THE IMPACT OF THE 1878 YELLOW FEVER EPIDEMIC ON THE JACKSON PURCHASE AND THE MISSISSIPPI VALLEY

Gregory K. Culver

Throughout history humanity has been afflicted by diseases. Often these diseases turned into epidemics that swept through large areas, leaving paths of sickness and death behind. Because modern science has developed remedies for such ills as smallpox, cholera, and typhus, the most famous epidemics of the past seem remote, even legendary. Yet even today, we still face numerous medical challenges with the emergence of new viral infections throughout the world.[1]

The yellow fever epidemic of 1878 is important to the history of the South because it raged through the entire Mississippi River Valley. This study concerns the yellow fever epidemic in Kentucky, specifically in that part of the state known as the Jackson Purchase.[2]

Like most of the southern United States, Kentucky was affected by the onset of yellow fever during the summer and fall of 1878. From the first diagnosed case in July, the disease and the effort to stop its spread became the greatest challenge to the citizens of the Jackson Purchase. Throughout the four-month scourge, the people of the Jackson Purchase endured terrible suffering. Widely known to most people in 1878 as "Yellow Jack," the yellow fever epidemic proved to be one of the most terrifying diseases in American history.[3] Although

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1 GREGORY K. CULVER, MA, is a graduate student at Southern Illinois University in Carbondale. His dissertation will focus on medicine and epidemics in the Jackson Purchase from 1870 to 1920.

1 Geddes Smith, *Plagues On Us* (New York, 1942), 24. A number of books have been written recently about the dangers of new diseases, particularly emerging viruses. See, for example, Richard Preston, *The Hot Zone* (New York: Random House, 1994).

2 The Jackson Purchase lies between the Mississippi and the Tennessee rivers, with the Ohio River to the north and the Tennessee border to the south. It was named after Andrew Jackson, who helped acquire the land from the Chickasaw Indians in 1818.

3 Khaled J. Bloom, *The Mississippi Valley's Great Yellow Fever Epidemic of 1878*

yellow fever is one of the oldest known epidemic diseases, it was perhaps the least understood in 1878. The complete mystery that surrounded the epidemic raises questions of major importance. Why did it occur in the South? What caused the violent strain in 1878? Why did it spread so quickly?

The exact location of the initial outbreak of the yellow fever epidemic is impossible to determine. In the spring of 1878 the American press reported that the West Indies had been struck by this mysterious disease. Although the widespread malady was mild, the sickness spread rapidly throughout the Caribbean— the Bahamas, Jamaica, Haiti, and particularly Cuba.[4]

Within a few months, yellow fever began appearing in the southern ports of the United States. Gradually Gulf Coast cities, such as Mobile, Galveston, and, particularly New Orleans, began reporting numerous cases of the dreaded disease, causing waves of panic. As a result, hundreds began fleeing daily, using any available means—trains, steamboats, horse and buggies, and even by foot.[5]

In an effort to delay the onset of yellow fever as long as possible, newspapers, public-health officials, and physicians issued various rules and precautions regarding "the avoidance and lessening of intensity of the epidemic of yellow fever." As a result, many cities throughout the region began issuing guidelines regarding future quarantines on both land and water travels to keep the disease out of their communities.[6]

On 15 August 1878 Paducah became the first Jackson Purchase community to begin a quarantine "on all arriving transportation to the area." Mayor James Wert and the local committee of public health boarded every train arriving in Paducah at a distance "between one and five miles from the city." A fine of $75.00 was also imposed on "any person arriving from any southern locality infected with yellow

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(Baton Rouge: Louisiana State University Press, 1993), 10.

4 *New Orleans Daily Picayune*, 28 March 1878.

