

A HISTORY OF DENTISTRY IN THE US ARMY TO WORLD WAR II

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Foreword

We have special reason for congratulation also in the fact that the Congress of these United States was the first legislative body in the world to formally recognize the value and need of the beneficent services of our specialty as a department of military medical practice, and that we have been given an opportunity to prove the wisdom of its action to our country and the world.

- John Sayre Marshall, 1901

The words of civilian contract dental surgeon John Sayre Marshall in 1901 were a celebration of one victory in a long struggle by the civilian dental profession to gain recognition for dentistry as a unique area of medicine, not just in the Army but in the world. Dr Marshall's challenge was that we, the dentists who were granted the privilege of military service, must prove our value. I am honored to claim Captain Marshall as my professional forefather. I also celebrate the accomplishments of our Corps in the past and challenge the Army Dental Corps and the dental services of all US forces and all nations to serve military personnel in the same selfless spirit that our forefathers have. We have made progress. When Marshall made this 1901 statement in a message to the profession, the debate was whether there was any value in military dental surgeons having rank. I believe that in the subsequent 105 years, we have put that debate to rest.

With the exception of *A History of the United States Army Dental Service in World War II* by George F Jeffcott, there has been a void in the written history of US Army dentistry from its beginnings until today. Printing and distributing this volume admirably fills a significant part of that void and I am extremely privileged to be associated with this project. This detailed and scholarly history brings into focus many issues of current interest to the Army Dental Corps by clarifying the origins of the policies and practices of military dentistry. It brings to light the selfless dedication with which civilian dentists and organized dentistry supported the military when there was no official program for oral health. It took decades of persistent political effort to establish official dental service for soldiers, sailors, marines, and airmen, and that hard work is chronicled in detail in these pages.

Beginning before the birth of the Republic, this book explores the requirements for dental service the wars of the 19th century and first half of the 20th century, through the role of the dentist in the nascent Army Air Corps, and up to the advent of the Second World War. The need for military dental care was first recognized, interestingly enough, in the 18th century, when it was critical for the European and American musketeer to possess strong front teeth to pull the cap off wooden gunpowder tubes before bringing the charge to the musket's muzzle. Arms manuals of the day show that little had changed 250 years later as America became caught up in civil war. At that time, infantrymen needed enough strong teeth to tear open the paper cartridge that contained musket ball and powder. We see also that it was an able-bodied sailor who could hold tools or rope in his teeth when climbing to set or adjust sails, and dental requirements were reflected in the recruitment standards of the time. As weaponry progressed, the US military recognized that more

destructive power could tear apart faces and jaws, making the unique skills of the dental profession essential in the preservation of life and restoration of deforming wounds. As the general health and nutrition of the soldier gained importance of the years, the US military also began to focus its attention on oral health and its influence on fitness to fight.

This book is an extremely valuable medium through which our traditions and heritage can be shared and preserved. For those interested in developing leadership and management of dental personnel, this history also will serve as a textbook. For policy makers, I expect it will be a reference book to analyze and compare our past experience with today's issues. I challenge dental officers, especially dental commanders, to use this book to illustrate the value of documenting the events and issues of today through records, anecdotes, and written analysis of current operations, so that historians of the future will have an accurate picture of what happened and why. I encourage you to read of our achievements and progress—we have great reason for our pride. However, do not overlook the stories and records that demonstrate our challenges and sometimes failure. There are ample anecdotes, both inspiring and discouraging, to keep the military dental community on its game.

Although I have the privilege of launching this publication, it should be recognized that it was the vision and support of MG Thomas R Tempel, MG John J Cuddy, and MG Patrick D Sculley that contributed the resources and encouraged the interest needed for such a monumental task. On behalf of the Dental Corps, I especially extend thanks to the authors, Doctors Hyson and Whitehorne, for their meticulously researched account. No thread was overlooked in their very successful quest to weave a definitive history. Certainly we should acknowledge the untiring efforts of Dr John Greenwood at the Center for Military Medical History of the Office of the Surgeon General and COL Martha Lenhart at the Borden Institute. I offer my heartfelt congratulations for their efforts in concluding this masterful work. And finally, I would like to thank my friend, COL John King, who, for the past twenty-five years, has been the unofficial "Dental Corps Historian" and driving force behind capturing and publishing our history.

