necessity for the government appointment of dental surgeons to the United States Army and Navy has long been recognized by the dental profession;

And Whereas, This question has been debated so long that, in the opinion of this Association, time for decisive action has arrived: Be it therefore

Resolved, By the Southern Branch of the National Dental Association, that a committee of five be appointed, with instructions to proceed to Washington not later than the first of April next, and urge before the proper authorities the appointment by the government of dental surgeons to the army and navy. Be it further

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Resolved, That President [Thomas] Fillebrown, of the National Association, be requested to appoint a similar committee from the other branches of the National Association who will co-operate and act in concert with the committee from this Association.^{2(p218)}

The resolution was adopted, and the secretary requested the cooperation of the national body. The association selected a committee (consisting of Drs JA Chapple, B Holly Smith, Mark F Finley, Henry B Noble, and E Beadles) to bring the matter to the attention of Congress.²

Dentistry in the Spanish-American War

As in the Civil War, many dentists immediately joined the service when the war with Spain was declared in April 1898, some as line officers or enlisted soldiers and others as members of the Medical Department as hospital stewards or physicians. However, either civilian dentists or unqualified Army surgeons still performed most of the dental work on soldiers. As in the past, some dentists serving in line capacities carried their dental kits with them and performed yeoman service in their spare time, fulfilling the dental needs of the members of their own units. Enlisted soldiers and officers alike underwent a great deal of inconvenience and expense when they required dental attention. Additionally, their absence from their post, garrison, or camp for a considerable time, often many miles away, amounted to considerable lost time to their units.



*Ward scene with patients and hospital stewards, circa 1898.
Photograph: Courtesy of the US Army Medical Department Museum. Spawar-044.*

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Despite continued opposition from military medical leaders, the need for dentists to serve the armed forces remained clear, and the nation was equipped to fill this need. In 1898 approximately 25,000 civilian dentists and 8,000 dental assistants were working in the United States, whose population was around 70 million. The prewar US Army of 28,000 soldiers included 177 surgeons and no dentists, yet only 10% of the rejections at the recruiting stations were due to dental causes. According to Dr Williams Donnally (1851–1929) of Washington, “absolutely toothless” recruits were accepted, despite strict official standards, and “artificial teeth” were made for them before their departure for Cuba.^{3–5}

William Owen and William Ware: The Army's First Overseas Dental Infirmary, 1898–1899

As troops and equipment were hastily mobilized for operations in the Caribbean and Philippines, medical officers and their commanders were being compelled to recognize (unofficially) the need for proper dental service. Captain William Otway Owen (1854–1924), an assistant surgeon in the US Army Medical Department, began the process that ultimately established the Army's first dental infirmary in the Philippines. On May 18, 1898, Surgeon General Sternberg recommended that Owen, then on duty at Fort Bayard, New Mexico, be one of the four medical officers ordered to report to Major General Wesley Merritt in San Francisco, California, for duty with the expedition to the Philippine Islands. That same day, the US War Department reassigned Owen to set up the camp hospital in the Richmond district of San Francisco.^{6–8}

Within a few days, 160 enlisted hospital corpsmen intended for Philippine duty reported to the camp. This group included two dentists, William Ware (1864–19??) and John Alvin Gibbon (18??–1899), both graduates of the College of Dentistry at the University of California, San Francisco. The two dentists approached Owen, and Ware told him that they had enlisted as hospital corpsmen in the hope of demonstrating that “dentists may be of service to an army.” Owen liked the idea and told them to get letters of recommendation from their dean and friends in San Francisco attesting to the validity of their credentials. In a few days, they returned with the necessary papers proving that they were competent graduate dentists.^{8–10}

Shortly after his interview with Ware and Gibbon, Owen, now a major, prepared the requisitions for a 1,400-bed hospital for the Philippine expedition. He told Ware and Gibbon to prepare a request for the dental supplies that they would need for a year-long campaign in the Philippines, and to order the instruments and medications that they were “accustomed to use.” The surgeon general's office approved the requisition and issued the order.^{8,9}

With the arrival of the dental equipment and supplies, Ware began treating Camp Merritt soldiers at the Presidio of San Francisco. When the combat units embarked in August 1898, the two graduate dentists and their full complement of dental equipment and supplies were on their way to the Philippines. Taking advantage of the situation, Ware and Gibbon treated soldiers while en route to Manila.⁸

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*William Otway Owen, an assistant surgeon in the US Army Medical Department
who was ordered to the Philippines in 1898.*

Photograph: Courtesy of the National Library of Medicine.

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That month, Dr Frank Platt, the editor of the *Pacific Medico-Dental Gazette*, applauded Ware's accomplishment:

While various attempts have been made throughout the United States to impress upon Congress the necessity for enacting such legislation as would provide for our army an efficient corps of dental surgeons, it has remained for a graduate of the dental department of the University of California to bring this issue to a practical and successful result, at least in so far as our forces now at the Philippines are concerned.

We note with pleasure the fact that Dr. Wm. H. Ware has, with two assistants, Drs. G. F. Ames and J. A. Gibbon, been appointed to serve with General Merritt's army.

To Dr. Ware belongs the credit of having inaugurated the service here, and we earnestly hope this example may be followed at an early date, and that each division of our military service may be given the benefit of skilled dental attendance.

