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NOTES UPON THE HISTORY OF CHOLERA IN ST. LOUIS.

BY ROBERT MOORE, C. E.

The first appearance of cholera in St. Louis was in 1832. According to Dr. Peters (M'Clellan's Hist. of Cholera in U. S., 1873, page 579) it was first brought to Jefferson barracks, a few miles below the city, by soldiers from the United States military post at Rock Island, to which point it had travelled from Quebec by way of the great lakes. The mortality was very great, rising to twenty per day in a population of about 8,000, which is equivalent to nine hundred and seventy-five in the city of to-day. But, as no record of deaths was then kept, the total number cannot be given.

Cholera also appeared here during the next year, being this time imported from New Orleans. The mortality was less than the previous year, but the absence of records makes it impossible to give any exact statements.

EPIDEMIC OF 1849.

The severest visitation of cholera in St. Louis was that of 1849, by which time the population within the city limits had increased to 63,471, as shown by a census taken in February of that year.

The disease had been brought to New Orleans on emigrant ships early in December, 1848, and in a few weeks was carried to all the principal cities on the Ohio and Mississippi rivers. During the last week in December, several boats from New Orleans with cholera on board arrived in St. Louis, one of them being the steamer Amaranth, which arrived on the 28th with no less than thirty cases amongst its passengers and crew.

On January 2, 1849, the steamers Aleck Scott and St. Paul arrived here, having left New Orleans on the 26th ult. The former reported forty-six cases of cholera on the trip, six of them fatal; the latter, twenty-six cases and four deaths. On the 7th, the steamer Gen. Jessup arrived from the same port, having had "many cases" of cholera on her trip, six of them fatal.

Each of these steamers brought many immigrants, who were landed at the wharf with all their baggage, and scattered throughout the city in boarding-houses, without the slightest hindrance or seeming care on the part of the city authorities. It is no surprise, therefore, when, in the morning paper of the 9th, we read that "several cases of cholera were reported in the city yesterday, one or two fatal." The editor adds, however, that
they were "caused by cabbage;" and to many of his readers this explanation was perhaps sufficient.

The cholera was now fairly planted, and for the next four years, including the years 1849, 1850, 1851, and 1852, it was never wholly absent from the city, except for three short intervals of about four weeks each. It did not, however, at once become epidemic. The deaths from cholera in January were thirty-six. In February they were but twenty-one, a decline which led the Republican to announce that there was no ground for alarm, there being "no cholera in the city." During the next month, however, in spite of this assurance, the deaths from this cause were seventy-eight, or over double the number of January; and in April there was a still further increase to one hundred and twenty-six.

All this time nothing was done by the city authorities, either to prevent the spread of the disease within this city, or to stop the stream of infection which kept pouring in from New Orleans. For example, the Republican of April 12 records the arrival from New Orleans, on the night before, of the steamer Iowa with four hundred and fifty-one deck passengers, mostly English Mormons, and that during the trip there had been nine deaths from cholera. Of course, in view of such facts, the disease could not help spreading, and during the first week in May the deaths from this cause amounted to seventy-eight.

By this time the city had become thoroughly alarmed. The board of health, which consisted of a physician and a committee of the council, by proclamation urged the "disinfection of back yards and damp places with chloride of lime." Even the newspapers now admitted the disease to be on the increase—"perhaps epidemic." The city was also reported to be filled with hundreds of immigrants, besides those en route from other states to the gold fields of California.

On the 9th of May, the circuit court adjourned for three weeks on account of the difficulty of getting jurors. Twenty-four new cases of cholera and six deaths are also reported for this day; and the same paper which contains this record notes the arrival of the steamer America, on which there had been twenty-two deaths since her departure from New Orleans. The epidemic was now fairly established, and for the seven days ending May 14, the average number of interments due to this cause was over twenty-six per day.

On the night of May 17 occurred the great fire, in which twenty-three steamboats and many blocks of buildings in the business part of the city were consumed. After the fire, the mortality from cholera fell below twenty per day for a couple of weeks, and a hope sprang up that the epidemic had spent its force and would soon cease. But it was short-lived, for on Saturday, the 9th of June, the deaths from cholera rose again to twenty-six, and on the 10th to thirty-seven. For the week ending June 17 the burials due to this cause were 402, or over fifty-seven per day.

Meantime the importation of fresh cases from New Orleans continued without abatement. On the day last named (June 17) the steamer Sultana arrived with between three hundred and four hundred immigrants.
Twenty-five deaths had occurred during her trip, and on arrival she had six dead bodies still on board.

