

Cholera on the Plains: The Epidemic of 1867 in Kansas

RAMON POWERS and GENE YOUNGER

ON A FEW maps the Kansas plains were still labeled the "Great American Desert," but by 1867 the region was alive with activity. To overcome the unfortunate stigma of having a large part of its area designated as uninhabitable, Kansas encouraged settlers and visitors from the East. One such group was an excursion party of prominent men who had never seen the heart of the Republic. These "wealthy and intelligent merchants" traveled through western Kansas in the spring of 1867.¹ In that same year the Union Pacific Railroad, Eastern Division (later, the Kansas Pacific), was forging across the state toward Denver.

In response to these intrusions into their hunting preserve and the government's avowed desire to place them on reservations, the Indians attacked the railroad's grading parties. During the summer of 1867 they also raided some of the stage stations along the Butterfield Trail in western Kansas. Communications through that area of the state often were cut for brief periods of time.

The United States army was particularly active on the Plains in 1867 in an attempt to protect the railroad and settlers and force the Indians to submit to the reservation policy. Gen. Winfield Scott Hancock took six companies of infantry and artillery onto the Plains in the spring of 1867. He was joined by Lt. George Armstrong Custer with four companies of Seventh cavalry and one infantry company. In addition to these regular troops, the state of Kansas organized a regiment to join in fighting the Indians. Complicating these problems encountered by the railroad and the army in subduing the Indians was a great flood which occurred in June, 1867.

These events were overshadowed, however, by a great cholera epidemic which swept from east to west across Kansas, striking at army posts and communities along the transportation corridors

RAMON POWERS, a graduate of Fort Hays Kansas State College, received his Ph.D. degree from the University of Kansas at Lawrence. He is presently an instructor of American history at the Haskell Indian Junior College, Lawrence.

GENE L. YOUNGER, a graduate of Kansas State College of Pittsburg, is writer-editor, ecological investigations program, center for disease control, U. S. Public Health Service, Kansas City, Kan.

KELSAY SCEARCE prepared the accompanying map and chart.

1. The Leavenworth Times, June 5, 1867.

of the state. In that fateful summer the deadly cholera caused more casualties on the Plains than either the rampaging flood or the hostile Indians. In fact, it appears that more than half of the deaths caused by cholera in the United States army in 1867 occurred in Kansas.

It is the purpose of this article to treat the background to the appearance of cholera on the Plains, follow the spread of the disease through Kansas in 1867, assess its impact on the various communities and posts it visited, and offer an alternative version for the transmission of cholera into the state. To date there has been no major study of the causes and effects of the epidemic of 1867 although the army published an extensive and detailed report the following year. The *Report on Epidemic Cholera and Yellow Fever in the Army of the United States, During the Year 1867* (Washington, 1868) is one of the most interesting and important documents on the spread of epidemic cholera and subsequent attempts to halt it. The report contains numerous extracts from official records of the various army posts where cholera was rampant, and statistical tables were included to facilitate the interpretation of the impact of the disease at various posts or among troops en route.

Cholera was not a new phenomenon either in the United States or in the American West in 1867. As early as 1832 the infectious organism that causes the disease—*Vibrio comma* or *Vibrio cholerae*—had made its way from India to Europe and on to the large cities in this country.² Major epidemics occurred in large cities like New York, Boston, and Philadelphia in 1832, and the cholera traveled westward to the Ohio, and descended that stream and the Mississippi to New Orleans where as many as 500 deaths were

2. Russell L. Cecil and Robert F. Loeb, *Textbook of Medicine* Tenth Edition (Philadelphia, 1959), p. 222; Charles C. J. Carpenter, "Cholera," *Harrison's Principles of Internal Medicine*, Maxwell M. Wintrobe, et al., eds., sixth edition (New York, 1970), pp. 864, 865. The organism *Vibrio cholerae* which causes cholera was identified by Robert Koch in 1883. The microscopic bacillus, shaped like a comma, enters the body through the mouth and travels through the intestines. In the intestines the organism releases a toxin, causing changes in the tissue which result in all the fluids being drained out of the system—a form of rapid dehydration. Tissues dry out and the blood becomes highly concentrated and thickened. The kidneys are overburdened, cease functioning, and toxic substances which are normally eliminated by the kidneys become concentrated in the body. If dehydration does not cause death, kidney failure eventually proves fatal.

The onset of the disease is sudden. As will be pointed out, the victim is struck by copious vomiting and voluminous diarrhea, usually with no premonitory symptoms. There is severe prostration and obvious dehydration. The course of the illness is short, usually three to five days. The case fatality rate in epidemics among poorly treated patients can reach 60 to 75 percent. Modern treatment can reduce that figure to less than five percent.

In the 19th century treatment was mostly symptomatic. Stimulants were given for waning mental capabilities and unconsciousness, while depressants were used to treat the pain of severe muscle cramps and other drugs were given to help contract the bowels in order to curtail diarrhea. Modern treatment relies on fluid replacement for the short duration of the illness.

listed in a day.³ Cholera returned again in 1833 and 1834, but then disappeared as suddenly as it had come, and for 15 years Americans were free from the dreaded disease. Again in 1849, cholera made its way from the Ganges to Europe and then across the Atlantic to the major cities of the United States. Travelers going West, particularly the gold seekers, carried the disease again to the frontier where it took a heavy toll on the Oregon trail.⁴

Fort Leavenworth, the major army post on the edge of the Plains, reported a large number of soldiers suffered from cholera in 1849, and in the early 1850's when the post was used as a supply depot and a rendezvous for troops on the march to Mexico and stations on the Plains, the disease continually reappeared.⁵

Sporadic outbreaks of cholera occurred during the early 1850's and in 1854 and 1855 it again reached epidemic proportions in the West. As in 1849 and 1850, the disease reached the Plains from New Orleans by way of the Mississippi and Missouri rivers. In 1855 Kansas City suffered a major epidemic. During the height of the epidemic in that city, a nurse reported that sleep

3. Charles Rosenberg, *The Cholera Years, The United States in 1832, 1849, and 1866* (Chicago, 1962), pp. 3, 13-98; Frank Blackmar (ed.), *Kansas: A Cyclopaedia of State History* (Chicago, 1912), v. 1, pp. 333, 334. The classic scientific study of cholera is R. Pollitzer's *Cholera* (Geneva, 1959), published by the World Health Organization. For a general history of the disease the most recent work is Norman Longmate's *King Cholera, The Biography of a Disease* (London, 1966) which treats epidemics in the United States only briefly. Fairly good as social history, Longmate's study does not rival Roderick E. McGrew's *Russia and the Cholera, 1823-1832* (Madison, Wis., 1965) which is excellent in showing the social dimensions of epidemic cholera in one country.

The standard work on cholera in the United States is J. S. Chamber's *The Conquest of Cholera, America's Greatest Scourge* (New York, 1938), however, Charles Rosenberg's *The Cholera Years, the United States in 1832, 1849, and 1866* is much superior because of the excellent social and intellectual history of the period which it conveys. Of particular significance for the study of treatment is Rosenberg's "The Cause of Cholera: Aspects of Etiological Thought in Nineteenth Century America," *Bulletin of the History of Medicine*, Baltimore, v. 34 (July-August, 1960), pp. 331-354. The only studies of cholera epidemics in the United States army are to be found in Edmund Charles Wendt's edited volume, *A Treatise on Asiatic Cholera* (New York, 1885), and the only study specifically on the epidemic in Kansas in 1867 is Jerome M. Schneck's brief "Sternberg and the Fort Harker Cholera Epidemic of 1867," *The Journal of the Kansas Medical Society*, Topeka, v. 45 (May, 1944), pp. 161-163.

4. Accounts of travel on the Oregon trail are indicative of the havoc that cholera brought to the West. It has been estimated that 4,000 people died along the first 400 miles of the trail as a result of the disease.—William E. Smith, "The Oregon Trail Through Pottawatomie County," *Kansas Historical Collections*, v. 17 (1926-1928), p. 437. Wooden crosses and stone cairns marked the side of the trail and many of the crosses bore simply a name and the word "cholera." Many diaries and journals kept by the 49ers contain references to cholera. When cholera raged on the trail in 1850, Jesse W. Crosby, a member of an eastbound Mormon missionary party, recorded: "June 12, 1850. Met with two cases of cholera, both fatal; reports of sickness and death before us; great press of wagons inasmuch that we seldom have the road. . . . [June 17] seldom pass a train but what has lost from one to six men . . . one company of men all died; some women left along with teams. . . . [June 21] Cholera still bad, nearly every wagon had lost some; one wagon of 3 men had lost two; one woman said she had lost her father, mother and sister; herself and another sister remained alone."—Jesse W. Crosby's journal, Mormon church archives, cited by LeRoy R. Hafen and Francis Young, *Fort Laramie and the Pageant of the West, 1834-1890* (Glendale, California, 1938), pp. 161, 162. See, also, Georgia Willis Read, "Diseases, Drugs, and Doctors on the Oregon-California Trail in the Gold Rush Years," *Missouri Historical Review*, Columbia, v. 38 (1944), pp. 260, 276.

5. Elvid Hunt, *History of Fort Leavenworth, 1827-1927* (Fort Leavenworth, 1926), p. 82.

was almost impossible as the sound of rude coffins being made was heard at all hours of the day and night.⁶

In the year 1853, Fort Riley was created. Five hundred laborers and mechanics were taken up river and by wagon from Fort Leavenworth to start work in July, 1855. Many of the troops assigned to the post were sent out on the Plains for the summer campaign. Cholera appeared at the post on August 1 and a large number of troopers died, including the commanding officer, Major Ogden.⁷

Percival G. Lowe, who was at Fort Leavenworth at the time, has described the panic caused by the cholera. Near anarchy prevailed at the post after the death of the commanding officer and as many as 150 civilian laborers and mechanics deserted.⁸ A detachment of troops had to be sent to restore order and protect United States property after the "plundering [of] the post of U. States funds, deposited there," according to one source.⁹

Probably 75 to 100 deaths were caused by the cholera at Fort Riley in 1855.¹⁰ However, the Lawrence *Herald of Freedom* put the total at 128.¹¹ Even the famous freighting firm of Majors and

6. Everett Dick, *The Sod-House Frontier, 1854-1890* (New York, 1937), p. 436.

7. "Post Returns," Fort Riley, Kansas territory, for July, August, and September, 1855, microfilm copy at the Kansas State Historical Society, Topeka. Descriptions of the Fort Riley epidemics of 1855, 1866, and 1867 are rare consequently evidence regarding any one particular epidemic is difficult to assess. That is particularly the case with the description by Mr. George Faringhy of what he insists is the 1867 epidemic: "The Asiatic cholera broke out at Fort Riley in 1867, during the summer, while part of the Seventh Cavalry and part of the Tenth Cavalry was there. This epidemic caused a stampede and everyone left the buildings and went into tents beyond the limits of the post. My father (Hospital Steward Louis O. Faringhy) took care of the soldiers who were brought to the hospital. There were many cases out of which 79 died and are buried in rows near the north wall of the cemetery. A detail of prisoners under a sentry dug the graves. In those days prisoners wore shackles and some carried a ball and chain. Father put the dead in their coffins, which were made at the Quartermaster's carpenter shop, mostly of black walnut, and drove the mules, hooked to the ambulance, to the cemetery where prisoners lowered the coffin and covered it up."—W. F. Pride, *The History of Fort Riley* (Washington: U. S. Army, 1926), pp. 78, 79; also George E. Omer, *An Army Hospital From Horses to Helicopters* (Fort Riley, Kansas, 1958), p. 29; and the same author's "An Army Hospital: From Dragoons to Rough Riders—Fort Riley, 1853-1903," *Kansas Historical Quarterly*, v. 23 (Winter, 1957), pp. 337-367. It is true that Lewis (not Louis) Faringhy was hospital steward at Fort Riley in 1866 and 1867, however, internal evidence in that above quote indicates that the description is of the 1855 epidemic and not the 1866 or 1867 epidemics at Fort Riley. For example, Faringhy's mention that the epidemic caused a "stampede" from the post indicates that considerable chaos existed at the time. We have encountered no such references to disturbances in either the 1866 or 1867 epidemics. However, there is no question that the 1855 epidemic caused such disorder that near anarchy prevailed before order was restored by troopers from Fort Leavenworth. Equally important is the fact that Faringhy states that 79 died (he does not mention whether they were soldiers and/or quartermaster employees) in the epidemic in 1867. We could find evidence of only two deaths of troopers from cholera in 1867 (and no civilians to our knowledge). It is also questionable that he would be describing the 1866 epidemic as only 27 troopers died of the disease that year. The Junction City *Union* makes no mention of cholera deaths at Fort Riley in 1866 or 1867, and a major epidemic resulting in 79 deaths would have necessarily caused some reaction in that paper. On the other hand, we do know from a number of sources that at least 70 and probably more died in the 1855 epidemic at Fort Riley.

8. Percival G. Lowe, "Recollections of Fort Riley," *Kansas Historical Collections*, v. 7 (1901-1902), p. 109.

9. *Squatter Sovereign*, Atchison, August 21, 1955.

10. "Fort Riley Established 100 Years Ago," Junction City *Union*, June 24, 1953.

11. Cited in George W. Martin, "The Territorial and Military Combine at Fort Riley," *Kansas Historical Collections*, v. 7, p. 365.

Russell which carried freight between Fort Leavenworth and Fort Riley was affected by the cholera, but it did not affect their profits in that lucrative year.¹²

Between 1855 and 1866 the North American continent was remarkably free of cholera, although some cases were reported during the Civil War. During that 11-year period considerable progress was made in the study of cause and prevention of the disease. Dr. John Snow, prominent London anesthetist, had argued in 1849 that cholera was contagious and was caused by a poison reproducing itself in the body of the victim. The poison was to be found in the excreta and vomit of the victim, and the disease was spread usually through a contaminated water supply. Snow tested his theory in 1854 in London and found his hypothesis confirmed.¹³ The realization that quarantine facilities would aid in preventing the spread of cholera had begun to manifest itself in the 1849 epidemic, but it was 1866 before extensive preparations were made to prevent the spread of the disease.

