

Chapter XI

FROM A NEW CORPS TO A WORLD WAR, 1911–1917

Introduction

The creation of the US Army Dental Corps on March 3, 1911, did not immediately resolve the key issues that had confronted the Army's contract dental surgeons since 1901. Neither did it completely fulfill the aspirations of the National Dental Association (NDA) or America's dental community. Instead, the 1911 act was a compromise that probably left too much to be worked out later. Although the status of Army dentists was markedly different after March 3, 1911, than it was before, enormous challenges still lay ahead.

Implementing the New Law

The March 3, 1911 act establishing the Dental Corps brought in its wake a degree of uncertainty about some of its provisions and how they would be implemented in the Army, as well as many changes in the policies and procedures governing dental care. Surgeon General George Torney moved swiftly to clarify these uncertainties and then to disseminate information on the new law throughout the Army and the American dental community. Because the language of the act left some aspects of the legislation ill-defined, Torney asked Adjutant General Colonel Henry McLain to clarify three specific things: whether the current contract dental surgeons were "officers of the Medical Department" and thus paid from general appropriations upon appointment; whether the surgeon general could hire acting dental surgeons upon the commissioning of the current contractors; and what grade of contract dental surgeon would be superseded when the present members were commissioned.¹ On April 6, LP Mitchell, assistant comptroller of the treasury, replied to the adjutant general's inquiry on behalf of the surgeon general, saying that yes, the commissioned dental surgeons become officers in the Medical Department and are paid out of general appropriations. He also replied that 31 acting dental surgeons were authorized for hire upon the commissioning of the current contractors and that the acting dental surgeons supersede and replace those authorized in the acts of February 2, 1901, and March 2, 1907. Chief of Staff Major General Leonard Wood, along with the secretary of war, approved these decisions on April 10.²

While that inquiry was in process, Torney turned to replacing the April 6, 1905, memorandum "Concerning the Employment of Dental Surgeons in the United

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States Army" with a new "Circular of Information" for prospective applicants based on the changes resulting from the Act of March 3, 1911. A completed draft of the circular was forwarded to the secretary of war for review and approval on April 15, 1911, igniting a series of exchanges that lasted until June and far exceeded Torney's original intention.^{3,4} At Wood's request, on April 22 McClain directed Torney to rewrite paragraph 17 of the draft circular to conform to Paragraph 1422 of the existing 1910 Army Regulations, noting that "as the present law provides that dental surgeons shall be commissioned officers, no limitation can be imposed on their 'hours of official duty.'" He also directed the submission of "a draft of such amendments to Army Regulations as are made necessary by that portion of the Act approved March 3, 1911, that established a dental corps."^{5,6} Paragraph 17 was lifted virtually intact from the 1905 memorandum and paraphrased the existing Paragraph 1422 Army Regulations:

[Paragraph 17] Members of the Dental Corps are required to serve only the officers and enlisted men of the Regular and Volunteer Army and contract surgeons. The families of officers and enlisted men and civilian employees and their families are not entitled to free dental service. The hours of official duty are from 9 a.m. to 4 p.m. daily, except in cases of emergency. During other hours the dentists are allowed to operate upon persons not entitled to free services, but Government material may be used only upon persons entitled to free treatment.³

[Paragraph 1422, Army Regulations] Dental Surgeons will operate between the hours of 9 a.m. and 4 p.m. upon those officers and enlisted men who are entitled to their services. They may operate upon others, not entitled to free service, before and after these hours, when their services are not required by those entitled to them, but material issued to them by the Government will be used only in operations upon officers and enlisted men of the Army. Emergency work, whether for officers or enlisted men, shall at all times have precedence over the work for those not entitled to free service, without regard to the hours of duty.⁷

Torney resubmitted his package with the proposed amendments on April 25. However, determining the revisions and publishing them Army-wide was a more pressing requirement than issuing the "Circular of Information" because basic Army Regulations governed virtually every aspect of soldiers' lives. Most of the changes that Torney submitted were simple editorial substitutions, such as replacing "dental surgeon" with "members of the Dental Corps" and adding "and acting dental surgeons" as appropriate. However, he also proposed changes in Paragraphs 1421, 1422, and 1425 of the Army Regulations. While 1425 was mainly administrative and minor, 1421 and 1422 raised major problems.⁷⁻⁹

The process of simple revisions disappeared when the surgeon general's proposed changes to Paragraphs 1421 and 1422 were addressed:

1421. In accordance with the Act of Congress authorizing their employment, members of the Dental Corps will "serve the officers and enlisted men of the Regular and Volunteer Army." The families of officers and enlisted men, and the civilian employees of the Army and their families, are not entitled to free dental service.

1422. Members of the Dental Corps will operate upon those officers and enlisted men who need their services. Materials issued by the Government will be expended only in operations upon officers and enlisted men of the Army. Emergency work, whether for officers or enlisted men, shall at all times have precedence over other work.⁷

Paragraph 1421 raised no concerns for Torney because military families had been exempt from free dental care consistently since February 2, 1901. In Paragraph 1422, however, Torney omitted the duty hours provision, as well as the part that read: "the present affirmative provisions authorizing the doing of private work." He argued "it is considered inadvisable to encourage it by affirmative provisions like those omitted in view of the fact that the work on Army patients will be quite enough as a rule to occupy most of the time of the dentists."⁷ The change from contract dental surgeon to commissioned dental officer ended the previous practice of contracting private work for payment between the dental surgeons and Army personnel, dependents, and civilian employees during nonduty hours. Torney had campaigned against this particular issue since his letter to the surgeon general on December 23, 1905 (see "John Marshall's Work at the Presidio" in Chapter 9).¹⁰

After reviewing applicable legislation, though, the general staff saw that the situation was much more complicated than Torney had imagined. A July 5, 1884, act (23 Stat 112) stated that medical officers and contract surgeons "shall whenever practicable attend the families of officers and soldiers free of charge." On April 23, 1908, another act (35 Stat 66) included dental surgeons within the Medical Department, and the March 3, 1911 act (36 Stat 1054) attached the new Dental Corps, "composed of dental surgeons and acting dental surgeons," to the Medical Department, which Comptroller Mitchell's April 6 memo confirmed.^{9,11,12} Hence, the general staff concluded: "Inasmuch as dental surgeons are now 'medical officers of the Army' it would seem to be incumbent upon them whenever practicable to give their services free of charge to the families of officers and soldiers."⁹ Therefore, the general staff recommended adoption of the following amended Paragraphs 1421 and 1422, which eventually significantly altered Army dentistry's functions and patient population:

1421. Members of the dental corps will serve free of charge all those entitled to free medical treatment by medical officers.

1422. Members of the dental corps will operate upon those entitled to their services. Materials issued by the Government will be expended only in operations upon those entitled to free service. Emergency work for officers and enlisted men shall at all times have precedence of other work.^{8,13}

On May 24, Brigadier General Enoch Crowder, the Army judge advocate general, completed his review of the draft general staff memo to the secretary of war and offered his legal opinion on the amended paragraphs:

As members of the dental corps are now either officers in the Med. Dept. of the Army . . . or acting dental surgeons employed under terms and conditions applicable to army contract surgeons, I am of the opinion that members of the dental corps may properly

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be required to serve free of charge those who are entitled to free medical treatment by medical officers; and it is therefore recommended that paragraphs 1421 and 1422 of the A.R. be amended as indicated.⁸

After receiving Crowder's opinion, the chief of staff forwarded the approved amendments to the Army Regulations to the adjutant general for promulgation.^{13,14}

On July 21, 1911, Major General J Franklin Bell, commander of the Philippines Division, wrote to the adjutant general to complain about the inflexibility of Paragraph 1424 of the 1910 regulation, which was not changed in the 1911 revision then in progress. Bell contended that 1424 "at times almost amounts to cruelty under conditions like those in the Philippine Islands. . . ."¹⁵ The offending paragraph dated back to Torney's proposal of December 1907 as follows:

1424. For plate work or for the filling of teeth of enlisted men the materials supplied by the Government will be used and no other, and members of the Dental Corps are forbidden to enter into any financial agreement with enlisted men involving an obligation for payment for silver, platinum, or gold used for filling cavities in teeth, for the construction of bridge work, for the fitting of crowns, the making of artificial dentures, or other dental work.¹⁶

General Bell proposed an amended paragraph that added:

Exceptions may be made to this paragraph in the Philippine Division, upon individual applications setting forth the necessity therefore, by the post commander. In such cases a deposit sufficient to cover the additional expense will be made with the post commander when application is made.¹⁵

On September 1, 1911, Surgeon General Torney agreed to the provision for the Philippines. Under previous provisions, contract dental surgeons were allowed to enter into contracts with officer and enlisted personnel and their families to do dental work outside of Army time. This situation led to incessant problems, and Bell's suggestion appeared to Torney as a possible solution:

It is believed that with this arrangement the endless controversy between the Dentists and enlisted men as to the validity of charges for dental work on this character, will be avoided, and at the same time exceptional conditions demanding unusual service may be met. Under the customs which obtained before the establishment of the conditions brought about by paragraph 1424, Army Regulations, 1910, this office was constantly making effort to adjudicate claims between contracting parties, but it is believed that such difficulties will not ensue if the plan contemplated within is put into effect in the Philippines.¹⁷

General Wood accepted Torney's recommendation but advised the secretary of war that the amendment be more broadly written to include similar cases at "any point outside the territorial limits of the United States," including Cuba, Puerto Rico, Alaska, Panama, and Hawaii, where the services of qualified civilian dentists may not be available. The prohibition on contracts between dental officers and enlisted soldiers remained in force in the continental United States, and

probably saved many soldiers from purchasing expensive dental work they could ill afford on their monthly salaries.¹⁸ On September 30 Wood directed Adjutant General McClain to amend the existing restrictions in Paragraph 1424 by adding the following caveat:

Beyond the territorial limits of the United States, post commanders upon receipt of written application by enlisted men, may authorize such enlisted men to receive any class of dental treatment from members of the Dental Corps which the best interests of the service may require. In such cases a deposit sufficient to cover the proper expenses involved will be made with the post commander by the enlisted men concerned when the application is made.¹⁸

This change was published in War Department General Order No. 135 on October 6, 1911.¹⁹

Implementing the Act of March 3, 1911, resulted in a significant obligation to the dental care of military dependents. When this act was completed in the fall of 1911, the basic policies and procedures under which new Army dentists worked were significantly different, especially in regard to private work (which was now forbidden except outside the United States and under extenuating circumstances), and the provision of free dental care to the dependents of military personnel; all of which might have doubled the dentists' workloads.

Seeking Those of "the Highest Professional Ability"

On April 10, 1911, even before Surgeon General Torney had received the secretary of war's approval for the new "Circular of Information," he acted to win over the dental community and recruit new Army dentists. He sent an information letter to various dental journals summarizing the new dental legislation so that the details would reach the broadest audience possible. He emphasized that the new law gave the dental surgeons increased status, pay, and allowances and should make the service more attractive to "young practitioners of the highest professional ability . . . as may think they would enjoy a military life."²⁰ He wrote:

It has long been recognized by the Surgeon-general of the army and the War department that the dental corps is a valuable addition to the medical department of the army, and that the status of dental surgeons as authorized by the provisions of previous law were inadequate and insufficient to properly reward them for their services or to further tempt young practitioners of the highest ability to enter the service.^{20(p560)}

He also pointed out the challenges of Army dentistry as an inducement to the more adventurous, self-confident young professionals:

The army dental surgeon, if he is to fill his position with credit to himself and his profession, and with proper efficiency to the service, must be well educated, above the ordinary in technical ability, and well qualified in all departments of dentistry. The need of these requirements will be more readily appreciated when the statement is made that the dental surgeons of the army are very rarely associated at a post with

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a member of their own profession. Consequently they are thrown entirely upon their own professional resources and must exercise their own judgment in the treatment of their more difficult and serious cases, as consultations are practically out of the question.

