

Grant (Geo. R.)

THE
VITAL STATISTICS

AND

SANITARY CONDITION

OF

MEMPHIS, Tenn.

AN ANNIVERSARY ADDRESS,

DELIVERED BY APPOINTMENT, BEFORE THE
MEMPHIS MEDICAL SOCIETY,

On the 5th of February, 1852.

BY

GEO. R. GRANT, M. D.

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MR. PRESIDENT AND GENTLEMEN :

Before I had selected, and whilst I was casting about for a subject suited to this occasion, I was induced, from the perusal of several articles on the subject of Vital Statistics, which fell into my hands, to direct my attention to an investigation of the Vital Statistics of this City. My object was to learn, from our *mortuary* returns, our relative *sanitary* condition. The field of inquiry was the more inviting from the fact, that, so far as I knew, it had never before been explored. That the materials with which I had to do the work were few, I was well aware; but I did not know, until I had proceeded a goodly distance along the path of inquiry, how full our few records were of melancholy interest, and gloomy truth. The impression made upon my mind, by the facts disclosed during this investigation, is so discordant with any preconceived and often expressed opinions, respecting the healthfulness of this locality, that I have concluded to place the data I have collected before you, this evening; and to make them, and the reflections which they may suggest, the subjects for our present consideration.

Before proceeding with the subjects immediately appertaining to our inquiry, permit me to remark, that the *motive* which led me to the investigation of our Vital Statistics, was the conviction, entertained for

several years, that Memphis is one of the healthiest places on the Mississippi river; and that a comparison of our sanitary condition with other places in this great valley, and also with other cities in the Union, would conclusively establish the truth of this opinion. In the second volume of the "Southern Medical Reports," edited by Dr. Fenner, of New Orleans, and from other reliable sources, an abundance of materials were to be had, wherewith to institute the comparison. With the statistics furnished by these sources before me, I entered with alacrity on the self-imposed task of searching diligently the records of our Vital Statistics, to prove, by figures, the oft-repeated statements of the press, and of the people of this city generally, that great injustice was done to Memphis abroad, when she was charged, as was often done, with being "*a sickly place.*"

How little dependence is to be placed on mere opinions, and on statements predicated on one's own observation, when compared with the facts demonstrated by figures, we shall have occasion to elucidate by the details I shall presently submit in your hearing.

It is to be regretted that so little attention has been paid, in this city, to the registration of the *dead*. In this, as in many other matters of importance to the well-being of society, we are lamentably behind the times and the age in which we live. Antecedent to the year just passed, there is no record, so far as I have been able to learn, of the deaths that have taken place in any *previous* year. The book furnished by the City Council for the use of the Secretary of the Board of Health, and admirably arranged for the purposes for which it is intended, bears the marks of having been mutilated, and most of the records destroyed, before it passed into the hands of either of the gentlemen who acted as Secretaries for the Board during last year; leaving nothing of any consequence, except the returns kept by them, for our information and instruction.

Some time during the early part of last year, the Board of Mayor and Aldermen passed an ordinance, requiring the sextons engaged in burying the dead, to make weekly returns of the interments within the city limits to the Secretary of the Board of Health, giving the names, ages, and sex of the deceased, with the name of the disease of which the person had died, certified to by the attending Physician. For non-compliance with the requisitions of this wholesome ordinance, a penalty, in the form of a fine, was imposed, to be collected by the proper officer from the party violating it. That the law has not been enforced, we judge from the fact, that, except the *names* of the deceased, with the

dates of their burial, nothing else of reliable data is to be found recorded on the book. For even this little, however, we feel thankful, as it has furnished us with at least *one* important item—an approximation to the number of people that have died within the corporate limits of this city during the year 1851.

It is to be hoped that the City Council, with the commencement of the present year, will vigorously enforce the ordinance to which we have just alluded. The name, age and sex of deceased persons, can be readily obtained from surviving friends; and the Physician who attended the case, would not refuse to give the name of the disease, if called on by the sexton, as the law requires. The ordinance is a good one, and the information it is calculated to place on our records, can be made available for wise and valuable purposes; whilst it imposes no onerous duties on those engaged in keeping the mortuary returns.

