

MOUNTAIN FEVER IN THE 1847 MORMON PIONEER COMPANIES

Jay A. Aldous

The cause of mountain fever has been debated for years, but this query has additional interest because of the sesquicentennial year of the arrival of the Mormon pioneers in the Salt Lake Valley. Indeed, one may ask what effect this disease had on the 1847 Mormon pioneer companies. This paper attempts to determine to what extent the disease affected the progress of the 1847 pioneer companies and, in particular, the Brigham Young Company.

The term *mountain fever* is apparently a catch-all term referred to in many western histories. One historical writer, George Stewart, speaks of this condition as "that vague disease called 'mountain fever,' which seems to have meant any fever you had when you were in the mountains."¹ Additionally, Dr. Ralph T. Richards, in his book, *Of Medicine, Hospitals and Doctors*, says the following about early intermountain medicine: "Careful search of the medical literature before the middle of the last century [middle 1800s] failed to reveal any mention of 'mountain fever.' It seems to have been a term originating in the minds of trappers and 'mountain men' and was applied to any old illness that occurred in high altitudes."² In 1859, Henry Villard, while visiting mines in Colorado, reported that "the so-called mountain fever [claimed] many victims and caused many more to abandon their work and seek the plains."³

Other histories and journals of the West mention mountain fever. Edna Sherwood Fairchild, a granddaughter of Lavina Graves, a survivor of the Donner Party, wrote: "After leaving the mountains, most of the survivors suffered with mountain fever. Jonathan and Elizabeth Graves had it and both died. They were on the American River near Sacramento at the time."⁴ These

two individuals were debilitated from their long period of exposure and starvation. Also, the American River near Sacramento is hardly in the mountains. Other accounts place Elizabeth's death in the Sierra Nevada Mountains during her escape from the camp at Truckee (Donner) Lake. Whatever the cause of illness, both of these victims succumbed.

Rebecca Nutting Woodson, on her way to California in 1850, wrote: "When we was coming down the mountain there was several of us took sick with mountain fever I took it before we crossed the summit of the Rockies."⁵ This case would have occurred on the east side of South Pass. This victim lived, but her use of the term *mountain fever* indicates she would expect the reader to be familiar with the illness.

Caroline Findley, wife of James, wrote, "Young James, barely twenty caught 'mountain fever' and died in Oregon at the journey's end on December 23, 1847."⁶

Cornelia Sharp, on her way to Oregon in the 1850s, reported: "Parts of our family sick, ourselves tired and our cattle exhausted. Weakened by exposure, exposed to cholera and measles, susceptible to dysentery, dependent upon unreliable water supplies, the emigrants were vulnerable to all manner of sores, stomach upsets, [and] mountain fever."⁷ This account only mentions a condition called mountain fever, and the writer assumes the reader will be familiar with the illness.

In another report, a member of the Boston-Newton Company was taken ill with mountain fever before arriving at South Pass. "West of Ft. Laramie the Eleazer Ingals party passed a tent pitched along the Sweetwater

JAY A. ALDOUS is an associate professor in the department of surgery at the University of Utah, School of Medicine where he directs postdoctoral education programs in general dentistry. He had a private dental practice for 23 years before embarking on a fourteen-year stay at the University of Utah. Doctor Aldous is also interested in infectious diseases. In addition to membership in several professional dental organizations, he is a member of the Mormon History Association, Utah Historical Society, and Oregon-California Trails Association.

River. Inside, were a man and his wife, 'the man down with mountain fever.'" On the following day, they "overtook a train of 10 wagons in which 14 men were tormented by mountain fever."⁸ Mary Ackley wrote in her diary in 1852, "Brother Jim four years old had mountain fever. . . . When he recovered his hair all fell out."⁹

Dr. John Hudson Wayman, a physician traveling to the gold fields in 1852, wrote in his diary on 30 June, after leaving Fort Laramie:

I have heard of some deaths occurring from this mountain fever in such cases I think from what I have seen, that it is the result of bad management, and when death does occur, the immediate cause is peritoneal inflammation. I have visited some cases & indeed the only serious ones were of this character. This induced me to think that all fatal cases terminate in this way Peritoneal inflammation seems to be a natural concomitant of this mountain fever. I have seen a number of cases and all seem to wear [sic] this tendency. Though if properly managed there is no danger.¹⁰

From this reference, we might assume that some fatal cases involved gastrointestinal complications. This would seem to be an atypical complication.