It is of prime importance in considering the physical welfare of man that his teeth should be in such condition as to properly perform the functions for which nature designed them, and we believe it is not carrying this idea too far to say that the efficiency of our army, depending as it does almost entirely upon the physical vigor



*Army Medical Department emergency medicine case and surgeon's field case, circa 1898.
Photograph: Courtesy of the US Army Medical Department Museum. Spawar-055.*

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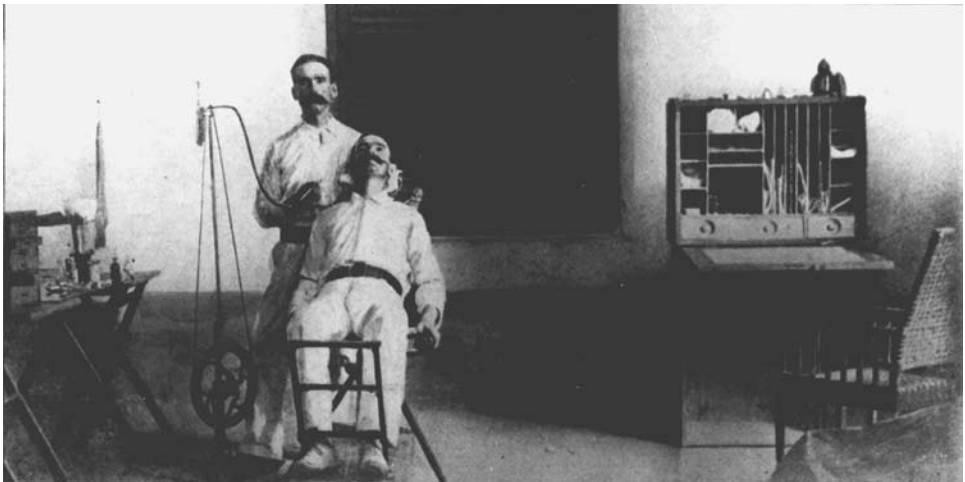
of its members, depends in turn upon the possession of serviceable and comfortable teeth. That those in authority now recognize this and are turning to the profession for relief is indeed a fact upon which we think we may happily congratulate all dental practitioners.¹¹

Shortly after the expedition reached Manila, Gibbon was detailed away from Owen's command. On February 10, 1899, before Owen could have him transferred back, Gibbon was killed in an opening skirmish of the Philippine-American War at Caloocan near Manila. Owen later recalled the incident:

Gibbons [*sic*], instead of being detailed to do work with his dental outfit, like many another poor boy sought the excitement of the battlefield, and one day, returning from the firing-line between the handle-bars of a litter, bringing from the battlefield a wounded officer, Gibbons received a bullet which passed through his heart, and the poor boy died on the field of battle, doing his duty as an upright, honest man. I am sure from the papers and other matters that have come to my attention concerning him that had he been permitted by the Great Master he would have proved himself as faithful to his duty as a dentist as he was in the capacity of litter-bearer on the field of battle.^{9,12,13}

Ware remained with Owen's detachment, which established a convalescent hospital for the VIII Corps on the Island of Corregidor in the mouth of Manila Bay. In November or early December 1898, he established the US Army's first semiofficial overseas dental infirmary in 1898. Owen described the historic event:

In one of the old buildings where there was a good light I established Ware as a dental



William Ware, one of the initial contract dental surgeons appointed in 1901 and shown here on Corregidor Island in 1898, was instrumental in establishing dental care for soldiers in the Philippines. Photograph: Courtesy of the National Archives and Records Administration.

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surgeon, and he was kept busy at this work, doing absolutely nothing else but dental work, with one or more assistants to help him keep his room and materials in proper shape, to enable him to do his work as a decent operator should be allowed to do it. It was soon discovered that there was a competent dentist, with proper tools, on duty at the convalescent hospital, and the result was that Ware was kept busy all the time to the limit of his personal capacity to labor—and his capacity was good.⁹

Soldiers from Manila and elsewhere were ordered to Ware's office for dental treatment. There, Ware treated over 300 cases, on which Owen later contended he submitted "the first official reports ever made for purely dental disease."⁸ Ware reported on his dental work from his arrival in the Philippines until his discharge on July 11, 1899, writing:

While it is true that a rigid physical examination is supposed to pass on the qualifications of recruits, it is my unpleasant duty to state that I found the enlisted men almost universally in need of the care of a dental surgeon. The climatic condition, the diet, the exposure, not to mention the water, were in themselves enough, though the physical examination were perfect, to cause the conditions which I found to be almost universal, such as alveolar pyorrhoë [*sic*], gingivitis, abscesses, etc., familiar to all dental surgeons. In this connection I desire to say that numerous cases were entrusted to my care of fractured jaws, the result of gunshot wounds. These latter cases, as is well known to dental surgeons, require the constant attention and skill of a dental surgeon to restore the natural occlusion for masticating purposes. The surgeons in the army are not prepared nor are they skilled in the science of dentistry to treat successfully such cases.¹⁴

Owen recalled the case of a young soldier who suffered from a chronic tropical intestinal disease:

In making the rounds of the hospitals one morning I noticed the condition of his mouth, and sent him to Dr. Ware for treatment. Dr. Ware reported to me that he found nearly every tooth more or less diseased, and many with freely running pus. In three or four weeks the patient's mouth had been placed in fair condition, with the result that the intestinal condition, which had existed for months, ceased, and the man was well without further treatment. In other words, when the pus in the man's mouth was no longer allowed to flow, the intestinal condition was at once cured.⁸

