

McClellan (Ely)

AN ACCOUNT
OF THE
EPIDEMIC OF CHOLERA,

DURING THE SUMMER OF 1873, IN EIGHTEEN COUNTIES
OF THE STATE OF KENTUCKY.

*Presented by
the Author*

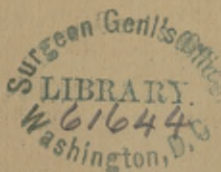
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AN ACCOUNT OF THE EPIDEMIC OF CHOLERA, DURING
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By ELY McCLELLAN, M. D.,

Assistant Surgeon U. S. Army.

THE short time that has elapsed since the subsidence of this epidemic, the broad field over which the disease was diffused, the utter impossibility of attempting in the limited time at my command, a personal inspection of all the infected points; the fact, that at many localities no notes or record of cases was kept, compels me to present a somewhat crude and imperfect statement of the manifestation of the disease in the State. Knowing full well that "this is no dinner to ask a man to," we present this report, with the hope that it may pave the way to fuller and more elaborate reports of future epidemics.

The history of this epidemic, as we have been able to collect it, affords strong evidence in support of well-accepted theories.

1. The portability of the cholera poison.
2. The method of propagation.

In the narrative which is presented, it will be seen that the disease entered the State of Kentucky by three distinct lines of advance, upon which the original cases have been traced.

1. By navigation on the Ohio river.
2. By travel on the Louisville and Nashville railroad.
3. By a solitary traveller over a mountain highway.

It will be shown by the narrative that the arrival of cholera in the State of Kentucky can be located on exact dates.

May 18, a steamboat from New Orleans, upon which several cases of cholera had occurred, arrived at Paducah.

June 3, a man from Gallatin, Tenn., a point infected with cholera, was taken with the disease at Bowling Green, Ky.

June 5, a negro woman, who had visited Gallatin, was attacked with cholera at Franklin, Ky.

June 8, a white man, from Evansville, Ind. (an infected point), was attacked with cholera in the city of Louisville.

June 10, a second case of cholera occurred in Franklin, imported from Gallatin.

June 12, a third case of cholera, from Gallatin, occurred at Franklin.

June 13, a negro woman, at Bowling Green, who had washed the clothing of a man who died of cholera on a steamboat from Evansville, Ind., was attacked with the same disease.

From these cases, cholera became epidemic in the counties of McCracken,

Warren, and Simpson, and spread to adjoining counties. That the disease did not become epidemic in the city of Louisville is undoubtedly due to the advantageous location of that city, and the vigilance of her health officers. The steamboat which had infected Paducah proceeded on its trip up the Ohio river, making all its usual landings, to Cincinnati, Ohio, and was followed by other infected boats.

June 29, a case of cholera is reported at Maysville, Mason County. The subject of this manifestation of the disease had returned the previous day from a visit to Cincinnati.

Until July 8, the disease was confined to the counties in which its appearance has been noted, but on this date cases are reported at Elizabethtown, Hardin County, and at Lagrange, Oldham County. At the first named point, on the 4th day of July, a celebration had been held among the negroes, which a number of persons from Bowling Green, and other infected points, are known to have attended. The origin of the disease at Lagrange cannot be determined; but as this town is located upon a main line of railway, and as the location is favorable for the development of the disease, the inference that cholera was carried to that town is quite as plausible as that it had a local malarial origin.

July 10, cholera appeared in the town of Millersburg, Bourbon County, and the remarks already made respecting Lagrange are equally applicable to this locality.

No new territory was invaded until July 17, when a negro from an infected locality in Tennessee carried cholera to the line of the work of the Cumberland and Ohio railroad, in Taylor County, and on the 19th the disease crossed the Marion County line.

To the counties already noted the disease was confined until August 10, when a white man, who had travelled on horseback from Russellville, Tenn. (an infected point), arrived at Lancaster, Garrard County, where he was taken with cholera.

August 20, a young man who had contracted the disease in Marion County died at his home in Nelson County.

August 22 a negro man, from Maysville, was taken with cholera at Millersburg, Bourbon County, at which town, on the 28th, a second epidemic was developed.

August 29, refugees from Lancaster infected with cholera the town of Stanford, Lincoln County.

August 30, the disease, which in Marion County had made but a feeble demonstration, suddenly attacked the town of Lebanon, and was carried to Adair, Clinton, Russell, Washington, Boyle, and Mercer Counties.

Reports from other counties which were infected have been so much delayed, that their present use is impossible.

MCCRACKEN COUNTY.—The reports of the epidemic of cholera as it occurred in the city of Paducah are meagre, from the fact that no record was kept of the cases which occurred. It is estimated that one hundred and eighty cases died of cholera from May 23 until July 24. About two thirds of this number were negroes. The majority of the remainder were foreigners. But few of the Americans were attacked.

The first case that occurred at Paducah, was on the 21st of May, in the person of the shipping clerk of a tobacco warehouse, who had upon the evening of the 18th inst. visited a New Orleans steamer, just arrived from Memphis, upon which several cases of cholera had occurred. He remained on board the boat during the time she was at the wharf boat, a period of about two hours. The next day he complained of malaise and some diarrhœa; upon the 20th these symptoms continued, and at an early hour of the 21st cholera was developed, and the case progressed rapidly to a fatal termination.

May 23, a gentleman who had been assiduous in his attention the previous day to the cholera case, was himself attacked, but recovered. Three cases of cholera, none of which terminated fatally, occurred among negroes who were employed on the wharf boat, at which the infected steamer lay. With these cases the disease disappeared, until a fresh importation occurred on the 3d of June, when a female, that day arrived from Memphis, Tenn., was taken with cholera, and died after a few hours' illness; the female who nursed her was the next attacked, and from these two cases the epidemic was established, and continued in existence until July 24.

No cases occurred in the hotels, jail, or poor-house.

It is a noticeable fact, that after the 25th of June, the day on which the sale of vegetables was prohibited in the town, the mortality among the negroes began to diminish. This, however, did not apply to the German population, who, regardless of the prohibition, procured vegetables in the country, and it became a recognized fact that on each Monday a large number of this class of the community were buried.

WARREN COUNTY. — Bowling Green, the county seat of Warren County, is a well located inland city, situated nearly in the centre of the county, upon the line of the Louisville and Nashville railroad, and one mile from the head of navigation on the Big Barren river. Railroad communication with Louisville, Memphis, and Nashville, is almost hourly. Twice a week a steamboat arrives from Evansville, Ind.

The data of the epidemic of cholera in Bowling Green and in Warren County are very unsatisfactory, from the fact that none of the physicians had preserved records of their cases. The burial permits of the county clerk, however, furnished trustworthy information as to many cases.

June 3, the first case of cholera occurred in the person of a white man forty-three years of age, who left Gallatin, Tenn., at the time cholera was epidemic at that point, on a business visit to the horse-cave-station, some few miles north of Bowling Green. He was taken ill on his arrival at the horse-cave-station, and took the next train, endeavoring to reach his home. By the time the train reached Bowling Green, the disease was fully developed. He was taken to a hotel, where after a lingering illness he died.

