

VF G. V. BLACK 1836-1915

G. V. Black—An Oral Surgeon

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Most dentists, even now, link G. V. Black only with cavity preparations. He accomplished so much more for dentistry. A dental historian now tells of Black's contribution to oral surgery—circumferential wiring of a fractured mandible. Truly, G. V. Black was a most remarkable man. His name, along with Gies and Miller, will live long in dental memories.

G. V. Black—An Oral Surgeon

RALPH W. EDWARDS, D.D.S.

GREENE VARDIMAN BLACK (1836-1915) was a remarkable man whose life was strikingly similar to that of the 18th century physician John Hunter. Both were talented, aggressive, and resourceful. Both possessed ingenuity and natural aptitudes. Both abhorred the drudgery of farm work, and displayed an aversion to formal education. They had extraordinary powers of observation, and learned by studying nature—trees, plants, streams, animals, sky, clouds, weather. Each made unusual contributions to his profession. Like Hunter, Black was a genius.

Contemporaries of Black reveal that he had the mind of a Darwin, yet his formal education totaled 20 months obtained in a three year period of his youth. Later, after studying medicine for a year with his oldest brother, he was attracted to dentistry because of the opportunity to employ his skills in manual dexterity. Not many dental schools were in existence at that time (the nearest was at Cincinnati), so Black served a preceptorship with a dental practitioner.

Then in 1857, at the age of 21, he began the practice of dentistry, and developed a career that brought him international fame as a practitioner, researcher, teacher, and administrator. Through neces-

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sity he was compelled to find solutions to problems that constantly arose in his practice, and his investigations involved every branch of dentistry, including surgery.

A perusal of his bibliography shows that he wrote very sparingly on the subject of oral surgery, yet his contributions in that field are of unusual merit. His skill in surgery was such that David Prince, an eminent Chicago surgeon, depended upon Black to care for his jaw fracture patients. Refinements in cleft palate surgery and facial plastics were suggested to Prince by Black, yet he never claimed credit for them.



Figure 1. One of the forty illustrations made by G. V. Black for Gilmer's paper. Herein is shown Black's technique for the reduction and fixation of a compound fracture of the mandible. A reinforced gutta percha or vulcanite splint was used to cover the teeth. Later, this principle was applied to the fracture of an edentulous mandible, using the denture as a splint.

the mouth at the site of the fracture, encircling the line of fracture. The ligature was tightened to hold the fragments securely, and fastened above a molar tooth.

It is unlikely that Black was aware of this publication, for 40 years later he developed a method of reduction and fixation of a fractured mandible by wire encirclement using a splint for alignment and stabilization.

Thomas L. Gilmer, of Quincy, Illinois, was a protege of Black, and was one of many who had been helped by this illustrious man. Early in 1881, Black suggested that Gilmer present a paper on oral surgery

Perhaps the greatest contribution of G. V. Black to oral surgery was circumferential wiring for the reduction and fixation of a fractured mandible. The principle of circumferential wiring of a fractured mandible was first introduced by Jean Baptiste Baudens, who, in 1840, employed a ligature of six to eight linen threads to stabilize an oblique fracture of the body of the mandible. This was accomplished by introducing the ligature with a needle from below on the medial and lateral surfaces of the mandible into

at the forthcoming meeting of the Illinois State Dental Society. Realizing his limitations, Gilmer was reluctant to do this since he felt that such a presentation would be ineffective without suitable illustrations to accompany it. With characteristic generosity, Black offered to make the illustrations, and within a few weeks had finished 40 drawings for the paper. Among the drawings was one showing a method of stabilizing a fractured mandible by the use of a splint and silver or platinum wires (Figure 1).

On May 11, 1881, Gilmer presented his paper on "Fractures of the Inferior Maxilla" at the 17th annual meeting of the Illinois State Dental Society. In this lengthy paper he discussed the problems and methods of treatment of mandibular fractures, and introduced Black's method of "wiring around the bone." This method was for multiple compound fractures of the *dentate* mandible, and consisted of a reinforced gutta percha or vulcanite splint adapted to the occlusal surfaces of the lower teeth and held firmly by the encircling wires. Gilmer gave full credit to Black when he stated: "The method of wiring around the bone was first suggested and successfully used by Dr. G. V. Black, Jacksonville, Illinois."

Eventually this method developed by Black was applied to fractures of the *edentulous* mandible, using the patient's denture as a splint for reduction and fixation of the fracture.

Gilmer lamented the fact that "in the treatment of fractures of the lower jaw by splinting, when the mouth is toothless, I must confess I am not equal to the occasion, unless the patients have artificial teeth." Gilmer then would utilize the upper and lower dentures, obtaining casts and occlusal relationship from them, and construct a splint similar to a Gunning splint, depending on a skull cap and chin support to stabilize the splint. It is ironic that Gilmer did not recognize the possibility of using a lower denture as a splint in a fracture of an edentulous mandible, and utilize Black's technique of circumferential wiring.

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The following is a summary of the findings of the study. The results of the study are as follows: The study was conducted in a hospital setting. The subjects were patients who had been admitted to the hospital for a period of at least 24 hours. The study was conducted over a period of 12 weeks. The results of the study are as follows: The study was conducted in a hospital setting. The subjects were patients who had been admitted to the hospital for a period of at least 24 hours. The study was conducted over a period of 12 weeks. The results of the study are as follows:

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