Furthermore, the surgeon of the post frequently refers cases involving diseases of the mouth and jaws with which he is more or less unfamiliar, to the dental surgeon, and expects to find, as he has a right to do, that the dental surgeon is not only capable of rendering a correct diagnosis, but competent to take charge of the case if required to do so; as in the treatment of fractures of the jaws, deep seated abscesses of the jaws associated with impacted teeth, facial neuralgia, empyema of the maxillary sinus, etc.^{20(p561)}

Torney ended with an offer of a secure and comfortable retirement or disability separation, something contract dental surgeons had wanted for years:

The position of a dental surgeon in the United States army is an honorable one, and should prove attractive to young men, as the pay and allowances now offered are good, and in the unfortunate event of broken health incident to the service, or upon reaching the age limit of sixty-four years, he retires from the service with three-fourths pay, which after twenty years or more of service would give him a year's income of \$2160.²⁰

Torney's letter attracted much attention in the dental press. In an editorial preface to the letter in the May 1911 issue of *Dental Brief*, editor Wilbur Litch wrote the letter was "most opportune in that it places before a large body of young men about to graduate from dental schools, and before recent graduates, a clear statement of the duties of the army dental surgeon and the compensation allowed him under the law. . . . Even for the best equipped of our young graduates or practitioners, this is a financial proposition worthy of consideration." While civilian private practice and military pay were relatively equal, Litch noted that "Army pay, however, has the very great advantage that there are no deductions for office expenses, cost of material, or bad debts to be taken into account."^{21(p351)} Litch believed that the new members of the Dental Corps would emulate the record of the "pioneers" of the past decade who had shown the importance of military dentistry. His preface honored those:

. . . whose professional fitness and faithfulness to duty have been such vital factors in breaking down the walls of prejudice and demonstrating the indispensable importance of skilled dental service for the military forces of the nation. All honor these pioneers who have blazed the way! May those who, under new and better conditions, join their ranks emulate their record and be equally a credit to the army service and to the dental profession.^{21(p352)}

Two months later, Litch returned to the subject because he questioned whether the current dental school curriculum would adequately prepare a young graduate dentist for the Army's oral surgical standards. Torney's letter clearly intimated "that the examiners will not be satisfied with a merely theoretical examination in oral surgery, but will demand, in addition to a knowledge of surgical pathology,

practical demonstration of surgical skill, and a knowledge of the most advanced surgical technique as applied to minor oral surgical operations."^{22(p435)} Litch recommended that the dental course might have to be changed significantly and lengthened to provide sufficient training in the new skills. He predicted that in the event of a war, a dental corps possessing the additional skills he recommended would prove itself "an indispensable adjunct" to the military in the treatment of gunshot and other wounds of the jaws.^{22(p436)}

The War Department Gets the Blame for the "One-Grade Corps"

Despite the significant step forward that the legislation provided, disappointment was still widespread among the dental profession over the absence of promotion possibilities. At the meeting of the NDA's southern branch in Atlanta in early April 1911, the group's legislative committee discussed its efforts on Capitol Hill. Appealing to his audience's professionalism, Dr William Crenshaw, chairman of the committee, explained how the "three-grade corps" was lost and called on every member to act when called upon to prevent such disappointments in the future:

This amendment [Bulkeley's] I am positive would have succeeded in getting through Congress, and we would have had a commissioned dental corps in the army with three grades of lieutenant, captain, and major, had it not been for the interference of the War department in the conference committee. The two higher grades were struck out, so that we have a law which gives rank, but no higher grade than lieutenant, and perhaps lieutenant unmounted. But the bill puts the army dentists on a commissioned basis; we have secured that much. We are, however, not satisfied with the bill, and if we are to get what we want, the profession must give more material help to the Legislative Committee. Hereafter, when the Legislative Committee writes or telegraphs you, we ask you at once to get to work on congressmen and senators in the way the committee suggests. The committee cannot do more than any other small number of men, and unless you are all active and act as one man, we are not going to have the recognition that the profession asks and is entitled to.^{23(pp1057-1058)}

He concluded with a call for professional equality with the Army's Medical Corps, saying: "The government is slowly finding out that it will never get the efficiency it needs in the dental corps until it gives adequate recognition to our profession, and until it puts a premium on our services such as is placed on the medical service."^{23(p1058)}

After thanking Senator Overman for his achievements and for what he would have achieved "if circumstances had not interfered over which he had no control at the time, and of which he was not informed," the long-time NDA lobbyist, Williams Donnally, then took up the cudgel with stark bluntness:

The effect of the opposition to which I refer was that two of the three grades of rank for which the dental profession has contended for nine years were omitted, and thus our measure, enacted several times by the Senate and approved by the House Military Committee, was reduced to a one-grade army dental corps. This was done in the secrecy of the conference committee through the extraordinary efforts of the

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War department, not only officially through the secretary, the chief of staff, and the surgeon-general, but by such means as a lobby of commissioned officers in citizens' clothes buttonholing members of Congress at the Capitol, and asking them not to give dentists any rank at all. Medical men tried to defeat this legislation, and a remark of a former medical officer, now the chief of staff of the army, is substantially, that the more dentists we have, the fewer surgeons we will have in the army, and therefore he would not do for army dentists as he had previously indicated he would.^{23(p1058)}

By singling out Chief of Staff Wood, Donnally placed blame for the defeat at the highest level of the War Department. Crenshaw and Donnally had called attention to a fact that would continue into the post-World War I period—the War Department general staff remained opposed to granting rank and grade to the officers of the Dental Corps.^{24–27}

In an article in the June issue of *Dental Cosmos*, Dr William Fisher, a former Army contract dental surgeon from 1901 to 1904 now practicing in New York City, also expressed disappointment that there was no provision for promotion under the new law. He believed that “nothing less” than a three-grade promotion should have been accepted. The “one-grade corps” would not attract and hold good dentists because it lacked a system of promotion; they would retire as first lieutenants while their associates in the other corps advanced in rank to captain and on to full colonel. Even the lowest ranking Medical Reserve Corps officers would outrank a dental surgeon of many years' service. The only advantage the new law gave was retirement from age or disability. Fisher also pointed out that there would be no improvement in the social status of dental surgeons because the contract dentists had always been eligible for membership in the officers' clubs at the various Army posts; commissioned status was not necessary for “social recognition.” Fisher concluded that as long as the new Dental Corps remained “a tolerated appendage” of the Medical Department rather than “a dignified adjunct,” a corps could not develop “that will honor our profession.”²⁸

On June 11, 1911, Dr Emory Bryant wrote a letter to the editor of *Dental Cosmos* that was published in July, responding to Fisher, whose views “are merely opinions based upon imagination rather than facts or conditions, or knowledge of dental corps legislation.” Others in the profession shared Fisher's stance, so Bryant, who was involved in the entire legislative process that produced the bill, believed the letter should not go “unanswered.” At a time when “many of the leaders in the dental profession itself had lost interest in the matter,” Bryant said the successful passage of the dental bill was due to “the very compromise” that some now criticized, and that failure was “narrowly missed” by the insistence on the “three-grade” rank. Dr Bryant had letters from a number of key congressmen who insisted that any rank above first lieutenant would have resulted in the bill's defeat; all agreed that any effort for increased rank would have “jeopardized” the bill's passage and considered it fortunate that the Dental Corps got as much as it did.^{29,30}

The 1911 annual meeting of the NDA, which was held from July 25 to 28 in Cleveland, Ohio, should have been a time to celebrate the March 3 act and the achievement of commissioned status for Army dentists. The Committee on Army and Navy Dental Legislation reported that although the act was not all that they had hoped for, commissioned military rank was an improvement for dental surgeons.³¹

While the result of our efforts is not as creditable a recognition of the dental profession, not as generous to its representatives in the military service, nor as beneficial to the army personnel, as we sincerely desired and labored to attain, yet it is a decidedly notable and important legislative uplift of the profession's representatives in the United States army service, from the nondescript and odious "contract" position to that of a grade of regular military rank common to all staff corps.³¹

Army Dental Care after 1911

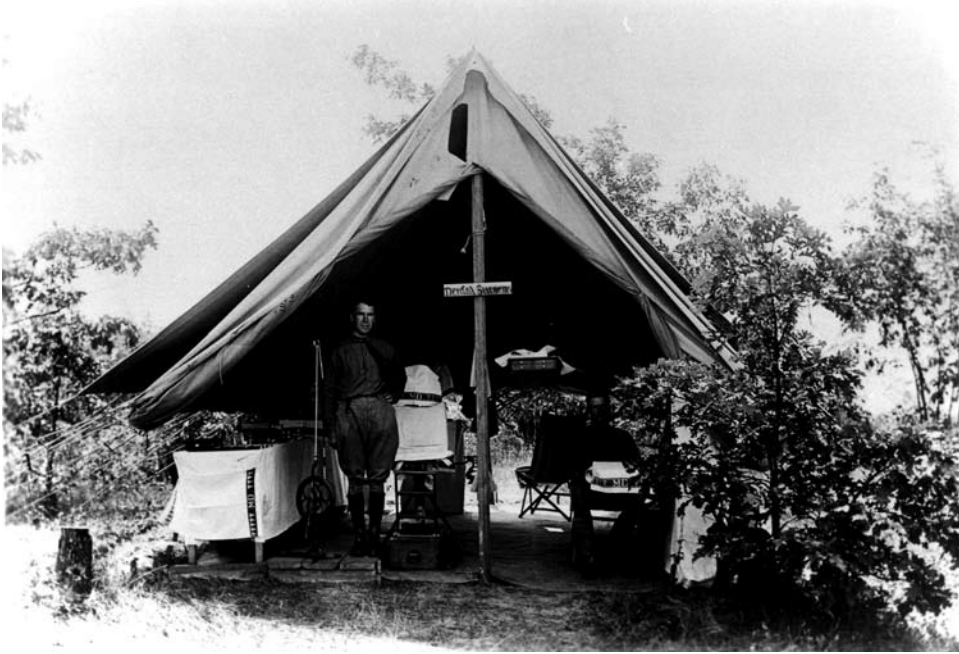
Although the small number of dentists in the Army was one reason care was limited to prophylaxis and emergency work, the limited budget of the surgeon general's office primarily determined the policy. This was especially the case when officers and enlisted soldiers at sites without a dental surgeon sought civilian care. Even with the 1911 creation of a dental corps and its expansion to a full complement of 90 authorized dentists, the number of dentists was insufficient to meet all the Army's needs, especially with care extended to dependents. The new corps grew slowly, even as demand for its services rose at a great rate. But because the Medical Department did not have sufficient funds to provide comprehensive free care, the surgeon general's office decided to limit major dental procedures to gunshot wounds and trauma in the line of duty until Congress made its intentions clearer by law or increased appropriation. Until then, individuals still carried the main financial responsibility for their full dental care. This policy applied to the militia and continued until World War II; Army dentistry was not intended for "chronic" problems.³²

In December 1911, the newly retired John Marshall reviewed his past 7 years at the Presidio of San Francisco and concluded that Army personnel had willingly accepted dental care. He had been in the position of seeing the "dirty mouths" and "decayed teeth" transformed into "healthy condition." He recalled telling his patients with unclean mouths: "If you have not a tooth-brush, I will excuse you until tomorrow. Get a tooth-brush and brush your teeth carefully and return to me, and I will take care of you." Also, he had some cards printed and displayed in the waiting room with mottoes such as "Clean Teeth Do Not Decay" and "Please do not ask the dental surgeon to treat your teeth until after you have brushed them."³³(p1438)

Because of their limited numbers, Army dentists were still largely nomadic. Their relatively small number and the large population eligible for their services posed a major problem, especially when combined with the extensive distances they were often expected to travel. In 1911 Lieutenant Charles J Long was one of two dentists assigned to what was then the Department of the East, Governor's Island, New York. He and his colleague were responsible for the department's two circuits, one covering the Army installations in the northern half of the command and the other the southern half. At a time when many harbor and coastal defenses were very active in the department, Long's schedule for July 1 to December 31, 1911, kept him and his assistant, Private Vernon Beyer, constantly on the road, shipping their dental outfit out as soon as possible so it could be set up upon their arrival. During this time, they treated troops at Fort Ethan Allen, Vermont; Plattsburgh Barracks, Madison Barracks, Forts Ontario, Niagara, Porter, Jay, HG



*Charles J Long at Camp of Instruction, Pine Camp, New York, August 1–30, 1910.
Photograph: Courtesy of Colonel Charles J Long, III.*



*Charles J Long and his dental "office" at Camp of Instruction,
Pine Camp, New York, August 1–30, 1910.
Photograph: Courtesy of Colonel Charles J Long, III.*

Wright, Terry, and Michie, New York; Forts Adams and Greble, Rhode Island; and Forts Rodman, Andrews, Banks, Warren, and Strong, Massachusetts.³⁴

By 1912 the situation had only grown worse with reorganization. Colonel Louis Maus (who had established the first Army dental clinic for the V Corps in Jacksonville, Florida in 1898), now chief surgeon of the Eastern Division, faced a command spread from New England to the Gulf of Mexico. In May 1912 he informed the surgeon general that the four dentists assigned to his division had to serve a population of about 21,000 military and their 6,500 dependents at posts scattered from the Canadian border to Panama. As a result, he broke the work into four "districts" to place "the dental surgeons to the best advantage for the service of the command."³⁵

In December 1912 he provided a detailed explanation to Major General Thomas Barry, the division commander. Even if the work could be divided evenly, Maus noted, each dentist would have about 7,000 patients "with the result that not more than 10% or 15% of the necessary work can be performed." The ratio was made worse because distance and local demand prevented the dentist in the Canal Zone from helping with stateside requirements, so Maus really only had three dentists available for most of his command. The presence of recruit depots in the division compounded the problem. Examination and care of the new recruits consumed so much time that care "of the old and valuable soldiers"