In addition to the information derived from the records of the Board of Health, through the kindness of the Hospital Physician, I was permitted to examine the books of that institution, and to collect therefrom such data as had any bearing on the subject of our present inquiry. For, notwithstanding the Hospital is located beyond the city limits, it is unquestionably true, that, excepting the few sick persons taken thither from the river, a very large majority of its patients go from the city, and being a part of this population, the mortality there occurring ought, in justice, to be included in our mortuary statistics. It is done, we believe, every where else. The 1884 deaths reported by Dr. Simonds as having taken place at the Charity Hospital of New Orleans, in 1850, is by him added to the mortality of that city for the same year, and aids materially in increasing its enormous per centage of deaths.

For *comparing* our sanitary condition with that of other cities, it is to be regretted, as I before remarked, that we have no regularly kept bills of mortality for a series of years. The returns of one or two years only do not furnish a sufficiency of data for this purpose; as these one or two years may have been unusually *healthy*, or uncommonly *sickly*. With us, the latter was the case last year. It is generally conceded to have been among the sickliest, if not the most unhealthy, of any season that has preceded it for the past ten years, or since Memphis began her rapid increase in population. A fact which will be but too truly apparent when we come to show its great fatality.

Important information respecting our comparative sanitary condition can be derived from the census returns taken of the County, by the Deputy Marshal, embracing the period included between the 1st of

June, 1849, and the 1st of June, 1850. These returns we have carefully examined, and find that a separate table has been kept by that officer of the Vital and Mortuary Statistics of Memphis proper; and also of the County at large, exclusive of the City. As these statistics have a priority of date to those of 1851, and being, moreover, of great value in estimating our sanitary condition during the period embraced by them, I shall introduce the important facts which they disclose before entering upon the returns collected from the past year. The vital and mortuary statistics contained in the late census returns, when compared with similar statistical returns of other places, will aid materially in forming an opinion of the sanitary condition of this City; and, if we are not greatly mistaken, will but too surely prove, that the causes of disease and death have been busy in other seasons than the past.

The *white* population of Memphis, according to the census of 1850, was 6,369. Of this number 3,587 were males, and 2,782 were females. There were, also, 44 free *colored* males, and 65 free *colored* females. As the deaths among these 109 free persons of color were not kept separate, but included in the returns among the whites as free persons, their numbers must be added to the whites, in order to arrive at the per centage of mortality among the persons, white and colored, composing our white population. Among this white and colored free population, the returns give 238 deaths; a per centage of 3.67, or 36 in every thousand. From the same authority we learn, that the slave population numbered 2,362; of whom 116 had died; making the per centage of deaths among this class 4.91, or 49 out of every thousand. The average mortality of these two classes together, gives the astonishing result of a fraction over 4 per cent, or 1 death in every 25 living!

The returns of the City and County being kept separate, made it, comparatively, an easy task to examine the *vital statistics* of our immediate neighborhood, and therefrom collect materials wherewith to compare our sanitary condition with that of the people by whom we are surrounded. These statistics show a population in the county, exclusive of the City, of 10,317 free persons, and 11,998 slaves; making a total of 22,315. The deaths among the free were 190, being 1.84 per cent; and among the slaves, 279, giving 2.32 per cent. The average ratio of mortality among our neighbors turn out to be only $2\frac{1}{16}$ per cent of the entire population, or one in every 47 living. Here we have proved to us, by unmistakeable data, that whilst one in every 25 had died in town, the people who are separated from us by a mere compass

line, have lost but *one*, by death, out of every 47 living. This difference in the mortality of the City over the County, of very nearly *two to one*, is well calculated to excite the surprise of the statist, and the sympathy of the philanthropist; while it offers to the medical philosopher an open and interesting field for etiological investigation.

If the foregoing statements are calculated to astonish us, what will we say when we compare our sanitary condition with that of New Orleans, as shown from the late census returns of that city, the vital statistics of which have been carefully collected by Dr. Barton, and published in the last volume of the "Southern Medical Reports." According to these returns, we find the mortality in New Orleans and Lafayette, *exclusive* of Cholera, to be a fraction less than 2 per cent, (1.96) and *including* Cholera, it is less than $2\frac{1}{2}$ per cent; being 2.44. This shows a lower rate of mortality, by more than one and a half per cent, in New Orleans than occurred in Memphis during the same period of time; the facts being collected in a similar manner; ours, by one of our own citizens, who is in every respect well qualified for the proper performance of the duties the office enjoined.