June 13, the second case occurred in the person of a negro woman, fifty-five years old, who had the day before washed the clothing of a man who died on a steamboat during its trip from Evansville. She died after an illness of thirty-six hours.

June 14, a case occurred in the person of a negro girl six years of age, living near to the hotel in town.

June 19, two negro women were taken with cholera and died. They lived near to the steamboat landing.

From this date, the disease became epidemic. We have recovered the facts concerning eighty-six cases of cholera which occurred in Bowling Green between June 19 and August 10; of these cases, sixty-five terminated fatally.

The disease was confined almost exclusively to the line of the railroad, and to the low ground towards the river. The main portion of the town, on high ground, was not invaded.

The only facts we have been able to obtain, as to the epidemic in the county, are found at a point some ten miles to the southeast of Bowling Green, to which place a refugee negro carried the disease. Six members of a white family were fatally attacked.

SIMPSON COUNTY. — Franklin, the county seat of Simpson County, is situated on the line of the Louisville and Nashville railroad, six and a half miles from the State line. One mile east of the town flows the West Fork of Drake's Creek. The town is well drained by two ravines which pass through it, one to the east, the other to the west of the Court House, which building forms the centre of the town. These two drains come together north of the town and empty into Drake's Creek.

The inhabitants of this town have constant communication with all points on the railroad, and a large number of the "section hands" between Franklin and Millersburg, Tenn., reside in the town. During the month of May, the town was placed in a good sanitary condition, and much debris was removed and destroyed. No cases of serious illness occurred until the 5th day of June, when a negro woman forty years of age, who had been on a visit to Gallatin, Tenn., was taken with cholera, from which she recovered. The occurrence of this case, although the subject lived in a negro settlement, was followed by no further development of the disease.

June 10, a white man, thirty-eight years of age, who had returned from a visit to Gallatin, Tenn., was attacked with cholera and recovered.

June 12, a white man, fifty-one years old, also from Gallatin, was taken with cholera, lingered ten days and died.

June 13, the physician who attended the case of the 12th was taken with the disease, but recovered.

June 14, the daughter, aged two years, of this physician, was attacked and died in nine hours.

Four days elapsed without the development of new cases, when a white man, forty years of age, was attacked and died. June 20, a white woman recovered. June 25, a white man died. June 27, two new cases, both died. June 28, two new cases, both died.

The disease was in abeyance until July 1, when seven deaths occurred, and in the next fifteen days, fifty deaths are reported as resulting from the epidemic. On July 20, a fatal case occurred, and cases occurred with a like termination on July 28 and August 4.

Thirty cases of developed cholera are reported as having recovered during the epidemic. Seven of the physicians of the town were seriously

ill; one of them died; one case occurred in the county jail, none in the hotels or poor-house.

A gentleman left Franklin July 1, went six miles east of town, where he died after forty-eight hours' illness; in three or four days his mother-in-law was attacked and died; a visitor at the house and a young child also died. All the other members of the family suffered with diarrhœa.

A lady, after nursing many cholera cases in Franklin, went four miles west of town, to the house of her son-in-law, who had not been exposed to the infection, before her visit; he was taken with the disease and died. All the other members of the family suffered with diarrhœa and vomiting. The wife of the county jailer was taken with cholera and died in a few hours. The prisoners were at once removed from the building.

JEFFERSON COUNTY. — The first case of cholera which is recorded as having occurred in Jefferson County during the past epidemic, was in the city of Louisville on the 8th day of June, when a white man twenty-nine years of age was admitted to the Louisville City Hospital with cholera. He had arrived in the city at five A. M. from Evansville, Ind., where cholera was epidemic; shortly after his arrival, he was taken with purging and vomiting, which increased so rapidly in its severity that he was obliged to lie down on the sidewalk. From this position he was removed to the hospital, where he died at half-past four P. M. of the same day.

June 10, a gentleman, forty years of age, living on Walnut Street, between Seventh and Eighth Streets, was attacked with cholera, following a diarrhœa of a few days' duration. The disease was arrested and the patient recovered.

June 12, a conductor on the Louisville and Nashville railroad, who had been taken ill in the city of Nashville, Tenn., arrived at his home in Louisville. The disease was violently developed and the case terminated fatally in a few hours.

From June 12 to August 16, inclusive, twenty-one cases of cholera, all of which terminated fatally, are reported as occurring in Louisville. Many of these cases were imported from other infected localities.

August 9, Dr. J. T. Atchison, of Lacona, nine miles southwest from Louisville, reports a case which recovered.

August 18, Dr. S. A. Foss, of Lacona, reports the occurrence of two fatal cases.

September 4, a group of cases was reported by Dr. Turner Anderson, as occurring in Louisville. The house in which these cases occurred is situated in the western portion of the city of Louisville. It is a frame cottage, low and damp. The kitchen floor is several inches below the surrounding ground. No provision was made for drainage. The privy, wash-house, and coal-shed, all under one roof, and all in a dirty condition. The family occupying this house consisted of the mother, two single daughters, two married daughters, one son-in-law, and two young children, a total of eight individuals. July 30, a married daughter (Mrs. G.) was taken with vomiting, purging, and cramps. The attack was sudden, and no cause could be assigned. She was, however, speedily relieved and soon convalesced. This lady, two weeks prior to her illness, had been delivered of a healthy child.

August 22, Mrs. G. left Louisville to visit her husband in the city of Bowling Green. August 25, she was attacked with cholera in that city, and died after twelve hours' illness. August 28, the remains of Mrs. G., inclosed in a wooden coffin, arrived at her mother's house in Louisville. Prior to burial the coffin was opened, and the remains viewed by her family.

September 2, a child of the late Mrs. G., two years of age, was attacked with cholera, but recovered.

September 4, a single sister of Mrs. G., residing in the house from which the corpse had been buried, was attacked with cholera, and died after an illness of six hours. The same day, the infant child of the late Mrs. G., four weeks old, was attacked with the same disease and died in forty-eight hours.

September 6, the second married daughter in the same house was taken with cholera after a slight premonitory diarrhœa; died in twenty-four hours. After the remains of Mrs. G. had been brought to Louisville, all the members of this family took quinine in decided doses, except Mrs. A., who declined to do so, from the fact that she was seven months pregnant. No other member of this family was attacked.

September 8, Dr. J. P. Warren, of Marion County, died of cholera in Louisville, after twenty-four hours' illness. This gentleman had been subjected to the infection in Lebanon. September 11, a recovery of a cholera patient is reported.

That the city of Louisville escaped an epidemic of cholera is undoubtedly due to the admirable sanitary condition in which the city was maintained, and the careful system of disinfection which was instituted wherever the disease appeared.

MASON COUNTY.—The city of Maysville, located on the Ohio river, had suffered greatly in all the epidemics of cholera that had visited the valley of the Ohio. In 1849, the disease had remained in force from April until November. There seemed to be just grounds for apprehending a serious epidemic in 1873. From the present epidemic this city, however, almost entirely escaped. From June 29 to July 25, but fourteen cases occurred, eight of which terminated fatally. Of these, seven occurred in one negro family.

June 29th, a young man, just returned from Cincinnati, Ohio, was attacked with cholera and recovered.

June 30, a lady resident of the city was attacked with cholera, and recovered.

