SIGNAL CORPS ASSOCIATION
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ALBERT JAMES MYER: ARMY PHYSICIAN AND CLIMATOLOGIST

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Gentlemen: I am deeply grateful and also very impressed by the privilege accorded me in election to membership in this distinguished society.

Some years ago General Heaton, then the Army Surgeon General, asked me to gather for him some information about General Leonard Wood, the only medical officer to have held the position of Chief of Staff, the Army's highest military command. This revived an interest on my part in the non-medical accomplishments of other Army medical officers. It is not widely known that 33 physicians in the Civil War attained general officer rank while serving in non-medical capacities.[1] One of these was Albert James Myer, a physician who became the Army's first Chief Signal Officer and the founder of what later became the U. S. Weather Bureau. Doctor Myer was a pioneer climatologist and an account of his career seemed an appropriate topic for presentation before this Association. I was stationed at Walter Reed General Hospital at the time and on many occasions had visited Fort Myer, adjoining Arlington National Cemetery and named for the General. Additionally, I had learned that the most knowledgeable authority on General Myer, a historian of the now defunct Army Signal Corps Historical Division, resided in the Washington area. He is Dr. Paul Joseph Scheips, a historian in the office of the Chief of Military History, Department of the Army. General Myer's career was the subject of Doctor Scheips's doctoral thesis at the American University which he very generously permitted me to peruse.[2] A briefer recounting of General Myer's career was published by Doctor George M. Kober in the July 1929 issue of *Military*

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Medicine.[3] Doctor Kober was himself a medical corpsman at one time and recorded weather observations at the Station Hospital, Carlisle Barracks, Pennsylvania.

Albert James Myer was born on 20 September 1828 at Newburgh, New York, the son of Henry Beekman and Eleanor Pope Myer. His father was a jeweler, and an inventor who held a patent for a sleeping car folding berth which came to be owned eventually by the Pullman Palace Car Company. This became a source of income and of some legal headaches for General Myer, who was himself to patent (№216,440, 10 June 1879) a "do-it-yourself" weather kit for isolated farmers and stockmen which contained, with instructions for their use in predicting the weather, a barometer, wind disk and dials, sunset disk and wet-and-dry-bulb thermometers.

Myer's mother died while he was very young, and he was brought up by a devoted aunt, Serena McClanan. They moved to Buffalo, New York when he was about seven years old. His education included the Latin and Greek classics, in addition to mathematics, physics and astronomy. He was admitted to Geneva (later Hobart) College in 1842 at the tender age of 14 years. His expenses for the year, provided by his aunt (and later repaid several fold), totaled $150.00 including $20.00 for tuition.

After graduation from Geneva College in 1847 young Myer studied medicine in Buffalo. Here he established life-long relationships with two eminent practitioners, Frank Hastings Hamilton, a surgeon, and Austin Flint, Sr., a distinguished founding member of this association, both of whom later joined the faculty at Bellevue Hospital in New York City. Myer also attended lectures at the University of Buffalo Medical School, and received his degree in medicine from that school on 26 February 1851.

While pursuing his medical studies Myer worked as a telegraph operator for the New York State Telegraph Company. It is not surprising that his doctoral thesis was entitled "A new sign language for deaf mutes," based upon finger-tap transmission of the Bain dot-dash system. This was published in the *Buffalo Medical Journal* and as a separate publication.

Myer apparently had decided upon a military career from the time of his graduation, but in September 1851 he had an episode of hemoptysis which, according to Doctor Flint, was possibly due to a "slight deposit of tuberculosis matter" and for which four months of rest were prescribed. Following this, for a total period of nearly two years, Doctor Myer served as a plantation physician, in South Carolina and later near Tallahassee, Florida.

Practice in rural Florida consisted of just about everything except obstetrics, which evidently was handled by local midwives. Myer's patients were mostly slaves for whom, according to a record the young doctor kept, the plantation owners were billed as follows: daytime visit $1.00, night visit $2.00, all night visit $10.00, blistering $0.50, venesection $1.00, catheterization $1.00, major dressing $2.00, enema $0.50 and consultation (very infrequently) $10.00. Medications (colocynth, calomel, hyoscyamus, quinine, digitalis, laudanum) varied from $0.50 to $1.50. The highest bill rendered was for $45.00 for the care of two slaves with syphilis (stage not specified).

In January 1854 Myer took the examination for the Army Medical Corps, which he passed, ranking fourth out of twenty-four candidates. On his twenty-sixth birthday, 20 September 1854, the Army notified him of his appointment as an assistant surgeon.

Myer's military career commenced on 4 October 1854, at Governor's Island, New York, where he was assigned to accompany two hundred recruits by water to Corpus Christi, Texas. It is likely that this photograph (Fig. 1) of Myer was posed in a studio shortly prior to this voyage. From Corpus Christi, where he arrived on 10 November, Myer marched with the detachment via Laredo to Fort Duncan, located at Eagle Pass on the Rio Grande opposite the Mexican town of Piedras Negras. In January 1855, with an escort joined by two Texas Rangers, he travelled through Comanche Indian territory to Fort Davis, established less than a year previously to guard the main route of travel between San Antonio and El Paso and named for the then Secretary of War Jefferson Davis.