It would be a fruitless labor to extend our inquiries to other cities of the Union, with the hope of finding in the census returns of 1850, any mortuary statistics at all approximating to the figures exhibited by the recorded deaths among our population, for the period embraced therein. Every comparison of the sort would only be to our disadvantage.

It is proper to observe, before leaving this part of our subject, that between the 1st of June, 1849, and the 1st of June, 1850,—the period when our mortality reached 4 per cent,—we had, for a few weeks, the severest visitation of epidemic Cholera we have experienced since it has invaded this country, the second time. From its ravages, during the period mentioned, our mortuary returns were greatly increased. With this exception, there was no unusual amount of sickness prevalent in the remaining larger portion of the time. During the past year, also, upon the sanitary condition of which we are about to enter, Cholera likewise prevailed, but only in a sporadic form. The number of deaths occasioned by it, alone, will be mentioned as we proceed with the investigation of the statistics next to engage our attention.

The population of Memphis on the 1st of June, 1850, as has already been shown, was 8,840. To enable us to arrive at a correct estimate of the ratio of mortality for the past year, we must assume what has been the increase in our population during the eighteen months that have elapsed since the census was last taken, and the first of January

of the present year. Various opinions have been expressed in relation to this point by those with whom we have conversed on the subject ; but as nothing positive can be obtained respecting it, I have concluded to place it at 20 per cent ; a rate of increase which ought to satisfy, we think, the most strenuous advocates for large estimates, when calculating the increase of population in this growing city. One fifth, or 20 per cent, added to 8,840, would make our population 10,608 ; and admitting this number to constitute the present population of Memphis, we will proceed to apply to it the mortuary returns obtained from the Hospital, and from the records of the Board of Health, and thereby ascertain our sanitary condition during the year just past.

The total number of admissions into the Memphis Charity Hospital for the year ending on the 31st of December last, was 474. The books show that 116 of these had died ; making a mortality of 24.47 per cent ; wanting a fraction only of being one out of every four, or very nearly $24\frac{1}{2}$ out of every hundred !! That this is a terrific mortality, will become quite evident by comparing it with the annual mortality witnessed in other Hospitals—some of them in localities confessedly insalubrious.

From estimates made from twelve years' observations by Dr. Playfair, in the Hospitals of Liverpool and Manchester, the mortality was 3.57 per cent, or one in every 28. From a statement published in the January number of the "London Lancet" for the present year, we learn that there had been admitted into all the Hospitals of Paris, during the year 1850, 84,044 patients. Of these, 6,855 had died ; making an average mortality of 8.15 per cent, or one in every $12\frac{1}{3}$.

In the Marine Hospital at Louisville, Kentucky, as we are informed by Dr. Rogers, in the December number of the Western Medical and Surgical Journal of last year, the mortality was a small fraction over 7 per cent, or one in every 14.

According to a statement published by Dr. McKelvey, the Surgeon to the United States Marine Hospital at New Orleans, out of 1,116 admissions in the year 1849, there occurred but 64 deaths ; making a mortality of only 5.73 per cent, or one in every 17. In the Charity Hospital,—that immense lazaretto of New Orleans,—the admissions in 1850 numbered 18,676 patients, of whom 1,884 died—being a mortality of 10 per cent, or one in every 10.

From these comparative hospital statistics, it is but too evident that the mortality at our Hospital is more than twice as large as that of the

Charity Hospital at New Orleans, which has always been considered, in this quarter, as the great Southern receptacle of the sick and the dying!

As any farther inquiry would serve only to increase the melancholy reflections which naturally intrude, when we compare the picture presented by our Hospital returns, with that of similar institutions in this or other countries, we will leave this branch of our investigation, and proceed to give the returns collected from the records kept by the Secretary of the Board of Health.

As the *dates* of the interments, as well as the *names* of deceased persons, were registered on the mortuary records of last year, it was not difficult, in tracing the successive months and weeks, to discover any missing link that might be wanting to make the chain complete. With the exception of August, the returns appear to have been faithfully kept. In this month—which was one of the most unhealthy of the past year—we find no mortuary returns recorded during its second and third weeks, and only a total of 29 deaths for the first and fourth weeks. Without intending to question the correctness of the statement, that there were but 29 interments during the two weeks specified, we think we may safely add on a like number, for the two missing weeks, to make the returns complete,—as 58, the aggregate thus obtained for the entire month, is considerably less than that given by either the month that preceded or that followed—the mortality in July being 87, and in September 73.