July 3, Dr. Shackelford, reported the first of a most interesting group of cases, in the person of a negro woman, who died after an illness of fifty-two hours. July 5, the daughter, aged twenty years, was attacked with cholera, and died after ten hours. The same night, the young child of the second case was taken ill and died. The next day, July 6, after the funeral of the second and third cases, the house was abandoned, but in a few hours the husband and two sisters of the second case were attacked. These cases were treated at the city hospital; the man and one of the women died. July 7, a negro woman who had been in attendance upon the first two cases,

was taken with cholera and died the next day. This family of negroes had resided in a small cabin on a hill-side. The ground around was extremely filthy, and the drainage and surface washings of this filthy yard was into the well from which the family obtained water.

From July 25 to August 18, no new cases of cholera are reported in the city; but on the last date a white female, in destitute circumstances, was brought to the city from some point on the river, and died after an illness of three days. August 25, a negro man was brought to Maysville from a point twenty-five miles above the city. He was attacked with cholera before his arrival. The disease did not advance beyond the second stage, when it was arrested.

September 1, a negro man was brought to Maysville by boat, and although then in the stage of collapse, was placed in a spring wagon and carried to Millersburg, where he died. These three instances of the importation of cholera, produced no epidemic in the city. Dr. J. M. Duke, who has witnessed every epidemic since 1832, attributes the exemption of the city from the disease to the almost universal substitution of cistern for well water.

HARDIN COUNTY. — Elizabethtown, the county town of Hardin County, is located on the line of the Louisville and Nashville railroad, having a population of 1,743, of whom 660 are negroes.

This town is in almost hourly communication with Bowling Green, Paducah, and Louisville. The site is drained by a small creek which flows in a southwest direction, between the town and the line of the railroad. On the bank of this creek, and leading from Main Street towards the northeast, is a small street known as "Race Alley." The ground upon which it is located slopes to the creek, and both sides of the alley are lined with negro hovels. During the month of June the roadway had been filled up several inches above the line of the surrounding ground, and the drainage thus obstructed, the ground under the hovels on the western side of the alley was flooded from the higher ground upon which the main portions of the town is situated.

July 4, a negro celebration was held at Elizabethtown, which a large number of negroes from along the line of the railroad and the adjacent country attended.

July 8, a case of cholera occurred in the person of a negro man, who, although not residing on Race Alley, was in constant communication with that locality. His illness lasted twelve hours and terminated fatally.

The second case occurred on Race Alley, July 10, and died within twelve hours, and from that date until September 24, the disease was epidemic. Forty-one cases of cholera occurred, twenty-two of whom died. The disease was mostly confined to Race Alley; one or two cases occurred in the town late in the epidemic. Of one family, five members were taken sick, with one death. In another family three persons were attacked; all died.

On the 26th of August, a farming community, six miles southeast of Elizabethtown, was infected by a refugee from the town. Four cases occurred in rapid succession; all died. During the epidemic, a young man from the town visited a friend some three miles from the infected district.

This friend had studiously avoided any contact with the infection. They slept together one night; the next day the countryman sickened and died in a few hours from cholera.

No public buildings were invaded by the disease.

At the time of closing this report, no other records of cholera have been received from Hardin county. The town of West Point, at the mouth of the Rolling Fork, was invaded by the disease. Some fifty or sixty deaths occurred, but the necessary data of their classification has not yet been received.

OLDHAM COUNTY. — La Grange, Oldham County, is situated on the line of the Louisville, Cincinnati, and Lexington railroad, twenty-seven miles from Louisville. The town is built on a well drained ridge, at the lower portions of which are located the cabins of the poorer classes of negroes. The inhabitants are in constant communication with Cincinnati, Lexington, and Louisville, by passing trains. The sanitary condition of the town was bad in the months of June and July. The privies are on the surface, and cleaned by surface washings. Well water is almost exclusively used, and the portion of the town which suffered most severely from the epidemic is so situated, that after rain-falls the wells of the locality would most likely be contaminated from the higher ground. From the 8th to the 29th of July, cholera was epidemic in La Grange. Thirty-one cases are reported, fifteen of which died, sixteen recovered. A few cases that resided in the county became infected in the town.

BOURBON COUNTY. — In this county the epidemic was confined to the town of Millersburg, which is located on the line of the Maysville railroad, and upon the banks of Hinkston's Creek. This creek flows around the town from the northeast to the southwest; a mill-dam upon this creek backs the water for a considerable distance, and the accumulation on the bottom, above the dam, has greatly lessened its depth. During the past summer the rain-fall was small, the water was low in the creek, the mill-pond was stagnant, and an extensive surface covered with decomposing vegetable matter was exposed. On the eastward, high ground separates the creek from the town.

Northeast of the town, at the head of a deep hollow, and on high ground which gradually descends to the level of the creek, is a large artificial pond, the drain of which follows the eastern limits of the town and empties into the creek. This drain runs parallel with and finally crosses the Maysville railroad. Immediately below this pond, the ground is marshy from the soaking of water through the embankment of the pond, and in this wet ground, a number of sunken barrels furnish the water supply for a cluster of cabins occupied by negroes, who live along the sides of this drain. Two other ponds of stagnant water are on the eastern side of the town.

On the 11th day of July, during very hot weather, six cases of cholera occurred in the immediate vicinity of the large pond, and in the cabins on its outlet drain; and within thirty-six hours all had terminated fatally.

July 12, two cases occurred; one near the pond, the other upon the banks of the mill-pond south of town. The last case had spent a portion of the previous day in the houses in which the disease originated.

This development of cholera is attributed to malarial influences, and the instances narrated are held as strongly illustrative of that theory. It is, however, certain, that prior to this outbreak, cholera had become epidemic at points within railroad communication with Millersburg.

No other cases of cholera occurred in this town until August 22, when a negro man from Maysville was attacked, and died after an illness of four days.

August 28, eight cases of cholera occurred in the town, but two of which recovered.

August 29, eight cases occurred, and all terminated fatally in a few hours.

From August 30 to September 7, the disease was epidemic; seventy cases occurred in this town, forty-nine of which died. It is known that other cases occurred, but as no record was made of them, it has been found as yet impossible to locate them with any exactness.

These cases all occurred on low ground, in the vicinity of the pond drain, and upon the banks of the creek.

Five cases of cholera were brought to the town of Paris, and Dr. Keller reports that although no precautions were taken, the disease did not spread. Dr. Keller reports most favorably of the efficacy of large doses of calomel in the treatment of cholera. He found that exhibited in two-drachm doses, it invariably relieved the vomiting and purging, and arrested the disease. This treatment was applied to the majority of the cases which recovered, and in none was pyalism induced.

TAYLOR COUNTY.—The history of the epidemic of cholera in Taylor County is interesting from the fact, that in this county, undoubtedly, is to be found the first link in the chain of infection which stretched to most of the counties of Central Kentucky.