5 Ibid., 23 June 1878.

6 *Paducah Daily News*, 1 August 1878.

fever." As a result, Paducah experienced only a few cases of the disease during the epidemic. Other towns would not be so lucky.[7]

The symptoms that appeared during the yellow fever epidemic in Kentucky were the same as those experienced throughout the rest of the South. Yellow fever is characterized by sudden onset of severe headaches, chills, and high fever followed by nausea, muscular pain, and prostration. Following a three-to-five-day period, most victims experienced the black vomit caused by internal hemorrhaging. Death usually followed after severe convulsions.[8]

Indeed, yellow fever in 1878 was a frightening disease. The inability of the physicians throughout the Mississippi River Valley to explain its cause or even the means by which it spread added the fearful element of the unknown, but the mere appearance of its victims was truly a shocking sight. One New Orleans physician vividly reported seeing a patient "...mired in the black vomit, with profuse hemorrhaging from the mouth, nose, eyes, and even the toes. The victim's eyes were prominent, glistening, yellow, and staring, the face with an orange and dusky red color."[9]

Certainly no disease was more difficult to understand than yellow fever with its many complications. Health officials in Kentucky and throughout the South were generally perplexed at its cause. Unaware of the role played by mosquitoes, the medical profession and public alike could find no logical pattern or explanation of this horrible disease. Years later it was discovered that yellow fever was an acute infectious disease transmitted in a "man-vector-man" cycle by the female mosquito identified as the *Aedes aegypti*. The vector, or host, acquires the virus by a "blood meal" from an infected human; following an incubation period of approximately twelve days, it can then transmit the disease.[10]

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7 Ibid., 15 August 1878.

8 John R. Proctor, "Notes on the Yellow Fever Epidemic at Hickman, Kentucky," *First Annual Report of the State Board of Health of Kentucky* (Frankfort, 1879), 22.

9 *New Orleans Daily Picayune*, 16 August 1878.

10 Stanhope Bayne-Jones, *The Evolution of Preventive Medicine in the United*

In late June 1878, New Orleans papers noted that, although things were dull, "life would be quite pleasing were it not for the buzzing and biting of the mosquito." Several days later mosquito hordes began taking over the hot, humid city of about 200,000 persons. A semi-humorous editorial declared that the major question was whether to kill the mosquitos or be killed by them: "A barbarous horde of great, ugly, long-billed, long-legged, creatures have invaded our streets and homes."[11]

During the summer of 1878, as the yellow fever began spreading throughout the Gulf states and the Mississippi River Valley, death tolls began mounting at an alarming rate. Newspapers throughout the region began devoting more and more space to the advancing disease known as the "Southern Scourge." As a result, thousands began fleeing the stricken cities of New Orleans, Vicksburg, and, particularly, Memphis.[12] By end of July, all who could leave the more populated areas of the lower Mississippi Valley were gone, and those who remained settled down to the task of caring for the sick and dying. As hospitals filled to capacity and bodies began piling up at cemeteries, the work awaiting the able-bodied seemed almost insurmountable.

The mass exodus from New Orleans had the effect of spreading the news of the yellow fever outbreak and of spreading the disease itself. The more New Orleans newspapers played down the seriousness of the epidemic, the more newspapers outside the city exaggerated its effect. Newspapers throughout the South often headlined epidemic columns that read: "Southern Stampede," "Shadow of Death," and "Death's Banquet."[13] As a result, by the middle of August, many river towns north of New Orleans instituted quarantines against the plague-stricken city. Vicksburg, for example,

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States Army, 1607-1939 (Washington, D.C.: Office of the Surgeon General, 1968), 202.

11 *New Orleans Daily Picayune*, 28 June 1878.

12 *Memphis Daily Appeal*, 28 July 1878.

