

Walter Reed in Minnesota

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IN THE EARLY SPRING of 1892 all was bustle and commotion in the little town of Browns Valley, between Lakes Traverse and Big Stone on the western boundary of Minnesota. The facilities of the village were taxed to their limit as settlers poured in or camped on its outskirts awaiting the opening of the Lake Traverse Reservation. This portion of the Sisseton and Wahpeton Indian Reservation — nearly six hundred thousand acres of fertile prairie land — was located immediately across the Minnesota border in North and South Dakota. Temporarily, Browns Valley was the gateway to a section of the unsettled West.

Under a presidential proclamation, the reservation was scheduled to open on April 15. To prevent eager land seekers from breaking across the line and attempting to stake claims before that date, the United States Army was called upon for aid. On April 1 Browns Valley took on a military aspect with the arrival of two companies of the Third United States Infantry from Fort Snelling — Company A under Captain John W. Hannay and Company E under Captain Melville C. Wilkinson. A Browns Valley newspaper, in announcing the arrival of the troops, notes that "Surgeon Reid is in charge of the hospital corps, which is fully equipped with ambulance, etc."¹

This cryptic statement proves to be one of the many references in obscure sources to the Minnesota sojourn of Dr. Walter Reed, the distinguished bacteriologist whose name will be forever associated with the conquest of yellow fever. Although his true interests were centered in the laboratory, he helped to guard an unsettled frontier area in the chilly dampness of a Dakota spring. Some idea of the stirring scenes he must have witnessed on that mid-April day

¹ United States Commissioner of Indian Affairs, *Reports*, 1892, p. 81, 728; *Browns Valley Foot Prints*, April 1, 1892. In the fall of 1898 Wilkinson was killed in a skirmish with the Pillager Indians at Leech Lake. See Pauline Wold, "Some Recollections of the Leech Lake Uprising," *ante*, p. 146.

of 1892 is reflected in a contemporary newspaper account. It records that long before noon the bluff which marked the reservation line west of Browns Valley was covered with teams and "positions were at a premium." Finally, "at 12 o'clock sharp the guards fired pistols which was the signal to move on," and this was followed by a "grand stampede and rush." That the soldiers were successful in keeping the peace is evident, for on April 16 the United States Indian agent to the Sisseton wrote gratefully to Captain Wilkinson: "All is well that ends well. The Lake Traverse Reservation is now open. For valuable services of your command you have the thanks of the people. I am now convinced that the U. S. Troops are no longer required at this Reservation."²

Reed's participation in the opening of the Sisseton and Wahpeton lands was only one episode in a long period of service as an army surgeon in the frontier West—a period that occupied some sixteen years of his professional life and took him to no less than fifteen western military posts. In June, 1875, six years after receiving his medical degree, the young Virginian was commissioned an assistant surgeon with the rank of first lieutenant in the United States Army. A year later he was sent to Fort Lowell, Arizona. While he was stationed at Fort Robinson, Nebraska, in 1884, he counted among his patients "Old Jules" Sandoz, the hero of a best-selling biography of the past decade. Under army orders Reed moved from frontier post to frontier post, spending his energies in caring for ailing soldiers and settlers alike, for he was stationed chiefly in sparsely settled areas where physicians were available, if at all, only in connection with the military. According to one biographer, it was in frontier garrisons, in surroundings "unfavorable in opportunities for study and intellectual contacts but rich in experiences calling for initiative and ingenuity," that Reed "laid the foundations for his career as a scientist."³

² *Inter-Lake Tribune* (Browns Valley), April 16, 1892; William McKusick to Captain M. C. Wilkinson, April 16, 1892. The letter is in a volume of Company Letters Received, 1885-1895, p. 117, among the archives of the Third United States Infantry, now in the custody of the Minnesota Historical Society.

³ Howard A. Kelly, *Walter Reed and Yellow Fever*, 67 (New York, 1906); James A. Phalen, "Walter Reed," in *Dictionary of American Biography*, 15:460; Mari Sandoz, *Old Jules*, 43-56 (Boston, 1935).

Eventually, however, Reed began to chafe under the routine of army life and to long for wider horizons and the opportunity for further professional study. In 1890, a decade after he was promoted to the rank of captain, he applied for a leave of absence. His request was not granted, but it led to an order to report to Baltimore, where he became attending surgeon and examiner of recruits, with the privilege of continuing his medical studies in Johns Hopkins University. Reed's years of isolation on the frontier had seen the remarkable discoveries of Pasteur and Koch — discoveries that revolutionized the practice of medicine. Guided by Dr. William Welsh, Reed turned with eagerness to the new field, specializing in bacteriology. But the Baltimore opportunity was of short duration. At the close of a year, in October, 1891, he was ordered to Fort Snelling, then a Midwestern post far removed from centers of scientific study. On November 10 he took up his duties in the hospital of the military post.*