Early in the month of July, a negro man, who had left an infected locality in the State of Tennessee, applied for work in one of the construction parties of the Ohio and Cumberland railroad. He obtained work on the tunnel section, and was given quarters in a group of cabins occupied by other workmen and their families. A few days after his arrival he was attacked with an acute diarrhœa, from which he was confined to his bed for eight or ten days. The attack was attended with great prostration and general constitutional disturbance. His excreta were thrown out on the ground. The cluster of cabins were located upon a hill-side. Immediately below and in front of them, was a spring from which the families of the neighborhood obtained water. On the 14th, 15th, and 16th of July, there was considerable rain-fall and the surface washings filled the spring to overflowing.

July 17, two violent cases of cholera occurred in the cabins immediately adjoining the one in which the diarrhœal patient was living. Both cases terminated fatally within eleven hours. One was in the person of a negro woman who was eight months pregnant. Labor pains came on during the second stage of the cholera attack, and she was delivered of a dead child while completely collapsed.

July 20, a negro man on the same works was taken with cholera; the

disease was fully developed. He, however, reacted, and made a slow recovery. The same day, a negro man, eighteen years of age, who had been in constant communication with the negroes on the railroad works, was attacked with cholera in the town of Campbellsville, from which he died after forty-eight hours' illness.

August 1, a negro woman, fifty years of age, living on the line of the railroad works, some three miles from Campbellsville, was taken with cholera and died after nine hours' illness.

August 2, a white man, sixty-three years old, living on the same line of works, and five miles from the town, was attacked and died in forty-eight hours. In the same house three cases of choleraic diarrhœa occurred immediately after this death; all yielded to treatment.

August 5, in the same neighborhood, a negro girl, eighteen years of age, died after an illness of twenty-four hours. Dr. Hodgen, a most trustworthy observer, reports the occurrence of eighteen cases of acute diarrhœa, along the railroad works, and north of Campbellsville.

August 16, a white man, thirty years of age, a stage driver between Lebanon and Columbia, was taken with symptoms closely resembling cholera; in a few hours reaction was established, convalescence ensued, but committing some imprudence, a relapse took place, and he died. This death occurred in the Campbellsville hotel.

August 19, a recovery from cholera is reported at the tunnel section of railroad.

August 21, a negro man, thirty years of age, who had left his home in Lancaster on account of the cholera, was taken with the disease in the town of Campbellsville, and died in seven hours.

September 2, a white boy, sixteen years of age, who was in Lebanon for two days of the epidemic in that town, but who had returned to Campbellsville, was taken with cholera, but recovered. The same day a Mr. Henry Creele, sixty-three years of age, who had left Columbia after cholera had become epidemic in that town, was attacked, and after an illness of fourteen hours, died. This death also occurred at the hotel.

September 8, a contractor on the railroad, aged twenty-five years, who had spent the two previous days in Lebanon, was taken with cholera and died within eleven hours. Many cases of acute diarrhœa occurred in the town of Campbellsville after the 8th of September, but none advanced to the stage of danger; no other cases of cholera occurred. The inhabitants of this town had declined to attend the Marion County Fair. No cholera was developed in the person of any resident of the town. The two cases at the hotel did not spread the disease. Disinfectants were actively used in all the cases that occurred in the town.

MARION COUNTY. — Lebanon, the county town of Marion County, is located on the Lebanon branch of the Louisville and Nashville railroad. Situated nearly in the centre of the county, it is not only the market town of the farming community, but is the base of supplies and shipping point of several small towns and hamlets. The railroad passes through the centre of the town from east to west upon low ground, following the course of a

small stream, which heading in a spring to the northeast, forms within the corporation limits two large ponds for the use of the railroad and a large flour mill. From these ponds the stream, to which the name of *Jordan* has been given, flows through the town in a southwest direction. Its course is protected by stone walls and the crossings of the several streets are securely covered. This stream is the receptacle of filth of all kinds; flowing in rear of the buildings on the north side of the main street, the privy of nearly every establishment is built over it.

At the southeast of the town is a small rivulet fed by impure streams and the drainage from high ground. These two streams form the natural drainage of the town.

Railroad Street is lined with dwellings. Some are comfortable, but the largest number are occupied by negroes. A flour mill is located at the head of this street. The floor of the lowest story of this mill is raised a few inches from the ground. A drain leads from below the foundations and empties into the *Jordan*. The effluvia from this drain attracting attention, it was found that the space below the floor was nearly filled with decomposing vegetable matter, and that from one corner of the foundation a spring of considerable volume issued. In the centre of the town is the Court house, having in front of it a public well, from which all who live in the vicinity are supplied with water.

During the months of June and July, the earnest solicitations of the physicians of Lebanon, who had formed themselves into a Sanitary Association, secured a cleansing and disinfection of the *Jordan*, the removal of much debris from dwellings, the disinfection of the reeking mass of decomposition under the flour mill, and a general cleansing of the streets.

July 19, a negro man employed upon a section of the Ohio and Cumberland railroad, six miles from Lebanon, was suddenly taken ill with all the symptoms of cholera, and died collapsed within eight hours from the inception of the disease. It was ascertained that he had been at the cabins of the railroad hands in Taylor County, where cholera had been developed on the 17th instant. At the time this case was termed "cholera morbus." The other laborers on the section, and those living in the shanty in which he died, had constant and daily communication with the Lebanon negroes. The excreta were not disinfected.

August 11, a negro woman, fifty-five years of age, living between the railroad and *Jordan*, near to the depot, was taken ill. She presented all the symptoms of cholera, and died fully collapsed in ten hours. The excreta were not disinfected, but were cast on the ground in rear of the house.

From the 11th to the 18th of August, several cases are known to have occurred among the lower classes of the negroes, having the symptoms more or less well marked. No record of these cases can be furnished, from the fact that the medical man in whose care they occurred died himself of the disease.

August 18, a white man, fifty years of age, was attacked. After a severe struggle the disease was arrested, and he made a tedious recovery. The case most admirably defined the distinctions between "serous cholera"

and "cholera asphyxia." This man lived on Railroad street, near to the depot, and close to the house in which the case of the 11th occurred. The excreta were not disinfected, but were thrown on the ground in rear of the house.

August 19, a young lady, eighteen years of age, was attacked, but the disease was arrested before the second stage was fully developed. This case also resided on Railroad Street, east of the depot. The excreta of this case were not disinfected.

It is of importance to notice that the foregoing cases were rated at the time as "cholera morbus." Each had been the subject of some imprudence, to which the violence of the symptoms were attributed; and it was only after a subsequent study of each case that its true status was determined.

On the same day, a white man, thirty-five years of age, of intemperate habits, living on the well-drained portion of the town north of the railroad, was taken with diarrhoea; in a few hours cholera was fully developed. The symptoms were terribly violent, no relief could be obtained from the most active measures, and he died in ten hours from the inception of the disease. The excreta were carefully disinfected and buried, the clothing was washed in a strong carbolic acid solution, the mattress upon which he died was burned.

August 25, a white man, forty-five years of age, temperate in his habits, living at the cemetery grounds (of which he had charge), died with fully developed characteristics of cholera, after an illness of fifteen hours; and the same day a negro man, living in the centre of the town, and directly over the Jordan, died with the same symptoms, after an illness of sixty hours, during all of which time the urine was suppressed. This negro, it was ascertained, had previous to his illness spent a day and night at the shanty in which the case of July 19 died. In neither case were the excreta disinfected.