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in the command often could not be accomplished during the dentists' itineraries. Whenever emergencies detained a dentist on his circuit, his schedule often became so curtailed that units scheduled elsewhere were not visited. Maus added that the inordinate amount of time dentists had to spend traveling imposed personal expenses and made "personal conditions" for them "intolerable," especially if they had families.³⁶

Maus pointed out that the 1911 law authorized the appointment of one dentist for every 1,000 enlisted soldiers, but the new Army Regulations specified that officers and dependents were also entitled to dental care. If these additional mouths were factored into the ratio, he estimated his division alone should have about 30 dentists (11 under the 1911 ratio), and the Army should have about 120 instead of the 45 allowed by the law. Unless the ratio was revised, he predicted severe problems in retaining quality dental officers, who would be driven out by the staggering workload. In the meantime he wanted the authority and funds to use local civilians whenever necessary. To get the most efficient use of the dentists he had, in the interim, he divided the division into four dental districts, each with roughly the same number of troops and travel dimensions.³⁶

General Barry succinctly endorsed Maus's memo, saying, "this report shows a great deficiency in the number of dental surgeons required for this division, and it is recommended that if practicable some relief be obtained."³⁷

The results were almost immediate. By June 1913 Maus had six dental surgeons serving just the United States portion and had six routes laid out that more equitably distributed the burden of dental care.³⁸ By December 1914 Maus, still the chief surgeon for what was now the eastern department, had assigned 14 dental surgeons and had reduced the routes so that no dentist served more than four posts.³⁹

Militia Dental Surgeons: 1911–1914

On November 1, 1911, the chief of the Division of Militia Affairs, Brigadier General Robert Evans, issued a bulletin defining the effect of the new law on the status of militia dental surgeons:

Section 3 of the Militia Law requires the Organized Militia to conform to the organization, armament, and discipline of the Regular Army. The Act of March 3, 1911, authorizes a Dental Corps to be attached to the Medical Department, prescribing certain limitations as to numbers of this corps. The Dental Corps is a part of the Regular Establishment, and in the opinion of this office, the Organized Militia would be authorized to attach to its Medical Department a Dental Corps in conformity with the proportion prescribed by the Act of March 3, 1911, and the officers of such corps, when on duty, would be entitled to pay out of the Federal funds allotted to the State.^{40(p935)}

The militia affairs office was of the opinion that under the March 3, 1911, act, the members of the various state militia dental corps should be at once commissioned as first lieutenants, and that the contract feature of the act did not apply to the militia organizations.⁴⁰

In 1913, however, the Division of Militia Affairs chief, in the office of the US Army chief of staff, reversed this opinion. In his 1913 report, he stated:

Dental surgeons are authorized at the rate of not to exceed one for each thousand of actual enlisted strength. All original appointments to the dental corps shall be as acting dental surgeons, and after three years' service in a manner satisfactory to the governor, or commanding general, District of Columbia Militia, such appointees may be appointed dental surgeons and be commissioned as first lieutenants in the dental corps.^{41,42}

Like other volunteer officers, commissioned volunteer dental surgeons were not entitled to retirement under the federal law, but could acquire a pension if disabled "in the line of duty." The state regulated the pay of both acting and commissioned dental surgeons serving with the state militia, but while serving in federal camps of instruction or as United States volunteers, it was the same as the corresponding grades in the Regular Army.⁴²

Out of the 48 state adjutant generals, by 1914 only 9 reported having any dental surgeons, and those 9 only had 14 among them. This prompted Edward Kirk, editor of *Dental Cosmos*, to urge the state dental societies to action in his editorial in the December 1914 issue:

In this connection it should be remembered that it is a function or should be a function of the several state societies to see to it that good representative men are appointed upon the dental surgeon corps by the adjutants-general of the several states militia, and in those states in which dental surgeons have not been appointed, the attention of the adjutants-general of such states should be called to the law of March 3, 1911, which gives authority to form such a corps in the proportion of one dentist (acting dental surgeon) to each one thousand men. It is somewhat surprising that the most progressive states in military affairs and with the largest state militias—for example, New York, Pennsylvania, Ohio, Indiana, and Illinois—have not appointed dental surgeons.⁴¹

The Dental Corps Falls Behind, 1912–1914

On June 30, 1911, the surgeon general reported a strength of 29 dental surgeons and 1 acting dental surgeon—the same number of contract dental surgeons authorized in 1901.⁴³ In early 1912 he announced that on Monday, April 1, examinations for the appointment of acting dental surgeons would be held at Fort Slocum, New York (later replaced by West Point); Columbus Barracks, Ohio; Jefferson Barracks, Missouri; Fort Logan, Colorado; and Fort McDowell, California. On that day, 59 candidates reported for the examinations to vie for the 29 positions to be filled. Nine candidates successfully passed the examinations for appointment as acting dental surgeons, and the papers of two or three more remained under evaluation. A large number of candidates failed the physical examination. The next examination was scheduled for October 7, 1912.^{44,45} The Dental Corps ended its first full fiscal year with 28 dental surgeons and 10 acting dental surgeons, just 8 more than a year earlier.⁴⁶

On September 11, 1912, at the annual NDA meeting in Washington, DC, First Lieutenant Edwin Tignor, representing the surgeon general, said that only 10 or 12 new dentists had been secured for the expanded 90-person Dental Corps. There had been no lack of applications, but few had passed the examinations, which

EXHIBIT 11-1

1914 DENTAL SURGEON APPOINTMENTS

By 1914 the adjutants general of the 48 states reported that dental surgeons had been appointed in their respective militias under existing federal militia legislation as follows:

- Michigan: one first lieutenant;
- Iowa: three first lieutenants and acting dental surgeons;
- Alabama: two first lieutenants;
- Texas: two acting dental surgeons;
- North Carolina: three first lieutenants;
- South Dakota: one first lieutenant;
- Oklahoma: one assistant dental surgeon;
- Nebraska: one first lieutenant acting dental surgeon;
- California and Maryland: one to be appointed in the near future;
- Idaho: less than 1,000 troops and none appointed for that reason;
- Utah: none appointed under present organization;
- Colorado: the military board in the near future would recommend the necessary changes be made in the code to include dental surgeons;
- Ohio: under the state laws no appointments of dental surgeons had been made;
- Delaware: the militia law of the state did not provide for a dental surgeon in the organized militia;
- North Dakota: code did not provide for the appointment of dental surgeons; and
- New York, Pennsylvania, Indiana, and Illinois: none appointed.

Data sources: (1) [Kirk EC]. The Army Dental Corps. *Dental Cosmos*. 1914;56:1375. (2) Boak SD. Militia dental surgeons. *Dental Cosmos*. 1914;56:1351–1352.

were not unduly difficult. This indicated that “a great many of the best men do not know that such openings exist and what this career means for the young man” and hence were not applying. Tignor offered to talk to anyone interested in a service career.⁴⁷

At the annual meeting the next year, July 10, 1913, in Kansas City, First Lieutenant Alden Carpenter, the official representative of the corps, noted that there were currently 28 dental surgeons out of 60 authorized, and 23 acting dental surgeons of 40 available in the Army, representing a growth of 13 over the fiscal year.⁴⁸ This small group had to cover all the military posts in the United States, Alaska, Hawaii, the Philippines, Puerto Rico, China, and Panama. “So you may see, gentlemen,” Carpenter said, “that the young man of active mind who longs for a change of scenery and climate may realize his ambition.” It is difficult to determine the success of Carpenter’s endorsement, but the next examinations for the appointment

of acting dental surgeons were held on April 13, 1914, with 28 vacancies yet to be filled.^{49,50} By the end of June 1914, the number of dental surgeons was still 28, but acting dental surgeons had grown to 39—an overall increase of 16 from 1913, 29 from June 1912, and 37 from 1911.⁵¹ In a little more than 3 years, the Dental Corps had more than doubled in size (from 30 to 67), but it was still a long way from its authorized strength.

The European War: The American Ambulance, Neuilly, Paris, France, 1914–1916

The outbreak of the war in Europe in August 1914 between the Allied Powers (Great Britain and the British Empire, France, and Russia) and the Central Powers (Germany and Austro-Hungary) did not create any new urgency to resolve the status of the Army's military dentists, but it did spur voluntary American medical and dental involvement in assisting both the British and French. After a brief period of mobility, the fighting in France and Belgium settled into a stalemate in which opposing forces fought from trenches dominated by each other's artillery. Many Americans then in France, either as visitors or residents, wanted to show their sympathy for the suffering of the French people and their gratitude for France's contribution to America's war of independence. At the time, there was a small but

EXHIBIT 11-2

APRIL 1, 1912, EXAMINATIONS FOR THE APPOINTMENT OF ACTING DENTAL SURGEON

On April 1, 1912, examinations for the appointment of acting dental surgeon were held at Fort Slocum, New York; Columbus Barracks, Ohio; Jefferson Barracks, Missouri; Fort Logan, Colorado; and Fort McDowell, California. Of 59 candidates, only 9 passed the examination and were appointed. The successful candidates were:

- Dr Mortimer Sanderson of Philadelphia, Pennsylvania;
- Dr Albert Raymond White of Delaware, Ohio;
- Dr Charles Blanchard Seely of Montgomery, Pennsylvania;
- Dr Arthur Theodore Knoder of Columbus, Ohio;
- Dr John William Scovel of San Diego, California;
- Dr Arnett Percy Matthews of Pueblo, Colorado;
- Dr William Archer Squires of Grand Junction, Colorado;
- Dr Frank Coleman Cady of Fredonia, Kansas; and
- Dr John Howard Snapp of Columbus, Ohio.

Data source: (1) Examination of dentists for the Army. *Dental Cosmos*. 1912;54:260. (2) New appointments of acting dental surgeons. *Army & Navy Journal*. Quoted in: *Dental Cosmos*. 1912;54:851–852.

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*Colonel Edwin P Tignor as president of the
Association of Military Dental Surgeons of the US, 1917–1918.
Photograph: Courtesy of the National Library of Medicine.*

complete American hospital at Neuilly, a suburb of Paris. This hospital formed the basis for the organization of an American hospital, called the American Ambulance (in French, "ambulance" means a military hospital).⁵²

When the Americans, with the help of the US ambassador, Myron Herrick, proposed plans to organize a military hospital for the Allied wounded, the French minister of war placed at their disposal a large, four-story, nearly completed school building, the Lycee Pasteur, in Neuilly. Under the direction of an American architect and using the advice of American surgeons, the building was transformed into a modern, 400-bed hospital in less than 2 weeks. It was fitted out with operating rooms, a dental department, linen and bandage rooms, diet kitchens, and the latest in X-ray machines and ultra-violet ray filtering devices. On August 4, 1914, Dr George Hayes, an American dentist practicing in Paris, volunteered to organize the dental service for the hospital. On August 7 his offer was accepted and he was appointed to the medical board. This appointment was the first official recognition of the role of the dentist in a military hospital in the war. The hospital received its first wounded on September 7. The staff was made up largely of American and Canadian surgeons, physicians, dentists, nurses, and auxiliaries (the latter recruited from American women living in Paris). The hospital received no subsidy from the French government, the entire expense being borne by the United States.⁵²⁻⁵⁵

The American Ambulance dental service was under the charge of Hayes and his associate, Dr William Davenport. Hayes worked full time while Davenport worked 7 half days a week. Both men used their own instruments, chairs, engines, and supplies, while operating in a single room in the hospital. They immediately began prophylactic work. All laboratory work had to be sent to Paris because the hospital had neither room nor equipment for it. Shortly after they first starting seeing patients, the hospital's dental department became a center not only for operative and prosthetic dentistry, but also for wounds of the face and jaws. The stalemated, trench warfare that had descended over the western front meant that soldiers sustained head and jaw wounds at an alarming rate. It was estimated that by May 5, 1915, French and Belgian troops had suffered 55,770 facial wounds. Therefore, a high volume of these maxillofacial injury cases came to the hospital from other hospitals, severely taxing the endurance of Hayes and Davenport. Fortunately, other volunteers soon offered their services. In the end, Hayes had recruited a staff of 32, including 8 dentists, 8 dental technicians, 3 apprentices, 10 nurses or aids and 1 secretary.⁵³⁻⁵⁷

One volunteer dentist, Dr CM LeCron of Saint Louis, Missouri (and later London), reported working with a colleague, Dr WC Roberts, from 8 AM to 6 PM, 7 days a week. He said that it was

difficult to get men who can conceive ideas for, and construct, appliances for fractured and horribly shattered jaws. . . . The general surgeons appreciate our work and give us due credit. This dental section is making much new history for dentistry and will certainly make the M.D.'s step down and admit that dentistry is an honorable and great profession.

