

## Who's Who in Orthopedics

surgery in that he regarded scientific research to be the handmaid of practice. In particular he clarified our knowledge of joint disease. He made a lasting contribution towards medical education whereby preliminary instruction in the arts and professional training were greatly improved. By his advocacy of reform of the Royal College of Surgeons, he helped to raise its status as a governing body and enhanced the quality of those whom it approved to practice surgery.

For the last few years of his life he suffered from double cataract, for the relief of which Sir William Bowman operated. In July 1862, he began to complain of pain in his right shoulder, caused by malignant disease; he died on October 21. Twenty-eight years before, he had fallen from a pony and dislocated this joint. Lady Brodie had passed away the previous year.

### References

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## Gurdon BUCK

1807–1877

Gurdon Buck was a New Yorker, born on Fulton Street. His father was a prominent merchant. After graduating from the Nelson Classical School, he entered the College of Physicians and Surgeons, from which he obtained his medical degree in 1830. After serving as an intern on the medical service of New York Hospital for 8 months, he went to Europe for further training. He studied in the continental clinics of Berlin, Paris, and Vienna for 2.5 years before returning to New York. Shortly after his return, he went again to Europe where his marriage to Henrietta E. Wolff was celebrated in Geneva. On his return to New York, he was appointed visiting surgeon to the New York Hospital.

Eight years later, he described osteotomy in a classic paper: "The knee-joint ankylosed at a right angle—restored nearly to a straight position after the excision of a wedge-shaped portion of bone, consisting of the patella, condyles, and articular surface of the tibia."<sup>1</sup> In 1848 he described Buck's fascia, a continuation of Colles fascia onto the penis.

Gurdon Buck, working at the New York Hospital, devised a simple traction system using either the elastic material or adhesive strips attached to a pulley apparatus. Because of its simple construction and easy application, the method won immediate worldwide acceptance. This was due in part to the fact that shortly after its presentation at the New York Academy of Medicine on March 20 and April 17, 1861 and its

publication in the Academy's *Transactions*, it was used extensively in the American Civil War. In military affairs, wars always are an invitation to observers from foreign services. The simplicity and effectiveness of Buck's traction very quickly entered into European and subsequently world-wide use. Today, over 100 years after its presentation, Buck's traction, whether attached to adhesive strips, moleskin, foam rubber strips or Steinmann nails, is still the most frequently employed apparatus to be found in civilian or armed service hospitals. Buck's title refers to fractures of the femur because he used it first in such cases. It was shortly used in fractures of other long bones, especially tibia and humerus. It must be noted that the conception of pulley traction was first presented by Guy de Chauliac of the University of Montpellier in the fourteenth century. The concept of sustained pulley traction was of course a great contribution to fracture management. However, Guy's splints and bandages were so cumbersome that there is little evidence in surgical literature of his system being used until Gurdon Buck devised his workable apparatus 400 years later.

Gurdon Buck was one of the most prolific and imaginative surgeons of the New York school of the mid-nineteenth century and his important contributions covered many fields. His other contributions, as important as they were in his time, have become stepping stones to further advance, but *Buck's Traction* remains very much part of contemporary orthopedics and traumatology. He also was known for his charitable activities. Two of his sons followed him into the medical profession.

### Reference

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## Sterling BUNNELL

1882–1957

Dr. Bunnell was born in San Francisco in 1882, the son of James Sterling Bunnell and Catherine Mapes Bunnell. The beginning of his scientific endeavors came early. At the age of 6 years, he was starting to probe into the mysteries of animal life and this intense interest led him deeper into the field of anatomy and the natural sciences as he grew into manhood. His accomplishments in this field alone were outstanding.

Entering the University of California, he obtained his academic degree in 1904 and his medical degree in 1908. For a time thereafter, he was associated with the University but later entered private practice in San Francisco, where he was to remain throughout his lifetime.

Early in his medical career he recognized the undeveloped state of extremity surgery and was soon deeply engaged in extremity surgical problems in the laboratory, where he carried out extensive experimental work on tendon and nerve sutures and grafts and on skeletal structures and joints. The basic facts thus learned were to be used later in restoring function to vast numbers of human crippled extremities.

During World War I, Dr. Bunnell served as a medical officer in the United States Army from May 1917 to March 1919, holding the rank of Captain. He was associated with Base Hospital No. 47, and saw action in France while a member of Operating Team 101. During this time, he developed a keen interest in aviation, and, on his return to San Francisco, he piloted his own plane,