On the 26th of August, the Marion County Fair was held on the grounds near Lebanon. Large numbers of visitors from the adjoining counties were collected. The grounds not being supplied with water, a contract was made to supply from town the deficiency. The contractor selected a well on the low ground within thirty feet of the Jordan, in the vicinity of the depot, and within a short distance of the houses in which three of the cases noted had occurred. This well had been dug in 1854, on what was formerly a drain, leading from an elevation, upon which is an old grave-yard. The well was sunk through a "shaley kind of mud-stone" and the first water that entered came in about eight feet from the surface and from the direction of the Jordan.

On the 27th, a violent rain-storm deluged the county, flooded the Jordan, and filled this well. On the 28th and 29th, the attendance on the Fair was larger than usual, and the water from this well was served as on former days.

No case of violent illness had occurred in the town since the 25th; a fatal security seemed to possess all; but during the night of the 29th, and the early hours of the 30th, the blow was struck.

It might be said, simultaneously, thirteen cases of cholera occurred, and within ten hours nine had terminated fatally. Two lingered for ten days and then died. Two made slow, tedious recoveries. At almost the same hour, four cases occurred at the St. Mary's Station; two died in eight hours; two recovered slowly. One case occurred at Raywich, distant from Lebanon nine miles, and died in sixteen hours. These persons had all attended the Marion County Fair.

In Lebanon, the disease confined itself to no locality. The high ground north of the town received the first blow. Several cases occurred near the flour mill; the others dotted the town.

During the night of the 30th and the morning of the 31st, the disease developed in the county. On all sides of the town, and in the most secluded positions, wherever those who had visited the fair ground during the 28th and 29th resided, cholera was developed. Three new cases occurred in the town; one died, two recovered. In the county eleven cases were reported, with six deaths.

September 1, one case reported in town, which recovered after an illness of three or four weeks. Thirteen cases reported in the county, with seven deaths. From September 2d to October 1st, one hundred and sixteen cases are reported as occurring in Marion County, with fifty-six deaths. It is safe to conclude that many of the cases of cholera reported as recovered, must be classed as "mucous cholera," while many were undoubtedly of the "serous" variety, demanding active and constant treatment. During the entire epidemic, a company of United States troops occupied the barracks which are situated on the north of the town. The garrison was in most admirable order; a close supervision was kept over the troops; extraordinary precautions were adopted to discover the disease in its incipient stage, should it occur. Camp regulations were maintained; duty was performed as usual; no unusual restrictions were imposed, but the vigilance was constant. One married soldier, who resided outside of the limits of the garrison, and his child, died of cholera; the child September 8, the father September 10.

In but one instance did two cases of cholera occur in one house during the epidemic in the town, with the single exception of the Guthrie House, where five cases occurred, three of which terminated fatally. Two cases only occurred on Main Street; one died, the other recovered. A hotel on Main Street, about one hundred yards from the railroad depot, was free from the disease, and no cases occurred at either the County Jail or the Alms-house.

In the majority of cases, the excreta were disinfected and buried; reports from some portions of the county state the impossibility of obtaining disinfection. Even when the disinfectants were placed in the hands of the friends of patients, they either neglected or refused to use them. The necessity of disinfection was fully recognized by all the physicians of the county with a single exception.

NELSON COUNTY.—The history of the epidemic of cholera, as it affected Nelson County, can only be obtained from the towns of New Haven and

Boston, and their immediate vicinity. These towns are upon the Lebanon Branch railroad, and are both in the hearts of thriving farming communities. Bardstown, in the northern portion of the county, was infected to some extent, but it has been found impossible as yet to obtain the records.

The first cholera case in Nelson County was in the person of a young man, residing some six miles northwest of the town of New Haven, who was seized with cholera August 20, and who died after an illness of nine hours. The patient's dejections were not disinfected, but were thrown out on the ground.

August 21, the mother and brother of the deceased were attacked with cholera, and both died within fifteen hours.

August 23, the sister of the first case, and her husband, who had been in constant attendance upon the sick in this house, were attacked, but recovered.

August 25, a lady sixty years of age, an inmate of the same house, was attacked with cholera and died after eighteen hours' illness.

August 26, the seventh case occurred in this house, but recovered. It was subsequently discovered that the young man who was first attacked, had been the previous day (August 19) in attendance upon a friend who died of cholera, in the town of Lebanon, and that he had assisted in preparing the body for burial. The residence of this group of cases *was not in a malarial region*.

September 2, a white man was taken with cholera near New Haven, and died after an illness of sixty hours. The day before he was attacked he had visited the house of a friend in Marion County, where several cases of cholera had occurred, and at the time of his visit two cases of the disease were under treatment in the house. He did not enter the house, but sat upon a back porch, on which the dinner was served. The head of this house, being fully convinced of the non-communicability of cholera, had declined to make use of disinfectants, and all the excreta of the patients had been thrown upon a heap of debris within a few feet of this porch.

These cases were followed by the occurrence of twelve others in the town of New Haven. In each case the infection was traced either to the Marion County Fair, or to the two localities, the infection of which has been noted.

The town of Boston was infected directly from Marion County. September 2, a negro woman, who had just arrived from Lebanon, was taken with cholera, and recovered after a severe illness. To September 8, six cases of cholera occurred in the same house, all of which died.

September 9, three deaths occurred in persons who had left the infected house after the disease had developed. The house in which the majority of these cases occurred was on low, wet ground, and its sanitary condition was most miserable.

GARRARD COUNTY. — In Garrard County the epidemic of cholera was confined almost exclusively to the town of Lancaster, and to refugees from that town after the development of the disease. Lancaster is situated nearly in the centre of Garrard County; in 1870, it had a population of

seven hundred and forty-one inhabitants, three hundred and thirty-one of whom were negroes. Among these people, the memory of the epidemic of 1833, at which time the town was almost depopulated by the ravages of cholera, had been kept green, and this fact accounts for the terror which the occurrence of the disease in the present year produced.

The town is built upon undulating ground, the business portion occupying a high and well-drained position. On the eastern side of the town, the street known as *Richmond Street* descends abruptly to a valley, through which a small stream flows, in a northeasterly direction. This stream affords drainage for the main portion of the town; its banks are marshy and overgrown with wild-grasses and weeds. Beyond this stream the Richmond road ascends a considerable hill, upon the summit of which is located the barracks of the United States troops. The space between the barracks and the town is occupied by private residences. North of the town the streets terminate in the Lexington and Sugar Creek turnpikes; on the west in the Danville road; on the south in the Stanford and Crab Orchard roads. Upon each side of the eastern drain, and upon the low ground upon which it empties after crossing the Sugar Creek Road, large numbers of hovels are occupied by negroes, and upon its banks, outside of the town limits, is a slaughter-house, the effluvia from which, at times, pervades the entire town. In the month of August, 1873, the town was in a bad sanitary condition; no attention had been paid to its police. Filth of all kinds was scattered around the negro cabins; human excrement was entirely upon the surface of the ground. The water supply of the town is obtained chiefly from wells, and the majority of those in public use are in such position that after each rain-fall they must inevitably receive a large portion of their contents from the surface washings. One, known as the *Richmond Street well*, to which subsequent reference will be made, is situated quite upon the banks of the eastern drain. Above it, upon the slope of the hill, are stables, cow sheds, and privies, and it is notorious that after rain-falls this well has been tainted with the washings from them; and when the fact is taken into consideration that throughout the southwest, the stables and adjoining premises are invariably used as privies, the condition of the fluid contents of this well would favor the spread of disease.