Major General Joseph Webb
Deputy Surgeon General
US Army

Washington, DC
September, 2006

Preface

As the 25th Chief of the US Army Dental Corps, it is my distinct honor and tremendous privilege to join Major General Joseph G Webb, Jr, in introducing this comprehensive, descriptive look at the fascinating evolution of the art and science of dentistry, titled *A History of Dentistry in the US Army to World War II*. The publication of this book is an obvious labor of love that comes after many years of hard work and effort on the part of many, but especially the authors, John Hyson, Jr, DDS; Joseph Whitehorne, PhD; and John Greenwood, PhD.

This publication pays tribute to those who laid the foundation on which the dental profession is built. It documents the origins of dentistry in the Army and depicts the close relationship between organized dentistry and the founding of the US Army Dental Corps. It fills a void in the literature concerning the importance of establishing, sustaining, and continually transforming the dental profession in our military. It was only through close cooperation and mutual support between civilian dental organizations and the US Army Dental Corps that the dental profession was able to mature and flourish over time. We owe a great debt of gratitude to those involved in civilian dentistry for their many inventions and innovations, from the use of anesthesia for surgical procedures to the ability to use teeth for postmortem identification.

Oral health plays an integral part in the overall general health of individuals, and the dental profession is an integral part of the overall healthcare profession. Current research on how oral health—or, more importantly, poor oral health—can negatively affect the overall well being of an individual only strengthens the importance of the dental profession. The extreme value of good oral health is documented in this publication, from early critical soldier skills of opening wooden gunpowder tubes and grenade fuses, to ripping paper cartridge pouches with opposing teeth in order to load gunpowder into the muzzle of a musket. Also noted is the importance of having a healthy maxillofacial substructure for proper protective mask fit, as well as the potential it provides for a better postsurgical outcome for reconstruction of facial injuries from war wounds.

Knowledge of history provides us a means to better understand the challenges of the present, and to set the best conditions for the future. I challenge all dental providers, military and civilian, to read, enjoy, and learn from this publication. It is important to recognize that what transpires within the healthcare of the military during a given period is representative of the overall state of healthcare systems of the nation during that time. Such a relationship is a valuable tool in understanding the evolution of national healthcare. This perspective of history will be of interest to everyone.

As Major General Webb, Jr, points out, many of my predecessors were influential in initiating and sustaining the effort to bring this publication to fruition. My sincere gratitude goes to them, the authors, and to all others who contributed to this publication. I especially want to thank those who had a part in our history: our former Corps Chiefs, general officers, officers, noncommissioned officers, enlisted soldiers, and civilians who are the inspiration for this book. Special thanks to the Center for Military Medical History of the Office of The Surgeon General

and Colonel Martha Lenhart at the Borden Institute for assuring this work is published, and to Colonel (RET) John King who served as the unofficial Dental Corps historian throughout much of his career.

Major General Russell J. Czerw
Chief, Dental Corps
US Army

*Fort Sam Houston, Texas
October 2008*

Introduction

This is an account of the many American dentists both in and out of uniform who believed fervently that their profession could contribute significantly to the health and readiness of the American soldier. After the years of struggle that are well documented in this book, initial success was achieved on February 2, 1901, when Congress authorized the employment of 30 contract dental surgeons for the US Army. During this long struggle, the American dental profession, its journals, and its most influential professional associations (the National Dental Association and its successor, the American Dental Association), were ever present in the halls of Congress, the War Department, and the Office of The Surgeon General promoting the cause and the benefits of modern dentistry for soldiers of the US Army. The years between 1901 and 1911 were marked by the constant efforts of those both inside and outside the Army to create a Dental Corps of commissioned officers. Despite repeated setbacks, John Sayre Marshall, the senior supervising and examining contract dental surgeon during these years, never waned in his efforts to secure a commissioned dental service.