13 *Louisville Courier-Journal* (hereafter *Courier-Journal*), 29 July 1878; *Paducah News Democrat*, 2 August 1878.

established a quarantine station downriver requiring that all persons from New Orleans be detained for seventy-two hours. Baggage, along with other goods from infected yellow fever areas, was opened and aired a minimum of eight to ten hours.[14]

Memphis, Tennessee, was the other principal city suffering from yellow fever along the Mississippi River during the summer of 1878. Known as the "Bluff City" with a population of about 40,000, Memphis served as one of the largest commercial and manufacturing ports in the United States. Before summer's end, all waterways and roads were closed, while its citizens suffered over four thousand deaths.[15]

As the frightened Mississippi River refugees began to flee northward, additional towns began to establish quarantines. Cairo, Illinois, St. Louis, and even Cincinnati closed their doors to those who sought safety. However, one river community, Louisville, Kentucky's largest city, refused to initiate a quarantine along the busy Ohio River. On 2 August the city's board of health met and resolved that:

> any attempt at quarantine would not only be galling and detrimental to social and communal interests, but would also be inhuman. As the agents and representatives of a Christian community, nothing is left us but to provide proper and ample hospital accommodations for such unfortunate sick as many now come to our city.[16]

Dr. Luke Blackburn, a prominent Louisville physician, strongly opposed the board's decision. Blackburn's opinion, however, was ignored, and Louisville soon opened its gates to hundreds of refugees who scattered among the town's hotels, boardinghouses, and private homes. A few weeks later, just as Blackburn had warned, Louisville experienced a wave of yellow fever cases that would eventually result in forty-nine deaths.[17]

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14 *Memphis Daily Appeal*, 4 August 1878.

15 Gerald Capers, *The Biography of a River Town, Memphis* (New York: Vanguard Press, 1966), 230.

16 *Courier-Journal*, 3 August 1878.

17 Ibid., 20 August 1878.

Although the disease in Louisville was never described as an "epidemic," Cincinnati papers reported that Louisville was being "ravaged" by the illness and that "her citizens were fleeing in panic." As a result, Cincinnati, St. Louis, Evansville, and a number of other river towns soon placed quarantines against all goods arriving from Louisville. Later, with considerable venom, the *Courier-Journal* carried stinging criticisms of Cincinnati. One editorial noted that Cincinnati, known as the "Queen City," should be renamed the "Quarantine City," for "she has closed her gates to hundreds of arriving southern refugees."[18]

During the month of August, astonished Kentucky citizens read daily reports of just how bad the disease was and how quickly it was spreading. On 17 August, following the tumultuous exodus from Memphis of over twenty thousand persons, one elderly physician wrote his daughter in Paducah that: "the fever is raging and spreading all over the city. Yesterday we had 32 deaths and 96 new cases."[19]

With the news of the epidemic spreading at an alarming rate in Memphis, other communities established strong quarantines against that city as well. By the middle of August, Memphis was sealed off from the outside world, and business stopped completely. In some of the worst horrors of the epidemic, there were tales of coffins and rude boxes containing unburied corpses stacked like cordwood on city streets awaiting transportation to the city's Elmwood Cemetery. Overshadowing these dreadful scenes was a pall of black smoke that rose from hundreds of barrels of burning tar amid the sound of booming cannons, both measures being used to "alter the supposed epidemic constitution of the atmosphere."[20]

On 5 September 1878, the mayor of Hickman, Kentucky, located two hundred miles north of Memphis, telegraphed the state board of health that the disease had reached "epidemic proportions." Earlier, in August, the city's authorities had established a quarantine along

18 Ibid., 23 August 1878.
19 *Paducah Daily News*, 17 August 1878.
20 *Memphis Daily Appeal*, 15 August 1878.

the Mississippi, although it was never strongly enforced. As a result, numerous railroad cars and steamboats from infected areas, such as Memphis and New Orleans, were allowed to discharge their passengers and freight. Within a few days, two small children, both of whom sold apples to weary passengers as they disembarked, were reported to have contracted the disease.[21]

In late August and early September, numerous cases of yellow fever began to appear throughout the small river town of about fifteen hundred inhabitants. Not surprisingly, panic ensued with scores dead or dying, hundreds ill, and over one thousand persons leaving the area. Between 13 August and 1 November, a reported 462 local residents were stricken and over 150 people died.[22]