Owen said that Ware worked hard and was "a good man, a good dentist, and a good friend," who rendered "loyal and untiring service." He also later recalled that in early 1899 he had discussed the need for a corps of dentists with Major Charles Bixton (1860–1927), another California volunteer who was a dentist by profession.¹⁵ Owen failed to mention that a third California dentist, Dr. G. F. Ames, served with Ware and Gibbon. Ames and Gibbon were referred to as Ware's "two assistants."^{8,9,11}

On March 30, 1899, Dr. Luis Lane Dunbar, the dean of the College of Dentistry, University of California, wrote to Surgeon General Sternberg endorsing Ware's appointment as a contract dental surgeon for service in the Philippines and his discharge from his current status as a private in the Hospital Corps. On April 7 the surgeon general's office replied:

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Your communication of March 30, 1899 has been received. It relates to the services of Dr. W.H. Ware in caring as a Dental Surgeon for Army patients in Manila, P.I., suggesting his appointment as a contract surgeon for official assignment to such duty. The Surgeon General instructs me to say that there is no authority either in law or regulations for such an appointment. A physical examination of the recruit excludes from service men whose teeth are unsound, while officers have always paid for dental services as they have paid for any other personal service. Treatment by a specialist is authorized in certain cases of "chronic complaints" but dental work has never been regarded as coming within this provision. You will see, therefore, that contract positions for dental work cannot be created without violating established customs.

I should think that there would be a fine field for Dr. Ware in civilian practice in Manila when his connection with the Army is at an end.¹⁶

Ware was honorably discharged on July 11, 1899, at the Convalescent Hospital, Corregidor Island, Philippine Islands.¹⁰ In 1901 he applied for and was selected to be one of the initial Army contract dentists, serving until his resignation in 1909.

Louis Maus and Jacob Horner: The Army's First Stateside Dental Clinic, 1898-1899

While Owen was preparing his dental clinic in San Francisco, Lieutenant Colonel Louis Maus, chief surgeon on the staff of Major General Fitzhugh Lee's VII Army Corps at Jacksonville, Florida, had a parallel effort underway to organize a dental service for stateside US Army troops. In 1898 Maus organized the hospital service at Camp Cuba Libre, Jacksonville, Florida.^{17,18} The entire camp became known for its orderliness and high sanitary standards, which accounted for its low rates of sickness.¹⁹

Noting the frequency of dental disease among the troops, Maus decided to do something about the problem. Jacob Horner (1864?-19??), an 1898 graduate of the Louisville College of Dentistry, had corresponded with Maus before his enlistment. Upon Horner's arrival, Maus procured \$500 worth of dental equipment, rented an office, and put Horner, along with another dentist, John Watts, to work treating the enlisted personnel. Horner agreed to furnish all his own instruments and materials and charge only "the cost of the materials used." He was granted a furlough to return to Indiana to purchase the necessary supplies for his office, and he reportedly spent \$600 of his own money on equipment in addition to \$17 monthly rent. Maus soon realized that the dentist's talents would be better utilized practicing dentistry than performing the normal steward's duties, and on September 30, 1898, he detailed Horner as "Corps Dentist for the VII Army Corps." On October 1 the commanding officer of Camp Cuba Libre issued a circular announcing that Dr Horner, "Corps Dentist," had established himself in an office in the Hubbard Building at the corner of Forsyth and Main streets in Jacksonville and was "now ready to attend to the teeth of any member of the VII Army Corps. . . . free of cost except for material furnished" (at the time, gold fillings cost from 25 to 50 cents each). On October 30 Maus requested that Private Watts, Horner's assistant, be detailed as an acting hospital steward.^{20,21,22}

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*Jacob Horner helped establish the Army's first stateside dental clinic in Florida in 1898.
Photograph: Courtesy of the National Archives and Records Administration.*

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From September 30 to December 5, Horner treated 271 patients; inserted 75 gold fillings, 128 amalgam fillings, 35 cement fillings, 33 porcelain crowns, 30 gold crowns, 3 dentures; and performed 28 prophylaxes, 146 extractions, and 108 other treatments. Around November 10 he moved his office to Savannah, Georgia, where the VII Army Corps was transferred, and later to Havana, Cuba, with the corps. From January 1 until April 1, 1899, the two dentists' appointment books were completely full.^{20,23}

Maus described what he called the "department of dentistry" in a report to the surgeon general:

It is almost impossible to realize the great benefit which resulted to the troops from this department, located as they were in the field. Engagements were made as in civil life, and both dentists were kept busy from early morning to late into the night. . . . In my opinion every corps should be provided with a dental department consisting of one chief dentist with the rank of major, three dentists with the rank of captain, and three assistant dentists with the rank of first lieutenant.^{24(p87)}

In the July 1899 issue of *Items of Interest*, the editor, Rodrigues Ottolengui, reported on a slightly different plan for a US Army Dental Corps than Maus had proposed. It is unclear whether this plan came before or after the corps dental plan he recommended in his annual report, but Maus's concept provided for one "senior" and two "junior" dentists to be assigned to each of the Army's 15 military departments. The senior dentists would have the rank of captain, and the junior dentists that of lieutenant. The dental surgeons could circulate among the various posts within the command as their services were required. In addition to these 45 dental surgeons, one dental lieutenant colonel and one major would be permanently stationed in Washington. These officers would function in an executive and supervisory capacity rather than in a clinical one. The pay of the dentists would correspond to the pay of mounted officers of the same rank.²⁰

Experiences of Dentists Serving with the Troops

Just as during the Civil War, several practicing dentists served as officers of the line in regular, state, and US volunteer units during the Spanish-American War. Many of these dentists often pulled double duty, acting as unofficial unit dentists just as their predecessors had, but they were ill-equipped to undertake the additional duties. Their experiences and observations helped shape dental care for American soldiers in the aftermath of the war with Spain.