Lydia Rudd, traveling the Oregon Trail along the Bear River, describes her husband's illness. In her entry of 23 July 1852, she reports that "Harry was taken with a chill this morning very sick we were obliged to encamp at noon he could not travel encamped on bear river." By 26 July, Harry was better, and they traveled ten miles.¹¹ The timing, symptoms, and location suggest mountain fever.

The country along the Oregon Trail from South Pass to the Snake River was the location of several other cases of mountain fever. A cluster of cases was reported near the Portneuf River in Idaho. Charles Harper relates an event from 1847: "A great number of men have been taken sick within a few days. The symptoms are violent pain in the head and limbs but generally does not last long until they recover. The disease spoken of still continues in camp but not fatal. They have nearly all had it."¹²

Another cluster of cases was reported on 29 June

1851 near the Green River in present-day Wyoming. A journal entry by P. V. Crawford relates, "This morning we crossed a level, sandy beach of ten miles width, to the Green river ferry. Here we found five good ferry boats, which would ferry us over for three dollars each wagon, by us swimming our cattle. . . . Two of my family were sick here with mountain fever, a common occurrence in this region." By 4 July, he reports, "Weather very pleasant, health good." Crawford later wrote on 10 July, "This day we remained at the bridge. (at Thomas' Fork near where the Sublette Cutoff meets the Fort Bridger route) We had a sick man in the train, who died here. His name was John Scott, of Missouri. He had been sick for a long time before leaving the States and took the mountain fever and it killed him. We buried him here."¹³

From the accounts noted above, the symptoms and outcomes vary—indicating that more than one disease was being reported. Mormon diarists have left the best descriptions of what they called *mountain fever*. The descriptions, symptoms, and courses of their illnesses were uniform enough to be considered one disease. Variations in symptoms and lengths of illnesses most likely are explained by personal immunological responses.

Comparison with current microbiological and medical descriptions suggests that Mormon mountain fever was what is now known as Colorado tick fever. Both Dr. Peter Olch, a student of frontier medicine, and the microbiology text by Jawetz, Melnick, and Adelberg have identified mountain fever as Colorado tick fever, which is caused by a virus transmitted by the Rocky Mountain wood tick (*Demacenter andersoni*).¹⁴

Tick season begins with warm weather, but ticks may become less active when the temperature increases and humidity decreases. Ticks perch on vegetation and move toward hosts identified by heat, odor, and odoriferous excretion produced by ticks that have found a host. Thomas Bullock reported: "[H]ere also commences a five-hundred mile journey through eternal sage plains, from six inches to ten feet high; where the sage is, you must not expect to see any grass—but if you should happen to sit down on a bush, be thankful if you are not bitten with 'sage ticks'; they are something like the ticks on cows, and very plaguy."¹⁵

The winter of 1846 was severe in the Sierra Nevada

Mountains and must have extended into the area around Fort Bridger, for both Orson Pratt and Thomas Bullock describe snow banks remaining west of Fort Bridger on 9 July 1847.¹⁶ The delayed melting of the snow indicates a late summer, which may have put the Brigham Young Company in the maximum tick infestation period.

The symptoms of Colorado tick fever have the closest match with the symptoms demonstrated by the Mormon pioneers. The typical course of Colorado tick fever results in a fever four to six days following the tick bite and is characterized by a sudden onset of symptoms. Chills, muscle and joint pain, headache, deep pain behind the eyes, lumbar backache, and nausea and vomiting are other symptoms that may follow. The fever may come and go. The symptoms may last a couple of days, after which the patient may improve. Relapses are fre-

possible.