On the 10th day of August, a Mr. Bewley, who had travelled from Russellville, Tenn., which town at the time of his departure was infected with cholera, arrived in Lancaster, and lodged at the house of one Tate, who resides on Richmond Street, about one square east of the Court-house. His trip had been made on horseback, and he stated that on his arrival at London, Ky., he was taken with vomiting and purging, the exhaustion from which had been so severe, that he was obliged to remain in bed for a day or two. Before he reached Lancaster he was again taken ill, and shortly after his arrival an attack of cholera was fully developed. After a severe illness of many hours' duration, reaction was established, but he passed into the condition described by Jaccoud as "typhoid cholera," and died on the twelfth day of his illness.

The excreta were not disinfected, but were thrown upon the ground in

rear of the stables and out-houses, in such position that the infection of the Richmond Street well was inevitable.

August 14, a negro man, fifty years of age, was taken with cholera fully developed, and died in twelve hours. This man had waited upon Bewley. By him the excreta were emptied, and the various vessels washed. The excreta of this case were not disinfected, but were cast upon the ground. He died in a cabin, nearly at the head of the eastern drain.

August 15, a white man, sixty years of age, the father-in-law of Bewley, who had spent a day and night in nursing him, and who had slept in the sick-room, started for his home in the country. On the road was taken violently ill, and died in eight hours.

August 16, a negro woman living upon the same street as Bewley, and within a few yards of the house in which he was ill, was taken with cholera and died in twenty-two hours.

August 17 and 18, no new cases occurred; but on the 19th five negroes, — three females and two males, — living on the same street as Bewley, were attacked, and within the next ten hours all had died. On the same day a lady, thirty-five years of age, living within the infected district, abandoned her home and started for the house of friends on the Kentucky River, a distance of some ten miles; on the road she was taken ill, and died within sixteen hours.

August 20, a negro man, twenty-five years of age, who had left his home in the infected district, was attacked at a cabin on the southwest side of town, and died in six hours. On the same day the mother of the negro woman who died on the 16th was attacked, and died in ten hours. This woman had continued to reside in the room in which her daughter died. It was subsequently ascertained that a negro woman, who also lived in this locality, but who had left home on the previous day, died at camp Nelson on the Kentucky River, after an illness of sixteen hours.

It is an ascertained fact that until this date (August 20), all who had taken the disease had not only lived in the vicinity of the Tate house, in which Bewley was ill, but they one and all obtained their water from the well on Richmond Street. Nearly all the other residents of this district suffered from vomiting and purging, more or less violent, but all yielded to treatment.

The camp of the United States troops was in most admirable order, the police was perfect, and although the infected district lay at the foot of the hill on which the Post is located, no cases of sickness had occurred. The water supply was obtained from a spring east of the camp, and so located as precluded all possibility of its becoming infected. Strenuous efforts were made to prevent the soldiers having access to the infected district. On this date the town was almost entirely deserted by all who could leave, save by a few brave men and devoted women who remained to fight the disease, comfort the sick, and subsist the destitute. It is well to note at this point, that the town authorities expended over three thousand dollars upon the sick and destitute during the epidemic. Up to this date no efforts at disinfection had been adopted; terror seemed to oppress all; but during the

evening a thorough system of disinfection was instituted. As far as it was possible, the ground already infected was cleaned. Lime, copperas, and carbolic acid, were freely used, and each householder was required to supply himself with these articles for use on his premises.

August 21, five cases of cholera occurred. One was a negro man who continued to occupy the same cabin in which his wife had died on the 19th. Two others of these cases were the wife and sister of the negro man, — the first death reported on the previous day. These women had acted as nurses to their husband and brother, had drank the water from the Richmond Street well, and had used the privy into which the dejections of the patient had been emptied. One died in the house in which the man was taken sick and died. The other removed to a cabin west of town, in which at a subsequent date other cases occurred. The five cases reported on this day all terminated fatally in ten hours.

August 22, a white man, forty-five years of age, of intemperate habits, was taken with cholera and died within ten hours. He resided at a boarding house on the hill-side, above the railroad depot. His excreta were disinfected and buried. Of the eight or ten other residents of this house, none were taken with cholera, although four or five cases of diarrhoea and vomiting occurred among them. The same day an old negro man from the infected district, was taken ill in an unfinished building and died in twenty hours.

August 23, a soldier, living in the rear of an officer's quarters, located on the high ground in front of the barracks, was suddenly taken with cholera and died in twelve hours. Early on the 24th his wife was attacked and died in eleven hours. No cause for the occurrence of these cases can be found in any imprudence on their part. The water they had used was from the spring used by the garrison, and not from the Richmond Street well, as has been stated in some reports of the epidemic. A few days previous to this sickness they had employed a negro woman from the infected district as a laundress, and it is positively stated that this was the only intercourse they had with the town.

August 25, two cases occurred. One, a lady who had nursed Mr. Bewley and had used the water of the Richmond Street well, was taken with the disease and died in ten hours. A white man was attacked the same day and recovered.

August 26, a negro man, in whose house two cases of cholera had already died, was taken with cholera and died in eight hours. And a lady, twenty-one years old, living near the town, and at whose house the case which recovered on the 25th occurred, was taken ill and died in eighteen hours.

From August 27 to September 6, sixteen new cases of cholera are reported, twelve of which terminated fatally; four recovered. Two of these cases were in the persons of soldiers who were attacked and died August 29. One of these men had nursed and assisted in preparing for burial the soldier and his wife who had died on the 23d. They both occupied the same tent and bed. Both being dissipated, reckless men, the supposition is strong that they visited during the nights, negro houses in the infected dis-

tract. The day following the death of these two soldiers, the command was moved from the barracks to a camp some two miles distant from town, where no new cases occurred.

From September 5 to September 21, no new cases occurred in Lancaster; but on the last named date an old lady, seventy-one years of age, visited the Tate family. She occupied the room in which Bewley had been sick and died, and the day after her arrival was taken with cholera and died in thirty-six hours. This case terminated the epidemic; singularly, the first and last case occurred in the same room of the same house.

During the epidemic no cases occurred in either of the hotels, the County Jail, or the Poor-house.

LINCOLN COUNTY.—The epidemic of cholera in Lincoln County, so far as reports can be obtained, was exclusively in the immediate vicinity of the county town, Stanford, in which town there is a population of seven hundred and fifty-two individuals, three hundred and thirty-eight of whom are negroes. The town is situated in a valley, through which flows St. Asiph's Branch, a small stream of remarkably pure water, taking its origin in some springs about one mile from town. It has always been a healthy town, free from miasmatic diseases. Epidemics of any kind rarely visited it. North of the town, and at a considerable elevation, passes the Lebanon Branch Railroad.