With the foregoing correction, the total mortuary return of the past year, as shown by the records of the Board of Health, was 679, of whom 361 were white males; 201 white females; and 135 colored. With the deaths that occurred at the Hospital added to these, our total mortuary statistics for 1851 will be found to be 813, in a population of 10,608; allowing that population to have increased 20 per cent since the first of June, 1850.

From these data it will be found, that the ratio of mortality, including the entire returns from the Hospital and the City proper, gives the alarming amount of $7\frac{2}{3}$ per cent; being 76 in every thousand, and very nearly one in every thirteen living. If the 116 deaths furnished by the Hospital are left out of the computation entirely, the figures will then show a mortality of $6\frac{2}{3}$ per cent, or 66 in every thousand, and one in every fifteen living. If we go still further, and exclude from the bills of mortality the 116 deaths from the Hospital, and the 84 deaths from *Cholera* during the year, as found in the sexton's return to the

Board of Health, even then the mortality is frightful, being 5.77 per cent, or 57 in every thousand, and one out of every seventeen living!!!

We have seen, by comparisons already instituted, that from the statistics of the *last census*, we present a higher rate of mortality than any other city, perhaps, in the Union. We have seen, also, that our *Hospital* shows a rate of mortality among its patients, without a parallel, so far as we know, in the history of such institutions; and we are greatly mistaken if a still further comparison of our vital statistics of the past year, will not show our sanitary condition to have been extremely bad.

In an elaborate article on the sanitary condition of New Orleans, furnished by Dr. Simonds, and published in the second volume of the "Southern Medical Reports," is to be found a tabular statement of the average mortality of most of the principal cities in our country, compiled from reliable sources, with much care. To these tables, and to some other published statements in my possession, I am indebted for the statistical information I am about to submit, as standards for comparing our sanitary condition, as shown from last year's returns, with that of several of the cities in our Union.

The average mortality in Boston, for 39 years, from 1811 to 1849, gives a fraction *less* than $2\frac{1}{2}$ per cent.

In New York, for 45 years, from 1805 to 1849, it is 3 per cent.

In Philadelphia, for 34 years, from 1807 to 1840, it is a fraction *over* $2\frac{1}{2}$ per cent.

In Baltimore, for 14 years, from 1836 to 1849, it is *less* than $2\frac{1}{2}$ per cent. In Charleston, for 27 years, from 1822 to 1848, it is a little *over* $2\frac{1}{2}$ per cent. In Savannah, for 8 years, it is 4 per cent.

In Mobile, for 6 years, from 1845 to 1850, according to Dr. Ketchum of that city, it is a fraction *over* 3 per cent.

In Natchez, for 10 years, from 1840 to 1850, it is a small fraction *only over* 3 per cent, as we are informed by Dr. Magoun of that City, in the January number, for the present year, of the New Orleans Medical and Surgical Journal.

In New Orleans and Lafayette, according to Dr. Barton, the mortality in 1850 was a fraction less than 7 per cent. Dr. Simonds makes the mortality of the same places, for $4\frac{1}{2}$ years, from September, 1840, to January, 1851, $8\frac{1}{10}$ per cent.

From these figures it is apparent that Memphis presents a higher rate of mortality, in 1851, than does either of the nine cities mentioned, during the periods included in their returns, with the exception of New

Orleans and Lafayette ; and the exception does not apply to these, even, if Dr. Barton's statistics for 1850 are to be credited. And it will be seen, that a mere fractional difference only exists in favor of our sanitary condition, over that of New Orleans and Lafayette, when we compare our mortality with the high, and we doubt not true, returns of mortality of these places, during the periods examined by Dr. Simonds. It is painful to be compelled to admit, that the mortality here is more than twice as great as the mortality in Mobile, Natchez, and New York ; and that it is as 3 to 1 compared with Boston, Philadelphia, Baltimore and Charleston, although the years of 1832 and '33, during which epidemic Cholera prevailed, are included in the returns of all the last named cities, with the exception of Baltimore.