Another volunteer, Dr William Potter (who later served with American forces in France) from the Harvard Dental School said that the oral hygiene program initiated at the hospital was "the most systematic work of the kind inaugurated in any military hospital." He described the facial wounds as follows:

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The face is shot through from side to side, from above, below, in reverse and in all sorts of oblique directions. When so shot, either by a rifle ball, a shrapnel ball or a piece of shell casing, the bones of the upper and lower jaw are likely to be fractured. The teeth are often driven as projectiles into the face and there is usually a large loss of bony substance of the jaws.^{58,59}

In June 1915 the Philadelphia Dental College sent a volunteer unit to the hospital, composed of Dr Simeon Guilford, dean of the college, and Doctors Dudley Guilford and D Morev Wass. They sailed for Europe on June 13 and arrived in Paris on June 29. Another member of the unit, Dr Carlton Russell, was delayed and left in late July.⁶⁰

By December 1915 the hospital was accommodating about 600 patients, and by August 31, 1916, the dental department consisted of three operating rooms and a well-equipped laboratory. Some of the dental chairs and engines were donated by dentists and others were loaned by dental supply houses. In all, there were 10 dental surgeons, 8 laboratory technicians, and many nurses and assistants. All patients were examined, photographed, radiographed, had study models taken, and, in some cases, had face masks made for a permanent record of the results of treatment. A thorough prophylaxis was also performed and roots and badly decayed teeth were removed under local anesthesia, usually Novocain. Gold was unavailable, so amalgam was used to restore the posterior teeth. Vulcanite dentures were constructed for missing teeth or deformities. Patients with maxillofacial injuries came from other hospitals for treatment. Soldiers wounded at the front arrived for treatment within 48 hours of receiving their injuries. During the year ending August 31, 1916, 371 fractured maxillae cases were admitted to the hospital.⁵³⁻⁵⁶

American Institute of Dental Teachers: The 1915 "Relief and Aid" Fund

While the American Ambulance was being organized and outfitted, the dental profession in the United States gave increased attention to the events in Europe. On January 26, 1915, at the meeting of the American Institute of Dental Teachers held in Ann Arbor, Michigan, the organization voted to raise a "relief and aid" fund for the European soldiers who had suffered dental and oral wounds. A national committee of prominent dentists was appointed under the chairman, Dr Charles Koch, a Civil War veteran now at Northwestern University, to develop lithographed coupons certifying a contribution to the fund. Their plan was to distribute the contribution certificate booklets at \$5 each to dental schools, dental societies, and the profession at large. The certificates were to be printed in lilac ink (the color of the dental profession) and have a red Geneva cross on their faces. It was hoped that a national distribution of the coupons would result in enough donations to help establish several special hospitals or wards for maxillofacial injuries. The Red Cross Society would distribute the funds.^{61,62}

Concurrently, another appeal was launched in the United States for a fund to help the American Ambulance Hospital in Paris. The American Red Cross said it would supply disinfectants, gauze and cotton bandages, other hospital supplies, and some financial assistance. Dental supplies were contributed by such companies as the SS White Company, the Ritter Dental Manufacturing Company, and



Charles RE Koch headed a national committee of prominent US dentists who created lithographed coupons certifying a contribution to the "relief and aid" fund for European soldiers who had suffered dental and oral wounds.

Photograph: Courtesy of the American Dental Association.

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the Buffalo Dental Manufacturing Company. Dr Herbert Wheeler of New York was named the chairman of the national committee in America. In May 1916 Dr Wheeler reported that over \$30,000 had been raised for the hospital and was on deposit in a New York City bank. The DuPont family in Wilmington, Delaware, was credited with raising a large portion of the money.^{56,63,64}

Opportunities and Missed Opportunities

In a March 1915 editorial titled "Opportunity," Dr Edward Kirk, editor of *Dental Cosmos* and a long-time leader in the civilian dental community, called attention to the war in Europe and the need for "preparedness—readiness to take advantage of the opportunity when circumstances create the opportunity."⁶⁵ He repeated that call in another editorial titled "Again, Opportunity" in the November issue. As he saw it, the war in Europe was an ideal opportunity to prove the importance of the dental profession to the military once and for all:

Suddenly the greater part of the civilized world is engaged in mortal combat; the most devastating war in the history of the human race is now in progress; gunshot wounds of the head and jaws in countless numbers require the skill and specially trained services of the oral surgeon and dental expert. The health and not infrequently the lives of soldiers are jeopardized (*sic*) by the lack of oral hygiene. Bodily infections in wounded soldiers arising from uncleanly mouths are unnecessarily increasing the death-rate in military hospitals, and the demand arises everywhere in connection with military hospitals for the special services that only dentistry and oral surgery can render. The opportunity needed to convince all concerned of the justness and practicality of the demand by the dental profession for the past half-century for a recognition of the importance and efficiency of the service which they are able to render under the circumstances existing is now signally in front of us. . . . Again, the question of successfully solving this problem involves the factor of preparedness upon the part of the dental profession to take advantage of the present opportunity.⁶⁵

Kirk urged the profession to support efforts to establish dental hospital services in Europe on a humanitarian basis. He also urged the dental profession to seize the "opportunity" that the war presented to prove the "justness and practicality" of the profession's demand for the recognition of the importance of military dental surgeons.^{65,66}

Dr William Fisher, a former Army contract dental surgeon, reminded American dentists that the US Army had had a dental corps, of sorts, for nearly 14 years, and that it behooved all dentists to support it and to impress their congressmen with the necessity of higher rank for dental surgeons. The "few good men" of the "old original corps," who hung on from year to year hoping for eventual promotion, needed the profession's backing. Each year their resignations created vacancies that became more and more difficult to fill with the "best type" of young dentists.⁶⁷

Actually, the opportunity for military dental surgeons to understand Kirk's argument was already in preparation when his first editorial appeared in March 1915. In April 1915 the US Navy's Bureau of Medicine and Surgery dispatched

Surgeon AM Fauntleroy of the US Navy to France to gather information on the medical and surgical aspects of the war in Europe. Fauntleroy spent 4 months in France collecting valuable information on all medical and surgical areas and served on the operating staff of the American Ambulance for 2 months. Upon his return, the Bureau of Medicine and Surgery published his extensive observations as the "Report on the Medico-Military Aspects of the European War from Observations taken behind the Allied Armies in France" late in 1915.⁶⁸

In the area of dental surgery, Fauntleroy described the work of Doctors Hayes and Davenport and the results they had achieved, noting "one of the most striking features of the value of a dentist in the organization of a military hospital is shown in the results obtained by surgical cooperation with dentists at the American Ambulance in connection with the mutilating wounds of the face."⁶⁸ On the growing importance of the dental surgeon in such surgery, he reported:

One of the surgical advances of the present war has been the recognition of the dentist as a necessary unit in the organization of a military hospital. This has been brought about by the present-day trench warfare. The latter leads to the production of a large number of face and jaw wounds, involving usually a great loss of substance, in the form of bone, teeth, and soft parts. So valuable has this work become that every large military hospital now has its surgical dental department, which works in conjunction with the other surgical services and supplements certain procedures which are indispensable as regards bringing about a favorable result.^{68(p100)}

Perhaps with Fauntleroy's recent visit in mind, as well as the visits from numerous other American medical and dental surgeons during the year, Dr Hayes offered to attach a dental surgeon from the Army and Navy to the American Ambulance for 4 months of first-hand experience. On December 19, 1915, Dr Hayes wrote to the US Ambassador in Paris, William Sharp, and asked him to assist with this offer. Hayes believed that the opportunity to gain valuable experience was great because "the work of the Department has developed to such an extent that at the present moment we have one hundred and nineteen cases of fractured jaws under treatment, and during periods of great activity over one fifth of the patients in the Hospital have been cases requiring the services of the dental surgeons for fractures and wounds of the face."⁶⁹ Hayes then outlined the extraordinary opportunity offered to study maxillofacial oral surgery:

It seems to me of great and urgent importance that the proper authorities should become cognizant of the broad extension of this new field of service and of the advantages offered by experience acquired in this Department.

To the Army and Navy dental Surgeons, who, far more than the ordinary practitioner, are liable to meet with similar fractures and mutilations caused by war projectiles, the American Ambulance through its Dental Department, offers an exceptional opportunity not only for active practical experience, but for study of over three hundred and forty cases treated up to the present, of which complete records are being kept including photographs, plaster models and masks, radiographs, histories and treatments, all of which are going to form a most valuable collection.⁶⁹

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Ambassador Sharp forwarded Dr Hayes's offer to the secretary of state, who forwarded it to the secretary of war on February 21, 1916. On March 2 Major General Hugh Scott, acting secretary of war following Garrison's resignation in February, replied to the secretary of state that he doubted the advantages to be gained by sending dental surgeons because of "the liability to violations of neutrality, also on account of the demand of all of our dental surgeons with troops, not to mention the considerable cost which would be involved." He said that all of these developments were already being recorded and taught in American dental schools and were appearing in medical journals. Despite the fact that numerous American military observers, including some from the Medical Corps, had already been in Europe for many months and that Fauntleroy had spent 4 months in France and produced a most valuable report, he believed it "inadvisable" to accept Hayes's offer.⁷⁰⁻⁷²

Other offers from Dr Hayes were received during 1916. Although no Dental Corps officer was ever sent to the American Ambulance to study its maxillofacial work or to Europe to observe military dental work, an Army medical observer in France after February 1916, Major James Church, Medical Corps (MC), filed several reports on dental topics. On November 17, 1916, he sent back a lengthy, illustrated report on the French Army's horse-drawn and truck-mounted mobile dental wagons that visited rest camps behind the front to care for oral and dental issues, allowing soldiers to return to their units as quickly as their problems allowed.⁷³ He noted:

The French are now extending this policy of conservancy by employing specially fitted wagons or automobiles for the care of the men's teeth. Anyone who is familiar with the condition of the teeth of the average enlisted man in our service can appreciate the need of systematic care in any army.⁷³

Church also visited the American Ambulance and saw Hayes's maxillofacial work up close. On December 6, 1916, he filed a report on dental surgery that covered the work in the American Ambulance and included photographs of patients and copies of Hayes's annual reports.^{74,75} He wrote of Hayes's accomplishments:

The extended use of Artillery in the present war has occasioned an increase in the wounds attended with extensive mutilation. Serious as these are whatever their anatomical location is, they are more deplorable perhaps when they involve the face, presenting, as they usually do, serious and oftentimes terrible disfigurement. It is not uncommon to see men with a considerable portion of the face shot away and, aside from the loss of function entailed, there is the added distress of being unsightly and hideous objects. . . . The process of repair of these lesions calls for the joint skill of the surgeon and the dentist, and the technical labor of the two professions meets on a common ground in the restoration of function and the repair from a cosmetic standpoint. It is my impression that this work was started by the American Ambulance and since scientific dentistry is a peculiarly American development, it is probable that this is so.⁷⁴

While visiting the hospital, Hayes once again offered to receive an Army dentist attached to observe and work. After seeing the work that was being done, Church immediately realized what a valuable opportunity this was:

Dr. Hayes told me that he would be very glad to extend every facility to an Army Dentist sent here to observe the work: that he could have the opportunity of perfecting himself in this line which is really a new phase of Dental Surgery developed by the war. It is my opinion that the experience so gained would be of very real value to our Dental Corps. The experiences which even one man could acquire would be of value to the entire service. It is true that these methods will, at the proper time, be published, presumably in the form of a text-book, but the steady trend of modern technical teaching is toward a majority of clinical and a minority of didactic instruction. . . . Six months' practical experience at first hand in a clinic such as is offered here would be worth, I am sure, infinitely more than any knowledge gained from a text-book, no matter how good.⁷⁴

Another extensive report on oral and dental surgery was filed by Majors Clyde Ford, MC, and William Lyster, MC, who were medical department observers with the British army. They visited the special maxillofacial surgical hospitals set up to handle those cases in France and England and observed the surgeons' work. They learned that at the beginning of the war, the British and French military and civilian surgeons were totally unprepared for the number and severity of mutilating facial gunshot wounds:

The first of these dreadful cases, falling into the hands of even skilful [*sic*] general surgeons, suffered a real neglect, not only because of the professional ignorance of surgical principles and operative technique, but on account of a lack of assistance of the dental surgeon. His art—involving the requirements of mechanical skill—is demanded in the treatment of almost all wounds of the face, complicated with fracture and invasions of the cavities of the mouth and nose.⁷⁶

Ford and Lyster were particularly interested in the work at British General Hospital No. 22 in Etaples, France, as well as Stationary Hospital No. 13. Both were operated by volunteers from Harvard University ("The Harvard Unit"), the former under the direction of oral surgeon Varaztad H. (George) Kazanjian, and the latter under Major Valadier, an American dentist serving in the Royal Army Medical Corps (Territorial).⁷⁶ Of Kazanjian, they wrote::

The department of oral surgery at General Hospital No. 22, is conducted on a different principle from that of the American Ambulance at Paris, because the services lies wholly within the charge of a dentist, Dr. Kazanjian, who came out to France with the first Harvard Unit, and has remained for some time in charge of the service that he has developed. Dr. Kazanjian in civil practice in Boston confined his professional labors exclusively to dental surgery. It was only when the opportunity was presented by the great number of face injuries of this war that he attempted the plastic work that is associated with the restorative operations on wounds of the face in connection with injuries to the jaw and facial cavities. He has developed an operative technique, in connection with the application of his mechanical devices for support, that is unique in the practice of surgery. Many of the methods employed in the way of restoring the tissues to their normal sites are of such mechanical complication that only a dentist trained in mechanical methods could apply them. The surgeon's resources are certainly limited in comparison with those of a dentist, who has acquired a surgical technique which permits him to do the plastic operations of the face. So much is this the case that it seems apparent, in viewing a large number of badly mutilating wounds

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of the face which require mechanical methods of restoration, that a good dentist with some surgical technique possesses a better equipment for treatment of these cases than a good surgeon with no mechanical technique. Dr. Kazanjian's cases, which exhibit the results of his treatment, seem to justify this opinion.⁷⁶

During their visits, those in charge of these hospitals offered "to admit Dental Surgeons of the U.S. Army to these clinics, and the promise to give them every assistance in acquiring the technique for this new treatment of these wounds."⁷⁶ However, none were ever sent.