During the nine months that followed, Reed doubtless resided at the fort, for his son, Major General Walter L. Reed, recalls "going to the High School in St. Paul from Fort Snelling for a short period." The records of Central High School of St. Paul indicate that young Reed was enrolled in 1892 and 1893. In August, 1892, Dr. Reed was transferred to St. Paul, where he served for a year as attending surgeon and examiner of recruits on the staff of the commanding general of the Department of Dakota. The headquarters of this military division, which embraced Minnesota, North Dakota, most of South Dakota, Montana, and Fort Yellowstone, Wyoming, were then located in St. Paul, with offices in a building at the north end of the Robert Street Bridge. From the scientist's point of view, the St. Paul post had but a slight advantage over that at Fort Snelling, for the "only laboratory equipment provided consisted of a few test

* Kelly, *Walter Reed*, 63; *Dictionary of American Biography*, 15:460. The exact dates of Reed's service at Fort Snelling and St. Paul were supplied in letters to the writer from Major General J. A. Ulio, adjutant general of the United States, May 18, 1942, and from Miss Laura Wood of Philadelphia, June 23, 1942. Miss Wood, who derived her information from the archives of the surgeon general's office in the National Archives, Washington, is the author of a biography entitled *Walter Reed: Doctor in Uniform* (New York, 1943). See also Department of Dakota, *Roster of Troops*, January, June, September, 1892, January, 1893.

tubes." While he was stationed in St. Paul, Reed lived at the Albion, now the Angus Hotel.⁵

It was during his two years of residence in Minnesota, immediately following the stimulation of a year of study in Baltimore, that Reed's scientific talents began to mature and his researches to bear fruit in the form of publications. His first published work, a paper on erysipilas, appeared in the *Boston Medical and Surgical Journal* in 1892. It was closely followed in the spring of 1893 by his "Remarks on the Cholera Spirillum," which was published in a pioneer Minnesota medical journal, the *Northwestern Lancet* of St. Paul.⁶ Reed's second paper reflects a scientific activity of still another type, for it was prepared as an address and was delivered before the Ramsey County Medical Society on March 27, 1893. In view of the fact that Hamburg and northern Germany were suffering from a serious outbreak of Asiatic cholera, the subject was timely, and the local physicians welcomed an opportunity to hear it discussed by a man of growing reputation as a bacteriologist. They appreciated, too, the advantage of seeing the cultures of cholera bacilli with which the speaker illustrated his remarks. Reed probably obtained the cultures from a colleague in the army medical corps, Colonel George Miller Sternberg, who served as consultant on the disinfection of ships reaching the New York quarantine station during the Hamburg epidemic. He has been given credit for the fact that cholera did not spread in the United States, although the disease did reach its shores. On the day immediately following the St. Paul meeting Reed extended to Sternberg by letter his "heartiest thanks for the cultures which arrived in good shape, a few days ago." There can be little doubt that the reference is to the cholera cultures displayed on March 27 before the meeting of Ramsey County doctors in the Ryan Hotel, St. Paul, with Dr. John F. Fulton presiding. The

⁵ General Walter L. Reed to the writer, April 12, 1942; Department of Dakota, *Roster of Troops*, January, 1892; *St. Paul Directory*, 1893; Dr. Louis B. Wilson, "The Development of Public Health Medicine in Minnesota," in Minnesota Academy of Science, *Proceedings*, 4:9 (1936). Dr. Wilson's article appears also in Staff Meetings of the Mayo Clinic, *Bulletins*, 12:775-783 (December 8, 1937).

⁶ Kelly, *Walter Reed*, 69; M. E. M. Walker, *Pioneers of Public Health*, 220 (New York, 1930); *Northwestern Lancet*, 13:161-164 (May 1, 1893). For a list of Reed's published works, see Wood, *Doctor in Uniform*, 268.

Minnesotans expressed their appreciation at the close of the meeting, when a "vote of thanks was extended to Dr. Reed for his kindness in showing his cultures of cholera bacilli and giving such a clear exposition of the subject."⁷

The meeting had an interesting sequel which was not without importance for the future careers both of Reed and of a member of his audience. Among the fifty-three people who listened to the army surgeon's remarks on Asiatic cholera was a man who had been teaching biology in the St. Paul High School for five years and who was also pursuing his medical studies in the University of Minnesota. He was Louis B. Wilson, who later gained distinction by organizing and developing the laboratories of the Mayo Clinic and by directing the Mayo Foundation. In the course of the evening Dean Perry H. Millard of the university medical school introduced Wilson to Reed, describing the young Minnesotan as "a man who had a laboratory." Dr. Wilson recalls that Reed responded "with what for him was real enthusiasm." The introduction opened up for him an opportunity to work once more in a laboratory and to continue his bacteriological researches, since the St. Paul High School, according to Dr. Wilson, could boast of an "unusually good biological laboratory."⁸