Some dentists who also held medical degrees were appointed to serve as surgeons in their respective regiments. Dr Morris Schamberg, for example, served as an acting assistant surgeon. He described his experiences at the Chickamauga encampment and later in Puerto Rico:

While serving at Chickamauga, many soldiers came to me for the extraction of teeth, and many more could have been relieved had I had proper filling-materials and instruments with me. Nothing tends to bring any condition in the mouth to a crisis as does the life that a soldier leads in the field. Exposed to all kinds of weather, run down

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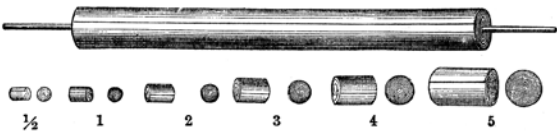
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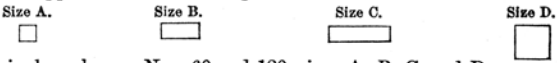
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*Advertisement from the 1878 Dental Cosmos for gold cylinders.
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This price list from an 1878 edition of *Dental Cosmos* lists the cost necessary office supplies, like appointment books.

Courtesy of the US Army Medical Department Museum. Borden 010.

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through fatigue, dependent upon rations which, as a rule, put to a severe test the masticating organs, and non-painstaking as to the hygiene of his mouth by reason of this peculiar life, the soldier proves to be the most needy consultant of the dentist.

During six and one-half months of active service in Porto Rico [*sic*], many cases of interest from a dental stand-point presented themselves to me. Rapidly growing alveolar abscesses were of frequent occurrence, and one case of rather extensive necrosis of the inferior maxilla called for operation. The above-mentioned cases, together with numerous conditions of the mucous membrane which called for treatment, such as ulcerative stomatitis, spongy gums, chancre of the tongue, etc., are proof of the fact that the vicissitudes to which the soldier is subjected render him an easy victim to some of the more serious oral affections.²⁵

Dr Herbert Shapard of Austin, Texas, a member of his local militia unit (the Governor's Guard), was mustered into federal service with his company on May 3, 1898. The unit was assigned to the 1st Texas Regiment and was encamped at Mobile, Alabama that June. In July, it moved to Miami for 6 weeks of training. Shapard wrote:

Every day during this period one man or more would come to me and ask me to send after my instruments, as they had dental work to be done. Our Colonel, [Woodford H] Mabry, offered to appoint me regimental dentist (which of course, was an honorary appointment, no provision having been made for such). After due deliberation, I concluded to send after them, and received them at Jacksonville, Florida, about the latter part of August, when I proceeded to open my military dental office in a box house about twelve feet square, which was built for a company commissary. After putting a window sash in the roof, I had a very good office, considering the circumstances. I then proceeded with the aid of a hatchet, saw and pocket knife, to construct a chair out of material consisting of a few pieces of rough one by one and a half and a hard tack box, upholstering it with a piece of red flannel and some moss. This done, I made a table on which to place my instruments. After getting everything in position I was ready for business, although my surroundings were not such as you would expect to find in a regular office. For instance, instead of occupying comfortable rockers while waiting for my services, my patients were expected to sit on a sack of potatoes, or anything that was more convenient, and, instead of such sanitary surroundings as fountain spittoons, etc., patients were expected to expectorate on the floor of mother earth.

My services were in great demand, and besides my regular practice, I was frequently called upon by the surgeons to visit the hospital and treat dental disorders of patients confined therein. I was often awakened from my peaceful slumbers at all hours of the night and requested to get up and treat cases of odontalgia, alveolar abscesses, etc.; in fact, my services were demanded from the colonel down to the company cook, and, during the three months we spent in Cuba, by members of the Second Louisiana, Second South Carolina, and Third Nebraska regiments, and on several occasions by the hospital surgeons themselves. . . . I have had soldiers present themselves to me for treatment whose mouths were in a horrible condition—teeth decayed and filled with decomposed organic matter and food; gums often badly affected with pyorrhea alveolaris, chronic abscesses discharging foul matter into the mouth, this in turn swallowed into the stomach, the thought of which, in itself, is enough to make a man with an iron constitution or a healthy person sick. A great many would tell me that their teeth were in good condition when

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they enlisted in the army, and it is reasonable to suppose that they were telling the truth, for it is one of the regulations and requirements in order to stand the physical examination to enter the army that their teeth shall be in good order. I knew of several men who were refused admission on account of their teeth not being in proper condition.²⁶

Dr Robert Oliver (1868–1937), later one of the three original 1901 examining and supervising dental surgeons and chief of the Dental Corps from 1919 to 1924, had already practiced dentistry for 12 years and served in the Indiana National Guard when he enlisted in the US Volunteers on April 26, 1898. He joined the 27th Battery, Indiana Light Artillery, and during the war served at Chickamauga Park and in Puerto Rico with Major General Nelson Miles's I Corps before being mustered out of service on November 22. With a significant dental and military background, he commented on oral hygiene and the Spanish-American War toothbrush situation:



Robert Oliver.