During the next week, ending June 24, the deaths from cholera rose to six hundred and one, or eighty-six per day. By this time the alarm had deepened, until we hear of a popular subscription to clean the streets, and a patriotic citizen offers twenty dollars' worth of sulphur for purposes of disinfection. On the 25th, a mass-meeting was assembled at the courthouse, at which the propriety of quarantine was at last suggested, and the authorities strongly denounced for their inaction. A committee of twelve, two from each ward, was appointed to wait upon the city council and urge immediate action. The latter body was not at that time in session, and many of its members had sought places of safety outside the city. By vigorous efforts, however, they were hastily assembled on the afternoon of the next day (June 26), and audience given to the prayer of the committee. By way of answer, an ordinance was passed at the same sitting, and approved by the mayor, Jas. G. Barry, by which the city government was virtually abdicated in favor of the petitioners. The committee of twelve appointed by the mass-meeting of yesterday, composed of T. T. Gantt, R. S. Blennerhasset, A. B. Chambers, Isaac A. Hedges, James Clemens, Jr., J. M. Field, George Collier, L. M. Kennett, Trusten Polk, Lewis Bach, Thomas Gray, and Wm. G. Clarke, were made a "committee of public health" with almost absolute power. Authority was conferred upon them to make all rules, orders, and regulations they should deem necessary, and any violation of their orders was made punishable by fine up to five hundred dollars. This authority was to continue during the epidemic. Vacancies in the committee were to be filled as they themselves should determine, and $50,000 was appropriated for their use.

The committee, thus suddenly clothed with the sole power and responsibility, at once took up their task. At their first meeting, held on Wednesday, June 27, certain school-houses in each ward were designated as hospitals, and physicians appointed to attend them. They also provided for a thorough cleansing of the city, to be begun at once, with an inspector or superintendent for each block. Among these "block inspectors," as they were termed, were many of the best citizens of the city, who entered into the work with the utmost zeal, and declined afterwards to receive any pay.

On the next Saturday, June 30, the committee recommend "the burning, this evening, at 8 o'clock, throughout the city, of stone coal, resinous tar, and sulphur"—a measure which seems to have met with much favor, for in the next day's paper we are told that on the night before "in every direction the air was filled with dense masses of smoke, serving, as we all hope, to dissipate the foul air which has been the cause of so much mortality." The committee also appointed Monday, July 2, to be observed as a day of fasting and prayer—a recommendation with which, as with that for bonfires, there was general compliance.

The committee, however, did not content themselves with prayers and
smoke alone. Thus, we are told that on Sunday the block inspectors continued their work of purification without regard to the day, and on the very day of fasting and prayer appointed by themselves, the committee dictated to the city council an ordinance, which was passed the same day, establishing quarantine against steamboats from the South; and the steamboatmen were at once notified to govern themselves accordingly. On the next day, July 3, a quarantine station was established on the lower end and west side of Arsenal island, with Dr. R. F. Barrett as visiting physician, and the detention of steamers and the unloading of immigrants and their baggage at once begun. On the 10th of July there were over three hundred people at quarantine.

Meantime the mortality kept steadily increasing, until, on the day last mentioned (Tuesday, July 10), two weeks after the appointment of the committee, the total deaths reached the alarming figure of 184, of which 145 were from cholera. After this date, however, the death-rate rapidly declined, until on the 31st of July the interments due to cholera were only three. Finally, on the first day of August, the committee of public health, in a proclamation signed by Thos. T. Gantt, chairman, and Samuel Treat, clerk, declared the epidemic to be over, and that there is no longer any danger in visiting the city. At the same time they closed their accounts (having spent $16,000 out of the $50,000 at their disposal), resigned their trust, and adjourned sine die.

But whilst no longer epidemic, the disease was not wholly gone, but was a cause of death in each remaining month of the year. The total mortality from this cause for the year is given by Dr. Engelmann at 4,317, or nearly sixty-seven per thousand of the population as given by the census of February. Other accounts give the total cholera deaths for the year as 4,555, or over three hundred greater. The mortality from all causes for this year is given by Dr. Engelmann as 8,495, or nearly one hundred and thirty-four per thousand.

CHOLERA FROM 1850 TO 1854.

During the next year, 1850, cholera was also a cause of death in every one of the twelve months. The total for the year is 883, of which 458 occurred in July—figures which seem small only when compared with the frightful record of the previous year; for the ratio per thousand of 1850 applied to the population of to-day, would give a mortality of over 5,000.

In 1851 the deaths from cholera reached 845. Of these, 505 occurred in June. In three months of this year—February, October, and December—there were no deaths from this cause; but in the next year, 1852, every month claimed its victims, and the total for the year was 802. During these four years, 1849, 1850, 1851, and 1852, cholera was a permanent resident, and by the most conservative report caused the death of 6,847 persons.

During 1853 the disease was wholly absent for the first time since
1848. But in 1854 it again appeared, with renewed vigor, and swept away no less than 1,534 lives, or about twelve per thousand of the population. After this it wholly died out, and gave us no further trouble until it was again imported in 1866.

CHOLERA OF 1866.