Other communities near Hickman soon took action on their own. E.D. Starke, the mayor of nearby Fulton, urged all of his fellow citizens to "leave the area at once!" Another river town, Cairo, Illinois, located forty miles to the north, refused to accept any trains or persons from Hickman.[23]

As news of the epidemic in Hickman circulated throughout the Jackson Purchase and the state, every effort was made to assist the stricken community. Louisville's city council telegraphed: "Don't let your people want for anything— call on us and you shall be supplied." They were answered with a request for twenty-five mattresses, twenty-five pairs of blankets, five gallons of whiskey, five gallons of sherry, one barrel of hams, three barrels of bacon, one barrel of sugar, and a hundred pounds of coffee. Louisville filled the request immediately.[24]

As the epidemic swept over Hickman, Governor James McCreary issued a proclamation, and Dr. Pinckney Thompson, the president of the four-month-old State Board of Health, requested volunteers. As a result, numerous physicians, nurses, telegraph operators,

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21 *Paducah Daily News*, 6 September 1878.
22 Ibid., 1 November 1878.
23 *Cairo Evening Citizen*, 2 September 1878. Fulton suffered only five deaths.
24 *Courier-Journal*, 6 September 1878.

druggists, and ministers from Kentucky and nearby states answered the call. Despite the number of volunteers, the shortage of doctors was critical, because all five of Hickman's physicians were stricken with the disease; only one survived.[25] Among the volunteers was Dr. Luke Blackburn, who arrived from Louisville; he found more than one hundred persons ill and the remaining inhabitants in a state of panic. Blackburn, a Kentucky-born physician, had previously served as a medical officer in the Confederacy during the Civil War. In 1854, while health officer at Natchez, Mississippi, Blackburn had initiated a rigid quarantine which had protected the city as yellow fever spread throughout the surrounding Delta countryside.[26]

For nearly a month, Blackburn and his "army" of volunteers kept local communities and the rest of the nation informed with daily telegraphed messages that appeared in several newspapers. The overworked physician also gave graphic descriptions of the many victims suffering from yellow fever: "high fever, pulse 130, burning eyes, profuse perspiration, excruciating pain in the head and eyes, thick white tongue resembling the tongue of a cotton mouth snake, fever 8 to 9 hours, some nausea, with frequent spontaneous operations from the bowels."[27]

By early October, it appeared that the disease was abating at Hickman. As a result, Blackburn left the city in the care of two volunteer physicians, traveling to Martin, Tennessee, and then to Chattanooga to provide organizational assistance to both communities. Ten days after his departure from western Kentucky, Blackburn received word that the disease had broken out again. He returned to Hickman and for several days worked day and night, desperately trying to curtail the second wave of the epidemic.[28]

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25 Proctor, "Notes on the Yellow Fever Epidemic," 33.