While John Marshall most definitely earned his title as the father of the US Army Dental Corps, Robert T Oliver, another of the original three supervising and examining contract dental surgeons, led the Dental Corps through some of its most demanding times on the battlefields of France while serving as the chief dental surgeon for the American Expeditionary Forces during World War I. It was in the trenches of the Western Front that the officers and enlisted technicians of the Dental Corps won the respect and admiration of their medical department colleagues, the commanders they served, and the soldiers they cared for. As chief of the Dental Division in the surgeon general's office, Oliver oversaw some very significant developments for the Dental Corps during the most difficult years of postwar retrenchment and reductions, late 1919 to mid-1924. While trying years in many respects, the 1920s and 1930s were also years of significant professional growth and maturity. For the first time in peace, Dental Corps officers were fully integrated into medical department field training at the new Medical Field Service School at Carlisle Barracks, Pennsylvania. In addition, the opening of the Army Dental School in Washington, DC, in 1922 allowed the Dental Corps to create its own professional education and development program that greatly enhanced the technical and clinical skills of the Army's dentists and the quality of their service. The hard years of the Depression steeled the dental officers and enlisted dental technicians for the enormous challenges that another world war would bring.

The origins of this volume can be traced to October 1998 when I joined the Office of The Surgeon General, US Army/Headquarters, US Army Medical Command, as the chief of its new Office of Medical History. During my initial meeting with Major General John J Cuddy, then the deputy surgeon general and Dental Corps chief, he expressed his desire to someday see published a comprehensive history of the US Army Dental Corps. With his support and that of his successor in both positions, Major General Patrick D Sculley, my office was able to contract with John M Hyson, Jr, DDS, and Joseph WA Whitehorne, PhD, to research and write a history of dentistry in the US Army from its origins to the beginning of

World War II. John Hyson and Joe Whitehorne had worked on previous projects together, and both of them had proven records as authors.

The manuscript that John and Joe produced was based on extensive original research that John had undertaken during the 1980s and 1990s in the records of the US Army and the Office of the Surgeon General, US Army, in the main building of the National Archives and Records Administration in Washington, DC, and those then located at the Washington National Record Center at Suitland, Maryland (subsequently moved to Archives II at College Park, Maryland). After review by personnel at the US Army Dental Command at Fort Sam Houston, Texas, the now retired Major General Pat Sculley reviewed the entire manuscript and met with John to provide additional comments and recommendations. Based on these comments, John and Joe revised the manuscript and submitted it to my office in October 2005.

Early in 2006, I began my review of the manuscript and realized that additional textual material was needed to fill gaps in the narrative and make the final volume more pertinent to the current members of the Dental Corps, historians, and the general public. In this process, I have relied heavily upon the generous support of Colonel John King, US Army Dental Corps, retired, himself a historian of the Dental Corps in the Vietnam era. He has provided candid and expert advice and professional perspectives that have allowed me to enhance this volume. Using the copious documentation that John and Joe provided from their work and additional research, I have added to their text and produced a more comprehensive coverage of the events and personalities that have shaped the history of dentistry in the US Army and the Dental Corps after its establishment on March 3, 1911.

Without the exceptional work of John Hyson and Joe Whitehorne, this volume would not have been possible. In addition, I wish to thank Ms Emily Court, Ms Yvette White, and Mr Patrick Walz of the Armed Forces Medical Library for their unstinting and always smiling support in handling my numerous interlibrary loans requests for obscure dental publications. Ms Lisa Wagner and Mr William Edmondson, the Office of Medical History's archivists, did exceptional work in tracking down even more documents for me in the National Archives and Records Administration II at College Park, Maryland, that have added substantial and important details to the this story.

To Colonel Martha Lenhart, MC, director of the Borden Institute, and Colonel Dave E Lounsbury, MC, her predecessor, go my appreciation for their patience and support during the seemingly endless revision and writing process. Equally, Ms Joan Redding and the editorial staff at the Borden Institute deserve much credit for the creation of another exceptional volume.

Finally, my appreciation gratitude must be extended to Major General Joseph G Webb, Jr, the recently retired deputy surgeon general and chief, Dental Corps, who continued, in the tradition of his predecessors, to support and encourage the completion and publication of this volume.

John T. Greenwood, PhD
Chief, Office of Medical History 1998–2007
Headquarters, US Army Medical Command

Annandale, Virginia
September 2008