One popular causality in historical literature is "high-altitude malaria" caused by mosquitoes infected from carrier animals.¹⁸ The symptoms, course of infection, and mortality for malaria do not match the symptoms and course of the disease that affected members of the Brigham Young Company. In addition, the only animals that carry the malaria organism outside of humans are simian (primates). A more complete discussion of possible diseases and their elimination is given in Aldous and Nicholes, "What is Mountain Fever."¹⁹

Because of his fame, Brigham Young's bout with mountain fever has received more attention than the illnesses of other victims. The Mormon pioneers attributed mountain fever to the hot days and cold nights as they traveled across what is now Wyoming. Diarists Erastus



*Wilford Woodruff 1847 Pioneer Wagon
Carriage House Museum, Salt Lake City, Utah*

*When Brigham Young entered the Salt Lake Valley he was riding in the back of Elder Woodruff's wagon while recovering from the effects of Rocky Mountain Fever.
photograph by Alexander L. Baugh*

quent and may last for an additional three or four days.¹⁷ The disease occurs chiefly in adult males, the group usually with the greatest exposure to ticks. Even with the close match of symptoms and duration, we cannot be sure of the cause of the disease without examination of patients and use of laboratory tests, neither of which is

by name were ill with mountain fever in the 1847 companies, indicating that not all individuals affected were recorded. (See Exhibit II, "Mountain Fever Cases by Name and Age.")

Erastus Snow, A. P. Rockwood, John Brown, and Levi Jackman and historians such as Wallace Stegner and Preston Nibley have said many people were taken ill with mountain fever. Erastus Snow reported that at the Green River, about half the company exhibited symptoms of mountain fever.²⁰ At this point in the journey, the company was composed of 157 men and women.²¹ (See Exhibit I, "Camp of Israel Roster.") If Snow's count is correct, the number of cases reported in this paper is not complete. Furthermore, many additional cases were reported between the Green and Bear Rivers. In this paper, thirty-eight people listed

Only rarely did people ride in the wagons when

crossing the plains because of the increased burden on their animals. Individuals walked except when injured or ill. Wagons were not constructed for comfortable riding, for they had no springs. The vanguard company did not stop for the recovery of the ill until Brigham Young was afflicted on the Bear River. Before that, a concession was made allowing some of the ill to ride in the wagons. However, Brigham Young and A. P. Rockwood were transported following their illness in the back of Wilford Woodruff's carriage. This vehicle was the most comfortable transportation in the pioneer company. Wallace Stegner wrote: "No one in the pioneer company, and few later, died of it [mountain fever], but the joint pains and headache made riding the jolting wagons a torture."²² Levi Jackman wrote: "The stony ground that we have to travel on makes it very hard for those that have to ride in the wagons."²³

After Brigham Young fell ill, the company was reorganized and divided into three segments. Brigham Young, Heber C. Kimball, Phineas Young, and a few others in eight wagons remained behind to come along as Brigham Young was able to travel. A group of forty-two men under the leadership of Orson Pratt went ahead to explore and improve the Donner Road while the main portion of the company followed the explorers.²⁴ Horace Thornton, in a letter to G. Rognon, reported that Orson Pratt's men were the strongest individuals and selected the weakest animals for the road building and exploring party.²⁵

Erastus Snow wrote: "This affliction [mountain fever] detained us so that, with the labor on the roads through the Wasatch Mountain, we were unable to reach the Great Salt Lake valley until the 21st of July, when Orson Pratt and myself, of the working parties, . . . first emerged into the valley."²⁶ Levi Jackman, a member of the exploring and road-building group, said on 22 July 1847, "Our move has slow[ed] for it took all able-bodied men from one-half to three-fourths . . . [more] time to make the road so that we could possibly get along."²⁷ A. P. Rockwood's journal notes frequent stops to rest because of illness after the group reached the Bear River.²⁸