The cholera epidemic of 1866 in North America had its beginnings in the arrival of a steamship from England in the harbor of Halifax, Canada. There had been nearly 50 fatal cholera cases on board the vessel prior to its arrival at the harbor. From there the disease spread to the large Eastern cities, but it was treated as a disease rather than a moral lesson. Consequently, it was contained and never reached the proportions of previous epidemics.¹⁴

The 1866 epidemic is particularly important in regard to the spread of the disease to various army posts throughout the nation and the subsequent assumption that troops were the principal agents carrying the cholera in 1867. The army reported 2,813 cases and 1,269 deaths from cholera in 1866. It appears that the disease was spread through various army posts from the depots at Governor's Island in New York harbor and Carlisle Barracks in

12. W. E. Connelley, *History of Kansas* (5 vols.; Chicago, 1928), v. 1, p. 158; see, also, R. L. Duffus, *The Santa Fe Trail* (London, 1930), p. 232.

13. See Wade Hampton Frost's edition of *Snow on Cholera* (New York, 1936).

14. "The Cholera Epidemic of 1873 in the United States," *Ex. Doc. No. 95*, pt. A, 43rd Cong., 2nd Sess., p. 661; see, also, Charles Rosenberg, *The Cholera Years*, pp. 175-234.

Pennsylvania.¹⁵ From these two depots in the East, cholera was carried to other posts in New York; Boston, Mass.; Savannah, Ga.; and to Jackson Barracks in New Orleans. The disease spread from Louisiana to Texas where three posts on the Rio Grande reported 149 deaths in August, 1866.¹⁶ Recruits from Governor's Island, N. Y., also carried the disease to Vicksburg, Miss., and Louisville, Ky. The 56th United States infantry (Negro) contracted the disease on steamers plying the New Orleans trade while being transferred from posts in Arkansas to St. Louis, Mo. The city of St. Louis reported 8,500 cases and 3,527 fatalities in the 1866 epidemic after the disease was carried there.

In Kansas, Fort Riley reported its first case of cholera on August 30, five days after 384 cavalry recruits from Carlisle Barracks, Pa., arrived at the post. The disease was confined to the recruits and did not spread to the rest of the post; in all, however, 59 cases were reported and 27 deaths occurred at Fort Riley.¹⁷ Fort Leavenworth had its first fatal case of cholera on September 18, 1866. Seven cases and five deaths occurred at the post and about 20 cases were reported from the city of Leavenworth, two miles south of the post. All cases in the soldier contingent occurred among the recently arrived troops.¹⁸

A detailed account of the epidemic of 1866 in the army was prepared and issued as Circular No. 5 and sent to each medical officer "in anticipation of the possible return of the disease in 1867."¹⁹ The author of that report concluded that the progress of cholera had followed the lines of travel "rather than any general westward course," and in the army, especially, it followed the transfers of recruits "which were the most important movements from infected points during the year."²⁰ An argument in favor

15. Ely McClellan in his history of the 1866 epidemic in the army argued that "A recruit at either rendezvous or depot is not deprived of his liberty, but when off duty is permitted to leave the confines of military jurisdiction at the pleasure of his commanding officer. During the months of April, May, June, and the early days of July, 1866, there was no actual reason why recruits should be rigidly confined to Governor's Island; the presumption is that they were not so confined, but that they had mixed with their fellows in both New York and Brooklyn. A large proportion of all recruits secured for the army are of foreign birth, and it is probably that among the nearly four thousand (4,000) emigrants who arrived at New York during the months of April and May, 1866, on cholera-infested ships, many were friends of newly enlisted soldiers on Governor's Island.—Ely McClellan, "A History of Epidemic Cholera, as It Affected the Army of the United States in 1866," in *A Treatise on Asiatic Cholera*, Edmund Charles Wendt, ed. (New York, 1885), p. 88.

16. *Ibid.*, p. 92.

17. *Ibid.*, pp. 94, 95.

18. *Ibid.*, p. 95.

19. Bvt. Lt. J. J. Woodward, U. S. Surgeon General's office, *Report on Epidemic Cholera and Yellow Fever in the Army of the United States, During the Year 1867* (Washington, 1868), p. vi. The report was issued as Circular No. 1, on June 10, 1868; it is hereinafter cited as *Report on Epidemic Cholera, 1867*.

20. *Ibid.*, p. vi. See, also, Bvt. Lt. J. J. Woodward, U. S. Surgeon General's office, *Report on Epidemic Cholera in the Army of the United States, During the Year 1866* (Washington, 1867), pp. xi, xii. This report of the previous year was issued as Circular No. 5.

of quarantining infected troops was presented in Circular No. 5, and the surgeon general instructed medical officers to attempt to protect threatened commands by a proper quarantine.²¹

In over-all fatalities, the cholera epidemic of 1867 was of minor significance compared to the 1832, 1849, 1866, and 1873 epidemics, but it was as virulent in the United States army as the 1866 epidemic had been. The proportion of deaths to the total number of cases was one death to 2.19 cases in 1867 compared to one death to 2.22 cases reported in 1866.²² The great difference was in the *total number* of cases and fatalities, 1,269 deaths in 1866, and 230 deaths in 1867, as preparation and proper quarantining limited its area of impact. In Kansas, however, the effect was greater than in previous years; at least 146 of the deaths occurred in Kansas forts or among troops en route across the state.²³ The epidemic decimated the civilian populations in certain communities that had recently appeared in response to the railroad construction and cattle shipping in central Kansas.

What was the source of the cholera epidemic on the Plains in 1867? All of the previous epidemics had started by the introduction of the cholera bacillus from abroad. The disease often maintained itself into the following year before it died out completely, only to be reintroduced later. It has been argued that the epidemic of 1867 was caused by a "holding over" of the cholera germs from the subsiding of the epidemic of 1866 which redeveloped "as the warm rays of the sun reached their 'nidus' in 1867."²⁴

The cholera organism cannot live for extended periods in nature. However, it could have over-wintered in a number of cities, including St. Louis, by being maintained as a series of sub-clinical (or mild and not easily recognizable) infections in a large population. It is unlikely that a single person would have carried it for such an extended period of time; few people remain infectious

21. *Ibid.*, p. xvi.

22. Woodward, *Report on Epidemic Cholera, 1867*, pp. vi.

23. *Ibid.*, pp. vi, 6-11.

24. Ely McClellan, "A History of Epidemic Cholera, as It Affected the Army of the United States in 1867," p. 101.

for as long as one to two months,²⁵ and only one "permanent" carrier has even been identified.²⁶

The cholera organism may have been maintained in the warmer climate of the Southern states since cases were reported in late 1866 and early 1867. Clinical cases reappeared among the citizens during June and 575 deaths occurred from then until the end of 1867. Vicksburg, Miss., recorded cholera among its citizens during June, 1867, and at Newport Barracks, Ky., two mild cases were reported during that same month.

St. Louis, Mo., had a major epidemic in 1866, but the cholera disappeared at the end of the year only to recur during June, 1867, among the citizens. Six cholera cases were reported in St. Louis in 1867 for the week ending June 22. This was a report of civilian deaths, not involving any military personnel, and this fact indicates that the civilian population suffered from the disease at the very time it was transported into central Kansas.²⁷ This evidence indicates that cholera could have been transported from St. Louis by civilians across Missouri into Kansas. Bvt. Lt. J. J. Woodward, in his summary of the epidemic merely states that "as the summer [of 1867] opened, cholera reappeared in the valley of the Mississippi and to the westward, at a number of the places where it prevailed during the previous year."²⁸ In his introductory commentary, he traces the background, causes, and spread of cholera in the army in 1867. Woodward states in his analysis of the disease that the "movement of infected troops and trains during July [1867] carried the pestilence across the Plains to every post on the Arkansas river and the Smokey Hill Fork."²⁹

Another account written by a medical officer who was present at various Kansas posts in 1867 is more explicit in stating that "a regiment of U. S. troops [38th infantry] from that post [Jefferson

25. J. J. Dizon, H. Fukumi, D. Barua, J. Valera, F. Jayme, F. Gomez, S. Yamamoto, A. Wake, C. Z. Gomez, Y. Takahira, A. Paraan, L. Rolda, M. Alvero, A. H. Abou-Gareeb, K. Kobari, and J. C. Azurin, "Studies on Cholera Carriers," *Bulletin of the World Health Organization*, Geneva, Switzerland, v. 37 (1967), p. 741.

26. J. C. Azurin, D. Dobari, D. Barua, M. Alvero, C. Z. Gomez, J. J. Dizon, E. Nakano, R. Suplido, and L. Ledesma, "A Long-Term Carrier of Cholera: Cholera Dolores," *Bulletin of the World Health Organization*, v. 37 (1967), pp. 745-749. On the other hand, Charles C. J. Carpenter states that "A chronic gallbladder carrier state has been observed in four to five percent of convalescent cholera patients. These chronic vibrio carriers may explain the persistence of the disease in endemic areas and also may provide a vehicle for spread outside of these areas."—Charles C. J. Carpenter, "Cholera," in *Harrison's Principles of Internal Medicine*, sixth edition (New York, 1970), p. 864. As a result of Carpenter's work it is necessary to acknowledge the possibility that the cholera vibrio could have been carried out to Fort Harker by a chronic carrier who may well have been among the various companies of the 38th infantry.

27. "Deaths From Cholera in the City of St. Louis in the Epidemics Which Occurred From 1849 to 1867," *St. Louis Medical and Surgical Journal*, v. 10 (1868), p. 95.

28. Woodward, *Report on Epidemic Cholera, 1867*, p. vi.

29. *Ibid.*, pp. vi, vii.

Barracks in Missouri]—at which they had been organized and from which they were equipped for service—occasioned a most disastrous outbreak of cholera on the high, dry plains of western Kansas.”³⁰

Every account which mentions the cholera epidemic of 1867 in Kansas accepts without reservation the argument that three companies of the 38th infantry spread the cholera across the Plains as they traveled from Jefferson Barracks, Mo., to Fort Union, New Mexico territory, to which they had been transferred.³¹ The troops transferred to Fort Union and to Kansas to protect railroad work parties were thought to have carried the cholera across the Plains infecting all of the government posts along the way.³² According to this argument, the 38th infantry had been organized from recruiting centers in the large cities in the North and South where cholera had prevailed.³³ Although no cholera occurred at Jefferson Barracks until 24 days after the 38th infantry had left, there had been a number of cases of diarrhea which were retrospectively believed to be due to cholera. The movement of the 38th infantry across Kansas has been described as following:

On March 20th Companies A and B, were sent forward and arrived at Fort Riley, Kansas, on the 24th, and remained at that post until May 13th, when they were ordered to Fort Harker, Kansas, arriving at that post on the 15th [of the] same month. Companies, C, E, I and G, left Jefferson Barracks on the 12th of May, arrived at Fort Harker on the 17th, where Company G took station (until June 5th when it was marched to Fort Hayes, arriving June 15), while the other Companies (C, E, and I) marched to Fort Hayes, Kansas, where they arrived May 28th. Company K left Jefferson Barracks on the 9th of June, and arrived at Fort Riley on June 12th; left Fort Riley June 19th, and arrived at Fort Harker June 22d. Companies D and F left Jefferson Barracks June 19th and arrived at Fort Harker June 25th. The regimental headquarters left Jefferson Barracks June 22d and arrived at Fort Harker June 27th. Each of these movements was made through St. Louis—by rail to Kansas City, Mo., thence by rail as far as the railway construction was completed, and by march from the termination of the track to the military stations named.³⁴

30. Ely McClellan, “A History of Epidemic Cholera as It Affected the Army of the United States in 1867,” p. 101. McClellan followed Woodward’s introductory assessment of the 1867 epidemic quite closely.

31. William A. Bell, *New Tracks in North America* (2 vols.; New York, 1869), v. 1, p. 260; Billy Dixon, *Life and Adventures of ‘Billy’ Dixon of Adobe Walls, Texas Panhandle* (Guthrie, Okla., 1914), pp. 47, 48. Dixon states that it was the 10th cavalry, “a negro command” which carried the disease west; Lawrence A. Frost, *The Court-Martial of General George Armstrong Custer* (Norman, Okla., 1968), p. 54; and Leo E. Oliva, *Soldiers on the Santa Fe Trail* (Norman, Okla., 1967), p. 199.

32. William A. Bell, *New Tracks in North America*, v. 1, p. 260.

33. Ely McClellan, “A History of Epidemic Cholera as It Affected the Army of the United States in 1867,” p. 102.

34. *Ibid.*

With 11 companies of the 38th infantry on the Plains, it seems plausible that at least one of the companies could have carried the disease with them. Yet even the government report on the epidemic acknowledges that "At most of these points [posts] it [cholera] occurred first among the citizens, and afterwards appeared among the troops; but it has not always been possible to obtain the date of the first case among the citizens, and hence it is not possible to assert that this was the invariable rule, though it is believed it was so."³⁵ This statement is damning to the assertion that the infantry carried the disease. It is almost inconceivable that the troops could introduce the disease into many areas without themselves having a clinically diagnosed case before the civilian population was involved in all instances.

It is likely that the men from Jefferson Barracks did not carry the cholera west with them. There is no record of illnesses compatible with cholera at Jefferson Barracks during the previous winter. The troops were in relative seclusion at the barracks, especially since they were black, and the barracks was located away from the city. They had little chance for contact with the civilian population, which could have provided a sufficient reservoir of susceptible persons to maintain the organism through the winter.

Since the cholera probably wintered in the civilian population, since there was a great deal of civilian travel through Kansas on the same routes that the 38th infantry followed, and since at most forts the first clinical case was in a civilian or civilian employee of the quartermaster, the evidence weighs heavily that cholera in 1867 was initially carried into the west by the great immigration of civilians and transport of goods.

The first appearance of cholera in Kansas that year was at Fort Riley and the source of that case is unknown. It occurred June 22, 1867, when a quartermaster's employee became ill and died the same day. Company K of the 38th infantry from Jefferson Barracks had reached Fort Riley June 12 and left for Fort Harker on June 19. Companies D and F moved on to Fort Harker on the 22d. All of these troops were suffering from diarrhea and a few troopers remained behind at the post hospital, but none of them were diagnosed as having cholera. In fact, no cases of cholera appeared among any of the troops at Fort Riley in 1867, probably because of the stringent hygienic practices imposed by Post Sur-

35. Woodward, *Report on Epidemic Cholera, 1867*, p. vi.

geon Bvt. Lt. B. J. D. Irwin.³⁶ Ely McClellan, who was present at the time, noted of the civilian victim of the disease; "Being casually at Fort Riley, I had an opportunity of inspecting this case. All the characteristic symptoms of malignant cholera were present, but owing to the energetic precautions of Surgeon B. J. D. Irwin, U. S. A., the disease did not become epidemic."³⁷

The fact that both of the victims of cholera at Fort Riley were civilians supports the argument that cholera was introduced by civilian traders or freighters traveling to and from the post who were in direct contact with the quartermaster employees. The military had no control over the movement of civilians through the area, and there was no means for reporting civilian cases or fatalities. This conjecture is made not to discount the possibility that the 38th infantry carried the cholera to Fort Riley, but rather to frame an alternative explanation for its cause. The same problem exists in attempting to explain the precise origin of the cholera at Fort Harker where the disease was most rampant and deadly.