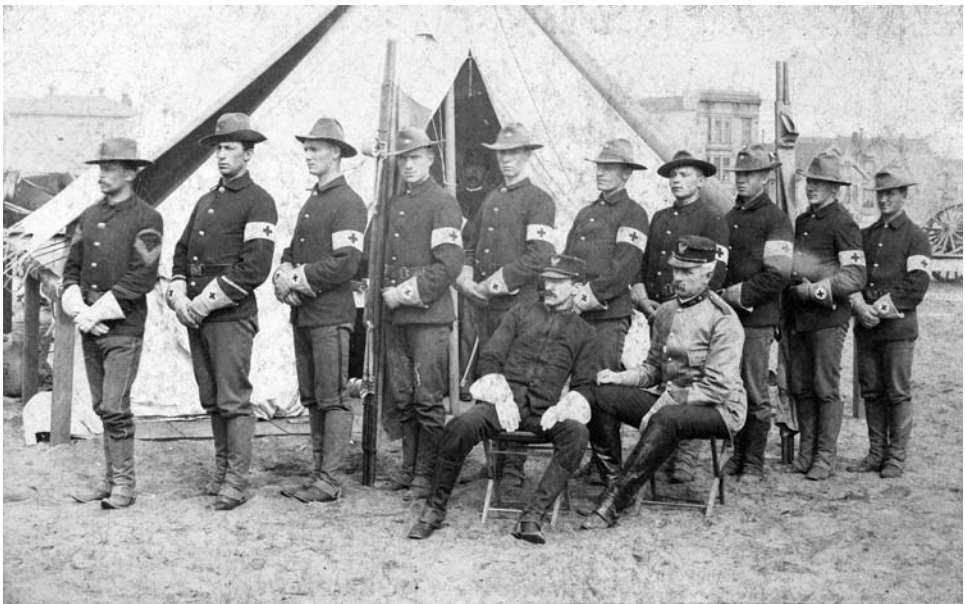
Photograph: Courtesy of the US Army Medical Department Museum. DCC04 Oliver-01.

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At that time diligent efforts were put forth, largely by States interested in the welfare of their contingent of volunteers, to supply each soldier with a toothbrush and a small container of dentifrice. This seemed to be the universal idea, but not being under Federal control, there was no plan for furnishing replacement for either toothbrush or dentifrice. The result was that the dentifrice was soon used up. Then the toothbrush alone was used until it began to lose some of its bristles and its efficiency. Through a sort of fad, it became the proper thing to carry the brush by sticking it through the hat band of the campaign hat. I have seen thousands of men marching in the thick dust with toothbrushes sticking through the left side of their hat bands, each brush so filled with earthy particles that at the first rain it was nothing short of a muddy mop. However, the soldier was diligent in the care of this article of his equipment, and retained it through the campaign, but the use for which it was intended was very limited indeed, and not fully productive of beneficial results.²⁷

Dr Wilhelm Otto Asseln of Fergus Falls, Minnesota, an 1896 graduate of the Northwestern University Dental School, enlisted as a private in Company F, 14th Minnesota Infantry, in May 1898 and served until mustered out in November.²⁸ He recalled his Army experience:

Practically all of my professional services while in the Army were “thank you” jobs. I furnished all materials and instruments but the forceps, extractions were always filled; on rare occasions, I would receive twenty-five cents for a particularly difficult



*Two Army doctors and 10 hospital corpsmen in front of tent,
Camp Chickamauga, Georgia, circa 1898.
Photograph: Courtesy of the US Army Medical Department Museum. Spawar-047.*

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filling. I was not in service long before it was known thruout [sic] our Army Corps that there was a dentist in the ranks and from that time on, I was frequently called upon, even during the night, to give relief to men suffering from tooth troubles.^{21,29}

Years later, he had an opportunity to examine some of his old fillings and found them still giving good service.^{21,29}

Dr Homer Croscup, an 1890 graduate of the New York College of Dentistry with a practice in Brooklyn, served as a captain in the 14th Regiment, New York Infantry, US Volunteers, and gave an interesting account of his unofficial work as regimental dental surgeon. After being mustered in with his regiment on May 16, 1898, at Camp Black, Long Island, Croscup moved by rail the next day to Chickamauga. Originally, the regiment was scheduled to sail from New York to Tampa, Florida, but rumors of Spanish gunboats in the area forced them to take the inland route. The nearest town was Chattanooga, Tennessee, 11 miles away, and Croscup soon realized that he would be kept busy in his dual capacity as a company commander and dental surgeon. Among the 1,300 troops in his regiment and the five other regiments in the area (comprising the 1st Division of the III Army Corps), he was the only dentist.^{21,30}

Croscup arranged his schedule so he would be at the hospital tent for 1 hour each day, where a line of 20 to 30 soldiers often awaited his arrival. He describes his experiences:

Of course, extraction, in the majority of cases, was the necessary treatment under the circumstances, but if I had been prepared in the capacity of dental surgeon, nearly all the teeth thus sacrificed could have been saved. In many cases the teeth had been broken by accident; it would have been an easy matter to extirpate the pulps and prepare the teeth for crowning. Many of these accidents occurred in the regular drills and exercises, while serving under the Government and under orders, and the least Uncle Sam could do, would be to give them proper care and treatment.

