

# Arthur E. Guedel Memorial Anesthesia Center



*The Guedel Center*

*The Center offers an outstanding collection of rare and contemporary anesthesia literature, audiotape and videotape resources, as well as the ability to research specialized topics.*

## Obituary of William B. Neff, M.D., FFARCS

1905-1997

*By Selma Harrison Calmes, M.D.*

**W**illiam "Bill" Neff, founder of the California Society of Anesthesiologists and of CSA's Guedel Memorial Center in San Francisco, died September 26, 1997, after a long illness. He was previously chair of anesthesiology at Stanford Medical School; he wrote the first paper on cyclopropane; and he introduced "balanced" anesthesia. His death marks the end of California anesthesia's ties to the development of modern anesthesia centered at the University of Wisconsin under Dr. Ralph Waters.

Dr. Neff was born in Philadelphia in 1905. He received his M.D. degree from Hahnemann University, a homeopathic medical school, in 1930. Harold Griffith, who introduced curare to clinical practice, was also a Hahnemann graduate and was then Medical Superintendent of the Queen Elizabeth Hospital in Montreal. A Philadelphia friend suggested that Neff seek his internship at

## Guedel—Cont'd

Griffith's hospital. At the time Neff had no idea that he would enter anesthesiology, which was just becoming a specialty. During his rotating internship, he was exposed to anesthesiology and introduced to Griffith, and made the decision to seek further training in anesthesia. He subsequently began a residency under Dr. Griffith.

The Anesthesia Travel Club (founded by John Lundy in 1929) had its annual meeting in Montreal that year. At one of the dinners, Neff sat next to Ralph Waters of the University of Wisconsin, who was then developing what was to be considered the best academic anesthesia program in the world. Waters spoke to the young resident about his program, which emphasized the physiology and pharmacology of anesthesia, and Neff decided that that was where he wanted to train. He was a resident at Wisconsin from 1932-34. The newly discovered anesthetic cyclopropane was being studied at Wisconsin. Residents often were assigned research projects, and he and another resident were given cyclopropane as their project. Neff was second author of the first paper on clinical use of cyclopropane.<sup>1</sup> The first author was the other resident, J.A. Stiles. Unusual by today's standards, Emery Rovenstine and Ralph Waters were the other authors. Indeed, Waters gave lots of credit to residents!



**Dr. Calmes**

**N**eff then entered private practice in Montreal. Later that year, Richard Foregger of the Foregger Company in New York City called, asking if Neff would consider traveling to the West Coast to demonstrate the use of cyclopropane for thoracic surgery at an upcoming American College of Surgeons meeting in San Francisco. Because cyclopropane was explosive, closed systems were needed for safety. Waters had developed a to-and-fro cannister which was a closed system. Foregger (with Brian Sword) had developed his circle system with a cannister, the prototype of what we use today. Both systems used soda lime for absorption of carbon dioxide and thereby, for the first time, permitted controlled ventilation. As so often is the case today, surgeons at that time tried to blame anesthesia for their surgical problems. More thoracotomies were then becoming possible because of endotracheal tubes and controlled ventilation. However, many patients developed pulmonary infections postoperatively. The surgeons thought that the dust from the soda lime was the cause of these post-thoracotomy infections.

Foregger had hoped that Neff's demonstrations would end that notion—and sell more of his anesthesia machines.

Newly married, Neff took the trip as a honeymoon. His demonstrations were successful and also brought opportunity. The head of surgery at Stanford Medical School, then located in San Francisco, invited Neff to become the next chair of anesthesia when the current chair, Dr. Carolyn Palmer, retired in a year. During this one-year hiatus, Neff headed the Squibb Company's division of anesthetics in New York. Squibb was getting ready to release cyclopropane to the anesthesia market and sought out Neff because of his experience. In New York City, he met Paul Wood, founder of the ASA's Wood Library Museum of Anesthesiology (WLM). He also met Richard Gill, curare researcher. Both events led, eventually, to the Guedel Center.



Dr. Neff

**I**n 1937 Neff arrived at Stanford Medical School. Anesthesia at Stanford was a division of the department of surgery then (commonplace throughout the country at the time) and remained so during Neff's chairmanship. There already existed a tradition of physician anesthesia at Stanford.<sup>2</sup> Medical students in California were required by state law then to give ten anesthetics before graduation. Neff concentrated on teaching them and also began a residency training program. Thoracic anesthesia became a common area of work, as thoracic surgery continued to develop in the Bay Area and presented challenges to physician anesthetists of the time. He often was invited to other hospitals for thoracic cases, and residents always accompanied him for these. However, surgeons continued to be fearful of the explosive risk of cyclopropane.

In 1947, Neff introduced his answer to this problem, a technique of nitrous oxide, oxygen, and intermittent curare and meperidine.<sup>3</sup> This later came to be known as "balanced anesthesia." That year, he also spent several months at Robert MacIntosh's Nuffield Department of Anaesthetics at Oxford. This led to other British ties. William

---

In 1947, Neff introduced his answer to this problem, a technique of nitrous oxide, oxygen, and intermittent curare and meperidine.<sup>3</sup> This later came to be known as "balanced anesthesia."