McClellan in his history of the 1867 epidemic in the United States army, published in 1885, explained why he attributed the cause of the outbreak at Fort Harker to the 38th infantry:

The solution to the problem of its [cholera] introduction is, to my mind, to be found in the fact that the companies of the 38th regiment received their clothing and camp equipage at Jefferson Barracks; that such articles were infected with the cholera germ, and that when they were taken into constant use, from contact with them the disease was developed in the regiment. That from the same contact the acute diarrhoea which is reported to have been so prevalent among these troops was occasioned, and that owing to the hygienic precautions adopted the cholera germ contained in the diarrhoea dejecta did not obtain any suitable "hot-bed" in which the process of proliferation could be accomplished until Fort Harker was reached, where, the post being in the process of construction, all sanitary precautions had not been observed; for it was reported that the police of the camps was not good when cholera first made its appearance.³⁸

36. *Ibid.*, p. viii.

37. Ely McClellan, "A History of Epidemic Cholera, as It Affected the Army of the United States in 1867," p. 102. On June 24, two days after the first cholera fatality, post Surgeon Irwin ordered: "All the latrines and water-closets of the post will be cleansed, whitewashed, and provided with ventilators—the latter to extend from the vaults to about twelve inches above the roof, and to be six inches square in the clear. Twice each week—namely, on Tuesdays and Saturdays—quicklime will be freely distributed in the sinks, and one quart of vinegar will be thrown into each sink in use on such days. The quarters of the enlisted men and civil employes will be kept scrupulously clean, whitewashed, and all refuse garbage and other offensive matter will be promptly removed to a safe distance. Slop barrels will be provided for the kitchens, and all persons will be held to a strict accountability for the sanitary condition of the premises occupied by them. A general police of the post will be made on Saturday of each week."—"Post Order No. 7, June 24, 1867 (Fort Riley)," *Report on Epidemic Cholera, 1867*, p. 27.

38. Ely McClellan, "A History of Epidemic Cholera, as It Affected the Army of the United States in 1867," p. 104.

In contrast to that argument (which has been almost unanimously accepted by later writers) three surgeons, including McClellan, who were present at Fort Harker have presented a different view of the cause. George Sternberg admitted in his report on the epidemic that he could not "find any evidence that the disease was brought here from the east by troops."³⁹ He assumes that cholera probably came from Fort Riley where "the germs have been preserved [from the previous year] in some way until a condition of the atmosphere prevailed favorable to their extension." In the summer of 1867, the disease simply continued its travel westward "in conformity with the usual law."⁴⁰ The law he was referring to was not mentioned.

A more perceptive analysis of the cause of the outbreak at Fort Harker was presented in a report by J. W. Brewer, assistant surgeon, who was part of the special contingent of doctors sent to the post in July. Brewer argued that since the previous year, the facilities for travel westward have been greatly increased by the extension of the railroad to Fort Harker. It is also known that, as soon as the railroad reached Fort Harker, that post at once became the outfitting depot for the plains. A large number of quartermaster employes were brought thither from Fort Riley, partly on account of its being the depot and partly to construct the fort. It seems not unreasonable to suppose that the cholera germ might have been transplanted from Fort Riley by these means; and after having once reached Fort Harker, that the essential conditions for its development and spread were abundantly afforded. . . .⁴¹

In a letter written on November 1, 1867, from Fort Craig, New Mexico territory, Ely McClellan, who had been present at Fort Harker, pondered the problem of the precise manner by which cholera was imported to Fort Harker. He admitted that the assumption that the disease was imported from Fort Riley was based on some solid evidence. A fatal case of sporadic cholera occurred while troops of the 38th infantry were camped near that post June 22. However, he noted that about the same time the quartermaster's department was moved from Fort Riley to Fort Harker "thus introducing a large number of employes, many of whom had been employed at the first-named post for a considerable time."⁴² The problem for McClellan was that at Harker the disease developed in three distinct localities:

39. "Report on Epidemic Cholera at Fort Harker, Kansas, During the Summer of 1867, by Brevet Major G. M. Sternberg, Assistant Surgeon, U. S. A.," *Report on Epidemic Cholera, 1867*, p. 31.

40. *Ibid.*

41. J. W. Brewer, letter, "Fort Harker, Kansas, July 31, 1867," *Report on Epidemic Cholera, 1867*, p. 37.

42. Ely McClellan, letter, "Fort Craig, New Mexico, November 1, 1867," *ibid.*, p. 43.

I. In the person of the herder of the beef contractor, who lived nearly two miles from the post.

II. Among the enlisted men in the camp of the 38th Infantry.

III. In the command of Col. Merriam, at Plumb creek, some eighteen miles distant.⁴³

Here McClellan got rather confused as he failed to recall that Merriam's command had been close to the post for a brief period of time and the soldiers of the 38th infantry in camp near the post must have had some contact with civilians who could have had the disease. The significant point that McClellan made, however, was a casual reference to the fact that the disease existed "among the men of Mexican freight trains that had been loaded further east."⁴⁴ This being the case, it is entirely possible that these freighters carried cholera perhaps first to Fort Riley and then to Fort Harker. Freighters undoubtedly came in contact with quartermaster employees who were first attacked by the disease. Another indication that civilians were the agents of the disease was that citizens living in the vicinity of the post suffered most of the early casualties of the epidemic. Why McClellan insisted on another interpretation of the cause of the epidemic when he wrote about it in 1885 is uncertain. Perhaps the other view was simply too easy and convenient when it came to reviewing the cause and course of the epidemic after 18 years.

It appears that the view that the 38th infantry was responsible for taking the cholera into the west, originated in that very command. Colonel McGill, assistant surgeon of the 38th infantry, who died from the disease, told his commanding officer that in his opinion

the disease in my battalion resulted from the patients having been exposed to choleraic influence the year before; and that the bad water of the Arkansas, and worse of the tributaries, was the exciting cause. He [McGill] also gave it as his opinion that, unless the disease became more malignant in its character, persons who had not been exposed to choleraic influence last year [1866] were almost entirely safe. He seemed to be borne out in this opinion by the fact that almost every man who had cholera had been enlisted in cities where cholera was most malignant in 1866.⁴⁵

McGill's analysis was completely false and his understanding of the cause and spread of cholera was perhaps the poorest of all surgeons involved in this particular epidemic in the west.

The headquarters of the 38th infantry with companies A, B, D, F, H, and K were on duty at Fort Harker by June 27. Companies

43. *Ibid.*

44. *Ibid.*

45. Henry C. Merriam, letter, "Fort Bayard, New Mexico, November 9, 1867," in *ibid.*, p. 39.

A, B, and K were on garrison duty, and the headquarters and companies D, H, and F were in camp a short distance from the post. As in the case of Fort Riley, however, the first case of cholera was a civilian employed as a beef contractor at Fort Harker. He was discovered in a "dugout" close to the filthy slaughter pen about a mile south of the camp on the 28th of June, and he died the same day. The victim had been suffering from diarrhea for two days before he collapsed with all the symptoms of epidemic cholera.⁴⁶ Ely McClellan, who was requested to observe this first victim of cholera at Fort Harker, noted that "the clothing, articles of furniture, and ground around this patient were infected by the excreta, which had been thrown out in all directions, the patient having suffered from the disease and its premonitory symptoms many hours before calling in aid."⁴⁷

Soldiers of the 38th infantry were encamped three quarters of a mile from the post at Fort Harker and over a half mile from where the first case occurred. On the day of the first fatality (June 28) Pvt. George Groom of Company H, 38th infantry, was sent to the Fort Harker hospital. The soldier died the next day with all the symptoms of cholera.⁴⁸ In the last few days of June two other soldiers from different companies of the 38th were admitted to the post hospital where they recovered from cholera, but as many as five cases occurred among quartermaster's employees in the same period. Three more cases appeared among quartermaster employees by July 2, before any more cases were reported among the troops.⁴⁹ No cases occurred in the garrison proper in June or early July.

George Sternberg, the assistant surgeon at Fort Harker and the medical officer in command, reported that two of the quartermaster's employees who contracted cholera on June 30 "had recently come from Fort Riley."⁵⁰ It is possible that these men brought the cholera to Fort Harker and located near the dugouts in the creek bank where the first cholera case appeared and where he contracted the disease from them. The companies of the 38th

46. Ely McClellan, "A History of Epidemic Cholera, as It Affected the Army of the United States in 1867," p. 103; "Report on Epidemic Cholera at Fort Harker, Kansas, During the Summer of 1867, by Brevet Major G. M. Sternberg, Assistant Surgeon, U. S. A.," *Report on Epidemic Cholera, 1867*, pp. 29-31.

47. Ely McClellan, letter, "Fort Craig, New Mexico, November 1, 1867," *Report on Epidemic Cholera, 1867*, p. 42.

48. "Extract From Monthly Report of Sick and Wounded, Companies A, B, and G, 38th Infantry, Fort Harker, Kansas, June 1867, Brevet Major Geo. M. Sternberg, Assistant Surgeon, U. S. A.," in *ibid.*, p. 28; Ely McClellan, "A History of Epidemic Cholera, as It Affected the Army of the United States in 1867," p. 103.

49. "Extract From Monthly Report of Sick and Wounded, Companies 'A', 'B', and 'G', 38th Infantry . . .," *Report on Epidemic Cholera, 1867*, p. 29.

50. *Ibid.*

infantry which reported the first cholera cases were close enough to the camp of these quartermaster employees that it would have been easy for them to become exposed to the disease at that time. In his "Report on Epidemic Cholera at Fort Harker, Kansas, during the Summer of 1867," Sternberg reported the following cases and deaths⁵¹ from cholera:

Date.	No. of cases.	No. of deaths.	Date.	No. of cases.	No. of deaths.
June 28th.....	1	.....	July 17th.....	1	1
" 29th.....	1	1	" 18th.....	4	1
" 30th.....	1	.....	" 19th.....	11	6
July 1st.....	.....	1	" 20th.....	2	.....
" 2nd.....	.....	.....	" 21st.....	.....	3
" 3rd.....	.....	.....	" 22nd.....	.....	.....
" 4th.....	1	.....	" 23rd.....	1	2
" 5th.....	2	.....	" 24th.....	.....	.....
" 6th.....	3	.....	" 25th.....	.....	1
" 7th.....	.....	1	" 26th.....	.....	.....
" 8th.....	.....	.....	" 27th.....	2	2
" 9th.....	.....	.....	" 28th.....	1	.....
" 10th.....	1	.....	" 29th.....	1	.....
" 11th.....	1	1	" 30th.....	1	.....
" 12th.....	1	.....	" 31st.....	2	.....
" 13th.....	4	.....	August 1st.....	.....	3
" 14th.....	3	6			
" 15th.....	2	1	Total*.....	47	32
" 16th.....	.....	2			

This did not include the cases and deaths which occurred among other troops or among civilians. One report states that there were 42 cases and 29 deaths among troops at or near Fort Harker, and 83 cases and 29 deaths among citizens and employees of the quartermaster employees.⁵²

In his report Sternberg presented a complete history of the epidemic. He described the location of the post, water sources, previous incidences of cholera (in 1866), and the conditions of the camp at the time of the epidemic. He reported that Smoky Hill river had overflowed its banks "to an unusual extent" a few weeks before the cholera outbreak, and the "lowlands near it were extensively flooded" from April through July. There was also, according to Sternberg, "a great deal of rain for this section of the country." Decomposition of animal and vegetable matter "has

51. "Report on Epidemic Cholera at Fort Harker, Kansas, During the Summer of 1867," by Brevet Major G. M. Sternberg, Assistant Surgeon, U. S. A., in *ibid.*, p. 30. The chart is reproduced directly from the surgeon general's report.

52. J. W. Brewer, letter, "Fort Harker, Kansas, July 31, 1867," in *ibid.*, p. 35.

taken place with unusual rapidity." The air, which normally was "so pure and dry, that a piece of meat, cut thin, would dry when hung in the air without becoming tainted," had been quite moist that summer. There had been "an unusual number of flies and mosquitoes," and houses in and near the post had been infested with "a large fly which differs from the common house fly." He noted that "during the prevalence of the epidemic the nights were cool, and often almost cold. More deaths occurred during the coldest nights than at any other time. After a thunder storm the number of cases decreased in a marked degree. A large proportion of the cases were among those who had recently arrived at the post, or had just returned from a tour of escort duty."⁵³

Sternberg, who was in charge of the health conditions at Fort Harker, admitted that "the police of the camps was not good when cholera first made its appearance."⁵⁴ The company sinks were in wretched condition, he reported, and garbage from the kitchen had been simply placed in several open and offensive holes. But, Sternberg argues, "measures were at once taken to remedy these evils; a strict system of policing was inaugurated; the camps were all moved to new grounds, and disinfectants were procured and freely used."⁵⁵

However, the four surgeons who were sent to Fort Harker in late July to appraise "the alarming increase of the cholera epidemic at that place,"⁵⁶ reported bad hygienic conditions at the post. Dr. Swift visited all the camps and trains in and about the post at Fort Harker and advised some of them to change position, others to improve their policing of the grounds by digging sinks, boiling water for drinking purposes, and implementing the practice of personal cleanliness.⁵⁷ Even more harsh was the indictment of Asst. Surg. J. W. Brewer who stated that he was the one who put in operation "every means available for correcting the deplorable [hygienic] condition of affairs," upon his arrival at Fort Harker.⁵⁸ He states that he ordered the removal of all sources of filth; overgrown weeds were to be uprooted and burned, the grounds policed daily, the sinks frequently disinfected and removed,

53. "Report on Epidemic Cholera at Fort Harker, Kansas, During the Summer of 1867, by Brevet Major G. M. Sternberg, Assistant Surgeon, U. S. A.," in *ibid.*, pp. 29, 30. Also in John M. Gibson, *Soldier in White* (Durham, North Carolina, 1958), pp. 35, 36.

54. "Report on Epidemic Cholera at Fort Harker . . . 1867, by . . . Sternberg," *Report on Epidemic Cholera, 1867*, p. 29.