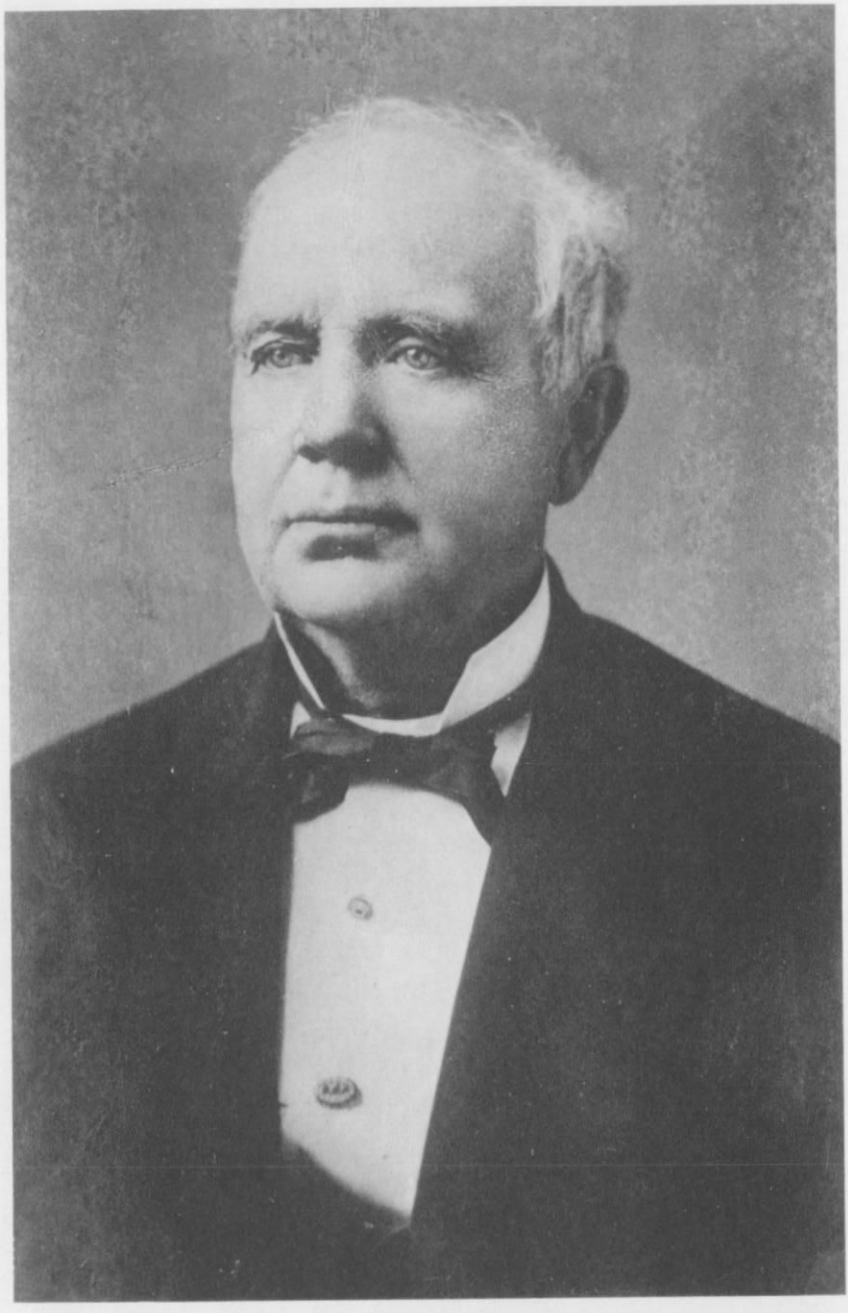
26 *Courier-Journal*, 15 October 1878.

27 *Cairo Daily Bulletin*, 28 September 1878.

28 E.O. Brown, "Yellow Fever, Its Origins and Epidemic Character, *Louisville Medical News* 10 (April 1879): 37.

Luke P. Blackburn

The Filson Club Historical Society



Luke P. Blackburn

The Filson Club Historical Society

Finally, in late October with the appearance of the first frost, no new cases of yellow fever were reported in western Kentucky. The epidemic appeared to be over, but it had taken the lives of over two hundred and twenty Kentuckians with over one hundred and fifty coming from the Hickman-Fulton area. The pestilence had crippled trade and commerce within the state, which ultimately cost an estimated $150,000 in insurance claims.[29]

Dr. Luke Blackburn's return to Louisville in November was marked by a gala reception at the Galt House. For several weeks, he was accorded the treatment generally reserved for a victorious military hero. Later, a more lavish display of love and appreciation came from the area Blackburn had helped the most, the Jackson Purchase. In late November, citizens from Hickman and Fulton, joined with those from Paducah to honor their hero. Street banners, a brass band, and a "superbly crafted" gold watch were presented to the man known as the "Hero of Hickman." In 1879 the generous people of Kentucky awarded the famous physician with an even greater honor, election as the state's twenty-eighth governor.[30]