---

Mushin was invited to Stanford in 1949. Many other visitors followed from other British empire countries. These led to Neff receiving a Fellowship in the Royal College of Surgeons in 1954. Tired of administering the Department and the frequent need to solve interpersonal conflicts, Neff moved at the end of 1950 to private practice at Sequoia Hospital south of San Francisco. There was a brief interlude in the Army. 1954 found him in Germany, where he anesthetized two Nazi war criminals, Karl Doenitz (former commander-in-chief of the Nazi fleet and successor to Adolf Hitler) and Walther Funk (Hitler's economics minister and adviser, later president of the Reichsbank) for urologic surgery. Both were in Spandau Prison serving life sentences. Dr. Neff also had an equipment company to market several of his devices that increased gas flow through circle systems.

**P**erhaps Dr. Neff should be best remembered for being the driving force behind the Guedel Memorial Center in San Francisco. Because of his having met Paul Wood during his time with Squibb in New York City, he realized the importance of preserving anesthesia history and literature. The WLM incorporated in 1952, after the ASA moved to Chicago. When a financial crisis occurred in 1962, western members led by Neff and UCSF pharmacologist Chauncey Leake started advocating for a West Coast location for Wood's collection (which then was being stored in the basement of ASA headquarters in Park Ridge, Illinois). Neff stated at the time that the Park Ridge location would be "burying the WLM in suburbia." He thought more people would come to San Francisco than to a Chicago suburb, and especially since the former Lane Library of Stanford Medical School was empty and available when Stanford Medical School had moved to Palo Alto. An ASA team visited San Francisco, but the Park Ridge project moved ahead anyway.<sup>4</sup>

---

**Neff persisted in his efforts to get a West Coast history of anesthesia and literature center. He enlisted the support of the California Society of Anesthesiologists (CSA), and the Guedel Memorial Center opened in November 1964 on the second floor of a house near the Lane Library.**

---

Neff persisted in his efforts to get a West Coast history of anesthesia and literature center. He enlisted the support of the California Society of Anesthesiologists (CSA), and the Guedel Memorial Center opened in November 1964 on the second floor of a house near the Lane Library. "Guedel" was selected as the name to honor Dr. Arthur Guedel of Los Angeles, who made many important contributions to the practice of anesthesia. The house belonged to the Morf Organization, the billing service used by most anesthesiologists in the

## Guedel—Cont'd

---

Bay Area at that time. The Guedel Memorial Center moved to the Lane Library in December 1973 when it outgrew the house. An additional goal of the Guedel Center became to share anesthesia literature with needy departments and hospitals in other areas of the world. Neff's wide-ranging contacts, including industries related to anesthesia, brought vital financial support and the donation of collections of importance. An important early donation was the Richard Gill curare collection, which came to the Guedel because of Neff's friendship with Richard and Ruth Gill. The Guedel family also donated many items, including the correspondence between Arthur Guedel and Ralph Waters.

Neff was persistent and tenacious in achieving goals for the Guedel Center, and he served as the continual leader until his health no longer permitted such. During his active years, he sought out young people to interest and share his memories of the early leaders of anesthesia and medicine in the state. There were many entertaining stories over the years, and how I wish I had written more of them down! The Guedel Memorial Center continues to grow and thrive, meanwhile moving into the present with various projects such as making the catalog available on-line and accessible to other institutions and an upcoming web page. Donations in memory of Dr. Neff can be sent to the Guedel Memorial Center, 2395 Sacramento Street, P.O. Box 7999, San Francisco, CA 94120. Dr. Neff's wife Mae died previously. His surviving children are Ralph Neff of Kelseyville, California, and Kathleen "Kitsey" Menifee of Sunnyvale, California.

1. Stiles JA, Neff WB, Rovenstine EA and Waters RM. Cyclopropane as an anesthetic agent; a preliminary clinical trial. *Anes Analg* 13:56-60, 1934.
2. For more on this situation, see Calmes SH: The women physician anesthetists of San Francisco, 1897-1940: The legacy of Dr. Mary Botsford (1865-1939). In Atkinson RS and TB Boulton eds: *The History of Anaesthesia* (The Royal Society of Medicine Services, London) 1989, pp 547-550.
3. Neff WB, Mayer EC, Perales M. Nitrous oxide and oxygen with curare relaxation. *Calif Med* 1947; 66:67.
4. For more on the relation between the Guedel and the WLM, see Calmes SH. The past relation between the CSA, the WLM and the Guedel Center. *CSA Bulletin*, Jan-Feb 1993, pp 9-11.

*In addition to the references listed above, other sources used for this obituary were the William B. Neff Archives at the Guedel Memorial Center, a Living History videotape of Dr. Neff at the WLM, an article by Leslie Rendell-Baker (Unsung Heroes of Anesthesia: Dennis E. Jackson, William B. Neff, Robert A. Hingson. Anes Hist Assoc Newsletter. 1994; 12:8-11), and my own memories of Dr. Neff over the last 15 years. Librarians Doug Varner at the Guedel Center and Patrick Sim at the WLM provided very helpful support.*