55. *Ibid.*

56. Madison Mills, letter, "Fort Leavenworth, Kansas, Aug. 5, 1867," in *ibid.*, p. 31.

57. *Ibid.*, p. 32.

58. J. W. Brewer, letter, "Fort Harker, Kansas, July 31, 1867," in *ibid.*, p. 37.

and the cholera tents removed to new sites every second day. All discharges and vomited matter were disinfected immediately and the drinking water was treated with potash before its use.⁵⁹

Sternberg may have instituted strict hygienic practices, but it is apparent that they had deteriorated by July 22 when the surgeons arrived at Fort Harker. When the team of physicians got to the post they found "both medical officers at the post disabled from duty, and many sick in quarters and in hospital."

Dr. Sternberg, Post Surgeon, on account of fatigue, had gone to bed. Dr. Chase, overwhelmed with grief on account of the loss of his wife, who had suddenly died at 4 o'clock that afternoon, was not in condition to do any kind of duty.⁶⁰

Sternberg had also lost his wife during the height of the epidemic, July 15, and his efforts, no doubt, were impaired as a consequence.

It appears that Surgeons Sternberg and Brewer had some kind of falling-out as neither mentions the other in their accounts of the epidemic. It does seem strange that Sternberg's work at Fort Harker has been lauded by a number of later writers while there has been no mention of the work of other doctors in the epidemic.⁶¹ What of the work of Irwin at Fort Riley, Act. Surg. Chase at Fort Harker, Asst. Surg. Ely McClellan who was attached to the 38th infantry, Act. Asst. Surg. Ira Perry and Asst. Surg. George McGill (who died of the disease) attached to the 38th infantry, Surgs. Madison Mills, Brevet Major General Smith, Wiggins and Renick, and Assistant Surgeon Brewer who were sent to Fort Harker to help?

Assistant Surgeon Brewer who had left such a penetrating account of the situation in Fort Harker in late July (aside from his failure to acknowledge the presence of Sternberg) gave great credit to the medical officers, particularly Acting Assistant Surgeons Chase and Renick, who "did their duty." He noted that almost all of the nurses and attendants in the cholera wards were Negroes and "I was very much surprised at their fidelity; they placed great faith in disinfectants, and after their use they seemed to have no fear of the disease."⁶²

Brewer did exaggerate his own efforts at Fort Harker as he contended that "no case of cholera occurred among them [soldiers

59. *Ibid.*, pp. 37, 38.

60. Madison Mills, letter, "Fort Leavenworth, Kansas, Aug. 5, 1867," in *ibid.*, p. 31.

61. See Jerome M. Schneck, "Sternberg and the Fort Harker Cholera Epidemic of 1867," *The Journal of the Kansas Medical Society*, v. 45 (May, 1944), pp. 161-163; John M. Gibson, *Soldier in White*; and Martha L. Sternberg, *George Miller Sternberg: A Biography* (Chicago, 1920).

62. J. W. Brewer, letter, "Fort Harker, Kansas, July 31, 1867," in *Report on Epidemic Cholera, 1867*, p. 38.

at the post] after I took charge."⁶³ In actual fact, eight deaths occurred after July 22 and two deaths were recorded in the first few days of August, after the team of surgeons reached the post and took over the direction of the health of the camp. Sternberg, who was relieved of duty on the 22d, took a leave of absence from the post on July 26.

The cholera epidemic struck the town of Ellsworth, near the post, with great severity. Incorporated January 15, 1867, the town was first located a mile west of the fort which was upgraded to equal status with Forts Riley and Leavenworth. Unfortunately, the location of the town on bottomland near the Smoky Hill river led to the inundation of the recently built stores and residences by the flood on June 8, 1867. The inhabitants removed to higher ground to the northwest, which was surveyed in July of that year. The cholera epidemic hit in the midst of the move, killed some 200 soldiers and civilians, and emptied the community.⁶⁴ It has been estimated that from June 28 through July 16 the town and the fort averaged six deaths a day.⁶⁵ Most of the victims were civilian employees of the fort.

In an undated report Dr. Ebenezer Swift, who had been sent to the post with the team of surgeons, reported a visit to the town of Ellsworth at the height of the epidemic. He noted that "the panic-stricken inhabitants have left their workshops and merchandise and have fled to distant parts for safety."⁶⁶ It has been estimated that the population of Ellsworth was 1,000 before the epidemic and it declined to about 40 afterwards.⁶⁷

In the city men were busy day and night digging graves and carrying out the dead. Bodies were stacked like cordwood.⁶⁸ It was reported from Ellsworth on July 26th that "Everyone who was not tied here had left and no labor is performed at all. It is hard to get graves dug, or people to sit by corpses or to dress them for the grave. Long trains of loaded cars stand on the track with no one to unload them."⁶⁹ Elizabeth Custer, who was de-

63. *Ibid.*

64. Robert R. Dykstra, *The Cattle Towns* (New York, 1968), pp. 32-35. The end-of-the-track boom for Ellsworth ended in 1867 when the train track reached Fort Hays in the fall. No doubt the cholera epidemic was an important cause of the collapse of Ellsworth's boom, but the cattle trade soon brought a revival of growth for this particular frontier town.

65. George Jelinck, *The Ellsworth Story, Ninety Years of Ellsworth and Ellsworth County History* (Ellsworth, 1957), pp. 9, 10.

66. Ebenezer Swift, letter, undated, no place, *Report on Epidemic Cholera, 1867*, p. 34.

67. John F. Choitz, "Ellsworth, Kansas: The History of a Frontier Town, 1854-1885," (unpublished M. A. thesis, Fort Hays Kansas State College, Hays, 1941), p. 41; see, also, *Junction City Union*, February 17, 1953.

68. *Junction City Union*, February 17, 1953.

69. *Ibid.*, August 3, 1867.

tained at Ellsworth in her trip east from Fort Hays to Fort Riley because of the cholera, stated that the situation was so bad that there was insufficient lumber for coffins, and the rudest of receptacles were hammered together out of hardtack boxes.⁷⁰ She also noted that almost immediate burial took place as there was no safe place to keep the bodies of the unfortunate victims. The burial service was hurriedly read since everybody was needed as nurses and ward attendants.⁷¹

A group of Sisters of Charity and a Catholic priest arrived at Ellsworth in the midst of the epidemic. They came to minister to the victims of the cholera, both at the fort and in the town. The father was found dead from the disease on the road between the post and town; he had made daily visits to Ellsworth to minister to the sick there.⁷² Two of the Sisters also died from the cholera but were soon replaced by others. They remained at the fort until the epidemic ended,⁷³ and then they gathered the orphaned children of the soldiers and returned with them to the parent house of their Order in Leavenworth.⁷⁴ Alice Baldwin, whose husband was stationed at the post, recalled later that a sergeant and his wife were killed by the cholera, leaving their four little children homeless. The Sisters took them to Leavenworth.⁷⁵

The only account by an employee of the quartermaster is that of frontiersman "Billy" Dixon who had hired on to a government wagon-train and shipped to Fort Harker in the summer of 1867. In camp close to the fort, Dixon later recalled that when the cholera hit, "many of our men deserted, and two died of the disease. . . . The authorities kept the number of dead secret as much as possible. The burials were usually at night."⁷⁶ He reported that the doctors made regular calls at his camp every day, and all employees were put on a strict diet; "We were forbidden to eat any kind of vegetable or fresh meat."⁷⁷

70. Elizabeth B. Custer, *Tenting on the Plains or General Custer in Kansas and Texas* (New York, 1887), pp. 168, 169.

71. *Ibid.*

72. Alice Blackwood Baldwin, *Memoirs of the Late Frank D. Baldwin, Major General, U. S. A.* (Los Angeles, Calif., 1929), p. 134. There is some confusion over the name of the priest who died in the epidemic; Alice Baldwin states that his name was the Rev. Father Martyn.

73. Sister M. Evangeline Thomas, "The Reverend Louis Dumortier, S. J., Itinerant Missionary to Central Kansas, 1859-1867," *Kansas Historical Quarterly*, v. 20 (1952-1953), pp. 268-270. Sister Thomas states that there are conflicting accounts of where Father Louis Dumortier died. It may have been in a construction car along the Kansas Pacific tracks, or in a tent, or along the roadside between the fort and town.

74. *Ibid.*; and Custer, *Tenting on the Plains*, p. 669.

75. Alice Blackwood Baldwin, *Memoirs of the Late Frank D. Baldwin*, p. 134.

76. Billy Dixon, *Life and Adventures of 'Billy' Dixon of Adobe Walls, Texas Panhandle*, p. 47.

77. *Ibid.*, p. 48.

Four companies of Kansas militia had been affected by the epidemic at Fort Harker. Governor Crawford had received authority to raise and muster these companies for equippage by the federal government. Their duty was the protection of graders working on the Union Pacific, Eastern Division, then under construction in western Kansas. They were also charged with keeping the Santa Fe trail open for the passage of wagon trains and overland coaches. For some unknown reason the decision to muster these companies in at Fort Harker was not changed after cholera broke out.

Between July 5 and July 15, 1867, these companies were organized and enlisted under Maj. Horace Moore of Lawrence as the 18th Kansas Volunteer cavalry at Fort Harker. On the day the battalion was mustered the command was stricken and some men collapsed while the oath was being administered. The remainder stood firm, and when the ceremony was over they marched off the parade ground in an orderly manner.⁷⁸

Major Moore put the troops into immediate service and moved them from Fort Harker to Fort Larned by way of Pawnee Rock. The sick were left at Fort Harker. After a march of a day and a half the regiment arrived at a point 10 miles above Fort Zarah where they made camp. This was on the evening of July 16. An hour after supper the peaceful camp became a hospital of screaming cholera patients. Men were seized with cramps in their stomachs, legs, and arms. The surgeon was helpless before the scourge.⁷⁹

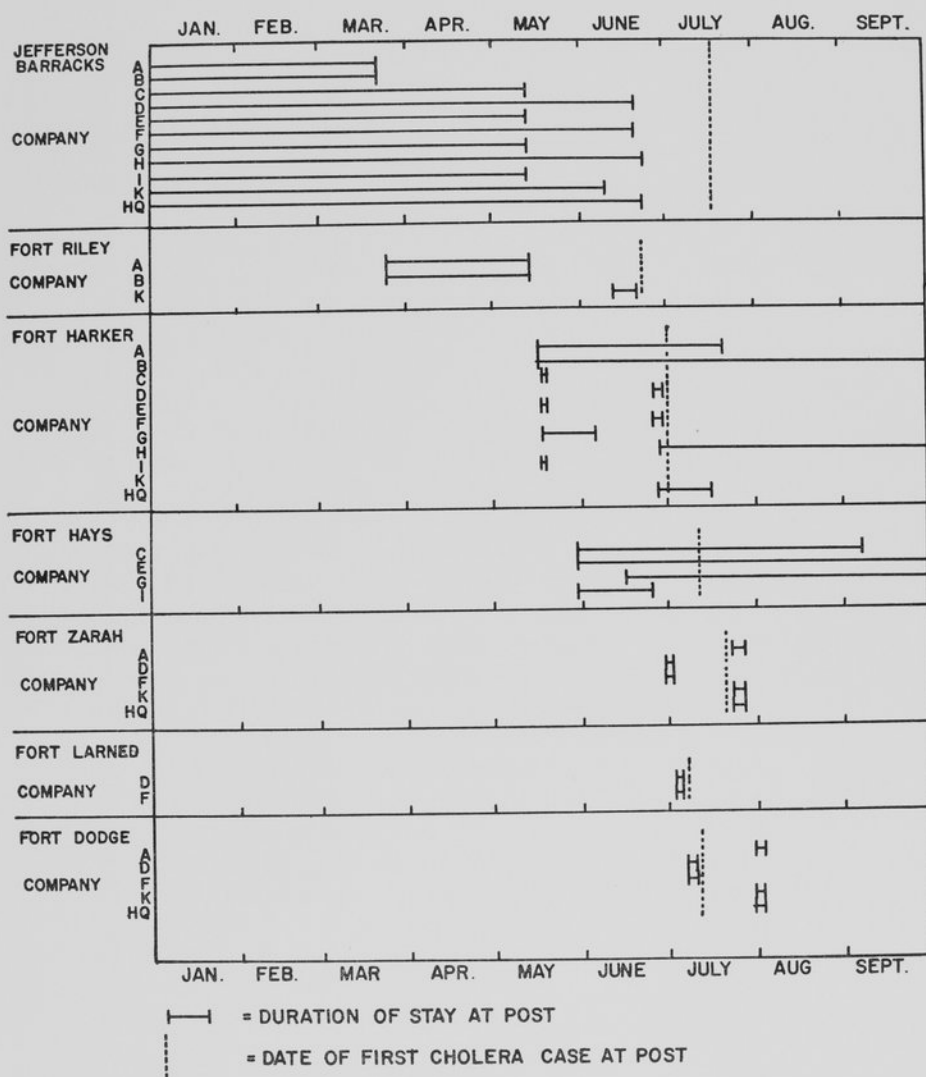
By the morning of the 17th five men had died and 36 were in a state of collapse. The two most favorable cases were put in the command's only ambulance and the remaining 34 were put into wagons with blankets as their sole comfort. Six men were carried in each wagon and in this manner all the sick were taken with the battalion.⁸⁰ On the slow trek of that day there were no deaths. The young surgeon gave stimulants when possible and assisted in rubbing the feet and hands of the victims in order to restore circulation.

On the evening of the 17th, soup was made from a buffalo calf and fed to the sick. On the morning of the 18th a detachment of soldiers was sent ahead to advise the commanding officer at Fort

78. Samuel J. Crawford, *Kansas in the Sixties* (Chicago, 1911), p. 260.

79. Horace L. Moore, "The Nineteenth Kansas Cavalry," *Kansas Historical Collections*, v. 6 (1897-1900), pp. 35, 36; see, also, George B. Jenness, "The Battle of Beaver Creek," *ibid.*, v. 9 (1905-1906), pp. 443-444; and Henderson Lafayette Burgess, "The Eighteenth Kansas Volunteer Cavalry, and Some Incidents Connected With Its Service on the Plains," *ibid.*, v. 13 (1913-1914), pp. 534-536.

80. Horace L. Moore, "The Nineteenth Kansas Cavalry," p. 36.



Disposition of the 38th U.S. infantry at the time of the 1867 cholera outbreak.