Cholera, of a malignant type, made its appearance in this town on the morning of the 29th of August. That portion of the town in which the disease first occurred is known as Maxville, lying northwest of the railroad depot, and is inhabited almost exclusively by negroes. It is the most elevated portion of the town. Its sanitary condition at the time was very bad. Some efforts have been made at its police, but were ineffectual. In the rear of the houses where the disease first occurred, was a sink, some fifteen yards in diameter. On the northern edge of this sink, and a few yards from these houses, was the privy of the neighborhood. On the western edge there are two small springs of impure water, which empty into the sink, some twenty or thirty feet from the privy, which being daily used by a large number of negroes, was filled to overflowing with putrid excrementitious matter. The odor arising from this sink pervaded the entire neighborhood.

About one week previous to the appearance of cholera in Stanford, a young man died of the disease at his home about two miles from town. He had been employed in the town of Lancaster during the first week of the prevalence of the disease, but quitted his work and returned home. The special data of his case cannot be obtained, from the fact that the physician who attended him declined to notice any of the requests made to him.

During the Lancaster epidemic, many refugee negroes made their homes in Maxville; they made use of the common sink, but as far as can be learned, none were taken with the disease.

August 29, five cases of cholera occurred in Maxville. They were taken ill within a few hours, and all had terminated fatally within fourteen hours.

August 30, in the same locality five cases occurred, all of whom died within thirteen hours. The town authorities took possession of a negro church near the infected locality, a hospital was organized, which was placed under the charge of Dr. S. P. Craig, to whom we are indebted for the history of the epidemic.

August 31, in the same locality, a white woman, twenty-five years of age, and her infant, one year of age, were taken with the same disease; both died, the child in twenty-four hours, the mother in forty-eight hours.

From September 1 to September 12 nine cases of cholera occurred, six of which recovered slowly; three died. These cases were followed by some eight or ten cases which presented all premonitory symptoms of the disease, but all yielded to treatment.

September 28, a gentleman and his wife residing near to the infected district were both attacked with cholera. The case of the lady terminated fatally within twenty hours. The gentleman made a tedious recovery. This family had abandoned their home on the day cholera developed in the town, and remained in a healthy locality until ten days had elapsed from the last reported case. During this absence their house remained closed and unoccupied. After the return of the family, the precaution was adopted of bringing all water that was used in the house from a well in the town which had been used with impunity by a large number of families.

The first few days of the epidemic, the disease was confined to the locality described as Maxville and to those who fled from that district upon the development of the disease. Four cases occurred near the centre of the town; of these, two cases were in one house; the other two lived separately, but in the same locality. No cases of the disease occurred in hotels, the County Jail, or Alms-house.

ADAIR COUNTY.—In Adair County the epidemic of cholera was confined to the town of Columbia, to one locality of the town, and to a few cases who, having visited the infected locality, returned to their homes in the country. Columbia, the county town of Adair County, has a population of about six hundred inhabitants. Very few negroes reside within the corporation limits. The town is built upon a hill-side, and is by nature most admirably drained. The arrangement of the town is on a square, in the centre of which stands the Court-house; opposite to the Court-house, streets to the north, south, east, and west, lead off. This square is occupied by business houses, a few private dwellings, and the hotel,—the “Winfrey House,” which faces the Court-house on the corner of the street leading north. On the side street and opposite to the hotel, is a large barn which is used as a livery stable. Columbia has always been considered a healthy town; the epidemics of the past were cholera in 1833 and 1835, from which diseases the inhabitants suffered severely; dysentery in the fall of 1849, from which over sixty of the inhabitants died; and camp fever in the winter of 1862, when a large number of soldiers died; from which time until the present year, no disease has become epidemic.

In the month of August of the present year, the sanitary condition of the town was bad. The privies and the stables of the town and their premises

were filthy. Human excrement was mixed with the debris around the stables. In rear of the stable of the Winfrey House was a privy pit which was full to overflowing with human excrement, and was located in such a position that the surface water drained into it. The hotel is an old brick structure, two stories in height, with a general air of decay; on the eastern side and adjoining it is a wooden house, used as a residence by the family of the proprietor. The back yard and out-houses of this hotel were filthy in the extreme.

August 29, a negro boy, fourteen years of age, who had been in attendance as a hostler at the Marion County Fair, returned to Columbia, and took up his position in the stables of the Winfrey House. After his arrival he was taken with a diarrhœa and made constant use of the privy in rear of the stables, to which nearly all the male portion of the community resorted as occasion demanded.

August 30, a negro man, the hostler in charge of the stables, was attacked with cholera, and died in a basement room of the Winfrey House after an illness of forty-eight hours. The same day, the boy to whom attention has already been called, was found under a shed in rear of the stables, fully collapsed. He died within six hours. Later in the day, a daughter of Winfrey, aged twenty years, was attacked and died in ten hours; and a white man, fifty years of age, who resided some fifteen miles from town, on Casey's Creek, but who was known to have used the stable privy on the 29th, was taken ill and died in ten hours.

August 31, J. C. Winfrey, the proprietor of both hotel and stables, was taken with cholera, from which he died in twelve hours. During the early hours of the same day, five members of the Winfrey family, and six boarders at the hotel, were attacked with the same disease. A total of twelve cases in one house, all being attacked within a few hours of each other. Eight died of the disease within eighteen hours. Three cases made tedious recoveries.

September 1, three persons who had lived at the Winfrey House were taken ill, two of whom died within sixteen hours. Doctor H. Owens, the rear windows of whose office opened into the stable yard opposite to the infected privy, died at his home in the country within twelve hours. The negro who had nursed the case of August 30, was attacked and died after an illness of fifteen hours. One case lingered for seven days, during which time he was removed some six miles into the country, where he died. A white man, fifty years of age, who had used the infected privy on August 30, died at his home on Green river, after fourteen hours' illness; and a young girl, twelve years of age, the daughter of the man who died on Casey's Creek (August 30), died after ten hours' illness.

September 2, a white boy, who had frequented the Winfrey House and stables was attacked, but made a slow recovery; and two white men, father and son, who had nursed the sick at the Winfrey House, were taken ill. The father, aged seventy years, died in sixteen hours; the son, aged twenty-five years, recovered. The same day, a white man, fifty years of age, who was known on some of the previous days to have used the stable privy, was taken with cholera at his home, some four miles in the country, and died in twenty-four hours.

During the three following days no new cases occurred.

September 6, a daughter of Mr. Winfrey, aged eight years, had a slight attack of cholera, but recovered.

September 8, four cases occurred, all of whom had been directly exposed to the infection of the Winfrey House. All recovered.

September 10, a white man and his wife, both aged about seventy years, were attacked. The man recovered, the woman died. How they had been exposed to the disease could not be discovered.

During the subsequent ten days no new cases were developed.

From September 20 to September 23, five cases occurred, all of whom had been directly exposed to the infection of the Winfrey House and stables. Of these cases *three* died. After the disease had become epidemic a general police of the town was made. The Winfrey House was closed; the stable was abandoned, after the privy had been disinfected and filled up with fresh earth. It is the opinion of the two physicians who remained in Columbia during the epidemic, that in the majority of the cases, the excreta were not disinfected, but were cast upon the ground.