It is interesting to compare the progress of the Brigham Young Company with the Donner Party. The Donners made a road with only sufficient improvement to permit their passage through the Wasatch Mountains while the Mormons were improving the Donner Road for their own and future use. The Donner Party had thirty men over fourteen years of age. The exploring and road-building detachment of the Brigham Young Company had forty-two men. To cut a road through the Wasatch Mountains from Fort Bridger to the Salt Lake Valley took the Donner Party nineteen days, less four days of inactivity during which James Reed was securing information about the route from Lansford Hastings. The limited accounts of the Donner Party do not report illness in the area from Green River to the Salt Lake Valley. The Mormon groups took fifteen days, less two days to rest on Sundays. When we calculate work days, the Donners required 450 man/days to cover the distance from Fort Bridger to Salt Lake Valley; and the Mormons took 546 man/days, or about 20 percent longer, to cover the same distance. James Reed of the Donner Party makes reference to a reluctance of some to put their full effort into the road building. Nevertheless, it took the Mormons more man/days of work to complete their road than it took the Donners. The question may be asked whether this difference was in part due to illness and/or debilitation caused by the high rate of mountain fever.

Many eyewitness narratives exist from the 1847 Brigham Young Company. Most of the narratives of this company have been reviewed for cases of mountain fever, but there are most likely additional cases that were not recorded. From the references noted, mountain fever had an impact on the emigration, causing at least significant delay. The occurrence of mountain fever slowed the Camp of Israel, and the illness of Brigham Young certainly delayed his arrival in the Salt Lake Valley. We can only speculate that Pioneer Day might have been celebrated earlier in July had it not been for the pioneers' affliction with mountain fever. Mountain fever illustrates how a seemingly insignificant event as small as the bite of a tick may alter the course of history.

Exhibit I: CAMP OF ISRAEL ROSTER

Mountain fever victims are in bold.

Captains of ten are shown as (C).

FIRST TEN

Burnham, Jacob
 Egbert, Joseph
Fowler, John S.
 Freeman, John M.
 Pratt, Orson
Smith, George A.
 Thorpe, Marcus B.
Wardle, George
Woodruff, Wilford (C)

SECOND TEN

Adams, Barnabas L.
Benson, Ezra T. (C)
 Brown, George
Bullock, Thomas
 Carrington, Albert
 Driggs, Sterling
 *Grover, Thomas
Little, Jesse C.
 +Lyman, Amasa M.
Richards, Willard
 +Stevens, Roswell

THIRD TEN

Angell, Truman O.
 Everett, Addison
 Greene, John Y.
Rockwood, Albert P.
Scofield, Joseph
 Stringham, Bryant
 Tanner, Thomas
Young, Brigham
 Young, Lorenzo
 †Young, Phineas H. (C)

FOURTH TEN

Atwood, Millen
 Dykes, William
 *Ellsworth, Edmund
 Fox, Samuel
 Grant, George, R.
 Hanks, Alvarus
 Holman, John
 *Johnson, Luke S. (C)

Pierce, Harvey
 Rappleye, Tunis
 Weiler, Jacob

FIFTH TEN

Coltin, Zebedee
 Dixon, John
 Earl, Sylvester H.
 *Empey, William A.
Goddard, Stephen H. (C)
 Henrie, William
 Lewis, Tarlton
 Marble, Samuel
 Scholes, George
Sherwood, Henry

SIXTH TEN

Craig, James
 Howd, Simeon
 Owen, Seeley
 Loveland, Chauncey
Shumway, Andrew
 Shumway, Charles (C)
Snow, Erastus
 Vance, William
 +Woolsey, Thomas
 Wordsworth, William

SEVENTH TEN

Carter, William
Case, James (C)
Dewey, Benjamin Franklin
 Eastman, Ozro
 Ensign, Datus
 Frink, Monroe
 Frost, Burr
 ††Glines, Eric
Johnson, Artemus
 Losee, Franklin G.
Smoot, William C.
 *Stewart, Franklin B.

EIGHTH TEN

Allen, Rufus
 Barnum, Charles D.

Boggs, Francis
 Eldredge, John S.
 Grant, David
 Kelsey, Steven
 Kendall, Levi N.
 Newman, Elijah
 Stewart, James. W.
 Taft, Seth (C)
 Thomas, Robert T.
Thornton, Horace
 Williams, Almon M.