Although the 1878 yellow fever epidemic occurred primarily along the lower Mississippi River Valley, citizens in neighboring regions offered assistance to their southern neighbors. One of the most dramatic episodes of benevolence occurred in early October, as the fever began to relax its death-grip on the South. Leading citizens of Washington, D.C., organized the Yellow Fever National Relief Committee for the purpose of coordinating the distribution of much-needed money, food, and clothing.[31]

In response, a planned relief expedition was organized along the Mississippi stretching from Cairo to New Orleans, an area in which virtually all transportation had been suspended. Shortly thereafter,

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29 Proctor, "Notes on the Yellow Fever Epidemic," 34. *Courier-Journal*, 19, 25 October 1878.

30 Nancy D. Baird, "Luke Blackburn's Campaign for Governor," *Register of the Kentucky Historical Society* 20 (1976): 312.

31 *Frank Leslie's Illustrated Newspaper*, 19 October 1878, p. 1.

a paddle-wheeler named the *John M. Chambers* was chartered with about four hundred tons of food, ice, and supplies. Commanded by Lieutenant Hiram Benner of the United States War Department, the *John M. Chambers*, flying a yellow flag with the words, "National Relief Boat," headed downstream on its mission of mercy. According to the account in *Frank Leslie's Illustrated Newspaper*, "She went with the good wishes of the whole nation."[32]

On 13 October the boat reached the devastated city of Memphis and, following a tumultuous reception there, departed for Vicksburg on the way to New Orleans. Unfortunately, Lieutenant Benner became ill during the next few days, and after the boat reached Vicksburg he died of yellow fever on 19 October. Unwilling to take further chances, the War Department ordered the crew to return to Cairo.[33]

Following an unusually long, hot summer, the warm days of autumn stretched into late October, inspiring one Tennessee poet to write:

> We weary for these warm bright days to end,
> The summer lingers at what fearful cost!
> O pitying God! In mercy to us send,
> The white gift of thy frost![34]

Frost did appear in Memphis on 19 October, the very day the poem was published, but the *New Orleans Daily Picayune* warned refugees in a strongly worded editorial to "STAY AWAY!"

Gradually, falling temperatures provided the first frost in Louisiana on 1 November. Shortly thereafter, Gulf Coast communities lifted their quarantines against New Orleans, and on 19 November, the Louisiana Board of Health officially declared the epidemic at an end.[35]

The 1878 yellow fever epidemic was one of the great medical disasters in American history. From July to November the disease

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32 Ibid., 26 October 1878, p. 1.
33 *Cairo Daily Bulletin*, 30 October 1878.
34 *Memphis Daily Appeal*, 20 October 1878.
35 *New Orleans Daily Picayune*, 20 November 1878.

spread from New Orleans to Cincinnati, striking more than two hundred cities in eight states. The two largest and most populous communities were Memphis and New Orleans, but even smaller towns and villages like Grenada, Mississippi, Cairo, and Hickman endured terrible suffering. According to estimates, there were approximately 120,000 cases of yellow fever, resulting in 20,000 deaths.[36]

The cost of the 1878 epidemic was staggering. In addition to the heavy expenses of relieving the sick and destitute, there were even greater losses resulting from the suspension of commerce. In his annual message to Congress on 2 December 1878, President Rutherford B. Hayes remarked on the extensive sickness and mortality due to yellow fever. But, according to the president, the real loss was incalculable: "It is impossible to estimate with any approach to accuracy, the loss to the country by this epidemic. It is to be reckoned by the hundreds of millions of dollars."[37]