Myer remained in Texas until August 1857. A garrison there in his day might have about 15 officers and 200 to 350 enlisted men organized into four to six companies. The hospital at Fort Duncan was a stone building with a shingled roof, while at Fort Davis it was a large tent. Myer's letters (mostly to his future brother-in-law, James Walden) and journals do not convey much information about medical matters in the local commands. There were the usual camp sicknesses—respiratory infections and gastrointestinal upsets—plus the expected results of encounters with the Comanches and Mescalero Apaches who were apparently unremittant and unexcelled horse thieves. There is no recounting of heroic major surgery, though Myer did perform at least one amputation. Also, he documented the loss (by April 1855) of surprisingly few (three) patients.

One problem which affected troops in the area, due to a lack of fresh vegetables and fruits, was scurvy. An earlier Army officer, Assistant Surgeon Glober Perin had reported from nearby Fort McIntosh that the

FIG. 1. Photograph of Albert James Myer taken at about the time he was commissioned in the Army Medical Department, 1854.

juice of the maguey cactus (source of tequila) was better than lime juice. This was apparently unknown to Myer.

Myer himself became seriously ill over a period of 2 months to the point that he thought he might die, with chills, high fever, upper respiratory symptoms, hemoptysis, and other bleeding tendencies. He documented this illness as "intermittent fever" and scurvy. The duration of the illness, and his ability to go back to duty so quickly afterward, suggests that a recrudescence of tuberculosis was unlikely. One is tempted to wonder if he might have contracted a primary coccidioidomycotic infection, which is now known to be prevalent in the area. In any case, Myer had fully recovered by August 1855.

Doctor Myer was not insensitive to other problems during his three year tour in Texas. He was concerned about the difficulty in securing and retaining trustworthy and competent hospital stewards, and their lack of sufficient rank to enable them to carry out their responsibilities for taking care of and maintaining discipline among the patients. The latter were representative of the troops whom he had characterized on the march from Corpus Christi as a "mere rabble." Assistant Surgeon Myer protested not only locally but also in correspondence (1856) with the Surgeon General. His efforts probably contributed to the subsequent action of the Surgeon General in establishing a corps of hospital stewards "with the rank, pay and emoluments" of ordnance sergeants, to be attached permanently "to the medical and hospital department" but, alas, "not to exceed one for each military post."

Myer complained about the slow delivery of medical supplies and questioned the legality of his treating civilians. He particularly objected to providing free medical examinations for them because he viewed his professional knowledge as his private property, except insofar as the Army itself had a claim. Also, even in those early days, he feared liability for damages that might result from treating non-military patients.

Dating from the tenure of Surgeon General Lovell (1818–1824), Army post surgeons had been required to record daily weather observations, including temperature ranges, hygrometer and rain-gauge readings, wind direction and velocity and a general description of the weather. These were forwarded monthly to the Surgeon General. Doctor Myer carried out these duties while in Texas, but there is no evidence that he had any special interest in weather reporting at that time.

On the other hand, while at Fort Duncan in October 1856, Myer proposed in a letter to Secretary of War Jefferson Davis a system of visual signal communication (using a flag by day and a torch at night), which incorporated his own earlier experience as a telegrapher. Secre-

tary Davis shelved the proposal but his successor, Secretary Floyd, and the Congress showed more interest.

In March 1857 Myer applied for, and in June received permission to return east. Two months later, at Lake View, N.Y., he married Kate Walden, daughter of a prominent Buffalo jurist. Following the judge's death a few months later, Myer became the principal executor of a very considerable estate.

Myer remained in the east, on a variety of assignments, while Secretary of War Floyd considered the adoption of his proposed signaling system. Colonel Joseph G. Totten, then Chief of Army Engineers, favored the proposal and in March 1859 a board headed by Lieutenant Colonel Robert E. Lee convened to study the problem. Further field trials were recommended, which Myer carried out at Fort Monroe, Virginia, and in the New York harbor area, with an expense account limited to $150.00. He devised a two-element code with which it was possible to send one-word-a-minute messages from Fort Jay to Fort Wadsworth, using flags in the daytime and torches at night.

During this time Myer continued to perform some medical duties and in September 1859 received a pay increase that also carried the assimilated rank of Captain. However, his principal duties continued to be in the field of signal communication.

On 27 June 1860 Myer was appointed Signal Officer of the Army with the rank of major and served in both that capacity and as McClellan's signal officer in the Army of the Potomac until October 1862, when he relinquished the latter post and thereafter directed Signal Corps affairs from Washington. In April 1863 he was appointed Colonel and Chief Signal Officer. However, Secretary of War Stanton relieved Myer in November 1863, in a conflict over the electric telegraph, and in 1864 revoked his promotion. Although still a major, he saw no further active duty until 1867 following restoration to rank and office. That same year he was appointed to the brevet (honorary) rank of brigadier general, but did not receive a regular promotion to that rank until 1880. Meanwhile, in 1864, Myer published the first of several editions of his *Manual of Signals*. By 1879 he had supervised the construction of and was operating over 4,600 miles of military telegraph lines, mostly in the Southwest and Northwest. He also established a signal school at what is now Fort Myer and saw instruction in signals taught at both West Point and Annapolis.