On October 26, 1916, when asked to respond to one of the offers that came via the NDA, Colonel Henry Birmingham, acting surgeon general, acknowledged that the idea of sending a dental surgeon to Paris was "very desirable" and recommended First Lieutenant Minot Scott, Dental Corps, then at Fort Sam Houston, Texas, should such a detail be approved. Four days later, the adjutant general turned down the NDA's offer with virtually the same letter that General Scott had sent to the secretary of state on March 2.⁷⁷⁻⁸² Unfortunately, President Wilson's strict neutrality policy and the War Department's apparent disinterest prevented any active duty Dental Corps officers from going overseas to learn from the experience at Neuilly.^{83,84} Although the reports by Church, Ford, and Lyster were probably useful, firsthand experience gained in these hospitals might have paid enormous dividends for the wounded when the American Expeditionary Forces (AEF) arrived in France the next summer and had to build a maxillofacial surgical service from the ground up in 1917 and 1918.

The Dental Corps, 1915-1916

The war in Europe stimulated some interest in the Army Dental Corps among the nation's young dentists. In December 1914 Dr Philip Scheiman of New York wrote to Edward Kirk at *Dental Cosmos* requesting information on the corps. He wanted to know what attracted dentists to the corps, the nature of the services they performed, what experience was necessary, and how many vacancies there were. In May 1915 First Lieutenant Seibert Boak replied to Scheiman's letter, telling him that the Army dental surgeons did all the work that any general practitioner in civilian life would perform, provided they were stationed at a post with a complete operatory. In the field or on an itinerant assignment, they had to limit their work to oral prophylaxis, fillings, and other minor procedures. Of the 92 candidates for the previous three examinations, only 29 had passed, and their average length of time in civilian practice was 2 years and 8 months. Although 10 candidates successfully passed the last examination, only 7 were given contracts because the law made provision for only 40 acting dental surgeons.^{85,86}

In March 1915 the surgeon general announced that the next examination for the appointment of acting dental surgeons would be held on April 12, 1915. There were now only nine vacancies to be filled. In July the surgeon general announced that the examinations for appointment as acting dental surgeon would be held on October 18, 1915, with 12 vacancies to be filled.⁸⁷ By the end of June 1915 the Dental Corps numbered 34 dental surgeons and 35 acting dental surgeons.⁸⁸

Army dentists spent a great deal of time traveling among the widely scattered

posts in the United States and overseas. Itinerant dental surgeons suggested that it would save valuable time if the post surgeons did preliminary oral examinations of the command prior to their arrival at the post to determine which cases demanded immediate treatment. On December 14, 1915, the general staff recommended that the Medical Department adopt this policy. Three days later, the surgeon general's office concurred and issued the memorandum to the various department surgeons. It is not known how medical officers received the news of this extra responsibility, but more pressing to dentists was the small number of dental surgeons available to care for far-flung soldiers.⁸⁹

In addition to this problem, the Army began to slowly expand in 1915 as the conflict in Europe continued. In September 1915 Edwin Tignor wrote that the majority of men then entering the service came from the rural and urban working classes, with a few small-town Americans sprinkled in. Most of these recruits arrived with "pathological mouths." They had never practiced any kind of oral hygiene, nor had they ever used a toothbrush. Each received an oral and physical examination and was given thorough training in all aspects of personal sanitation during the 2 months they were held at the recruit depot. Included in this period was intensive dental care, getting their mouths up to acceptable conditions, and toothbrush issue. Tignor said by the end of their training, most recruits had become conditioned to receiving routine, proper care, forming a lifetime habit that could not but redound to the overall benefit of quality professional dentistry once they reentered civilian life.^{90,91}

In 1916 the dental requirements for recruits for the US Army were as follows:

An applicant must have at least six serviceable double (bicuspid or molar) teeth, two above and two below on one side, and one above and one below on the other side, and so opposed as to serve the purpose of mastication; otherwise he is rejected. Deformities interfering with mastication or speech, chronic ulceration, fissure or perforation of the hard palate, are all causes for rejection.^{92(p1071)}

By June 1916, as operations along the Mexican border began, there were 40 first lieutenants and 35 acting dental surgeons in an Army Dental Corps that was authorized 100 total, based on the one-dentist-per-thousand-troops formula.⁸⁸ The actual proportion of dentists to soldiers was approximately 1 to 1,300, not including the dependents and civilians entitled to treatment. By contrast, the British army in the field in France in 1916 had only 43 dental surgeons (excluding those with the Canadians).^{90,93}

The National Dental Association's Renewed Campaign, 1915–1916

Perhaps spurred on by the war in Europe, in January 1915 the NDA and dental profession renewed their lobbying of Congress and the War Department to reorganize the Dental Corps and give higher ranks to Army dental surgeons. Both the Association of Military Dental Surgeons and the NDA petitioned and met with Surgeon General Brigadier General William Gorgas toward this end. Dr Homer Brown, chairman of the NDA's legislative committee, left a draft of a bill to reorganize the Dental Corps with the surgeon general for consideration. The proposed

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bill authorized one colonel as the chief of the corps, a number of majors equal to 25% of the corps' authorized strength, and captains and first lieutenants to an extent of 1 to each 1,000 of the Army's authorized strength, including the Hospital and Quartermaster Corps. This proposal would result in 1 colonel, 26 majors, and 81 captains and first lieutenants. Most of the 27 first lieutenants then in service would become field-grade officers, and the remainder of the first lieutenants and 11 acting dental surgeons would become captains. Afterward, a dental surgeon would become captain after 3 years' service, as in the Medical Corps. A recent dental graduate could be commissioned a first lieutenant at 22, captain at 25, and major at 32. The bill also provided for a dental reserve corps similar to the Medical Reserve Corps that had existed since 1908.⁹⁴⁻⁹⁷

The surgeon general forwarded the proposed bill to the chief of staff for review. On February 1, 1915, the chief of the War College Division, Brigadier General Montgomery Macomb, recommended to the chief of staff that the War Department reject the proposed bill. He claimed the bill's "effect will be to promote a class of professional men out of the grade and status in which it will be deemed appropriate and proper to extract and fill the teeth of enlisted men." While he admitted that dentists were valuable and necessary for the troops' health, what Macomb really wanted was "presence with troops of dentists who have not such military rank and grade that they will be tempted to prefer supervision to performance." A close reading of Macomb's response to the chief of staff indicates that the general staff preferred the pre-1911 situation to granting commissioned status, and that "continuance of the status of employment which existed prior to 1911, as recommended by the chief of staff in 1910, would have been a safe policy, and the action of the general staff in refusing to approve the bill is vindicated." The general staff articulated a policy position that it continued to use in the years to come. On February 4, the secretary of war, acting on Macomb's recommendation, advised the adjutant general that he did not approve of any legislation for organizing a dental reserve corps or the promotion of dental surgeons to higher grades.^{97,98}

Having received no official reply from the surgeon general on the proposed dental bill of January, Homer Brown wrote to him on July 29, 1915:

We made no effort to have the proposed legislation introduced in the last Congress, because we appreciated your generous reception of our representatives and our specific suggestions, as well as your attitude in general. Therefore, we would much prefer to cooperate with your Department, and the Honorable Secretary of War, to the end that the service be placed upon the highest possible basis, and, at the same time extend to the members of the Army Dental Corps adequate rank and promotion which will be in keeping with the importance of the service and the dignity of our profession, which is endeavoring to cooperate in every possible way with the medical profession's vigorous campaign against disease, of which you have been, and are, an illustrious exponent.⁹⁹

On August 7 Brown wrote to Surgeon General Gorgas again informing him that he had not received any notice as to the general staff's action on the NDA bill, although he had "heard reports regarding their action." He continued, saying, "but will be very glad to be officially advised as to their position in the matter." With

the NDA's 1915 meeting scheduled for San Francisco early in September, Brown wanted to be able to provide the members with information. "I think this will be advantageous to all concerned," he said, "as I am particularly anxious to cooperate with your Department and to have the united support of our organization of nearly twenty thousand members." Brown finally received an answer from Major (later Major General) Robert Noble, MC, of Gorgas's staff on August 10: "The provisions contained in the bill submitted were disapproved and no change in the organization of the Dental Corps was recommended by the General Staff."^{100,101}

After 17 years of similar responses, the NDA's legislative committee knew enough to push on, regardless of the opposition. On November 3, 1915, the committee met "at some length" with Secretary of War Lindley Garrison and Major General Tasker Bliss to discuss the status of Army dental surgeons. According to Bliss in a memo to the chief of staff, Major General Hugh Scott, Garrison gave "them his views which were generally to the effect that he did not see the necessity of saddling the Government with additional expense in order to secure reasonably good dental service in the Army" on December 6.¹⁰²

Bliss then laid out the details of Garrison's arguments:

The arguments against the proposed legislation were clearly presented by the Secretary of War to the legislative committee of the National Dental Association when the members of it conferred with him in his office. He then told them that it was not believed to be necessary to create an expensive Corps, with high grades, actual rank and privilege of retirement in order to secure the character of dental service required in the Army; that high grade men, fresh from dental colleges and without an established practice in civil life, even now enter the Army and save money out of their pay during three or four years' service with which they are enabled to set themselves up in civil practice; that it is very likely that men of the highest grade (the class who when they become established in practice are able to charge a fee of perhaps twenty dollars an hour) will leave the service; that if such class of men could be tempted to remain in the service by merely calling them captains and majors or giving them slight increase of pay, they would probably deteriorate rather than advance; that their leaving the service is not an essential loss to the service, because what we need in the Army is simply the professional skill of the ordinary country practitioner; and that if our entrance examinations do not, as they should not, require more than that degree of professional skill, there will be no difficulty in securing all the dental service that is required in the Army.¹⁰²

Bliss concluded that Garrison still disapproved of dental legislation and had not changed since his statement of February 4.¹⁰² Undeterred by Garrison's response and in compliance with his request for a written report, the same day the committee submitted its list of recommendations on how to "increase the efficiency" of the Dental Corps and secure "a more equitable recognition" for the dental profession. It wanted the formation of a dental reserve corps similar to the existing Medical Reserve Corps, which would replace the existing "acting dental surgeons." The committee envisioned that after 2 years of service, some of the dental reservists would be selected for Regular Army commissions as first lieutenants to fill any vacancies in the Dental Corps. Dentists would be promoted to captain after a total of 7 years service in any category (contract, reserve, regular), and the

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top 25% would become majors. They further urged that one of the senior dentists be commissioned colonel to serve a 4-year term as chief of the Dental Corps. Finally, they accepted the Dental Corps strength ratio of one dentist per thousand soldiers.^{103,104}

The NDA draft legislation was forwarded to the surgeon general, War College Division, and the judge advocate for review and comment. Brigadier General Maccomb reiterated his division's stand of February 1, concluding:

Dental surgeons do not require military rank for proper discharge of their duties. As the profession develops, young graduates in touch with the latest methods are offered in the army the opportunity to acquire practice and accumulate savings until they decide upon a location in which to build up practice in civil life. . . . Life tenure, with ultimate place on the retired list, would not tend to stimulate professional zeal.¹⁰⁵