It is undoubtedly true, that a portion of the mortality found on our records is due to the *strangers*, whose mortal remains find resting places in our cemeteries. But the same is true of every other city, in which mortuary statistics are kept. That it is so in New Orleans, we have the direct testimony of Dr. Hester, the Secretary of the Board of Health, and the talented editor of the Medical and Surgical Journal, published in that place. In the January number of his Journal, for the present year, Dr. Hester remarks : " In estimating the mortality of this city, (as caused by disease) we are necessarily compelled to include a large number in the list, who are either killed, drowned, or destroyed by accidents—such as by explosions of steamboats, &c. If an explosion takes place on the Mississippi, on the Lakes, or in any of the streams communicating with the Mississippi river, within three or four hundred miles of the City, the wounded and dead are generally brought to the City ; the former, to be treated in our Hospitals, and the latter, to be interred in our cemeteries. This is a notorious fact, and yet the deaths caused by these, and many other accidents, even beyond the Parish of Orleans, are included in our mortuary statistics, and go to swell the grand total of our deaths."

Efforts have been made by those engaged in the good work of Sanitary Reform, to ascertain the average number of the *sick*, in different communities, compared with the number that *die*. So far as our researches have enabled us to discover, the estimates range from 17 to 28. Between these extremes it will be safe to take for the calculation we are about to institute—as has been done elsewhere—the number 20, to show the amount of *sickness* among our population, during the past year, from our bills of mortality, allowing for every death which happened that there were twenty persons afflicted with disease. 813 being the total of deaths, this number multiplied by 20, will give 16,260

cases of sickness ; which being 5,552 more cases of disease than the entire population of Memphis numbers, would give to every man, woman, and child, if equally distributed, not one spell of illness only, but to more than half of our people, *two* attacks of sickness, last year !

It is now pretty generally believed, that the mortality of no locality ought to exceed *two* per cent, or one in every fifty. It is contended by those who have given to this subject the greatest share of attention, that, by proper sanitary regulations, the healthfulness of every spot on the habitable globe may be so improved, as to ensure this natural rate of exit from the world, of the human family. This result has been obtained over large sections of country in some portions of Europe, heretofore unhealthy, by the adoption of a system of medical police, founded on rational and scientific principles.

If it be true—and no one who has kept himself informed on the subject of vital statistics can doubt it—that 2 per cent of mortality only is attainable by the adoption of such measures as are known to be in a very high degree promotive of the public health, is it not painfully evident, from the exhibit we have presented from our vital statistics, that an improved sanitary condition of this city is not only necessary to insure a continued increase of its population and wealth, but is most urgently demanded by those higher and nobler sympathies of our nature, which cause us to shudder at the sight of human woe, and human suffering.

To attempt to conceal our present unhealthy condition, lest its publicity may prove injurious to the rapid growth and prosperity of Memphis, is certainly not our true policy. A course like this would justly bring down upon us the scorn and contempt, not only of the moralist and the philanthropist, but of sensible and reflecting men every where ; and after a few years more of suffering from existing evils, would tell upon the welfare of the place with ten-fold force.

If it be true, as our comparisons with our immediate neighborhood, and with other places, have shown, that the chances for health and longevity are more precarious and uncertain here than in almost every other section of the country, it cannot be known too soon. “To be *fore-warned*,” it has been truly said, “is to be *fore-armed*.” If the seeds of disease, sown broadcast and thickly in our midst, are yielding a pestilential harvest of poisonous agencies, with their concomitant evils ; and the unrelenting destroyer is plucking from our hearts and homes their dearest treasures, in fearful numbers, it becomes an imperious *necessity*, to say nothing of duty, to improve the healthfulness of

the place, by the speedy adoption of such hygienic measures—let them cost what they may—as an enlightened prudence may suggest, and the existing condition of things absolutely requires.

To the honor of our profession be it spoken, its enlightened members have ever been foremost in pointing out, not only the *sources* of disease, but they have greatly aided, by their benevolent and disinterested efforts in the *removal* of evils, upon the continuance of which their revenues depended. Ever since Hippocrates “delivered Athens from a dreadful pestilence, 430 years before the Christian era, the great end and aim of many of the wisest and best men among us have been, not the mitigation alone of human misery and actual suffering,—the never-failing attendants on existing disease,—but the *prevention* of these, by urging upon those in authority the adoption of such needful measures, as would secure health and its blessings to large masses of their fellow-beings. In imitation of their example, let us endeavor to point out some of the most prominent causes of the sickness and mortality which have been so potently and fearfully at work among us during the periods we have been examining, and that are still in existence at the present moment.