On 28 November 1878, Thanksgiving Day, survivors and returned refugees gathered in Memphis to commemorate the dead. But the "Bluff City," which became the storm center of the great epidemic of 1878, would never be the same. In an effort to promote better sanitation and public health, the *Memphis Daily Appeal* remarked that, "This visit is the straw on the camel's back. We can endure no more. We must make a change, some change."[38]

Later, statistics gathered by Tennessee authorities revealed that of the approximately 20,000 persons remaining during the epidemic, an estimated 17,000 had contracted the fever in Memphis and 5,150 died. A racial breakdown shows that there were at least 11,000 cases among the city's black population, resulting in 946 deaths. By contrast, virtually all of the 6,000 whites were stricken and 4,024 died.[39]

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36 JoAnn Carrigan, "Yellow Fever in New Orleans: Abstractions and Realities," *Journal of Southern History* 76 (August 1959): 354.

37 *Courier-Journal*, 3 December 1878.

38 *Memphis Daily Appeal*, 28 November 1878.

39 Lynetta Wren, "The Impact of Yellow Fever on Memphis," *West Tennessee*

The yellow fever epidemic also struck hard in New Orleans. According to the Louisiana Board of health, 4,046 persons died, of whom 3,863 were white and 183 black. The social aspect of the epidemic resembled the situation in Memphis, but a tragic feature of the epidemic in New Orleans was that of the 3,863 whites who died, 2,344 were children under the age of sixteen.[40]

The 1878 yellow fever epidemic proved to be "democratic" in its impact. The disease struck young and old, native and immigrant, rich and poor. Among its victims in Memphis, were Jefferson Davis, Jr., son of the ex-president of the Confederacy and former Confederate general John B. Hood. By contrast, a woman in Hickman died who was listed on the death rolls only as "Maggie-at the hotel."[41]

The 1878 epidemic produced terrible suffering throughout the Jackson Purchase and the South, and it also, unfortunately, provided an opportunity for profiteers as well. Scientists, chemists, druggists, inventors, and quacks all viewed the epidemic as a rare opportunity for potential millionaires to market their wondrous cures. In many places, medical prices soared as these quick-money men moved in to corner the vast market for medicines and supplies. Despite governmental efforts to frustrate profiteers, citizens across the South often paid outrageous prices for simple medical necessities.[42] As a result, outlandish remedies and concoctions appeared by the hundreds. For a small fee, many charlatans offered to contact persons who had recently died of yellow fever, using magical Ouija boards. People of all ages purchased voodoo charms, bracelets, and dolls, hoping to ward off the evil spirits of the yellow fever.[43] Many Kentucky citizens strongly believed that there were special cures "somewhere in the unknown world," but most relied primarily on

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Historical Society Papers 26 (January 1987): 17.

40 John Ellis, *Yellow Fever and Public Health in the New South* (Lexington: University Press of Kentucky, 1992), 190.

41 *Paducah Daily News*, 15 October 1878.

42 Ellis, *Yellow Fever and Public Health in the New South*, 170.

43 Ibid., 175.

homemade remedies that had been passed down within families for generations. Like most rural areas, the Jackson Purchase flourished as a "rural textbook" for folk medicines; preventive cures could be found in family diaries and journals for almost any disease.[44]

As yellow fever swept through parts of western Kentucky during the summer and fall of 1878, the use of homemade remedies was revived. Old family cookbooks, diaries, journals, and even Bibles were brought from dusty bookshelves and attics in a desperate attempt to thwart the dreadful symptoms of yellow fever. Many simple remedies were quite popular: French brandy, steam baths, castor oil, calomel, quinine, and particularly whiskey.