Maccomb cited his February 1 memo in favor of approving only such legislation as would "repeal of so much of the Act of March 3, 1911, as authorizes appointment of dental surgeons with military rank, in order that the number of dentists now holding military rank and grade be not increased."¹⁰⁵

On November 9 Lieutenant Colonel Henry Fisher, responding for the surgeon general's office, agreed that the Dental Corps did not get the best dentists because of limited promotion potential. Rank was a problem and a dental reserve corps would be "a step in advance." He noted that the NDA committee already knew all of this from a recent visit with Surgeon General Gorgas. His concluding comment on the necessity for a dental colonel was as follows:

The creating of the grade of Colonel and Chief of the Dental Corps is entirely unnecessary. The duties of such an officer would be limited to recommending the assignment of Dental Surgeons to stations. When such assignments are made the duties of the office would be nominal.¹⁰⁶

The most balanced analysis came from Brigadier General Enoch Crowder, the judge advocate general of the Army, who recommended entirely redrafting the provisions to present them "in a more logical and coherent manner than is done in the present draft." He apparently accepted the personal and professional arguments being advanced:

An enactment along the general lines of this draft would undoubtedly be of benefit to the service. It is said that under the present law the best dental college graduates are reluctant to enter the Army, and certainly nothing is more calculated to deaden zeal and reduce efficiency than the knowledge, which the army dental surgeon has now, that no promotion is open to him.¹⁰⁷

Despite the exchanges going on among the secretary of war, chief of staff, surgeon general, War College Division, and judge advocate general, no one replied to Dr Brown, the chairman of the NDA's legislative committee. On January 14, 1916, Brown, referring to his previous meeting in November, again approached both Secretary of War Garrison and Surgeon General Gorgas regarding rumors

in the press of the "reorganization" of the Army and the Dental Corps. Brown understood that "corrective legislation is being considered for the other various departments of the Army," and wanted Garrison and Gorgas to know that "our committee feels that the Army Dental Corps must necessarily receive some favorable consideration under any plan of reorganization of the Army." The dental profession hoped that Garrison and Gorgas would endorse the recommendations that it thought would improve "the service and give to our profession recognition in accordance with the importance of the service rendered."¹⁰⁸

On January 21 Major General Hugh Scott replied to Brown, writing, "... relative to the changes in the Dental Corps of the Army, the whole matter of increasing the efficiency of the Army is now before Congress, where it must be worked out as a single problem, and it is not practicable at this time to predict just what will be done."¹⁰⁹

On February 20 Brown sent a telegram to Gorgas opposing recent legislation that he had proposed before the House Committee on Military Affairs on January 26. Brown wrote that "we consider this discriminating as unnecessary and humiliating and must insist that our representatives in the Army be accorded dignified recognition and actual rank in keeping with importance of service rendered." On February 21 Surgeon General Gorgas replied that his "desire is to increase the efficiency of the Dental Corps and to provide for the proper flow of promotion." He posed no objection to the "same provision regarding rank" as was authorized for the Medical Corps.^{110,111}

Also on February 20 Dr John Millikin, a former contract dental surgeon and now the president of the Association of Military Dental Surgeons of the United States, chided the surgeon general on the professional inequity in the new proposed Army bill introduced before Congress on January 26. The bill required a dental surgeon to serve 19 years before making major, whereas the medical surgeons would be promoted to major in less than 12 years. To make captain, the dentists would have to serve 9 years, but their counterparts only had to serve 3. And the dental captain would not be a "real captain; only a hybrid." Millikin reminded the surgeon general that the "line" had been trying for many years to deprive "staff" officers of actual military rank. He considered the new law an "entering wedge" for the line and consequently an eventual menace to the Medical Corps.¹¹³

At the request of the chairmen of the Senate and House military affairs committees, Doctors Brown and Gifford of the NDA's legislative committee appeared before the committees on February 2 and 3, 1916, to testify on the pending general defense legislation and to make sure that their recommendations would not be eliminated. First Lieutenant Edwin Tignor, Dental Corps, joined them for the House testimony. The main efforts of the NDA to date had been directed at securing the support of the secretary of war, chief of staff, surgeon general, and chairmen of the military affairs committees for the incorporation of the association's recommendations in their general defense program. These included the Dental Reserve Corps (DRC) to replace the "acting dental surgeons," appointments from the DRC with 2 years of service at ages 23 to 30, promotions to captain with 7 years total service, majors not to exceed 25% of the corps and promoted by seniority, a colonel as chief of the Dental Corps, strength to be one per 1,000 enlisted strength (as at present), and the right to command limited to Dental Corps and DRC and enlisted dental assistants.¹¹³

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In March 1916 an editorial in *Journal of the National Dental Association* noted that officers of the adjutant general's department, judge advocate general's department, ordnance department, Corps of Engineers, Quartermaster Corps, Signal Corps, and the Medical Corps were all staff officers. They all "have rank the same as all other officers and have had rank for many years, and surely no one has ever contended that either their efficiency or the efficiency of the line of the Army has suffered thereby."¹¹⁴

On March 23, 1916, Dr William Crenshaw, the president of the National Association of Dental College Faculties, wrote Senator Lee Overman of North Carolina, requesting that he support the dental amendments of the pending Army reorganization bill to accord appropriate rank for the dental surgeons. On April 10 Crenshaw's letter was presented in the Senate by Senator Smith of Georgia and ordered to be printed in the *Congressional Record*.¹⁰⁴ The War Department's continued opposition to any meaningful new dental legislation meant that Congress would have to step forward to make the changes. As when the Philippine Insurrection opened the way for contract dental surgeons in 1901, it would once again be a present or impending national emergency that forced changes to be made.

Senator Atlee Pomerene's Amendment, 1916

Responding to the NDA's active interest, on April 14, 1916, Senator Atlee Pomerene of Ohio introduced an amendment to the dental provision of the National Defense Act then under discussion:

The President is hereby authorized to appoint and commission, by and with the advice and consent of the Senate, dental surgeons at the rate of 1 for each 1,000 enlisted men of the line of the Army. Officers of the Dental Corps shall have the rank, pay, and allowances of first lieutenants until they have completed five years of service, when they shall be eligible for promotion to the grade of captain. Officers of the Dental Corps, after 15 years of service, shall be eligible for promotion to the grade of major: Provided, That the number of majors at no time shall exceed 22 percent of the strength of the Dental Corps: Provided further, That the officers of the Dental Corps shall have the rank, pay, and allowances, including the right to retirement on account of age, service, or disability, of officers of like grade in the Medical Corps of the Army, and that service heretofore rendered as contract dental surgeon shall be computed as commissioned service; And provided further, That examinations for promotion in the Dental Corps shall be governed by act of April 23, 1908, section 5, as prescribed for the Medical Corps, except that the examining and review boards shall consist of one medical and two dental officers.^{104(p6125)}

Pomerene's amendment was essentially the same as the Senate Military Affairs Committee's provision for Dental Corps promotions to lieutenant, captain, and major, except for the length of time dental officers had to serve before they were entitled to promotion. Pomerene thought the dental profession was due the same rank and recognition that the medical profession enjoyed and that the higher rank would attract the "best of the young men" in the profession. Under the proposal, dental surgeons would have to serve 10 years as first lieutenants before they could be promoted to captain, and 25 years before promotion to major. Pomerene's amendment shortened these periods for promotion to 5 and 15 years respectively.

The amendment was debated quite vigorously; like Senator Pomerene, the majority of the senators taking part in the April 14 debate were supportive of the dental profession. Finally, the Senate agreed that the Pomerene amendment should replace the military committee's amendment.^{104,115}

During the final phases of hammering out the new National Defense Act, Homer Brown wrote to Surgeon General Gorgas to congratulate him on how well the Medical Department had fared in the pending bill and to thank him for cooperating with the NDA in the legislative process:

In the first place I wish to congratulate you upon the favorable consideration given your Department, or at least it would seem to me that you fared particularly well. While all our recommendations were not incorporated in the Dental Corps provisions, yet I think some very positive improvements have been secured. Further, I think this generally harmonizes with your views, as expressed from time to time, and feel confident that you have always had in view the raising of the efficiency of the Corps to its highest possible standard. Under this legislation you will be in a position to bring about results which we hope will be fairly satisfactory to all since we appreciate your fairmindedness. The real point of difference between you and myself has been that I have always contended, as long as other non-combatant Corps have rank, there should be no discrimination made of the Dental Corps and am very glad that this point has seemingly been established by this Congress.¹¹⁶

The National Defense Act June 3, 1916, and the Beakes Bill

More than a year into the first world war, an extended debate on American national and military preparedness took place, which ultimately led to a restructuring of the Regular Army and the National Guard. During the months of debate in 1915 and 1916, it became evident that the Army would undergo substantial growth, which would mandate expansions in every branch of the service. The approved bill ultimately provided for large strength increases, expansion and integration of the National Guard's structure with that of the regulars, and the creation of a federal Organized Reserve to back up both components.¹¹⁷

Although some of what that the Dental Corps and NDA gained by the National Defense Act was still a compromise, the act provided many things that had been debated in the years since March 3, 1911:

Sec. 10, 39 Stat. 173: Dental Surgeons

Rank, pay, allowances, qualifications, and number of—The President is hereby authorized to appoint and commission, by and with the advice and consent of the Senate, dental surgeons, who are citizens on the United States between the ages of twenty-one and twenty-seven years, at the rate of one for each one thousand enlisted men in the line of the Army. Dental surgeons shall have the rank, pay, and allowances of first lieutenants until they have completed eight years' service. Dental surgeons of more than eight but less than twenty-four years' service shall, subject to such examinations as the President may prescribe, have the rank, pay, and allowances of captains. Dental surgeons of more than twenty-four years' service shall, subject to such examinations as the President may prescribe, have the rank, pay, and allowances of major.^{11(p717)}

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A May 1916 editorial in the *Journal of the National Dental Association* said:

While the legislation secured is not altogether satisfactory, it was the best that could be obtained at this time. The Legislative Committee and others worked indefatigably to secure the adoption of an equitable and at the same time conservative bill, but it was found necessary to concede some important features in order to procure the enactment of a dental provision that would grant at least some of the more important objects sought.^{115(p212)}

The “centralized handling” by the “well organized” dental association that coordinated the efforts to pass the bill and the elimination of the “cross-purpose” efforts that had caused the defeat of previous congressional dental legislation were the basic reasons for this year’s success.¹¹⁵

On June 9 Representative Samuel Beakes of Michigan introduced a bill (HR 16355) to amend the section relating to the appointment and promotion of dental officers. The same day, the bill was referred to the Committee on Military Affairs and ordered to be printed. The bill read as follows:

The President is hereby authorized to appoint and commission, by and with the advice and consent of the Senate, dental surgeons, who are citizens of the United States between the ages of twenty-one and thirty years, at the rate of one for each one thousand enlisted men of the line of the Army. Dental surgeons shall have the rank, pay, and allowances of first lieutenants until they have completed eight years’ service. Dental surgeons of more than eight but less than twenty-four years’ service shall, subject to such examination as the President may prescribe, have the rank, pay, and allowances of captains. Dental surgeons of more than twenty-four years’ service shall, subject to such examination as the President may prescribe, have the rank, pay, and allowances of major: Provided, That the total number of dental surgeons with rank, pay, and allowances of major shall not at any time exceed fifteen: And provided further, That all laws relating to the examination of officers of the Medical Corps for promotion shall be adapted and made analogously applicable to dental surgeons: And provided further, That in computing the length of service of dental surgeons for promotion and other purposes, all such dental surgeons as are otherwise eligible and had service under contract before their appointment as dental surgeons with the rank of first lieutenant under the provisions of the Act approved March third, nineteen hundred and eleven, shall be given credit under this Act for the length of such contract service in addition to credit for service as first lieutenant under the said Act approved March third, nineteen hundred and eleven: And provided further, That all acting dental surgeons who on June third, nineteen hundred and sixteen, were serving under contract the three years’ probationary service required by the said Act approved March third, nineteen hundred and eleven, shall, at the expiration of their respective periods of probationary service, become eligible to appointment to the rank of first lieutenant, subject to the examination hereafter required for original appointments under this Act.¹¹⁸

On June 10 the bill was referred to the surgeon general’s office for comment. Although this amendment did not include all the improvements recommended and supported by the NDA, it was decidedly better than the existing legislation. If and when the new legislation became fully operative, it was estimated that the Dental Corps’ strength would increase from its current 75 members (36 first lieu-

tenants and 39 acting dental surgeons) to approximately 200 (full quota) to support an army of 211,000.¹¹⁹