This is not the first time that this Society—although it has been in existence but for one year—has raised its voice, through its organs, in favor of *sanitary reform*, in Memphis. In the early part of last May, when Cholera made its appearance among us, after an absence of many months, a committee was appointed, with our excellent President, Dr. Merrill, for its chairman, to prepare a report on the then sanitary condition of this city. This report was published in all our daily newspapers, for the benefit of those whom it most concerned. If the sound philosophic views which it inculcated had been justly appreciated; and had its wise and well-timed recommendations respecting the importance of cleanliness, at that particular juncture, been fully carried out, we hesitate not to affirm, that we would have been spared the melancholy duty of announcing to you, as we have had to do this evening, a mortality of seven and two thirds per cent of our people, for the past year!

To insure to man **HEALTH**, the greatest blessing of his existence, the Author of nature, in his wisdom and goodness, provided him with a *pure atmosphere*, proper *food* and *drink*, the means of securing himself from the inclemency of *the seasons*, and so divided *time*, as to adapt it to his necessities for exertion and repose. It is not my purpose to enter, at large, upon the general discussion of these topics, at this time, as that would lead us far beyond our present design, but to indicate, in

a few words, the manner in which some of these important provisions for our common welfare, are vitiated and perverted, through the neglect and apathy of our citizens.

That abundant sources for contaminating the *purity of the atmosphere* exist in this city, no one, at all competent to judge of the subject, will be disposed to deny. On examination, it will be seen, that the *grading* of the streets has caused their elevation, in many places, several feet above the level of the contiguous lots; and that, as a consequence, the spaces included between lines of streets crossing each other at right angles, become, in wet weather, *artificial ponds*, without an outlet; containing more or less of organic remains; where the only authorized *scavengers*—as if conscious that these receptacles of filth were prepared expressly for their use, as a compensation for services rendered—have rooted and wallowed in seeming pride, and self-satisfied indulgence.

Whoever will traverse the alleys running parallel with our principal streets, and dividing the lots fronting on the latter from each other, will see enough of dirt and filth, not only in these alleys, but in the rear part of most of the improved places in Memphis, to satisfy the most casual observer, that cleanliness of our streets and inclosures is not an important item in our domestic or city regulations. On inspecting these alleys—on which the temples of Cloacina are here mostly located—we will have presented to our gaze the disgusting spectacle of accumulated piles of “night-soil;” and the olfactories will be greeted with odors, which remind one neither of “the sweet scents of Arabia,” or of “the pure waters of Helicon.”

Aside from the disgust excited by seeing exposed to view piles of human fæcal deposits, it may be safely questioned whether, in this form, they are as prejudicial to health, as are the same materials accumulated in the narrow and shallow pits required for their concealment, by the laws of the city. Pits nine feet *deep*, and three or four feet *wide*, walled in with bricks and mortar, only serve to place the effete matters they contain sufficiently near the surface to undergo rapidly the putrefactive process, in warm weather; whilst the chance of speedy desiccation is prevented by the fluids in which they are kept constantly immersed.

On some of our principal streets, and in the midst of the most populous and business parts of the city, there are ranged along, in pretty close proximity, an unusual number of *Livery Stables*, for a town the size of ours. That they add nothing to the cleanliness of their vicini-

ties, is most evident. That they aid materially in deteriorating the atmosphere in more ways than one, is just as certain.

Extending from South to North almost the entire length of the City, and dividing it very nearly into two equal parts, is the *Bayou Gayoso*, a natural *sewer*, that might be made, under proper management, of incalculable value, for the important purposes of drainage and sewerage. This Bayou forms a junction with Wolf river, just before the latter disembogues its waters into the Mississippi. This "natural advantage"—like many others of which our people boast—if we are not greatly mistaken, is, in its present condition, the most fruitful source of disease among us. Scattered along, on either side of it, are the little wooden temples, similar to those that adorn the alleys. They are so constructed, that the deposits made in them find their way, not *into* the bayou *bank*, but *on* it; to be chucked out by the heavy rains, or not, without the least seeming concern on the part of *depositors*, or the guardians of the public welfare. And, as if to give variety to its ornamental nuisances, and to "cap the climax" of our perverseness and folly, in matters appertaining to health, *cattle and slaughter pens* have been erected, and have been permitted to continue on it, for several years, with their filth and their stench.