Larned of the command's condition. When the main body of troops arrived that evening, they turned the sick over to the surgeons at the post hospital. Of the 36 who had been ill, all recovered. The young surgeon, having by then contracted the disease, stayed at the fort and died the next day.⁸¹

The commanding officer of the 18th cavalry, Major Moore, then moved the battalion north up Pawnee fork toward Fort Hays. This post had only recently been moved to its present site south of Hays City from its former location seven miles to the east. The new post consisted of tents until the permanent buildings could be constructed. It was during this construction period and while the railroad was building grade between Fort Hays and Fort Harker that cholera struck.

One member of the 18th Kansas Volunteer cavalry, Alonzo Ballard, wrote from Fort Larned on July 28, 1867, that he had just been at Fort Harker, "the most unhealthy place I ever saw." And, he added, "I believe the cholera was amongst us for most every one of us was taken with diarrhea, vomiting and griping in the stomach."⁸² Apparently Ballard's squad suffered no fatalities, and after they had marched out on the Plains he could report that "this country [near Larned] appears to be quite healthy and I think we are clear from the cholera."⁸³ Not so fortunate was Eugene Colbrant who died of cholera on July 24, 1867, at Fort Harker after he had joined the 18th Kansas cavalry.⁸⁴

As for the 38th infantry, the commanding officer, Bvt. Maj. Henry C. Merriam, wrote his "medical history" of the battalion from Fort Bayard, N. M., in November, 1867. He noted that his command left Fort Harker on June 28 "apparently in good health."⁸⁵ A table of cases and deaths in his command was included:⁸⁶

81. *Ibid.*

82. "Letters From Old Fort Hays Written in 1867 Discovered by Hays Resident," *Hays Daily News*, August 6, 1961.

83. *Ibid.*

84. Kansas Adjutant General, 18th Kansas Volunteer cavalry, "Correspondence File," 1867. The correspondence file is located in the Kansas State Historical Society, Topeka. Cholera is not mentioned in any of the telegrams, letters, or orders, and the only apparent reference to the disease was in a series of letters inquiring into the fate of an Alphonse Eugene Colbrant. A number of letters in the file are from Cornelia Townsend, in New York; she was writing in behalf of the mother of the young man who had originally come from Fontainebleau, France. Apparently the mother had not heard of the fate of her son as late as August 18, 1871, though she knew he had been "attacked by Cholera at Fort Harker or Harker, since then nothing definite is known." A certificate of death was forwarded to the mother who had subsequently lost a husband, and her farm had been destroyed in the Franco-Prussian War. The correspondence continued as the New York correspondent requested any letters, books, or a diary in order to convince the persistent mother in France. Some effects were eventually sent from Fort Leavenworth. Young Colbrant had been a major in the United States cavalry from 1862 to 1865 in the Civil War before his trip west to Kansas and reenlistment in the 18th Kansas Volunteer cavalry.

85. Henry C. Merriam, letter, "Fort Bayard, New Mexico, November 9, 1867," in *Report on Epidemic Cholera, 1867*, p. 39.

86. *Ibid.*

Date.	No. of cases.	No. of deaths.	Place of command.	Remarks.
June 29..	1	1	Cow Creek, Kansas....	Taken in the morning and died in the evening.
July 1...	1	.....	Left Fort Zarah.	
" 2...	2	1	30 miles west of Fort Zarah.....	Case of July 1st died.
" 3...	1	.....	Arrived at Fort Larned	Sergeant Wort, of Co. "D," taken sick.
" 6...	3	1	40 miles west of Fort Larned.....	Sergeant Wort, of Co. "D," died.
" 7...	2	1	55 miles west of Fort Larned.	
" 8...	3	.....	65 miles west of Fort Larned.	
" 10...	2	1	East of Fort Dodge.	
" 11...	1	.....	West of Fort Dodge.	
" 12...	1	.....	Do. do.	
" 13...	1	.....	Do. do.	
" 15...	2	.....	Do. do.	
" 16...	2	.....	East of Pretty En- campment.	
" 17...	4	2	Salt Bottom.....	Mrs. McGill took cholera about 8 a.m., and died about 10.30 p.m.
" 18...	1	.....	Sandy Creek.	
" 19...	2	.....	Old Fort Lyon, C. T...	Dr. McGill took cholera while behind column at Salt Bottom.
" 20...	2	2	Do. do.	Dr. McGill died, at 3.30 p. m., at Salt Bottom (head of), near bluff.
" 21...	.....	1	Do. do.	
" 23...	.....	1	New Fort Lyon.	
" 26...	.....	1	South of Arkansas.	
	31	12		

There had been no cases in the companies at or before reaching Fort Harker and cholera probably was contracted at that central Kansas post.⁸⁷ In apparent contradiction to the report of his commanding officer's letter, McGill did inform Ely McClellan, on special duty to the headquarters of the 38th infantry, that "at Fort Harker . . . quite a number of violent cases of acute diarrhoea had occurred in that command during its march to the

87. It was stated in the correspondence in *ibid.*, H. M. Kirke, letter, "Washington, D. C., Feb. 8, 1868," that the reports on cholera which appeared in the 1st Battalion, 38th United States infantry, during the march from Fort Harker to Fort Bayard, N. M., had been lost in transmission. The story of the epidemic in that command can only be reconstructed from the letters solicited by the surgeon general from the remaining officers in the command.

last-named post.”⁸⁸ The tragedy which befell Companies D and E of the 38th infantry after it left Fort Harker was due in part to June floods which had damaged the Union Pacific Railway, Eastern Division, and “the medical supplies for this detachment, which were most liberal as to quantities and amounts, were detained at some point east of Harker.”⁸⁹ Consequently McGill had to undertake the march to New Mexico territory with inadequate medical supplies.

There are no reports of events along the march except those listed on the foregoing chart because the records were lost. Perhaps it occurred after Dr. McGill died and Act. Asst. Surgeon H. M. Kirke of the 3d United States cavalry in Colorado was sent to relieve the 38th infantry. One evening the command camped close to the Arkansas river, below old Fort Lyon. The area was flooded after a heavy rain “with over two feet in the hospital,” and at least one cholera patient drowned. A new cure which Kirke had applied to that patient was in vain. When the command crossed the Raton range the cholera disappeared, and by the time they reached Fort Union they were thoroughly healthy.⁹⁰ Companies D and E of the 38th infantry, however, had reported 28 cases and 10 deaths from the disease during their long trek through western Kansas.

The headquarters company of the 38th infantry (and Companies A and K) did not leave Fort Harker until July 20 after having been exposed to cholera for nearly three weeks. The command had been “comparatively free from the disease,” and it started out with a clear sick report. There were 220 enlisted men, 12 officers, 37 women, children, and servants, 44 quartermaster’s employees, and a family of 10 joined them at the Smoky Hill crossing. The command followed the Santa Fe trail, but avoided the traditional camp areas “as all western bound trains, for several weeks past, had been affected with cholera.”⁹¹

In spite of the precaution of avoiding old camp grounds and securing good stream waters, a private in A company was afflicted by cholera. The victim had been a nurse in the cholera tents at Fort Harker. He and five additional patients soon improved. Isolation of the victims aided in preventing the spread of cholera. Fatalities began to occur on July 23 as the command moved past

88. Ely McClellan, letter, “Fort Craig, New Mexico, Nov. 1, 1867,” in *Report on Epidemic Cholera, 1867*, p. 42.

89. *Ibid.*

90. H. M. Kirke, letter, “Washington, D. C., February 8, 1868,” in *ibid.*, p. 40.

91. Ely McClellan, letter, “Fort Craig, New Mexico, Nov. 1, 1867,” in *ibid.*, p. 44.

Fort Zarah, where the disease had previously existed but had subsided. In his report on the effect of cholera on the command, Ely McClellan noted that "the effect of remaining in camp was evidently so pernicious to the morale of the command, that it was decided to move camp each day, if enabled to make only a few miles."⁹² An end to the seizures of cholera came on July 30.

Ely McClellan, who was on the march, stated that "the morale of the troops depended so greatly upon the daily march of the command, that the wants of the sick were, in a measure, disregarded in favor of the necessities of the well. . . . even the prospect of remaining twenty-four hours in camp, developed cases of choleraphobia."⁹³

The Englishman, William A. Bell, who was hunting on the Plains, tells of being camped at Fort Lyon, Col., when the 38th infantry approached. His party, which included a hunting party of gentlemen from the East who had just traveled through the cholera-infested region of western Kansas, suffered considerably from what he termed "choleric diarrhoea."⁹⁴ As the 38th infantry approached New Fort Lyon, the post commander sent a messenger requesting that the troops proceed no farther. The approaching command answered that a daily change of camp was necessary to preserve the men and that the epidemic was abating.⁹⁵ They had recorded 46 cases of cholera in July and one in August, with 17 deaths.

According to the report of John J. Marston, acting assistant surgeon at Fort Larned, "epidemic cholera was brought to this post by two companies of the 38th infantry, under command of Major Merriam, en route to New Mexico, which arrived at this post on the 2d instant, having several cases of epidemic cholera along."⁹⁶ Marston states that he requested his commanding officer not to allow these troops "within two miles of the post," but his request was denied and the two companies of 38th infantry camped within 500 yards of the post, remaining for two days.

The first case of cholera at Larned occurred July 6 and two cases occurred on the 10th and 11th. Two of the cases proved

92. *Ibid.*

93. *Ibid.*, pp. 45, 46.

94. William A. Bell, *New Tracks in North America*, v. 1, pp. 77, 78.

95. *Ibid.*

96. "Extract From Monthly Report of Sick and Wounded, Fort Larned, Kansas, July, 1867, John J. Marston, Acting Assistant Surgeon, U. S. A.," in *Report on Epidemic Cholera, 1867*, p. 46.

fatal.⁹⁷ Eight cases occurred among quartermaster employees, during the first half of July, 1867; four of them were fatal. After July 15 no cases occurred either among the soldiers or civilians. The post surgeon noted that "all public trains and detachments of troops passing have more or less cases of this disease [cholera]; but all cases from these infected commands, when brought to this post for treatment, are treated in a quarantine hospital two miles distant from the post."⁹⁸ When the disease first appeared at Fort Larned all sanitary measures were adopted to prevent its spread. "Sinks and all foul places were disinfected by unslaked lime and strong acids," according to Marston, and the troops were instructed on the importance of cleanliness. As an additional precaution, the camp of the quartermaster's employees was moved an additional half mile from the fort.⁹⁹

Fort Zarah, a picket post 35 miles east of Fort Larned, experienced its one case of epidemic cholera on July 21. The victim was a member of H company of the 38th infantry, part of an escort party returning from Fort Zarah to Fort Harker. The energetic acting assistant surgeon, Ira Perry, who had been at Fort Harker at the time of the outbreak there and was now at Zarah, wrote out the detailed procedures used for "treatment of the within cases,"¹⁰⁰ of which he had a total of one.

The cholera also spread to many of the small posts or camps scattered throughout western Kansas. Company G of the 10th United States cavalry reported the disease in their ranks in July while stationed at Wilson's creek 15 miles west of Fort Harker.¹⁰¹ There was no report on the condition of the command during the first part of the month. However, when Acting Assistant Surgeon A. W. Wiggin assumed his duty there he "found nearly half the command unfit for duty, including the two commissioned officers, six or eight of the cases being cholera, the remainder diarrhoea."¹⁰² The new surgeon immediately instituted rigorous hygienic practices

97. William Unrau, in an article "The Story of Fort Larned," *Kansas Historical Quarterly*, v. 23 (Autumn, 1957), p. 272, mistakenly gives the date of the cholera epidemic at Fort Larned as the summer of 1864. Also, Lt. C. E. Campbell's article in the *Larned Tiller and Toiler*, September 27, 1923, adds to the confusion by stating the epidemic year was 1866. That last mistake was repeated by B. Z. Woods in his "A History of Fort Larned" (unpublished M. A. thesis, Fort Hays Kansas State College, Hays, 1932).

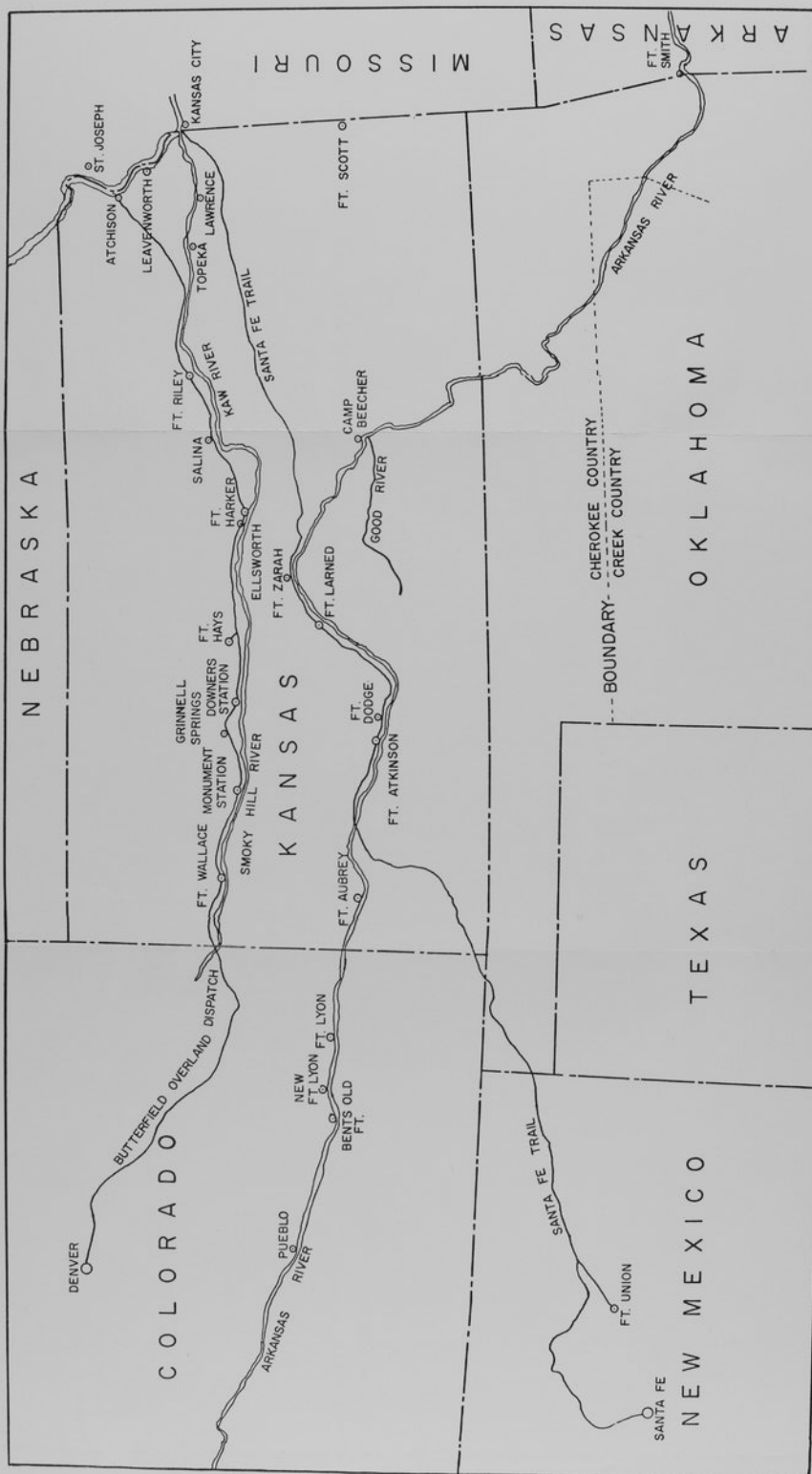
98. "Extract From Monthly Report of Sick and Wounded, Fort Larned, Kansas, July, 1867, John J. Marston, Acting Assistant Surgeon, U. S. A.," in *Report on Epidemic Cholera, 1867*, p. 46.