On June 30 the surgeon general's office responded that it favored a change in the last two provisions of the bill because of some problems they created in promoting acting dental surgeons.^{120,121} On July 6 the secretary of war agreed and informed Representative James Hay, the chairman of the Committee on Military Affairs, that the War Department disapproved of some of the provisos in the bill. It felt that these clauses would work as a "grave injustice" to the acting dental surgeons already in the Army as of June 3, 1916, because the wording prevented their prior service from being counted toward promotion, while prior service would be counted for those already first lieutenants. This resulted in incumbent acting dental surgeons serving another 3 years before promotion, while a dentist just entering service could be commissioned immediately. As a result, the War Department did not recommend the passage of the Beakes bills.¹²²

On July 14, 1916, Colonel Henry Birmingham, MC, the acting surgeon general, again recommended that to avoid an injustice to the current acting dental surgeons and also "to provide a probationary term [analogous to that provided in Section 23, Act June 3, 1916, for second lieutenants of the line], " the last two provisos of HR 16350 be changed to include all contract and acting dental surgeon time be credited:

That hereafter all appointments to the grade of first lieutenant in the Dental Corps shall be provisional for a period of two years, at the close of which period such appointment shall be made permanent if the appointee shall have demonstrated, under such regulations as the President may prescribe, his suitability, and moral, professional and physical fitness for such permanent appointment, but should any appointee fail so to demonstrate his suitability and fitness his appointment shall terminate.¹²³

This report was sent to Congress as the War Department's stand on HR 16355.¹²⁴

In June 1916 the adjutant general ruled that the acting dental surgeons currently in the Army could be appointed as first lieutenants in the Dental Corps in the order of their contract, without further examination. This ruling would give them date of rank over the dental surgeons to be commissioned as first lieutenants under the examinations to be held on July 10, 1916, as a result of the new law.^{125,126} The law invalidated its 1911 predecessor, which placed all dental first lieutenants below all officers of the Medical Reserve Corps. Judge Advocate General Enoch Crowder concluded that subordinating captains and majors below lieutenants was "untenable under the theory of military rank."¹²⁷

Some other minor changes followed. On June 26, 1916, Senator Miles Poindexter of Washington submitted an amendment to change the maximum age limit for commissions in the Dental Corps from 27 to 30 years. On June 28 Senator Henry Myers of Montana submitted an amendment to allow the commissioning of dental surgeons who were between the ages of 21 and 30. On July 21 Senator Pomerene submitted an amendment allowing service as a contract or acting dental surgeon be credited in computing length of service for promotion and for other purposes under the June 3, 1916, act. These were added in some form to the Army appropriation bill (HR 16460).¹⁰⁴

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The National Defense Act also provided for an Officers' Reserve Corps: "Said corps shall consist of sections corresponding to the various arms, staff corps, and departments of the Regular Army." Under this provision, the surgeon general organized a dental section in the Officers' Reserve Corps. Members of the corps were to be appointed and commissioned by the president as first lieutenants and had to respond to any "call for service in time of war or during any pending National crisis." Officers were appointed for a 5-year period, at the end of which they could be recommissioned subject to any further examinations and qualifications that the president might prescribe. While on active duty, they were entitled to the pay and allowances of their rank, including pension for disability, service incurred; they were not entitled to retirement pay. Appointees had to be between the ages of 22 and 55, graduates of standard dental colleges, and at the time of appointment in active practice in the states in which they resided. They had to pass a prescribed physical and a professional examination conducted by a board of one medical and two dental officers designated by the War Department.^{128,132} Although many dentists were eager to get into the Dental Reserve, the surgeon general's office wrestled with procedures well into the fall before implementing that part of the law.¹³²

Another feature of the bill was the states' authority to appoint dental surgeons in the National Guard. A state governor could now appoint and commission dental surgeons on the same basis as specified in the Regular Army, namely one to 1,000 enlisted members of the line. Any qualified applicant between the ages of 21 and 35 years of age could be commissioned a first lieutenant.¹²⁸

The effects of the Act of June 3, 1916, on dentists included the following:

- The grade of acting dental surgeon was superseded and all acting dental surgeons were to be commissioned as first lieutenants with date of rank from June 3, 1916, subject to passing the examination.
- Service as contract dental surgeon under the Act of February 2, 1901, and service in the Dental Corps as acting dental surgeon or first lieutenant, under the Act of March 3, 1911, were to be reckoned in computing increased pay, promotion, and retirement.
- Dental surgeons were to rank in the Army according to the date of their commissions in the three existing grades of first lieutenant, captain, and major.
- A dental section in the Officers' Reserve Corps was created.
- Dental surgeons were to receive mounted pay (including costs associated with maintaining a horse).¹³²

Some dentists, including the former Army contract dental surgeon, Dr John Millikin, the president of the Association of Military Dental Surgeons, believed that the regulation allowing dentists to enter the Officers' Reserve Corps or the militia only as first lieutenants was unfair to the profession. In the other branches of the Army (with the exception of the chaplain and veterinary sections), commissions

were given up to and including the grade of major.¹³² However, *Dental Summary* heralded the "advanced recognition" the new law gave to the dental profession and saluted Senator Pomerene and Congressman Julius Kahn, its sponsor in the House, for their efforts. It also praised the NDA for its role.¹³³

One dentist, Dr Arthur Hackett, the chairman of the Army and Navy Legislative Committee of the California State Dental Association, condemned the new bill, calling it a "complete failure." He based his argument on the following points:

- The bill had not eliminated the "abominable contract status" because the new members of the corps had to serve for 3 years before being eligible for commission as first lieutenants.
- There was a medical head of the corps, not a dental.
- Under the new law the dental examining boards would consist of not less than three medical officers. One or two dental officers could be on the board also, but the law would be in effect with three medical appointees only. Heretofore, the boards had been composed of one medical officer and two dental surgeons.¹³⁴

Furthermore, Hackett compared the new legislation for the Medical and Veterinary Corps to the Dental Corps. The new provision for the Medical Corps had the effect of promoting every officer below major to that grade "within four years." For the newly established Veterinary Corps, all "former governmental service" was to be counted toward promotion. All were to be major after "twenty years' service." This meant that 35 medical officers not yet in the service would be majors by July 1, 1920, and some veterinarians would be majors in 5 years; whereas it would take 19 years for a dental surgeon to make major.¹³⁴

Hackett commented on the congressional debate:

Note what some of the Senators had to say. None of our friends knew exactly what we had nor what we wanted. Senator Pomerene, who introduced the bill did not know whether he was asking for more than the Chaplains had or not. Mr. Gallinger believed that our profession already had as much as the Medical Corps and thought we ought to be satisfied with that, when in reality we have not a quarter of what the Medical Corps has nor have we ever asked for half what they have. Mr. Meyers believed our men were enlisted as soldiers and ought to have better recognition. The whole debate shows that Congress does not know our present status nor know what we are asking for. We doubt very much if two per cent of the profession know anything definite about the status of the Dental Corps or made any attempt to aid in this legislative campaign. If we cannot get the constituent societies to work on legislators while the latter are at home, it will be impossible for the National Committee to get results in Washington. An educational campaign should be started right now for the next session of Congress.^{134(p640)}

Despite the successes of 1916 the board of trustees of the NDA recommended to its house of delegates that additional changes in Army dental legislation were required to bring the Dental Corps into alignment with the Medical Corps within the Medical Department.¹³⁵

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The Preparedness League of American Dentists, 1916

As Congress debated the fate of the National Security Act of 1916 and the battle of Verdun raged relentlessly on the western front, several Buffalo, New York, dentists initiated a new "Preparedness League of American Dentists" in association with the NDA in March 1916. Led by Dr J Wright Beach, the league's purpose was to assist the War Department during an emergency by providing its members voluntary service to the Army Dental Corps. Its members agreed to prepare the mouth of at least one Navy or Army recruit to meet military standards of service. Qualified league members were encouraged to apply for entry into the Dental Reserve and to assist in the formation of hospital and Red Cross dental units intended for overseas service. The league also decided to educate the government, universities, and their colleagues on the value of dental surgeons and the need for comprehensive courses dealing with the subject.¹³⁶

Dr Beach and his associates mailed 20,000 circulars to members of the NDA and got a favorable response. Within a year, over 1,500 soldiers and sailors had received free care before entering service, and several hundred league members had served with National Guard units on the Mexican border. Courses on the treatment of maxillofacial war injuries were developed and presented in regional classes, which Beach believed would ultimately be the league's major contribution to the war effort. All league services were on a humanitarian basis with no compensation to the volunteers. There were two types of members, active and associate, the former paying a \$1 fee.^{136,137}

The incidence of head trauma in the war spurred a renewed emphasis on oral surgery and orthodontic training and the need for all dentists to expand their knowledge in the field. In *Dental Cosmos*, Dr Edward Kirk called for "oral war surgery" to be given "the status and dignity of a distinct specialty." He endorsed the league's view that dental school curricula should include graduate training in this field in order to properly prepare the nation's dentists for military duty. Not only was the proportion of gunshot head wounds much greater in modern war than in previous wars, but the damage done was much greater, resulting in more serious injuries. In 1917 the league (now with a membership of 25,000) responded to Dr Kirk's appeal by arranging for "War Dental Surgery" lectures, such as the ones given weekly from April 10 to June 26, 1917, by the unit located in San Francisco, California. Guest lecturers included Captain Frank Wolven, Millikin, and retired Captain John Marshall.¹³⁸⁻¹⁴¹ By May 1918 the league members countrywide had performed 236,115 dental operations for service members. It was estimated that another 150,000 procedures had been done but not officially reported to the league.¹⁴²

Dental Support on the Mexican Border, 1916-1917

Events along the US-Mexican border from 1915 to 1917 provided the opportunity for the Army to gain additional insights into the demands of modern warfare and formed a demanding field test for the fledgling Dental Corps. Tensions between the Wilson administration and the changing governments in Mexico led



*First Lieutenant Raymond W Pearson's dental office was in a tent during the Punitive Expedition in Mexico.
Photograph: Courtesy of Colonel Raymond W Pearson.*

to the assignment of growing numbers of Regular Army units to points along the border. After Pancho Villa's infamous raid on Columbus, New Mexico, on March 8, 1916, the National Guard trained and performed local security while Brigadier General John Pershing led regulars in the Punitive Expedition into Mexico. Although the Army had earlier experimented with the formation of large tactical units, this was the first time it had done so with the changes that the new National Defense Act initiated. The expanded Dental Corps was no exception.¹⁴³

Medical personnel from other parts of the country were levied to support the enlarged forces whenever units deployed to the Mexican border or were formed for large tactical exercises. For example, when the experimental 2nd Division was formed in Texas City, Texas, in 1913, the surgeon general ordered that five dentists, along with their assistants and equipment, be reassigned temporarily from the central department. This team supplemented the five dentists already assigned to the southern department, which was headquartered at Fort Sam Houston, Texas. One of these assigned dentists was at Fort Sill, Oklahoma, and could support the border forces only indirectly by caring for the troops staging through. Of the two dentists based at Fort Sam Houston, one remained there while the other traveled along the lower Rio Grande. There was a dentist each at Fort Bliss, Texas, and at Fort Huachuca, Arizona, both of whom were pinned down by the work at their stations. Because it was unrealistic to expect these dentists to support additional troops, the department surgeon requested permanent assignment of at least three more dentists.^{144,145}

To reduce the demands on southern department dentists, unit commanders

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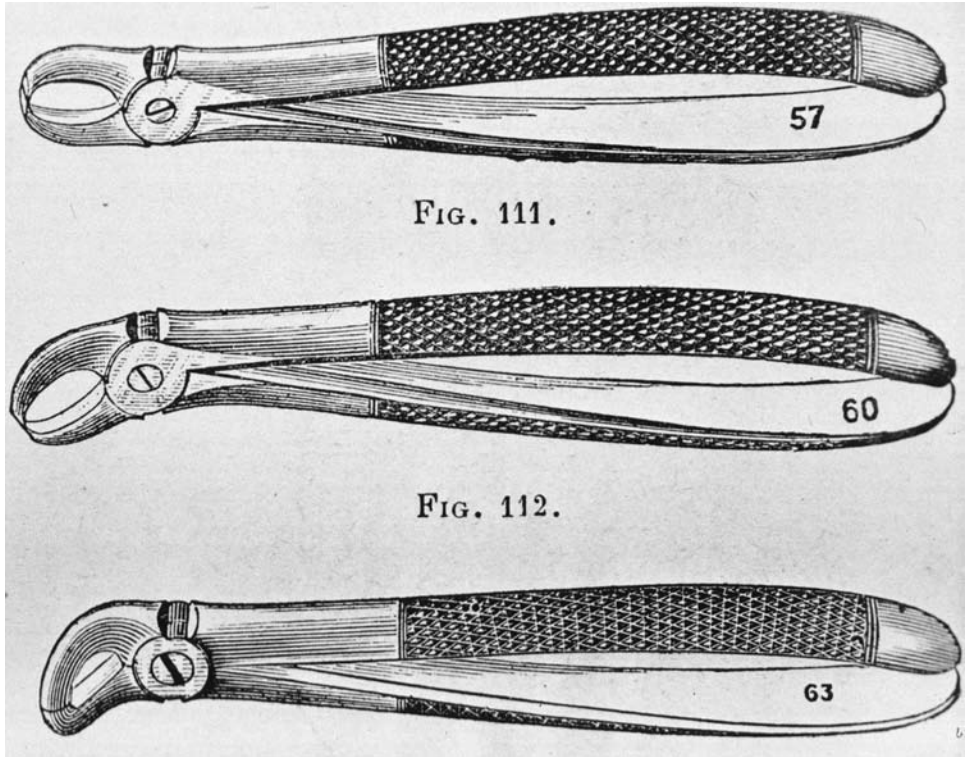


FIG. 111.