The slope of the City from the bluff in front, and on the West, being to the *bayou*, and from its Eastern boundary in the rear, the slope being likewise towards the same, it is evident that every thing washed from the streets and gutters finds its way into this receptacle, in addition to what is placed therein by direct agencies. Besides all this, when it is remembered that the back-water from the Mississippi river, when it reaches a certain stage, finds its way into this bayou; that during every "June rise" of the river the bayou is kept more or less full, according to the height which the former attains; that much of the detritus of this turbid water is deposited during its period of rest in this reservoir, before it recedes through the same channels by which it entered, and this at the commencement of summer, we are constrained to admit, that there are here placed together, along the very centre of Memphis, the appreciable materials in abundance, from which the sun's rays evolve, in profusion, noxious exhalations to vitiate our atmosphere, and to poison those who are compelled to breathe it.

From such a condition of things as we have shown actually to exist in our midst, it is but too apparent that we are far from enjoying, in this City, that inestimable gift of God to man, *a pure atmosphere*; and that the sickness and death among us are the effects of causes which we can, in a great measure, control, if we would.

To insure health and longevity—or the maintenance of life in a high degree for a long period of time—with their never-failing accompaniments, happiness and enjoyment, a free circulation of pure air is an essential requisite, both *in* and *out* of our dwellings. Hence, as has been aptly said by one who profoundly studied this subject, “the *scavenger* and the *architect* are among our best allies.” What use has been made of these important personages in our streets and back-grounds, and in the construction of our dwellings, I shall not attempt to say, for I cannot trust myself to speak of our shameful neglect in respect to these matters, lest I might say too much.

As the respiration of an atmosphere charged with emanations from decaying organic matter, must, necessarily, produce a strong *predisposition* in the animal economy, to take on morbid actions, it follows, that where such an atmosphere exists, it requires, in a particular manner, a strict observance of Hygienic precautions, especially an avoidance of all *exciting causes* tending to develop the pathological predisposition, to escape from disease. As the exciting causes of many diseases are intimately connected with individual conduct, it will be found that they who are temperate in all things are those who enjoy health and its blessings in the largest degree, especially in sickly localities. On the other hand, it is susceptible of the clearest proof, that where numbers of persons are crowded together in small sleeping apartments—when due care is not observed in the proper selection and preparation of the diet and drinks—that exposure of the body, necessarily or otherwise, to the inclemencies of the seasons, with carelessness in adapting the apparel to meet the vicissitudes of our variable climate;—in short, that these, with every form of dissipation, by infringing and violating the nicely adjusted laws of our physical organization, excite into action morbid predispositions that might, under different circumstances, have passed off without being developed in the form of disease.

It is a fact well known to every man of observation, that the mortality among our citizens is greatest with that class who are least careful in the observance of the wholesome restraints enjoined by the dictates of reason and philosophy, as well as by the divine precepts of the moral law.

In order to ascertain to what extent a life of sobriety and virtue will prevent actual disease in persons compelled to inhale a poisoned atmosphere, I addressed a note to each of the *nine* Protestant Clergymen of this City, having charge of as many different congregations, asking them to give me the *number of members* in their respective churches *resident within the city limits*; and requesting them, also, to inform me

how many of these had *died* during the past sickly year. From the replies of these intelligent gentlemen, to whom I am much indebted for the promptness of their responses, it is ascertained, that the aggregate number of *white persons*, of both sexes, in connection with these nine churches, is 1131 ; and that, during the course of the year, 26 *deaths* had occurred among them. The average of mortality, the figures will show, among this class of our population, turns out to be only 2.29 per cent ; whilst the general mortality for the City at large, for the same period, is seven and two thirds per cent. Here, then, is a fact, which speaks more than volumes, in favor of the blessings to be enjoyed, and the evils that may be shunned, by an adherence to that code of morality enjoined in the Scriptures, which “ gives the promise of the life that *now is*, as well as of that which is to come.” It is, indeed, refreshing, after the exhibits we have previously been compelled to make of the Vital Statistics of Memphis for the past year, as illustrated from our mortuary returns, to be enabled to show a report so favorable as that presented by the *churches*. It proves, moreover, that though we are placed in circumstances daily endangering the lives of our citizens until they are remedied, yet, by pursuing a course of conduct recommended by Revelation, and sanctioned by Science, we may evade the sufferings, by avoiding the excipients of disease.