99. *Ibid.*

100. "Extract From Special Report on Cholera, Fort Zarah, Kansas, September 1, 1867, Acting Assistant Surgeon Ira Perry, U. S. A.," in *ibid.*, p. 47.

101. Woodward, in *ibid.*, pp. x, xi.

102. "Extract From Monthly Report of Sick and Wounded, Company G, 10th U. S. Cavalry, Wilson's Creek, Kansas, July, 1867, Acting Assistant Surgeon A. W. Wiggin, U. S. A.," in *ibid.*, p. 50.



including disinfecting all excrement and boiling all drinking water. It was noted that the rations were of inferior quality, and "the carelessness and ignorance of the men, new to the service," accounted for the violence of the cholera. These were Negro troops, and the young white physician casually stated that these troopers were "naturally more prone to disease of an epidemic type than white men."¹⁰³

Cholera had spread to this little post west of Fort Harker when the company was moved from that post on July 16. The command suffered a total of 15 cases and eight deaths in July and one death in August at Wilson's creek.¹⁰⁴ At Cow creek, "at the terminus of the [Union] Pacific Railroad, not far from Fort Harker," Company F, 3d infantry, with 68 officers and men, reported seven cases and four deaths in July and one case in August. Apparently the disease was brought from Fort Harker.¹⁰⁵

At Camp Grierson, Kan., on the Little Arkansas river, the cholera first appeared on July 12. Stationed there were 78 officers and men of Company C, 10th United States cavalry (Negro). The disease was carried by George Broomfield "a courier from this camp to Fort Harker."¹⁰⁶ There were seven cases and four deaths at this camp, but the cholera did not subside until August 17, 1867. In burning the clothes and bedding of the dead, Acting Assistant Surgeon William H. Buckmaster apparently accidentally destroyed some of his hospital stores.¹⁰⁷

At Camp Beecher at the junction of the Big and Little Arkansas rivers on the site of present Wichita, a cholera outbreak occurred after troops had been sent there to escort the Wichita Indians south to the Washita in Indian territory. James R. Mead, who was present in the region, wrote some years later that a detachment of Fifth United States infantry under command of Col. Thomas F. Barr brought the cholera to the Indian camp at the mouth of the Little Arkansas.¹⁰⁸ Apparently the Indians refused to leave their camp until their crops were gathered and a supply of food prepared for the winter. The cholera commenced while

103. *Ibid.*

104. Woodward, *ibid.*, pp. x, xi.

105. *Ibid.*, p. xi.

106. "Extract From the Special Report of Cholera Patients at Camp Grierson, Kansas, for the Month of July, 1867, Acting Assistant Surgeon Wm. H. Buckmaster, U. S. A.," in *ibid.*, p. 50.

107. *Ibid.*

108. James R. Mead, "The Little Arkansas," *Kansas Historical Collections*, v. 10 (1907-1908), p. 13; Hortense B. Campbell refers to Mead's article, but insists that the cholera epidemic was in 1868 because Camp Beecher was not formally established until that date. She found no official record of cholera in the Army Medical Library in her study, "Camp Beecher," *Kansas Historical Quarterly*, v. 3 (1934), pp. 183, 184.

the Indians were in camp and at least 100 graves are scattered over the northern part of Wichita from deaths caused by the disease. Owhe, a hereditary war chief, and Sam Huston, a noted Indian, were among the victims. Mead states that many Indians and "about a dozen settlers of Butler county died, including one of my [Mead's] household."¹⁰⁹

When they had started down the old Chisholm trail, a norther set in while they were camped at Ninnescah. It drove a prairie fire down on the tribe burning 85 horses. The cholera set in again, and they were on foot; many died as they continued their trek. At Skeleton creek so many perished that they could not be buried, and from this incident the stream received its name. Families died in their lodges after their arrival on the Washita, and the lodges were burned with the bodies and their belongings.¹¹⁰

It is difficult to determine whether cholera was transported along the Santa Fe trail (west from Fort Harker) by civilians or the two companies of the 38th infantry which left Harker on June 28. As previously mentioned, the post surgeon at Fort Larned reported that "all public trains" which passed that post probably had been infected. Freightier Charles Raber recalled later that on one trip to Fort Dodge in the summer of 1867, "we had two very dangerous enemies to contend with—cholera and Indians."¹¹¹

The wagon train had originated at Fort Harker where cholera had already broken out, and "a few days out" from there the first case occurred. Unfortunately, he does not give the date of his cholera-plagued trip to Fort Dodge. On the other hand, Assistant Surgeon and Bvt. Maj. C. S. DeGraw wrote from Fort Dodge, July 31, 1867, that the cholera was brought to that post by "a detachment of 38th U. S. Colored troops, en route to New Mexico, under Brevet Colonel Merriam." They reached Fort Dodge July 7 and DeGraw, "not knowing of the existence of cholera anywhere in the west," was startled, he claimed, when informed by Dr. McGill that the disease had infected the troops in transit. It would have been unusual for DeGraw not to have known of the presence of cholera in the west before July 7, for by then it had

109. James R. Mead, "The Little Arkansas," p. 13. The author states that his faithful clerk "and all-round useful man" died of cholera in the fall of 1867, and Sam Fulton and Doc Shirley, of the Washita, worked over him all night to no avail, and they buried him the next day.

110. *Ibid.* Mead implies that the Indians were "returning to their former homes on the Washita" when they contracted cholera.

111. Charles Raber, "Personal Recollections of Life on the Plains From 1860 to 1868," *Kansas Historical Collections*, v. 16 (1923-1925), pp. 337, 338. Raber recalled that the eight-wagon train was not allowed to visit Fort Larned, and his personal appeal for medical aid or medicines for his men was refused. "I felt very sore," he states, "for I thought we deserved better treatment, especially as we were engaged in hauling stores for 'Uncle Sam'."

been rampant at Fort Harker for nearly two weeks. DeGraw did note that there had been heavy flooding of the Arkansas which filled the bottom near the post where soldiers and quartermaster employees later camped. Hot, sultry days followed and "miasma" was generated, "supplying fuel which only needed a spark to kindle into a flame of disease."¹¹² That spark, he believed, was the 38th infantry.

The companies of 38th infantry left their camp a mile from the post on the 9th, and it was not until the 11th that the first case occurred at Fort Dodge. The first victim was a "government employee" living in a "very dirty" house about 300 yards from the garrison. After strict quarantine and treatment the man recovered. On the 14th another government employee was stricken, and the same day a wagon train arrived which had a cholera case a day or two before. Other trains with supplies for Fort Dodge were prevented from approaching too closely to the post, and all sanitary precautions were taken.¹¹³ One trader stated that while there was great sickness in all the trains, his own train suffered the only loss of men and he mentioned two deaths.¹¹⁴

In spite of those efforts, cholera was rampant at Fort Dodge from July 21 to July 31. In his summary of the epidemic DeGraw stated:

Among the citizens employes during this same time, (from 11th to 31st, inclusive,) twenty-six cases have occurred, with eleven deaths. Two other cases, both fatal, occurred among other citizens (not employes) about the post. To sum up, from the 11th July to the 31st, inclusive, number of cases, of soldiers and citizens, attacked with the disease, 49; recovered or convalescing, 24; died, 25.¹¹⁵

The force of the garrison at that time was six officers, 194 enlisted men, 247 citizen government employees, and 30 to 40 other citizens. At its height, cholera caused six deaths in one day, three soldiers and three civilians. A panic ensued as the civilian employees and certain soldiers sought to obtain whisky and a few tried to get away from the post. Those trying to escape were shot and wounded in an attempt to keep order and prevent complete chaos.¹¹⁶

Cholera apparently subsided on the Santa Fe trail at the end of

112. C. S. DeGraw, letter, "Fort Dodge, Kansas, July 31, 1867," in *Report on Epidemic Cholera, 1867*, pp. 47, 49.

113. *Ibid.*, pp. 47, 48.

114. Charles Raber, "Personal Recollections of Life on the Plains From 1860-1868," p. 340. He describes how his wagon train was stopped three miles below Fort Dodge and the Army sent out their own teams to haul the stores to the fort. Raber and his train returned to Fort Harker after their business was completed.

115. C. S. DeGraw, letter, "Fort Dodge, Kansas, July 31, 1867," in *Report on Epidemic Cholera, 1867*, p. 48.

116. *Ibid.*, pp. 48, 49.

July; however, two deaths were recorded at a mail station west of the post on August 19. Two cases occurred among the citizens in August but were not fatal.¹¹⁷

Cholera was transported west to Fort Hays in the month of July. Most accounts agree that the disease was carried to that post and the surrounding community by a man "who had just arrived from Salina, whither the cholera had extended from Fort Harker."¹¹⁸ The extension of cholera to this post and westward was described by W. E. Woodward:

Free communication had existed with Fort Harker previous to the appearance of the first cases, and trains with escorts of troops were continually passing from Fort Harker, by way of Fort Hays and the other posts on their route, to Fort Wallace, and back again.¹¹⁹

The evidence for the transmission of cholera to Fort Hays gives credence to the basic argument presented in this article, that the heavy civilian traffic through the region might have been responsible for carrying the disease west.¹²⁰ On the same day, July 11, that the first victim died, a Negro soldier of the garrison was taken sick. He died the next day. During July, August, and September, 33 cases and 23 deaths were reported among the Negro troops (most of them were members of two companies of the 38th infantry) whose mean strength during those three months was 215 men. In September a white soldier was attacked but recovered; the remainder of the white troops, averaging in number 34 men, were not affected by the cholera.¹²¹

No extracts from official records for Fort Hays were included in the *Report on Epidemic Cholera of 1867* published by the government. The "Special Order Book" for July, 1867, referred to the fact that "the cholera is still prevalent at this post but [shows] small signs of it abating. Nineteen enlisted men died of cholera during the month and as many citizens and quartermaster employees."¹²² The only other mention of cholera in the "Post Order

117. "Extract From Monthly Report of Sick and Wounded, Cos. 'A' and 'H', 3d Infantry, Co. 'I', 37th Infantry, and Co. 'B', 7th Cavalry, Fort Dodge, Kansas, August, 1867, Acting Assistant Surgeon J. B. Crandall, U. S. A.," *ibid.*, p. 49.

118. Woodward, in *ibid.*, p. xi.

119. *Ibid.*

120. One source states that the first victim of cholera at Hays was Cpl. J. H. Towell of the 18th Kansas Volunteer cavalry, who was supposedly stricken "while seated at a table awaiting breakfast in one of the restaurants."—Simon Motz, *Historical and Biographical Sketches* (Hays, 1898), v. 2, p. 18. If this report were true then it might have been possible to attribute the cause of the cholera at Hays to the 18th Kansas cavalry, but the regiment was being organized at Fort Harker when the disease appeared in Hays.

121. James H. Beach, "Old Fort Hays," *Kansas Historical Collections*, v. 11 (1909-1910), p. 572. Beach states that the epidemic "spread terror along the settlements on Big creek, and many exaggerated reports have become current as to its fatality."

122. "Records of the U. S. Army Commands—Fort Hays, Kansas, Special Order Book, October 15, 1866-May 26, 1868 (Washington, D. C., 1949)," microfilm copy at the Fort Hays Kansas State College library.

Book" was an order by Captain Corbin, post commander, that all companies and detachments of the post were to drill from 6 P. M. until dusk because cholera was still prevalent at the post. No precise explanation for the command was given, but it can be inferred that Corbin wanted to keep the men active.¹²³ During the epidemic, Post Commander Corbin also wrote his superior at Fort Harker for advice concerning "drunken and loitering laborers" from the railroad crews who were afraid of a "new outbreak of cholera." The reply from Fort Harker stated that if the laborers were in danger they should be given protection and made subject to post orders.¹²⁴

The garrison at Fort Hays at the time of the epidemic was composed of Companies C, E, and G of the 38th infantry, Company F of the 10th cavalry (both composed of Negro troops) and Company C of the 3d infantry. The Negro troops suffered all the deaths recorded at that post. This may have been due to the lack of sanitation which seemed to characterize the Negro companies at the time, to the close association of these men after the first death among their ranks, and to their reluctance to seek treatment at the special cholera hospital.

It was reported that the post surgeon had to get prisoners from the guard house to help him treat the soldiers who had contracted the disease. Five privates who had been convicted by general court-martial and confined in the guardhouse since April 10 were released from arrest and returned to duty by the post commander in consideration of their faithful and efficient services as nurses in the cholera hospital.¹²⁵ Their pardon, however, was not allowed by higher authorities who held that the post commander, Captain Corbin, had no authority to reduce the sentences ordered by a court-martial.

In August the post at Fort Hays reported the largest number ever present there at one time, 464 men. During that month ap-

123. "Post Orders Book, Fort Hays, 1867." Copies of the orders located in the miscellaneous papers on Old Fort Hays, "Dr. Raymond L. Welty Collection," Fort Hays Kansas State College Library, Hays. I used these materials while still in the possession of the late Professor Welty.

124. "Post Return," A. S. O. Box 222, "Fort Hays Letter File, 1867," Fort Hays. Copies of the letters located in the miscellaneous papers on Old Fort Hays, "Dr. Raymond L. Welty Collection."