NINTH TEN

Billings, George
 Byard, Robert
Clayton, William
 Cloward, Thomas
 Cushing, Hosea
Egan, Howard (C)
 Johnson, Philo
Kimball, Heber C.
 King, William A.
Whipple, Edson

TENTH TEN

Brown, Nathaniel T.
 Fairbanks, Nathaniel
 †Farr, Aaron
 *Harmon, Appleton (C)
 Murray, Carlos
 Pack, John
 *Pomeroy, Francis M.
 Redden, Jackson
 Rockwell, Orrin P.
 Whitney, Horace K.
 Whitney, Orson K.

ELEVENTH TEN

Chamberlain, Solomon
 *Davenport, James
 Fitzgerald, Perry
 *Higbee, John S. (C)
 Kleinman, Conrad
 Rolfe, Benjamin
 Rooker, Joseph

+Tippets, John H.
Walker, Henson
Wheeler, John

TWELFTH TEN

Barney, Lewis
Gibbons, Andrew
Hancock, Joseph
Harper, Charles A.
Jacob, Norton (C)
Markham, Stephen
Mills, George
Norton, John W.
‡Woodward, George

THIRTEENTH TEN

Brown, John (C)
Crosby, Oscar
Curtis, Lyman
Hanson, Hans C.
Ivory, Mathew
Jackman, Levi
Lay, Hark
Powell, David
Roundy, Shadrack

FOURTEENTH TEN

‡Badger, Rodney
Burke, Charles
Chessley, Alexander

Flake, Green
Gleason, John
Matthews, Joseph (C)
Summe, Gillroid
Taylor, Norman

WOMEN AND CHILDREN

Decker, Isaac Perry
Kimball, Ellen Sanders
Young, Clarissa D.
Young, Harriet P. W.
Young, Lorenzo Z.

MISSISSIPPI SAINTS

Chesney, James
Crow, Benjamin B.
Crow, Elizabeth
Crow, Elizabeth J.
Crow, Harriet
Crow, Ida Vinda E.
Crow, Ira Minda A.
Crow, John M.
Crow, Robert
Crow, Walter H.
Crow, William P.
Litle, Archibald
Myers, Lewis B.
Therkill, George W.
Therkill, James W.
Therkill, Matilda J.

Therkill, Milton H.

FROM MORMON BATTALION SICK
DETACHMENT

Bingham, Thomas
Buchanan, John
Casto, William
Clarke, George
Compton, Allen
Durfee, Francilias
Gould, Samuel
Oakley, James
Roberts, Benjamin
Shupe, Andrew J.
Terrill, Joel J.
Williams, Thomas S.

SAM BRANNAN PARTY

Brannan, Samuel
Smith, Charles C.
unidentified

*Left at the North Platte River ferry
‡Stayed at the Platte River ferry and
caught up with the company.
‡Sent to Big Company with mes-
sage.
+Sent to guide remaining Pueblo
Saints