The family doctor was the most trusted ally in combating yellow fever. Often the most respected and best-educated citizens of the community, physicians were forced into roles they might not have wanted. Being on call twenty-four hours daily, doctors during the late nineteenth century provided house calls, then considered both a common courtesy and a necessity.[45]

In 1878 physicians usually carried a small black bag filled with aspirin, quinine, castor oil, morphine, laudanum, and other remedies. They were required to journey throughout the Jackson Purchase, traveling on old, dusty, dirt roads, that, like the weather, often posed precarious problems. Most physicians living in the Jackson Purchase in the late 1870s traveled by horse and buggy. Like the postman, who also traveled with a horse, the local doctor was an overworked servant of the people, whose services were often taken for granted. Doctors, however, were always neatly dressed and took great pride in their work.

Although medicine in the late nineteenth century was far from perfect, preventatives had been discovered to combat dreaded diseases such as milk sickness, typhoid fever, and smallpox by the time yellow fever arrived in 1878. During the yellow fever epidemic,

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44 William Collins, Sr., *Folkways and Customs of Old Kentucky* (Lexington: University of Kentucky Press, 1971), 77.

45 Ibid., 78.

however, doctors in western Kentucky and throughout the South were perplexed at the strength of the disease. Most physicians carried only analgesic drugs and offered well-known advice: plenty of rest, aspirin for fever, and lots of fluids. Unlike their medical ancestors who had attributed diseases to an imbalance of body humors, nineteenth-century doctors knew the general causes of diseases, but they did not always know how to prevent them. Their helplessness was often symbolized by a red cross painted on a stricken home with the words, "God have pity on us."[46]

As in the case of most calamities, however, some gains resulted from the yellow fever epidemic. The epidemic gave a major impetus to the public-health movement. Efforts to promote better sanitation throughout the Mississippi Valley were initiated in many towns. In reorganizing the Memphis city government that had failed prior to 1878, the local board of health became a permanent, regularly funded institution for the first time. In addition, the National Board of Health was created and numerous state boards of health received increasing powers, including the Kentucky board.[47]

The visit of "Yellow Jack" to Kentucky in 1878 prompted the growth of the state board of health from a once-powerless agency to one that had the authority to act during an emergency. In 1897, as yellow fever began another deadly journey up the Mississippi River Valley, the Kentucky Board of Health acted quickly. All boats and trains entering the state were inspected by state board members. The ill were isolated, all baggage was disinfected with formaldehyde gas, and the destination of all passengers was recorded. As a result, no cases of the disease in 1897 were reported in Kentucky.[48]

During the 1898 yellow fever outbreak in Cuba, Dr. Walter Reed, a major in the United States Army, proved conclusively that the *Aedes aegypti* mosquito was the intermediate host or vector for yellow fever.

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46 John Duffy, "Medical Practices in the Antebellum South," *Journal of Southern History* 25 (1959): 60-61.

47 Ellis, *Yellow Fever and Public Health in the New South*, 170.

48 Ibid., 175.

Reed also concluded that only the destruction of the mosquito breeding grounds could eliminate the disease.[49]

The deadly waves of the 1878 yellow fever epidemic swept parts of western Kentucky and the South. Above all, the pestilence destroyed human life, broke lifelong friendships, and affected families for several generations. The onslaught of yellow fever in 1878 proved to be the last serious epidemic suffered in Kentucky in the nineteenth century; for many residents it was an unforgettable experience.

APPENDIX

NUMBER OF CASES, DEATHS, AND DEATH PERCENTAGES FOR SELECTED CITIES ALONG THE MISSISSIPPI RIVER DURING THE 1878 YELLOW FEVER EPIDEMIC:

City	Cases	Deaths	Percentage Of Deaths
New Orleans	17,000	4,046	23.0
Vicksburg	6,500	988	15.2
Memphis	14,000	5,150	36.6
Jackson	490	84	17.2
Hickman	462	149	32.2

First Annual Report of the State Board of Health of Kentucky (Frankfort: Department for Human Resources, 1879), LXXI.

49 Bayne-Jones, *Evolution of Preventive Medicine*, 134. In 1937 a vaccine for yellow fever was developed by the Rockefeller Foundation, which earned the Nobel Peace Prize in 1938.