Thereafter Reed "made much use of the high school laboratory." With Dr. Wilson's assistance, he "improvised fairly effective bacteriological apparatus—mostly from gas ovens and boilers inherited from a discontinued Domestic Science Department!" Working with this crude equipment, Dr. Wilson "learned from Doctor Reed the elements of bacteriology." It was largely as a result of this experience that he was chosen to assist Dr. Frank F. Westbrook when, in 1896,

⁷ The record of the meeting at which Reed spoke is to be found in the Minutes of the Ramsey County Medical Society, now preserved in its library in St. Paul. In the *Northwestern Lancet*, 13:161, the meeting is dated March 28, 1893; this is doubtless an error. For Reed's letter to Sternberg, see Martha L. Sternberg, *George Miller Sternberg: A Biography*, 126 (Chicago, 1920). The letter reflects Reed's impatience to devote himself to scientific pursuits. "I should be very glad to give more time to bacteriology," he writes, "but, alas, my dear doctor, when most interested I must stop for practical things, so that I can only do the merest 'dabbling.'" See also James M. Phalen, "George Miller Sternberg," in *Dictionary of American Biography*, 17:592.

⁸ Wilson, in Minnesota Academy of Science, *Proceedings* 4:9; Helen Clapesattle, *The Doctors Mayo*, 442-444, 643 (Minneapolis, 1941). The name of the St. Paul High School later was changed to Central High School.

he became bacteriologist and director of the laboratory of the Minnesota state board of health.

Much of the work accomplished by the two scientists in the simple little high school laboratory related to the "diagnosis of diphtheria from cultures made from swabs of patients' throats"—a procedure newly inaugurated by Dr. William H. Park of New York. Dr. Wilson tells the following story about the joint effort: "Doctor Reed and I got from Doctor Park a sample box, holding two test tubes, one containing a sterile swab and the other a solidified serum culture medium. We went into our own pockets,—in which there was very little money!—for funds to have made for us at a local box factory one hundred boxes for diphtheria culture outfits. These we distributed to several physicians in St. Paul asking as a favor that swabs from throats of cases of suspected diphtheria be sent to us." Dr. Wilson believes that the work he and Dr. Reed did on the cultures thus obtained represents the "first attempt at the examination of throat cultures for *Bacillus diphtheriae* west of New York." It is significant that immediately after Reed was transferred to Washington in the autumn of 1893, his interests centered about the study of diphtheria and its treatment. Early in 1894 he was invited to participate in a discussion before the Medical Society of the District of Columbia on the "Prevention and Control of Diphtheria."⁹

Reed's year of military service in St. Paul came to a close on August 31, 1893, after he had received an appointment as curator of the Army Medical Museum and professor of bacteriology in the newly organized Army Medical School in Washington. For the opportunity to devote his energies to science, Reed was indebted to his friend Dr. Sternberg, who was named surgeon general of the United States Army in the spring of 1893. Reed's enthusiastic approval of the choice is reflected in a letter from St. Paul, addressed to Sternberg on May 30, 1893. After congratulating him upon his appointment, Reed continues: "When I think that it places at the head of the [medical] corps the one man who preeminently stands

⁹ Wilson, in Minnesota Academy of Science, *Proceedings*, 4:9, 10; Kelly, *Walter Reed*, 70. Dr. John M. Armstrong of St. Paul, who attended Central High School in the early 1890's, knew Reed and his son, and can recall the bacteriologist's work in the school laboratory.

forth as the representative of progressive scientific medicine and that it means that the fossil age has passed, I have an irresistible desire to toss my very hat in the air."¹⁰

After removing to Washington, Reed was advanced in military rank to major and surgeon. The nine years that elapsed before his untimely death in 1902 were marked by monumental discoveries leading to the control of typhoid and yellow fever. Today the results of his work in the interest of public health are increasing the efficiency and easing the lot of millions of Americans engaged in tropical warfare. That Reed's two years of service in Minnesota have been almost completely overlooked by his biographers is somewhat surprising, for they were anything but unimportant from the scientific viewpoint.¹¹ With his year of intensive study in Baltimore, they served as an interlude between his frontier experience and his great period of scientific productivity.

¹⁰ Sternberg, *George Miller Sternberg*, 131.

¹¹ Dr. Kelly, in his *Walter Reed*, 67, passes over this period in Reed's career with the comment that "In October, 1891, Reed was sent to Dakota [*sic*], and remained there until 1893." Miss Wood devotes part of a chapter to the main outlines of the Minnesota episode. See her *Doctor in Uniform*, 150-154.



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