I remember upon one occasion after a drill in battle formation, extended order, two men came to me suffering from fractured incisors, one having been struck in the mouth with the butt of a rifle, breaking off the right superior central and lateral at the gum margin. From both roots the pulps protruded. I prepared sharp pieces of wood dipped in carbolic acid and forced them into the canals. This is an ancient practice and it came in handily at that time. I have subsequently placed crowns on both roots.

I had many cases from other regiments where the surgeons had made heroic endeavors to extract refractory molars, finally sending them to me to finish up. They, however, could hardly have expected to be successful with the instruments at their command.³⁰

Another example of dental service in the Spanish-American War was reported again by Ottolengui, editor of *Items of Interest*. An enlisted soldier in 1st Infantry in Cuba, suffering with a toothache and with no Army dental care available, visited a Cuban dentist, who attempted to extract the tooth but failed to do so successfully. The soldier returned to camp in "great agony" and was found dead the following day from an "overdose of morphine." The officers believed that the soldier

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had accidentally overdosed trying to relieve his pain, but the enlisted soldiers claimed he had committed suicide to avoid suffering any longer.²⁰

As more forces were mobilized, the dental requirements of the growing volunteer force continued to multiply. Private Frank McLin, who spent only 6 months before the war in a dental office, wrote on May 26, 1898, from Camp Thomas, Chickamauga:

When I return I shall be a full-fledged dentist. I purchased quite a few instruments in St. Paul before I left, together with a package of amalgam and cement, and am making good use of them. I extract from eight to ten teeth each day; am treating toothache and abscess, and I am doing lots of cement and amalgam filling.³¹

On June 14, he wrote: "I don't have as much time to work at dentistry as I should like to, and am going to try and get put on night duty (in hospital). This way I can get a little sleep during the night, and then sleep forenoons and get a tent and work at dentistry in the afternoons."³¹

On August 24, 1898, Colonel [Joseph] Bobletter, 12th Regiment, Minnesota Infantry, also stationed at Camp Thomas, wrote:



*Ward tents associated with Honolulu General Hospital at the base of Diamondhead, 1898.
Photograph: Courtesy of the US Army Medical Department Museum. Spawar-035.*

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The men of my regiment suffer a good deal from tooth trouble. The same occurred during the civil war [*sic*]. Many men suffered and lost valuable teeth, the loss of which no doubt affected their digestion, bowels, and health generally. I believe there should be qualified dentists in the army, say one to each regiment.^{31(pp197-198)}

On August 29, 1898, Captain [Walter] Child, a line officer stationed at Lexington, Kentucky, said:

I have noticed several in this camp suffering from toothache. It is an ailment from which a man dislikes to report sick, for if he does he is liable to be compelled to have the tooth extracted by the regimental surgeon, an operation which should not be performed while modern dentistry could so easily prevent it, and one which most of us dread when unskillfully done. In my opinion there should be a dentist with each regiment. It would give us fewer sick men, and hence a much larger fighting force to each company, regiment, brigade, etc.³¹

In September 1898 George Griswold, the former captain of Company H, 12th Regiment, Minnesota Infantry, and an 1889 graduate of the Pennsylvania College of Dental Surgery, underlined the fundamental problem:

On the salary a private gets he cannot afford dentists' bills, and, if he could, he is only allowed to leave camp or garrison duty at long intervals, and feels that his leave is too precious to be spent in a dentist's chair. The result is that his teeth are neglected and decay progresses, until driven by pain he seeks the regimental surgeon, who is unskilled in this specialty, consequently breaks the tooth and mutilates the gum. When his tent-mates have toothache they prefer to stick it out rather than be butchered, and consequently are unfit for duty. How much better it would be if each regiment had its dentist, who, with a capable assistant, could help wonderfully from a physical standpoint to improve the army and naval service of the United States.^{31(p198)}

In 1899 Griswold observed that although the average volunteer soldier wanted to take care of his teeth to masticate "Uncle Sam's hard-tack, salt pork, bacon, etc.," he was unable to leave camp long enough to see a dentist, much less pay for dental treatment. As a result of this neglect, he described the following scenario for the soldier eating his rations:

A piece of hard-tack gets into a cavity, crushes through to the nerve, causing him to jump four feet in the air, and yelling like a Comanche Indian, rushes off to the regimental surgeon, who seats him on a camp stool, calmly surveys the offending member, gets two or three grinning hospital stewards to hold the victim, while he produces a pair of antiquated "archaic" weapons that some dealer in surgical instruments has palmed off on him as a universal forceps, grabs the tooth, and, placing his knee on the patient's chest to give him a purchase, gives a long, steady, straight pull that would not bring the tooth in a hundred years, and smash she goes.^{32(pp194-195)}

Before sailing for Manila, the surgeon of the 13th Regiment, Minnesota Infantry, Major Reynaldo Fitzgerald, admitted there was "more tooth trouble in my regiment . . . than any other one complaint."^{31,33} Once in Manila, Lieutenant LM Bunker of the regiment agreed: "I think that in Manila they could use a few dentists

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in connection with the army to good advantage. There are a few dentists who enlisted as privates, but to my judgment they are entirely inadequate to the demands."³¹

Major Charles Buxton, an 1883 graduate of the College of Dentistry of the University of California and a practicing dentist in San Francisco, serving as a line officer in the 1st Regiment, California Infantry, in the Philippines, wrote:

My personal opinion is that the services of our profession are an absolute necessity for the comfort and health of the men. There are three dentists in Manila; one native and two Americans; if one of our men requires attention it takes almost a month's wages. The result is that they neglect the proper care of the oral cavity; their teeth are lost, the gums become diseased; the soldier is then unfit for service and is sent to the hospital, often to become a care on the Government for the balance of his life. I have known of a number of such cases, one man being sent home on account of the loss of teeth.