October 27, on visiting the Winfrey House, and asking permission to visit the rooms in which the cases of cholera during the late epidemic had occurred, we found that no effort had been made at cleaning, beyond a washing of the bed clothing, and sweeping of the floor. The mattresses and other beds remained unchanged, carpets had not been removed, the walls had not been brushed. On examining the bed upon which Mr. Winfrey had died, some empty medicine vials were discovered.

The importance of prompt and immediate cleansing of these rooms and of the entire premises, was earnestly impressed upon the present manager; but it is extremely doubtful if the slightest attention will be given to any of the suggestions, although the hotel is now open and soliciting patronage.

CLINTON COUNTY. — The history of the epidemic of cholera as it occurred in Clinton County is meagre. From the few facts yet obtained, we learn that a gentleman returned from a visit to Nashville, late in June, to his home in the southern portion of the county. A few days after his return home he was attacked with cholera and died.

On the morning of August 31, Major A. M. Adair, Commonwealth Attorney for the Sixth Judicial District of Kentucky, who had been attending court at Columbia when cholera was developed in that town, who had lived at the Winfrey House, and had passed the previous night in the room with a cholera patient, started on horseback for Albany, Clinton County, in company of Judge T. T. Alexander. When a few miles from Columbia Major Adair was taken with pain in the abdomen, attended with nausea, which became more and more severe until five o'clock, p. m., when violent vomiting came on. He had ridden some fifteen miles since the symptoms first occurred, being desirous to reach the house of a friend, but was now obliged to dismount. A violent purging was established, and he was carried to a house near by and placed in bed. Cholera was fully developed, but Major Adair recovered after a tedious illness. Dr. Waggoner, of Bowling Green, who was summoned to the case, states that there was a total suppression of the urine for five days.

The house in which Major Adair was sick is situated on one of the spurs of the Cumberland mountains, twenty-six miles southeast of the town of Columbia, which was the nearest point of infection. The position of this house is so isolated, that the owner first learned of cholera being in the county by the arrival of Major Adair. No malaria could be found to produce the disease in this vicinity, yet we find that on September 8, Mr. K., the owner of this house, was taken sick with the same disease; lingered for four days, when he died. Two other members of the same family died from cholera within a few days. No other cases occurred in Clinton County as far as can be ascertained.

WASHINGTON COUNTY. — It has been found impossible to obtain full accounts of the epidemic as it affected Washington County. Springfield, the county town, nine miles north from Lebanon, with which town its inhabitants are in daily communication, escaped almost entirely.

August 31, a negro man, aged fifty years, who had attended the Marion County Fair, was taken with cholera and died after an illness of ten hours.

September 1, a white man, twenty years of age, residing within a few miles of town, died from cholera within twelve hours.

September 2, three negroes living in the Pleasant Run district, were taken with cholera and all died within thirty-six hours. These men had all been in Lebanon within a few days of their attack.

September 4, a prominent physician of the county, residing on Pleasant Run, who had been in constant attendance upon cases of cholera in Washington and Marion counties, was violently attacked. He lingered for twenty-four hours and died.

September 7, the daughter of Dr. Logan was attacked with cholera and died within seventy-two hours. During her father's illness she had been in constant attendance on him. After the death of this lady, her mother, child, and husband, were attacked with cholera, but all three recovered. These cases were followed by two cases of cholera among the servants of the family, both of whom died in a few hours. Dr. Logan and many of the members of his family had attended the Marion County Fair.

BOYLE COUNTY. — So far as records can be obtained, no cases of cholera occurred in Boyle County prior to August 30, when a farmer in comfortable circumstances, living some six miles from Danville, was attacked, and after an illness of ninety-six hours recovered. This man had attended the Marion County Fair, and the disease was developed in him at about the same hour that it was in many of the Lebanon cases.

On the 1st of September, a young lady, eighteen years of age, who with other members of her family had left their home in Marion County on account of the cholera, was attacked, and made a slow recovery. The next day her father and brother were taken ill with the same disease, but both recovered.

September 3, a gentleman, also from Marion County, was attacked, but after an illness of ninety-six hours, reacted and recovered. These cases occurred about five miles west of the town of Danville. Each had attended the Marion County Fair, and had not left their homes until after the occur-

rence of the disease in Lebanon. In each the symptoms of the second stage were fully developed, collapse, although imminent, had been reached in none.

September 4, a young man, seventeen years of age, a student of Centre College, Danville, was attacked with cholera, while in his class-room. He had but a day or two previously arrived from his home in Lebanon, and had been present on each day's meeting of the Marion County Fair. This case also recovered. No other case occurred in the town of Danville. The sanitary condition of the town was good. The Boyle County Medical Society had made the necessary representations to the Town Trustees, and the Trustees had coöperated fully with the Society. A system of weekly inspections was instituted. The town was divided into districts to which were assigned a representative of each body, and all that might be prejudicial to the public health was removed.

September 5, a negro man, aged forty-five years, was attacked with cholera at the house of a friend, some six miles west of Danville, and died after an illness of eight hours. The day before he was taken sick, he had arrived from Adair County. He had been the body servant of Colonel Robert Miller, of Columbia, who had fallen a victim to the Winfrey House epidemic, on the 1st instant. The negro, after faithfully nursing his master, prepared his body for the grave, and after the funeral started for his friend in Boyle County.

No other cases occurred in the county.

MERCER COUNTY. — The reports from Mercer County are meagre. Five cases are reported as occurring in the town of Harrodsburg, from the 6th to the 15th of September. But one death is reported. All the cases occurred in the persons of negroes, and it has been found impossible to obtain any previous history of the individuals.

In closing this outline of the Kentucky epidemic we desire to acknowledge the aid and encouragement extended to us by the medical gentlemen of the State. It was imposing a task of no small magnitude upon busy country practitioners, to ask a full report of an epidemic, of which no notes of cases were kept at the time of occurrence, yet except in a single instance, the information was promptly furnished.

LEBANON, KENTUCKY, *November, 1873.*

Abstract of Records of Epidemic of Cholera in Kentucky in 1873.

STATISTICS BY AGES.

Abortions produced by Disease.	Age.	Age.	Age.	Age.	Age.	Age.	Age.	Age.	Age.	Age.	Total under 10 Years.
	1 Mo.	2 Mos.	3 Mos.	4 Mos.	1 Year.	2 Years.	3 Years.	4 Years.	5 Years.	5 to 10 Years.	
5	1	2	2	3	3	10	5	4	4	30	64

Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Total over 10 Years.
10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	113		
98	147	117	124	74	48	18	3	1		630

STATISTICS BY SEX.

Male.	Female.	White.	Black.	RECOVERIES.				DEATHS.			
				WHITE.		BLACK.		WHITE.		BLACK.	
				Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
				34	30	33	31	5	6	1	2

STATISTICS BY SOCIAL CONDITION.

Male.	Female.	White.	Black.	Married.	Single.	RECOVERIES.				DEATHS.			
						WHITE.		BLACK.		WHITE.		BLACK.	
						Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
						339	291	362	268	367	263	107	69

SUMMARY.

Deaths reported, but of which there is not sufficient data to admit of tabulation.

McCracken County	180
Bourbon County	76
Meade County	60
Total	316