This photograph of Myer (Fig. 2) was taken some time after the Civil War. He designed the insigne which he is wearing, showing an American eagle mounted on a wigwag flag, for the Order of the Signal Corps, a veterans' group organized in 1865, of which he became president.

FIG. 2. Photograph of Major Albert James Myer taken some time after the Civil War showing an insigne of his own design, consisting of the American eagle atop a wigwag flag.

Following the Civil War, while devoting time to visual and other means of communication, Myer developed an increasing interest in meteorology. Along with other medical officers, he had dutifully recorded daily observations of the weather, and forwarded them monthly to the Surgeon General. Now he embarked upon a more ambitious plan, to establish a means of rapidly gathering and assessing weather information, with means for its dissemination, so that it could be used to forewarn farmers and cattlemen, rather than to inform them after the damage had been done. This would also give the Signal Corps a much needed new mission.

In 1869 Myer sought responsibility for issuing weather reports and storm signals, but Secretary of War Belknap rejected these overtures on grounds of a lack of statutory authority. Belknap complied with Myer's wishes, however, when President Grant, in Feburary 1870, approved a joint resolution to establish a storm-warning service, which Representative Paine of Wisconsin had introduced. Myer, who had done his homework well, shortly engaged the services of the able meteorologists Cleveland Abbe of the Astronomical Laboratory of Cincinnati and Increase A. Lapham of Wisconsin. Their goal was to report quickly how a storm was travelling, rather than where it had been and the damage it had wrought.

By 1 November 1871 General Myer had established, apart from the various Army posts, fifty-six weather stations, which reported certain observations thrice daily to the Army in Washington. Broad dissemination of weather reports was guaranteed by their release to the Associated Press.

The key to the success of this enterprise was General Myer's concept, born of his background in telegraphic and other communications, of plotting *simultaneous* observations from all over the country. The first prediction of an unseasonal cold wave occurred in the autumn of 1871, with very tangible savings to landowners. In the ensuing years the Weather Service became responsible for reporting on water levels and flood-danger predictions for the major rivers. Increasingly, the relationship between weather prediction and crop productivity was recognized and received great impetus from the expertise of Professor Abbe. This, together with opposition within the Army to the civil character of the meteorological work, led to the transfer of the Weather Service to the Department of Agriculture in legislation of 1 October 1890, ten years after General Myer's death. Prior to that time, however, General Myer ran a highly successful Weather Service, with predictions whose accuracy can be compared favorably with today's.

General Myer was a delegate to the First International Meteorological Congress in Vienna in 1873, where he effected the adoption of a program for the uniform and simultaneous recording and exchange of weather information, world wide. In 1875, as a consequence, the Weather Service began publication of the *Daily Bulletin of International Simultaneous Meteorological Observations*, which continued until 1884, when it became a monthly publication. Myer wanted to attend the Second International Congress in Rome in April 1879, but was delayed in leaving Washington and arrived in Rome too late to attend the sessions. However, he discussed with the King of Italy the establishment of a weather service in that country.

FIG. 3. Monument unveiled in memory of General Myer at the post bearing his name. (The birth date 1829 is incorrect and should read 1828.)

General Myer's many activities did not prevent an active social life with his wife Kate and their six children. He supplemented his meager military salary with income from his father's patent on the folding sleeping-car berth, and from his father-in-law's estate in Buffalo. After renting for a number of years, Myer built a fine town house in Washington in the late 1870's. There, it is said, he and Kate "dispensed a generous and gracious hospitality." The years brought Myer numerous honors. Among them were an honorary LL.D. degree from Hobart College and an honorary Ph.D. from Union College. He was also an honorary member of a number of scientific societies and a member of at least two historical societies.

There are indications that Myer's health had been deteriorating since 1877 or 1878 and, according to Kober, he had both cardiac and kidney ailments. In early August 1880 he consulted his old friends Frank Hamilton and Austin Flint in New York City. He was informed that he was seriously afflicted with Bright's disease. He took an infrequent period of leave and returned to Buffalo where, on 24 August 1880, his twenty-third wedding anniversary, he died, presumably of uremia, at the age of 51 years. Six months later, on 4 February 1881, Fort Whipple, Virginia, where he had established a signal communications school, was renamed Fort Myer. A monument in his memory (unfortunately bearing 1829 instead of 1828 as the year of his birth) was unveiled there in 1932. (Fig. 3), a gift of Myer's family.

In summary and conclusion. I have recounted the life story of a remarkable person, whose interests and accomplishments ultimately lay elsewhere than in the clinical practice of medicine. Still, it is evident from his correspondence and diaries during the Texas years, that he had a very real concern for his patients, for his inability to do more for them, and for improving the quality of the hospital stewards upon whom the frontier medical officer had to rely. His contributions in the field of communications and, particularly, his pioneering work in weather reporting and prediction, will keep his fame alive.

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