125. Raymond L. Welty, "Cholera Epidemic Hit Fort Hays and Rome in 1867," Hays *Daily News*, October 1, 1950. A near fable arose around one of the supposed victims of the cholera epidemic at Fort Hays. Mrs. Ephriam Polly was a hospital matron and her husband a hospital steward. When off duty she would go to a hill one mile southwest of Hays at the point of the rise above the Big Creek valley. Her special request was that when she died she be buried on the top of the mound. She died while serving at the post; one story was that she had contracted cholera while nursing soldiers and another was that she was a victim of tuberculosis. Her request was partially fulfilled as the soldiers buried her a few rods west of the military reservation boundary as the mound was of solid rock and on reservation land.

proximately 2,000 camp followers were in Rome and Hays City (two small towns vying for the right to have the rail station in their particular town) near the post. Because of Indian activity on the Plains further west, all trains and civilian movements required military escort. Consequently, Fort Hays became a staging area for movements westward. Probably the greatest number of deaths from cholera occurred in Hays City and the town of Rome during the epidemic, but there is no exact account of the number who died. There were reports of numerous burials in small camps around the post and along the river.

Simon Motz, who was present at the time, states that the mortality from the cholera epidemic at Fort Hays "is best told by 148 tombstones erected in later years by the government over the graves of the soldiers that died at the different camps located on the creek in the immediate vicinity of the post."¹²⁶ He admits, however, that the accurate number of deaths resulting from cholera was probably never known. He recalled: "Including the camps with the town made it a continuous funeral day and night. The sorrowful condition was intensified by the helpless and unfortunate situation under which people were compelled to silently bow to the inevitable."¹²⁷

Buffalo Bill's attempt to build a town out on the prairie was ended when the "hitherto prosperous career of Rome was suddenly checked by the appearance of cholera." The populous little community was without doctors, drug stores, or even ministers "to speak words of comfort to those stricken."¹²⁸

Between Forts Hays and Wallace the numerous stage stations along the Butterfield trail "have been remarkably free from this terrible disease" according to Leonard Y. Loring, assistant surgeon at Downer's station (in present-day Trego county). The trains and escorts which passed that post had cases which Loring diagnosed not to be cholera though many of the symptoms were present. A supply train destined for Fort Wallace passed Downer's station August 7 and cholera was definitely present. Two troopers stationed as guards at Grinnell Springs (in present-day Gove county)

126. Simon Motz, *Historical and Biographical Sketches*, v. 1, p. 18.

127. *Ibid.*, v. 1, pp. 18-20. The story was reprinted in "Hays Had Its Beginning in 1867 With Founding of Rome," *Hays Daily News*, July 6, 1961, sec. 4, pp. 2-6. Motz tells of the strict sobriety of the population during the epidemic. Apparently liquor was made free to all and one business house even placed a barrel out in front with the head open and a card tacked upon it inscribed, "free, help yourself." Only a few indulged and then only lightly, owing to the accepted medical view, according to Motz, that moderate stimulation was a preventive, but the universal feeling was "if my time has come I want to go sober."

128. *Ibid.*, v. 1, pp. 18-20.

contracted the disease and were transported to Downer's station where they were treated; one of the men died, the other recovered.¹²⁹ No further cases were reported at that post or at any of the stations attached to it, where altogether 91 officers and men were stationed.

Company I, 38th infantry, left Fort Hays June 24 and was assigned to Monument station (in present-day Logan county) during July. In that month their strength was 115 men, and they suffered three cases and one death from cholera.¹³⁰ No particulars were received from that post.

Fort Wallace, in far western Kansas, had 339 officers and men and 120 citizen employees in the quartermaster department in July, 1867, when the cholera appeared. The disease broke out among members of the Seventh United States cavalry who were in the field and camped near Wallace in July, 1867, "having closed an arduous campaign." Custer, who had been ordered out from Fort Hays to the Platte on June 1 to engage hostile Indians, was recalled to the Smoky Hill valley by General Sherman to protect the beleaguered posts along that line. Custer arrived at Wallace on July 13 after marching 181 miles in seven days.¹³¹ Assistant Surgeon Henry Lippincott, attached to the Seventh cavalry, attributed the outbreak among those troops to the fact that Company F of the Seventh had been at Fort Hays during the epidemic there. Lippincott reported that "we left new Fort Hays, Kansas, about 1 P. M., July 12th, up to which time no symptoms of cholera had appeared among the men of the detachment."¹³² However, the detachment of Seventh cavalry while at Fort Hays "was some distance from the colored troops, (for the camp was large) and communication between them, after the disease broke out in camp, did not exist."¹³³ Lippincott was not certain that the detachment of Seventh United States cavalry took the disease to Fort Wallace, and he noted, "that the disease was brought here, I am perfectly satisfied, for the men of the government and citizen trains at Fort Hays had constant intercourse with each other."¹³⁴ The first case at Fort Wallace was on July 22 and the victim was a member of

129. "Extract From Special Report of Cholera Patients at Downer's Station, Kansas, August, 1867. Leonard Y. Loring Assistant Surgeon, U. S. A.," in *Report on Epidemic Cholera, 1867*, p. 51.

130. Woodward, in *ibid.*, p. xi.

131. Minnie Dubbs Millbrook, "The West Breaks in General Custer," *The Kansas Historical Quarterly*, v. 36 (Summer, 1970), pp. 132-135.

132. Henry Lippincott, letter, "Headquarters 7th U. S. Cavalry, in the Field, Near Fort Wallace, Kansas, July 22, 1867," in *Report on Epidemic Cholera, 1867*, p. 52.

133. *Ibid.*

134. *Ibid.*

H Company, Seventh cavalry. The disease reached its peak at Wallace on the 25th, by which time there had been 10 cases and four deaths.

With the outbreak at the Seventh cavalry camp near Wallace, immediate measures were taken to improve the hygienic conditions in the camp, and there were daily inspections of the men. Sinks were inspected and filled when required, all drinking water was boiled, and personal cleanliness commanded. Lippincott noted that Dr. Turner had provided "beds, bedding, etc., when requested" from the post hospital. The cholera again increased at the end of July among the Seventh cavalry camp, but it was reported that after August 17 "we have been entirely free from the disease."¹³⁵ Yet, in a letter to Cpt. W. C. Mitchell at Fort Leavenworth, Captain Keough of the Seventh United States cavalry, stated that "cholera broke out in the 7th Cavalry camp. I am happy to say that as yet not a single case has occurred at the Post." He mentioned that a recent arrival was quarantined "until all danger of the men of the detachment having brought up the cholera with them has passed away."¹³⁶

At Fort Wallace George Armstrong Custer, commanding officer of the Seventh United States cavalry, found himself without orders (he missed Gen. W. S. Hancock who was to have been there when he arrived). Custer left his post at Wallace and traveled east to Fort Riley, for which he was later court-martialed, and he argued that one of the reasons for his action was his apprehension over the safety of his wife who was somewhere in that cholera-infested region further east in Kansas. On July 15 he, four officers and 72 men, marched out on the Smoky Hill trail headed for Fort Hays and points east. In his defense, Custer later wrote:

The low state of vitality in the men, resulting from the long confinement to this scanty and unwholesome food, will I think, account for the great mortality among the cholera cases . . . and I believe that unless we can obtain a more abundant and better supply of rations than we had, it will be impossible to check the fearful epidemic.¹³⁷

In fact, Custer later wrote that he found conditions at Fort Wallace deplorable. It was "undergoing a state of seige" and the "reserve

135. Henry Lippincott, letter, "Headquarters 7th U. S. Cavalry, in the Field, Near Fort Wallace, Kansas 11 O'clock, a. m., July 27, 1867," in *ibid.*, p. 53. Lippincott, letter, "Camp of the 7th U. S. Cavalry, in the Field, Near Fort Wallace, August 31, 1867," *ibid.*

136. "Letters Sent, July 29, 1867, Records of the War Department." United States Army Commands, Fort Wallace, Kansas.—"Letters Sent," v. 58, 1867-1868 (Washington, D. C., 1953). Reproductions of these records were made available to the authors by the late Edward Beougher, Grinnell.

137. Gen. George A. Custer, *My Life on the Plains* (New York, 1876), pp. 109-111. Custer attributed the cholera at Fort Wallace to "unhealthy food" supplied by crooked contractors.

of stores at the post were well-nigh exhausted."¹³⁸ But, more critical, "cholera made its appearance among the men, and deaths occurred daily."¹³⁹ Mrs. Minnie Millbrook has recently shown that Custer's statements about conditions at Fort Wallace were simply not true. She correctly notes that there was no cholera at the post while Custer was there, and when it did break out in the Seventh's camp on the 22d of July, Custer had been gone seven days on his trip east to Fort Riley. That is not to say that Custer or the command at Fort Wallace was unaware of cholera farther east on July 13 when he arrived at that post.¹⁴⁰ In fact, F company of the Seventh cavalry and a quartermaster train which left Fort Hays on July 12 while cholera raged there, arrived at Fort Wallace July 18. Surgeon Lippincott's reference to numerous contacts between Wallace and points east contradicts the view that authorities at Wallace did not know of cholera further east. They definitely knew about it on the 18th, but it is true that Custer left Wallace three days earlier. No doubt he met that detachment of the Seventh from Fort Hays, but the question remains as to whether he knew of the cholera before then.¹⁴¹

A second outbreak of cholera which occurred in early August was apparently unrelated, in point of origin, to the earlier epidemic among troops of the Seventh cavalry. This new epidemic of cholera was brought to Fort Wallace by Companies B, E, G, H, and I of the Fifth United States infantry which arrived at the post from New Mexico on August 8. According to T. H. Turner, assistant surgeon, at Fort Wallace:

The command is said to have been healthy on the road, though much diarrhoea seems to have existed unnoticed after its leaving the Arkansas [river]. Seven days' march from this post they passed, without halting, a camp of colored troops, among whom cholera was prevailing, and this is supposed to be the only contact, if contact that can be called, with the disease to which the command was subjected.¹⁴²

Later in his report, however, Turner attributed the cause to the

138. *Ibid.*, pp. 97-100.

139. *Ibid.*, p. 80.

140. Millbrook, "The West Breaks in General Custer," p. 137. Theodore Davis, a reporter who accompanied Custer and the Seventh, wrote a story entitled, "A Summer on the Plains," in *Harpers*, February, 1868, p. 307, but he made no references to cholera when he recounted the trip from Fort Wallace to Fort Hays then to Fort Harker where he took a train back East. All this was in the midst of the cholera outbreak.

141. Mrs. Millbrook challenges the view of historians that "Custer had gathered together his best troops and horses to break through a trail swarming with fierce Indians in order to bring back badly needed medicine for the sick and food supplies for the beleaguered and hungry post."—Millbrook, "The West Breaks in General Custer," p. 137. Her general assessment is convincing in proving that the situation was not critical at Fort Wallace when Custer reached the post in July.

142. T. H. Turner, letter, "Post Hospital, Fort Wallace, Kansas, September 1, 1867," in *Report on Epidemic Cholera, 1867*, pp. 54, 55.

atmosphere. And, he added, "it is probable that the violence with which the disease commenced was owing somewhat to the dissipation with which the men celebrated their arrival at the post; and that the panic which ensued was productive of cases, is, I think, as little to be doubted."¹⁴³

A fatal case occurred August 8 and in a few days the command was panic-stricken with the news that five men had died by August 10. On August 13 the cholera was still present as the "Post Orders Book" reveals that, "because of cholera prevailing at post—Post Surgeon ordered an extra issue of tea of 1 ration per man daily until further ordered." After that date no further references were made to the disease in the official records of the post.¹⁴⁴ The cholera cases were taken to a special quarantine hospital under the direction of Surgeon T. H. Turner. All the cases reported to the hospital were from the Fifth United States infantry, including Mrs. Bankhead, the wife of the commander of the troops, who suffered for 40 hours before she died of the dreaded disease.

In contrast to many previous epidemics in Europe and the United States, the 1867 outbreak in Kansas appears to have had little or no long-term effect on the demographic, economic, social, and political forces at work in the region.¹⁴⁵ That is not to say that it did not have an immediate and tragic effect; it did have that. Towns were depopulated, people suffered, many died—Indians, black troopers and white, civilians and military. In the circumstance of central and western Kansas in 1867, where the epidemic was most deadly, the organization of communities was

143. *Ibid.*, p. 55.

144. Serial Order No. 66, August 13th, 1867, "Post Order Book," Fort Wallace, 1866-1868, Fort Wallace, Kansas, Records of the War Department, United States Army Commands (Washington, D. C., 1953). Again, reproductions of these records were made available to the authors by the late Edward Beougher, Grinnell.

145. On the other hand, one can argue that the impact of the cholera on the Wichita Indians was decisive. Also, Ellsworth suffered a major setback from the epidemic there. In our judgment, however, these do not represent fundamental or even substantial alterations of the ongoing forces on the Plains.

A major factor limiting the impact of the disease was the sparse population in the region. Confirmation of our judgment about the impact of the cholera in Kansas is found in John Duffy's study of "The Impact of Asiatic Cholera on Pittsburgh, Wheeling, and Charleston," *Western Pennsylvania History Magazine*, Pittsburgh, v. 47 (July, 1964), p. 211, when he states that "aside from local considerations, the major factor which enabled these cities to escape the full ravages of cholera was probably their size. Crowd diseases flourish in extensive slum areas and these were to be found only in large cities." However, even in these small cities the cholera epidemics were important catalysts for reform of public health services. A board of health was usually created and given extensive power. Though many lapsed into disuse, by the 1850's many permanent local boards were formed. In Kansas there were medical men in the towns in the eastern part of the state who, as a consequence of the 1867 epidemic, asked "Where is our board of health?" "Will they never get above the idea of slop-carts and foul privies?"—*Leavenworth Medical Herald*, v. 1 (August, 1867), pp. 134, 135. And the *Wyandotte Gazette*, July 27, 1867, noted that "Our City Council, and Board of Health, if we have one, should see to it that the sanitary condition of our city is such as not to invite the cholera, and our citizens should be sure and not consume any other than wholesome food and drink." There is no evidence, however, that the 1867 epidemic stimulated the creation of or activated boards of health in Kansas. These brief references to the disease and the problem of public health indicated the limited impact it had on these Kansas communities.

intimately tied to the military outposts which dominated the scene. Consequently, the epidemic in Kansas was distinctly the province of the military, although, as this article has tried to show, the disease may have been carried to the posts by civilians. The special forces which traditionally operated in previous epidemics were absent out on the barren plains of Kansas.