The precise route by which cholera reached the city in 1866 is not altogether certain, but it probably came by rail from New York, and not as heretofore by way of the Mississippi river. Its first appearance was in the week ending August 3, during which there were five deaths from this cause. But there had been good reason to expect it for many months. During the autumn of 1865, the governor of the state, Thomas H. Fletcher, had called the attention of Mayor Thomas to the probable coming of cholera during the ensuing year, and suggested the propriety of preparing for it. The mayor heartily endorsed this suggestion, and endeavored to get the city council to take the necessary measures. But his appeal met with no response. In the spring of the following year his efforts to this end were renewed, but with no better result. The council steadily refused to do anything. The cholera was not here, and it was argued that any measures of preparation for it would frighten strangers and injure business: so that when it finally appeared, the city was wholly unprepared to fight it. There was, it is true, a so-called board of health, which, as in 1849, consisted of a committee of the council and a health officer, but they had neither the authority nor the money, even if they had the knowledge, necessary to stamp out a pestilence.

The disease, therefore, spread with great rapidity. During the second week of its presence, it caused 120 deaths. For the third week the number rose to 754; and in the fourth week, ending August 24, it reached 991, or an average of 142 per day.

By this time the need of some vigorous and concerted measures to fight the enemy had become so great that volunteers had once more to come to the rescue. This time, however, the organization took the form of a committee of citizens in each ward, who, acting in concert with the mayor, visited from house to house, furnishing nurses and medicines to those who needed them. During the next week after the work began, the mortality fell to about one half that of the previous week, and steadily declined thereafter, until, for the week ending October 30, the number of deaths was only thirty, and a month later the disease had wholly disappeared.

The total number of deaths due to the epidemic this year was 3,527, although Dr. M'Clellan's report on cholera in the United States in 1873 gives the number of deaths from this cause in St. Louis in 1866 as 8,500—a statement which has been frequently copied and generally accepted by the newspapers. It so happens, however, that we have two independent enumerations to guide us in this matter—one made by the board of health, the other made after the epidemic was over, by the city assess-
ors, as the result of a house to house inquiry. The total of the latter enumeration falls short of the former; but when we add to it the deaths in the city hospital as given by the books of that institution, we get exactly the same number, 3,527, as given by the board of health, so that the correctness of this figure may be considered as fully established. The rate of mortality which it represents is 17½ per thousand of population.

The location of the deaths in this year, as given by the assessors' reports, with the approximate mortality per thousand for each block, is shown on a map which accompanies this paper. I will not attempt any discussion of the facts revealed by this map, any further than to say that it shows in a very striking manner the close relation between cholera and filth. Those parts of the city where the people and their habitations were clean, and where no wells were used for drinking-water, escaped almost entirely, and the whole force of the epidemic was spent upon those parts where the houses and the people were unclean, and well-water was in most frequent use. Whilst "Kerry patch" and "French-town" show on the map in deep black, Stoddard's addition is almost blank. The man whose food and drink were free from filth would seem to have been as safe in St. Louis in the midst of the epidemic as if he had been a thousand miles away.

CHOLERA SINCE 1866.

In June of the next year, 1867, cholera appeared once more and threatened again to sweep the city. But this time a real board of health, with adequate powers and with Dr. John T. Hodgen at its head, had been organized. It is therefore no surprise that in spite of its earlier start the cholera in 1867 caused but 684 deaths, or less than one fifth of the number of the previous year.

In 1873, when cholera appeared again, it was hardly recognized as such, and the victims, as counted by Dr. M'Clellan from reports of local physicians, numbered only 392.

Whether, on its next appearance here, the death roll shall be numbered by tens or by thousands will depend upon whether the people and their officers are wise enough to profit by the teachings of the past, or shall require to be taught again by the bitter lessons of experience.
## APPENDED TABLE SHOWING MORTALITY FROM CHOLERA IN ST. LOUIS.

<table>
<thead>
<tr>
<th>Month</th>
<th>1849</th>
<th>1850</th>
<th>1851</th>
<th>1852</th>
<th>1854</th>
<th>1866</th>
<th>1867</th>
<th>1873</th>
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<td>13</td>
<td>2</td>
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<td>February</td>
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<td>3</td>
<td>2</td>
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<td>1</td>
<td>10</td>
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<td>April</td>
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<td>9</td>
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<td>June</td>
<td>1,746</td>
<td>174</td>
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<td>230</td>
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<td>274</td>
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<td>August</td>
<td>45</td>
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<td>37</td>
<td>98</td>
<td>136</td>
<td>2,388</td>
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<td>16</td>
<td>9</td>
<td>41</td>
<td>55</td>
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<td>53</td>
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<td>51</td>
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<td>31</td>
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<td>December</td>
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<tr>
<td>Total</td>
<td>4,317</td>
<td>883</td>
<td>845</td>
<td>802</td>
<td>1,534</td>
<td>3,527</td>
<td>684</td>
<td>392</td>
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</table>

**Population**: 65,471

**Rate per 1,000**: 68.0

**Remark**: The figures of population for 1849 and 1866 are from enumerations made by the city authorities; those for 1850 are from the U. S. census. For other years the population is computed by compound interest formula, assuming the annual rate of increase from one census to another to be constant.