I have had three different officers come to me for advice. Advice or a little iodine [sic] is the best they can get here at present. Many cases of fever and dysentery are brought about through a deranged condition of the oral cavity. There is no question about that fact, and all fair-minded army surgeons will admit it. All medical men that I have talked to on the subject admit that they cannot handle the work, and that it is very necessary to have dental surgeons in the service for the comfort and general health of the men. In my opinion there should be a dental surgeon with every regiment.^{31(p199)}



Hospital in Matanzas, Philippine Islands, circa 1898.

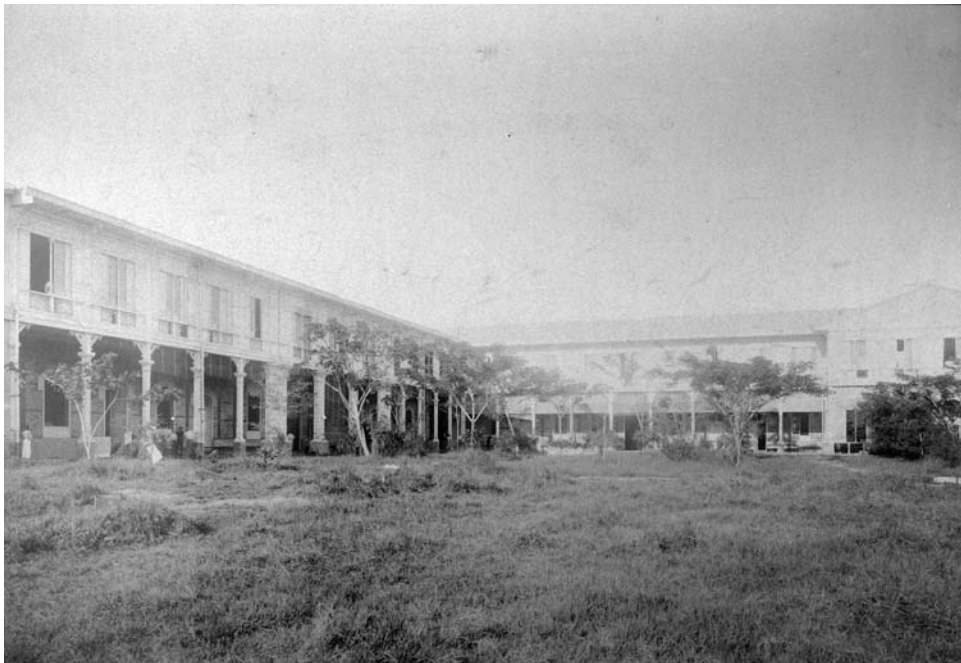
Nurse and Catholic nursing sister on balcony.

Photograph: Courtesy of US Army Medical Department Museum. Spawar-054.

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Hospital dispensary, Manila, Philippine Islands, circa 1898.
Photograph: Courtesy of US Army Medical Department Museum. Spawar-038.



Panoramic view of Second Reserve Hospital, Manila, Philippine Islands, circa 1898.
Photograph: Courtesy of US Army Medical Department Museum. Spawar-049.

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Civilian Dentists Shoulder the Burden

When and if they had the time and money, soldiers often visited local civilian dentists for treatment of their dental problems. In some cases, the post or encampment commander made arrangements with local practitioners to visit on a regular basis to treat the soldiers, which saved them time but not money. Dr Benjamin Ford of Chicago, an 1893 graduate of Northwestern University School of Dentistry, visited Fort Sheridan, Illinois, twice a week during 1898 and 1899 to work on the soldiers stationed there. He wrote:

I have seen recruits come in (particular attention being called to those playing wind instruments) whose teeth were in such bad condition that I formed a support for the lip by molding gutta-percha that they might play their instruments satisfactorily.

The cost of the dental work for these men, charging a very moderate fee, would range from \$50 to \$100 each, and it would be very hard for them to pay for such services out of a salary of \$13 per month.

In the case of some of the men stationed in the west, they were obliged to spend from \$10 to \$20 to reach the nearest dentist, and I know of one case where a sergeant was sent 200 miles with an escort to be relieved of toothache, and another case of a post quartermaster sergeant who was sent eighty miles by stage to obtain relief.

Very few of the surgeons treat or extract teeth, but they refer the cases to the hospital steward or his assistants.

I know this was true at Ft. Sheridan and I understand that it is true at other posts.