Exhibit II: MOUNTAIN FEVER CASES BY NAME AND AGE

Benson, Ezra T. (36)²⁹

Billings, George (20)³⁰

Bullock, Thomas (31)³¹

Carter, William (26)³²

Case, James (53)³³

Chamberlain, Solomon (59)³⁴

Clayton, William (32)³⁵

Curtis, Lyman (45)³⁶

Dewey, Franklin B. (22)³⁷

Egan, Howard (32)³⁸

Fowler, John S. (28)³⁹

Goddard, Stephen H. (36)⁴⁰

Grant, Caroline (29)⁴¹

Ivory, Mathew (38)⁴²

Jackman, Levi (50)⁴³

Jacob, Norton (42)⁴⁴

Johnson, Artemas⁴⁵

Kimball, Heber C. (48)⁴⁶

Little, Jesse C. (32)⁴⁷

Nebeker, William P. (11)⁴⁸

Parish, Priscilla (14)⁴⁹

Parish, Samuel (49)⁵⁰

Patton, George (boy?)⁵¹

Richards, Willard (43)⁵²

Rockwood, Albert P. (42)⁵³

Scofield, Joseph (38)⁵⁴

Sherwood, Henry G. (62)⁵⁵

Shumway, Andrew P (14)⁵⁶

Smith, George A. (30)⁵⁷

Smoot, William (19)⁵⁸

Snow, Erastus (29)⁵⁹

Summey, Sarah (husband 45)⁶⁰

Thornton, Horace (25)⁶¹

Wardle, George (27)⁶²

Whipple, Edson (42)⁶³

Woodruff, Wilford (40)⁶⁴

Young, Brigham (46)⁶⁵

Young, Clarissa D. (19)⁶⁶

Notes

1. George R. Stewart, *The California Trail* (Lincoln, Nebraska: Bison Books, 1983), 255.
2. Ralph T. Richards, *Of Medicine, Hospitals and Doctors* (Salt Lake City: University of Utah Press, 1953), 163.
3. Robert H. Shikes, *Rocky Mountain Medicine* (Boulder, Colorado: Johnson Books, 1986), 31.
4. Kristin Johnson, *Unfortunate Emigrants* (Logan, Utah: Utah State University Press, 1996), 293.
5. Lillian Schisel, *Women's Diaries of the Westward Journey* (New York: Schocken Books, 1992), 67.
6. *Ibid.*, 57.
7. *Ibid.*, 115.
8. Eleazar Stillman Ingalls, *Journal of a Trip to California by the Overland Route Across the Plains 1850-51* (Fairfield, Washington: Ye Galleon Press, 1979), cited in an unpublished manuscript by Lloyd W. Gundy, Arvada, Colorado, 12.
9. Emmy E. Werner, *Pioneer Children on the Journey West* (Boulder, Colorado: Westview Press, 1995), 125.
10. Edgeley W. Todd, ed., *A Doctor on the California Trail: The Diary of John Hudson Wayman from Cambridge City, Indiana, to the Gold Fields in 1852* (Denver: Old West Publishing Co., 1971), 14.
11. Schissel, 193.
12. From the Charles Alfred Harper diary, quoted in Peter Olch, "Health-Related Problems on the Emigrants' Trails," *Emigrant Trails of Southern Idaho*, Daniel J. Hutchinson and Larry Jones, tech. eds. (Boise: Bureau of Land Management and Idaho Historical Society, 1993), 100.
13. P. V. Crawford, "Journal of a Trip Across the Plains, 1851," *Oregon Historical Society Quarterly* 25 (June 1924): 136-69.
14. From the Charles Alfred Harper diary, quoted in Peter Olch, "Health-Related Problems on the Emigrants' Trails," *Emigrant Trails of Southern Idaho*, Daniel J. Hutchinson and Larry Jones, tech. eds. (Boise: Bureau of Land Management and Idaho Historical Society, 1993), 99; Ernest Jawetz, Joseph L. Melnick, and Edward A. Adelberg, *Medical Microbiology*, 20th ed. (Norwalk: Appleton & Lange, 1995), 445.
15. Thomas Bullock to Griffith Williams, 4 January 1848, *Latter-day Saints' Millennial Star* 10:8 (15 April 1848), 117. We do not know if Thomas Bullock made the connection between the bite of ticks with mountain fever that affected the company as a plague. Bullock's statement confirms the fact that ticks were very prevalent.
16. From the Orson Pratt journal, quoted in *The Mormon Trail*, Utah Crossroads, Oregon-California Trails Association, Sesquicentennial Field Trip Guide, 23-24 August 1997; T. Bullock, *The Pioneer Camp of the Saints*, Will Bagley, ed. (Spokane: Arthur H. Clark Co., 1997), 222.
17. Jawetz, Melnick, and Adelberg.
18. Harold Schindler, ed. *Crossing the Plains* (Salt Lake City: Salt Lake Tribune, 1997), 238. See also Harold Schindler, *Orrin Porter Rockwell Man of God Son of Thunder*, 2nd ed. (Salt Lake City: University of Utah Press, 1983), f.p., 161-62.
19. J. A. Aldous and P. S. Nicholes, "What Is Mountain Fever?" *Overland Journal* 15 (Spring 1997), 18-23.
20. Schindler, *Crossing the Plains*, 215.
21. The number is accountable because of the nine men left at the Platte River Ferry, the addition of seventeen Mississippi Saints at Fort Laramie, the thirteen members of the sick detachment of the Mormon Battalion, and Sam Brannan and two companions at the Green River. Other members were sent to guide or provide instruction to the main party of the Mormon Battalion sick detachment and the Big Company following from Winter Quarters.
22. Wallace Stegner, *The Gathering of Zion* (Lincoln: University of Nebraska Press, 1981), 157.
23. *A Short Sketch of the Life of Levi Jackman (1797-1876) Transcript BYU*, LDS Collectors Edition, Infobases, 1994.
24. Preston Nibley, *Exodus to Greatness* (Salt Lake City: Deseret News Press, 1947), 419.
25. *Chronicles of Courage*, vol. 3 (Salt Lake City: DUP Printing Co., 1992), 338.
26. Erastus Snow, *LDS Biographical Encyclopedia*, LDS Collectors Edition, Infobases, 1994.
27. *A Short Sketch of the Life of Levi Jackman*.
28. Luceal Rockwood Curtis, *Compiled and Assembled History of Albert Perry Rockwood* (Salt Lake City, n.p., 1968), 67-68.