For example, in the 1830's the Russian peasantry doubted the real presence of cholera because of their opposition to quarantines and due to other latent fears, and in various epidemics in American cities in the 19th century the disease was viewed as the vengeance of God against the vicious habits of the lower classes. In the one case the epidemic stimulated peasant uprisings and in the other the flight of the upper classes out and away from the city.

In Kansas there appear to have been no social consequences as a result of the outbreak except the ignoring of its presence. The Junction City *Union* of July 20, 1867, noted that "the cholera rumors from Harker only increase in proportions and frightfulness. They are so conflicting and unsatisfactory . . . we will not attempt any notice of it."¹⁴⁶ It was not until August 3 that the paper acknowledged the dimension of the epidemic at Fort Harker where it was most severe, but even then it did not dwell on the subject for fear of scaring prospective settlers who might be heading for Kansas. This was not at all abnormal, as John Duffy discovered in his study of the 1853 yellow fever epidemic in New Orleans, when he stated that "it is impossible to read the New Orleans newspapers and journals in the late fall of 1853 and not be astounded at the way in which the tragedy of the preceding summer was seemingly disregarded." Those who flocked to the city "hoping to gain rapid wealth" had forgotten all about the tragic events of a few months earlier.¹⁴⁷

In Kansas it was the drive for new land which preoccupied the settlers moving onto the Plains. Of course there were the local problems of chaos and panic caused by the presence of cholera at Forts Harker, Hays, Dodge, Wallace, and in other commands, but the outbursts were of short duration. Again, it was the specific nature of this epidemic, which remained principally connected to the military posts and commands, that allowed for martial authority to be used to stem any tide to disorder.

The most striking fact in this regard was the failure of the civilian

146. Junction City *Weekly Union*, July 20, 1867.

147. John Duffy, *Sword of Pestilence, The New Orleans Yellow Fever Epidemic of 1853* (Baton Rouge, La., 1966), p. 172.

population to take note of the epidemic. No first-hand accounts written by civilians are available, to our knowledge. There is an extant diary by James C. Richards, who was working on the railroad between Ellsworth and Junction City in June and July, 1867, but he makes no mention of cholera, though he had to know of its presence. How strange it is that he could write on July 7 from somewhere in central Kansas during the height of a cholera epidemic that it "was a dull day I layed all day around camp expecting we might go to Junction City."¹⁴⁸ Perhaps some psychological defense mechanism operated in the minds of these rootless new emigrants and transients in the West (whether civilian or military) whereby the terror envisioned by the cholera caused them to blot out its presence in their thinking. Or perhaps they were simply preoccupied by the business at hand of just getting on in the world. There is no evidence that these Westerners viewed the epidemic as God's vengeance for their evil actions, though, no doubt, some must have so regarded it. There is scant evidence that the large number of Negro troopers struck down by the cholera reinforced the Westerner's belief in the inferiority of the black race.

Quite obviously, however, the epidemic did nothing to stem the tide of emigration into the state of Kansas. When Mrs. Josephine Middlekauff recalled her trip to Hays in the fall of 1867, she made no mention of cholera. She wrote that "after a delay of several days in Ellsworth waiting for a sufficient number of would be Haysites to make the traveling overland safe from the Indians, my father with lumber and household goods arrived in Hays September 21, 1867."¹⁴⁹ Since the epidemic was not publicized in the press, most of the settlers moving into the region were probably unaware of its presence, and the ever constant Indian threat consumed their attention. The fear then was over the Indians and not cholera or the reappearance of the disease. Perhaps the settlers viewed the cholera with less fear than the Indians because an estimated 400 to 500 settlers in the department of Missouri were killed by the red men in 1866 and 1867. This fact may explain why Marvin Garfield made only brief reference to cholera in his study of "Defense of the Kansas Frontier, 1866-1867."¹⁵⁰ He makes note of it in reference to the outbreak among troops of the 18th

148. James C. Richards, diary, 1867, manuscript copy, Kansas State Historical Society, Topeka. The Historical Society also has two other diaries for 1867, by Isaac T. Goodnow of Manhattan, and John N. Holloway of Topeka, and neither makes any mention of the cholera epidemic.

149. "A Little Girls Impression of Hays in Its Wildest Days Given by Mrs. Josephine Middlekauff," *Hays Daily News*, July 6, 1961, sec. 2, p. 6.

150. Marvin Garfield, "Defense of the Kansas Frontier, 1866-1867," *Kansas Historical Quarterly*, v. 1 (August, 1932), p. 339.

Kansas Volunteer cavalry which campaigned throughout the late summer and fall unimpaired, apparently, by their earlier losses from their encounter with cholera. However, the 10 percent loss of life among members of that regiment during four months of service resulted primarily from the cholera. It seems that no more than three troopers were killed and 35 wounded in encounters with the Indians.¹⁵¹

Numerous desertions did occur among troopers and quartermaster employees as a result of the cholera epidemic. However, desertions do not appear to have been seriously crippling in Kansas in 1867, although the army reported that about one in every four troopers were absent without leave in that year.¹⁵² The three deserters from G. B. Jenness' company of Kansas Volunteer cavalry were recovered before the troops were mustered out of service that fall.

The importance of the epidemic in Kansas in 1867, then, is to be found in the army, particularly in the role of the medical officers who were involved in all facets of the outbreak. Because the cholera was confined to operations of the military, it is then significant that the doctors who treated most of the cases viewed the epidemic in strictly medical terms. Most of them sought to apply the latest methods of treatment available to their profession, and their analyses of the causes of the epidemic reflected the latest knowledge of cholera research. Although Snow's theories had been in print for 12 years, they were not generally accepted by 1867. The theories that were granted credence acknowledged cholera to be a specific disease initiated by an external cause. The specificity of the cause was given, and it was generally thought to be an undetected substance that had entered the body of the victim. The nature of the substance, its origin, its modes of transmission, its internal effects on the body, and the site of infection were in dispute,¹⁵³ although Snow had proposed some remarkably insightful solutions to these puzzles.¹⁵⁴

It would be 17 years before Koch conclusively demonstrated the cholera bacillus, and longer yet until the theories of contagion were developed fully and applied to all diseases. In the meantime, smallpox, in which contagion was accepted as fact, served as the model to which other diseases purported to be contagious

151. *Ibid.*, pp. 339, 340.

152. Raymond L. Welty, "Studies in the Western Frontier, 1860-1870" (unpublished Ph.D. dissertation, State University of Iowa, Iowa City, Iowa, 1924), p. 593.

153. S. N. De, *Cholera* (London, 1961), pp. 13-16.

154. John Snow, *Snow on Cholera* (New York, 1936), p. 191.

were compared. Since no other disease is exactly like smallpox, persons proposing that other diseases—including cholera—were contagious could not satisfactorily fit those diseases to the model.¹⁵⁵ Yet, nationwide a good number of doctors still denied that cholera was contagious in spite of recent epidemics, including the one in the army in 1866, which provided evidence that outbreaks of cholera could be traced to the introduction of the disease from some infected source.¹⁵⁶

Most of the medical officers connected with the epidemic in Kansas accepted some variations of the contagion theory of the disease, although many still considered the atmosphere to be the "primary medium for the spread of the disease."¹⁵⁷ Surgeon Joseph R. Smith reported from Jefferson Barracks, December 12, 1867, that I am satisfied, under all the circumstances, that this outbreak of cholera was caused by the change of habit of these soldiers from their out-of-door camp life in marching across the plains to life in somewhat crowded quarters, and to change in drink from the pure clear water of the mountains and prairie streams to the impure turbid water of the Mississippi.¹⁵⁸

He was describing the cause of the outbreak of cholera among members of the 125th infantry (Negro) from Fort Bliss, Tex., who had just arrived at Jefferson Barracks via Fort Harker. Assistant Surgeon T. H. Turner, as previously noted, explicitly attributed the epidemic at Fort Wallace to the atmosphere. George Sternberg at Harker made constant references to the atmosphere, particularly the warm and oppressive days and cool nights, as he sought to explain the cause of the epidemic at Harker. He even noted the presence of large flies as perhaps somehow involved in causing the tragedy. His efforts with disinfectants may have been premonitory of the later theories, which admitted a contagious cause of cholera that was specific but not alone sufficient to produce disease without predisposing influences such as the appropriate "atmosphere," correct ground-water conditions, or other factors.¹⁵⁹

Surgeon J. W. Brewer's reports reflected the latest research on cholera and an attempt to apply that knowledge to the particular problems of an epidemic in remote central Kansas. He noted in his report "that the disease was imported in some manner, would

155. Charles Rosenberg, *The Cholera Years*, p. 77.

156. Charles Rosenberg, "The Cause of Cholera: Aspects of Etiological Thought in Nineteenth Century America," *Bulletin of the History of Medicine*, Baltimore, v. 34 (July-August, 1960), p. 349.

157. *Ibid.*, pp. 334, 335.

158. Joseph R. Smith, letter, "Jefferson Barracks, Mo., December 12, 1867," in *Report on Epidemic Cholera, 1867*, p. 26.

159. S. N. De, *Cholera*, p. 18.

agree with the most generally accepted theories of the means of its propagation; but no positive evidence of its importation can be obtained."¹⁶⁰ And he cited Professor Pettenkoffer on the subject of porous soils and subsoil water and the presence of a certain degree of heat and moisture as fostering the disease. He also made reference to a Dr. Peters who had written a "recent work on cholera" stating that "no amount of filth, imprudence, or diarrhoeal disease, without the addition of the peculiar cause, can give rise to the disease in temperate climes."¹⁶¹ He also cited a Dr. Norman Cheevers as the author of a recent article in *Ranking's Abstract*, January, 1867, on the contamination of drinking water "by emanations from sewers, . . . stable manure, night-soil, &c."¹⁶² Brewer argued that most of these factors were present and affecting the situation at Fort Harker.

Perhaps the most significant thing about the medical officers and the epidemic was that many of them had played an active part in previous cholera epidemics, particularly the 1866 epidemic in places such as New York harbor. For example, H. M. Kirke, who joined the 38th infantry in Colorado, told how his newly acquired patients "were all put under the treatment thoroughly tried by myself during the epidemic which . . . occurred in Chicago in 1853, and afterward in New York city in 1866."¹⁶³ As has been noted, the New York epidemic of 1866 was extremely important in convincing physicians that a poison was responsible for cholera and that it was propagated "in the diarrhoeal and vomited fluids of infected persons."¹⁶⁴ Along that line the quarantine recommendations in Circular No. 5 of the United States Surgeon General's Office on the 1866 epidemic in the army, had stressed the use of disinfectants even though their action had "not yet [been] understood in all their detail."¹⁶⁵ These factors com-

160. J. W. Brewer, letter, "Fort Harper, Kansas, July 31, 1867," in *Report on Epidemic Cholera, 1867*, p. 37. Although Thomas Neville Bonner in his *The Kansas Doctor, A Century of Pioneering* (Lawrence, 1959) may be correct in his statement that "Most medical men of the late 1860's, . . . clung to the miasmatic theory of the origin of cholera. They still believed that the disease could be generated by filth or animal and vegetable remains." But, he presents no solid evidence to support that contention. As we have tried to point out, the problem is more complex than that. The army physicians often held conflicting and contradictory views, however, by their extensive use of disinfectants and certain statements made about the causes of the epidemic such as Brewer's account indicate that many, if not most, were coming to argue for some type of germ theory as the origin of the disease.

161. *Ibid.*

162. *Ibid.*

163. H. M. Kirke, letter, "Washington, D. C., February 8, 1868," in *ibid.*, p. 40.

164. Charles Rosenberg, *The Cholera Years*, p. 192, citing the New York State Metropolitan Board of Health, *Annual Report . . . 1866* (New York, 1867), p. 204.

165. *Report on Epidemic Cholera, 1866*, p. 63. Acting assistant surgeon, U. S. A., B. F. Craig appended a "Report on Disinfectants and Their Use in Connection With Cholera," to the surgeon general's report of 1866.

bine to explain why the stringent hygienic measures were imposed at posts like Fort Riley with such good effect and were reimposed where they had become lax.

The question still remains as to why the epidemic was so deadly in central Kansas with the presence of trained army medical officers. The introduction of the disease from the East does not explain its great impact at Harker, in particular. The problem there was the failure to enforce strict hygienic practices in a newly created camp at the very time that a large number of civilians were brought in to work there. A flood had contributed to the problem of contamination of water sources. Post Surgeon Sternberg, who was responsible for the situation, admitted to the deplorable condition of the camp, and consequently must be given some of the blame for the outbreak. However, he could not control conditions in the civilian camps about the post at Fort Harker. Those conditions have been described by an army physician who saw it firsthand:

The train to which he [a recent cholera victim] was attached was camped on a bottom, near the banks of Page creek, and received all the drainage from the fort above. I saw scattered about the ground, in a state of decomposition, refuse articles of food, bread, meat, beans, &c. The stench arising from these sources of filth, together with that of the decomposing excrement from the mules, was intolerable. There were no sinks for the use of the men. I was informed that they were accustomed to defecate on the banks of the creek, the water of which was used for bathing, and in some instances, for drinking purposes. . . .¹⁶⁶

Conditions at other posts were not as bad, but because of the recent flooding they appeared to have been well below standards. Although not personally at fault for the situation, the Negro troopers, who suffered most of the fatalities at the various posts and in the commands, contracted the cholera readily, no doubt because of poor personal hygienic habits. Inadequate medical supplies caused part of the loss of life among the members of the 38th infantry under Colonel Merriam as it traveled west from Fort Harker to Fort Union, N. M.

A brief and tragic interlude in Kansas history, the epidemic simply reflects the fact that conditions in the raw frontier outposts could deteriorate to the point where the introduction of an epidemic disease could cause great devastation. Local conditions, however, were probably no worse than those in the poor sections of the large American cities which suffered so greatly from the disease. The center of settlements in central and western Kansas

166. J. W. Brewer, letter, "Fort Harker, Kansas, July 31, 1867," in *Report on Epidemic Cholera, 1867*, p. 36.

were the military posts and the consequent organization of social life allowed for immediate control of the social consequences of an epidemic. The men who treated the victims of the cholera were not casual country bumpkins who relied on old wives' remedies; they were well trained physicians whose knowledge of epidemic diseases probably exceeded that of their civilian brethren in the Eastern urban centers.