The forceps are not well chosen for this work, and with a poor assortment of instruments and a lack of knowledge upon the part of the extractor, the teeth were frequently so crushed that I found it difficult in many instances to extract the remnants when the patient finally reached me upon the days I was at the post.^{21,34(p890)}

In 1898 Dr Charles Stanley of Columbia, South Carolina, was appointed by Captain E[zra?] B Fuller, the mustering officer, to do the emergency dental work needed by the 1st and 2nd South Carolina Volunteer regiments stationed in Columbia before they went into permanent encampment at Chickamauga and Jacksonville. Stanley said:

I came in professional contact with about two hundred of the officers and men. I extracted between 140 and 150 teeth, most of which were paid for by the government, and the rest were paid for by the men, they not having orders from the surgeons to have the extracting done. For several days after paydays, I devoted all my time to operative work for these soldiers, they paying for the same; and you can well imagine that out of their small salaries, they only had just such work done as required immediate attention.

During my professional relationship with the soldiers, I noticed one case of syphilitic necrosis, two cases of necrosis due to chronic abscessed teeth, six cases of alveolar pyorrhea (none of which had ever received medical attention), three cases of impacted

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wisdom teeth with extensive inflammation, and in two cases suppuration. In all of the above cases, I informed the surgeons of the necessity of treatment and what I would have done for the same in my private practice. Out of the 200 men spoken of, there were seven totally incompetent to masticate their food and a number only partly competent to do so.^{35(p113)}

The 1st Rhode Island and 2nd Tennessee regiments were also stationed for a while in Columbia. During this short period, Stanley recalls, "I inserted sixty-nine fillings, made five plates, mended three plates and extracted nineteen teeth, all of this work being paid for by the patients. I am sure that the other nine dentists in this city averaged as much work among the men of the Rhode Island and Tennessee Regiments as myself."^{35(p113)}

Soldiers who were mustered out after the short war often returned to their civilian homes with serious dental problems. In December 1898 William Whipple of Saint Louis, Missouri, an 1896 graduate of the Missouri Dental College, related his personal experiences treating several returned veterans who had spent the summer at Chickamauga.¹⁵ Their teeth were in "extremely bad condition," and they had "suffered greatly during their camp life with odontalgia." He wrote:

When asked what was done for their relief, they replied "Nothing!" Any one who had trouble with their teeth went to the "Doctor" who pulled them out. One man stated: "A member of my company had toothache and went to have the tooth extracted and the Doctor nearly killed him, so I preferred to suffer rather than submit to such treatment."^{36(pp888-889)}

Dr Nicholas Senn on Dental Problems

Lieutenant Colonel Nicholas Senn (1844–1908), a prominent surgeon, professor of surgery, and pathologist on the staff of several medical colleges, was founder of the Association of Military Surgeons in the United States (AMSUS), served as surgeon general of the Illinois National Guard, and was chief surgeon of the US Volunteers during the Spanish-American War. A distinguished Chicago physician, Senn was briefly in charge of surgical work at Camp Wikoff, Long Island, New York, from mid-August until his discharge in mid-September. Camp Wikoff, which was originally intended to be a quarantine and convalescent center for V Corps and other troops returning from the Caribbean with yellow fever or other tropical diseases, exemplified the mismanagement that characterized much of the Army's performance in the war.^{37,38} With the focus largely on contagious diseases, little attention was directed to the soldier's dental health.¹

Two years after his discharge, Senn published his *Medico-Surgical Aspects of the Spanish American War*, in which he recorded his experience with the dental health and habits of soldiers and his own work as a "dentist" during the war:

Of the organs frequently affected among the returning soldiers were the teeth. Patients suffering from carious aching teeth were numerous. In most instances they presented evidence of serious malnutrition following disease and exposure, suppurative alveolitis was less frequent. Infection of many oral cavities showed that teeth had been sadly neglected during the campaign. In Cuba and Porto Rico [*sic*] I saw occasionally

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Nicholas Senn.

*Photograph: Courtesy of the National Museum of Health and Medicine,
Armed Forces Institute of Pathology. NCP 4104.*



*Studio portrait of Lieutenant Colonel Nicholas Senn, MD,
in khaki uniform with Red Cross armband and sword, circa 1898.
Photograph: Courtesy of the US Army Medical Department Museum. Spawar-063.*

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a soldier with a tooth-brush under the hat band, but I have reason to believe that most of the tooth brushes were either left at home or thrown away on the march, as unnecessary articles of the limited toilet outfit. I did all I could in the way of conservative dentistry by clearing out cavities and packing with cotton saturated with carbolic acid, but in the majority of cases the patients returned and insisted on having the painful tooth extracted. Tooth extraction was a conspicuous and grateful part of the surgery at Camp Wikoff. Hardly a day passed without two or three such operations. A very complete set of tooth forceps furnished by the government did good service in relieving the victims of toothache of their agonizing suffering.^{39(pp200-201)}

Senn added his support for dentists in the Army and an important observation on the distribution of dental problems between officers and enlisted soldiers:

Much has been said in favor of attaching a dentist to each regiment to look after the teeth of the men, and the observations made in Camp Wikoff tend to support the propriety of such a much-needed addition to the medical service. It is interesting to know that among these patients there was not a single officer, undoubtedly because the officers were more particular in the care of their teeth than the privates.^{40(p171)}

A Clear Need Unseen

The Spanish-American War and opening months of the Philippine-American War clearly indicated a genuine need for dental care for the Army's soldiers. While regular and volunteer officers saw a definite need for dental care in the service, American dentists still needed to convince Congress, the Army surgeon general, and the War Department.

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