29. Bullock, *The Pioneer Camp of the Saints*, 217; Schindler, *Crossing the Plains*, 208.
30. Schindler, *Crossing the Plains*, 208.
31. K. B. Carter, *Heart Throbs of the West*, vol. 9 (Salt Lake City: DUP, 1948), 444.
32. Schindler, *Crossing the Plains*, 231.
33. Ibid., 256.
34. Ibid., 247.
35. Bullock, *The Pioneer Camp of the Saints*, 217, 219; Schindler, *Crossing the Plains*, 208.
36. *A Short Sketch of the Life of Levi Jackman*.
37. Schindler, *Crossing the Plains*, 256.
38. Bullock, *The Pioneer Camp of the Saints*, 219.
39. Ibid.
40. Schindler, *Crossing the Plains*, 219.
41. Ibid., 216.
42. Bullock, *The Pioneer Camp of the Saints*, 217.
43. *A Short Sketch of the Life of Levi Jackman*.
44. Schindler, *Crossing the Plains*, 216; Gene A. Sessions, *Mormon Thunder: A Documentary History of Jedediah Morgan Grant* (Urbana: University of Illinois Press, 1982), 65.
45. Schindler, *Crossing the Plains*, 256.
46. *Chronicles of Courage*.
47. John Brown, *John Brown Autobiography*, 11 July 1847, quoted in *The Mormon Trail Sesquicentennial Field Trip Guide*, Crossroads Chapter OCTA, 23-24 August 1997, 18.
48. C. Edward Jacob and Ruth S. Jacob, *The Record of Norton Jacob* (Salt Lake City: 1949), 67-72.
49. Carter, *Heart Throbs of the West*.
50. Ibid.
51. William Perry Nebeker, Biography, LDS Collectors Edition, Infobases, 1994.
52. Bullock, *The Pioneer Camp of the Saints*, 220.
53. Curtis.
54. *Sara Rich Autobiography*, typescript, BYU, LDS Collectors Edition, Infobases, 1994.
55. Schindler, *Crossing the Plains*, 256.
56. Carter, *Our Pioneer Heritage*, 544.
57. Bullock, *The Pioneer Camp of the Saints*; Schindler, *Crossing the Plains*, 211; Nibley, 412.
58. Schindler, *Crossing the Plains*, 256.
59. Biography of Joseph Scholfield, LDS Collectors Edition, Infobases, 1994.
60. Carter, *Our Pioneer Heritage*, 84.
61. *Chronicles of Courage*.
62. Bullock, *The Pioneer Camp of the Saints*, 216.
63. Schindler, *Crossing the Plains*, 208.
64. Bullock, 222.
65. Curtis; Nibley; Jacob and Jacob.
66. Schindler, *Crossing the Plains*, 211; Biography of Joseph Scholfield.