FIG. 112.

*Instruments for tooth extraction, 1913.
Reproduced from: <http://www.nlm.nih.gov/ihm/images/A/12/098.jpg>.
Courtesy of: the National Library of Medicine.*

were directed to assure that all of their soldiers underwent dental examinations every 6 months, as well as just prior to departure for duty along the border. They were authorized to leave behind, on a dentist's recommendation, all those requiring treatment or who had oral conditions that would take them out of the field before their unit's scheduled return. Four more dentists were assigned to the department and another three were expected, easing the workload. This was essential, as the Regular Army dentists had to provide support to Pershing's forces operating inside Mexico. By the end of 1915 two Regular Army dentists were at Fort Sam Houston, Texas and at Fort Bliss, Texas. Single dentists were assigned to Brownsville and Harlingen, Texas; and Forts Huachuca, Nogales, and Douglas, Arizona. Additional dentists were requested for Douglas, Harlingen, and Laredo.¹⁴⁶⁻¹⁴⁹

Passage of the National Defense Act almost concurrently with the National Guard mobilization inspired a flurry of interest in appointing dentists into the state formations. The Militia Bureau quickly issued guidelines saying dentists could be commissioned on the basis of one dentist per 1,000 troops and subject to examination by a board of three Medical Department officers from either regular

FROM A NEW CORPS TO A WORLD WAR

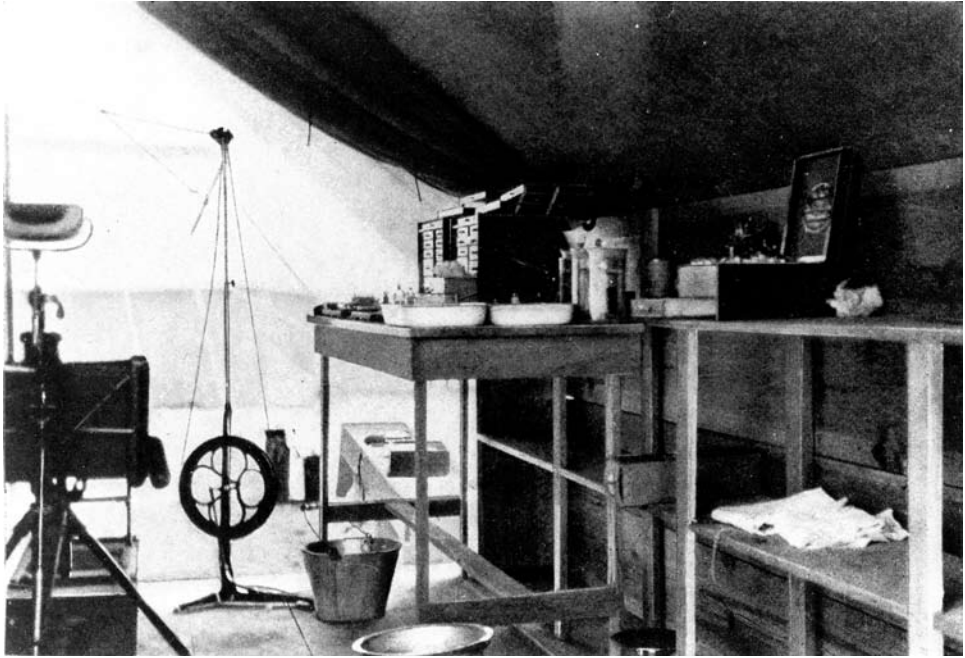
or Guard components approved by the surgeon general's office. Applicants had to be between ages 21 and 35 and dental college graduates with at least 1 year of practice. States were enjoined to provide a roster of those who desired appointment and the Militia Bureau would undertake arranging the necessary boards. National Guard dentists commissioned under the 1914 law were automatically in the system without any further examination, as long as they agreed to take a new oath of office. Acting dental surgeons under the 1914 law had to take the examination, but once they passed, they would become credited with the time they served in the organized militia.¹⁵⁰

Despite these efforts there was a shortage of dental officers at the border, especially within the federalized National Guard units. The Pennsylvania Guard, for example, was forced to employ a civilian dentist for its 13,000 troops while the appointment process was underway. Mrs George Childs Drexel, the president of the Pennsylvania Women's Division for National Preparedness, agreed to pay for the dental equipment and supplies for a dentist to work for 2 months. About 40 days after the Pennsylvanians had reached the border, Dr C Judson Hollister of Philadelphia arrived at their base, Camp Stewart, near El Paso, Texas. Hollister reported that he was kept quite busy because the 40 commissioned militia dental surgeons and their equipment that were supposedly "on the way" failed to appear. When he left after the 2 months were up, they were still not in camp. Hollister was critical of the poor dental health of the guardsmen he examined and treated.¹⁵¹



*First Lieutenant Raymond W Pearson treats a patient during
the Punitive Expedition in Mexico.
Photograph: Courtesy of Colonel Raymond W Pearson.*

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*Doctor C Julian Hollister, contract dentist with the 3rd Pennsylvania Infantry, National Guard, on the Mexican border at Camp Stewart, El Paso, Texas, 1916. His description: "A week later I was provided with a 14 x 14 wall tent and fly, well floored and with shelves for instruments."
Reproduced from: Dental Digest. 1917;23:3.*

One National Guard dental officer on the scene in 1916 was First Lieutenant Fred Malony, a Creighton University Dental College graduate. He was the dental surgeon for the 5th Regiment, Nebraska Infantry, and was on duty at Llano Grande, Texas. Malony said that there was only one dental outfit for the seven dentists stationed there. This equipment had been turned over to the militia dentists by a Regular Army dentist who took a furlough because of illness. Each dentist was allowed a little over an hour at the chair, and they saw 40 to 60 patients each day. Many soldiers had to go to outside to private civilian dentists to have their work done. The surgeon general's office had ordered 100 dental outfits in July 1916, but as of September, only five had reached the southern department. Malony was told that the heavy demand from Europe for dental material had caught the industry unprepared to cope with the surge of orders accompanying the border mobilization.^{152,153}

Malony's dental outfit did not arrive until the end of November—over 7 weeks after he first arrived at the post. Even then, he was not impressed. Although of high quality, the "instruments were not practicable." It was obvious to him they had not been selected by anyone with dental training. Out of 11 pairs of forceps, only one was of any use. Likewise, most of the chisels and mirrors would never have been

used in private practice. Because gold and porcelain work was not authorized, no instruments were included for that kind of work, assuring that soldiers desiring it would have to resort to civilian dentists.¹⁵³⁻¹⁵⁶

Malony was equally upset with the lack of command support. Although the soldiers were requested to have a toothbrush, its condition or use was a matter of indifference. Malony felt the command should issue quality toothbrushes just as it did tape for blisters and should stress proper brushing. Every week the soldiers underwent a medical inspection for bodily cleanliness, but only once in his 7 months on the border was there a "partial dental inspection." Ninety percent of the patients he examined had pyorrhea, but he could do little for them under existing conditions.¹⁵³

He concluded his jeremiad by describing working conditions and their effect on patients:

The dental office was in the farthest back room of an old hotel now being used as the Camp Hospital. I expect that room was 12 x 14 feet. Of course, when my outfit came there was not room in there for two chairs, so I was placed in the back part of the dispensary, and on windy days and cold days I had to stop work. Later on, in January, there was a little shack put up for a dental office which would accommodate two chairs. But by that time the men were so disgusted trying to get dental work done that we did not have many patients.^{153(p346)}

First Lieutenant Ralph Irwin Parker of Burton, Ohio, who had been commissioned on August 28, 1916, and was assigned to the 5th Ohio Infantry as it left for El Paso, Texas, also found the dental condition of the border troops "deplorable." He too complained about not receiving his dental instruments. By the time he left in December 1916, he still had not received his own equipment, which he asked for when he joined his unit in September. Fortunately, he had brought a few of his own tools, enabling him to perform some procedures. He criticized the government instrument selection, saying it demonstrated "a lack of understanding as regards the needs of the dental surgeon . . . I told one medical officer that I could take the whole outfit and cut it down from five cases to three, and still have an outfit worthy of any first-class dentist." He felt the selection of instruments should be the responsibility of a Dental Corps officer, not a doctor in the surgeon general's office.¹⁵⁷⁻¹⁵⁹ He also commented:

When I first arrived the men were very antagonistic, and called us doctors "Butchers," and other names, quite in keeping with the above; but later, through tact and a little courtesy, I gained their good will, and they realized that I was doing the best that I possibly could for them. . . . Speaking frankly, I observed that too many dentists accepted their commissions as dental surgeons to the guard solely for the good time they anticipated, and considered the call an outing rather than one of serious consequence, the result being poorer dentists, and a never-ending friction between the troops and dental surgeons.^{157(p343)}

On September 13, 1916, Lambert Oeder, a private then serving in Battery D, 2nd Field Artillery, New York National Guard and a graduate of the New York College of Dentistry, was commissioned a first lieutenant in the Dental Corps. He

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reported that an examination of the soldiers revealed that the average guardsman's teeth were in "dire need" of dental attention. Many had never seen a dentist, presuming they could let their teeth go and get "a false set some day."¹⁶⁰⁻¹⁶⁶

John Puffer, a graduate of the Indiana Dental College, was serving as a sergeant at Field Hospital No. 1 at Llano Grande, Texas when he was commissioned a first lieutenant, Dental Corps, Indiana National Guard, on October 6, 1916. He was appointed dental surgeon for the 2nd Regiment, Indiana Infantry. Puffer also complained of the dental inadequacies on the border. He stated that although the spirit of cooperation was high, the militia dental corps was not well organized when it reached the border, and there was a long wait for the dental equipment. Extraction was, for a time, the only treatment available. He said 94% of the 3,800 men he examined needed some kind of care, and most of the work should have been done before the militia was federalized. As it was, he estimated at least twice the number of dentists were required to meet the needs of all the soldiers.¹⁶⁷⁻¹⁶⁹

Private dental clinics, such as the Forsyth Institute and the Rochester Dental Dispensary, were also pressed into service under the auspices of the Preparedness League to treat the National Guard troops mobilized for the border but who were still in their armories. The Forsyth, by arrangement with the adjutant general of the Commonwealth of Massachusetts, treated over 409 recruits in a 2-day period. Sixty-five chairs were kept busy for 1962 fillings, 188 cleanings, 211 silver nitrate applications, and 271 extractions.¹⁷⁰

The arrival of so many people new to military dentistry at a time of great stress underlined the need for some kind of training. Dentists had been dropped into the Army with little orientation since the first contractors, and those who had survived the experience thought that entry orientation was highly desirable. It was apparent that new dentists, regardless of component, required an introduction to the military, and with so many troops at the border, the time seemed right. Accordingly, Captain Robert Oliver, who was stationed at Fort Sam Houston, secured the authority of the surgeon of the El Paso District in September 1916 to establish a dental school.¹⁷¹

Oliver developed a modest curriculum and the first class began in late October. The school was established at Base Hospital No. 2 at Fort Bliss, and all dentists in the area were required to attend a weekly 2-hour session (physicians were also welcome). One hour was devoted to "Dento-Military" topics such as Army Regulations, paperwork, military justice, supply accountability, and field craft. The second hour focused on professional topics in which students shared experiences and treatment methods were discussed. The school served as a model for similar efforts in the mobilization camps after the April 6, 1917, declaration of war against Germany. By then the border crisis had passed. Pershing's force was back by January, and forces began to return to their home bases and armories.¹⁷²

A World War Looms

The declaration of war resulted in the surgeon general's first request to identify dentists who could be spared from the border to go to induction and recruiting sites elsewhere. Five dentists were quickly identified and reassigned.¹⁷³ The

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lessons learned at Oliver's school and in the field were about to be applied under all the stresses of modern war. While some preparations for entry into the war had already been made, the Medical Department and its dental corps, like the rest of the US Army and the nation, were ill-prepared for the tremendous challenges of mobilization, training, supply, movement, and fighting the modern ground war that loomed ahead across the Atlantic Ocean in France.

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