This is not the time or the place, neither is it our province, to point out the particular modes by which the *causes* producing our overgrown bills of mortality are to be remedied. “ The starting point of a scheme of sanitary reform,” says Dr. Rogers,” “ is the correct ascertainment of the precise sanitary condition of the place in which the reform is to be made.” The “ precise sanitary condition” of this City, to some extent, we have in the foregoing remarks endeavored to bring to view. It behooves those possessing the power and authority, to accomplish the work requisite to abate the evils that exist, by *sanitary reform*. The people of Memphis, if they consult their welfare, ought to devote a little of their leisure to the consideration of the public good—spare an occasional moment from attention to that selfish propensity for lucre, that absorbs their thoughts, and is their reproach, and see to it immediately, and earnestly, that something be done to promote the sanitary condition of the City. The City Council is composed of gentlemen, whose interests are largely identified with the place, and who would, doubtless, gladly and cordially set about the needed improvements, if they were assured that their course would meet the public approbation, and that their efforts would be sustained by the co-operation of the citizens. If an efficient and competent *Board of Health* was appointed, and our

municipal functionaries, encouraged by the press and the people, would act in accordance with the advice and recommendations of this Board, it would not be long before Memphis would compare favorably with other cities in the Union, in a sanitary point of view. But if the expedients which the existing exigencies demand, continue to be neglected, as heretofore, *the past*, with unerring certainty, *predicts our future*.

Amidst the disease and mortality which have been so rife among us, permit me to ask, how has the *medical profession* sustained its part? Is it, or is it not, more or less responsible for the unusual amount of fatality that characterized the diseases of the by-gone year? These are important questions; and they are well calculated to bring before the minds of those who have been observant witnesses of passing events, a train of painful associations and solemn reflections. In this City *sixty* persons returned themselves as Physicians, to the Deputy Marshal, when the last census was taken. The number, it is to be presumed, has not been diminished since. Taking our estimate of the increase of population here since 1850, to be correct, it gives, when equally divided among us, a Physician to every 176 inhabitants. The want of a sufficient number of practitioners, therefore, cannot be pleaded in extenuation of the fatality of our diseases. The extent of the qualifications of these sixty medical men, is a question upon the merits of which we have no desire to enter. It is sufficient for the present to remark, that as Tennessee has no laws in force to protect the lives of her citizens from ignorant medical pretenders, the door is thrown *wide open* to quackery, in every shape and form, and many are they who enter in thereat.

We hear much said, in our day, about this age of improvement,—this period of progress,—this highly enlightened middle of the nineteenth century, when men are uniting their energies for the attainment of vast purposes, and the accomplishment of great and magnificent projects. But when the *missionary* and the *schoolmaster* come closely to scan how we are sustaining our part in the great drama of the world's improvement, they will find here, we fear, but little of that advancement in the moral, social, literary, and scientific attainments of our people, which the times would lead them to expect. The existing condition of the medical profession in this city, and its achievements, would certainly excite their surprise and pity. They would find that an effort had been made among us, a year ago, to organize a Medical Society for the praiseworthy purposes of “allaying professional jealousies and animosities; for establishing an honorable code of ethical regulations to govern our professional intercourse; and for contributing the results of our observations and experience in the diseases which we are daily

treating, for our mutual improvement, and the well-being of the sick." What would be their amazement, we can well imagine, when they were told, that only *nine* Physicians could be found in this City, famous for the number of its doctors, who showed their willingness to engage in an enterprize so noble and so much needed, although every prominent man in the profession had been cordially invited, in person or by letter, to aid in its formation. How awfully shocked their sensibilities would be, when, instead of finding the profession, like a well-informed and well-disciplined body of "regulars," united like brothers in a common cause against a common enemy, they shall see it actually engaged in a worse than savage warfare; making battle, not only against the common enemy, but against each other; not to gratify a noble ambition, or to procure an imperishable renown,—nor for the good of others,—but solely to secure the spoils and possess the treasures. From this existing reality, so far behind the spirit of the age, and so discordant with the sentiments of a higher civilization, methinks we see the kind-hearted missionary and teacher turning away with sincere sorrow and hearty disgust.

In this inglorious and unmanly strife, gentlemen, let us not participate. Whilst others are *contending*, let us be *preparing* for the faithful discharge of the duties of our high vocation. Let us at all times, and under all circumstances, endeavor to act well our parts—be fruitful in good works; and look on HIGH for our rewards.

